

**TOWN OF CUMBERLAND  
STORMWATER PROGRAM MANAGEMENT PLAN  
PERMIT YEAR 3 ANNUAL REPORT  
JULY 1, 2010 TO JUNE 30, 2011**

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November 11, 2011

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## 1.0 INTRODUCTION

The Town of Cumberland, Maine currently maintains a General Permit for Discharge of Stormwater from a Small Municipal Separate Storm Sewer System (“General Permit”) for the Urban Area of Cumberland (See Figure 1) that authorizes the direct discharge of stormwater from, or associated with, a regulated small municipal separate storm sewer system (“MS4”). As part of the General Permit, Cumberland is required to develop, implement and enforce a Stormwater Program Management Plan (“Plan”) that implements six Minimum Control Measures (MCM’s). Besides evaluating the effectiveness of the Plan on a regular basis, the Town must submit an Annual Report to the Maine Department of Environmental Protection (MEDEP) on September 1<sup>st</sup> of each year that provides documentation of the Town’s activities in implementing the Plan.

This document, prepared on behalf of the Town of Cumberland by Oak Engineers, is intended to satisfy the Town of Cumberland’s obligation under the annual reporting requirements for Permit Year Three (PY3) for which the reporting period is July 1, 2010 to June 30, 2011. It should also be noted that the Town of Cumberland requested a deadline extension for its Annual Report submission from the MEDEP. The deadline for submission of the Town’s PY3 report was requested to be October 28, 2011.

In PY3 Cumberland continued to improve their ongoing good compliance in regards to stormwater program management. As mentioned in previous annual reports, the Town has an excellent track record during the first General Permit cycle and accomplished a tremendous amount of work in that time frame. In the second General Permit cycle, the Town continued to meet their permit requirements by and large while still suffering budget cuts and staff downsizing, particularly in operational staff. However, the Town’s Director of Operations, who serves as the storm water program manager, gained substantial experience and knowledge in the program, which allowed the Town to more easily meet the Plan requirements, particularly while being short staffed. While challenged from both a budgetary and staffing standpoint, the Town still strove to meet its obligations under their Stormwater Program Management Plan with good success in PY 3.

As in previous reporting years and during the Permit Year 3 reporting period, the Town of Cumberland was able to perform a significant number of IDDE outfall inspections in not only their priority watershed, (both their highest and the next two most highest prioritized sub-watersheds), but also on several outfalls in their coastal watershed, which is the Town’s second highest prioritized watershed. The work in the coastal watershed included water quality sampling in addition to outfall inspections on at least seven dates in the PY3 reporting period. The Town’s sampling efforts, being conducted in conjunction with the Department of Marine Resources (DMR), is ongoing in the PY 4 as well.

It should be noted that the work performed in the coastal watershed is supported not only by Town staff, but also by a citizen committee or the Shellfish Conservation Commission, made up of Town staff, elected officials and area residents. Although the Committee’s prime focus is to address impacts to the shellfish beds in the Town, the Committee Team members recognize the importance of a watershed approach on a Town wide basis. As such, the Committee has tasked a sub-committee to work on stakeholder outreach throughout the Town to address non-point source pollution and raise awareness of this issue. Town staff has been fully engaged in supporting the committee both in some financial capacity as well as the use of staff resources. In PY 3 these efforts augmented the work the Town is doing on the Stormwater Program Management Plan, especially in MCM 2, Public Involvement and Participation. These efforts culminated in two community outreach events targeted at pesticides awareness.

Additionally, the Sub-Committee worked in conjunction with the Town and the Cumberland County Soil and Water Conservation District (CCSWCD) to provide a public awareness event at Cumberland's annual agricultural fair. During the Cumberland Fair, volunteers staffed a booth at the fair to educate the public about the implications of polluted runoff and the detrimental effect it has on the shoreline and receiving waters. The both included several handouts and a static display for public inspection. Appendix N contains copies of the Sub-Committee's minutes and draft outreach strategy and is included in along with the agenda of the Town's public participation.

During the reporting period, the Town of Cumberland continued to assign specific personnel the responsibility for performing stormwater tasks at their respective work site facilities. While the Director of Operations maintains overall responsibility for the program as stipulated in the Stormwater Program Management Plan, specific field tasks are assigned to individuals with the goal being ownership of those action items. By instilling a sense of ownership by individual employees and ensuring staff continuity for the tasks, the Town has an easier time scheduling and ultimately performing each required task in the appropriate time frame. This also provides for uniformity of each work task ensuring that things are done the same and with the required detail throughout the reporting period.

The Town also provided employee training during the reporting period, especially for those folks assigned specific stormwater program work tasks. This training included ISWG MS4 Training sponsored by the CCSWCD. Additionally, the Town's Code Enforcement Officer was provided continuing training as part of his normal duties.



## **2.0 MINIMUM CONTROL MEASURES (MCM'S) 1 TO 6**

### **2.1 MCM 1 Public Education and Outreach Responsible Party: ISWG Education Coordinator**

The goals of MCM 1 are as follows:

1. To raise awareness that polluted stormwater runoff is the most significant source of water quality problems for Maine's waters;
2. To motivate people to use Best Management Practices (BMPs) which reduce polluted stormwater runoff ; and
3. To reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs.

#### **2.1.1 BMP 1.1 to BMP 1.6**

The Town of Cumberland, through the Interlocal Stormwater Working Group (ISWG) Education Coordinator, provided public education and outreach to Cumberland residents, businesses and community groups. The work completed during the reporting period is documented in a report forwarded to the MEDEP previously by the ISWG Education Coordinator and is included here by reference. A complete copy is included in Appendix A of this report.

### **2.2 MCM 2 Public Involvement and Participation Responsible Party: ISWG Education Coordinator and the Director of Operations.**

The goals of MCM 2 is to involve the public in both the planning and implementation process of improving water quality and reducing quantity via the stormwater program.

- 2.2.1 BMP 2.1 Public Notice Requirement: Cumberland's Permit Year 1 Annual Report, Permit Year 2 Annual Report and Stormwater Program Management Plan are posted on the MEDEP's website as well as Cumberland's website. Cumberland's PY 3 Annual Report will also be posted on the website. Additionally, Permit Year 4 and Permit Year 5 from the previous General Permit are posted for reference. Cumberland maintains a record of public meeting minutes on their website, and this pertains to stormwater issues as well. These can be reviewed at the Town's website at [www.cumberlandmaine.com](http://www.cumberlandmaine.com). The Town provides substantial information to the Public via the website that helps the community be involved in stormwater management.

For example, Cumberland's Stormwater tab of the Public Works webpage provides resources for the proper disposal of old pesticides and herbicides, information in the proper use of pesticides and herbicides; the proper disposal of yard waste; options for the proper disposal of Household Hazardous Waste and Universal Waste; literature about the care, function and maintenance of septic systems as well as links to yardscaping outreach programs and of course the [www.thinkbluemaine.org](http://www.thinkbluemaine.org) website. Additionally, Cumberland, in conjunction with other area communities, provides options to residents for safe disposal of expired or unwanted medication.

2.2.1 BMP 2.2 Host Public Events: During Permit Year 3, Cumberland successfully implemented this BMP through several events. In late September of the Permit Year, the Town in conjunction with the Cumberland Shellfish Conservation Commission staffed a static display at the annual Cumberland Fair. Additionally, the Town and the Commission hosted two successful (2) public participation events in May of the Permit Year to provide information and educate residents on the impacts of land use on water quality.

Between September 26 and October 2 of 2010, the Town, Commission and several volunteers staffed a booth at the Cumberland Fair. This booth included a static display obtained on loan from the CCSWCD and volunteers had several different handouts and informational literature available for folks. Additionally, staffers were able to talk with fair attendees about stormwater and land use impacts on water quality and how folks can make a difference. The booth was located in one of the vendor buildings and received the same foot traffic as the other vendors. While no record of one on one interaction was logged during the event or the number of promotional materials handed out noted, it is estimated that several thousand people passed by the vendor booth during the Fair's duration.

In May of 2011 the Town and the Commission, with support from CCSWCD, hosted two outreach events targeting Cumberland residents. The stated goal of these outreach events was "to provide information and educate the residents of Cumberland in the impacts of land use on water quality". It was hoped that the events would "build awareness of land use impacts on water quality by focusing on the Yardscaping Program". Additionally, the forum would provide residents with a suite of Best Management Practices (BMP's) that will help them, and ultimately the Town, improve water quality.

On the evening of May 2, 2011 the first workshop was held at Cumberland Town Hall. The program ran from 6:00 pm until 8:30 pm and was attended by approximately seven people. On Saturday, May 14, 2011 the second session was also held at Town Hall from 8:30 am to noon and approximately nine people attended this event. A copy of the agenda for this event is included in Appendix N.

Both sessions included a formal presentation of the topics that included awareness based on Yardscaping and what the impacts of land uses are on water quality. Additional topics included presentations on conservation and suitable Best Management Practices (BMP's) for homeowners and property maintenance businesses. Besides formal presentations, stakeholder discussion was a formal part of the program to encourage dialog with all stakeholders present. In addition to classroom type discussion, a field demonstration was performed at the Saturday event to give folks a hands-on experience of the topics discussed. A key part of both sessions was a program recap and planning for future action items to incorporate what folks learned at the event.

2.3 MCM 3 Illicit Discharge Detection and Elimination Responsible Party: Director of Public Services, Director of Planning and Oak Engineers

The goals of MCM 3 are as follows:

1. Develop a watershed based storm drain system infrastructure map;
2. Implement and enforce a non-stormwater discharge ordinance;
3. Develop and implement a prioritized dry weather outfall inspection plan; and
4. Develop and implement a strategy to detect any illicit discharges to the open ditch system within each MS4's highest priority watershed.

2.3.1 BMP 3.1.1 to 3.1.3 Develop a watershed based storm sewer system infrastructure map: During the previous permit cycle Cumberland embarked on an intensive effort to map the storm drain system in the Urban Area and has essentially completed the required mapping. The mapping system is a GIS based mapping system that geo-references structures and outfalls as well as maintains a database of the pertinent features of the system, such as structure type, size and location, outfall location, size and material type, pipe type, size and flow direction.

However, the mapping must be updated on a regular basis to reflect capital improvements and changes that occur to the system during the reporting period. During the reporting period there were no significant infrastructure improvements or changes required in the Urban Area's primary watershed. However, a significant amount infrastructure was recently added to the Route 88 area of Cumberland. While not in the priority watershed, this new infrastructure is in the Coastal watershed, Cumberland's second priority watershed. During the PY 3 reporting period the as-built information was incorporated into Cumberland's GIS mapping for the Route 88 infrastructure project. Additionally, several other storm drainage projects were added to the Town's mapping including stormdrain infrastructure on Skillin Road, Blanchard Road (Main Street to Skillin Road), Range Road, Bea Lane, Karole Lane, Philip Street and Grove Street.

It should also be noted that once the new storm drain infrastructure is accepted by the Town, the data is added to the Town's cleaning and maintenance schedule for catch basin cleaning as part of the spring cleanup operations.

2.3.2 BMP 3.2.1 to 3.2.3 Adopt a Non-Stormwater Discharge Ordinance: The Town of Cumberland adopted the required ordinance on July 27, 2009. A copy of the ordinance is included in Appendix B of this report.

2.3.3 BMP 3.3.1 to 3.3.8 Develop Dry Weather Outfall Inspection Program:

2.3.3.1 As noted in the Town's Stormwater Program Management Plan, Cumberland's priority watershed is the East Branch Piscataqua River (EBPR). Essentially this watershed encompasses the majority of the Urban Area from Main Street (Route 9) to about 600 feet (at Tuttle Road) and to about 1,200 feet (at Greeley Road)

westerly of Middle Road. The remainder of the Urban Area drains easterly across Middle Road and Interstate 295 to Casco Bay.

- 2.3.3.2 The Town has delineated the EBPR watershed into manageable sub-watersheds to aid in performing dry weather inspections. The two highest priority sub-watersheds have been determined to be PISC 3: Hedgerow Drive to Greely Road Area (See Figure 2) and PISC 1: Greely High School Area (See Figure 3). The next highest priority watersheds delineated are PISC 2 (Farwell Avenue to Hill Crest Drive Area); PISC 4 (Meadow Lane to Catalpa Lane) and PISC 5 (Catalpa Lane to Maurice Way). The remainder of the EBPR watershed subarea delineation is underway to ensure field inspections of outfalls occur during PY4.
- 2.3.3.3 The Town has developed a Standard Operating Procedure (SOP) for Dry Weather Outfall Inspections. A copy of this SOP is included in Appendix C. This SOP clearly outlines the process for providing inspections within the Town's Urban Area. The SOP details the proper inspection protocols, required inspection forms, required recordkeeping and more importantly, defines what corrective action and notification is required when deficiencies are discovered. It should be noted that the SOP is also a living document and will be reviewed and updated as required.
- 2.3.3.4 The Town of Cumberland has opted to utilize Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine, Volume 1: Information for Program Managers; and Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine Volume 2: Standard Operating Procedures and Forms for data collection as stipulated in the Dry Weather Outfall Inspection SOP. The Town has opted to utilize paper forms and a three ring binder system for managing and storing the inspection information.
- Considering the size of Cumberland's Urban Area and the number of outfalls that are currently monitored, this type of system is adequate for the next few years. However, it is still anticipated that the Town will be exploring utilizing a GIS based database system to track inspections and other salient data for the program as funding comes available.
- 2.3.3.5 The Town of Cumberland through Oak Engineers provided training to Town employees who were assigned the responsibility of performing outfall inspections. On July 13, 2009, a field training exercise was provided to five (5) employees where actual field inspections were conducted in the highest priority watershed such that each employee could gain experience in how to complete the form, what to look for and what to do if a violation is discovered. A copy of attendance records and training agenda is included in Appendix D. Additionally, Oak Engineers continued to support Town inspection staff for IDDE inspections acting as a technical resource for mapping delineation, inspection protocols and inspection scheduling.
- 2.3.3.6 The procedure for addressing a suspected illicit discharge is outlined in the Dry Weather Outfall Inspection SOP. Please see section 2.3.3.3 and Appendix C.

2.3.3.7 During the reporting period the Town of Cumberland conducted 32 dry weather outfall inspections in both the first, second and third priority sub-watersheds of the EBPR watershed. Inspections were conducted on June 20, 2011 and June 21, 2011. As part of these inspections no illicit discharges were found. Additionally, it should also be noted that Town staff did perform field inspections of outfalls in the second priority watershed, Coastal Drainage, as part of an ongoing monitoring program for shellfish protection. This work was conducted in conjunction with the Department of Marine Resources as well as the Cumberland Shellfish Conservation Commission. During the PY3 reporting period the Town of Cumberland and its partners captured seven (7) different sets of water quality samples from five (5) discrete sample outfall points and tested all samples for fecal coliform bacteria.

These sample dates were August 24, 2010, September 7, 2010, September 21, 2010, October 25, 2010, November 16, 2010, November 30, 2010 and December 28, 2010.

As part of this ongoing sampling effort, the Town and its partners also provided cursory inspections of the shoreline outfalls and documented perceived issues as a result. It is anticipated that the Department of Marine Resources (DMR) and the Town will continued the sampling effort throughout the summer of 2011. The Town of Cumberland is working with the DMR to expand the existing sampling program twofold to provide additional water quality data sets to help define and mitigate problems in this important watershed. Data results obtained during PY3 reporting period is included in Appendix L.

Additionally, Town staff provided outfall inspections adjacent to the Town Public Works Facility on Drowne Road. While this facility is outside of the Urban Area, it still drains to the Piscataqua River, albeit downstream the UA boundary. No illicit discharges were found as part of these inspections in the Drowne Road area.

It should be noted that as part of ongoing capital improvements in the Urban Area, the Town discovered an illicit cross connection in the Town's fourth priority watershed, PISC 4, Meadow Lane to Catalpa Lane area. Although the cross connection was not discovered as part of the ongoing IDDE program, it was recognized by staff during the replacement of a culvert in the Cumberland Commons Area. Staff recognized the presence of domestic sewage in a culvert draining a catch basin and traced the source to a basement cross connection in a residence on Cumberland Common. The Town, in conjunction with the Code Enforcement Officer, required the owner to re-plumb the house to ensure the domestic sewer service was connected to the sanitary sewer system correctly. Additionally, the Town vacuumed the sewage contaminated sediment from the catch basin sump and properly disposed of the material. Additionally, the catch basin sump was pressure washed to ensure it was as clean following the removal of the illicit cross connection.

2.3.3.8 The Town will conduct addition outfall inspections in the next higher priority watersheds as per the Stormwater Program Management Plan. It is anticipated that the Town will conduct IDDE inspections in sub-watersheds PISC 5 (Catalpa Lane to Maurice Way) and the rest of the sub-watersheds in the EBPR watershed in PY4 reporting period.

2.3.4 BMP 3.4.1 and 3.4.2 Open Ditch Illicit Discharge Detection Program: In the PY 3 reporting period, the Town, in conjunction with Oak Engineers, developed an Illicit Discharge Detection and Elimination Standard Operating Procedure (SOP) for ditches in the Urban Area. This SOP was developed in early spring of 2011 and became effective July 1, 2011. It is anticipated the implementation of the SOP will begin in PY4 and will be fully implemented by the end of PY5 (June 30, 2013).

2.3.4.1 The Town has developed a Standard Operating Procedure (SOP) for Ditch Inspections. A copy of this SOP is included in Appendix D. This SOP clearly outlines to process for providing inspections within the Town's Urban Area. The SOP details the proper inspection protocols, required inspection forms, required recordkeeping and more importantly, defines what corrective action and notification is required when deficiencies are discovered. It should be noted that the SOP is also a living document and will be reviewed and updated as required.

2.3.4.2 It is anticipated the ditch inspection SOP implementation will begin in the Spring of 2012 and will be fully implemented in the Urban Area by the end of the PY5 reporting period or June 30, 2013. Additionally, it is anticipated that staff training for the new SOP will be performed during the early winter of 2012 to ensure Town staff is ready to perform ditch inspections during the best times to find and observe ditch outfalls; which is prior to the growth of spring vegetation or before snowfall in the fall of the year.

2.4 MCM 4 Construction Site Stormwater Runoff Control Responsible Party: Code Enforcement Officer, Director of Planning and Oak Engineers

The goal of this MCM is to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. For specific permit requirements and suggestions, refer to MEDEP's General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems Part IV(H)(4).

2.4.1 BMP 4.1.1 AND 4.1.2 Developer Notification of Chapter 500 Stormwater Management: The Town of Cumberland provides notification to each developer on the permit application form in addition to verbal notification during the application submission. During the PY3 reporting period the Town staff provided one notification for projects that occurred in the urban area. The one project that required notification was the Central Maine Power sub station project, known as the Raven Farm Sub Station Project. The Town continued to evaluate the effectiveness of the current notification system and it was determined that the current procedure provides adequate notification to developers and operators of sites within the Urban Area as well as the remaining areas of the Town. A sample Building Permit has been included in Appendix G. The Town also maintains a

library of available information and handouts for contractors and developers as well. Several examples are included in Appendix H.

- 2.4.2. BMP 4.2.1 Develop and implement a mechanism to annually document every construction activity that disturbs one acre or more of area within the Urbanized Area: The Town of Cumberland has opted to track the documentation of construction activity greater than one acre in the Urban Area via a spreadsheet system. As part of the Town's permitting process, every application that is received is reviewed by staff and the pertinent data entered into the spreadsheet tracking system. As site inspections are performed, the tracking spreadsheet is updated by staff. It is anticipated that there will be relatively few sites that meet the minimum threshold of one acre of disturbed area; hence the spreadsheet tracking method will be adequate for the time being. It is also anticipated that the Town will investigate the possibility of utilizing a GIS database tracking system in the future as funding becomes available. A copy of the Tracking Spreadsheet is included in Appendix I.

During the PY3 reporting period the Town staff documented one project meeting the threshold of one acre of disturbance that occurred in the urban area. This specific project was the Raven Farm Sub Station Project; which is in the Coastal Watershed of the Urban Area. The Town's third party peer review consultant in addition to a Maine DEP third party peer review consultant provided frequent erosion and sedimentation control inspections for the project in addition to Town staff oversight. The Town ensured that appropriate erosion and sedimentation control measures were installed and maintained as appropriate by the Contractor performing the construction.

- 2.4.3. BMP 4.3.1 to 4.3.4 Develop and implement a construction site inspection program:

- 2.4.3.1 The Town of Cumberland currently tracks development and construction activities through the Code Enforcement Officer as well as third party engineering firms retained to provide engineering review services and periodic field inspection services. This activity is tracked and managed by the Code Enforcement Officer via the Tracking Spreadsheet. Typically construction sites are inspected on a regular basis by third party engineering firms as well as Town staff. Site inspection are performed prior to significant rain events as well as during milestone events during construction, such as prior to the start of construction activities to ensure erosion control measures and storm water BMP's are in place, during utility construction, and other critical points in the project construction. During the PY3 reporting period there was one construction sites that disturbed one acre or more within the Urban Area. During the PY3 reporting period there were fifty (50) inspections performed within the Urban Area for the Central Maine Power (CMP) Raven Farm Substation Project. Sample Site Inspection Reports are included in Appendix I.

Additionally, during the Permit Year 3, there were several large development projects under construction in Cumberland that were outside of the Urban Area. Although not covered by the Town's Stormwater Program Management Plan, these areas were inspected as defined by the plan. During the reporting period ten (10) inspections were performed on a development projects that were under construction in West Cumberland and other parts of Cumberland outside the

Urban Area. This number of inspections represents a significant increase from PY2; which is due to the fact that the one large CMP development project started.

2.4.3.2 The Town of Cumberland developed a standard inspection form to provide documentation of site inspections that are performed within the Urban Area and Town wide. This form is used by Town staff and third party inspectors when conducting construction site inspections within the Town. A sample of this form is included in Appendix E.

2.4.3.3 The Town uses the following procedure to track and notify developers and contractors of non-compliance issues and guidance for coming into compliance. Currently the Town uses a spreadsheet to track and notify developers of non-compliance issues. Typically, minor non-compliance issues that are discovered as part of the inspection process are discussed with the Contractor or responsible party immediately and a remediation plan of action developed for immediate implementation. In most cases this is sufficient to address the issue. For significant issues or failure to make the required remediation results in the issuance of a Notice of Violation that is tracked and followed up via spreadsheet. The Town currently issues the standard ten (10) day Notice to Cure as well as “Stop Work” order as required. During the PY3 reporting period the Town issued zero Notice of Violations for projects in the Urban Area. A sample of the Town’s tracking spreadsheet is included in Appendix J.

2.4.3.4 The staff that performs site inspections for the Town of Cumberland is the Town’s CEO, the Town Manager or professional staff from third party engineering firms. Currently, the Town Manager is a Maine licensed professional engineer experienced in erosion and sedimentation control and the staff of the third party engineering firms are supervised by Maine professional engineers. The Town’s CEO, Mr. William Longley, received several training modules during the reporting period. While most of the training was tailored for building code type issues, it should be noted that this extensive training exemplifies and reinforces the Town’s commitment to staff training for many issues. In past years, Mr. Longley attended several training sessions that were pertinent to stormwater issues, and is currently fluent in the requirements of state and local stormwater regulations. Copies of Mr. Longley’s certificates of completion are included in Appendix K.

2.5 MCM 5 Post Construction Stormwater Management Responsible Party: Code Enforcement Officer and Director of Planning.

The Goals of this Minimum Control Measure are to develop a program to address stormwater runoff from 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, that discharge into the permittee’s MS4 as well as implement an ordinance or similar measure to ensure adequate long-term operation and maintenance of post construction BMPs. In addition this MCM is intended to ensure post construction BMPs are functioning as intended and to document and report annually to the MEDEP all applicable post-construction related information.



2.5.1 2BMP 5.1.1 to 5.1.4 Implement Post Construction Stormwater Management Ordinance

2.5.1.1 The Town of Cumberland has determined that it will rely on the State permit process for the installation of post construction BMP's.

2.5.1.2 The Town of Cumberland adapted the Model Ordinance to Town format requirements and cross referenced existing Town Ordinances to provide the required regulation of sites in the Urban Area. The adapted ordinance was not substantially changed from the model ordinance and essentially meets the requirements of BMP 5.1.2.

2.5.1.3 The Town Council adopted the Post Construction Storm Water Management Ordinance on September 14, 2009. A copy of the ordinance is included in Appendix F.

2.5.1.4 The Town implemented the new ordinance during PY2. During PY3 there was one development in the Urban Area that triggered this MCM, however there were no inspections or reporting required since the project has not yet been completed.

2.5.2 BMP 5.2.1 and 5.2.2 Develop and implement and inspection program for post construction BMP's for which Owners or Operators have not hired a third party inspector:

This BMP does not apply to the Town of Cumberland since the Urban Area does not contain a lake at risk or an urban impaired stream.

2.6 MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations. Responsible Party: Director of Public Services, Oak Engineers

The goals of MCM 6 are as follows:

- Develop an inventory of all municipal operations conducted in, on, or associated with facilities, buildings, golf courses, cemeteries, parks and open space owned or operated by regulated MS4s that have the potential to cause or contribute to stormwater or surface water pollution.
- Develop and implement written operation and maintenance procedures for the Town's highest priority watershed that includes maintenance schedules and inspection procedures to ensure long term operation of structural and non-structural controls that reduce stormwater pollution to the maximum extent practicable.
- Develop and implement operation and maintenance procedures for the remaining watersheds within the Urbanized Area.
- Prevent the accumulation of sediment by developing a program to sweep all publicly accepted paved streets and publicly owned paved parking lots as well as cleaning catch basins and other stormwater structures.

- Develop a SWPPP which will outline sources of potential stormwater pollutants and the methods by which these pollutants will be reduced or prevented from entering Waters of the State.

#### 2.6.1 BMP 6.1.1 to 6.1.4 Operations at Municipally Owned Grounds and Facilities:

2.6.1.1 The Town of Cumberland conducted an inventory of municipal operations within the Urban Area that have the potential to cause or contribute to stormwater pollution. The results of the inventory include the Public Works Garage Facility (including the Town's transfer station operations) on Drowne Road, the SAD 51 Bus Maintenance Facility also on Drowne Road, Twin Brook Maintenance Facility on Tuttle Road and the Valhalla Golf Course Maintenance Facility on Valhalla Road. The inventory list is included in Appendix M.

2.6.1.2 The Town developed and implemented written Operations and Maintenance (O&M) procedures for identified facilities in the EBPR watershed during PY2. Each O&M procedure was distributed to the respective facility staff as required. Copies of the O&M procedures for each facility are included in Appendix O. During PY3 the Town continued to rely upon the written Operations and Maintenance Plans for each facility developed during PY2.

As part of the O&M Procedures continued implementation during PY 3, the Town conducted monthly walkthroughs at each facility to ensure ongoing compliance with the operational plans. Initially a walk through was conducted with the Town's insurance carrier representative and was performed as part of required safety training, but since the initial walkthrough, this work has been conducted by specific Town staff in conjunction with the scheduled safety inspections.

2.6.1.3 The Town will develop and implement written Operations and Maintenance (O&M) procedures for identified facilities in the Coastal Drainage watershed during PY3. There are no municipal facilities identified in the Coastal Drainage Watershed.

2.6.1.4 As required by the General Permit the O&M procedure plan will address alternative products, automobile maintenance, hazardous materials storage, landscaping and lawn care, parking lot and street cleaning, roadway and bridge maintenance, pest control, road salt application and storage, spill response and prevention, storm drain system cleaning, vehicle washing and vehicle fueling system.

#### 2.6.2 BMP 6.2.1 and 6.2.2 Municipal Employee Training:

2.6.2.1 During the PY3 reporting period the Town of Cumberland attended Interlocal Stormwater Working Group (ISWG) sponsored training for municipal staff including MS4 Facility Training and Stormwater Management Training. On April 13, 2011 two (2) staff people from Cumberland, Wade Wescott and Mark Brainerd, attended this training. Additionally in PY2, IDDE hands on training as well as classroom and hands on training for Storm Water Pollution Prevention

Plans (SWPPP) was provided to Cumberland staff, including both Wade Wescott and Mark Brainerd. Although staff training was not required until PY3, the Town was able to implement some of this training early.

Additionally, it is anticipated that additional training will be implemented in Permit Years 4 and 5, including IDDE Outfall Inspection refresher training, IDDE Ditch Inspection training, SWPPP refresher training and refresher O&M training as required. It is anticipated this training will be obtained in conjunction with ISWG training opportunities as well as focused training from third party trainers as required. Appendix P contains documentation of the training that occurred during PY2 and PY3.

2.6.2.2 Under this BMP no activities were required during the PY3 reporting period, however it is anticipated that during PY4 and PY5 Cumberland it is anticipated that Cumberland will provide additional training segments to staff that will include, but not limited to, IDDE Outfall Inspection refresher training, IDDE Ditch Inspection training, SWPPP refresher training and refresher O&M training as required.

2.6.3 BMP 6.3.1 Street Sweeping: Public Services swept all roads within the Town as soon as weather conditions allowed following winter operations. Public Services also swept all municipal parking lots/paved area and the MSAD51 parking/paved areas as soon as weather conditions allowed following winter operations. Sweeping operations recovered approximately 280 cubic yards of sand from road and parking/paved areas. The Town used both straight sand and sand/salt mix. In addition, the Town also applied rock salt in some areas of high traffic volume.

It should also be noted that sweeping operations started as soon as possible in the spring of 2011. By collecting this material as early as possible after snowmelt, less sand is deposited in the Town's storm drain and ditch system; and ultimately the receiving waters. The Town commenced sweeping operations on April 4, 2011 and was complete by April 28, 2011. The Town's aggressive approach to sweeping is providing very good implementation of this BMP.

Additionally in PY3 the Town spread approximately 850 cubic yards of sand and 1,102 cubic yards of rock salt during winter snow operations. During the spring of 2011, the Town recovered about 280 cubic yards of sand from their sweeping operations and about 32 cubic yards of sand from their catch basin cleaning operations. This represents a recovery rate of about 37%.

2.6.4 BMP 6.4.1 Catch Basin Cleaning: The Town cleaned 401 catch basins Town wide during PY3 reporting period. Residuals collected totaled 31.5 cubic yards. Catch basins installed during new construction will be added to the maintenance schedule for the next year. It should be noted that in PY 3 Cumberland cleaned an additional 23 catch basins in comparison to PY 2.

- 2.6.5 BMP 6.5.1 Maintenance and Upgrade of Stormwater Conveyances and Outfalls: The Town of Cumberland maintains a Capital Improvement Program (CIP) that is used to plan for significant capital purchases or upgrades by the Town on a long term basis. The CIP includes programmed funding for road and stormwater projects throughout the Town based on prioritized need and available funding and is updated on a periodic basis. It should be noted that during the PY3 reporting period the Town continued its ongoing maintenance and upgrade of the storm drainage system town wide. In the Urban Area, the Town replaced approximately ten to fifteen culverts in the Farwell Avenue and Balsam Lane area (PISC 2) and the Friar Lane area (Coastal Drainage). This work included the repair, replacement and/or slip lining of culverts, replacement of storm drain and repair or replacement of catch basins. Additionally, the Town replaced approximately 50 feet of collapsed culvert on Brookside Drive in the PISC 3 sub-watershed.

The Town also continued to perform capital improvements to the storm drain system in areas outside the Urban Area as required by the infrastructure needs. In PY3 the Town replaced several failing culverts, several catch basins and performed substantial ditch improvement in the Orchard Road area. While this area is outside of the Urban Area, it still discharges to a tributary of the West Branch of the Piscataqua River.

As mentioned previously in section 2.3.3.7, the Town discovered an illicit cross connection in the Town's fourth priority watershed, PISC 4, Meadow Lane to Catalpa Lane area while performing system upgrades. During the installation of a new culvert in the Cumberland Commons, the presence of domestic sewage was recognized by staff in an existing culvert draining a catch basin. The sewage was traced to the source in a basement cross connection in a residence on Cumberland Common. The Town, in conjunction with the Code Enforcement Officer, required the owner to re-plumb the house to ensure the domestic sewer service was connected to the sanitary sewer system correctly. Additionally, the Town vacuumed the sewage contaminated sediment from the catch basin sump and properly disposed of the material. Additionally, the catch basin sump was pressure washed to ensure it was as clean following the removal of the illicit cross connection.

2.6.6 BMP 6.6.1 and 6.6.2 Stormwater Pollution Prevention Plans (SWPPP's):

2.6.6.1 During PY 2 additional copies of Town's existing SWPPP's were fabricated and distributed to each facility and staff person to ensure the plan was available and implemented. Additionally, Cumberland staff attended SWPPP training in PY 2 sponsored by ISWG and the MDEP. PY 3 saw Cumberland continue with normal facility operations under the guidance of their respective SWPPP's.

2.6.6.2 As noted above, during PY2 the existing SWPPP files were fabricated and redistributed to their respective facilities as required. It should also be noted that Town staff from each facility attended refresher training sponsored by the MDEP regarding the implementation of SWPPP's. Again, as noted above, PY 3 saw Cumberland continue with normal facility operations under the guidance of their respective SWPPP's.

As noted previously, Cumberland's SWPPP's are somewhat dated; having been developed in 2003. It is anticipated that during the PY4 reporting period, and subject to available funding, the existing SWPPP's will be reviewed and updated as needed to ensure that the existing plans remain effective in mitigating any potential stormwater pollution from the sites as per their intent.

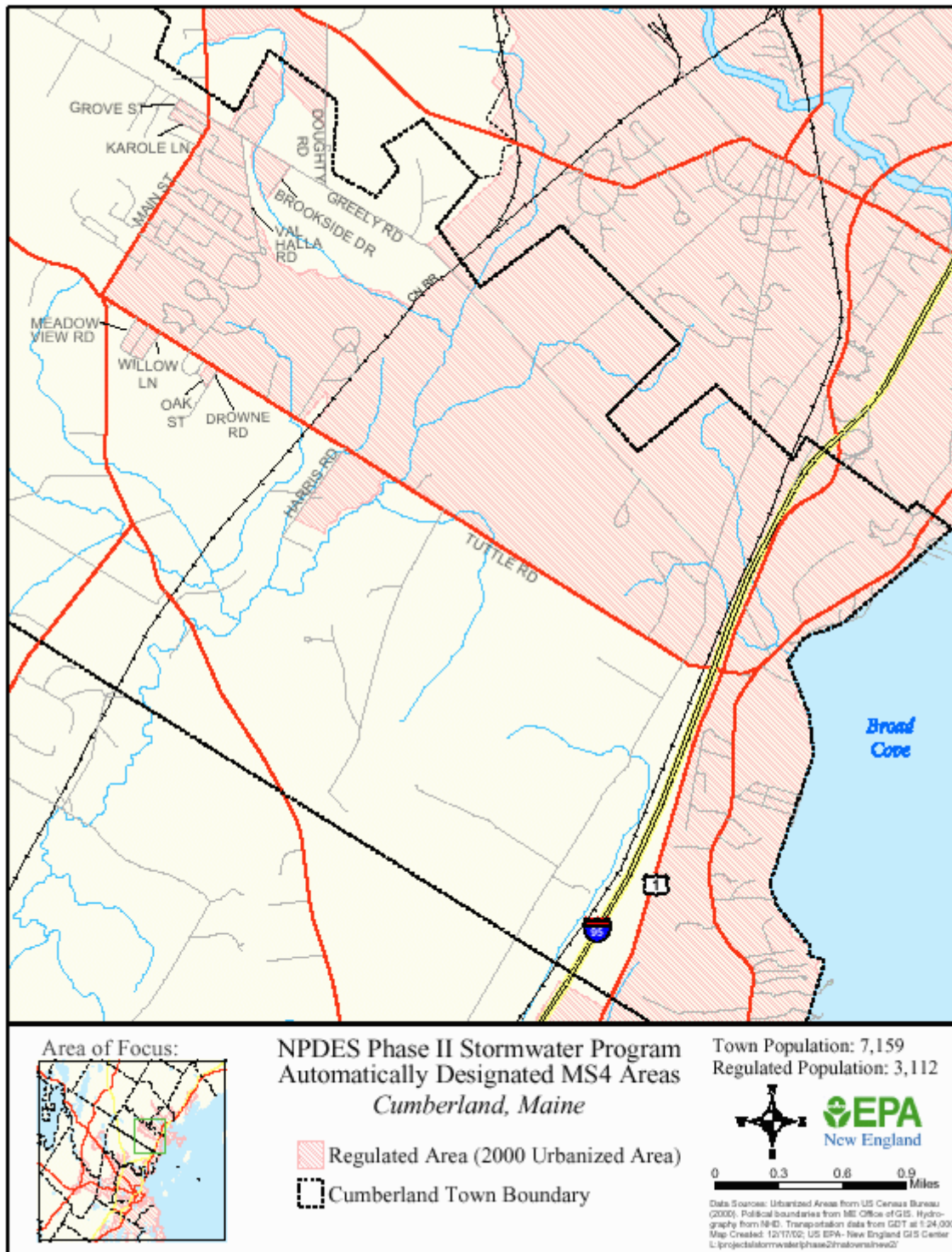
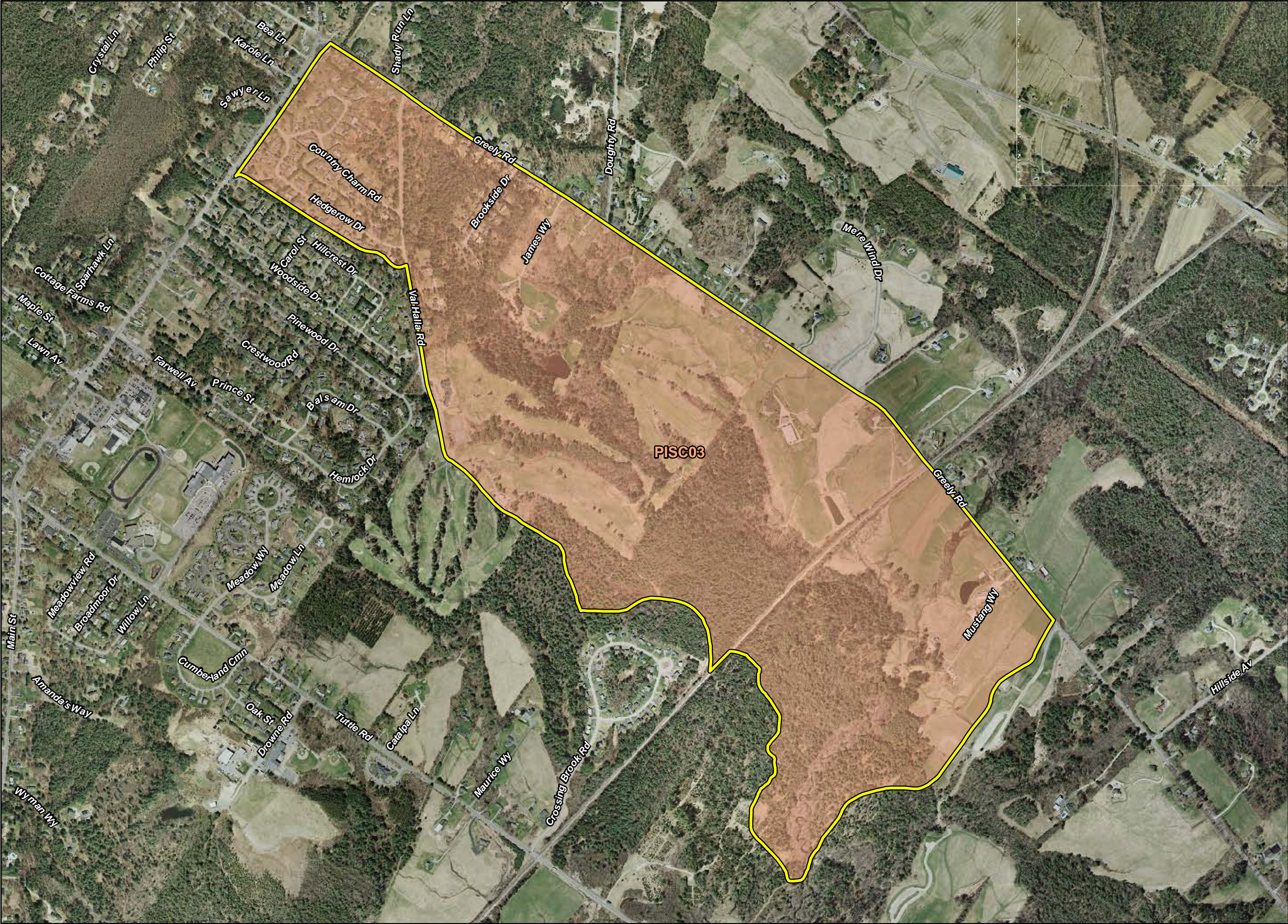




Figure 1: Cumberland, Maine Urbanized Area







Legend


 Watershed Boundary

Notes

1. Watershed delineations based on 5 foot contour interval mapping provided by the Town of Cumberland
2. Some features are approximate in location and scale
3. This plan has been prepared for the Town of Cumberland. All other uses are not authorized unless written permission is obtained from Oak Engineers

Scale and Orientation

0 250 500 Feet



Prepared For

Town of Cumberland  
290 Tuttle Road  
Cumberland, Maine

Site Address

Watershed: PISC03  
Hedgerow Drive to  
Greely Road Area


083025	Oct 2009
--------	----------

Figure 2






Legend

 Watershed Boundary

Notes

1. Watershed delineations based on 5 foot contour interval mapping provided by the Town of Cumberland
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Scale and Orientation

0 125 250 Feet 

Prepared For

Town of Cumberland  
290 Tuttle Road  
Cumberland, Maine

Site Address

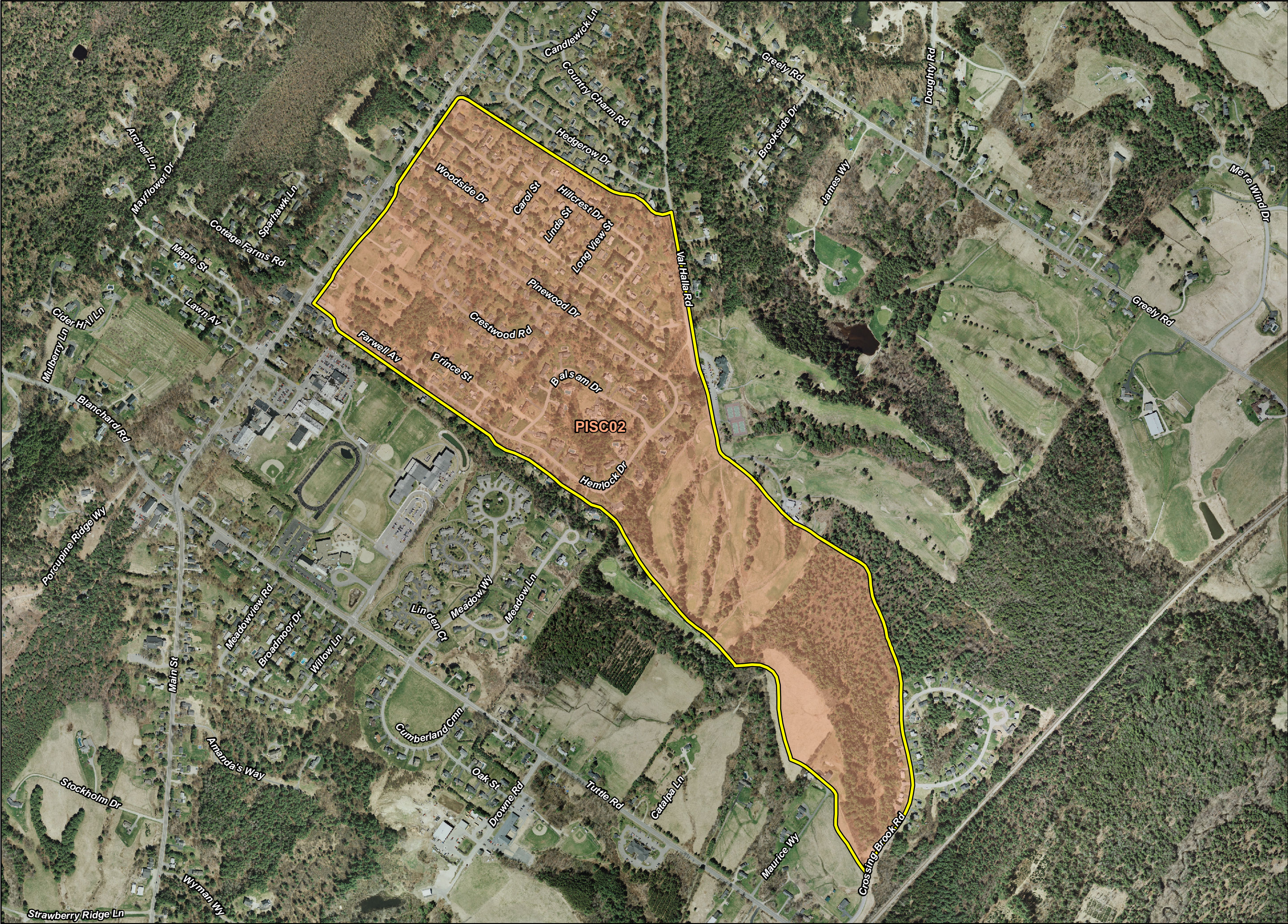
Watershed: PISC01  
Greely High School  
Area

083025


Oct 2009

Figure 3





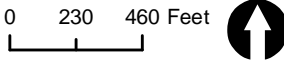
Legend

 Watershed Boundary

Notes

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Scale and Orientation



Prepared For

Town of Cumberland  
290 Tuttle Road  
Cumberland, Maine

Site Address

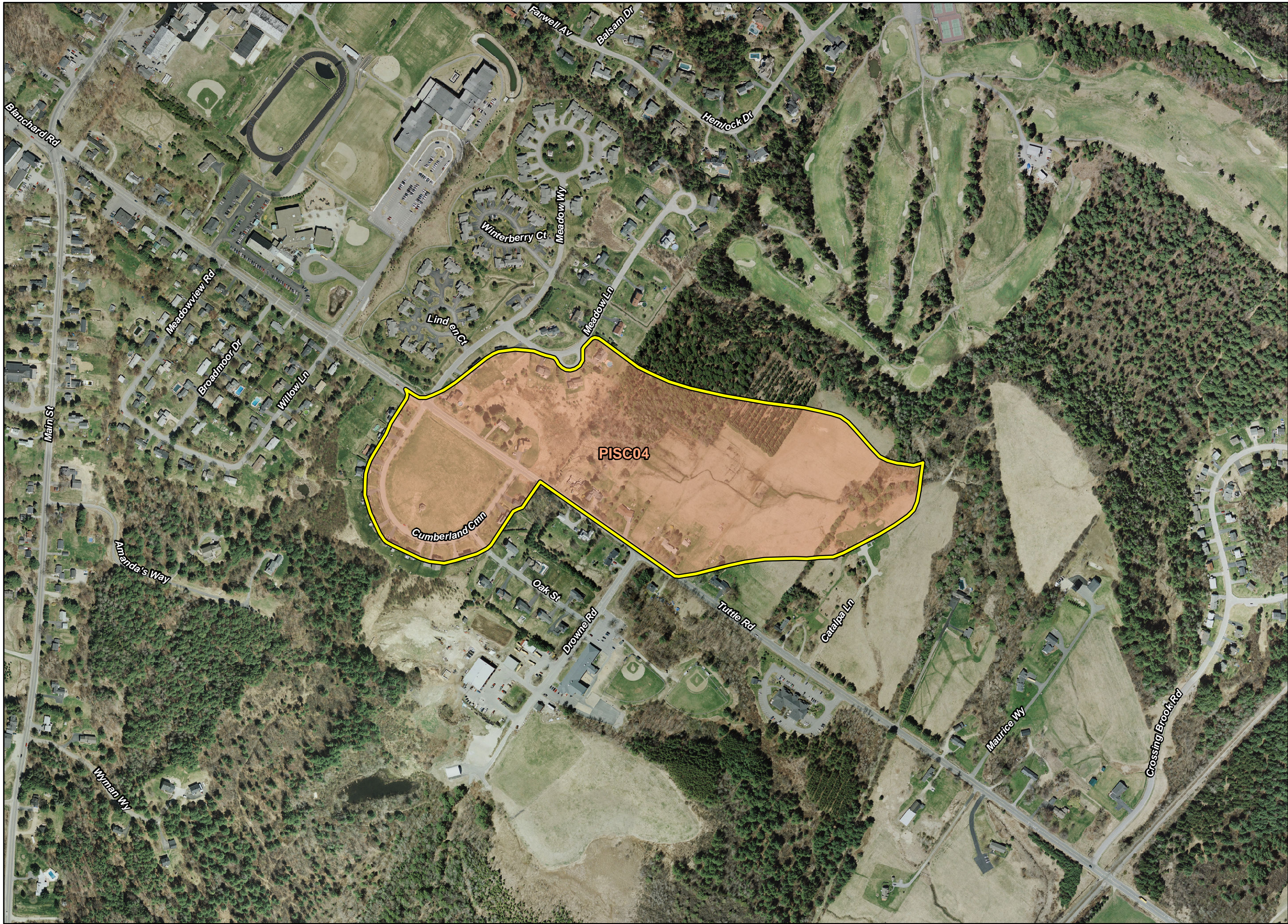
Watershed: PISC02  
Farwell Avenue to Hill  
Crest Drive Area

083025


Oct 2011

Figure 4





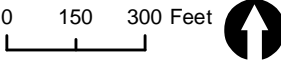
Legend

 Watershed Boundary

Notes

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2. Some features are approximate in location and scale
3. This plan has been prepared for the Town of Cumberland. All other uses are not authorized unless written permission is obtained from Oak Engineers

Scale and Orientation



Prepared For

Town of Cumberland  
290 Tuttle Road  
Cumberland, Maine

Site Address

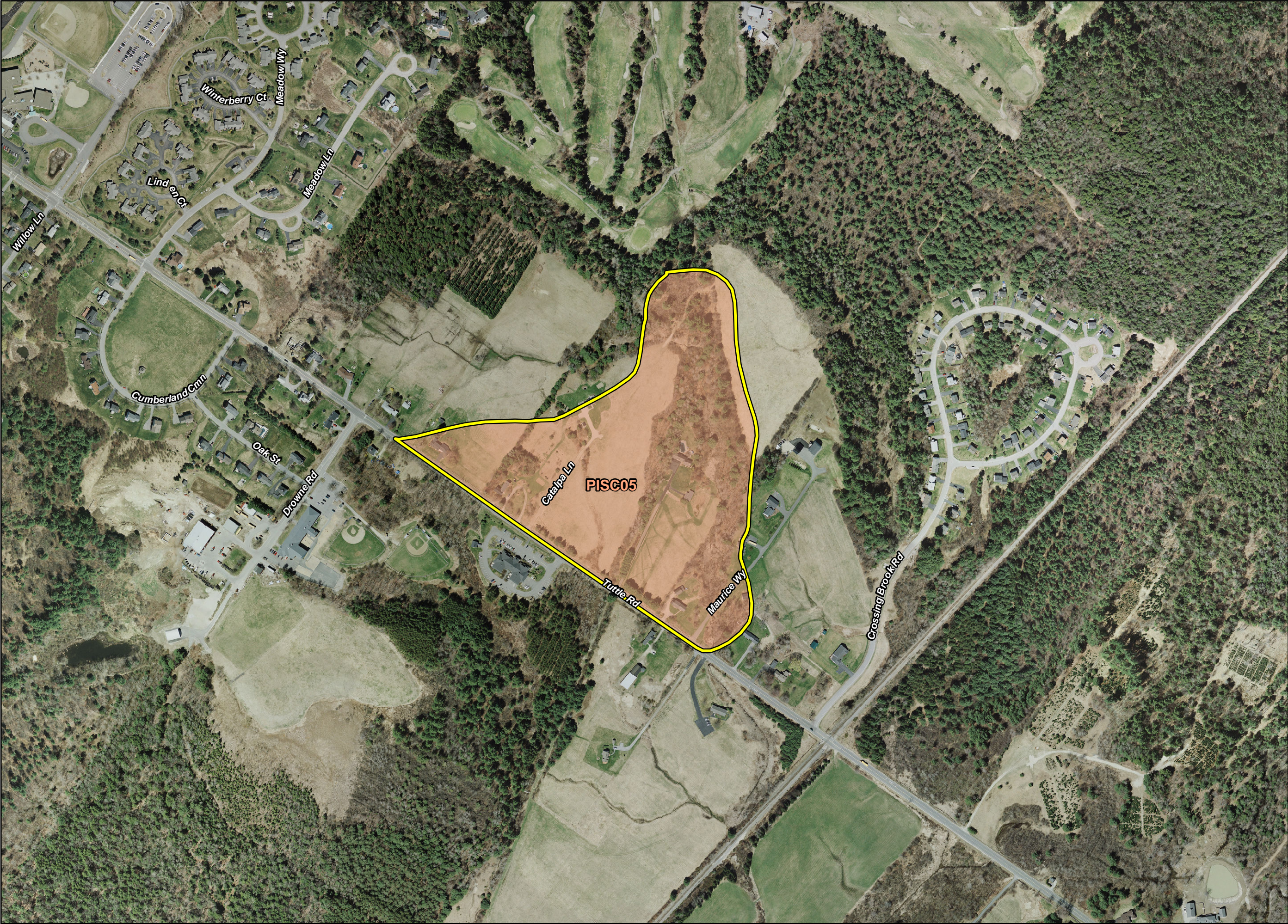
Watershed: PISC04  
Meadow Lane to  
Catalpa Lane

083025


Oct 2011

Figure 5





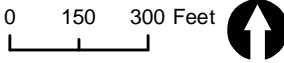
Legend

 Watershed Boundary

Notes

1. Watershed delineations based on 5 foot contour interval mapping provided by the Town of Cumberland
2. Some features are approximate in location and scale
3. This plan has been prepared for the Town of Cumberland. All other uses are not authorized unless written permission is obtained from Oak Engineers

Scale and Orientation



Prepared For

Town of Cumberland  
290 Tuttle Road  
Cumberland, Maine

Site Address

Watershed: PISC05  
Catalpa Lane to  
Maurice Way

083025

Oct 2011

Figure 6



## **APPENDIX A**

ISWG Coordinator Report

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

## APPENDIX A:

### Permit Year 3 Summary of Minimum Control Measure 1

#### Stormwater Awareness Plan Implementation

Outreach Tool	Status	Details
<b>Exposure</b> - to be in compliance, implement A5 and one additional activity (A2, A3, A4 or A6).		
A1 - Run the Ducky II ad for 3 weeks	complete	The Ducky II ran on local television stations from March 28th through April 24 <sup>th</sup> , for a total duration of four weeks. The ad's estimated reach was 98.9% and frequency was 10.4 within our target audience.
A2 - Distribute posters at municipal offices, libraries, local hotspots (coffee/sandwich shops)	complete	"Follow the Flow" posters were distributed to community establishments in the spring of 2011.
A5 - Ducky ad + <i>After the Storm</i> , a video co-produced by EPA & the Weather Channel on local cable access stations	complete	Each ISWG community's public access station was provided with a copy of the Ducky II ad as well as a copy of <i>After the Storm</i> and MDEP's <i>Working Together for Spill Prevention</i> .
<b>Retention</b> - to be in compliance, implement B1 & B4 and one additional activity (B2, B3 or B5).		
B1 - Prominent links established on municipal and partner websites	complete	All websites for ISWG communities feature a link to <a href="http://www.thinkbluemaine.org">www.thinkbluemaine.org</a> .
B2 - Article in local newspaper and/or town newsletter	complete	A press release about the Ducky II ad and runoff of lawn care products was submitted to the following publications: <i>Northern Forecaster</i> (Freeport, Yarmouth, Falmouth & Cumberland), <i>Portland Daily Sun</i> (Portland), <i>Southern Forecaster</i> (Cape Elizabeth, South Portland & Scarborough), <i>Independent</i> (Windham), <i>American Journal</i> (Gorham & Westbrook), <i>Courier</i> (Biddeford, Saco & OOB)
B4 - Purchased ad space - 3 week duration	incomplete	With approval from MDEP, this task was not completed due to the expense of running the Ducky II ad this permit year.
<b>Acceptance</b> - to be in compliance, implement C1; no additional activities required.		
C1 - Email newsletter/blurb to municipal employees (including school department), university employees, etc.	complete	An emailed contest was sent to all employees in ISWG communities asking them to visit <a href="http://www.thinkbluemaine.org">www.thinkbluemaine.org</a> to answer five questions. Those who submitted correct answers to the questions were eligible to win one of six \$50 L.L. Bean gift cards. A total of 290 employees from the 14 municipalities participated.

## Best Management Practices Adoption Plan Implementation

Task	Status	Details
<b>Reporting</b>		
Summarize plan implementation to date	complete	

### **Point of Sale**

Retain 19 Point of Sale locations in the ISWG communities.	complete	The 19 Point of Sale locations in 11 of the 14 ISWG communities were retained. The distribution of the stores is as follows:
		Biddeford: 0
		Cape Elizabeth: 0
		Cumberland: 1
		Falmouth: 2
		Freeport: 1
		Gorham: 2
		Old Orchard Beach: 0
		Portland: 2
		Saco: 1
		Scarborough: 2
		South Portland: 3
		Westbrook: 1
		Windham: 1
		Yarmouth: 3
Program tracking	complete	CCSWCD staff requested sales information from all point of sale stores. Please see the summary of sales information below.

### **Adult Education**

Offer a minimum of six adult education classes per year	complete	Portland: 4/15/2011, Lunch & Learn at Unum, five participants
		Scarborough: 4/28/2011, five participants
		Cumberland: 5/2/2011, seven participants
		Cumberland: 5/14/2011, nine participants
		Windham: 6/8/2011, three participants
		Portland: 6/16/2011, five participants
Promote adult education classes	complete	Press releases publicizing the available classes were submitted to local publications, additional information was published on CCSWCD's YardScaping website and in local adult education brochures.
Track behavior change	complete	CCSWCD staff documented class evaluations and contacted past adult education class participants to determine which YardScaping practices were implemented. Please see summary of behavior change reported by participants of PY2 classes, as well as those practices participants of PY3 classes intend to implement, below.

### Targeted Information Distribution

Distribute information to priority neighborhoods (minimum of 50-100 households in size) in each ISWG community.	complete	YardScaping information was distributed throughout priority neighborhoods in each ISWG community. The following number of households received information:		
		Biddeford: 122		
		Cape Elizabeth: 79		
		Cumberland: 112		
		Falmouth: 95		
		Freeport: 64		
		Gorham: 68		
		Old Orchard Beach: 79		
		Portland: 234		
		Saco: 111		
		Scarborough: 110		
		South Portland: 86		
		Westbrook: 111		
		Windham: 96		
		Yarmouth: 61		
Distribute YardScaping information to local establishments (e.g. pet stores, veterinarian offices, pediatrician offices)	complete	Pet stores, veterinarian offices and pediatrician offices in each of the 14 ISWG communities were contacted and asked to display YardScaping information in their establishments. Establishments in the following communities agreed to participate:		
			Pet Stores	Vet Offices
				Peds. Offices
		Biddeford		1
		Cape Elizabeth		1
		Cumberland		1
		Falmouth	2	1
		Freeport	1	1
		Gorham		1
		Old Orchard Beach		1
		Portland	1	1
		Saco		1
		Scarborough	1	1
		South Portland	1	1
		Westbrook		
		Windham	1	1
		Yarmouth		1

### Websites & Free Media

Maintain CCSWCD YardScaping website	complete	CCSWCD maintained the YardScaping website and tracked hits. Increased hits were seen after targeted neighborhood outreach efforts, public events, and adult education presentations.
Newspaper coverage of YardScaping activities and healthy lawn care	complete	<i>The Forecaster</i> : Back Cove garden in Portland sets a chem-free standard (August 2, 2010) <i>Portland Press Herald</i> : Maine Gardener: Lawn looking a little bare? Consider these seeds for thought (August 29, 2010)

Newspaper coverage of YardScaping activities and healthy lawn care (continued)		<i>Portland Press Herald</i> : Scarborough looks at limits on pesticide use (October 11, 2010)
		<i>The Forecaster</i> : First Maine pesticide summit aims to answer questions (November 10, 2010)
		<i>Current</i> : Scarborough eyes curbs on pesticides (November 10, 2010)
		<i>Portland Press Herald</i> : Maine Gardener: Spray? No way. (December 5, 2010)
		<i>Portland Press Herald</i> : Impact of lawn chemicals unnoticed by landowners (March 17, 2011)
		<i>Portland Press Herald</i> : Think zing (March 27, 2011)
		<i>Portland Press Herald</i> : Maine Gardener: Website puts gardening fixes at your fingertips (April 3, 2011)
		WCSH6: Pesticides under fire on airwaves and in legislature (April 7, 2011)
		MPBN: Maine "Rubber Duckie" Ad Ruffles Lawncare Companies' Feathers (April 8, 2011)
		<i>Portland Press Herald</i> : Maine Gardener: Compost key in creating the green, green grass of home (May 15, 2011)
		<i>Portland Press Herald</i> : Maine Gardener: Something's just waiting to destroy your lawn (May 22, 2011)

#### ***Neighborhood YardScape Socials***

Hold a minimum of zero neighborhood socials in the ISWG communities	complete	One neighborhood social was held this year in Scarborough. Five people participated.
---	----------	--

#### ***Point of Sale – Program Tracking***

During the fall of 2010, CCSWCD staff requested sales information from the 19 point of sale partner stores. Seven stores provided the sales information requested. Below is a summary of the relevant sales information from Freeport True Value, Goff's Hardware, Drillen Hardware, Sportsman's True Value, Cook's Hardware, Moody's Nursery and Aubuchon Hardware.

		Units sold		
Freeport True Value		2008	2009	2010
	Weed & Feed	33	30	30
	Low Maintenance Seed	37	41	40
Goff's Hardware				
	Weed & Feed	30	30	29
	Low Maintenance Seed	27	32	30
	Corn Meal Gluten	1	2	1
Drillen Hardware				
	Weed & Feed	39	40	38
	Low Maintenance Seed	44	53	50
	Corn Meal Gluten	7	9	7
	Bagged Compost	33	36	40
Sportsman's True Value				
	Weed & Feed	32	30	30
	Low Maintenance Seed	10	12	13
	Aerator Rentals	5	6	9



		Units sold		
Cook's Hardware		2008	2009	2010
	Weed & Feed	29	30	28
	Low Maintenance Seed	15	14	15
	Bagged Compost	47	50	55
Moody's Nursery				
	Low Maintenance Seed	50	51	50
	Bulk Compost (yards)	69	70	70
Aubuchon Hardware				
	Weed & Feed	55	56	54
	Low Maintenance Seed	31	30	33

While there seems to be a slight declining trend in the sale of weed and feed products and an increase in the sale of YardScope recommended products, it is unclear if these trends can be associated with YardScaping outreach efforts.

#### **Adult Education** – Behavior Change Tracking

During the fall of 2010, CCSWCD staff made follow up phone calls with participants of YardScaping adult education classes held in the fall of 2009 and spring of 2010 (PY2 who provided their contact information on class evaluations in order to determine the level of follow through of the YardScaping practices class participants intended to use). As expected, it was difficult to reach people. But the information gleaned from those who were reached provided an anticipated rate of compliance for the YardScaping practices that class participants intended to implement.

Follow up from Permit Year 2 YardScaping Classes			
Lawn Care Practice	Plan to implement	Implemented practice	% behavior change
Set Mower to a height of 3"	19	19	100%
Leave grass clippings	15	15	100%
Sharpen mower blades	20	16	80.0%
Aerate	34	19	55.9%
Topdress	35	23	65.7%
Overseed	35	26	74.3%
Use low maintenance seed	43	31	72.1%
Get a soil test	35	27	77.1%
Use nitrogen-only fertilizer	37	25	67.6%
Use compost tea	33	13	39.4%

Follow up phone calls are made six months to a year after the class to allow participants a growing season to implement the recommended practices. Below are the results of the post-class evaluations completed by the YardScaping class participants.

Permit Year 3 YardScaping Class Statistics			
Lawn Care Practice	Plan to implement	Currently do not implement	% planning to implement
Set Mower to a height of 3"	6	6	100%
Leave grass clippings	6	7	85.7%
Sharpen mower blades	4	4	100%
Aerate	15	16	93.8%
Topdress	17	17	100%
Overseed	13	13	100%
Use low maintenance seed	14	15	93.3%

<b>Lawn Care Practice</b>	<b>Plan to implement</b>	<b>Currently do not implement</b>	<b>% planning to implement</b>
Get a soil test	13	17	76.5%
Use nitrogen-only fertilizer	13	16	81.3%
Use compost tea	14	18	77.8%

CCSWCD staff will contact the class participants from the Permit Year 3 classes in the fall of 2011 to determine which behaviors have been adopted.

***Additional language for communities as specified below:***

**Biddeford**

- *Nothing additional through projects I track*

**Cape Elizabeth**

- June 9, 2011 – A public stakeholder meeting was held as part of the Trout Brook Planning Project. Approximately 60 people participated in the meeting.

**Cumberland**

- May 2, 2011 – YardScaping training coordinated by the Cumberland Shellfish Conservation Commission. Approximately seven people attended the event.
- May 14, 2011 – YardScaping training, panel discussion and field demonstration coordinated by the Cumberland Shellfish Conservation Commission. Approximately nine people attended the event.

**Falmouth**

- June 8, 2011 – Falmouth Middle School presented their independent research on YardScaping, forestry and watershed stakeholders to parents and members of the community. Approximately 30 people attended the event.

**Freeport**

- *Nothing additional through projects I track*

**Gorham**

- June 30, 2011 – The Casco Bay Youth Conservation Corps and local volunteers assisted the Gorham Public Works Department by stenciling 179 storm drains throughout the Town. In addition, 300 door hangers were distributed to houses in the neighborhoods where the storm drains were located.

**Old Orchard Beach**

- April 16, 2011 – YardScaping information was distributed to residents at Old Orchard Beach's Earth Day event. Approximately 15 people attended the event.

**Portland**

- April 22, 2011 – A YardScaping booth was set up in Monument Square as part of Portland's Earth Day festivities. Staff interacted with more than 300 people at this event.
- May 27, 2011 – Approximately 60 students from Lincoln Middle School participated in a storm drain stenciling event as part of the launch of Portland's Greener Neighborhoods Cleaner Streams program to help clean up Capisic Brook. Approximately 80 drains were stenciled, and students distributed door hangers to more than 200 households.
- June 16, 2011 – YardScaping training held as part of Portland's Greener Neighborhoods Cleaner Streams program. Five people participated in the training.

**Saco**

- *Nothing additional through projects I track*

**Scarborough**

- April 28, 2011 – A YardScaping social was held in a Coulthard Farms neighborhood. Five people participated; attendees took additional information to share with their neighbors.

**South Portland**

- July 14, 2010 – A screening of Paul Tukey's documentary, *A Chemical Reaction*, was coordinated by the South

Portland Land Trust. The screening included an introduction by Paul Tukey and a panel discussion with Tukey, Mary Cerullo of Friends of Casco Bay and Jami Fitch of the Cumberland County Soil and Water Conservation District following the film. Approximately 45 people attended the event.

- June 9, 2011 – A public stakeholder meeting was held as part of the Trout Brook Planning Project. Approximately 60 people participated in the meeting.

#### **Westbrook**

- Storm drain stenciling with students from Saccarappa School (add date of event, # of students who participated, # of drains stenciled, and # of door hangers distributed)

#### **Windham**

- June 8, 2010 – YardScaping presentation provided at the Windham Public Library as part of the water-themed adult summer reading series. Three people attended.

#### **Yarmouth**

- *Nothing additional through projects I track*

## **Summary: Stormwater Education Activities for 2010-2011 School Year**

The following is a summary of education activities completed in each ISWG community during the 2010-2011 school year. Activities were provided by the following:

**CCSWCD:** Sarah Plummer, Education Coordinator, Cumberland County Soil & Water Conservation District, sarah-plummer@cumberlandsxcd.org, 207-892-4700 x 107

**YCSWCD:** Melissa Brandt, District Manager, York County Soil & Water Conservation District, melissabrandt@yorkswcd.org, 207-324-0888 x 214

**PWD:** Lynne Richard, Education Coordinator, Portland Water District, lrichard@pwd.org, 207-774-5961 x 3324

### Biddeford

**Total students:** 108

**Total contact hours:** 130

**Lesson topics:** Nonpoint source pollution, impervious/pervious surfaces, runoff, and best management practices; topography, contour lines, watersheds, water movement, and transport of nonpoint source pollutants; bioaccumulation from a pesticide runoff in an aquatic food web; turbidity and cumulative impact.

**Schools:** Biddeford Middle School, Biddeford Intermediate School

**Educator:** YCSWCD

### Cape Elizabeth

**Total students:** 182

**Total contact hours:** 1,013

**Lesson topics:** Nonpoint source pollution, watershed characteristics, erosion, water flow, and best management practices; buffers and their ability to mitigate pollution; various lessons included information about nonpoint source pollution, human impact, watershed characteristics, stormwater, low impact development, and behavior change.

**Schools:** Cape Elizabeth Middle School, Pond Cove Elementary School

**Educator:** CCSWCD, PWD

### Cumberland

**Total students:** 157

**Total contact hours:** 1,908

**Lesson topics:** Watersheds, nonpoint source pollution, and water quality parameters; in-class water quality testing and observation and identification of macro-invertebrates (bio-assessment); various lessons included information about nonpoint source pollution, human impact, watershed characteristics, stormwater, low impact development, and behavior change; Envirothon\*\*. Supplied macro-invertebrate identification, best management practices, and local watershed map resources.

**Schools:** Greely High School, Greely Middle School

**Educator:** CCSWCD, PWD

### Falmouth

**Total students:** 69

**Total contact hours:** 996

**Lesson topics:** Watershed characteristics, nonpoint source pollution, and buffers; topography, watersheds, stormwater pollution, water quality testing, and cumulative impact; water cycle; nonpoint source pollution and behavior change; long-term experiments and independent research projects about the Casco Bay Watershed, stakeholders, nonpoint source pollutants, forests, and environmentally responsible lawn care, and students presented their research to a public audience.

**Workshop:** One teacher attended the *Over the Watershed and Through the Woods*\*\*\* workshop series.

**Schools:** Falmouth Middle School

**Educator:** CCSWCD, PWD

#### Freeport

**Total students:** 18

**Total contact hours:** 45

**Lesson topics:** Stormwater pollution and cumulative impact; nonpoint source pollution, impervious/pervious surfaces, runoff, and best management practices.

**Schools:** Mast Landing School

**Educator:** CCSWCD

#### Gorham

**Total students:** 171

**Total contact hours:** 779

**Lesson topics:** Importance of water to all living things; career day presentations with focus on nonpoint source pollution and conservation; features and adaptations of invasive species; stormwater; vernal pools; various lessons included information about nonpoint source pollution, human impact, watershed characteristics, stormwater, low impact development, and behavior change.

**Schools:** Gorham Middle School, Narragansett Elementary School, Sunny Days Childcare Center

**Educator:** CCSWCD, PWD

#### Old Orchard

**Total students:** 68

**Total contact hours:** 306

**Lesson topics:** Nonpoint source pollution, impervious/pervious surfaces, runoff, and best management practices; bioaccumulation from a pesticide runoff in an aquatic food web; stormwater, storm drains, and wastewater; amount of water in the world, conservation, and the water cycle.

**Schools:** Loranger Middle School

**Educator:** YCSWCD

#### Portland

**Total students:** 508

**Total contact hours:** 1,136

**Lesson topics:** Stormwater, water flow, and storm drain information as introduction to storm drain stenciling event; water cycle; watershed characteristics; waste water treatment and combined sewer outfalls; tide pools; Children's Water Festival\*; Envirothon\*\*. Provided invasive species resources. Discussed erosion control and outreach plans with service learning staff.

**Workshop:** Six teachers attended the *Over the Watershed and Through the Woods*\*\*\* workshop series.

**Schools/Groups:** Lincoln Middle School, Longfellow Elementary School, King Middle School, Cathedral School, Casco Bay High School, Nathan Clifford Elementary School, Hall Elementary School, Peaks Island Elementary School, Peaks Island Summer Rovers

**Educator:** CCSWCD, PWD

#### Saco

**Total students:** 74

**Total contact hours:** 93

**Lesson topics:** Amount of water in the world, conservation, and the water cycle.

**Schools/Groups:** Saco Parks & Recreation Summer Program

**Educator:** YCSWCD

**Note:** Due to scheduling conflicts, the Field Day at Saco Middle School was not held in 2011; teachers have expressed interest in holding it in 2012.

#### Scarborough

**Total students:** 209

**Total contact hours:** 295

**Lesson topics:** Nonpoint source pollution, water quality testing, and macroinvertebrate sampling (bioassessment); watershed characteristics; water cycle and water properties; groundwater.

**Workshop:** One teacher attended the *Over the Watershed and Through the Woods\*\*\** workshop series

**Schools/Groups:** Scarborough High School, Scarborough Middle School, Ocean Park Summer Camp

**Educator:** CCSWCD, PWD

#### South Portland

**Total students:** 306

**Total contact hours:** 3,009

**Lesson topics:** Pond Study Field Day to study pond life and water quality, including water quality testing and macroinvertebrate sampling and identification (bioassessment); Project WET's Make-a-Splash Water Festival; groundwater; ecology; various lessons included information about nonpoint source pollution, human impact, watershed characteristics, stormwater, low impact development, and behavior change.

**Schools:** Small Elementary School, Dyer Elementary School, Mahoney Middle School, Greater Portland Christian School, Kaler Elementary School, Skillin Elementary School

**Educator:** CCSWCD, PWD

#### Westbrook

**Total students:** 77

**Total contact hours:** 380

**Lesson topics:** Water quality testing in the classroom; brainstorm possible uses for the Westbrook Middle School trail system in preparation for writing abutting landowner letters; various lessons included information about nonpoint source pollution, human impact, watershed characteristics, stormwater, low impact development, and behavior change.

**Schools:** Westbrook Middle School, Westbrook High School

**Educator:** CCSWCD, PWD

**Workshop:** One teacher attended the *Over the Watershed and Through the Woods\*\*\** workshop series

**Notes:** CCSWCD collaborated throughout the year with Westbrook Middle and High schools, Westbrook's Department of Community and Economic Development, the Westbrook Historical Society, Portland Trails, and the School Ground Greening Coalition. Partners worked on developing long-term plans for the trail system behind Westbrook Middle School and between Westbrook Middle and High schools. Ecology studies, access points for water quality testing, and historical/watershed research projects are among the long-term goals.

#### Windham

**Total students:** 197

**Total contact hours:** 2,221

**Lesson topics:** Facilitated "Ecocentricity" event where high school students taught lessons to middle school students – included conservation-based lessons about geology, water, soil, atmosphere, ecology, and wildlife; water quality discussion and macroinvertebrate sampling and identification (bioassessment); provide input about water quality during high school students' presentation about a wetland ecosystem; various lessons included information about nonpoint source pollution, human impact, watershed characteristics, stormwater, low impact development, and behavior change.

**Schools:** Windham High School, Windham Middle School

**Educator:** CCSWCD, PWD

Yarmouth

**Total students:** 19

**Total contact hours:** 24

**Lesson topics:** Water quality, nonpoint source pollution, observation and identification of macroinvertebrates, in-class bioassessment

**Schools:** Yarmouth Elementary School

**Educator:** CCSWCD

\* The **Southern Maine Children's Water Festival** is a one-day event occurs that annually each May, drawing about 700 middle school students from all over Southern Maine to learn about different aspects of water. Students participate in classroom presentations, a water-based stage show, "Dripial Pursuit" competitions, and exhibit hall activities. The Festival's focus is on water, ecosystems, nonpoint source pollution, and ways that students can be part of the solution.

\*\* The **Envirothon** is an environmental competition conducted throughout Maine each spring. High school students test their knowledge of natural resources and current environmental issues in an outdoor setting. Teams of three to five students are tested at five stations: Wildlife, Aquatics, Forestry, Soils, and a Current Natural Resources Issue. The top three teams at each regional competition compete in the State competition, with the advancement to a national competition for top-placing teams.

\*\*\* The ***Over the Watershed and Through the Woods: Local Field Studies & Service Projects*** teacher workshop series used the Capisic Brook Watershed in Portland as an example to study forests, water, and the relationship between the two. The first session was held on October 19, 2010 and covered Capisic Brook background and classroom lessons. The second, field studies session was planned for November 3, 2010 and, due to rain, rescheduled and held on May 18, 2011. The third session was held on December 2, 2010 and covered service learning projects, schools, and community involvement. The workshop series was facilitated by CCSWCD, PWD, and Maine Project Learning Tree. The City of Portland, Maine Forest Service, and Friends of Casco Bay served as additional partners.



## **APPENDIX B**

Non-Stormwater Discharge Ordinance

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

# **STORMWATER DISCHARGE ORDINANCE**

**Town of Cumberland, Maine**

**DRAFT**

**7-6-09**

**STORMWATER DISCHARGE ORDINANCE**  
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# ARTICLE I

**A. PURPOSE:** The purpose of this Storm Water Discharge Ordinance (the “Ordinance”) is to provide for the health, safety, and general welfare of the citizens of the Town of Cumberland through the regulation of Non-Storm Water Discharges to the Town’s Storm Drainage System as required by federal and State law.

This Ordinance establishes methods for controlling the introduction of Pollutants into the Town’s Storm Drainage System in order to comply with requirements of the federal Clean Water Act and State law.

## **B. OBJECTIVES**

The objectives of this Ordinance are:

1. To prohibit un-permitted or un-allowed Storm Water Discharges to the Storm Drainage System; and
2. To set forth the legal authority and procedures to carry out all inspection, monitoring and enforcement activities necessary to ensure compliance with this Ordinance.

**C. APPLICABILITY** This Ordinance shall apply to all Persons discharging Storm Water and/or Non-Storm Water Discharges from any Premises into the Storm Drainage System located within the Urban Area as depicted in Attachment A.

**D. RESPONSIBILITY FOR ADMINISTRATION** The Town Manager or his/her designee is the Code Enforcement Officer who shall administer, implement, and enforce the provisions of this Ordinance.

**E. DEFINITIONS** For the purposes of this Ordinance, the terms listed below are defined as follows:

**Clean Water Act.** “Clean Water Act” means the federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

**Discharge** “Discharge” means any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of Pollutants to “waters of the State.” “direct discharge” or “point source” means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which Pollutants are or may be discharged.

**Exempt Person or Discharge** “Exempt Person or Discharge” means any Person who is subject to a Multi-Sector General Permit for Industrial Activities, a General Permit for Construction Activity, a General Permit for the Discharge of Stormwater from the Maine Department of Transportation and the Maine Turnpike Authority Municipal Separate Storm Sewer Systems, or a General Permit for the Discharge of Stormwater from State or Federally Owned Authority Municipal Separate Storm Sewer System Facilities; and any Non-Storm Water Discharge permitted under a NPDES permit, waiver, or waste discharge license or order issued to the discharger and administered under the authority of the U.S. Environmental Protection Agency (“EPA”) or the Maine Department of Environmental Protection (“DEP”).

**Industrial Activity** “Industrial Activity” means activity or activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

**Municipal Separate Storm Sewer System or MS4.** “Municipal Separate Storm Sewer System” or “MS4,” means conveyances for storm water, including, but not limited to, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels or storm drains (other than publicly owned treatment works and combined sewers) owned or operated by any municipality, town, sewer or sewage district, fire district, State agency or Federal agency or other public entity that discharges directly to surface waters of the State.

**National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit.** “National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit” means a permit issued by the EPA or by the DEP that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

**Non-Storm Water Discharge** “Non-Storm Water Discharge” means any Discharge to an MS4 that is not composed entirely of Storm Water.

**Person** “Person” means any individual, firm, corporation, municipality, town, quasi-municipal corporation, State agency or Federal agency or other legal entity which creates, initiates, originates or maintains a Discharge of Storm Water or a Non-Storm Water Discharge.

**Pollutant** “Pollutant” means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or by-products, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

**Premises** “Premises” means any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips, located within the Town from which Discharges into the Storm Drainage System are or may be created, initiate, originated or maintained.

**Regulated Small MS4** “Regulated Small MS4” means any Small MS4 regulated by the State of Maine “General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems” (“General Permit”), including all those located partially or entirely within an Urbanized Area (UA) and those additional Small MS4s located outside a UA that as of the issuance of the General Permit have been designated by the DEP as Regulated Small MS4s.

**Small Municipal Separate Storm Sewer System or Small MS4** “Small Municipal Separate Storm Sewer System”, or “Small MS4,” means any MS4 that is not already covered by the Phase I MS4 stormwater program including municipally owned or operated storm sewer systems, State or federally-owned systems, such as colleges, universities, prisons, Maine Department of Transportation and Maine Turnpike Authority road systems and facilities, and military bases and facilities.

**Storm Drainage System** “Storm Drainage System” means the Town’s Municipal Separate Storm Sewer System including the Town’s Regulated Small MS4 and areas outside the Town’s Urbanized Area that drain into the Regulated Small MS4.

**Storm Water** “Storm Water” means any Storm Water runoff, snowmelt runoff, and surface runoff and drainage; “Stormwater” has the same meaning as “Storm Water.”

**Town** “Town” means the Town of Cumberland.

**Urbanized Area (“UA”)** “Urbanized Area” or “UA” means the areas of the State of Maine so defined by the latest decennial census by the U.S. Bureau of the Census.

## ARTICLE II

**A. GENERAL PROHIBITION** Except as allowed or exempted herein, no Person shall create, initiate, originate or maintain a Non-Storm Water Discharge to the Storm Drainage System. Such Non-Storm Water Discharges are prohibited notwithstanding the fact that the Town may have approved the connections, drains or conveyances by which a Person Discharges un-allowed Non-Storm Water Discharges to the Storm Drainage System.

### **B. ALLOWED NON-STORM WATER DISCHARGES**

The creation, initiation, origination and maintenance of the following Non-Storm Water Discharges to the Storm Drainage System is allowed:

- 1 Landscape irrigation;
- 2 diverted stream flows;
- 3 rising ground waters;
- 4 uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
- 5 uncontaminated pumped ground water;
- 6 uncontaminated flows from foundation drains;
- 7 air conditioning and compressor condensate;
- 8 irrigation water;
- 9 flows from uncontaminated springs;
- 10 uncontaminated water from crawl space pumps;
- 11 uncontaminated flows from footing drains;
- 12 lawn watering runoff;
- 13 flows from riparian habitats and wetlands;
- 14 residual street wash water (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material has been removed and detergents are not used);
- 15 hydrant flushing and fire fighting and fire fighting training activity runoff;
- 16 water line flushing and discharges from potable water sources;
- 17 individual residential car washing;
- 18 de-chlorinated swimming pool discharges; and
- 19 Discharges specified in writing by the Code Enforcement Officer as being necessary to protect public health and safety; and
- 20 Dye testing, with verbal notification to the Code Enforcement Officer prior to the time of the test.

**C. EXEMPT PERSON OR DISCHARGE** This Ordinance shall not apply to an Exempt Person or Discharge, except that the Code Enforcement Officer may request from Exempt Persons and Persons with Exempt Discharges copies of permits, notices of intent, licenses and orders from the EPA or DEP that authorize the Discharge(s).

**D. SUSPENSION OF ACCESS TO THE TOWN'S SMALL MS4** The Code Enforcement Officer may, without prior notice, physically suspend Discharge access to the Storm Drainage System to a Person when such suspension is necessary to stop an actual or threatened Non-Storm Water Discharge to the Storm Drainage System which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the Storm Drainage System, or which may cause the Town to violate the terms of its environmental permits. Such suspension may include, but is not limited to, blocking pipes, constructing dams or taking other measures, on public ways or public property, to physically block the Discharge to prevent or minimize a Non-Storm Water Discharges to the Storm Drainage System.

If the Person fails to comply with a suspension order issued in an emergency, the Code Enforcement Officer may take such steps as deemed necessary to prevent or minimize damage to the Storm Drainage System, or to minimize danger to persons, provided, however, that in taking such steps the Code Enforcement Officer may enter upon the Premises that are the source of the actual or threatened Non-Storm Water Discharge to the Storm Drainage System only with the consent of the Premises' owner, occupant or agent.

**E. MONITORING OF DISCHARGES** In order to determine compliance with this Ordinance, the Code Enforcement Officer may enter upon and inspect Premises subject to this Ordinance at reasonable hours with the consent of the Premises' owner, occupant or agent: to inspect the Premises and connections thereon to the Storm Drainage System; and to conduct monitoring, sampling and testing of the Discharge to the Storm Drainage System.

## **ARTICLE III**

**A. ENFORCEMENT** It shall be unlawful for any Person to violate any provision of or to fail to comply with any of the requirements of this Ordinance. Whenever the Code Enforcement Officer believes that a Person has violated this Ordinance, Code Enforcement Officer may enforce this Ordinance in accordance with 30-A M.R.S.A. § 4452.

**B. NOTICE OF VIOLATION** Whenever the Code Enforcement Officer believes that a Person has violated this Ordinance, the Code Enforcement Officer may order compliance with this Ordinance by written notice of violation to that Person indicating the nature of the violation and ordering the action necessary to correct it, including, without limitation:

- 1 The elimination of Non-Storm Water Discharges to the Storm Drainage System, including, but not limited to, disconnection of the Premises from the MS4;
- 2 The cessation of discharges, practices, or operations in violation of this Ordinance;

- 3 At the Person's expense, the abatement or remediation (in accordance with best management practices in DEP rules and regulations) of Non-Storm Water Discharges to the Storm Drainage System and the restoration of any affected property; and/or the payment of fines, of the Town's remediation costs and of the Town's reasonable administrative costs and attorneys' fees and costs. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such abatement or restoration must be completed.

**C. PENALTIES, FINES, INJUNCTIVE RELIEF** Any Person who violates this Ordinance shall be subject to fines, penalties and orders for injunctive relief and shall be responsible for the Town's attorney's fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day that such violation continues shall constitute a separate violation. Moreover, any Person who violates this Ordinance also shall be responsible for any and all fines, penalties, damages and costs, including, but not limited to attorneys' fees and costs, incurred by the Town for violation of federal and State environmental laws and regulations caused by or related to that Person's violation of this Ordinance; this responsibility shall be in addition to any penalties, fines or injunctive relief imposed under this Ordinance.

**D. CONSENT AGREEMENT** The Code Enforcement Officer may, with the approval of the municipal officers, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this Ordinance for the purposes of eliminating violations of this Ordinance and of recovering fines, costs and fees without court action.

**E. APPEAL OF NOTICE OF VIOLATION** Any Person receiving a Notice of Violation or suspension notice may appeal the determination of the Code Enforcement Officer to the Board of Adjustment. The notice of appeal must be received within 30 days from the date of receipt of the Notice of Violation.

The Board of Appeals shall hold a hearing on the appeal within 30 days from the date of receipt of the notice of appeal. The Board of Appeals may affirm, reverse or modify the decision of the Code Enforcement Officer.

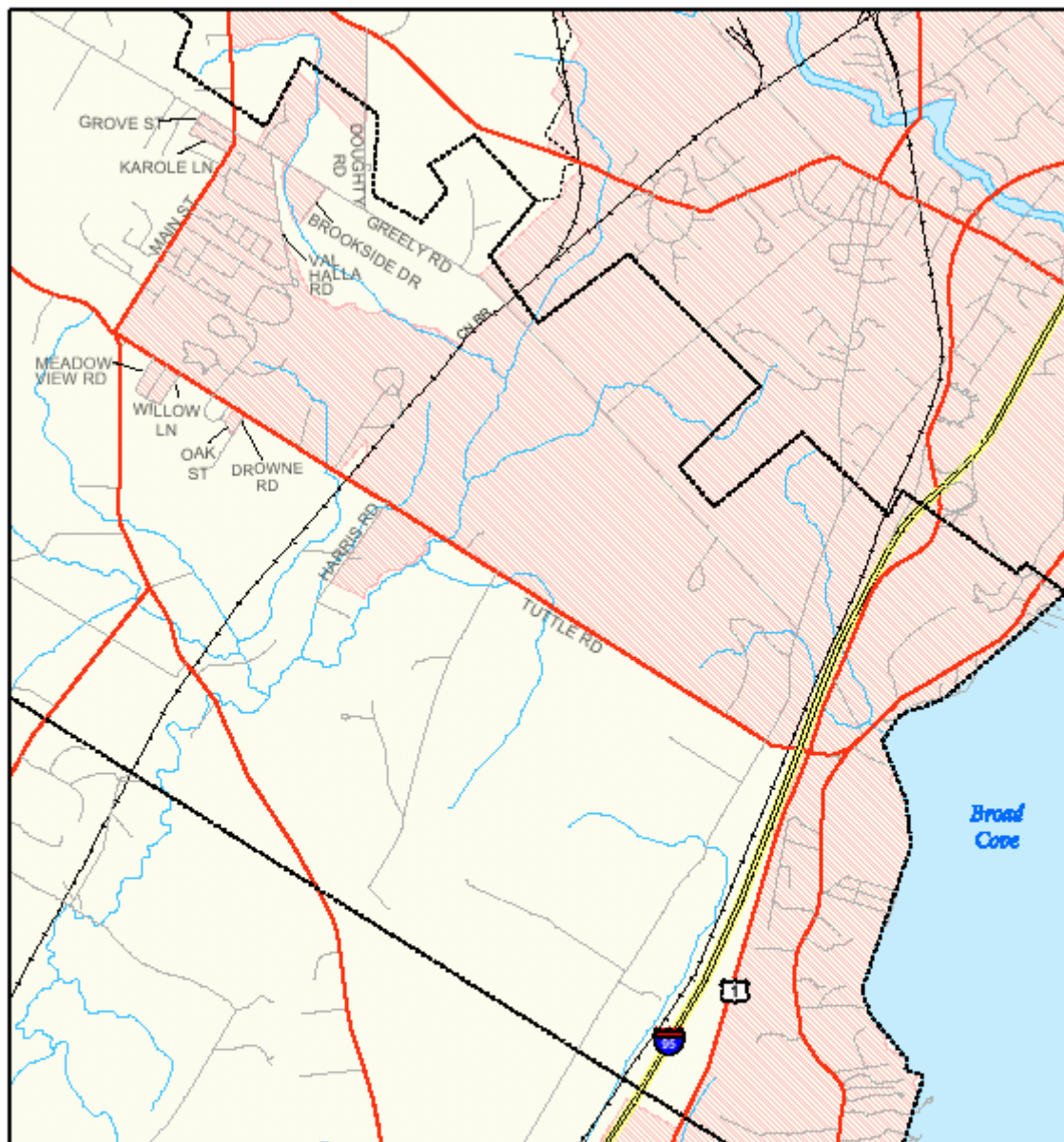
**F. ENFORCEMENT MEASURES** If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal to the Board of Appeals, within 45 days of a decision of the Board of Appeals affirming or modifying the Code Enforcement Officer's decision, then the Code Enforcement Officer may recommend to the municipal officers that the Town's attorney file an enforcement action in a Maine court of competent jurisdiction under Rule 80K of the Maine Rules of Civil Procedure.

Notwithstanding these requirements, in the event of an emergency situation that presents an immediate threat to public health, safety or welfare or that may result in damage to the Town's Storm Drainage System, the Town may seek injunctive relief at any time after learning of such emergency situation.



## ARTICLE IV

- A. ULTIMATE RESPONSIBILITY OF DISCHARGER** The standards set forth herein are minimum standards; therefore this Ordinance does not intend nor imply that compliance by any Person will ensure that there will be no contamination, pollution, nor unauthorized discharge of Pollutants into waters of the U.S. caused by said Person. This Ordinance shall not create liability on the part of the Town, or any officer agent or employee thereof for any damages that result from any Person's reliance on this Ordinance or any administrative decision lawfully made hereunder.
- B. SEVERABILITY** The provisions of this Ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions, clauses, sentences, or paragraphs or application of this Ordinance.
- C. BASIS** The Town of Cumberland enacts this Storm Water Discharge Ordinance (the "Ordinance") pursuant to 30-A M.R.S.A. § 3001 (municipal home rule ordinance authority), 38 M.R.S.A. § 413 (the "Wastewater Discharge Law"), 33 U.S.C. § 1251 et seq. (the "Clean Water Act"), and 40 CFR Part 122 (U.S. Environmental Protection Agency's regulations governing the National Pollutant Discharge Elimination System ("NPDES")). The Maine Department of Environmental Protection, through its promulgation of the "General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems" has listed the Town of Cumberland as having a Regulated Small Municipal Separate Storm Sewer System ("Small MS4"); under this General Permit, listing as a Regulated Small MS4 necessitates enactment of this Ordinance as part of the Town's Storm Water Management Program.



Area of Focus:



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

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

Town Population: 7,159  
Regulated Population: 3,112



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 M&D; Transportation data from GDT at 1:24,000.  
Map Created: 12/17/02; US EPA- New England GIS Center  
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## **APPENDIX C**

Dry Weather Outfall Inspection SOP

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

Town of Cumberland  
Stormwater Program Management Plan  
Illicit Discharge Detection and Elimination  
Standard Operating Procedure  
for  
Dry Weather Outfall Inspection Program  
Effective Date: April 7, 2009  
Revision No.: Three  
Last Revision Date: September 29, 2009

**Purpose:** The purpose of this Standard Operating Procedure (SOP) is to provide guidance, monitoring and corrective action as needed for the elimination of illicit discharges to Cumberland's storm drain system and ultimately the receiving waters in the Town as required by the Town's MS4 General Permit and Stormwater Program Management Plan.

**Scope:** This SOP applies in the performance of IDDE dry weather outfall inspection as required by Minimum Control Measure 3 Illicit Discharge Detection and Elimination, Best Management Practice (BMP) 3.3 of the Stormwater Program Management Plan.

**References:** Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine, Volume 1: Information for Program Managers; and Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine Volume 2: Standard Operating Procedures and Forms.

**Responsible Parties:**

- Overall program management: Assistant Town Manager
- Field inspections: Director of Public Services
- Tracking and record keeping: Public Works Secretary
- Review and follow up: Assistant Town Manager
- Corrective action: Director of Public Services
- Enforcement: Code Enforcement Officer

**Inspection Schedule:**

- Field inspection will be performed during periods of dry weather where no significant precipitation has occurred in the preceding 48 hours;
- Inspections will be performed during periods low flow where field inspections may be performed in a safe and efficient manner;
- Each outfall in the highest priority watershed will be inspected at least once in a permit cycle and more frequently as required by field conditions;
- By the end of the permit cycle, all outfalls in at least one sub-watershed of the second highest priority watershed.

**Inspection Priority:** Dry weather inspections will be scheduled and conducted in a prioritized basis and will target specific sub watersheds of the priority watershed based on the highest priority. The sub water shed priority is as follows:

<b>Priority</b>	<b>Watershed ID</b>	<b>Description (See Delineation Maps)</b>
1	PISC 3	Hedgerow Drive to Greely Road Area
2	PISC 1	Greely High School Area
3	PISC 2	Farwell Avenue to Hill Crest Drive Area
4	PISC 4	Meadow Lane to Catalpa Lane
5	PISC 5	Catalpa Lane to Maurice Way

#### **Inspection Procedure:**

- Inspections will be conducted in a safe manner and all required Personal Protective Equipment (PPE) will be used;
- Inspections will be performed as outlined in Section 2.1 and 2.2 of the Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine Volume 2: Standard Operating Procedures and Forms;
- Inspection will be recorded on the Standard Dry Weather Outfall Inspection Form, Page 2-9 of Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine Volume 2: Standard Operating Procedures and Forms;
- Digital photographs will be recorded and attached to each Inspection Form;
- Abnormal conditions, outfall damage, suspected illicit discharges and other issues will be noted in the Inspection Form and will be reported to the Director of Public Services for remedial action as required;
- In the case where an illicit discharge is noted or suspected, an attempt will be made to locate the source of the illicit discharge and will be documented in the Inspection Form for future action;
- Completed Inspection forms will be forwarded to the Public Works Secretary for archiving;
- When possible, opportunistic inspections will be performed by field staff. Following an opportunistic inspection, an Inspection Form will be completed and archived as noted above.

**Corrective Action:** When a suspected illicit discharge is noted, either during the regular inspection procedure, while conducting an opportunistic inspection or when reported by a citizen or third party inspection, the Town will take corrective action that may include, but not be limited to, the following.

- The Director of Public Services and the Code Enforcement Officer will be notified of the potential illicit discharge;
- The source of the illicit discharge will be traced and a mitigation plan to eliminate the illicit discharge will be developed by the Town;
- The illicit discharge will be eliminate as soon as practical;
- The corrective action will be documented by the Director of Public Works and will be forwarded to the Public Works Secretary for archiving;
- Follow up inspections will be scheduled as required.

**Record Keeping and Program Evaluation:** All inspection forms, complaints, Notice of Violations, remedial actions and infrastructure upgrades will be tracked and archived by

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the Public Works Secretary in an appropriate three ring binder system. This system will include the following steps:

- Completed inspection reports and all other pertinent information will be forwarded to the Public Works Secretary for archiving in the binder;
- Inspections that indicated a possible illicit discharge will be flagged and forwarded to the Director of Public Services for the appropriate action;
- On at least an annual basis the inspection forms and related data will be reviewed by the Assistant Town Manager for accuracy and conformance to the SOP and the Stormwater Program Management Plan;
- On an annual basis the inspections shall be tabulated and will be included in the Town's Annual Report to the Maine DEP.

## **APPENDIX D**

### **Ditch Inspection SOP**

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

Town of Cumberland  
Stormwater Program Management Plan  
Illicit Discharge Detection and Elimination  
Standard Operating Procedure  
for  
Ditch Inspection Program  
Effective Date: July 1, 2011

**Purpose:** The purpose of this Standard Operating Procedure (SOP) is to provide guidance, monitoring and corrective action as needed for the elimination of illicit discharges to Cumberland's roadside drainage ditch system and ultimately the receiving waters in the Town as required by the Town's MS4 General Permit and Stormwater Program Management Plan.

**Scope:** This SOP applies in the performance of IDDE dry weather roadside ditch inspection as required by Minimum Control Measure 3 Illicit Discharge Detection and Elimination, Best Management Practice (BMP) 3.4 of the Stormwater Program Management Plan.

**References:** Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine, Volume 1: Information for Program Managers; and Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine Volume 2: Standard Operating Procedures and Forms.

**Responsible Parties:**

- Overall program management: Director of Operations
- Field inspections: Public Works Foreman
- Tracking and record keeping: Public Works Secretary
- Review and follow up: Director of Operations
- Corrective action: Director of Operations
- Enforcement: Code Enforcement Officer

**Inspection Schedule:**

- Field inspection will be performed during periods of dry weather where no significant precipitation has occurred in the preceding 48 hours;
- Inspections will be performed during periods low flow where field inspections may be performed in a safe and efficient manner;
- Inspections will be performed during periods of no snow cover and prior to the growth of ditch vegetation such that potential outfalls may be easily spotted;
- Each ditch segment in the highest priority watershed will be inspected at least once in a permit cycle and more frequently as required by field conditions;
- By the end of the permit cycle, all ditch segments in the highest priority watershed shall be inspected at least once and more frequently as required by field conditions.



**Inspection Priority:** Ditch inspections will be scheduled and conducted in a prioritized basis and will target specific sub watersheds of the priority watershed based on the highest priority. The sub water shed priority is as follows:

<b>Priority</b>	<b>Watershed ID</b>	<b>Description (See Delineation Maps)</b>
1	PISC 3	Hedgerow Drive to Greely Road Area
2	PISC 1	Greely High School Area
3	PISC 2	Farwell Avenue to Hill Crest Drive Area
4	PISC 4	Meadow Lane to Catalpa Lane
5	PISC 5	Catalpa Lane to Maurice Way

**Inspection Procedure:**

- Inspections will be conducted in a safe manner and all required Personal Protective Equipment (PPE) will be used;
- Inspections will be performed as outlined in Section 2.1 and 2.2 of the Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine Volume 2: Standard Operating Procedures and Forms;
- Inspection will be recorded on the Standard Dry Weather Outfall Inspection Form, Page 2-9 of Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine Volume 2: Standard Operating Procedures and Forms. The same information will be captured for a pipe outfall, swale, channel or other conveyance discharging into the ditch system;
- Digital photographs will be recorded and attached to each Inspection Form;
- Abnormal conditions, outfall or ditch damage, suspected illicit discharges, ditch erosion, dumping of leaf and yard waste, illegal dumping and other issues will be noted in the Inspection Form and will reported to the Director of Operations for remedial action as required;
- Areas of unusually lush grass or vegetation growth that is localized and may indicate failed septic systems should be noted on the Inspection Form for additional review by the Code Enforcement Officer or Licensed Site Evaluator;
- In the case where an illicit discharge is noted or suspected, an attempt will be made to locate the source of the illicit discharge and will be documented in the Inspection Form for future action;
- Completed Inspection forms will be forwarded to the Public Works Secretary for archiving;
- When possible, opportunistic inspections will be performed by field staff. Following an opportunistic inspection, an Inspection Form will be completed and archived as noted above.

**Corrective Action:** When a suspected illicit discharge is noted, either during the regular inspection procedure, while conducting an opportunistic inspection or when reported by a citizen or third party inspection, the Town will take corrective action that may include, but not be limited to, the following.

- The Director of Operations and the Code Enforcement Officer will be notified of the potential illicit discharge;

- The source of the illicit discharge will be traced and a mitigation plan to eliminate the illicit discharge will be developed by the Town;
- The illicit discharge will be eliminate as soon as practical;
- The corrective action will be documented by the Director of Operations and will be forwarded to the Public Works Secretary for archiving;
- Follow up inspections will be scheduled as required.

**Record Keeping and Program Evaluation:** All inspection forms, complaints, Notice of Violations, remedial actions and infrastructure upgrades will be tracked and archived by the Public Works Secretary in an appropriate three ring binder system. This system will include the following steps:

- Completed inspection reports and all other pertinent information will be forwarded to the Public Works Secretary for archiving in the binder;
- Inspections that indicated a possible illicit discharge will be flagged and forwarded to the Director of Operations for the appropriate action;
- On at least an annual basis the inspection forms and related data will be reviewed by the Director of Operations for accuracy and conformance to the SOP and the Stormwater Program Management Plan;
- On an annual basis the inspections shall be tabulated and will be included in the Town's Annual Report to the Maine DEP.

Revision No.	Revision Date	Description
1	3/8/11	Document Development



## **APPENDIX E**

### **Construction Site Erosion Control Inspection Form**

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011



# TOWN OF CUMBERLAND CONSTRUCTION SITE EROSION CONTROL INSPECTION FORM

<b>General Information:</b>			
Site Name:		Date:	Inspected by:
Address/Landmark:			
Reason for Inspection: <input type="checkbox"/> <b>Scheduled</b> <input type="checkbox"/> <b>ESC Inspection</b> <input type="checkbox"/> <b>Random</b> <input type="checkbox"/> <b>Complaint</b>			
Owner:		Contractor:	
ID #:	Last Rain Date:	Amount	(inches)
<b>1. Erosion Control Practices During Construction</b>			
a) Are all disturbed areas dormant > 21 Days Stabilized?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
b) Are stockpiles and hillsides stabilized?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
c) Are stabilized areas in good condition and not eroding?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
d) Are silt fence/mulch berm installed correctly and according to plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
e) Are inlet protection measures installed correctly?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
f) Have all areas at final grade > 7 days permanently stabilized?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
g) Have all riprap outlet protection measures been installed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Comments/Violations:			
<b>2. Sedimentary Control Practices During Construction</b>			
a) Construction entrance missing or inadequate?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
b) Sedimentation basins/traps installed correctly and functioning?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
c) Perimeter controls installed prior to disturbing soil?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
d) Check dams installed correctly?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Comments/Violations:			
<b>3. Maintenance</b>			
a) Erosion and Sedimentation Controls need repair, replacement, enhancement?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
b) Sedimentation basin maintenance required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
c) Sedimentation in ditches require removal?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
d) Sediment trackout on paved surfaces at exits?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Comments/Violations:			
<b>4. Inspections</b>			
a) Stormwater pollution prevention plan (SWPP)	<input type="checkbox"/> Onsite	<input type="checkbox"/> Not Onsite	<input type="checkbox"/> N/A
b) Inspection/Maintenance forms/logs complete?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Comments/Violations:			
<b>Violation, Corrective Actions, Recommendations</b>			
Site compliant with permit and town ordinances?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Sediment discharged from site?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Corrective action required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Notice of violation issued?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Stop work order issued?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments/Corrective Action Required:			

Revised July 1, 2009

## **APPENDIX F**

### **Post Construction Stormwater Management Ordinance**

**Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011**



# **POST-CONSTRUCTION STORMWATER MANAGEMENT ORDINANCE**

Town of Cumberland, Maine  
Adopted: \_\_\_\_\_

DRAFT dated: August 19, 2009

# POST-CONSTRUCTION STORMWATER DISCHARGE ORDINANCE

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# **ARTICLE I**

## **General**

### **A. PURPOSE**

The purpose of this “Post-Construction Stormwater Management Ordinance” (the “Ordinance”) is to provide for the health, safety, and general welfare of the citizens of the Town of Cumberland through review and approval of post-construction stormwater management plans and monitoring and enforcement of compliance with such plans as required by federal and State law.

This Ordinance establishes methods for post-construction stormwater management in order to comply with minimum control measures requirements of the federal Clean Water Act, of federal regulations and of Maine’s Small Municipal Separate Storm Sewer Systems General Permit.

### **B. OBJECTIVES**

The objectives of this Ordinance are:

1. To reduce the impact of post-construction discharge of stormwater on receiving waters; and
2. To reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through use of Best Management Practices as promulgated by the Maine Department of Environmental Protection pursuant to its Chapters 500 and 502 Rules, and ensure that these management controls are properly maintained and pose no threat to public safety.

### **C. APPLICABILITY**

1. This Ordinance applies to all New Development and Redevelopment within the Town that Discharges Stormwater to the Town’s Municipal Separate Storm Sewer System (MS-4) and to associated Stormwater Management Facilities.
2. Exception: This Ordinance does not apply to New Development or Redevelopment on a lot, tract or parcel where that lot, tract or parcel is part of a subdivision that is approved under this Ordinance. Said lot, tract or parcel shall not require separate review under this Ordinance, but shall comply with the Post-Construction Stormwater Management Plan requirements for that approved subdivision.

### **D. DEFINITIONS**

For the purposes of this Ordinance, the terms listed below are defined as follows:

**Applicant** means a Person with requisite right, title or interest or an agent for such Person who has filed an application for New Development or Redevelopment that requires a Post-Construction Stormwater Management Plan under this Ordinance.



**Best Management Practices (“BMP”)** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**Clean Water Act** means the federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq.*, also known as the “Clean Water Act”), and any subsequent amendments thereto.

**Construction Activity** means Construction Activity including one acre or more of Disturbed Area. Construction Activity also included activity with less than one acre of total land Disturbed Area if that area is part of a subdivision that will ultimately disturb an area equal to or greater than one acre.

**Discharge** means any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of Pollutants to “waters of the State.” “Direct discharge” or “point source” means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which Pollutants are or may be discharged.

**Disturbed Area** means clearing, grading and excavation. Mere cutting of trees, without grubbing, stump removal, disturbance or exposure of soil is not considered “Disturbed Area.” “Disturbed area” does not include routine maintenance but does include Redevelopment. “Routine maintenance” is maintenance performed to maintain the original line and grade, hydraulic capacity, and original purpose of land or improvements thereon.

**Enforcement Authority** means the Town Manager or his/her designee who is the person(s) or department authorized by the Town to administer and enforce this Ordinance.

**Town** means the Town of Cumberland.

**Municipal Permitting Authority** means the municipal official or body that has jurisdiction over the land use approval or permit required for a New Development or Redevelopment.

**Municipal Separate Storm Sewer System, or MS4** means conveyances for stormwater, including, but not limited to, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels or storm drains (other than publicly owned treatment works and combined sewers) owned or operated by any municipality, sewer or sewage district, fire district, State agency or Federal agency or other public entity that discharges directly to surface waters of the State.

**National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit** means a permit issued by the U.S. Environmental Protection Agency (“EPA”) or by the Maine Department of Environmental Protection (“DEP”) that authorizes the

discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

**New Development** means any Construction Activity on unimproved Premises and for purposes of this ordinance includes “Redevelopment” defined below.

**Person** means any individual, firm, corporation, municipality, town, Quasi-municipal Corporation, State agency or Federal agency or other legal entity.

**Pollutant** means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or by-products, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

**Post-Construction Stormwater Management Plan** means BMPs and associated inspection and maintenance procedures for the Stormwater Management Facilities employed by a New Development or Redevelopment to meet the standards of this Ordinance and approved by the Municipal Permitting Authority.

**Premises** means any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips, located within the Town from which Discharges into the Storm Drainage System are or may be created, initiated, originated or maintained.

**Qualified Post-Construction Stormwater Inspector** means a person who conducts post-construction inspections of Stormwater Management Facilities for compensation and who has received the appropriate training for the same from DEP.

**Redevelopment** means Construction Activity on Premises already improved with buildings, structures or activities or uses, but does not include such activities as exterior remodeling of structures.

**Regulated Small MS4** means any Small MS4 regulated by the State of Maine “General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems” (“General Permit”), including all those located partially or entirely within an Urbanized Area (UA) and those additional Small MS4s located outside a UA that as of the issuance of the General Permit have been designated by the DEP as Regulated Small MS4s.

**Small Municipal Separate Storm Sewer System, or Small MS4** means any MS4 that is not already covered by the Phase I MS4 stormwater program including municipally owned or operated storm sewer systems, State or federally-owned systems, such as colleges, universities, prisons, Maine Department of Transportation and Maine Turnpike Authority road systems and facilities, and military bases and facilities.

**Storm Drainage System** means the Town's Municipal Separate Storm Sewer System including the Town's Regulated Small MS4 and areas outside the Town's Urbanized Area that drain into the Regulated Small MS4.

**Stormwater** means any Stormwater runoff, snowmelt runoff, and surface runoff and drainage; "Stormwater" has the same meaning as "Storm Water."

**Stormwater Management Facilities** means any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures that are part of the Post-Construction Stormwater Management Plan for a New Development or Redevelopment.

**Urbanized Area ("UA")** means the areas of the State of Maine so defined by the latest decennial census by the U.S. Bureau of the Census.

## **ARTICLE II MANAGEMENT PLAN**

### **A. GENERAL REQUIREMENT**

1. Except as provided in Section I.C.2 above, no Applicant for a building permit, subdivision approval, site plan approval or other zoning, planning or other land use approval for New Development to which this Ordinance is applicable shall receive such permit or approval for that New Development unless the Municipal Permitting Authority for that New Development also determines that the Applicant's Post-Construction Stormwater Management Plan for that New Development meets the requirements of this Ordinance.
2. At the time of application, the Applicant shall notify the Municipal Permitting Authority if its Post-Construction Stormwater Management Plan includes any BMP(s) that will discharge to the Town's MS4 and shall include in this notification a listing of which BMP(s) will so discharge.

### **B. PERFORMANCE STANDARDS**

1. The Applicant shall make adequate provision for the management of the quantity and quality of all stormwater generated by a New Development through a Post-Construction Stormwater Management Plan. This Post-Construction Stormwater Management Plan shall be designed to meet the standards contained in the Maine Department of Environmental Protection's Chapters 500 and 502 Rules and shall comply with the practices described in the manual *Stormwater Management for Maine*, published by the Maine Department of Environmental Protection, January 2006, which hereby are incorporated by reference pursuant to 30-A M.R.S.A. § 3003.
2. The Applicant shall meet the quantity and quality standards above either on-site or off-site. Where off-site facilities are used, the applicant must submit to the Town documentation, approved as to legal sufficiency by the Town's attorney, that the



Applicant has a sufficient property interest in the property where the off-site facilities are located -- by easement, covenant or other appropriate legal instrument -- to ensure that the facilities will be able to provide post-construction stormwater management for the New Development and that the property will not be altered in a way that interferes with the off-site facilities.

3. Where the Applicant proposes to retain ownership of the Stormwater Management Facilities shown in its Post-Construction Stormwater Management Plan, the Applicant shall submit to the Town documentation, approved as to legal sufficiency by the Town's attorney that the Applicant, its successors, heirs and assigns shall have the legal obligation and the resources available to operate, repair, maintain and replace the stormwater management facilities. Applications for New Development or Redevelopment requiring Stormwater Management Facilities that will not be dedicated to the Town shall enter into a Maintenance Agreement with the Town. A sample of this Maintenance Agreement is attached as Appendix 1 to this Ordinance.

4. Whenever elements of the Stormwater Management Facilities are not within the right-of-way of a public street and the facilities will not be offered to the Town for acceptance as public facilities, the Municipal Permitting Authority may require that perpetual easements not less than thirty (30) feet in width, conforming substantially with the lines of existing natural drainage, and in a form acceptable to the Town's attorney, shall be provided to the Town allowing access for maintenance, repair, replacement and improvement of the Stormwater Management Facilities. When an offer of dedication is required by the Municipal Permitting Authority, the Applicant shall be responsible for the maintenance of these Stormwater Management Facilities under this Ordinance until such time (if ever) as they are accepted by the Town.

5. In addition to any other applicable requirements of this Ordinance and the Town's Municipal Code, any New Development which also requires a stormwater management permit from the Maine Department of Environmental Protection (DEP) under 38 M.R.S.A. 420-D shall comply with the rules adopted by DEP under 38 M.R.S.A. 420-D(1), as the same may be amended from time to time, and the applicant shall document such compliance to the Municipal Permitting Authority. Where the standards or other provisions of such stormwater rules conflict with municipal ordinances, the stricter (more protective) standard shall apply.

### **ARTICLE III**

## **POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN COMPLIANCE**

### **A. GENERAL REQUIREMENTS**

Any Person owning, operating, leasing or having control over Stormwater Management Facilities required by a Post-Construction Stormwater Management Plan approved under this Ordinance shall demonstrate compliance with that Plan as follows.

1. That Person or a Qualified Post-Construction Stormwater Inspector hired by that Person, shall, at least annually, inspect the Stormwater Management Facilities, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved Post-Construction Stormwater Management Plan.
2. If the Stormwater Management Facilities require maintenance to function as intended by the approved Post-Construction Stormwater Management Plan, that Person shall take corrective action(s) to address the deficiency or deficiencies.
3. That Person shall employ a Qualified Post-Construction Stormwater Inspector to provide, on or by March 1 of each year , a completed and signed certification to the Enforcement Authority in a form identical to that attached as Appendix 1 to this Ordinance, certifying that the Stormwater Management Facilities have been inspected, and that they are adequately maintained and functioning as intended by the approved Post-Construction Stormwater Management Plan, or that they require maintenance or repair, describing any required maintenance and any deficiencies found during inspection of the Stormwater Management Facilities, and, if the Stormwater Management Facilities require maintenance or repair of deficiencies in order to function as intended by the approved Post-Construction Stormwater Management Plan, the Person shall provide a record of the required maintenance or deficiency and corrective action(s) taken.

## **B. RIGHT OF ENTRY**

In order to determine compliance with this Ordinance and with the Post-Construction Stormwater Management Plan, the Enforcement Authority may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the Stormwater Management Facilities.

## **C. ANNUAL REPORT**

Beginning July 1, 2009 and each year thereafter, the Town shall include the following in its Annual Report to the Maine Department of Environmental Protection:

1. The cumulative number of sites that have Stormwater Management Facilities discharging into their MS4;
2. A summary of the number of sites that have Stormwater Management Facilities discharging into their MS4 that were reported to the Town;
3. The number of sites with documented functioning Stormwater Management Facilities; and
4. The number of sites that required routine maintenance or remedial action to ensure that Stormwater Management Facilities are functioning as intended.

## **ARTICLE IV**

### **A. ENFORCEMENT**

It shall be unlawful for any Person to violate any provision of or to fail to comply with any of the requirements of this Ordinance or of the Post-Construction Stormwater Management Plan. Whenever the Enforcement Authority believes that a Person has violated this Ordinance or the Post-Construction Stormwater Management Plan, the Enforcement Authority may enforce this Ordinance in accordance with 30-A M.R.S.A. § 4452.

### **B. NOTICE OF VIOLATION**

Whenever the Enforcement Authority believes that a Person has violated this Ordinance or the Post-Construction Stormwater Management Plan, the Enforcement Authority may order compliance with this Ordinance or with the Post-Construction Stormwater Management Plan by written notice of violation to that Person indicating the nature of the violation and ordering the action necessary to correct it, including, without limitation:

1. The abatement of violations, and the cessation of practices, or operations in violation of this Ordinance or of the Post-Construction Stormwater Management Plan;
2. At the Person's expense, compliance with BMPs required as a condition of approval of the New Development, the repair of Stormwater Management Facilities and/or the restoration of any affected property; and/or
3. The payment of fines, of the Town's remediation costs and of the Town's reasonable administrative costs and attorneys' fees and costs.

If abatement of a violation, compliance with BMPs, repair of Stormwater Management Facilities and/or restoration of affected property is required, the notice shall set forth a deadline within which such abatement, compliance, repair and/or restoration must be completed.

### **C. PENALTIES/FINES/INJUNCTIVE RELIEF**

Any Person who violates this Ordinance or the Post-Construction Stormwater Management Plan shall be subject to fines, penalties and orders for injunctive relief and shall be responsible for the Town's attorney's fees and costs, all in accordance with 30-A M.R.S.A. § 4452. Each day that such violation continues shall constitute a separate violation. Moreover, any Person who violates this Ordinance or the Post-Construction Stormwater Management Plan also shall be responsible for any and all fines, penalties, damages and costs, including, but not limited to attorneys' fees and costs, incurred by the Town for violation of federal and State environmental laws and regulations caused by or related to that Person's violation of this Ordinance or of the Post-Construction Stormwater Management Plan; this responsibility shall be in addition to any penalties, fines or injunctive relief imposed under this Chapter.

### **D. CONSENT AGREEMENT**



The Enforcement Authority may, with the approval of the municipal officers, enter into a written consent agreement with the violator to address timely abatement of the violation(s) of this Ordinance or of the Post-Construction Stormwater Management Plan for the purposes of eliminating violations of this Ordinance or of the Post-Construction Stormwater Management Plan and of recovering fines, costs and fees without court action.

#### **E. APPEAL OF NOTICE OF VIOLATION**

Any Person receiving a Notice of Violation or suspension notice may appeal the determination of the Enforcement Authority to the Board of Appeals in accordance with the provisions of Section 603.4 of the Town's Zoning Ordinance. The notice of appeal must be received within 30 days from the date of receipt of the Notice of Violation.

The Board of Appeals shall hold a *de novo* hearing on the appeal within 30 days from the date of receipt of the notice of appeal. The Board of Appeals may affirm, reverse or modify the decision of the Enforcement Authority. A party aggrieved by the decision of the Board of Appeals may appeal that decision to the Maine Superior Court within 45 days of the date of the Board of Appeals decision pursuant to Rule 80B of the Maine Rules of Civil Procedure.

#### **F. ENFORCEMENT MEASURES**

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal to the Board of Appeals, within 45 days of a decision of the Board of Appeals affirming or modifying the Enforcement Authority's decision, then the Enforcement Authority may recommend to the municipal officers that the Town's attorney file an enforcement action in a Maine court of competent jurisdiction under Rule 80K of the Maine Rules of Civil Procedure.

### **ARTICLE V**

#### **A. SEVERABILITY**

The provisions of this Ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions, clauses, sentences, or paragraphs or application of this Ordinance.

#### **B. BASIS**

The Town of Cumberland enacts this Post-Construction Stormwater Management Control Ordinance (the "Ordinance") pursuant to 30-A M.R.S.A. § 3001 (municipal home rule ordinance authority), 38 M.R.S.A. § 413 (the "Wastewater Discharge Law"), 33 U.S.C. § 1251 *et seq.* (the "Clean Water Act"), and 40 CFR Part 122 (U.S. Environmental Protection Agency's regulations governing the National Pollutant Discharge Elimination System ("NPDES")). The Maine Department of Environmental Protection, through its promulgation of the "General Permit for the Discharge of

Stormwater from Small Municipal Separate Storm Sewer Systems,” has listed the Town of Cumberland as having a Regulated Small Municipal Separate Storm Sewer System (“Small MS4”); under this General Permit, listing as a Regulated Small MS4 necessitates enactment of this Ordinance as part of the Town’s Stormwater Management Program in order to satisfy the minimum control measures required by Part IV D 5 (“Post-construction stormwater management in new development and redevelopment”).

## APPENDIX 1

### **Maintenance Agreement for Stormwater Management Facilities**

This Maintenance Agreement is made this \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_ and the Town of Cumberland, Maine.

The project name is \_\_\_\_\_.

The location is: \_\_\_\_\_, Cumberland, Maine.

The project's Tax Map and Lot Numbers are Tax Map \_\_\_\_\_ Lot \_\_\_\_\_

The project is shown on a plan entitled " \_\_\_\_\_ " dated \_\_\_\_\_ and most recently revised on \_\_\_\_\_, approved by the \_\_\_\_\_ [Municipal Permitting Board] on \_\_\_\_\_ and recorded in the \_\_\_\_\_ County Registry of Deeds in Plan Book \_\_\_\_\_ Page \_\_\_\_\_ (the "Project").

WHEREAS, the approval of the Project includes Stormwater Management Facilities which requires periodic maintenance; and

WHEREAS, in consideration of the approval of the Project the Town of Cumberland requires that periodic maintenance be performed on the Stormwater Management Facilities;

NOW, THEREFORE, in consideration of the mutual benefits accruing from the approval of the Project by the Town and the agreement of \_\_\_\_\_ to maintain the Stormwater Management Facilities, the parties hereby agree as follows:

1. \_\_\_\_\_, for itself, and its successors and assigns, agrees to the following:

(a) To inspect, clean, maintain, and repair the Stormwater Management Facilities, which includes, to the extent they exist, parking areas, catch basins, detention basins or ponds, drainage swales, pipes and related structures, at least annually, to prevent the build up and storage of sediment and debris in the system;

(b) To repair any deficiencies in the Stormwater Management Facilities noted during the annual inspection;

(c) To provide a summary report on the inspection, maintenance, and repair activities performed annually on the Stormwater Management Facilities to the Town Enforcement Authority;



(d) To allow access by Town personnel or the Town's designee for inspecting the Stormwater Management Facilities for conformance with these requirements.

(e) To create a homeowners' association for the purpose of maintaining the Stormwater Management Facilities.

2. Upon creation of the homeowners' association, the homeowners' association shall become responsible for compliance with the terms of this Agreement.

3. This Agreement shall constitute a covenant running with the land, and \_\_\_\_\_ shall reference this Agreement in all deeds to lots and/or units within the Project.

\_\_\_\_\_  
Witness

\_\_\_\_\_  
By: \_\_\_\_\_  
Its: \_\_\_\_\_

TOWN OF CUMBERLAND

\_\_\_\_\_  
Witness

By: \_\_\_\_\_  
Its: \_\_\_\_\_

STATE OF MAINE

\_\_\_\_\_, ss.

\_\_\_\_\_, 20\_\_

Personally appeared the above-named \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_, and acknowledged the foregoing Agreement to be said person's free act and deed in said capacity.

Before me,

\_\_\_\_\_  
Notary Public / Attorney at Law

Print Name:

\_\_\_\_\_

STATE OF MAINE

\_\_\_\_\_, ss.

\_\_\_\_\_, 20\_\_

Personally appeared the above-named \_\_\_\_\_, the  
\_\_\_\_\_ of the Town of Cumberland, and acknowledged the foregoing  
Agreement to be said his/her free act and deed in said capacity.

Before me,

\_\_\_\_\_  
Notary Public / Attorney at Law

Print Name:

\_\_\_\_\_

## APPENDIX 2

### Annual Stormwater Management Facilities Certification (to be sent to Town's Enforcement Authority)

I, \_\_\_\_\_ (print or type name), certify the following:

1. I am making this Annual Stormwater Management Facilities Certification for the following property: \_\_\_\_\_

(print or type name of subdivision, condominium or other development) located at \_\_\_\_\_ (print or type address), (the "Property");

2. The owner, operator, tenant, lessee or homeowners' association of the Property is: \_\_\_\_\_ (name(s) of owner, operator, tenant, lessee, homeowners' association or other party having control over the Property);

3. I am the owner, operator, tenant, lessee or president of the homeowners' association, or am a Qualified Post-Construction Stormwater Inspector hired by the same (circle one);

4. I have knowledge of erosion and stormwater control and have reviewed the approved Post-Construction Stormwater Management Plan for the Property;

5. On \_\_\_\_\_, 20\_\_, I inspected or had inspected by \_\_\_\_\_, a Qualified Post-Construction Stormwater Inspector, the Stormwater Management Facilities, including but not limited to parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures required by the approved Post-Construction Stormwater Management Plan for the Property;

6. At the time of my inspection of the Stormwater Management Facilities on the Property, I or the Qualified Post-Construction Stormwater Inspector identified the following need(s) for routine maintenance or deficiencies in the Stormwater Management Facilities:

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7. On \_\_\_\_\_, 20\_\_, I took or had taken the following routine maintenance or the following corrective action(s) to address the deficiencies in the Stormwater Management Facilities stated in 6. above:

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8. As of the date of this certification, the Stormwater Management Facilities are functioning as intended by the approved Post-Construction Stormwater Management Plan for the Property.

Date: \_\_\_\_\_, 20\_\_.

By: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

STATE OF MAINE

\_\_\_\_\_, ss.

\_\_\_\_\_, 20\_\_

Personally appeared the above-named \_\_\_\_\_, the  
\_\_\_\_\_ of \_\_\_\_\_, and acknowledged the foregoing  
Annual Certification to be said person's free act and deed in said capacity.

Before me,

\_\_\_\_\_  
Notary Public/Attorney at Law

Print Name:

\_\_\_\_\_

**Mail this certification to the Town's Enforcement Authority at the following address:**

Code Enforcement Office

Town of Cumberland

290 Tuttle Road

Cumberland, ME 04021

K:\M\Maine Municipal Association (12009)\Municipal Stormwater Ordinances (0003)\Revised Post-Const.  
Stormwater Ord. No Program 12-10-2008.doc

## **APPENDIX G**

Sample Building Permit

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

# BUILDING PERMIT

Town of Cumberland, Maine

MAP \_\_\_\_\_ LOT \_\_\_\_\_  
Zoning District \_\_\_\_\_ Setback Overlay \_\_\_\_\_

PERMIT # \_\_\_\_\_

DATE APPLICATION RECEIVED \_\_\_\_\_

## APPLICANT

NAME: \_\_\_\_\_ PHONE NO: \_\_\_\_\_  
MAILING \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

## OWNER (other than applicant)

NAME: \_\_\_\_\_ PHONE NO: \_\_\_\_\_  
MAILING \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

## CONTRACTOR

NAME: \_\_\_\_\_ PHONE NO: \_\_\_\_\_  
MAILING \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

PROPERTY LOCATION: \_\_\_\_\_

LOT DIMENSIONS: \_\_\_\_\_ x \_\_\_\_\_ Area: \_\_\_\_\_ Number of dwelling units: \_\_\_\_\_

PLUMBING: SEWER PERMIT ISSUED: yes no n/a - SEPTIC PERMIT ISSUED - yes no n/a

STREET OPENING: yes no n/a - PRIVATE WAY: yes no n/a - DRIVEWAY ENTRANCE - yes no n/a

PLANS FILED: SCALED PLOT PLAN - yes FULL CONSTRUCTION DRAWINGS - yes

DESCRIPTION OF PROPOSED CONSTRUCTION: \_\_\_\_\_

SETBACK: FRONT YARD \_\_\_\_\_ SIDE YARD \_\_\_\_\_ OTHER SIDE YARD \_\_\_\_\_ REAR YARD \_\_\_\_\_

BUILDING: Length: \_\_\_\_\_ ft. Width: \_\_\_\_\_ ft. Height: \_\_\_\_\_ ft. Area: \_\_\_\_\_ sq. ft.

SHORELAND OVERLAY DISTRICT: yes no RESOURCE PROTECTION DISTRICT: yes no

FLOODPLAIN PERMIT \_\_\_\_\_ NOTICE OF INTENT (DEP) ME CONST. GENERAL PERMIT \_\_\_\_\_

ESTIMATED COST OF CONSTRUCTION : \$ \_\_\_\_\_ PERMIT FEE: \$ \_\_\_\_\_

Owner/Agent signature: \_\_\_\_\_ Date signed: \_\_\_\_\_

Office use only: TYPE OF CONSTRUCTION: \_\_\_\_\_ USE GROUP \_\_\_\_\_

CONDITIONS OF APPROVAL: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date Permit Issued: \_\_\_\_\_

CODE ENFORCEMENT OFFICER

Original-File -Photo copy to Applicant

rev.4/06



**Building Permit Application Checklist**  
**\*\* All building plans must meet or exceed**  
**Building Codes - IRC-2003 and IBC – 2003\*\***

- **New Home:**
- **Growth Permit \$100.00**
- **Impact Fee Application - \$1.36 per sq. ft. minus first 500 sq. ft.**
- **BUILDING PERMIT APPLICATION and FEE (Finished Areas .25 / per sq. ft. – Unfinished areas .10 / per sq. ft.)**
- **Septic Permit - 3 SIGNED COPIES OF HHE-200 Plans and Fee (non-engineered (\$150.00) or Sewer permit and fee (\$50.00))**
- **Deed for the Property**
- **2 copies of construction plans (full size for mark up, 11x17 to be kept by the office)**
- **Plans must include:**
- **4 elevations**
- **Framing cross-section (including sizes of structural members)**
- **Foundation Plan**
- **Floor plan (each room's use labeled)**
- **Structural steel, ridges, beams involving LVL's, or Paralam's, (stamped by engineer)**
- **Plot Plan; lot size and accurate locations of all existing and proposed structures with set-backs (PER SCALE NOTED ON PLOT PLAN), and drainage.**

\* Please be aware that structurally complicated buildings must be reviewed by an Engineer.

\* Additional trade permits will be necessary (electrical, plumbing etc.)

**Renovations & Additions:** **\$10.00 per \$1,000.00 of Renovation Cost**

<b><u>New Construction: Residential</u></b>	<b><u>Minimum Fee</u></b>	<b><u>\$50.00</u></b>
	<b><u>Finished areas</u></b>	<b><u>.25 / per sq. ft.</u></b>
	<b><u>Unfinished areas</u></b>	<b><u>.10 / per sq. ft.</u></b>

<b><u>New Construction Commercial</u></b>	<b><u>Minimum Fee</u></b>	<b><u>\$100.00</u></b>
	<b><u>Finished Areas</u></b>	<b><u>.30 / per sq. ft.</u></b>
	<b><u>Unfinished Areas</u></b>	<b><u>.10 / per sq. ft.</u></b>

- Floor plans showing existing structure and proposed changes
- Framing cross sections (including sizes of structural members)
- Plot Plan; lot size and accurate locations of all existing and proposed structures with set-backs (PER SCALE ON PLOT PLAN), and drainage.
- Completed building permit APPLICATION (other side) \$10.00 per \$1,000.00

**Sheds & Decks** **\$25.00**

**(up to 400 sq. ft. then .10 per sq. ft. additional)**

**Demolition Permits** **\$25.00 (10-day waiting period)**

**Shoreland Permits:** The Shoreland Overlay District (SOD) is generally 250 feet from rivers, streams or saltwater bodies and their associated wetlands where shown on the official Zoning Map, also 75 feet from certain streams - See Zoning Ordinance. All requests for Building Permits in the SOD require a Shoreland Permit prior to issuance of the Building Permit.

**Maine Construction General Permit:**

Effective 2-17-03 a "NOTICE OF INTENT" maybe required if your construction will result in disturbance of greater than or equal to one acre.( To be filed with the DEP)

## **APPENDIX H**

### **Sample Literature**

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011



# Maine Erosion and Sedimentation Control Law

Did you know that the number one pollutant in Maine's rivers, streams, brooks, ponds and wetlands is soil from nearby eroding sites?

Under this law, landowners are required to repair their eroding areas to prevent any soil loss and sediment discharge into a nearby natural resource.

The full text of the Maine Erosion and Sediment Control Law (Title 38 M.R.S.A. Section 420-C) may be seen at:  
<http://www.maine.gov/dep/blwq/docstand/stormwater/stormstat.pdf>

## Do you Need Help?

Assistance and guidance on how erosion may be prevented or stopped may be obtained from:

- Your nearest office of the Maine Department of Environmental Protection. Or call (207) 287-3901;
- Your county's Soil and Water Conservation District;
- Your Lake Watershed Association; and
- Contractors certified by DEP in erosion and sediment control practices (list available from the DEP).

## Comply with the Maine Erosion and Sediment Control Law

Stabilize your bare soils

Protect Maine's water for future enjoyment

**IT'S THE LAW !**

Department of  
Environmental  
Protection  
Deplw0652-2004





# What is Soil Erosion?

Every time mineral soil is exposed, it is subject to movement from wind and rain erosion.

Because most runoff reaches a stream, river, lake or coastal water, eroded soils and other pollutants can get transported and deposited into these resources.

The visible impacts from eroded soils include rills, gullies, and muddy water.

The invisible impact from eroded soils is the change or loss of habitat used by fish or other creatures, impaired recreational opportunities and fouling of a drinking water source.

A 2003 study showed that

- Almost half (43%) of all construction sites did not use erosion or sedimentation control measures,
- And more than half (60%) of the chronic erosion problems are from public and private roads.



# Erosion from Construction

In 1997, the Erosion and Sedimentation Control Law came into effect. It was designed to prevent Maine's waterbodies from further degradation due to soil erosion.

Since July 1997, construction projects of any size must have:

- Sediment control measures, such as silt fence or hay bales, placed at the down gradient side of the construction site before work begins.
- Erosion control measures, such as mulch and vegetation, placed as soon as feasible to permanently stabilize the site when construction is completed.

Preventing the loss of soil from a construction site saves money that would otherwise be needed to rework eroded areas and replace lost soil. It also prevents soil from impacting the quality of our water resources.



# Chronic Erosion

As of July 1, 2005, an important change will occur in the law. From that time on, all existing chronic erosion problems in watersheds most-at-risk (as defined in the DEP rules) will be regulated.

See: [www.maine.gov/sos/cec/rcn/apa/06/096/096c502.doc](http://www.maine.gov/sos/cec/rcn/apa/06/096/096c502.doc).

On July 1, 2010, the law will apply to all organized areas in the state of Maine and landowners will have to fix their erosion problems.

Examples of chronic erosion problems include:

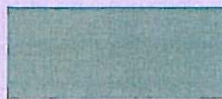
- Camp roads that wash out every spring;
- Culverts that are washing out around their inlets and outlets;
- Ditches and embankments that are not stabilized with vegetation or riprap and show major rills and gullies; and
- Washouts in areas downgradient from any point of concentrated stormwater runoff.







*Maine's Department of Environmental Protection is committed to providing Maine citizens with complete information about, and opportunities to express their opinions regarding, decisions on applications for environmental licenses. The different ways that people can participate described here are specified in Maine statutes and rules that govern the Department's operations.*



The information provided in this brochure briefly summarizes rules and guidance that are more specifically detailed in "Rules Concerning the Processing of Applications and Other Administrative Matters," Chapter 2 of the Department's rules, and as such should not be considered complete or authoritative. All Maine DEP rules and laws are available via the internet by following the links provided at:

[www.maine.gov/dep/permits.htm](http://www.maine.gov/dep/permits.htm)



**If you have questions or need additional information, contact the Department at 287-7688, or toll-free 1-800-452-1942**

17 State House Station  
Augusta, Maine 04333-0017  
E-mail: [infoDEP@maine.gov](mailto:infoDEP@maine.gov)

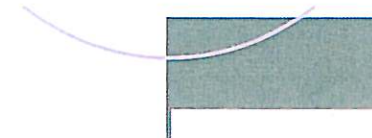
State of Maine  
**Department of  
Environmental  
Protection**



## **STATE ENVIRONMENTAL LICENSING**



### ***A Citizen's Guide to Participation***



If you have questions or need additional information, contact the Department at 287-7688, or toll-free 1-800-452-1942

## ***What does the DEP license?***

The Maine Department of Environmental Protection reviews a wide variety of activities having the potential to impact Maine's environment. Businesses, institutions, organizations, and individuals all are possible applicants for a license (also referred to as a permit, approval, certification, etc.). Some licenses define the limits under which land development may take place, particularly near protected resources. Other licenses serve to control the management, discharge, transportation, and storage of potential pollutants. These include oil and hazardous materials, solid waste, sewage, air pollutants, and stormwater, among others.

## ***How are licenses issued?***

DEP provides application forms for the activities regulated under State law. Application information and public notice requirements, including notification of abutting property owners, vary with the nature of the proposed activity.

Once the DEP receives an application, it must accept it for processing or return it as incomplete within 15 working days. If accepted as complete, DEP staff review the application and all comments submitted by outside parties, to assess potential impacts on the environment. They further evaluate the applicant's ability to build and operate

the proposed project in compliance with environmental laws and rules. When review is complete, the Commissioner of the DEP or the Board of Environmental Protection makes the final license decision (approval or denial). Approved licenses frequently include specific conditions with which the licensee must comply.



## ***How can I take part in the process?***

Interested members of the public can

- ♦ Review the application materials submitted by the applicant at the DEP or in some cases at the local town office;
- ♦ Attend public informational meetings, if held, at which they may ask questions;
- ♦ Submit written comments at any point during the time when the application is being reviewed;
- ♦ Ask to receive a draft license, and provide comments prior to final action;
- ♦ Request a public hearing; and/or
- ♦ Request that the Board take over evaluation of the application from the Department. [Deadlines apply] See guidance at [www.maine.gov/dep/bep](http://www.maine.gov/dep/bep).

## ***Do all applications get a public hearing?***

No. Most applications are issued without a public hearing. A "public hearing" is a formal proceeding, governed by strict rules, during which the DEP accepts testimony and evidence from the applicant, parties who support or oppose the project, and the general public. State law requires a public hearing for certain applications, such as a commercial hazardous waste facility; however, anyone may request a public hearing regarding other types of applications. The Commissioner or the Board then decides whether one will be held.

Many applications that aren't required by law to have a public hearing are required to have a "public informational meeting" at which the applicant explains the project and the public may ask questions. At this type of meeting, the DEP may invite the public to discuss the application; however, comments must be provided in writing in order to be considered in the application review process. Applications that require informational meetings include, among others, new Site Location of Development permits; major new air emissions permits; and new or expanded waste disposal facility licenses.

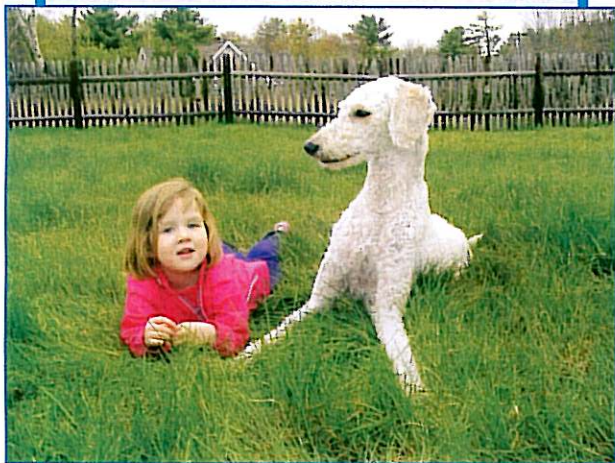
## ***May licenses be appealed?***

Yes, but certain criteria must be met for an appeal to proceed. Also, there is a limited time during which an appeal may be filed. See Chapter 2, section 24(B) of the DEP's rules.



## Why should you YardScape?

- ✓ Saves money.
- ✓ Saves time.
- ✓ Protects you, your family and the environment.



A healthy, natural  
lawn is more  
resistant to weeds,  
bugs, disease and  
drought!

Call the Conservation  
District for  
YardScaping info:  
892-4700

Check out:  
[www.cumberlandswcd.org](http://www.cumberlandswcd.org)  
Click on the ducky!

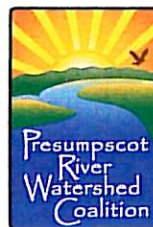


*The Maine  
YardScaping  
Partnership was  
formed out of the  
rising concern  
over the pollution caused by yard  
care chemicals washing away  
into water bodies, as well as the  
risks of pesticide exposure to  
people, pets and wildlife.*

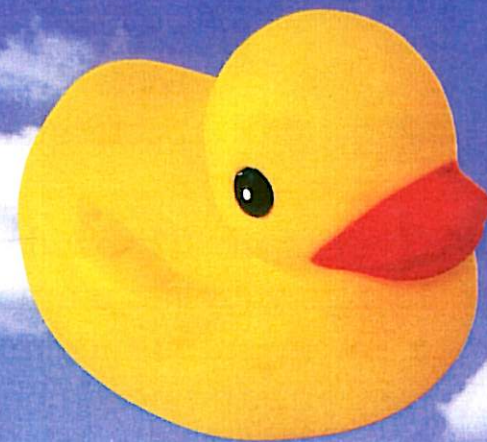


  
Cumberland County  
Soil & Water Conservation District

  
Casco Bay Estuary  
PARTNERSHIP



Do you want  
a lush  
green lawn  
safe for kids  
and pets?



Let the ducky  
point you in  
the right  
direction!

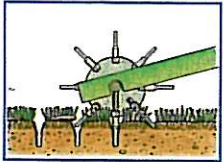


## What is YardScaping?

YardScaping is a statewide effort to inspire Maine people to maintain their yards for the safety of kids, pets and the environment by reducing the use of fertilizers, pesticides and herbicides.

### YardScaping Tips!

- ✓ **Mow High:** Three inches is the rule! Longer grass strengthens roots, retains more moisture and makes it difficult for weeds to germinate.
- ✓ **Aerate:** An aerator loosens up the soil and gets the air, water and nutrients more readily to the roots. Rent one with a neighbor or hire a professional.



- ✓ **Overseed:** Throw down more grass seed to give your lawn a natural boost. Ask for a low maintenance mix that is drought tolerant and needs no fertilizer.

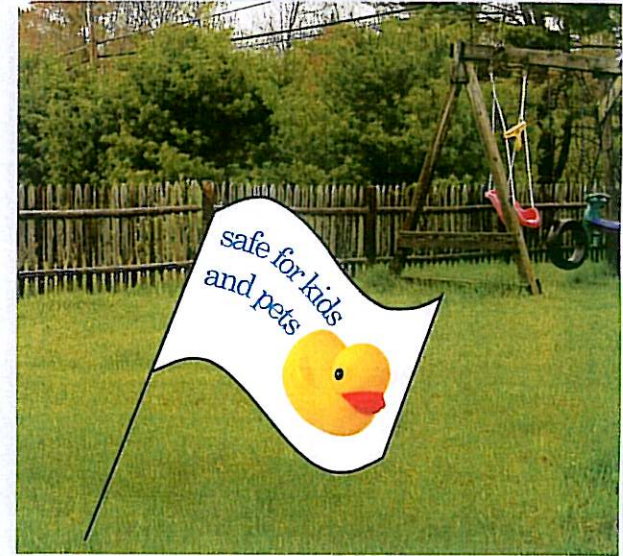


- ✓ **Test the Soil:** A soil test analyzes soil fertility and pH and recommends exactly what your soil needs for growing healthy grass. Test kits available from the Cumberland County Soil and Water Conservation District. Call 892-4700.

More YardScaping Tips Online!

[www.cumberlandswcd.org](http://www.cumberlandswcd.org)

Click on the ducky!



## What do YOU do?

- ✓ Start YardScaping today!
- ✓ Visit our website for upcoming events and giveaways.
- ✓ Call the Conservation District for lawn care advice: 892-4700.
- ✓ Proudly display your free ducky lawn flag so friends and family know you have a safe, healthy lawn. Sign our lawn care pledge online or call 892-4700.

## **APPENDIX I**

Sample Tracking Spreadsheet for Disturbed Areas  
Greater Than One Acre

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

[illegible]



## **APPENDIX J**

Sample Tracking Spreadsheet for Notice of  
Violations (NOV's)

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

Town of Cumberland Confidential

[illegible]



**TOWN OF CUMBERLAND  
CONSTRUCTION SITE EROSION CONTROL  
INSPECTION FORM**

**General Information:**

Site Name: RAVEN FARM SUBSTATION Date: 8-26-11 Inspected by: S. JOHNSON  
 Address/Landmark: \_\_\_\_\_  
 Reason for Inspection: ☒ Scheduled ☒ ESC Inspection ☐ Random ☐ Complaint  
 Owner: CENTRAL MAINE POWER Contractor: SHAW BROTHERS  
 ID #: \_\_\_\_\_ Last Rain Date: 8-25-11 Amount: < 1" (inches)

**1. Erosion Control Practices During Construction**

a) Are all disturbed areas dormant > 21 Days Stabilized? ☒ Yes ☐ No ☐ N/A  
 b) Are stockpiles and hillsides stabilized? ☒ Yes ☐ No ☐ N/A  
 c) Are stabilized areas in good condition and not eroding? ☒ Yes ☐ No ☐ N/A  
 d) Are silt fence/mulch berm installed correctly and according to plan? ☒ Yes ☐ No ☐ N/A  
 e) Are inlet protection measures installed correctly? ☒ Yes ☐ No ☐ N/A  
 f) Have all areas at final grade > 7 days permanently stabilized? ☒ Yes ☐ No ☐ N/A  
 g) Have all riprap outlet protection measures been installed? ☒ Yes ☐ No ☐ N/A

Comments/Violations: \_\_\_\_\_

**2. Sedimentary Control Practices During Construction**

a) Construction entrance missing or inadequate? ☐ Yes ☒ No ☐ N/A  
 b) Sedimentation basins/traps installed correctly and functioning? ☒ Yes ☐ No ☐ N/A  
 c) Perimeter controls installed prior to disturbing soil? ☒ Yes ☐ No ☐ N/A  
 d) Check dams installed correctly? ☒ Yes ☐ No ☐ N/A

Comments/Violations: \_\_\_\_\_

**3. Maintenance**

a) Erosion and Sedimentation Controls need repair, replacement, enhancement? ☐ Yes ☒ No ☐ N/A  
 b) Sedimentation basin maintenance required? ☐ Yes ☒ No ☐ N/A  
 c) Sedimentation in ditches require removal? ☐ Yes ☒ No ☐ N/A  
 d) Sediment trackout on paved surfaces at exits? ☐ Yes ☒ No ☐ N/A

Comments/Violations: EROSION CONTROL MEASURES FUNCTIONING AS REQUIRED.  
CONTRACTOR PREPARING FOR POTENTIAL HURRICANE ARRIVAL

**4. Inspections**

a) Stormwater pollution prevention plan (SWPP) ☐ Onsite ☐ Not Onsite ☒ N/A  
 b) Inspection/Maintenance forms/logs complete? ☐ Yes ☐ No ☒ N/A

Comments/Violations: \_\_\_\_\_

**Violation, Corrective Actions, Recommendations**

Site compliant with permit and town ordinances? ☒ Yes ☐ No  
 Sediment discharged from site? ☐ Yes ☒ No  
 Corrective action required? ☐ Yes ☒ No  
 Notice of violation issued? ☐ Yes ☒ No  
 Stop work order issued? ☐ Yes ☒ No

Comments/Corrective Action Required: \_\_\_\_\_

NO PROBLEMS NOTED

Revised July 1, 2009



STATE OF MAINE

# DEPARTMENT OF ENVIRONMENTAL PROTECTION

Paul LePage  
GOVERNOR

ACTING COMMISSIONER

## Third Party Compliance Inspection Form

This report is prepared by a Third Party Inspector to meet the requirements of the Third Party Inspector Condition attached as Special Condition #23 to the Department Order that was issued for the project identified below. The information in this report/form is not intended to serve as a determination of whether the project is in compliance with the Department permit or other applicable Department laws and rules. Only Department staff may make that determination.

<b>PROJECT NAME:</b> Maine Power Reliability Program		<b>DEP #:</b> L-24620-26-A-N/L-24620-TG-B-N/L-24620-VP-C-N/L-24620-IW-D-N/L-24620-L6-E-N	
<b>TO:</b> Dawn Hallowell (MDEP)		<b>CC:</b> Mark Goodwin (B&M),	
<b>FROM:</b> Ross A Cudlitz, PE		<b>EA&amp;D; DEP 3PI</b>	
<b>DATE(s) OF INSPECTION:</b> 08-16-11		<b>DATE OF REPORT:</b> 08-17-11	
<b>SEGMENT OR SUBSTATION:</b> Raven Farm SS Site Work - Cumberland			
<b>FINDINGS:</b> <input checked="" type="checkbox"/> Acceptable <input type="checkbox"/> Minor Non-Conformance <input type="checkbox"/> Major or Repeat Non-Conformance <input type="checkbox"/> Follow-up or Action Required (can be "Acceptable" but still require follow-up)			
<b>WEATHER/CONDITIONS</b> (e.g. precipitation, snowpack, general weather): Cloudy, 70s, light wind, after rain event			
<b>TYPE OF WORK OBSERVED</b> (e.g. clearing, pole-setting, stringing, etc.): Raven Farm site work			
<b>AREA INSPECTED</b> (e.g. structure numbers, road crossings, etc.): Sub Station Site Work			
<b>GENERAL SITE FEATURES &amp; CONDITIONS W/IN THE AREA INSPECTED</b>			
	<b>YES</b>	<b>NO</b>	<b>N.A.</b>
Are there Inland Wading Bird and Waterfowl Habitats? .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are there Significant Vernal Pool Habitats? .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are natural resources flagged appropriately as described in the permit documents? .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are erosion and sediment control devices installed correctly and being maintained? .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are stream crossings installed correctly and are they being maintained and cleaned (i.e. kept free of mud and dirt)? .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all setbacks and buffers being cleared and crossed as described in the permit documents? .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are stormwater controls installed correctly (i.e. according to plan, working effectively, and as described in the permit)? .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is topsoil being segregated and restored as described in the permit documents? .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there rare or endangered plants or animals present? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Serving Maine People & Protecting Their Environment

Page 1 of 5

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826

PORTLAND  
312 CANCO ROAD  
PORTLAND, ME 04103  
(207) 822-6300 FAX: (207) 822-6303

BANGOR  
106 HOGAN ROAD  
BANGOR, ME 04401  
(207) 941-4570 FAX: (207) 941-4584

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, ME 04769  
(207) 764-0477 FAX: (207) 764-1507



STATE OF MAINE

# DEPARTMENT OF ENVIRONMENTAL PROTECTION

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ACTING COMMISSIONER

---

## COMMENTS: 08-16-11 Present: Ross

---

- Inspected Raven Farm SS site work after overnight rain event.
  - Discharge from outfall from NE pond clean.
  - Surface of NE pond embankment shows little or no signs of vegetated growth beneath the sparse rye stalks. This may need to be reseeded in order to establish 85% growth by end of growing season.
  - No erosion or evidence of rills on the eastern slopes.
  - Majority of runoff impounded in middle of site in depression.
  - Discharge to the east at the entrance clean.
  - Probably ought to have one check dam at the edge of the vegetated swale where it meets the rough ditch located on the left just as one enters the site off of Greeley Road.
  - Greeley Road is clean.
  - No other issues or comments.
- 



08-15-11 Raven farm -NE filter pond embankment surface no substantial vegetation aside from sparse stalky rye.jpg



STATE OF MAINE

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08-15-11 Raven farm -NE filter pond attenuated release.jpg



08-15-11 Raven farm -middle of site on eastern side impounding runoff.jpg

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**Page 3 of 5**

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08-15-11 Raven farm - one check dam or filter berm needed between finished ditch and rough dike.jpg



08-15-11 Raven farm - eastern slope and edge of pad no signs of rills or erosion.jpg

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**Page 4 of 5**

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08-15-11 Raven farm -NE filter pond outfall discharge clean.jpg

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**Page 5 of 5**

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E N G I N E E R S

Civil Engineers & Land Surveyors

## SITE VISIT REPORT

Project Site:	Raven Farm Sub Station
Oak Project:	104.06049
Date:	August 26, 2011
Weather:	Clear with ground fog, 70's AM
Site Visit By:	Steve Johnson at 06:00
<p>Equipment/staff on site: Several excavators and loaders, water truck, site dump trucks, dozers, loader with broom; air track drill rigs; crushing plant.</p> <p>Drilling and blasting activities are ongoing in the central part of the site. Contractor preparing the site for potential arrival of Hurricane Irene. At the direction of MDEP Third Party site inspector, Contractor directed to plug inlet of southerly treatment pond control structure. Voiced concern of hydraulic overload of the system due to potential of heavy rain and runoff from hurricane that could potentially risk downstream containment berm, access road and embankment at downstream slope. However, Contractor has an adequate plan to address runoff that will mitigate potential overflow of system.</p> <p>Reviewed condition of project entrance on Greely Road for track out issues. No problems with track out. Also visited fill site on Doughty Road and noted no problems with track out. Fill activities are ongoing at the Doughty Road site. Contractor appears to graded Doughty Road site to promote drainage. Stone entrances are in good condition and functional.</p> <p>Site erosion and sedimentation control measures in place and functioning as required. No apparent issues with erosion after rain event on August 25, 2011</p> <p>In general, no other concerns noted and project appears to be progressing in compliance with approved plans.</p>	

400 Commercial Street • Suite 404 • Portland, ME 04101

T: 207.772.2004 • F: 207.772.3248

Brown's Wharf • Newburyport, MA 01950

T: 978.465.9877 • F: 978.465.2986

[www.oakengineers.com](http://www.oakengineers.com)





E N G I N E E R S

Civil Engineers & Land Surveyors



August 26, 2011: View of Doughty Road fill site entrance. No visible track out. Fill site looks good.

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**T: 978.465.9877 • F: 978.465.2986**

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# OAK

E N G I N E E R S

Civil Engineers & Land Surveyors



August 26, 2011: View of drainage ditch on westerly side of main entrance road looking southerly.

400 Commercial Street • Suite 404 • Portland, ME 04101  
**T: 207.772.2004 • F: 207.772.3248**

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**T: 978.465.9877 • F: 978.465.2986**

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E N G I N E E R S

Civil Engineers & Land Surveyors



August 26, 2011: View of easterly embankment at pond outflow. Note well vegetated slope.

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**T: 207.772.2004 • F: 207.772.3248**

Brown's Wharf • Newburyport, MA 01950  
**T: 978.465.9877 • F: 978.465.2986**

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# OAK

E N G I N E E R S

Civil Engineers & Land Surveyors



August 26, 2011: View of southerly detention pond outlet control structure. Contractor prepping area for potential arrival of Hurricane Irene.

400 Commercial Street • Suite 404 • Portland, ME 04101

**T: 207.772.2004 • F: 207.772.3248**

Brown's Wharf • Newburyport, MA 01950

**T: 978.465.9877 • F: 978.465.2986**

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E N G I N E E R S

Civil Engineers & Land Surveyors



August 26, 2011: View of northerly treatment pond. System well vegetated and functional.

400 Commercial Street • Suite 404 • Portland, ME 04101

**T: 207.772.2004 • F: 207.772.3248**

Brown's Wharf • Newburyport, MA 01950

**T: 978.465.9877 • F: 978.465.2986**

[www.oakengineers.com](http://www.oakengineers.com)



E N G I N E E R S

Civil Engineers & Land Surveyors



August 26, 2011: View of westerly side of site. Erosion control measures in place and functional.

400 Commercial Street • Suite 404 • Portland, ME 04101

**T: 207.772.2004 • F: 207.772.3248**

Brown's Wharf • Newburyport, MA 01950

**T: 978.465.9877 • F: 978.465.2986**

[www.oakengineers.com](http://www.oakengineers.com)





E N G I N E E R S

Civil Engineers & Land Surveyors



August 26, 2011: View of site entrance on Greely Road.

400 Commercial Street • Suite 404 • Portland, ME 04101

**T: 207.772.2004 • F: 207.772.3248**

Brown's Wharf • Newburyport, MA 01950

**T: 978.465.9877 • F: 978.465.2986**

[www.oakengineers.com](http://www.oakengineers.com)



## **APPENDIX K**

William Longley Training Certificates

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

# State of Maine

Executive Branch – Maine State Planning Office

Municipal Code Enforcement Certification

Certifies

**William Longley, Jr.**

To perform duties as code enforcement officer in the areas of

Shoreland Zoning ~ Land Use ~ Residential Building Code ~ Commercial Building  
Code ~ Residential Energy Code ~ Indoor Residential Ventilation Code ~ Indoor  
Commercial Ventilation Code

Certification no.: 138

Certification expiration date: 1/31/2013



Tim Glidden, Acting Director

MAINE BUILDING OFFICIALS & INSPECTORS ASSOCIATION  
2011 Spring Maine Code Conference



*This is to certify that*

William E. Lombley Jr.

*has successfully participated in the following course:*

**2009 IBC Plan Review – Part II**

Location: Ramada Conference Center

Date: May 2, 2011 – P.M. Session

President: Mike Nugent



MAINE BUILDING OFFICIALS & INSPECTORS ASSOCIATION  
2011 Spring Maine Code Conference



*This is to certify that*

*William E. Loveley Jr.*

*has successfully participated in the following course:*

**2009 IRC Plan Review**

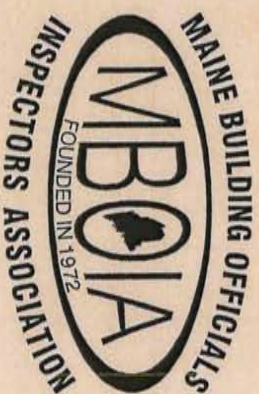
Location: Ramada Conference Center

Date: May 3, 2011 - A.M. Session

President: Mike Nugent



MAINE BUILDING OFFICIALS & INSPECTORS ASSOCIATION  
2011 Spring Maine Code Conference



*This is to certify that*

William Longley

*has successfully participated in the following course:*

**IEBC International Building Codes 2009**

Location: Ramada Conference Center

Date: May 3, 2011 - P.M. Session

President: Mike Nugent



MAINE BUILDING OFFICIALS & INSPECTORS ASSOCIATION  
2011 Spring Maine Code Conference



This is to certify that

William C. Longley JR

has successfully participated in the following course:

**2009 IBC Plan Review – Part I**

Location: Ramada Conference Center

Date: May 2, 2011 – A.M. Session

President: Mike Nugent



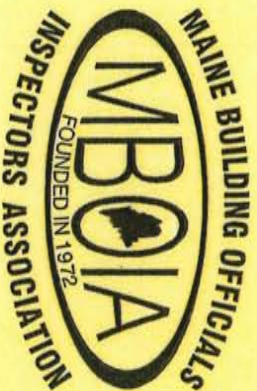
# Maine Building Officials and Inspectors Association

This is to certify that

William Longley

attended the MBOIA March Membership Meeting/Training

Held in: Gray



Instructor:  
President:  
Date:

Peter Cutrer  
Mike Nugent  
March 17, 2011



# Maine Building Officials and Inspectors Association

This is to certify that

William Longley

attended the MBOIA December Meeting  
and earned 2 Building Standards Credits

Held in: Brunswick, Maine



Instructor:  
President:  
Date:

Tim Gates  
Michael J. Nugent, C.B.O.  
December 16, 2010

## **APPENDIX L**

Ocean Outfall Monitoring Data

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011



The Town of Cumberland has a variety of marine resources, including approximately four miles of coastline on the mainland and two small islands. Key resources along the coastline include shellfish and worm harvesting areas, dense eel Grass beds, tidal waterfowl and wading bird habitats, and seabird nesting area's. The town's shoreline is also home to a large number of horseshoe crabs.

The town has typically issued 11 (10 resident and 1 non-resident commercial shellfish harvesting permits and 280 recreational licenses, 50 of which were reserved for after June 1st.

In July 2007 The Town of Cumberland and Chebeague Island split, Chebeague Island becoming their own town. This change significantly altered our marine resources of the town. Virtually all commercial fishing and lobstering in Cumberland, and most marine related business, has been based on Chebeague. Mainland Cumberland has no publicly owned areas for a pier and no deep water access for a harbor. Cumberland also has no direct access to a public beach. There are many boats registered in the town that have to be moored elsewhere.

The Cumberland Police Department along with The Department of Marine resources has been involved in the testing of our shoreline waters for many years. Beginning in the fall of 2008 we were informed that our water quality for the continuing of harvesting of shellfish was beginning to show an increase of bacteria. The testing that was being done by DMR indicated an increase of fecal coliform. Fecal coliform can come from a variety of sources, including but not limited to animal waste. We were also told that water drainage systems including catch basins could be washing pollutants into our areas.

During the winter of 2008/2009 members of our department along with our IT director Mike Crosby attended classes to certify us thru DMR to become volunteer water samplers. These classes consisted of classroom time as well as site survey and the actual taking of samples for the direct purpose of fecal coliform testing. During the winter we contacted Friends of Casco Bay, Maine's Healthy Beach program, The University of Southern Maine and also Southern Maine Community College in hopes that one of these three groups could assist us in attempting to locate the source of the increased pollution. Members attended training at Southern Maine Community College where they learned how to perform shoreline surveys. Shoreline surveys are used to determine where and how pollutants may be entering our bay area thru either public means, culverts, catch basins etc. or private entities, overboard discharge units, residential sump pumps or grey water type devices. During this training we were put in touch with Portland Water District, in an effort to utilize their testing services and expertise on the fecal coliform issue. When contacted we met on several occasions and showed them our results to date as supplied by DMR. During our discussions we mapped out a sampling strategy based on what we felt were problem areas along our shoreline. Our goal was to mirror the testing that DMR performs but also we wanted to get more sampling done on our own to attempt to isolate those areas where we showed increase in fecal coliform.

During the spring of 2009 along with Portland Water District did two sets of water quality testing. samples were taken at approximately 8 pre determined sites and turned over to PWD for their lab to analyze. During our survey work we discovered several areas of concern. There were locations where unknown pipes were coming out of the ground and actual flow of water was running onto either rocky ledges or directly onto the sand. We determined by attempting to

follow these pipes that these were private homes and not public use pipes. We even found a plastic trash can with lid, when we opened the trash can inside were wet plastic bags of what appeared to be dog waste. Our shoreline walk also noted a alarming amount of deer feces in the area, this could also add to our water quality problem. Our most alarming find was the amount of ducks, and geese located in the waters known as Broad Cove, this area lies on the border of Yarmouth and has historically been a problem site with DMR water quality testing and the presence of fecal coliform. In looking at the area and the lack of tidal movement this appears to be a problem that we can't even begin to fathom. The area is prime feeding ground for waterfowl and is privately owned. There is a stream that runs from a farm area and the entire area is surrounded by tall eel grass and woods.

During the summer of 2009 we have continued to monitor the water quality with sampling done by us and turned over to DMR for their lab. These sampling results have shown an increase in fecal coliform to the point where our shellfish flats will be closed for the remainder of 2009 and quite possibly into 2010. Cumberland has 2 sampling points recognized by DMR. Our long term goal is to get DMR to add two more sampling points to our area. Our hope is by adding more points we could put the Broad Cove area and its continued bad water quality out of the equation and have the rest of Cumberland open to shellfish harvesting. I am in the process of researching grant monies to assist in either additional water quality, mitigation strategies or even educational materials to better educate the general public on our water quality. The Town of Cumberland also purchased an incubation unit for our use. We have performed our own testing looking for e-coli bacteria and other coliforms. Testing was done at Cumberland Town landing, Long Meadow, Seacove, Payson Point and at the head of Broad Cove adjacent to the Yarmouth pump station.

## PHOTO KEY FOR WATER QUALITY SAMPLING

1. Runoff of unknown origin Wildwood Beach
2. Extended runoff on Wildwood Beach
3. Members along with Portland Water District taking water samples
4. Plastic garbage can with dog waste inside Wildwood Beach
5. Cumberland Town Landing culvert from Route 88
6. Runoff from unknown source north of Town Landing Road
7. Close-up of unknown runoff north of Town Landing Road
8. Mike Crosby taking sample from Fells Brook, North of Town Landing Road
9. Sample being taken from unknown pipe located adjacent to old Town landing road
10. Close-up of sample location 9
11. Culvert of unknown origin leeching out into Broad cove from the Ferne Lane area
12. Cobblestone pipe system located off Ferne Lane
13. Pipe coming from the banking into Broad Cove from Broad Cove Meadows area























































# 16 Colonies / 100 mil MAX

## Summer 2010

### Cumberland Samples



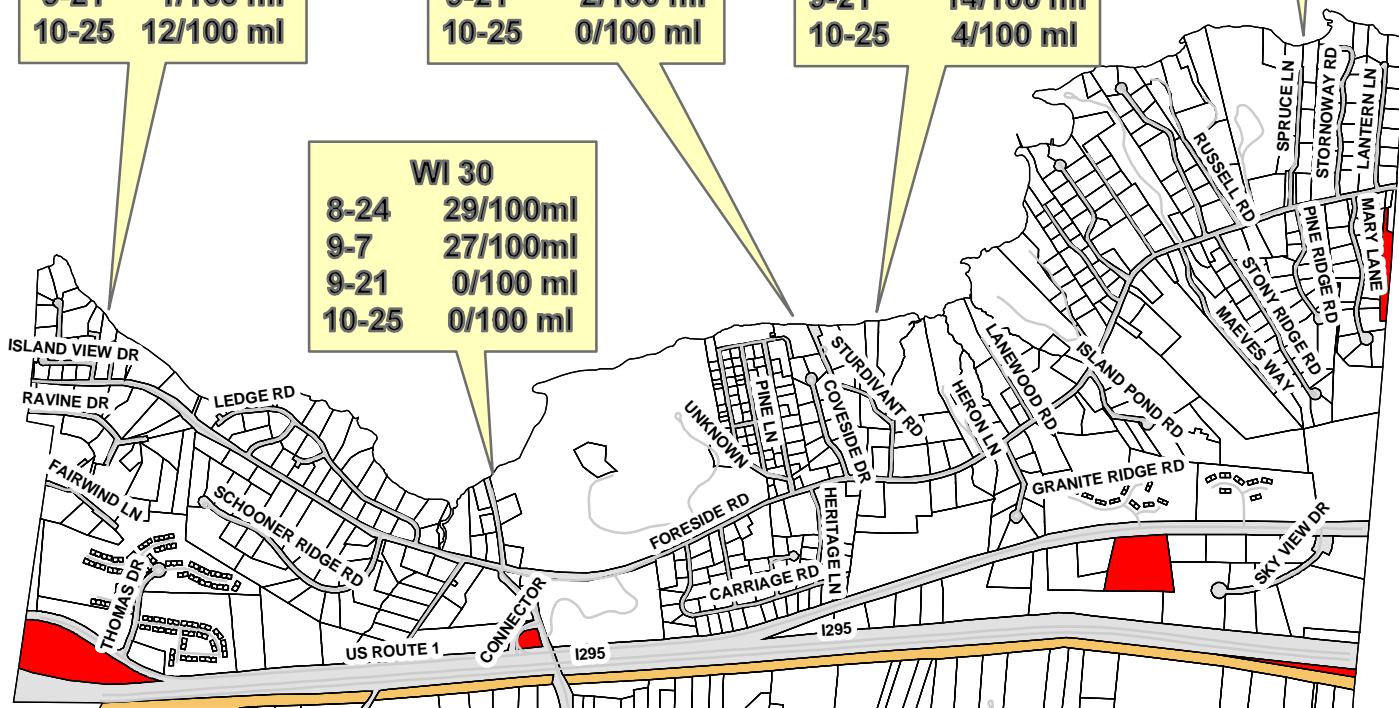
WI 33	
8-24	6/100ml
9-7	41/100ml
9-21	1/100 ml
10-25	12/100 ml

WI 29	
8-24	1/100ml
9-7	26/100ml
9-21	2/100 ml
10-25	0/100 ml

WI 28.5	
8-24	2/100ml
9-7	7/100ml
9-21	14/100 ml
10-25	4/100 ml

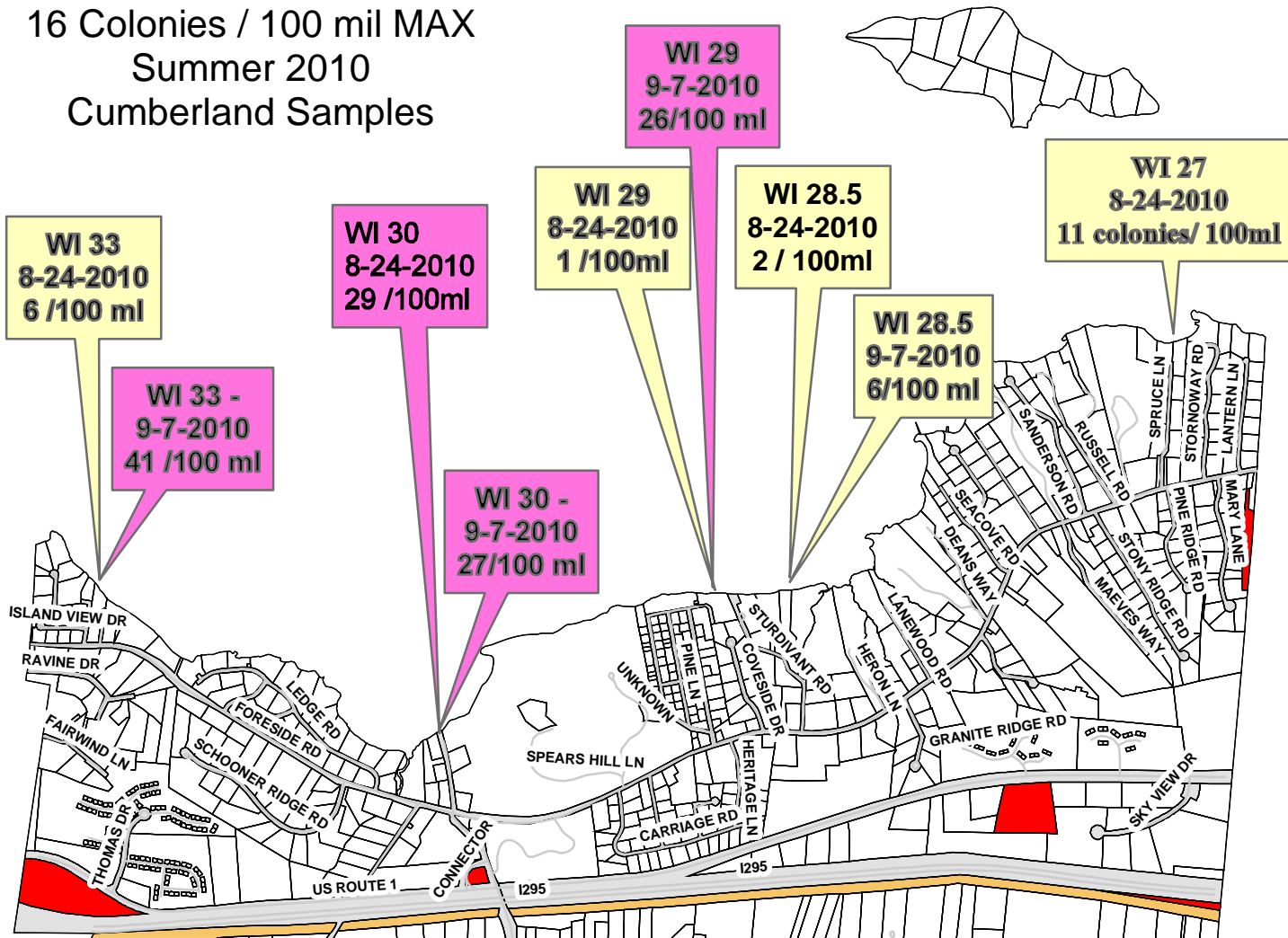
WI 27	
8-24	11/ 100ml
10/25	2/100 ml

WI 30	
8-24	29/100ml
9-7	27/100ml
9-21	0/100 ml
10-25	0/100 ml





16 Colonies / 100 mil MAX  
Summer 2010  
Cumberland Samples



---

LABORATORY REPORT

LABORATORY I.D. NO. ME00029

---

PROJECT NAME: TOWN OF CUMBERLAND

6000

DATE SAMPLED: 12/28/2010

DATE RECEIVED: 12/28/2010

DATE REPORTED: 12/30/2010

SAMPLE: ACC SAMPLING

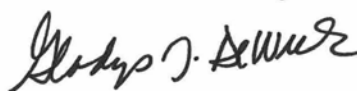
---

SAMPLE	FECAL COLIFORM	DATE	
		ANALYZED	METHOD
28.5	0	12/28/2010	9222D
29.0	0	12/28/2010	9222D
30.0	1	12/28/2010	9222D
33.0	0	12/28/2010	9222D
27	10	12/28/2010	9222D

RESULTS ARE EXPRESSED AS COLONIES/100 ML.

METHOD REFERENCE: STANDARD METHODS FOR THE EXAMINATION OF WATER AND  
WASTEWATER, 18TH EDITION, 1992.

WRIGHT-PIERCE



GLADYS J. DeWICK  
LABORATORY MANAGER



---

LABORATORY REPORT

LABORATORY I.D. NO. ME00029

---

PROJECT NAME: TOWN OF CUMBERLAND

6000

DATE SAMPLED: 11/30/2010

DATE RECEIVED: 11/30/2010

DATE REPORTED: 12/1/2010

SAMPLE: ACC SAMPLING

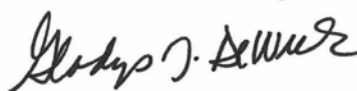
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SAMPLE	FECAL COLIFORM	DATE	
		ANALYZED	METHOD
WI 27	2	11/30/2010	9222D
WI 28.5	15	11/30/2010	9222D
WI 29	6	11/30/2010	9222D
WI 30	0	11/30/2010	9222D
WI 33	1	11/30/2010	9222D

RESULTS ARE EXPRESSED AS COLONIES/100 ML.

METHOD REFERENCE: STANDARD METHODS FOR THE EXAMINATION OF WATER AND  
WASTEWATER, 18TH EDITION, 1992.

WRIGHT-PIERCE



GLADYS J. DeWICK  
LABORATORY MANAGER

---

LABORATORY REPORT

LABORATORY I.D. NO. ME00029

---

PROJECT NAME: TOWN OF CUMBERLAND

6000

DATE SAMPLED: 11/16/2010

DATE RECEIVED: 11/16/2010

DATE REPORTED: 11/17/2010

SAMPLE: 11/16/10 ACCEL

---

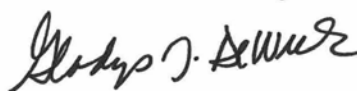
SAMPLE	FECAL COLIFORM	DATE	
		ANALYZED	METHOD
WI 27	4	11/16/2010	9222D
WI 28.5	0	11/16/2010	9222D
WI 29	1	11/16/2010	9222D
WI 030	0	11/16/2010	9222D
WI 033	1	11/16/2010	9222D

---

RESULTS ARE EXPRESSED AS COLONIES/100 ML.

METHOD REFERENCE: STANDARD METHODS FOR THE EXAMINATION OF WATER AND  
WASTEWATER, 18TH EDITION, 1992.

WRIGHT-PIERCE



GLADYS J. DeWICK  
LABORATORY MANAGER



---

LABORATORY REPORT

LABORATORY I.D. NO. ME00029

---

PROJECT NAME: TOWN OF CUMBERLAND

6000

DATE SAMPLED: 11/16/2010

DATE RECEIVED: 11/16/2010

DATE REPORTED: 11/17/2010

SAMPLE: AMANDA WAY

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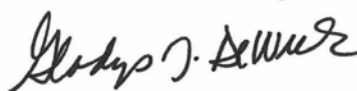
SAMPLE	FECAL COLIFORM	DATE ANALYZED	METHOD
B	0	11/16/2010	9222D
C	200	11/16/2010	9222D

---

RESULTS ARE EXPRESSED AS COLONIES/100 ML.

METHOD REFERENCE: STANDARD METHODS FOR THE EXAMINATION OF WATER AND  
WASTEWATER, 18TH EDITION, 1992.

WRIGHT-PIERCE



GLADYS J. DeWICK  
LABORATORY MANAGER

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LABORATORY REPORT

LABORATORY I.D. NO. ME00029

---

PROJECT NAME: TOWN OF CUMBERLAND

6000

DATE SAMPLED: 9/21/2010

DATE RECEIVED: 9/21/2010

DATE REPORTED: 9/22/2010

SAMPLE: SEPT. DMR ACC-SPLIT

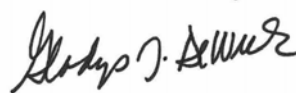
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SAMPLE	FECAL COLIFORM	DATE	
		ANALYZED	METHOD
WI 28.5	14	9/21/2010	9222D
WI 29	2	9/21/2010	9222D
WI 30	0	9/21/2010	9222D
WI 33	1	9/21/2010	9222D

RESULTS ARE EXPRESSED AS COLONIES/100 ML.

METHOD REFERENCE: STANDARD METHODS FOR THE EXAMINATION OF WATER AND  
WASTEWATER, 18TH EDITION, 1992.

WRIGHT-PIERCE



GLADYS J. DeWICK  
LABORATORY MANAGER



## **APPENDIX M**

### List of Municipal Operations in the Urban Area

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

<p align="center"><b>Town of Cumberland</b>  <b>Municipal Operations in the Urban Area</b></p>
--

<u>Facility</u>	<u>Location</u>	<u>Size</u>	<u>Scope of Work</u>
Public Works Garage	Drowne Road	8000 sq ft	Vehicle Maintenance, Painting, Welding Salt Storage, Vehicle Storage
SAD 51 Bus Maintenance Facility	Drowne Road	3200 sq ft	Bus Maintenance, Vehicle Storage
Twin Brook Maintenance Facility	Tuttle Road	2500 sq ft	Lawn Mower and Fertilizer Storage
Valhalla Golf Course Maintenance Facility	Valhalla Road	1500 sq ft	Light Mower maintenance, Fertilizer Storage Pesticide Storage



## **APPENDIX N**

### **Public Participation Event Agenda**

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

**Town of Cumberland**  
**Community Outreach and Pesticides Educational Awareness Program**  
**Workshop Agenda**  
**May 14, 2011**  
**Council Chambers**

*Purpose:* The purpose of the meeting is to provide information and educate the residents of Cumberland on the impacts of land use on water quality.

**Meeting Outcome(s):**

- ✓ To build awareness of land use impacts on water quality, focusing on the Yardscaping Program.
- ✓ To provide residents with a tool kit of best management practices that will lead to improved water quality.

When	What	How	Who
8:30 AM	Doors Open (light breakfast)		
9:00 AM	Welcome and Overview <ul style="list-style-type: none"> <li>• Introductions</li> <li>• Workshop Process</li> </ul>		Cumberland Shellfish Commission
9:15 AM	Part I – Awareness, based on Yardscaping Program <ul style="list-style-type: none"> <li>• What are the impacts of various land uses on water quality?</li> <li>• Understanding your place in the watershed.</li> </ul>	Presentation Discussion	Jami Fitch CCSWCD
10:15 AM	Field Demo <ul style="list-style-type: none"> <li>• Six-step Yardscaping demo on Town Hall lawn (<i>In case of inclement weather, this will be a video</i>)</li> </ul>		Commercial Lawn Care Company
10:45 AM	Part II – Best Management Practices <ul style="list-style-type: none"> <li>• Conservation and BMP's best suited for homeowners and property maintenance businesses</li> </ul>	Panel Presentation Discussion	Panelists
11:45 AM	Recap and Next Steps <ul style="list-style-type: none"> <li>• Questions</li> <li>• Planning your next steps</li> <li>• Announce door prize/raffle winners</li> </ul>	Action Planning	Moderator
12:00 PM	Adjourn (lunch will be provided) <ul style="list-style-type: none"> <li>• <i>Presenters and panelists will be available during lunch for further discussions</i></li> </ul>		



**Town of Cumberland**  
**Community Outreach and Pesticides Educational Awareness Program**  
**Workshop Agenda**  
**May 2, 2011**  
**Council Chambers**

*Purpose:* The purpose of the meeting is to provide information and educate the residents of Cumberland on the impacts of land use on water quality.

**Meeting Outcome(s):**

- ✓ To build awareness of land use impacts on water quality, focusing on the Yardscaping Program.
- ✓ To provide residents with a tool kit of best management practices that will lead to improved water quality.

When	What	How	Who
6:00 PM	Doors Open (refreshments available)		
6:30 PM	Welcome and Overview <ul style="list-style-type: none"> <li>• Introductions</li> <li>• Workshop Process</li> <li>• Announce 5/14 workshop/field demo</li> </ul>		Cumberland Shellfish Commission
6:45 PM	Yardscaping Program <ul style="list-style-type: none"> <li>• What are the impacts of various land uses on water quality?</li> <li>• Understanding your place in the watershed.</li> </ul>	Presentation Discussion	Jami Fitch CCSWCD
8:15 PM	Recap and Next Steps <ul style="list-style-type: none"> <li>• Questions</li> <li>• Planning your next steps</li> <li>• Announce door prize/raffle winners</li> </ul>	Action Planning	Moderator
8:30 PM	Adjourn		

**Cumberland Shellfish Conservation Commission – Outreach Subcommittee**  
**Draft Outreach Strategy**

**I. Goals and Objectives:**

**Subcommittee Goal (*draft text for discussion*):** To improve water quality in waters off the coast of Cumberland in order to work towards the opening of shellfish flats in the short-term and encouraging the use of best management practices amongst residents, business owners, MSAD 51 administrators, and Town managers over the long-term.

**Objectives to meet this goal (*draft text for discussion*):**

1. To educate diverse audiences<sup>1</sup> in Cumberland about the direct and indirect effects of their practices on water quality and shellfish resources off the coast of Cumberland and neighboring communities.
2. To offer information and resources to adapt best management practices, whether for a private resident, commercial operation (e.g., farms, wastewater treatment plants, etc.).
3. To communicate our efforts to surrounding towns and local environmental organizations.

**II. Primary Focus & Audience:**

The primary approach of the Subcommittee would focus on targeted outreach to specific audiences. The five audiences discussed at our meeting are:

1. Town properties (e.g., Twin Brook, Val Halla, etc.)
2. MSAD 51 (e.g., School administrators – school grounds, teachers → children, etc.)
3. Residential (e.g., home owners and their families, home associations)
4. Farms
5. Other commercial businesses (e.g., stores, offices, and include related commercial businesses that operate in Cumberland and apply lawn chemicals or develop properties)

The focus of the Subcommittee will be tailored to the particular audience, and may include education and outreach on pollution sources such as septic tanks/wastewater, stormwater, livestock/pet waste, and lawn chemicals. The Subcommittee, along with the Town of Cumberland, will also endeavor to address specific issues identified in DMR Shoreline Surveys.

**III. Methods for Outreach & Education:**

The method of the outreach will depend on the audience and focus of the effort, including, but not limited to: mailings, meetings/ septic socials, film screenings, presence at local events (e.g. Cumberland Fair, Yarmouth Clam Festival, Farmers Market, etc.), posters around town/Town Hall, messages on CCTV, articles/letters in local newsletters/newspapers (e.g., Forecaster, Town Crier, etc.), local spokespersons, and Town website.

Provided that the Subcommittee does not yet have an operating budget, outreach and education efforts will rely on, to the extent possible, existing resources and materials (\*see page

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<sup>1</sup> Target audiences are described in Section II.



3 for examples\*). The Subcommittee will seek out funding for new outreach materials, printing costs, mailings, and events.

**IV. Schedule:**

The Subcommittee proposes to prioritize efforts with the Town and MSAD 51, and then evaluate all audiences and needs for the next priority when these efforts are underway. Additionally, the DMR Shoreline Surveys will inform this process. While some resolution of issues identified in the Shoreline Survey are mandated to be addressed by the State and Town, the Subcommittee will coordinate with the State and Town on resolutions where applicable.

**V. Budget:**

Subcommittee members will seek out both short- and long-term sources of funding. Short-term sources of funding include grants from federal and state agencies, and local organizations, such as DMR, DEP, NRCS/Time and Tide, and environmental organizations. In the long-term, the Subcommittee/Shellfish Conservation Committee would like to propose that the Town Council consider adding a \$5.00 'conservation fee' onto the shellfish license cost that would be appropriated to the Subcommittee for outreach and education expenditures. If available, the Subcommittee may request small amounts of discretionary funding from the Town to fund the costs of mailings, printing articles, and printing outreach materials.

**VI. Roles and Responsibilities of Subcommittee Members**

Roles and responsibilities of subcommittee members will vary, depending on the particular audience/focus of an event. Currently, Jessica Joyce serves as the Chair of the Subcommittee; Tom Gruber is coordinating the budget/finances of the Subcommittee; Hank Adams is leading our first effort collecting baseline information about use of lawn chemicals by the Town and MSAD 51, and identification of home/neighborhood associations; Michael Brown will be coordinating our efforts with the Town Manager, Shellfish Committee, and Town Council. Dan Holt, George Turner, and Milt Calder expressed interest in the Subcommittee, but were unable to attend the first meeting on July 6. Where applicable, the Subcommittee may recruit Town volunteers to assist with outreach efforts.

### **\*Existing Resources\***

- Conservation and outreach efforts in other Maine towns:
  - Brunswick, Dan Devereaux, Best Practices
  - Harpswell: Voluntary pledge, education materials on Town website, links to other resources, etc.  
[http://harpswell.maine.gov/index.asp?Type=B\\_BASIC&SEC=%7BFA81F206-533D-437E-A7BC-09C82D763D48%7D&DE=%7B561675BB-7E8F-4D84-9C29-463A057C33E3%7D](http://harpswell.maine.gov/index.asp?Type=B_BASIC&SEC=%7BFA81F206-533D-437E-A7BC-09C82D763D48%7D&DE=%7B561675BB-7E8F-4D84-9C29-463A057C33E3%7D)
  - Camden, Rockport, and Castine banned synthetic fertilizers and pesticides on Town properties
  - Kennebunk, Lawns for Lobsters
- Presumpscot River Watershed Coalition (<http://www.presumpscotcoalition.org/>) – Cumberland [Lands and Conservation Commission] is working PRWC, in coordination with Yarmouth and Falmouth.
- Friends of Casco Bay: Bayscaping, now a statewide program, Yardscaping:  
<http://www.yardscaping.org/>
- EPA/State of Maine – Think Blue Campaign ([www.thinkblumaine.org](http://www.thinkblumaine.org))
  - Focuses on stormwater runoff
  - Outreach Toolbox for municipalities: brochures  
(<http://www.cumberlandswcd.org/yardscape/factsheets.htm>), display, stormwater stencil toolkit, door hanger, classes, etc.
- DMR – outreach efforts with Kennebec Estuary Land Trust (KELT), currently focused on Phippsburg, Bath, Georgetown, Woolrich, and Wiscasset.
- Maine Clammers Association: 6/29/10 letter:
  - MCA Goal:  
Continue to act as an effective facilitator to move Maine’s municipal shellfish programs in more sustainable directions.

Have begun public education efforts aimed at addressing the growing problem of pet waste.

Focused public attention on pollution from coastal farms.

Facilitated a new level of inter agency collaboration between DMR, Department of Agriculture and Department of Environmental Protection that is now assisting municipal shellfish programs to address pollution affecting shellfish resources.

- If interest in public health aspect, [www.safelawns.org](http://www.safelawns.org), Paul Tukey and ‘A Chemical Reaction Film’

**Shellfish Outreach Subcommittee**  
**Meeting Notes**  
**August 24, 2010**

**Attendees:** Jessica Joyce, Tom Gruber, Dan Holt, Mike Brown, Chris Bolduc, and Hank Adams

- Stormwater/DEP
  - Chris discussed the Town's efforts on stormwater pollution prevention and mitigation with respect to Maine DEP's Stormwater Program. The Town has funding through this program to comply with state regulations, although portions of this funding are also directed toward outreach efforts. The subcommittee will coordinate with Chris and others on outreach efforts for stormwater and other pollution sources affecting water quality/shellfish resources.
  - Chris also mentioned that the Town contracts with a stormwater engineer from Oak Engineering in Portland, and that we may be able to use him as a resource and/or speaker at an outreach event.
- Update from Hank on Town use of pesticides and fertilizer:
  - Twin Brook does not use any synthetic/chemical pesticides or fertilizers on the property. Chris mentioned that they use a liquid organic fertilizer and lyme. We can find out the exact type of fertilizer from the maintenance person, name?
  - Hank was waiting for a call back from Val Halla regarding their use of pesticides and fertilizers, and Chris told the group that Toby Young is the contact to get this information. **(ACTION ITEM: CONTACT TOBY TO GET A LIST OF PRODUCTS, AMOUNT, AND FREQUENCY OF APPLICATION.)** Toby is the only licensed applicator in the Town, and Chris confirmed that Val Halla is the only Town property where synthetic/chemical pesticides or fertilizers are used. After we receive information about chemical use on this property, we will decide on the next steps, such as inviting the superintendant of Val Halla to a meeting with speakers who can present/discuss green/safer alternatives. *(As an aside, I recently found out that a company, Harris Golf, who just bought the Falmouth Country Club has been advertising that they are using only organic/natural applications on the golf courses they own.)*
  - **ACTION ITEM: CONTACT DON FOSTER, HEAD OF MAINTENANCE FOR MSAD 51 TO GATHER BASELINE INFORMATION ON THE SCHOOL'S USE OF SYNTHETIC/CHEMICAL PESTICIDES AND FERTILIZERS.**
  - Hank also spoke with Malcolm Pool, the president of Friends of Casco Bay, and owner of a private stormwater management company, and he is available to come speak at any event and help us with our outreach efforts.
- Cumberland Fair and other events
  - Mike contacted several Fair organizers to get a booth for the 'Clean Water for Clams' display, although was directed to the wrong contacts. Chris said Don Doyle and Bruce ?



are the appropriate contacts for non-commercial booths. **ACTION ITEM:** MIKE IS GOING TO CONTACT THESE FOLKS ABOUT GETTING A BOOTH.

- Due to the length of the Fair, the subcommittee decided that our display would be unmanned during the week, but we would set-up 3-4 hour shifts on Saturday and Sunday where we will man the display.
- We also discussed using the display at the Farmer's market once a month, and holding an outreach event at the schools this winter.
- Coastal Clean-up
  - The Subcommittee decided to form a team to participate in the Maine Coast Week/International Coastal Clean-up (September 25-October 2). We will choose a date/time depending on the dates of the Cumberland Fair, which are 9/26-10/2 and the tides. This work would count as volunteer hours for the shellfish committee and Milt has volunteers that need to fulfill community service hours. Chris mentioned that the town can provide services to dispose of the trash and recycling. Milt followed up by e-mail that the PD has trash bags and gloves we can use if the State does not provide supplies.
  - **ACTION ITEM:** JESSICA WILL CONTACT THE STATE COORDINATOR, THERESA TORRENT-ELLIS, TO MAKE SURE THERE ISN'T ALREADY A TEAM COVERING THE CUMBERLAND SHORELINE. IF NOT, JESSICA WILL COORDINATE VOLUNTEERS, USING A TOWN E-MAIL.
  - **ACTION ITEM:** TOM IS LEADING THE EFFORT TO RECRUIT VOLUNTEERS BY ADVERTISING THE EVENT USING POSTERS, TOWN WEBSITE, CHANNEL 2, AND A MESSAGE IN THE FORECASTER AND CUMBERLAND CRIER. DAN WILL HELP TOM, AND WE WILL ALSO UTILIZE E-MAIL LISTS (CITIZENS FOR A GREEN CUMBERLAND) TO GET THE WORD OUT.
  - **ACTION ITEM:** HANK IS GOING TO WORK ON ACCESS POINTS FOR THE CLEAN-UP, WHICH COULD INCLUDE TOWN LANDING AND WILDWOOD, DEPENDING ON HOW MANY VOLUNTEERS WE GET.
- Updates from Tom on Funding and the Septic Workshop
  - **ACTION ITEM:** Tom is working on submitting the Time and Tide funding application in September.
  - Time and Tide has a spreadsheet on various funding sources that he will forward to the subcommittee.
  - He also attending the Septic workshop in Bath, and said it was technical, but very useful, and after attending, feels that malfunctioning septic systems are a leading cause of water pollution/shellfish closures. If we get the funding from Time and Tide (or elsewhere), this will be a useful workshop to hold in Cumberland. He noted that a lot of the communities that attended the workshop have no ordinances or regulations in place to enforce proper use and maintenance of septic systems. To really mitigate these issues, inspections and enforcement of ordinances is necessary...

Shellfish Subcommittee Meeting Summary  
October 19, 2010

Attendees: Jessica Joyce, Toby Young, Milt Calder, Hank Adams, Tom Gruber.

I. Outreach Events

- Cumberland Fair: All volunteers had a handful of folks stop by to discuss the display, although we agreed that it was tough to get passersby engaged. In the future, it would help to have some kind of game or activity to entice people to stop by and entertain their kids.
- Public Safety Day: The display was set up at this event, although Milt commented that there wasn't a large turnout this year.
- Milt mentioned that Brenda was looking for an area in Town Hall to hang the outreach materials.

II. Pesticides/Fertilizers on Town and MSAD 51 Property

- Don Foster was unable to attend the meeting, although he sent the information below via e-mail:
- The following is what we use on the fields for fertilizer and Insecticides. These products are put down by a licensed company and are only on the game fields. The rest of the lawn areas are not treated. They are as follows;
  - Fertilizer w/ Dimension .13% weed/crabgrass control 22-0-6
  - Fertilizer w/Merit 0.2% grub preventer 23-0-7
  - Merit Granular Insecticide
- They are all from Lebanon Seaboard Corp. and supplied and administered by Sports Fields Co.
- Toby Young Golf Course Superintendant, Val Halla, explained their use of fertilizers and pesticides. They only use these on the greens, tees, and fairways. They use organic fertilizers for new construction areas, where the goal is to build and/or change the chemical profile of the soil. One issue with organics is that they require a lot more product for the same outcome as synthetics, and thus is more expensive. Synthetics are used on pre-established grounds, and they primarily use super slow release granular fertilizers because they can use a lot less quantity, and it lessens the potential for leaching because the plant only takes what it needs = even growth over time (as opposed to rapid release, which leaches when it is not absorbed). As far as comparing the Nitrogen(N)-Phosphorous-Potassium ratio of organics to synthetics, organics have a lot less N. For pesticides, they treat primarily for grubs on the fairways and greens, and use bat houses for mosquito control.
  - Regarding runoff, they time their applications to ensure they will be absorbed before it rains, and have no mow areas around water bodies to minimize stormwater/water runoff.

- He also mentioned that they key to not over-applying to test soil to know what it needs
- Chris Logan was the parks director in charge of Twin Brook; however, he has resigned, so Toby also explained the use of fertilizer at Twin Brook. Currently, they are only used organics. He feels that this is not the best approach for the sports fields there as the goal is to have the grass grow back aggressively (e.g. in front of goals); however in order to attain this with organics, you need a lot of product and a frequent applications.
  - **ACTION ITEM:** Milt is going to contact Chris about Twin Brook, to follow up and inquire about the company MSAD 51 uses for application. Milt is also going to find out what the Town of Scarborough is doing on this front.
- Toby also mentioned that the subcommittee should look into the use of salt on Route 88 during the winter, since sodium chloride is a water soluble fertilizer. Route 88 is usually maintained by the state, although sometimes Cumberland plows/sands or salts.
- Tom inquired about BMPs in the golf course industry, and Toby said that the ME Pesticide Board has BMPs, but the Audubon Society also has a program, “Audubon Cooperative Sanctuary Program for Golf Courses” and the Portland Country Club has this ‘certification’. This may be something that the subcommittee can work with Val Halla on, if they are interested in pursuing it.
  - **ACTION ITEM:** Tom is going to inquire about a company that tests water downstream of golf courses to determine if fertilizers are leaching into ground/surface water.
  - **ACTION ITEM/NEXT STEPS:** Jessica is going to contact the Audubon Society to gather more information about their program, and perhaps contact Harris Golf to see if someone in charge of maintenance can come speak to the subcommittee about their ‘green’ practices.

### III. Update on the Shoreline Survey (Milt)

- The survey has been completed, and the two issues that were identified will be remedied by the Route 88 construction. No issues were found with septic tanks. He suspects that the State report will not be completed until late this year/early next year; therefore it is unlikely that flats will open in 2010.

### IV. Coordinating with Chris Bolduc/stormwater

- After meeting with Chris Bolduc and Steve Johnson, Oak Engineers, about the Town’s requirements under the State DEP, MS-4 Community Permit, and specifically the requirement for an annual outreach and education event focused on stormwater pollution prevention, we decided to coordinate with them on next year’s event. We are going to plan on a stormwater ‘rubber ducky’ stenciling event following the completion of Route 88, and in neighboring streets. As stormwater is an issue for water quality and shellfish resources, the two activities fit nicely together.



Water Quality

Water Quality



Water Quality



Water Quality



Water Quality



Water Quality



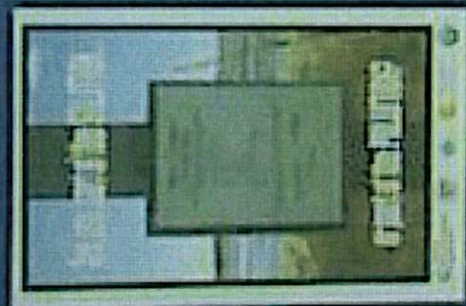
Water Quality



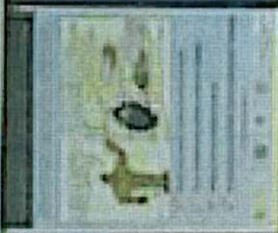
Clean Water for All



Clean Water for All



Clean Water for All



Water Quality



Water Quality



Water Quality



Water Quality



Water Quality



Water Quality



Water Quality



Water Quality





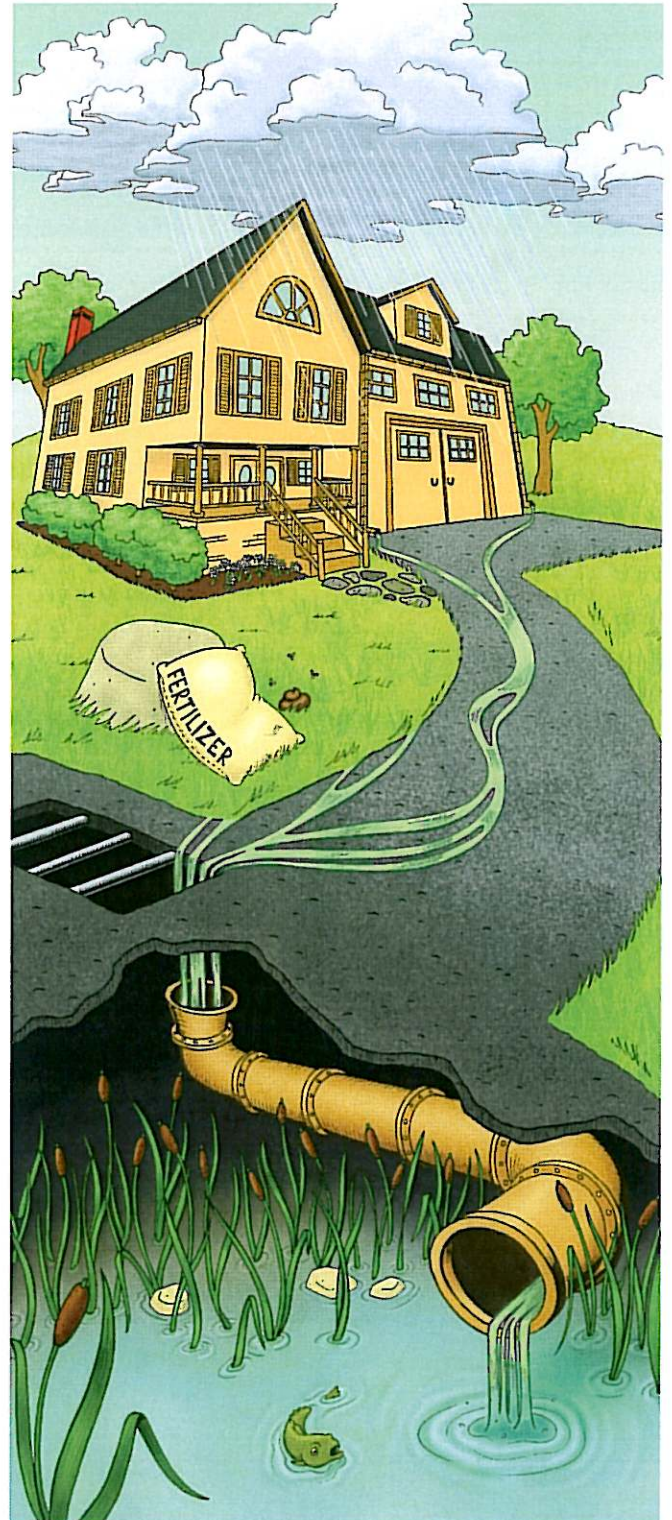
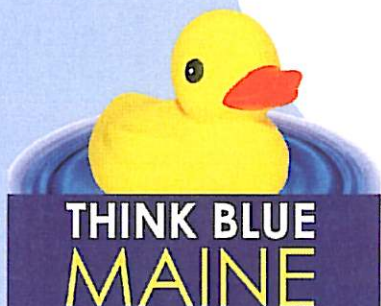
# FOLLOW THE FLOW

## Where does water go?

Not all water that falls on your property soaks into the ground. As water flows off your property, it can wash pollutants such as soil, lawn chemicals and pet waste into where we fish, what we drink and where we swim.

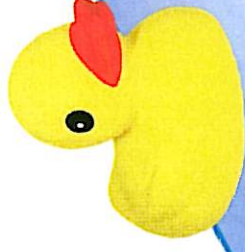
It's up to all of us to protect our local rivers, lakes and bay from polluted runoff.

Learn how at  
[www.ThinkBlueMaine.org](http://www.ThinkBlueMaine.org)



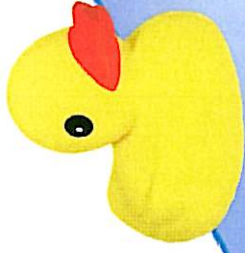


Stop  
Nonpoint  
Pollution



ONLY RAIN  
GOES DOWN THE  
STORM DRAIN!

Stop  
Nonpoint  
Pollution



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Stop  
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# What is the problem?

Rain washes the things we leave behind, like trash, pet waste and oil, down storm drains and into the nearest stream, river or bay. This pollutes the places we like to swim, fish and boat.

# What can you do?

Clean up and properly dispose of:

- Yard waste (leaves, brush, etc.), fertilizers & pesticides
- Pet waste
- Cigarette butts & other trash
- Used motor oil, antifreeze & other automotive fluids
- Paint, detergents & other chemicals

# Remember:

## Never dump anything down a storm drain!

To learn more please visit our website at [www.ThinkBlueMaine.org](http://www.ThinkBlueMaine.org)



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**FOLLOW THE FLOW**



**Where does water go?**

**FOLLOW THE FLOW**



**Where does water go?**

**FOLLOW THE FLOW**



**Where does water go?**



## Do you know...

Not all water that falls on your property soaks into the ground. As water flows off your property, it can wash pollutants, such as soil, lawn chemicals and pet waste into storm drains, which flow directly to where we fish, what we drink and where we swim.

It's up to all of us to protect our local rivers, lakes and bays from polluted runoff. Watch the path water takes, and find ways to slow it down, spread it out and soak it in.

## Tips for preventing polluted runoff on your property:

- Direct gutter downspouts to a rain barrel or vegetation
- Wash your car on the lawn or at a car wash
- Pick up after your pet and dispose of it in the trash or flush it down the toilet
- Reduce your use of fertilizers and pesticides
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## **APPENDIX O**

Operation and Maintenance Procedures for Town  
facilities

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011



# OPERATION AND MAINTENANCE PROCEDURES FOR TWIN BROOKS RECREATION FACILITY

Revision June 29, 2010



Train employees and subcontractors annually on O&M Procedures

Train new employees within six months of hire

## **VEHICLE & EQUIPMENT: FUELING, WASHING & STORAGE** (tractors, lawn mowers, golf carts, trimmers, weed whackers, blowers, etc)

### **Always:**

- When fueling must be done in the field, do so over a paved or concrete area well away from any storm drains or ditches. When pouring fuel from a jerry can, use a funnel.
- Maintain all fueling equipment in good working order. Conduct preventive maintenance.
- Conduct regular inspections of the fueling area and clean up any spills and absorbent on the ground.
- Use drip pans under leaking equipment.
- Completely drain oil filters before disposal by poking a hole in the top and allowing it to drain for 24 hrs.
- Clean up all spills and leaks immediately with soil, sand, rags or paper towels. Keep others away from the spill and make sure it does not run off into other areas. Scoop all into a leak-proof container and properly dispose of it.
- Keep “clean-up supplies” such as a containment drum, kitty litter, sand, sawdust, a shovel, a broom and dustpan in your storage facility and ready to use.
- Place stockpiled materials away from ledge or rock outcrops, storm drains, ditches and surface waters.

### **When Possible:**

- Perform all fueling activities for lawn care equipment in an enclosed building with closed drainage.
- Keep stockpiles under cover or use erosion control mulch to contain.
- Reduce the amount of liquid cleaning agents used or use low phosphate or phosphate free products.
- Conduct maintenance within a building or covered area.
- Park vehicles/equipment indoors or under a roof.
- Wash equipment/vehicles in a designated area that is permeable or drains to a buffer and does not directly drain to a ditch or water body.
- Discharge all wash water containing degreasers, acids, bases, and or metal brighteners to an on site treatment facility, the sanitary sewer in accordance with the treatment plant standards, or an approved holding tank.
- Drain fluid from stored/salvaged vehicles/equipment.

### **Never:**

- Never allow “topping off” of fuel tanks.
- Never allow drivers or operators to leave their vehicles or equipment unattended while fueling.
- Never dump gas, wastes or contaminated water down storm drains.
- Never refuel or change the mower oil near storm drains.
- Never hose down the work area unless the runoff will either be directed to an oil/ water separator and discharged into the city’s sanitary sewer system or contained and disposed of as a hazardous waste.

## **FERTILIZERS:**

### **Always:**

- Keep records/documentation of all materials applied and when.
- Check the weather forecast and apply according to product instructions as to whether to apply dry or lightly watered in.
- Store in closed containers labeled with contents and purchase date.
- Keep containers in a secure building enclosure and clean as needed.
- Always routinely inspect storage area for leaks, spills, residue, and trash.
- If fertilizer accidentally ends up on pavement, always sweep it up as and put it back in the bag.
- Consider a low or no fertilizer approach to maintain turf.
- Perform a soil test to determine actual fertilization needs and application rate.

## **FERTILIZERS, Continued:**



**Whenever possible:**

- Calibrate fertilizer spreaders to avoid excessive application.
- When fertilizer is needed, use slow or timed release nitrogen sources.

**Never:**

- Never apply fertilizers within five feet of pavement, 25 feet of a storm drain inlet, or 50 feet of a stream or water body.

## **PESTICIDES**

**Always:**

- Use a licensed commercial pesticide company or licensed personnel for pesticide application, storage and disposal.

## **LANDSCAPING PRACTICES (mowing, irrigation, etc)**

**Always:**

- Mow only as low as needed for the area's intended use. If areas are not being used, allow to return to meadow or field and mow once or twice per year rather than every week.
- Keep mower blades sharpened to avoid damaging grass leaf tissue.
- Remove any grass clippings off of paved surfaces and return to the grassed area.
- Water at appropriate times (when no rain is forecasted and in the morning).

**When Possible:**

- Use mulching type mowers if available.
- Re-seed and mulch area where soils are exposed.
- Mow when the grass is dry to prevent spread of turf diseases.

**Never:**

- Never use leaf blowers to blow waste into storm drains or ditches. Only blow into streets when it will be picked up within 24-48 hours or prior to a rain or heavy wind event.
- Never irrigate based on timers or schedules instead of monitoring for rainfall.

## **SPILL CLEAN UP:** (crude oil, gasoline, heating oil, various fuel oils, lubricating oil, hydraulic oil, asphaltic residuals)

**Always:**

- Stop the source of the spill and contain any liquids, if possible to safely do so.
- Contact the MDEP to report **any size spill**.
  - **MDEP Petroleum Products Spill Response: 1-800-482-0777**
  - **MDEP Hazardous Material (non-oil spill): 1-800-452-4664**
- Report any discharge of hazardous waste immediately, (within one hour) to local emergency officials [fire department], then contact **MDEP Hazardous Material Department** (as described above).
  - Hazardous materials spills involve non-oil spills that pose a threat to human health or the environment, such as chemical releases.
- Cover the spill with absorbent material such as kitty litter, sawdust, or oil absorbent pads. Do not use straw or water.
- Notify Cumberland's Director of Operations as soon as possible for documentation of spill and spill response.

## **WILDLIFE: (DUCKS, GEESE, GULLS, ETC)**

**Facts:**

- Wildlife always have plenty of natural food sources
- They do not need Wonder Bread, French fries or pretzels (these foods provide no nutritional value to wildlife)
- Wildlife's most common instinct is "fear of humans"
  - If this instinct is lost-wildlife could be hurt or killed and humans put themselves at risk too
- Birds and other animals that have a steady diet of human food are overweight and undernourished.

**More than meets the eye:**

- The animals you feed aren't the only animals you may impact;
  - Bald Eagles eat ducks, which impacts the food chain (unhealthy ducks result in unhealthy eagles).
  - Sometimes a French fry, pretzel, etc., can get caught in their windpipes and actually split the esophagus causing the animal to die.

**Never:**

- Never feed wild animals and birds.

**TRAIL MAINTENANCE:****Always keep water off trails by:**

- Installing rock or wood water bars to divert runoff into vegetated areas
- Installing water bars at a 45 degree angle
- Using drainage dips, swales or cross ditches to divert water from trails

**Maintain Best Management Practices by:**

- Cleaning and clearing out sediment and debris.
- Clearing blow downs
- Keeping trails free of brush

**EROSION AND SEDIMENT CONTROL:****Always:**

- Use erosion control techniques or devices to stabilize disturbed areas.
- Use effective site planning to avoid sensitive areas.
- Keep land disturbance to a minimum.
- Install, inspect and maintain erosion control devices properly.
- Minimize slope lengths.
- Prevent erosion by covering bare soil with mulch or other cover.

**Whenever Possible:**

- Protect natural vegetation, especially near water bodies, wetlands, and steep slopes.
- Establish vegetative cover with good root systems prior to freeze/thaw cycles.

**Never:**

- Never divert runoff into a sensitive area.





# OPERATION AND MAINTENANCE PROCEDURES FOR VALHALLA GOLF COURSE FACILITY

Revision June 29, 2010



Train employees and subcontractors annually on O&M Procedures

Train new employees within six months of hire

## **VEHICLE & EQUIPMENT: FUELING, WASHING & STORAGE** (golf carts, tractors, lawn mowers, trimmers, weed whackers, blowers, etc)

### **Always:**

- When fueling must be done in the field, do so over a paved or concrete area well away from any storm drains or ditches. When pouring fuel from a jerry can, use a funnel.
- Maintain all fueling equipment in good working order. Conduct preventive maintenance.
- Conduct regular inspections of the fueling area and clean up any spills and absorbent on the ground.
- Use drip pans under leaking equipment.
- Completely drain oil filters before disposal by poking a hole in the top and allowing it to drain for 24 hrs.
- Clean up all spills and leaks immediately with soil, sand, rags or paper towels. Keep others away from the spill and make sure it does not run off into other areas. Scoop all into a leak-proof container and properly dispose of it.
- Keep “clean-up supplies” such as a containment drum, kitty litter, sand, sawdust, a shovel, a broom and dustpan in your storage facility and ready to use.
- Place stockpiled materials away from ledge or rock outcrops, storm drains, ditches and surface waters.

### **When Possible:**

- Perform all fueling activities for lawn care equipment in an enclosed building with closed drainage.
- Keep stockpiles under cover or use erosion control mulch to contain.
- Reduce the amount of liquid cleaning agents used or use low phosphate or phosphate free products.
- Conduct maintenance within a building or covered area.
- Park vehicles/equipment indoors or under a roof.
- Wash equipment/vehicles in a designated area that is permeable or drains to a buffer and does not directly drain to a ditch or water body.
- Discharge all wash water containing degreasers, acids, bases, and or metal brighteners to an on site treatment facility, the sanitary sewer in accordance with the treatment plant standards, or an approved holding tank.
- Drain fluid from stored/salvaged vehicles/equipment.

### **Never:**

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- Never allow drivers or operators to leave their vehicles or equipment unattended while fueling.
- Never dump gas, wastes or contaminated water down storm drains.
- Never refuel or change the mower oil near storm drains.
- Never hose down the work area unless the runoff will either be directed to an oil/ water separator and discharged into the city’s sanitary sewer system or contained and disposed of as a hazardous waste.

## **FERTILIZERS:**

### **Always:**

- Keep records/documentation of all materials applied and when.
- Check the weather forecast and apply according to product instructions as to whether to apply dry or lightly watered in.
- Store in closed containers labeled with contents and purchase date.
- Keep containers in a secure building enclosure and clean as needed.
- Always routinely inspect storage area for leaks, spills, residue, and trash.
- If fertilizer accidentally ends up on pavement, always sweep it up as and put it back in the bag.

### **Whenever possible:**

- Consider a low or no fertilizer approach to maintain turf.

## **FERTILIZERS, Continued:**

- Perform a soil test to determine actual fertilization needs and application rate.
- Calibrate fertilizer spreaders to avoid excessive application.
- When fertilizer is needed, use slow or timed release nitrogen sources.

### **Never:**

- Never apply fertilizers within five feet of pavement, 25 feet of a storm drain inlet, or 50 feet of a stream or water body.

## **PESTICIDES**

### **Always:**

- Use a licensed commercial pesticide company or licensed personnel for pesticide application, storage and disposal.

## **LANDSCAPING PRACTICES (mowing, irrigation, etc)**

### **Always:**

- Mow only as low as needed for the area's intended use. If areas are not being used, allow to return to meadow or field and mow once or twice per year rather than every week.
- Keep mower blades sharpened to avoid damaging grass leaf tissue.
- Remove any grass clippings off of paved surfaces and return to the grassed area.
- Water at appropriate times (when no rain is forecasted and in the morning).

### **When Possible:**

- Use mulching type mowers if available.
- Re-seed and mulch area where soils are exposed.
- Mow when the grass is dry to prevent spread of turf diseases.

### **Never:**

- Never use leaf blowers to blow waste into storm drains or ditches. Only blow into streets when it will be picked up within 24-48 hours or prior to a rain or heavy wind event.
- Never irrigate based on timers or schedules instead of monitoring for rainfall.

## **SPILL CLEAN UP:** (crude oil, gasoline, heating oil, various fuel oils, lubricating oil, hydraulic oil, asphaltic residuals)

### **Always:**

- Stop the source of the spill and contain any liquids, if possible to safely do so.
- Contact the MDEP to report **any size spill**.
  - **MDEP Petroleum Products Spill Response: 1-800-482-0777**
  - **MDEP Hazardous Material (non-oil spill): 1-800-452-4664**
- Report any discharge of hazardous waste immediately, (within one hour) to local emergency officials [fire department], then contact **MDEP Hazardous Material Department** (as described above).
  - Hazardous materials spills involve non-oil spills that pose a threat to human health or the environment, such as chemical releases.
- Cover the spill with absorbent material such as kitty litter, sawdust, or oil absorbent pads. Do not use straw or water.
- Notify Cumberland's Director of Operations as soon as possible for documentation of spill and spill response.



## **APPENDIX P**

### **Municipal Employee Training**

Town of Cumberland  
Stormwater Program Management Plan  
Permit Year 3 Annual Report  
July 1, 2010 to June 30, 2011

**Staff IDDE Field Training: Public Services  
RECORD OF ATTENDANCE**

**Town of Cumberland, Maine**

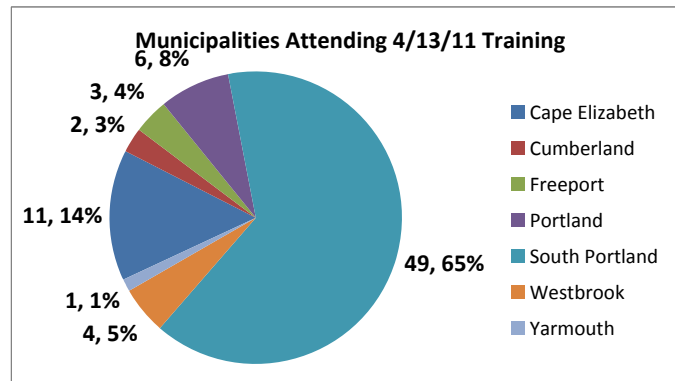
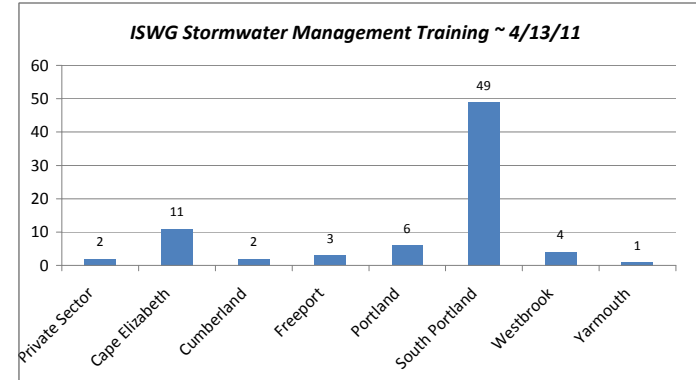
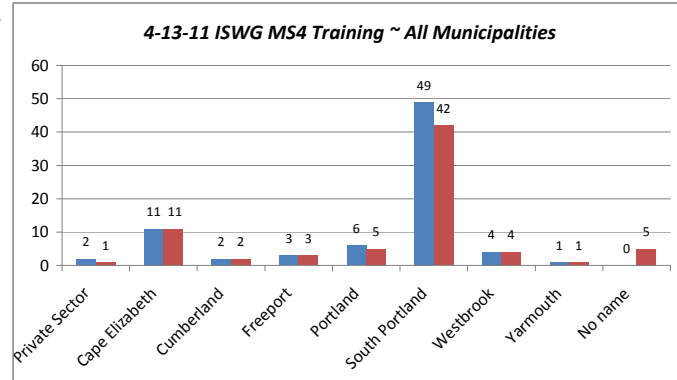
**July 13, 2009**

Name	Organization	Phone	FAX	Cell Phone	E-Mail Address
Steve Johnson	Oak Engineers	772-2004			<a href="mailto:steven.johnson@oakengineers.com">steven.johnson@oakengineers.com</a>
Danny Burr	Town of Cumberland				
Steve Googins	Town of Cumberland				
Chris Bolduc	Town of Cumberland				
Bill Landis	Town of Cumberland				
Chris Logan	Town of Cumberland				

								IC TMDL mtg @ PWD					Monitoring comm mtg	State of the Bay
Last Name	First Name	Organization/Municipality	22-Jul	16-Sep	18-Nov	17-Feb	20-Jan	17-Mar	21-Apr	19-May	TOTAL		16-Dec	21-Oct
Beasley	Eileen	Falmouth Conservation Commission						1	1		2			
Bernier	Sarah	Saco/Scarborough		1	1	1	1	1	1		6			
Blanchette	Angela	Saco	1				1	1	1	1	5			
Bohlen	Curtis	Casco Bay Estuary Partnership					1	1			2			1
Bolduc	Michael	City of Saco									-			
Branscom	John	Maine Turnpike Authority	1				1				2			
Burns	Robert	Gorham		1			1	1			3			
Connor	Greg	MMA									-			
Cross	Emily	City of Saco				1	1	1			3			
Dillon	Fred	South Portland Water Resource Protection	1	1	1	1	1	1	1	1	8		1	1
Dubois	Aimee	Scarborough									-			
Dudley	Eric	Westbrook	1		1	1	1				4			
Earle	Jon	Falmouth	1	1	1	1			1	1	6		1	
Earley	Kathi	Portland	1	1	1	1			1	1	6			1
Fitch	Jami	CCSWCD	1	1		1	1	1	1	1	7			1
Fortier	Doug	Windham			1	1	1	1	1	1	6			
Gallup	Mark	Southern ME Community College	1				1	1	1		4			
Henderson	Zach	Woodard & Curran							1					
Hinderliter	Jeffrey	OOB								1	1			
Jellis	Dan	Yarmouth	1	1	1	1	1	1		1	7			
Johnson	Steve	Cumberland	1	1	1	1	1		1		6			
Kuchinski	John	AMEC												
Ladd	David	Maine DEP	1	1	1	1	1		1		6			
Lee Pinard	Tamara	CCSWCD	1	1	1	1	1	1	1	1	8		1	1
Malley	Robert	Cape Elizabeth	1	1			1			1	4			
Milligan	Tom	City of Biddeford	1	1	1	1	1	1		1	7			
Morin	Fred	AMEC	1	1	1		1	1	1		6			
Plummer	Sarah	CCSWCD		1							1			1
Presgraves	Albert	Freeport		1	1	1	1		1	1	6		1	1
Rinehart	Christine	Wright-Pierce	1	1	1	1	1	1	1	1	8			
Robertson	Bill	Old Orchard Beach				1					1			
Roland	Brad	City of Portland							1		1			
Roncarati	Doug	Portland	1		1	1	1	1	1	1	7		1	
Roth	Lori	CEMA								1				
Saunders	Robyn	Maine Turnpike Authority		1		1	1	1	1	1	6		1	
Shaw	Michael	Scarborough	1		1		1		1	1	5		?	
Smith	Nathaniel	City of Portland							1		1			
Stratford	Amy	SME		1					1	1	3			
Tansley	Greg	City of Biddeford							1		1			
Thomes	David	South Portland Water Resource Protection		1	1	1			1		4			
Wendel	Jim	Scarborough						1	1	1	3			
Williams	Betty	CCSWCD												
Witherill	Don	Maine DEP							1	1	2			1
			18	19	17	19	23	18	26	20			6	8



Municipality / Org.	No. Attended	No. Quizzes
Private Sector	2	1
Cape Elizabeth	11	11
Cumberland	2	2
Freeport	3	3
Portland	6	5
South Portland	49	42
Westbrook	4	4
Yarmouth	1	1
No name	-	5
	78	74



# Stormwater Pollution Prevention A Drop in the Bucket

## Employee Quiz

Name

Wade Wescott

Dept.

TOWN OF COMBES

Date

4-13-11

The following questions all have multiple choice answers. Please circle the best answer for each question.

1. If you spill a small amount of dry material such as a powder outdoors, what should you do about it?
  - a. Hose it down into the nearest storm drain or ditch
  - b. Let the wind blow it away naturally
  - ☒ c. Clean it up promptly and thoroughly
  - d. Notify the local fire department
2. If you must temporarily store materials outdoors that are packaged in paper bags, how should this be done?
  - a. Cover them with a water proof tarp
  - b. Secure the tarp
  - c. Check the tarp regularly for loosening
  - ☒ d. All of the above
3. Which of the following are most likely to contaminate stormwater run-off?
  - a. Hand tools
  - ☒ b. Solvents
  - c. Scrap tires
  - ☒ d. Gravel
4. After you have finished pumping a liquid through a hose into a vessel or container, you should...
  - a. Inspect the hose for leaks
  - ☒ b. Drain the hose into the receiving vessel or container and cap it before putting it away
  - c. Place a drop cloth under the receiving vessel or container
  - d. Place a drip bucket under any connections
5. Before starting to paint outdoors, you should...
  - a. Set up the work site over the closest storm drain
  - ☒ b. Place a drop cloth under the object to be painted
  - c. Notify your facility's emergency coordinator
  - d. Place a water proof tarp or cover over the object to be painted
6. After cutting or grinding work done outdoors, you should...
  - ☒ a. Sweep up the scraps and shavings and dispose of them properly
  - b. Replace the saw blade or grinding wheel
  - c. Sweep the scraps and shavings into the street
  - d. Hose the scraps and shavings away
7. If you use portable containers of liquid in any outdoor work, how should they be handled?
  - a. Keep lids and caps securely in place unless actually using the container
  - b. Place inside of secondary containment such as a pan or tray
  - c. Put the containers away indoors when finished
  - ☒ d. All of the above

# Stormwater Pollution Prevention **A Drop in the Bucket**

## Employee Quiz

Name Mark Brainerd  
Dept. Public Service Date 4-13-11

CUMENARA

*The following questions all have multiple choice answers. Please circle the best answer for each question.*

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