

MS4 Program Plan for the Town of Blacksburg
Small MS4 General Permit
(VPDES Permit No. VAR 040019)

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Blacksburg TOWN OF
VIRGINIA



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Section 1 - Introduction

The purpose of the document is to serve as the Program Plan for the Town of Blacksburg (300 South Main Street, Blacksburg, Virginia 240602-9003) per 9VAC25-890 to comply with the General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems.

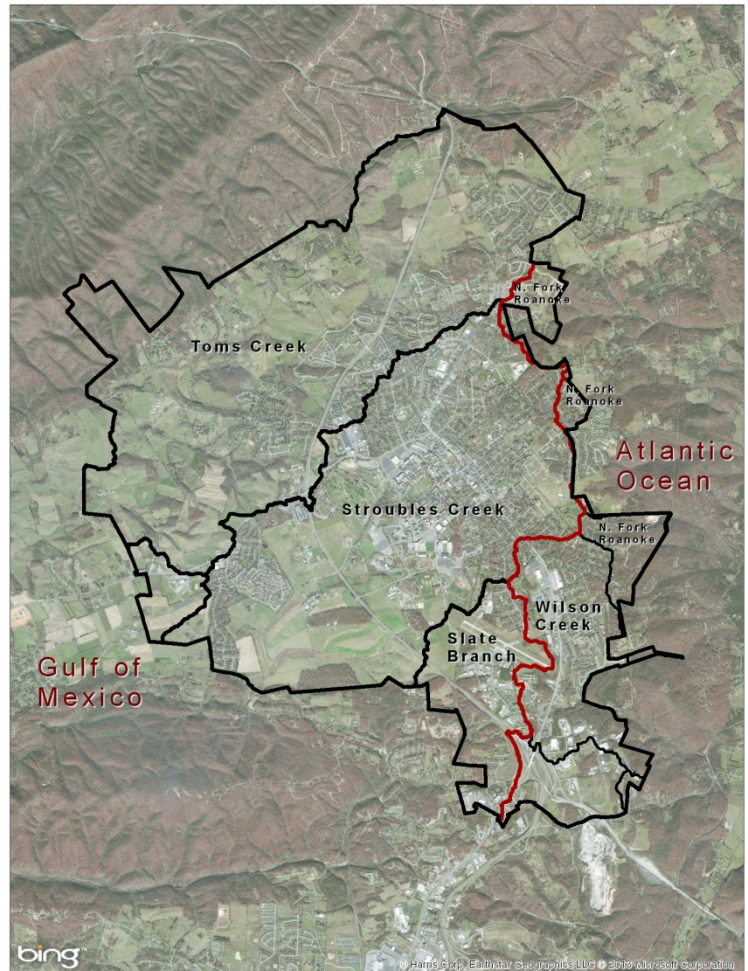
The Town of Blacksburg's MS4 Program Plan includes the documents, policies and procedures necessary to implement all programs recommended and required for compliance with the Federal Clean Water Act and State Regulations.

This document is organized to follow the direction provided in 4VAC50-60-1230 (B) – Registration Statement. Section 2 is intended to provide the required general information per 4VAC50-60-1230, Part B, #1-6, Small MS4 General Permit towards completion of the Registration Statement. Section 3 provides the required information per 4VAC50-60-1230, Part B, #7, the MS4 Program Plan. Section 4 provides the administrative information and certification as per 4VAC50-60-1230, Part B, #9-12.

Section 2 – Watershed Descriptions

Located on the Eastern Continental Divide, the Town of Blacksburg is the headwaters of several watersheds and receives little surface runoff from outside its boundaries. These watersheds are the source of water for several streams located in the Town: Toms Creek, Stroubles Creek, Slate Branch, Wilson Creek, Cedar Creek, Indian Branch, and Dry Run. These stream systems recharge the regions aquifer through karst geography and other pervious areas and discharge at springs and creek beds. Several natural watershed features such as wetlands, ephemeral stream channels, and water impoundments are located throughout the Town.

In this section each watershed will be described with land use, watershed size and water quality condition.



Tom's Creek Watershed

The Toms Creek Watershed a tributary of Poverty Creek, which flows to the New River. This watershed ultimately drains to the Ohio River and out to the Gulf of Mexico. The land use of this watershed is approximately 30% Residential and 70% Agricultural and Open Space. This combination results in a watershed that is impacted by both urban drainage and agricultural impacts. The Town of Blacksburg has been working for years to improve the existing stream corridor by reducing flooding and protecting the rural areas from degradation due to development. The watershed also has agricultural impacts, livestock entering the stream and bacteria inputs into the water column.

Toms Creek Watershed has an area of 5,357 acres inside the limits of the Town of Blacksburg, our largest watershed. Toms Creek is categorized as a stock-able Trout waters and has recently been listed on the 303(d)/303(b) list as impaired for temperature. A TMDL is scheduled for 2020.

Stroubles Creek Watershed

Stroubles Creek is a tributary of the New River, which drains to the Ohio River and the Gulf of Mexico. The Stroubles Creek watershed is approximately 25% Residential, 25% University, 25% Agricultural and 10% Commercial. The commercial area is a small area but it is very concentrated. Stroubles Creek is piped underneath the downtown corridor of Blacksburg and is impacted by many of the commercial businesses that it flows underneath.

Stroubles Creek watershed has an area of 5,415 acres within the limits of the Town of Blacksburg. Slate Branch is a tributary of Stroubles Creek. Stroubles Creek was originally listed as impaired in 1996 with a benthic impairment. A TMDL was completed in 2003 and a TMDL Implementation Plan was authored in 2006. In 2006 Stroubles Creek was also listed as impaired for *Escherichia coli*. This impairment is scheduled for a TMDL study in 2014.

Wilson Creek Watershed

Wilson Creek is a tributary of the North Fork of the Roanoke River. This watershed begins in Blacksburg, Virginia and drains through southern Virginia as the Staunton River and then to northeastern North Carolina to the Albemarle Sound. The Albemarle Sound is a large estuary that drains to the Atlantic Ocean. The Wilson Creek Watershed is 30% residential, 25% commercial, 25% undeveloped and the remaining portion is a mixture of agriculture, industrial and municipal uses.

Wilson Creek watershed has an area of 1,509 acres within the limits of the Town of Blacksburg. Cedar Run is a tributary of Wilson Creek. Wilson Creek was originally listed as impaired in 1998 for exceeding levels of fecal coliform and *Escherichia coli*. A TMDL was completed for Wilson Creek and the Upper Roanoke River in 2006.

North Fork of the Roanoke River

The North Fork of the Roanoke River is a Tributary of the Roanoke River. These waters drain to the Atlantic Ocean through the Albemarle Sound in North Carolina. Several minor tributaries of the North Fork drain the eastern side of Blacksburg. Some of the tributaries are un-named; others have names such as Indian Run. The North Fork watershed is 60% residential, 35% agriculture and undeveloped land and less than 10% is a mixture of commercial, and municipal.

The North Fork has an area of 573 acres within the Town limits, the smallest watershed in Town. The North Fork was originally listed as impaired in 1996 for sediment and 1998 for bacteria and a TMDL for both was completed in 2006. The Roanoke River was originally listed as impaired for

PCB's in fish tissue in 1996 near the cities of Salem and Roanoke. A TMDL study was completed in 2009 identifying sources in the Blacksburg region.

Section 3 – MS4 Program Plan

In compliance with 4VAC50-60-1230 B.7, this currently implemented program plan is being included with our registration statement and request for re-issuance of the MS4 Permit. The Town of Blacksburg's MS4 Program plan will continue to comply with Section II of 4VAC50-60-1240, the general permit. Included in this Program Plan is a schedule for updates to the plan to maintain the requirements of the MS4 permit in accordance with Table 1. The MS4 Program Plan includes a list of BMPs that the Town proposes to implement for each stormwater minimum control. Additionally, the Program Plan describes:

1. A list of the existing policies, ordinances, schedules, inspection forms, written procedures, and other documents necessary for best management practice implementation, along with the individual or department or department responsible for implementation or enforcement of the BMP, with a brief description of duties;
2. The objectives and expected results of each BMP in meeting the measurable goals of the stormwater minimum control measures;
3. The implementation schedule including any interim milestones for the implementation of a proposed new best management practice;
4. The method that will be utilized to determine the effectiveness of each best management practice and the MS4 program as a whole.

Control Measure 1: Public Education & Outreach on Stormwater Impacts

Continue to implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. Measures described below are intended to meet public outreach and measurable goals as described 4VAC50-60-1240, Section II B(1) and Section I B(2.C).

Control Measure #1 BMP's:

- A. Public Education and Outreach Plan (PEOP) Development.**
- B. Storm Drain Marking Program Implementation.**
- C. Demonstration Projects Enhancement.**
- D. Household Waste, Business Waste, Universal and Hazardous Waste Education and Minimization.**
- E. Grease Program Enforcement.**
- F. Illicit Discharge Education.**
- G. Town Stormwater Page Maintenance.**

A. Public Education and Outreach Plan (PEOP) Development (effective July 2014)

The Town will develop a public education and outreach plan (PEOP) to coordinate all outreach efforts into one campaign. This plan will identify a minimum of three high-priority issues that affect the Town of Blacksburg. The PEOP will identify population size of the target audience most likely to have an impact on the chosen high-priority issues. A relevant message will be selected and distributed to the selected audience. Opportunities for participation will be provided during the development of the PEOP. Activities will be conducted annually to reach 20% of the target audience. The plan will be evaluated annually for appropriateness of the high-priority issues, audience selection, and effectiveness of message and adjustments will be provided when needed.

B. Storm Drain Marking Program Implementation

The town plans to mark all storm drains within town limits with information regarding the storm drain system. A combination of painted storm drain stencils and the placement of permanent storm drain curb markers will be utilized for this program. Painted storm drain stencils will be used in areas where high traffic could dislodge a permanent curb marker. A permanent high visibility curb marker will be used in more pedestrian areas. An inventory has been created and will be updated with the type of mark for each storm drain and markings installed each of the following years.

C. Demonstration Projects Enhancement

The town will continue utilizing Demonstration Projects on Town property as examples and educational resources for citizens:

- Wong Park Bioretention
- Recreation Building Bioretention (research partnership with Virginia Tech)
- Aquatic Center Bioretention

- Wong Park Urban Forestry Grant (vegetative cover to enhance water quality)
- Blacksburg Motor Company (Bioretention, porous concrete, rain gardens, and rain barrels)
- South End Fire Station LID practices
- Farmer's Market – redevelopment, reduction of impervious cover (proposed)

D. Household Waste, Business Waste, Universal and Hazardous Waste Education and Minimization

The Town's Office of Waste Minimization and Recycling employs two full time positions dedicated to addressing municipal solid waste, universal waste, and hazardous waste issues. Staff also addresses employee awareness and community education regarding these topics.

- The Town conducts an annual Household Hazardous Waste Day in conjunction with neighboring jurisdictions so that residential homeowners may properly dispose of their household chemicals. The Hazardous Household Waste (HHW) day is publicized by mailing an informational brochure to each Town refuse collection customer with their water bill, utilizing the Town website, and Blacksburg Alert.
- The Town seeks partnerships to develop public outreach programs. Current partnerships include a community electronics recycling program with the local YMCA thrift shop. In addition, the recycling staff continues to work with the New River Valley Apartment Council to improve apartment recycling.

E. Grease Program Enforcement

The Town "grease program" has established education, inspection, and enforcement guidelines. The Town has identified food service businesses that use or generate grease and/or oils and send educational brochures for best management practices that address the storage, disposal, and spills annually. The Town also sends an annual reminder to the businesses on the potential enforcement actions for violators. The Town maintains a database with grease violators that are utilized in our geographical informational systems to track trends in the system.

F. Illicit Discharge Education

The Town continues to research and update the BMPs, alternative options, and proper disposal techniques for non-storm water discharges. This information will be sent to businesses annually. The Town will continue to send out a survey asking businesses about non-storm water discharges every five years. Responses to the survey will allow the Town to evaluate and prioritize potential hazards and actions to be taken.

G. Town Stormwater Page Maintenance

Stormwater related information is available on the Town's website for the general public. The site contains links to DEQ, DCR, and EPA web pages related to stormwater pollution, MS4, and TMDLs. The Town's stormwater management ordinance, MS4 Program plan and annual reports, and Stroubles Creek TMDL Implementation Plan are also posted on the website.

Schedule and Evaluation:

The public education programs listed above will continue to occur during every year of this permit. The Public Education and Outreach Plan (PEOP) Development will be completed by July 1, 2014 and submitted with Year One Annual Report as an update to the Program Plan.

Responsible Party:

Director of Engineering
Town Stormwater Engineer
Water Resource Inspector
Neighborhood Services Coordinator
Environmental & Sustainability Manager
Operations Coordinator
Office of Waste Reduction & Recycling

Necessary Documents:

Public Education and Outreach Plan
Storm Drain Marking Inventory
Demonstration Project Photos and Description
Educational Brochures Provided at any Outreach Event
Annual Grease Program Mailers

Measurable Goals:

Dates and attendance for each public education effort will be counted or estimated where necessary. At waste collection events, the amount of waste collected will also be recorded. The location of stream cleaned will be tracked. Illicit discharge and grease discharge database will be tracked. The target goal is to reach 20% of the intended audience within each outreach target audience.

Items to be reported in the Annual Report:

A summary of the measurable goals will be reported in the annual report including dates and attendance for each outreach event. Copies of educational materials will be provided upon request.

Control Measure 2: Public Involvement and Participation

The Town must, at a minimum, comply with state, tribal, and local public notice requirements when implementing a public involvement/participation program. The goal is to increase public notice, involvement and participation in the Town's stormwater program. Measures described below are intended to meet these goals as described 4VAC50-60-1240, Section II B (2).

Control Measure #2 BMP's:

- A. Conduct stakeholder meetings for watershed management and storm water quality improvement.**
- B. TMDL Implementation Planning and Participation.**
- C. Participate and support stream clean-up efforts.**
- D. Posting of Program Plan and Annual Reports online for general public.**
- E. Outreach Event Participation.**

A. Conduct stakeholder meetings for watershed management and storm water quality improvement.

The Town will attend community meetings and public hearings for new development projects and document citizen concerns with regards to stormwater as it pertains to new development projects. The Town will continue to conduct the Town Comprehensive Plan process and update every 5 years on watershed and storm water goals for the community. In addition, the Town also has periodic meetings with local watershed interest groups that have formed to address neighborhood water quality and flooding issues.

B. TMDL Implementation Planning and Participation

The Town will continue to be an active member of the Stroubles Creek TMDL Implementation Plan Steering Committee. The Roanoke River Implementation Plan Steering Committee has been created and the Town plans to become an active member of this committee as well.

C. Participate in stream clean-up efforts.

The Town will participate and assist local groups for stream clean-up efforts, including assistance with funding, mapping and documentation for determining stream stretches, drainage ways, channels and other areas in need of clean-up and record keeping of these activities.

D. Posting of Program Plan and Annual Reports online for general public.

The Town's Program plan and Annual Reports serve as comprehensive documentation to educate the community of the measures taken to address stormwater pollution and its impact to water quality in our local waterways. Posting the latest version of the program plan and annual reports allows the public to be educated and aware of the number of measures the Town implements. This knowledge can lead to public involvement and participation in certain aspects of the program.

E. Outreach Event Participation

The town will continue public outreach efforts by sponsoring or participating in at least four of the following annual events. If additional events need to be added, these will be included in revisions to the Program Plan.

- Sustainability Week: This event provides informational sessions, community educational fair, and demonstration events to educate citizens on a wide variety of issues including impacts of household wastes on storm water quality.
- “Steppin’ Out” event: A watershed informational booth is set up to engage the public on local water quality issues.
- Blacksburg Watershed Open-house: The focus of the Open House is to inform citizens about the surrounding watersheds and the impacts of non-point source pollution from household, industrial, and urban storm water runoff.
- Summer Solstice Fest – This is an all day event targeting local families and students for food, crafts, and information of local interest. An information booth is set up to distribute information on local water quality issues and events.
- Greeks Giving Back – This is an annual event where the local sororities and fraternities volunteer to give back to their communities. A selection of water quality events have occurred such as watershed clean-ups and storm drain stenciling projects. An estimated 800 students participate.
- The Big Event engages student volunteers from the local university to provide service efforts throughout Blacksburg. Approximately 6800 students participated.
- Earth Day clean-ups and other local events.
- Gobblerfest is an annual festival occurring on Virginia Tech’s campus to engage students in on-campus and off-campus activities in addition to connecting with the surrounding community. An estimated 22,000 people attended in previous years.
- Citizens Institute is a nine week course where Town staff educates citizens on what the Town has to offer and illustrates ways to get involved with the community. Each week a different department highlights their duties and involvements. The stormwater staff provides an informational session about the water resources of Blacksburg and local water quality issues.

Schedule and Evaluation:

- The Town will document citizens concerns in regards to new development when these concerns are voiced during a community meeting or public hearing.
- The Town Comprehensive Plan will be updated every five years with annual amendments as needed on storm water issues and watershed management.
- The Town will continue to attend TMDL Implementation Plan meetings when scheduled.
- Stream clean-up efforts will be coordinated and assistance provided at a minimum of one clean-up per year. The Town is working to have every major stream corridor be cleaned at least once during the permit cycle.
- The Town will post the Program Plan on the website after receiving acceptance by DCR, and will post each Annual Report on the website by October 31st of each year.

Responsible Party:

Director of Engineering

Town Stormwater Engineer
Senior Comprehensive Planner
Neighborhood Services Coordinator

Necessary Documents:

Comprehensive Plan
TMDL Implementation Plans
MS4 Program Plan and Annual Reports
List of Annual Outreach Events

Measurable Goals

The dates and comments will be recorded for outreach events, community meetings and public hearings where stormwater concerns are voiced. The dates and attendance of stakeholder meetings will be maintained and either a summary or agenda will be kept. Updates to the Comprehensive Plan will be performed. TMDL Implementation plan measures will continue to be addressed and completed projects will be reported. The stream clean-up events will be attended, attendance recorded and the area will be mapped so that the Town can track the progress. The program plan will be posted to the website by July 1, 2013 or earlier if the Town receives approval from DCR before that date. Annual reports will be posted to the website by October 31st of each permit year.

Items to be reported in the Annual Report:

- Dates, attendance and description of each outreach event attended.
- Summary of stakeholder activities, attendance and pertinent community input.
- TMDL Implementation Program progress and updates.
- Dates attendance and location of stream clean-up efforts.
- Summary of updates to website.

Control Measure 3: Illicit Discharge Detection and Elimination

Develop a comprehensive map of the storm drain system, establish and carry out procedures to identify and remove illicit discharges, establish legal authority for enforcement actions, and encourage public education and involvement in eliminating illicit discharges. Measures described below are intended to meet public outreach and measurable goals as described 4VAC50-60-1240, Section II B (3).

Control Measure #3 BMP's:

- A. Develop a storm drain system map.**
- B. Develop procedures for identifying areas with high potential for introducing illicit discharge to the storm system.**
- C. Enforce an ordinance prohibiting illegal dumping and non-storm water discharges.**
- D. Enforce an ordinance prohibiting diverted stream flows in environmentally sensitive areas and encouraging buffering around creeks.**
- E. Establish a plan to identify and remove illicit discharges by utilizing public involvement, education, and enforcement of illicit discharge ordinance.**
- F. Estimate Volume of Stormwater discharged and quantity of WLA pollutant.**
- G. Develop written procedures to detect, identify, and address stormwater discharges including illegal dumping (July 2014)**

A. Develop a storm drain system map.

The Town has been working with the Virginia Tech Civil Engineering Department to employ GIS and GPS technology to inventory the complete storm sewer system within the Town, including stormwater management facilities. The goal is to develop the tools to adequately inventory and model the hydrologic and hydraulic conditions associated with the storm sewer system. This information is planned to be used for a variety of applications and modeling efforts. In addition, the Town GIS department will continue to GPS and update new storm water infrastructure and incorporate this information into the overall storm structure database.

B. Develop procedures for identifying areas with high potential for introducing illicit discharge to the storm system.

During the previous permit cycle, the Town contracted Virginia Tech to perform an Illicit Discharge Potential (IDP) assessment and Outfall Reconnaissance Inventory (ORI) using procedures from the departments recommended publication entitled "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments," completed on April, 2008. The IDP assessment work included the following:

- Delineation of sub-watersheds and identification of outfalls;
- Compilation of mapping and base data to be used as screening factors;
- Derivation of sub-watershed discharge screening factors using GIS;
- Screening and ranking IDP at the sub-watershed and community level
- Generation of maps to support field investigation

With the identification of outfalls from the IDP, the ORI established data collection and water quality sampling protocol, along with a database for record keeping.

In accordance with 4VAC50-60-1240 Section I.B.5, with the Town having less than 250 total outfalls discharging to the identified surface water, the Town must have an Outfall Reconnaissance monitoring that assures a minimum of 15% of outfalls discharging to the surface water for which the WLA has been assigned are monitored annually. A total of approximately 140 MS4 outfalls are identified in the ORI report. At least 1/5th of these outfalls will be screened each year to assure all outfalls are screened within the permit cycle. Future reconnaissance efforts will include an updated field sheets with focus on WLA pollutants.

The Town considers the requirements of 4VAC50-60-1240 Section I.B.5 to be met with:

- The modification to current ORI efforts to assure the required number of outfalls associated with the water body assigned a WLA are included in annual reconnaissance efforts and;
- The expansion of the focus of the presence of sediment during field investigation.

C. Enforce an ordinance prohibiting illegal dumping and illicit discharges.

The Town has established an ordinance to prohibit illicit discharges that was adopted by Town Council in spring of 2008 as part of a Comprehensive Stormwater Ordinance. The Town will track and enforce all known instances of illegal dumping and illicit discharges in a GIS database. The GIS database will be used to detect trends and identify repeat offenders.

D. Enforce an ordinance prohibiting diverted stream flows in environmentally sensitive areas and encouraging buffering around creeks.

The Town of Blacksburg has adopted by Ordinance two zoning overlay districts (“Creek Valley Overlay District”, “Floodplain Overlay District”) and has adopted amendments to the Subdivision Ordinance that protects floodplain areas, streams, and adjacent lands. (Ordinance Numbers 1184, 1215, 1225, 1308, 1310, and 1339.) The Overlay Districts prohibit development in areas detailed in Ordinances.

E. Establish a plan to identify and remove illicit discharges by utilizing public involvement, education, and enforcement of illicit discharge ordinance.

The Town of Blacksburg will utilize the Town website, Town newsletter, mailings to businesses, brochures, and Public Outreach events to publicize the Illicit Discharge Program. This plan will incorporate a comprehensive outreach element, covered in BMP 1-F. The plan will outline how Town employees will receive guidance on detecting illicit discharges and related enforcement actions covered in BMP 6-M. The plan will also detail how illicit discharges will continue to be tracked by the Town Geographical Information System to help detect trends and identify repeat offenders provided in BMP 3-D.

F. Estimate Volume of Stormwater discharged and quantity of WLA pollutant.

The VSMP permit requires the Town to estimate the volume discharged and the amount of WLA pollutant, in units consistent with the associated TMDL, for watersheds assigned a WLA. The TOB currently has the following WLAs associated with a TMDL:

- 211 tons/year sediment to Stroubles Creek
- 102 tons/year sediment to Upper Roanoke River watershed
- 3.15E+09 cfu/year bacteria (E coli) to Wilson Creek

G. Develop written procedures to detect, identify, and address stormwater discharges, including illegal dumping.

The development of this document requires the Town to identify and document written dry weather screening methodologies. A prioritized schedule of field screening activities determined by age of system, land use and other factors will be developed. The minimum amount of field screenings to be completed each year will be outlined. The methodologies to collect information such as last rain, conveyance type, estimated discharge rate and visual observations will be described. A time frame for follow-up investigation will be defined. The method to determine source and eliminate such source will be provided. These procedures will incorporate the current methods to use a database of tracking discharges. The existing outreach methods for publicizing and facilitation of public reporting of illicit discharges will be expanded. This will be completed by **July 2014** and will be included with the Year 1 annual report submission.

Schedule and Evaluation:

- Detailed data collection of the complete storm sewer system (including stormwater management facilities) is ongoing and expected to be completed for the entire Town within this permit cycle. Town staff will inventory new storm water infrastructure as needed during all years of this permit.
- The Town will perform, or will have performed, data collection and water quality sampling, as described in the ORI and above as part of the BMP, for a minimum of 15% of all outfalls annually so that all outfalls are sampled during a 5-year cycle. Selection of outfalls inspected annually will assure at least 15% of the outfalls discharging to the WLA water body is included.
- The Town will continue ongoing enforcement of the Stormwater Ordinance, as described above, to its full extent.
- The Town will continue to enforce these Ordinances to protect floodplain areas, streams, and riparian zones during all years of this permit.
- Tracking of illicit discharges with analysis of trends will occur during all years of this permit.
- The Town will utilize yearly updated land use data, watershed area data, and soils data with the Purdue University's Long Term Hydrologic Impact Assessment (L-THIA) Basic Model to calculate annual discharge and WLA pollutant loadings for the WLAs associated with a TMDL listed above.

Responsible Party:

Director of Engineering & GIS Department
Town Stormwater Engineer
GIS Coordinator
Water Resources Inspector
Zoning Administrator

Necessary Documents:

Mapping Results and watershed data (GIS database)
Outfall Sampling Database
ORI Field inspection sheets
Stormwater Ordinance
Illicit Discharge Database
Zoning Overlay Districts and related Ordinance sections.
Educational materials: Brochure, Enforcement letter, Town newsletter, etc.

Measurable Goals:

Annually map all new stormwater structures to maintain reliable storm structure data in a GIS database. Maintain an ongoing illicit discharge database, along with summary of actions, research and enforcement performed in all cases. Continue to enforce ordinance sections that prohibit development in protected Zoning Overlay Districts during all years of this permit. Distribute educational materials each year to reach desired audience. Continue to characterize Town properties for potential for discharge of pollutant and take actions necessary to prevent such discharge.

Items to be reported in the Annual Report:

- New mapping areas with updates of new stormwater structures and infrastructure from new development.
- The ORI inspection field sheets.
- New outfalls added to the database.
- A report summarizing illicit discharge violations and enforcement actions taken by the Town.
- Dates and details of information distributed in the prevention of illicit and non-stormwater discharges will be provided.

Control Measure 4: Construction Site Runoff Control

Develop, implement, and enforce a program to reduce pollutants in storm water runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to five thousand square feet. Additionally, reduction of storm water discharges from construction activity disturbing less than 5000 feet must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb 5000 square feet or more. Measures described below are intended to meet public outreach and measurable goals as described 4VAC50-60-1240, Section II B (4).

The program must include the development and implementation of, at a minimum:

1. An Ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance with the Erosion and Sediment Control Law, to the extent allowable under state, tribal, or local law;
2. Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
3. Requirements for construction site operators and owners to secure authorization to discharge stormwater from construction activities under a VSMP permit for construction activities that result in a land disturbance of greater than or equal to one acre (or less than one acre if part of a common plan of development or sale greater than one acre).
4. Procedures for receipt and consideration of information submitted by the public; and
5. Procedures for site inspection and enforcement of control measures.

Operator shall ensure that plan reviewers, inspectors, program administrators and construction site owners and operators obtain the appropriate certifications as required under the Erosion and Sediment Control Law;

The operator shall track regulated land-disturbance activities and submit the following information annually in accordance to Section II (E) (3) of 4VAC50-60

1. Total number of regulated land disturbing activities
2. Total disturbed acreage

Control Measure #4 BMP's:

- A. Erosion and Sediment Control Legal Authority.**
- B. Respond To Erosion and Sediment Control Complaints.**
- C. Require construction site operators to control waste.**
- D. Require acknowledgement from agent (design engineer) or owner when a VSMP permit is needed for a plan under review.**
- E. E&S Inspection Protocol (July 2014)**
- F. Pollution Prevention Plan Enforcement Protocol (July 2015)**

A. Erosion and Sediment Control Legal Authority.

The Town of Blacksburg relies on its erosion and sediment control program as regulated under the Virginia Erosion and Sediment Control Law (ESCL) and attendant regulations. The Town has more restrictive controls than the ESCL to protect water quality by requiring land disturbers of more than 5,000 square feet to comply with the Town of Blacksburg Erosion and Sediment Control Program. The E&S Program has procedures for plan review, inspection, enforcement, and penalties. A certified Land Disturber is required prior to approval of any E&S plan and public plan reviewers will be certified E&S reviewers.

B. Respond To Erosion and Sediment Control Complaints.

The Town employs a full time Construction Manager and a Site Improvement Construction Inspector. The Construction Manager is the point of contact for E&S complaints and problems.

C. Require construction site operators to control waste.

The Town of Blacksburg Town Code and Adopted Building Code (20-140, and 20-306) require construction sites to control waste. The Building Official is the point of contact for complaints on construction site waste. A trash and debris report will be used to track violations and corrective action.

D. Require acknowledgement from agent (design engineer) or owner when a VSMP permit is needed for a plan under review.

The Town will provide a standard comment as part of site plan review that request the agent (design engineer typically) or owner to acknowledge in writing (comment response letter) when a VSMP permit is needed for the proposed construction and to provide a copy of the permit application, stating that it has been submitted. A link for Compliance Information for the VSMP Permit is also provided on the Town Stormwater web page.

- “The erosion and sediment control permit shall be issued at the conclusion of a preconstruction meeting at which the design professional engineer, the responsible land disturber (RLD), and the general contractor (GC) must be present with the Town Engineer and Town Site inspector. During that meeting, the securities shall be provided to the Town, the Storm Water Pollution Prevention Plan (SWPPP) shall be signed by all parties, the construction schedule and construction inspection fees shall be paid to the town.”
- “This preconstruction meeting is an opportunity for the Town to review with the development team the erosion and sediment control requirements and the SWPPP requirements, immediately prior to the start of construction. In addition, at the preconstruction meeting the sequence of erosion and sediment control measures, and the points at which certifications are required by the professional engineer shall be reviewed.”
- “The Erosion and Sediment Control Permit shall be issued at the preconstruction meeting.”

E. E&S Inspection Protocol (July 2014)

The Town of Blacksburg will document and implement and E&S schedule for inspections for a) initial installation of E&S controls, b) one every two weeks, c) within 48 hours of rain producing event and d) upon completion of the project prior to bond release. If an alternative inspection

program is implemented as provided for in 4VAC50-30-60 B(2), this shall be implemented in lieu of the above-mentioned schedule. The following will become parts of the E&S Inspection Protocol:

- Documentation that inspections are being conducted by personnel who hold an appropriate certificate of competence.
- A public mechanism for the promotion and receipt of complaints regarding regulated land disturbing activities with follow-up mechanisms.
- The procedures for use of legal authority to require compliance with the approved plan when a discrepancy arises.
- The procedures for use of legal authority to require changes to approved plan when an inspection finds a discrepancy.

This protocol will be completed by July 2014 and will be included with the updated Program Plan submitted with Year 1 Annual Report.

F. Pollution Prevention Plan Enforcement Protocol (July 2015)

The Town of Blacksburg will require the implementation of controls to prevent non-stormwater discharges to the MS4 such as wastewater, concrete washout, fuels and oils or other illicit discharges.

Schedule and Evaluation:

The Town of Blacksburg will implement the program during all years of this permit. The Town will continue to respond to all Erosion and Sediment Control complaints during all years of this permit and take the appropriate actions per the Virginia Erosion and Sediment Control regulations as deemed necessary. The Town will continue to monitor construction sites for waste violations and enforce Town Code as related to these violations during all years of this permit. The Town will request acknowledgement of the need for a VSMP and a copy of the permit application on a continuing basis during plan review process for all years of the permit cycle. The link for information for VSMP compliance will be maintained on the webpage.

Responsible Party:

Erosion and Sediment Control Administrator
Building Official
Town Stormwater Engineer

Necessary Documents:

Land Disturbance Permit
Plan Review Checklist
Site Inspection Checklist
Compliance and Enforcement Policy (Erosion and Sediment Control Ordinance)
Database of E&S violations and corrections
Trash and Debris Form

Measurable Goals:

The Town shall respond to all E&S complaints, continue to use trash and debris form to document number of violations and violators to identify repeat offenders and use appropriate enforcement actions. The Town shall continue to require the verification of VSMP permit compliance during pre-construction meetings.

Items to be reported in the Annual Report:

- Total number of disturbed acres.
- Number of plans approved.
- Number of erosion and sediment control complaints and actions taken.
- Trash and debris form results.

Control Measure 5: Post Construction Stormwater Management

Develop, implement and enforce a program to reduce the volume and improve the quality of storm water runoff from development with a land disturbance of greater than or equal to 5000 square feet. Additionally, reduction of storm water discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb 5000 square feet or more. Measures described below are intended to meet public outreach and measurable goals as described 4VAC50-60-1240, Section II B (5).

Control Measure #5 BMP's:

- A. Enforce a storm water ordinance designed to control runoff impacts**
- B. Implement a storm water maintenance program that requires proper long term operation and maintenance of storm water management facilities *and* conduct inspections and enforcement measures consistent with Virginia Stormwater Management Act and attendant regulations.**
- C. Tracking of all known stormwater management facilities.**
- D. Develop Stormwater Facilities Protocol (July 2014)**

A. BMP: Enforce a storm water ordinance designed to control runoff impacts.

The Town of Blacksburg relies on its Stormwater Management Program as regulated under the Virginia Stormwater Management Regulations and attendant regulations. The Storm Water Management Program has procedures for plan review, inspection, enforcement, and penalties. The Town has filled a full time Stormwater Engineer position that is responsible for administering the Storm Water Management Program.

A Stormwater Ordinance which includes water quality and illicit discharge sections was adopted into Town Code by the Town Council in April, 2008. The ordinance exceeds the minimum requirement by applying to sites that disturb greater than or equal to 5,000 square feet, as opposed to the minimum of one acre required. The selection of the threshold was based on being consistent with the Town's Erosion and Sediment Control regulations.

A revised Stormwater is being drafted to comply with 4VAC50-60 Part II B of the Stormwater Regulations. This will be adopted by Town Council before July 1, 2014. This update will comply with all state regulations. The Town intends to keep its current threshold for stormwater management at 5000 square feet.

B. Implement a storm water maintenance program that requires proper long term operation and maintenance of storm water management facilities *and* conduct inspections and enforcement measures consistent with Virginia Stormwater Management Act and attendant regulations.

The Stormwater Management ordinance mentioned in the previous section requires a Maintenance Covenant on stormwater management facilities for new development. This is

enforced at the plan review stage, and approval of the plan is not granted until a receipt is provided from the Montgomery County Courthouse. A template Covenant is provided on the Town's Stormwater website. The covenant includes reference to maintenance and inspection requirements as provided with or on the plans. The covenant is signed by the Owner of the facility and reviewed by the Town Attorney and Town Stormwater Engineer prior to recordation.

The Covenant also provides access to the Town for inspection of these new stormwater facilities (those approved post-ordinance). As part of the Stormwater Program described in the Ordinance, the Town will inspect these facilities at least once during a permit cycle. Maintenance forms from these inspections will be maintained in a database. This database will be linked to a GIS database of stormwater facilities.

In addition to facilities with a maintenance covenant, the Town is also inspecting all other known stormwater facilities to assure they are being properly maintained. This is done with the legal authority of the Zoning Ordinance that requires the Owner to maintain stormwater management facilities.

If maintenance is found to be needed, a request to perform maintenance will be sent to the Owner. Upon failure of Owner response, the Town reserves the right to maintain the facility at the Owner's expense. It is noted that training for stormwater facility inspections and maintenance will be obtained during the first year of the permit cycle.

C. Tracking of all known stormwater management facilities.

The Town is currently working with, and under contract with the Virginia Tech Civil Engineering Department as described above under BMP 3-A. This work includes efforts to compile data for stormwater modeling throughout the Town. As part of these efforts, GPS location of storm infrastructure is collected in the field. This field collection will include collection of data, and the mapped location of all found, and known stormwater facilities. New facilities will be added as constructed for all years of the permit cycle.

D. Develop Stormwater Facilities Protocol (July 2014)

The Town of Blacksburg will develop a stormwater facilities protocol that will include written policies and procedures utilized to ensure that facilities are designed and constructed in accordance with Section IIB 5b. Also included will be inspection procedures and policies for conducting all stormwater facility inspections, public and private. The roles and responsibilities of each of the Town departments, divisions or subdivisions will be defined. In addition the stormwater management database will be enhanced to include a) stormwater facility type, b) Location (lat or long), c) acres treated, d) date brought online, e) 6th order HUC code, f) impaired stream discharge, g) public or private, and h) date of last inspection. This Protocol will be completed by **July 2014** and will be submitted with the Year 1 Annual Report.

Schedule and Evaluation:

The Town of Blacksburg will provide ongoing enforcement of the stormwater ordinance. The Town has taken the appropriate actions to draft an update to the Ordinance now that more

stringent stormwater management regulations have been introduced by the Commonwealth. The Town will continue to provide maintenance for public storm water facilities during all years of this permit. The maintenance component of the stormwater management ordinance will be enforced during plan review. The town will continue to track existing and new stormwater facilities and include them in the database.

Responsible Party:

Director of Engineering and GIS
Town Stormwater Engineer
Director of Public Works

Necessary Documents:

Town of Blacksburg Draft Stormwater Ordinance
Plan Review Checklist
Site Inspection Checklist
Compliance and Enforcement Policy
Maintenance covenants for proposed stormwater facilities
Annual inspection forms
Stormwater database
Stormwater Facilities Protocol (2014)

Items to be reported in the Annual Report:

- A summary of the number of plans approved and the number of stormwater record drawings accepted.
- A summary of the tasks performed for the maintenance of stormwater facilities and infrastructure.
- The BMP database.

Measurable Goals:

Continue to provide proper maintenance for Town Owned storm water facilities during all years of this permit. Continue to require maintenance covenants on record for all new stormwater management facilities. Continue to maintain an ongoing database that provides maintenance and inspection records for BMPs. Maintain a mapping database that provides information and location of stormwater facilities.

Control Measure 6: Pollution prevention/Good housekeeping

Develop and implement an operation and maintenance program to prevent or reduce pollutant runoff from municipal operations in to the storm sewer system. Measures described below are intended to meet public outreach and measurable goals as described 4VAC50-60-1240, Section II B (6).

Control Measure #6 BMP's:

- A. BMP: Maintenance procedure and scheduling for pollutant reduction in roads, parking lots, and storage yards.**
- B. BMP: Controls for reducing the discharge of pollutants from publicly maintained areas.**
- C. BMP: Reduce the amount of solid waste from government facilities by encouraging employees to recycle and by implementing source reduction methods.**
- D. BMP: Reduce the use of hazardous chemicals where practicable and ensure that all chemicals are stored, handled, used, and disposed of properly.**
- E. BMP: Develop and implement an operation and maintenance program to prevent or reduce the pollutant runoff from municipal operations and train employees on proper procedures to accomplish pollution prevention objectives.**
- F. MS4 Operator Owned Properties/Facilities Evaluation**
- G. Regional Solid Waste Authority Hazardous Waste Collection Event (May)**

A. Maintenance procedure and scheduling for pollutant reduction in roads, parking lots, and storage yards. The Town of Blacksburg has had an Environmental Management System in place since 2002 as part of its comprehensive Environmental Management Program. The program is designated an Exemplary Environmental Enterprise (E3) with the VDEQ as part of the Virginia Environmental Excellence Program. The Town utilizes its EMS to monitor and measure areas of environmental emphasis. The Environmental Management Program and underlying EMS allow the Town to continue to maintain regulatory compliance, meet new goals, and enhance our commitment to environmentally sound practices. Pollutant reduction programs include seasonal Leaf and Christmas tree pickup, twice yearly brush pickup, twice yearly pick-up of discarded larger items, and street sweeping. Town employees also pick up loose trash, leaves, and tree limbs as properties are maintained. Litter is removed from the Downtown area on a daily basis.

B. Controls for reducing the discharge of pollutants from publicly maintained areas. The Town will continue to evaluate all town operations for ways to reduce pollution through the Environmental Management Program. Pollution prevention activities will include evaluating public facilities for problems to correct, continue upgrades to sanitary sewer lines and manholes to reduce sanitary sewer overflows, recycling, employee training, spill prevention program, watershed management and incorporating LID practices on publicly owned properties.

C. Reduce the amount of solid waste from government facilities by encouraging employees to recycle and by implementing source reduction methods. Town facilities contain a centralized recycling area. Employees recycle, co-mingled containers, mixed paper, toner cartridges, electronics, and rechargeable/alkaline batteries. Educational materials are displayed at each recycling site. Recycling Assistants from each department help the Waste Reduction and

Recycling staff promote the program. The Public Works and Transit garages recycle oil, antifreeze, tires, and metal. The Town also recycles used fluorescent lamps and metal from discarded items. In addition, the Purchasing Division and Technology Department work closely to ensure that all electronic equipment is properly recycled.

The Town is included in the regional Solid Waste Management Plan developed by the Montgomery Regional Solid Waste Authority in conjunction with the member jurisdictions.

D. Reduce the use of hazardous chemicals where practicable and ensure that all chemicals are stored, handled, used, and disposed of properly. The Town Horticulturist will provide annual update training for all employees licensed as Registered Technicians or Certified Applicators through the State of Virginia. The Safety & Emergency Manager is responsible for developing and updating the MSDS Management Program. The Operations Coordinator in the Office of Waste Reduction and Recycling will finalize a Universal Waste Policy and provide employee training on the subject.

E. Develop and implement an operation and maintenance program to prevent or reduce the pollutant runoff from municipal operations and train employees on proper procedures to accomplish pollution prevention objectives. As outlined in sections 6A – 6D, the Town currently evaluates operations for ways to reduce pollution through the Environmental Management Program. As an example, current pollution prevention activities include yearly upgrades to sanitary sewer lines and manholes and lining sewer pipes to reduce sanitary sewer overflows; facility recycling; watershed management; street sweeping; incorporating LID practices on publicly owned properties; and proper application of chemicals in facilities and on Town properties. The Town will create a formal pollution prevention program that will include current pollution prevention activities, activities to be incorporated in future years, and training to accomplish these activities.

F. MS4 Operator Owned Properties/Facilities Evaluation.

The VSMP permit requires that within three years of the required date for updating the MS4Program Plan (January 9, 2010), the Town must evaluate all properties owned or operated by the Town for potential sources of TMDL WLA pollutants of concern. As a result, the Town must perform this evaluation for sediment for all public properties. The evaluation is only required in the Stroubles Creek watershed portion of the Town since this is the only water body within Town with a WLA (see Appendix C for mapping). This measure will help reduce the discharge of sediments into Stroubles Creek and will help the Town lead by example. As part of the site review, the Town shall:

- Collect a total of two samples from a representative outfall for each identified municipal property in accordance with the requirements of the VSMP permit.
- One sample shall be taken during each of the following six-month periods: October through March, and April through September.
- All collected samples shall be grab samples and collected within the first 30 minutes of a runoff producing event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previous measurable (> 0.1 inch rainfall) storm event.

- For properties where there is found to be a discharge of sediment, the Town shall develop and implement a schedule to minimize the discharge in a manner consistent with the approved TMDL.

Schedule and Evaluation: The Town will continue to participate in the Environmental Management Program throughout this permit cycle. Watershed Management is an ongoing workgroup of the Environmental Management Program. The above operational programs will also continue to be a part of the Town's regular maintenance procedures to reduce pollutants in roads, parking lots, and storage yards. The Town and Blacksburg Transit Garages have SPCC plans in place. Capital improvement projects to reduce sanitary sewer overflows have been approved and for many, construction is complete. The Town will continue to recycle all categories of waste during all years of this permit. The Town will track metal, used oil, oil filters, used antifreeze, waste tires, electronics, and batteries by tonnage to evaluate recycling efforts.

All employees with a Registered Technicians Permit or Certified Applicators License will receive annual training on storing, handling, using, and proper disposal of hazardous chemicals. The Safety & Emergency Manager will conduct "Right to Know" Hazardous Awareness Training for employees and update MSDS sheets as needed. All employees handling universal waste will receive training on the Universal Waste Policy and will receive follow-up training if the policy changes. The Town will formalize a pollution prevention program with current activities in this MS4 cycle and begin adding pollution prevention activities and training in future years. The program will include employee training sessions for current activities in sections 6A – 6D and any future pollution prevention activities.

Responsible Party:

Director of Public Works
Environmental & Sustainability Manager
Town Stormwater Engineer
Town Sewer Engineer
Office of Waste Reduction & Recycling
Safety & Emergency Manager

Necessary Documents:

Town's Environmental Management Program;
Virginia Environmental Excellence Program (VEEP) Documentation and Annual Report
Public Outreach Materials
SPCC Plans
Hazardous training media, "Applying Pesticides Correctly" published by the Virginia Cooperative Extension Office
MSDS Chemical Sheets

Measurable Goals:

Continue to maintain all programs during each year of this permit. Employees that hold either a Virginia Certified Applicator's License or Registered Technician's Permit will receive training in

accordance with Virginia requirements. The Horticulturist will maintain the yearly training records. The Safety & Emergency Manager will conduct MSDS training as required by Federal regulations and maintain the corresponding training records.

Items to be reported in the Annual Report:

- Tons of brush and leaves collected.
- Status of programs, CIP projects and LID practices implemented.
- Tonnages reported to the Montgomery Regional Solid Waste Authority for inclusion in the required annual report.
- Employee training dates for yearly pesticides training.
- Employee training dates for “Right to Know” Hazardous Chemical training.
- Status of EPP Policy research.

Appendix A - Assessment of Ordinances and Legal Authorities, BMPs, Policies, Plans, and Procedures Applicable to TMDL Pollutant of Concern

In accordance with 4VAC50-60-1240 Section 1.B.2, the Town must develop a list of current ordinances and legal authorities, BMPs, policies, plans, and procedures applicable to the TMDL pollutant of concern for which a WLA has been assigned (sediment). The Town must then perform an evaluation to identify any weakness or limitations and develop a schedule to implement procedures and strategies to address the weakness and limitations accordingly. As described in parts of this MS4 Program Plan, the Town has already developed ordinances and legal authorities, BMPs, policies, plans, and procedures that the Town feels adequately prevent sediment from entering the stormwater system to the maximum extent practical. These are specifically listed below. Outside of the items listed below, there is concern regarding the large areas developed without stormwater management requirements, or those subject to less rigorous requirements. Retrofit of these areas is intended in the future. However, this will be a challenge considering the need for land in these urbanized areas and appropriate analysis for determining placement. These improvements are intended to be supported by BMP5C (mapping/modeling project) in the future. Retrofit of areas with existing development will focus on reduction of stream-bank erosion.

Ordinances, BMPs, Policies, Plans, and Procedures	Responsible Party	Pollutant	Description
		Sediment	
MS4 Program Plan BMP 1A	Stormwater Engineer	yes	The Town participates in public outreach efforts; a TMDL component is included in each.
MS4 Program Plan BMP 2B	Engineering & GIS	yes	Recommendations from the stormwater taskforce resulted in improved erosion and sedimentations regulation within the Town for construction projects. The Town now enforces these regulations during plan review and construction.
MS4 Program Plan BMP 3A	Stormwater Engineer	yes	A Town wide mapping and modeling project will provide the ability to make better informed decisions in regards to the placement of BMPs associated with capital projects and/or a regional stormwater management program.
MS4 Program Plan BMP 3B	Stormwater Engineer	yes	The Town currently performs data collection at outfalls as part of the Outfall Reconnaissance Inventory. This has been focused on illicit discharges, but this will be modified to assure adequate coverage of surface waters assigned the WLA and to specifically look to identify the WLA pollutant, per Section 1.B.5.
		Pollutant	Description

Ordinances, BMPs, Policies, Plans, and Procedures	Responsible Party	Sediment	
MS4 Program Plan BMP 3B - Illicit Discharge Protocol	Stormwater Engineer	yes	The Town has previously completed an Illicit Discharge Protocol which standardizes the illicit discharge protocol and establishes a guideline for scheduling, identifying and eliminating illicit discharges. All illicit discharge scheduling, identification, elimination and enforcement has been in conformance with this protocol.
MS4 Program Plan BMP 3D	Zoning Administrator	yes	Enforcement of the Floodplain and Creek Valley Overlay districts that prohibits development in sensitive areas can help prevent excessive sediment load near creeks that could be caused from development in these areas (steps slopes, etc.).
MS4 Program Plan BMP 4A	Engineering & GIS	yes	The Town enforces its erosion and sediment control program as regulated under the Virginia Erosion and Sediment Control Law (ESCL) and attendant regulations. The Town has more restrictive controls than the ESCL to protect water quality by requiring land disturbers of more than 5,000 square feet to comply with the Town of Blacksburg Erosion and Sediment Control Program. The E&S Program has procedures for plan review, inspection, enforcement, and penalties.
Virginia Erosion and Sediment Control Handbook	Engineering & GIS	yes	The Town utilizes the VA Erosion & Sediment Control Handbook for design standards and specifications for design and construction of BMPs.
MS4 Program Plan BMP 4B	Engineering & GIS	yes	The Town will continue to respond to all Erosion and Sediment Control complaints during all years of this permit and take the appropriate actions per the Virginia Erosion and Sediment Control regulations as deemed necessary.
MS4 Program Plan BMP 5A	Engineering & GIS	yes	The Town enforces a Stormwater Ordinance that has a water quality component per State regulations. Water quality BMPs are focused on Phosphorus reduction, but consequently also remove sediment from being conveyed downstream. In summary, this ordinance addresses reduction of sediment loads for new development and redevelopment - post-construction.
Virginia Stormwater Management Handbook	Engineering & GIS	yes	The Town utilizes the VA SWM Handbook for design standards and specifications for design and construction of BMPs.
Plan Review Procedure	Planning and Engineering	yes	The Town follows its Plan Review Procedure to effectively address compliance with the Erosion and Sediment Control Ordinance and the Stormwater Ordinance.

Ordinances, BMPs, Policies, Plans, and Procedures	Responsible Party	Pollutant	Description
		Sediment	
MS4 Program Plan BMP 5B	Engineering & GIS	yes	As part of the stormwater ordinance, the Town requires maintenance covenants allowing for annual inspection to assure proper maintenance of BMPs. In summary, this ordinance addresses reduction of sediment loads for new development and redevelopment - post-construction.
MS4 Program Plan BMP 5C	Engineering & GIS	yes	The Town is currently working towards town-wide mapping and modeling project that will provide data that can be utilized for a variety of engineering options. Some of these options will allow for analysis of the sub-basins contributing to the TMDL.
MS4 Program Plan BMP 6A	Environmental & Sustainability Manager; Division of Environmental Planning & Sustainability;	yes	Pollutant reduction programs include seasonal Leaf and Christmas tree pickup seasonally, monthly brush pickup, twice yearly pick-up of discarded larger items, and street sweeping. Town facilities also have weekly loose trash pickups, leaf pickup, and downed tree limbs are picked up immediately.
Inspection Protocol	Engineering & GIS	yes	The inspection protocol provides for consistent inspections so that inadequacies are identifies quickly and consistently within all of our active construction sites.
Plan Approval Policy and Procedures for Local Approval Process	Engineering & GIS	yes	Plan Approval policy and procedures outlines how the Town will review proposed projects and analyze how well they comply with local, state and federal standards.
Policy for Enforcement	Engineering & GIS	yes	The policy for enforcement identifies the process to follow to allow for iterative and increasing enforcement methods to compel compliance as quickly and effectively as possible.
Long Term Inspection and Maintenance of BMPs	Engineering & GIS	yes	The Long Term Inspection and Maintenance protocol identifies how to methodically inspect and compel maintenance on the privately owned stormwater management facilities. It also identifies the Towns methods for communicating maintenance needs on its publicly owned stormwater facilities.

<p>Standard Language for Stormwater Maintenance Covenants</p>	<p>Engineering & GIS</p>	<p>Yes</p>	<p>The Stormwater Maintenance Covenant provides for the perpetual maintenance of the stormwater facilities to the identified party to run with the land. Therefore subsequent owners will have knowledge of this responsibility. The covenant also provides for the right of the Town to enter and inspect the facilities to ensure maintenance has occurred.</p>
<p>Construction Inspection Policy and Procedures for Local Approval Process</p>	<p>Engineering & GIS</p>	<p>Yes</p>	<p>The construction inspection policy and procedures outlines how construction inspections for erosion and sediment control and stormwater management should be handled. This provides for consistent application of our standards across Town and quickly identifies areas for additional correction.</p>

Appendix B - BMPs identified in the TMDL Implementation Plan

In accordance with 4VAC50-60-1240 Section I.B.4, the Town must implement BMPs identified in the TMDL Implementation Plan assigned to the Town. The Town has already been implementing the BMPs assigned in the Upper Stroubles Creek Watershed Implementation Plan, latest revision May 2006. Tables B.1 provide the Measurable Milestones listed in the Implementation Plan timeline that identify the Town of Blacksburg as the responsible party. Table B.2 is an update describing the implementation to date for each measure.

Table B.1 Summary of Measurable Milestones assigned to the Town of Blacksburg in the Upper Stroubles Creek TMDL Implementation Plan.

Time Frame	Measurable Milestone	Responsible Party
2006	I. Develop a community educational workshop on water quality awareness and homeowner LID practices	WSC, TOB
	II. Upgrade sanitary sewer line from Prices Fork Road to West Campus Drive	VT, TOB
	III. Plan, install, and monitor demonstration water quality, LID, and other innovative storm water management practices	VT, TOB
	IV. Arrange for external review and evaluation of the E&S Program as implemented in the watershed	VT, TOB
	V. Complete town-wide sewer model and analysis to rank the severity and probability of sewer overflows throughout the TOB sewer system	TOB
	VI. Construct a combined salt storage facility with TOB to prevent runoff	VT, TOB
2007	I. Present a community educational workshop to homeowners and/or neighborhood associations.	WSC, SCSC, TOB
2008	I. Conduct a town-wide study to identify capital projects that could address severity and probability of sewer overflows	TOB
Annual	I. Conduct annual inspections of stormwater outfalls and maintain facilities infrastructure database.	VT, TOB
	II. Inventory area of street sweeping on an annual basis. Clean roadways/parking areas after major storms	VT, TOB
	III. Continue to monitor and maintain storm sewer intakes on an annual basis	VT, TOB
Ongoing	I. Plan and install demonstration homeowner LID practices	WSC, TOB
	II. Actively promote enrollment of sponsors for the Adopt-A-Stream program in the watershed.	WSC, TOB
	III. Provide clear guidance to Project Managers on Erosion and Sediment Control requirements	VT, TOB
	IV. Retrofit existing facilities with LID practices, where practical.	VT, TOB

WSC = Watershed Coordinator; SCSC = Stroubles Creek Steering Committee; VT = Virginia Tech; TOB = Town of Blacksburg

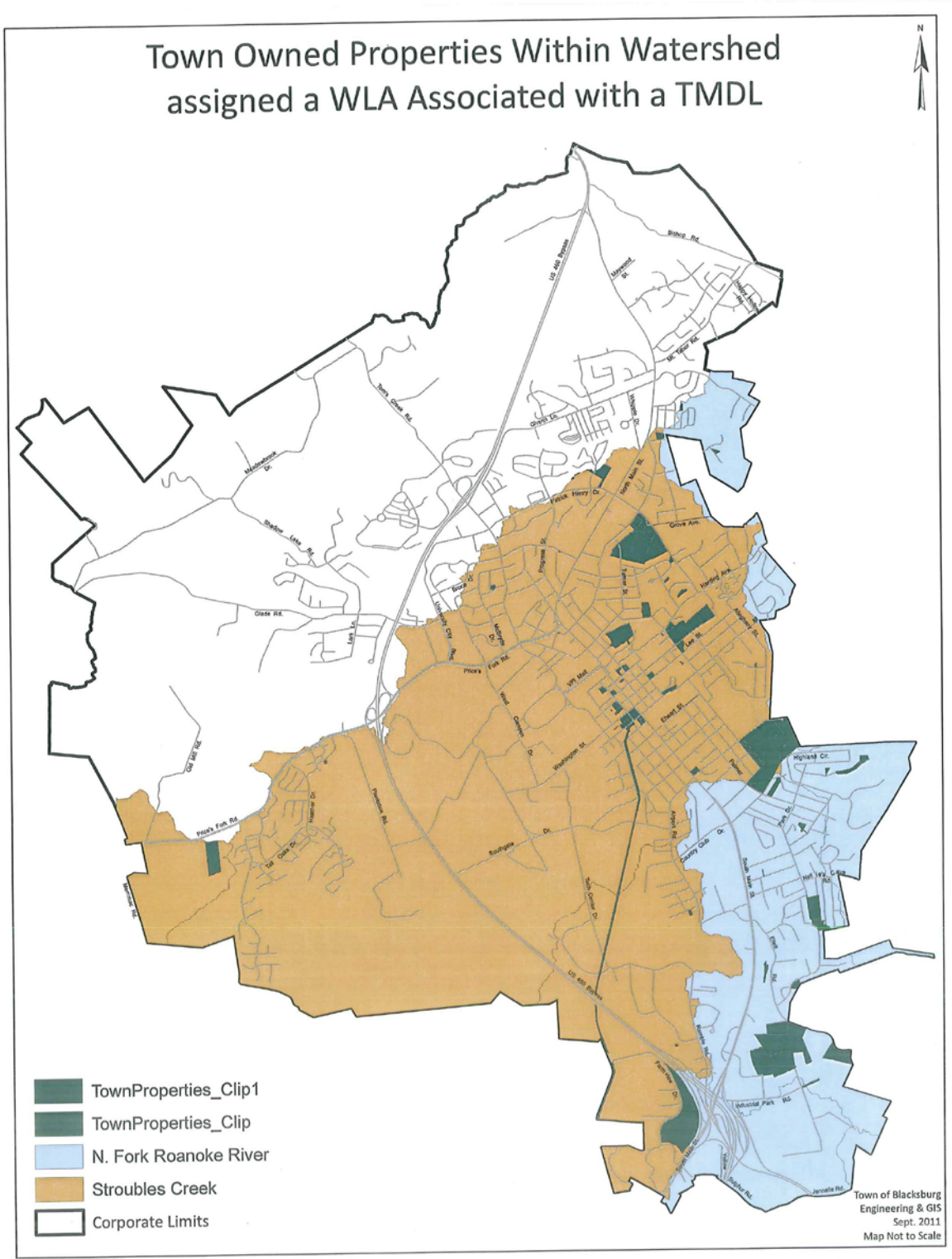
Table B.2 Summary of actions completed as related to the Measurable Milestones described in Table B.1.

Milestone		Actions	Participating Parties
Year	No.		
2006	I.	Initiated and conducted an educational outreach and workshop called Blacksburg Watershed Open House on Oct. 7, 2006, October 27, 2007, October 25, 2008, and October 25, 2009	TOB, BSE, VT, DEQ
		Hired a consultant and formed the LID steering committee to develop <i>Town of Blacksburg Low Impact Development Manual</i> for engineers, designers, and developers working in the area. Cost to TOB was \$15,000	TOB, DCR, DEQ, BSE
		TOB public outreach on Urban Watershed Hike and Presentation with citizens in 2006.	TOB, YMCA
		TOB staff participated in the Regional Planning and Development workshops and presented LID and Green Infrastructure presentations to citizens participating in the workshops.	TOB, PDC
		"Build Your Own Rain Barrel Workshop" - Extension partnered for two workshops for Town people. (April & May 2008)	TOB, CDAC, VT extension
		Also see Minimum Control Measure 1, BMP A of this Program Plan	TOB
	II.	Completed	
	III.	TOB installed Aquatic Center bioretention and Recreation Center bioretention. Performance was evaluated for a time period by BSE. (2007-2008)	BSE, TOB
		TOB constructed Phase I and II of the Wong Park Stormwater Pond Stabilization and Alternative Management Strategies project (2006-2009)	TOB, CDAC
		TOB constructed a bioretention facility at Wong Park (2009)	TOB
		TOB included porous pavement, rain-gardens, rain barrels and an infiltration trench on the site redevelopment of the Blacksburg Motor Company (2009)	TOB
		Also see Minimum Control Measure 1, BMP A of this Program Plan	TOB
	IV.	See Minimum Control Measure 4, BMPs A, B, C and D of this Program Plan	TOB
	V.	TOB Phase I Town wide Sanitary Sewer Study (\$200,000) that identified sewer overflow and capacity issues throughout the Town	TOB
		TOB web based Data Warehouse System (tobdata.blacksburg.gov/twm) and calibrated a town wide SewerCAD model that was used to rank the severity of potential overflows that may occur with the ten year rain event. A data warehouse was developed to store historical flow data in the sewer system and track improvements of the collection system from proposed capital projects,	TOB
	VI.	Completed	
2007	I.	See above, 2006 I.	TOB

Milestone		Actions	Participating Parties
Year	No.		
2008	I.	TOB Phase II Town wide Sanitary Sewer Study (\$150,000) - Options to Eliminate Overflows and Reduce Surcharges, Fall 2007. Report outlined and prioritized capital projects to address issues identified in the Phase I study.	TOB
Annual	I.	Annual inspections of outfalls - See Minimum Control Measure 3, BMP B ; Facilities infrastructure database - See Minimum Control Measure 3, BMP A (on-going)	TOB
	II.	TOB Public Works does a monthly Town-wide street sweeping program. They break up the streets in quadrants and complete the entire town once a month. They do go out more frequently in the winter months due to the gravel in the streets.	TOB
	III.	TOB Public Works provides on-going maintenance to stormwater related infrastructure. Maintenance includes cleaning grates and drop inlet boxes; repairing curb and gutter, storm drains and drop inlet boxes; cleaning out ditches and curb and gutter and storm drains. A spreadsheet tracking the costs and a description of work performed can be provided upon request.	TOB
Ongoing	I.	See Minimum Control Measure 1, BMP A of this Program Plan	TOB
	II.	Comparable stream clean-up program with DEQ funding through neighborhood services – see BMP1A	TOB, VT
	III.	See Minimum Control Measure 4, BMPs A, B, C and D of this Program Plan. Also, recently an amendment to the Town's ESC Ordinance was adopted that includes additional assurance that proper ESC measures and practices are implemented with land disturbance projects. A preconstruction meeting is required with the Town and then a second meeting once initial ESC measures are installed prior to any other work being done. This will be ongoing and applicable to all land disturbance exceeding 5,000 sq. ft.	TOB
	IV.	TOB has constructed stormwater retrofit project at the Wong Park, recreational and aquatic center. The TOB will continue to look for retrofit opportunities. See Minimum Control Measure 6B of this Program Plan.	TOB

TOB = Town of Blacksburg, CDAC = Community Design Assistance Center; BSE = Biological Systems Engineering at Virginia Tech; DEQ = Department of Environmental Quality; DCR = Department of Conservation and Recreation

Appendix C - : Map of Town Owned Properties discharging within the surface water assigned a TMDL WLA



Appendix D : Public Education and Outreach Plan

Public Education and Outreach Program



Town of Blacksburg, Virginia
Department of Engineering and GIS
300 South Main Street
PO BOX 90003
Blacksburg, VA 24062-9003

Revised June 17, 2014

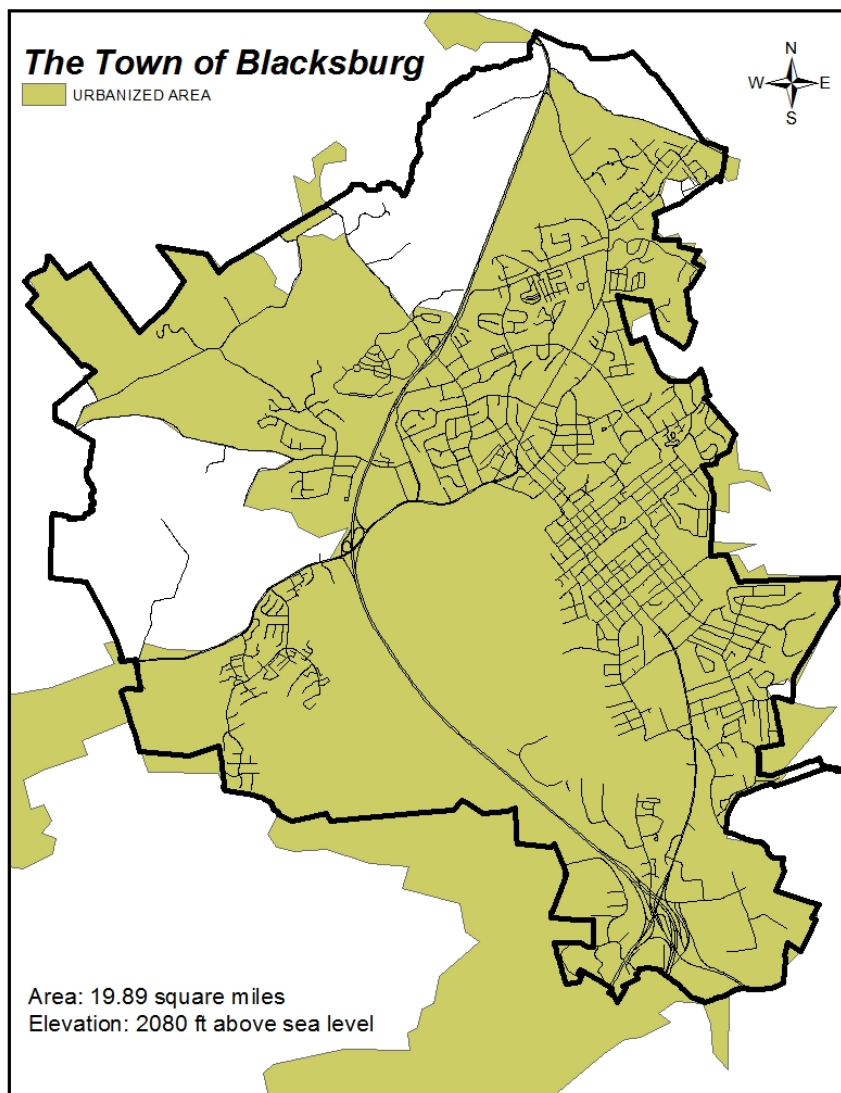
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Introduction

The Town has developed a public education and outreach plan (PEOP) to coordinate all outreach efforts into one campaign. This plan will identify a minimum of three high-priority issues that affect the Town of Blacksburg. The PEOP will identify population size of the target audience most likely to have an impact on the chosen high-priority issues. A relevant message will be selected and distributed to the selected audience. Opportunities for participation will be provided during the development of the PEOP.

Goals

This program is intended to reach 20% of the defined target audience each year. The plan will be evaluated annually for appropriateness of the high-priority issues, audience selection, and effectiveness of message and adjustments will be provided when needed.



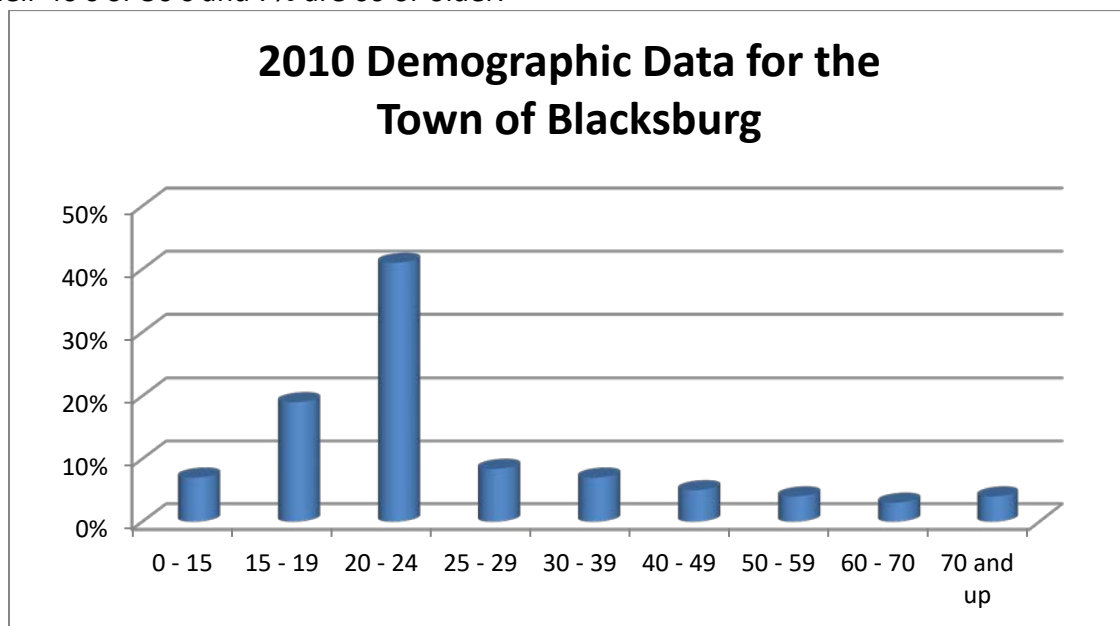
Background of the Town of Blacksburg

Located on the Eastern Continental Divide, the Town of Blacksburg is an incorporated Town located in Montgomery County, Virginia. The Town has a population of 42,620 based upon the 2010 census. This population includes the state university, Virginia Tech, which serves approximately 31,000 students. As more than 70% of the local population, the transitional student life impacts the Town in every way.

The Town is located at the headwaters of several watersheds and receives little surface runoff from outside its boundaries. These watersheds are the source of water for several streams located in the Town: Toms Creek, Stroubles Creek, Slate Branch, Wilson Creek, Cedar Creek, Indian Branch, and Dry Run. These stream systems recharge the regions aquifer through karst geography and other pervious areas and discharge at springs and creek beds. Several natural watershed features such as wetlands, ephemeral stream channels, and small water impoundments are located throughout the Town.

Community Profile

According to the 2010 US Census, the Town of Blacksburg population was 42,620 which was a 7% increase over the last ten years. Of this population, 7% is under the age of 15 years, 19% between 15 and 19 years, 41% between 20 and 24, 8% between 25 and 29, 7% in their 30's, 10% in their 40's or 50's and 7% are 60 or older.



The median income for a household is \$22,500 per year, but \$51,810 for a family. English is the predominant language spoken in the Town of Blacksburg (96%). Eighty-five percent of the population has a college education, with 70% being graduates from Virginia Tech.

High Priority Water Quality Issues

The Town must identify at least three high-priority water quality issues and provide rationale for the selection of these issues in accordance with the General Permit. The Town believes that oil and grease illicit discharges, sediment and bacteria are the primary high-priority water quality

issues. The criteria used to determine these issues is 1) oil and grease illicit discharges are the most frequent known illicit discharge in recent history, 2) sediment and bacteria are the causes of impairment for major waterways with existing TMDL studies.

Oil and Grease Illicit Discharges

Oil and grease illicit discharges have been a re-occurring problem within the Town of Blacksburg. Within 20 square miles there are 31 restaurants, approximately 1.5 for every mile. Many of these are located in the historic district where infrastructure is older and surface water resources are underground. The high turn-over in staffing and transitional nature of the student work-force results in discharges to the system by uninformed staff.



Restaurant in Downtown Blacksburg

Bacteria

Approximately 50% of the land area in Blacksburg is within the drainage area of a watercourse impaired for bacteria. This includes the watersheds of Stroubles Creek and the tributaries of the North Fork Roanoke River. Bacteria impairments can be attributed to human fecal matter, domestic and wild animal waste and agricultural practices. To reduce the levels of bacteria, the focus will be on pet waste from dogs. The areas in the Town that are identified as being impaired are overwhelmingly urban, so no outreach is planned to address agricultural industries.

Sediment

Similar to bacteria, about 50% of the land area in Blacksburg is inside a watercourse impaired for sediment. These two pollutants are the most predominant inside Blacksburg. Sediment pollution is the result of active construction, denuded open areas, uncontrolled stormwater runoff causing erosion and scouring of stream banks. Because of the age of commercialization in Blacksburg (mid-1960's) much of the developed land was construction prior to any stormwater management.

Target Audience for High-Priority Water Quality Issue

The Town has chosen oil and grease discharges, bacteria and sediment to be the high-priority water quality issues. To address these pollution impacts within the town, the target audiences are listed below. The approximate size of the audience is illustrated in the chart below. The Town’s goal is to reach at a minimum of 20% of each target audience each year in outreach activities.

High-Priority Water Quality Issue	Topic of Concern	Target Audience	Size
Oil and Grease Illicit Discharges	Proper Disposal of Oil/Grease (restaurants)	Commercial Restaurant Employees	300
Bacteria	Pet Waste	Young residents (20-24)	17,474
Sediment	Single Family Construction & Un-stabilized areas	Homeowners & Families	13,162

Messages and Associated Educational Materials

The Town of Blacksburg intends to use every opportunity to develop relevant messages and associated educational and outreach materials. These materials will:

- 1) Increase the target audience’s knowledge about the steps that can be taken to reduce stormwater pollution;
- 2) Increase the target audience’s knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and
- 3) Implementing a diverse program with strategies that are targeted towards audiences most likely to have significant stormwater impacts.

Oil and Grease Illicit Discharge Reduction Actions

Printed Materials – A laminated poster that identifies the water quality impacts of grease dumping in addition to the potential enforcement for illicit discharges will be developed and distributed to all restaurants in town.

Direct Engagement - The Town staff will visit restaurants to discuss issues with illegal dumping and educate management on the water quality impacts.

Bacteria Reduction Actions

Printed Materials – A trifold brochure that identifies the water quality impacts of pet waste will be developed and distributed at dog parks, veterinarian clinics, and pet supply stores.

Advertisements – An ad will be placed on the local public transit buses, these busses carry 3.5 million riders in a year. An ad will also be placed in the Collegiate Times, which distributes to 31,000 students and 6400 employees.

Direct Engagement - The trifold will be handed out at outreach events that are predominantly attended by young citizens.

Sediment Reduction Actions

Printed Materials – An informational pamphlet and refrigerator magnet will be developed with contact numbers to call when reporting observed sediment discharges will be distributed at local fairs and community events.

Poster Campaign – The Town will develop a poster campaign to direct interest to the issue of sediment. These posters will be displayed at outreach events where citizens can learn about the issues.

Advertisements – A slide will be created for the new IMAX movie theatre which will target local households and families.

Direct Engagement – Staff will attend outreach events to discuss the impacts that sediment has on our local waterways and encourage families and homeowners to do what they can to improve the situation.

Providing Public Participation during Program Development

The Town of Blacksburg has drafted this document to meet the requirements of the 9VAC890-40, General VPDES Permit for Discharges of Stormwater from Small Municipal Storm Sewer Systems, permit number VAR040019 dated July 1, 2013. Part of this regulatory document is the requirement that the community be involved in the program development. The Town is currently working with the Community Relations Office to determine the best way to incorporate public participation in program development. This document will not be finalized until public participation has been achieved.

Evaluation

On an annual basis, this public outreach and education document will be evaluated for effectiveness, weaknesses and shortcomings. The evaluation will be based upon the following: 1) Was the target audience reached to the extent intended; 2) Are there additional audiences that need to be added as targets in future years; 3) Are there additional way to reach the identified audience; 4) Is there a more effective way to reach the target audience; and 5) Is there evidence of a behavioral change?

A survey will be employed during this permit cycle to gauge feedback from the methods and provide opportunities for new ideas.

Appendix E : Policy and Procedures for Local Approval Process

Effective: JULY 1, 2014

1. Plan received at Engineering and GIS and Planning and Building Office.
2. Upon submittal, the plan review fee (\$500) is paid and half (50%) of the local portion of the VSMP permit is paid, if applicable. The Town will not accept payment of the State portion of the VSMP permit fee.
3. Plan is checked for completeness by Town Staff and if deemed incomplete, a letter is provided to the applicant stating the reason for rejection and requirements for plan acceptance within seven (7) business days.
4. If the plan is deemed complete, the Plan Submittal Receipt is completed by Town Staff and applicant.
5. Plan review fees are paid by applicant.
6. Plan review schedule and deadlines are determined. Town Staff's goal is to review and send a comment letter out within 15 business days of receipt of plans. The deadline for the comment letter follows State Code requirements of 45 days for Erosion and Sediment Control Plans and 60 days for site and subdivision and Stormwater Management Plans.
7. Plan is distributed to Engineering and Planning Staff.
8. Plan is reviewed by Engineering and GIS and Planning Staff using a standard plan review checklist which incorporates the following requirements: planning & zoning, water & sewer, transportation & streets, erosion & sediment control, and stormwater management.
9. Comments are provided and a letter is sent to the applicant and the applicant's engineer.
10. A post review meeting is set up, if desired, so applicant can review comments with Town Staff.
11. Subsequent plan submittals and reviews for previously disapproved plans will be completed within 45 calendar days of the date of resubmission. An additional review fee is required for the third and subsequent plan reviews.
12. When all the comments are addressed, the applicant is informed and the SWPPP is submitted to the Town for review.
13. Prior to plan approval, the applicant shall submit Public Improvement, Stormwater BMP and landscaping securities if required and a stormwater maintenance agreement must be signed and recorded at the County.
14. The Town will collect registration statement and remaining 50% of the permit fee and submit applicant's information to the DEQ electronic database for request for VSMP permit coverage.
15. Once permit coverage is notified via email or mail and securities, easements and agreements are submitted and approved by the Town, the mylars are signed and approved by Engineering and Planning Staff.
16. Prior to applicant commencing work, a pre-construction meeting with Engineering and GIS Staff is required. The required attendees at the pre-construction meeting are: the

owner or owner's representative, the Responsible Land Disturber, the design professional, Town Engineer and Town Construction Inspector.

17. The VSMP coverage letter, erosion and sediment control security, construction inspection fee, and utility testing fees are provided at the pre-construction meeting.
18. The plans and the inspection process are discussed with all parties and a construction schedule established.
19. Land disturbance permit or "VSMP Authority Permit" is issued at the pre-construction meeting.
20. Town construction inspector performs erosion and sediment control, public infrastructure, and stormwater BMP inspections throughout the permit life.
21. Upon completion of construction, a punch list is prepared by the Town and all punch list items addressed by contractor.
22. Public infrastructure as-builts are reviewed and approved by Town Engineer.
23. Stormwater BMP certifications and as-builts are reviewed and approved by Town Stormwater Engineer.
24. Contractor requests a Termination of VSMP permit.
25. The Town submits termination information to DEQ electronic database.
26. Upon approval of termination, all securities are released by Town Engineer.

Appendix F: Construction Inspection Policy and Procedures for Local Approval Process

Updated: January 14, 2014

1. Plan is approved by Engineering and GIS and Planning and Building Departments. The stormwater management security has been provided prior to final plan approval.
2. Prior to applicant commencing work, a pre-construction meeting with Engineering and GIS Staff is required. The required attendees at the pre-construction meeting are: the owner or owner's representative, the Responsible Land Disturber, the design professional, Town Engineer and Town Construction Inspector.
3. The Erosion and Sediment Control security, construction inspection fee, and utility testing fees are provided at the pre-construction meeting.
4. The plans and the inspection process are discussed with all parties and a construction schedule established.
5. Land disturbance permit or "VSMP Authority Permit" is issued at the pre-construction meeting.
6. Town Construction Inspector prepares a daily activity log for each project detailing the site visit.
7. Town Construction Inspector will inspect for compliance and implementation of the pollution prevention plan.
8. Town Construction Inspector will inspect site to ensure erosion and sediment control measures are installed per the approved plan.
9. Erosion and sediment control inspections are performed at least once every fourteen days and after any runoff producing storm event. Erosion and sediment control inspections are generally performed at least once every five days. All other inspections are performed as needed. The Town Construction Inspector performs site visits generally every day.
10. Any deficiencies in erosion and sediment control measures are reported during the site visit to the Responsible Land Disturber, if this person is on site, or the project superintendent or foreman responsible for erosion and sediment control. The nature of the deficiency is reported, necessary corrective action, and the time frame for correcting the deficiency is provided to the parties. This is noted in the Inspector's daily log.
11. Site is re-inspected based on the time frame provided to make the corrective action. If the deficiency is corrected, no further action is taken. If the deficiency is not corrected, the appropriate action is taken. This may include additional time to repair if needed or warranted as determined by the Inspector, issuance of Notice to Comply, Notice of Violation, Stop Work Order, Civil Penalty or other appropriate action per the Town Code.
12. Town Construction Inspector performs public infrastructure and stormwater facilities inspections. These inspections include inspection of water and sanitary sewer installations, pressure testing of water and sanitary sewer mains, disinfection and bacteriological testing of water mains, inspection of subgrade, base stone, and pavement for public streets, inspection of any public storm structures installed for the project including curb inlets, drop inlets, storm drains, culverts, etc. The inspection for stormwater

facilities includes a visual inspection of pond construction or underground facility construction, visual inspection of any riser sections and outlet construction.

13. All stormwater management facilities are required by Town Code to be certified by the design engineer and as-built plans and certifications provided to the Town.
14. Any deficiencies with the public infrastructure and stormwater management facilities observed during construction are reported to the appropriate party which may include Project Owner, Project Superintendent, Project Foreman, Town Engineer, and Design Engineer for resolution.
15. Upon completion of construction, a punch list is prepared by the Town and all punch list items addressed by contractor.
16. Public infrastructure as-builts are reviewed and approved by Town Engineer.
17. Stormwater Management Facility certifications and as-builts are reviewed and approved by Town Stormwater Engineer.
18. All securities are released by Town Engineer.

Appendix G: Policy for Enforcement

Policy for Enforcement

If the Administrator determines that there is a failure to comply with the VSMP authority permit conditions or determines there is an unauthorized discharge, notice shall be served upon the permittee or person responsible for carrying out the permit conditions by any of the following: verbal warnings and inspection reports, notices of corrective action, consent special orders, and notices to comply. Written notices shall be served by registered or certified mail to the address specified in the permit application or by delivery at the site of the development activities to the agent or employee supervising such activities.



Appendix H: Stormwater Covenant Standard Language

TOWN OF BLACKSBURG, VIRGINIA DECLARATION OF COVENANTS

INSPECTION/MAINTENANCE OF DRAINAGE SYSTEM

THIS DECLARATION OF COVENANTS, made this day _____ of _____, 20____, between, _____ and all successors in interest, ("COVENANTOR(S)" and for indexing purposes, "Grantor"), owner(s) of the following property:

Parcel Identification Number: _____

Legal Description: _____

Project or Subdivision Name: _____

Document No. _____

OR Deed Book _____, Page No. _____, and the TOWN OF BLACKSBURG, VIRGINIA ("TOWN" and for indexing purposes, "Grantee").

WITNESSETH:

I (We), the COVENANTOR(S), with full authority to execute deeds, mortgages, other covenants, and all rights, titles and interests in the property described above, do hereby covenant with the TOWN as follows:

1. The COVENANTOR(S) shall provide maintenance for the drainage system including any runoff control facilities, conveyance systems and associated easements, hereinafter referred to as the "SYSTEM," located on and serving the above-described property to ensure that the SYSTEM is and remains in proper working condition in accordance with approved design standards and applicable laws, ordinances and regulations. The SYSTEM shall not include any elements located within any Virginia Department of Transportation rights-of-way.

2. If necessary, the COVENANTOR(S) shall levy regular or special assessments against all present or subsequent owners of property served by the SYSTEM to ensure that the SYSTEM is properly maintained.

3. The COVENANTOR(S) shall provide and maintain perpetual access from public right-of-ways to the SYSTEM for the TOWN, its agent and its contractor.

4. The COVENANTOR(S) shall grant the TOWN, its agent and its contractor a right of entry to the SYSTEM for the purpose of inspecting, monitoring, operating, installing, constructing, reconstructing, maintaining or repairing the SYSTEM.

5. If, after reasonable notice by the TOWN, the COVENANTOR(S) shall fail to maintain the SYSTEM in accordance with the approved design standards and with and applicable laws, ordinances and regulations, the TOWN may perform all necessary repair or maintenance work, and the TOWN may assess the COVENANTOR(S) and/or all property served by the SYSTEM for the cost of the work and any applicable penalties.

6. The COVENANTOR(S) shall indemnify and save the TOWN harmless from any and all claims for damages to persons or property arising from the installation, construction, maintenance, repair, operation or use of the SYSTEM.

7. The COVENANTOR(s) shall promptly notify the TOWN when the COVENANTOR(S) legally transfers any of the COVENANTOR'S responsibilities for the SYSTEM. The COVENANTOR(S) shall supply the TOWN with a copy of any document of transfer, executed by both parties.

8. The covenants contained herein shall run with the land and shall bind the COVENANTOR(S) and the COVENANTOR(S)' heirs, executors, administrators, successors and assignees, and shall bind all present and subsequent owners, ground lessees and sub-ground lessees of any portion of property served by the SYSTEM, until and unless these covenants are superseded by subsequent maintenance covenants or revoked in writing by all parties.

9. This DECLARATION OF COVENANTS shall be recorded in the Land Records of Montgomery County, Virginia.

IN WITNESS WHEREOF, the COVENANTOR(S) has executed this DECLARATION OF COVENANTS as of the date first above written.

COVENANTOR:

By:

Title:

ACKNOWLEDGMENT

COMMONWEALTH OF VIRGINIA

COUNTY OF _____, to wit:

I hereby certify that on this _____ day of _____, 20____, before the subscribed, a Notary Public for the Commonwealth of Virginia, personally appeared _____ and did acknowledge the foregoing instrument to be his/her Act.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal this _____ day of _____, 20____.

Notary Public

Registration Number: _____
My Commission expires: _____

Approved as to form:

Town Attorney

Accepted pursuant to Resolution 8-H-08:
TOWN OF BLACKSBURG

By: _____

Appendix I: Long Term Inspection and Maintenance of BMPs

1. Plan is approved following the Town of Blacksburg (TOB) Plan Approval Policy and Procedures.
2. Construction is inspected in conformance with the TOB Construction Inspection Policy and Procedures for Local Approval Process
3. Upon completion of construction, a punch list is prepared by the Town and all punch list items addressed by contractor.
4. Public infrastructure as-builts are reviewed and approved by Town Engineer.
5. Stormwater Management Facility certifications and as-builts are reviewed and approved by Town Stormwater Engineer.
6. All securities are released by Town Engineer.
7. On a rolling 5 year schedule, each private stormwater facility is scheduled for inspection.
8. Town of Blacksburg stormwater facilities are inspected on an annual basis.
9. Any deficiencies found in the private facilities are communicated in writing to the owner or responsible party with an appropriate deadline for corrective action.
10. Any deficiencies found in the Town owned facilities are communicated in writing to the department head responsible or the SWM facility with an appropriate deadline for corrective action. If no action is made within set time limit, Town Public Works will resolve the deficiency and work through inter-departmental funding for reimbursement.
11. If no deficiencies are found, a letter of inspection is sent to owner or responsible party detailing the inspection date and that no action is necessary.
12. Site is re-inspected based on the time frame provided to make the corrective action. If the deficiency is corrected, no further action is taken. If the deficiency is not corrected, the appropriate action is taken per the Town Code.

Appendix J: Assessment of Significant Sources of Pollutants from Municipal Facilities

In the chart below is a list of all Town-owned facilities and their assessment of significant sources of pollutants from the facilities. All but one had no sediment, bacteria or PCB potential. The Public Works site was identified as our only site with potential for pollutant discharge and a SWPPP was created during the 2016-2017 permit year.



Assess all Significant Sources of Pollutants from Municipal Facilities				
#	Site	Pollutant(s) of Concern	TMDL Watershed	Site Condition
1	Red Maple Water Tank	Sediment	Stroubles Creek	Stabilized
2	Neil Street Water Tank	Sediment	Stroubles Creek	Stabilized
3	Maple Ridge Pump Station	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial contributions.
4	Blacksburg Rescue Squad	Sediment	Stroubles Creek	Stabilized.
5	Community Center Complex	Sediment	Stroubles Creek	Stabilized
6	Dundas Heights Open Space	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
7	Windsor Hills Pump Station	Sediment	Stroubles Creek	Stabilized
8	Cork Drive Open Space	Sediment	Stroubles Creek	Forested
9	McBryde Village Park	Sediment	Stroubles Creek	Forested
10	Dundas Heights Park Land	Sediment	Stroubles Creek	Forested
11	Owens Street Park	Sediment	Stroubles Creek	Stabilized
12	Kabrich Open Space	Sediment	Stroubles Creek	Stabilized
13	Clay St Water Tank	Sediment	Stroubles Creek	Stabilized
14	Wong Park	Sediment	Stroubles Creek	Stabilized
15	Oddfellows Hall	Sediment	Stroubles Creek	Stabilized
16	African American Cemetery	Sediment	Stroubles Creek	Stabilized
17	Cooks Clean Center	Sediment	Stroubles Creek	Stabilized
18	Progress Street Parking Lot	Sediment	Stroubles Creek	Stabilized
19	Dickerson Estates Park	Sediment	Stroubles Creek	Forested
20	DOWNTOWN FIRE & RESCUE	Sediment	Stroubles Creek	Stabilized
21	Knob Hill Open Space	Sediment	Stroubles Creek	Stabilized
22	Price House	Sediment	Stroubles Creek	Stabilized
23	Church Street Parking Lot	Sediment	Stroubles Creek	Stabilized
24	Clay Street Spring Park	Sediment	Stroubles Creek	Stabilized & Forested
25	The Armory Building	Sediment	Stroubles Creek	Stabilized
26	Farmers Market	Sediment	Stroubles Creek	Stabilized
27	Black House and Thomas Conner	Sediment	Stroubles Creek	Stabilized
28	Municipal Building	Sediment	Stroubles Creek	Stabilized
29	Blacksburg Motor Company	Sediment	Stroubles Creek	Stabilized
30	Municipal Golf Course	Sediment	Stroubles Creek	Stabilized
31	Huckleberry Trail	Sediment	Stroubles Creek	Stabilized
32	Oak Manor Well House	Sediment	Stroubles Creek	Stabilized
33	Highland Park Pump Station	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
34	Graves Open Space	Sediment	Stroubles Creek	Stabilized
35	Crestview Water Tank and Park	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
36	Sheffield Open Space	Sediment	Stroubles Creek	Stabilized
37	Hardie Hills Open Space	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
38	Kipps Ball Fields	Sediment	Stroubles Creek	Stabilized
39	Landsdowne Open Space	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
40	Downtown Police Station	Sediment	Stroubles Creek	Stabilized
41	Nellies Cave Park	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
42	Dehart Open Space	Sediment	Stroubles Creek	Stabilized
43	Gardenspring Open space	Sediment	Stroubles Creek	Stabilized
44	Hubbard Street Fire Station	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
45	Tall Oaks Pump Station	Sediment	Stroubles Creek	Stabilized
46	Cedar Run Open Space	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
47	CRC PH II Pump Station	Sediment	Stroubles Creek	Stabilized
48	Cedar Hill Park	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
49	Cedar Run Pump Station	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
50	Public Works Complex	Sediment, Bacteria & PBC	Roanoke River	Some areas of exposed fill soil. Vehicles. Storage.
51	Cedar Run Springs and Open Space	Sediment	Stroubles Creek	Stabilized
52	Cedar Run Open Space	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
53	CRC PH I Pump Station	Sediment	Stroubles Creek	Stabilized
54	Blacksburg Transit	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
55	South Point Park	Sediment	Stroubles Creek	Stabilized
56	Hospital Pump Station	Sediment	Stroubles Creek	Stabilized
57	Industrial Park Pump Station	Sediment, Bacteria & PBC	Roanoke River	Stabilized. No bacterial/PCB contributions.
58	Westview Cemetery	Sediment	Stroubles Creek	Stabilized

Appendix K: Town of Blacksburg SWPPP for Public Works Yard

Legend

- Storm Sewer Pipe, Basin & Flow Direction
- Surface Flow Direction
- Outdoor Storage
- Inspection Location
- Paved Surface
- Gravel Surface
- Concrete Surface
- Wooded Area
- Grassed Area
- Bare Soil
- Covered Area

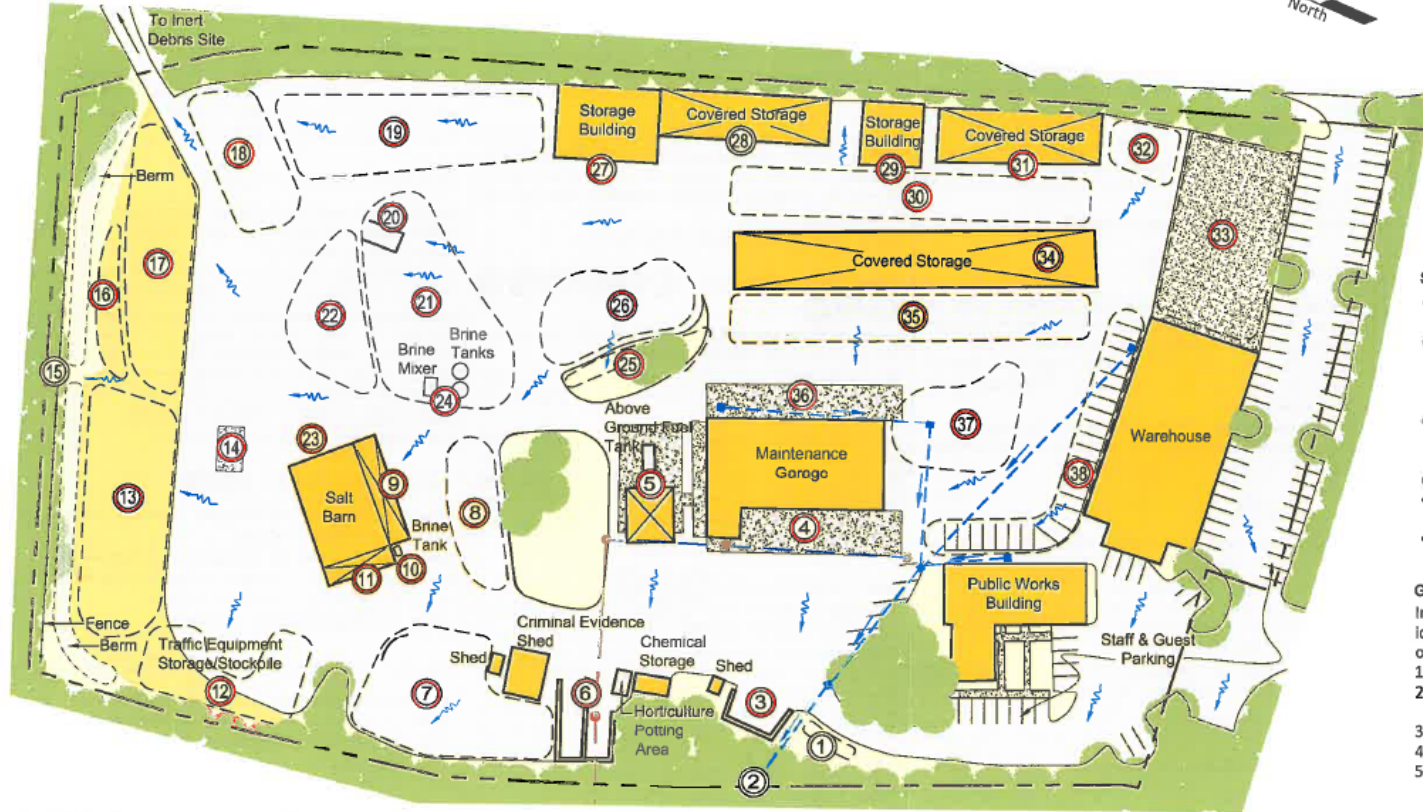
Site Evaluation Procedures

- **Inspect** potential pollution source locations in sequence with numbering on the map.
- **Reference** the flip side of this map to assist with identification of pollutant concerns at each location and practices to address potential pollutant exposure to stormwater runoff.
- **Complete** the Site Compliance Evaluation Form for each corresponding location during inspection.
- **Submit** completed form to Town Engineer.
- **Conduct** follow-up to findings, as directed by Town Engineer.
- **Document** on Site Compliance Evaluation Form the completion of follow-up actions.

General Notes

In addition to the Potential Pollutant Source Locations identified on the map, the site inspection shall also observe and report:

1. Areas of erosion occurring on-site;
2. Locations of exposed soils (i.e. lack of gravel cover);
3. Oil, hydraulic fluid, or chemical spills;
4. Open (uncovered) and unlabeled containers; and
5. Any other potential pollutant that could be exposed to precipitation and stormwater runoff.



Potential Pollutant Source Location Key

<p>① ⑦ ⑧ ②⑤ ③⑥ ③③ ③⑤ ③⑦ ③⑧</p> <p>② ①⑤ Points of Discharge</p> <p>③ Dumpsters</p> <p>④ ③⑥ Uncovered Vehicle/Equipment Storage (Temporary)</p>	<p>⑤ Fueling Area</p> <p>⑥ ①① ①③ ①⑦ ①⑧ ②① ②② ②⑥ ③②</p> <p>⑧ ⑨ ①① Salt Equipment Storage</p> <p>⑩ ②③ ②④ Salt Operations/Loading</p>	<p>⑫ ①⑥ ①⑨ ②① Outdoor Material Storage</p> <p>⑭ Vehicle/Equipment Washing</p> <p>⑲ ⑲⑨ Outdoor Material Loading</p> <p>⑲⑧ ⑳① ⑳④ Covered Material/Equipment Storage</p>
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**TOWN OF BLACKSBURG
PUBLIC WORKS FACILITY
STORMWATER POLLUTION PREVENTION PLAN MAP**
Approximate Scale: 1" = 80'

Note: This map is required to be updated when any new infrastructure is built (buildings, storm sewer, outfalls, etc.) or any possible pollutant generating activities are created, moved, or eliminated (new dumpster, new stockpile area, etc.). Notify the Town Engineer regarding changes in the field not depicted on this map.

3e **EEE Consulting, Inc.**
Environmental, Engineering and Educational Solutions

OCTOBER 2016

Site Evaluation Overview

Purpose

The intent of this reference guide is to provide quick access to descriptions of common pollutant sources and common controls and practices to address the pollutants for each location identified on the Stormwater Pollution Prevention Plan (SWPPP) map. If needed, additional information for each potential pollutant source or activity, including source controls, standard operating procedures, and removal/disposal of pollutants is provided in the Town's Good Housekeeping/Pollution Manual, latest edition.

Qualification for Performing Site Evaluation

The individual completing the Site Compliance Evaluation Form shall have participated in the Town's Municipal Separate Storm Sewer System (MS4) Good Housekeeping/Pollution Prevention training that includes introduction to the General Operations & Maintenance (O&M) Procedures included with this SWPPP, by reference.

Frequency and Protocol

The Site Compliance Evaluation Form shall be completed a minimum of once annually. The completed form shall be provided to the Assistant Director of Public Works immediately after the evaluation is completed. The Assistant Director of Public Works will provide follow-up for findings. Once follow-up is completed, it shall be indicated or noted on the Site Compliance Evaluation Form, as appropriate. *The Site Compliance Evaluation is not complete until appropriate follow-up to findings has been documented on the Evaluation Form.* Provide a copy of the completed form to the Town Engineer.

Reportable Spills & Discharges

If an onsite spill or occurring discharge to surface waters of any pollutant is observed, immediately contain the pollutant to prevent potential or further discharge. The Town Engineer shall be notified immediately to:

1. Determine the further actions necessary to eliminate the potential or occurring discharge and
2. Determine if the discharge was equal to or in excess of a reportable quantity per Section III G of the MS4 General Permit.
 - If the discharge is reportable, the Town Engineer will notify the DEQ within 24 hours and prepare the necessary report per Section III G of the MS4 General Permit for submission to DEQ. A copy of the report shall be maintained in a file with the SWPPP materials on site.

For emergencies, call the Blacksburg Fire Department at 9-1-1.

SWPPP Map Quick Reference Guide

Uncovered Vehicle/Equipment Storage ① ④ ⑦ ⑧

②⑤ ③⑩ ③③ ③⑤ ③⑥ ③⑦ ③⑧

Potential Pollutant and Sources: Petroleum products leaks from hydraulic hoses or equipment in disrepair.

Source Controls: Drip pans or absorbent pads placed under leaks; and containment bags wrapped around leaking components.

Best Management Practice(s): Repair equipment and vehicles leaking fuel or oil. Utilize source controls while leaks occur and inspect regularly to ensure pollutant is not exposed to precipitation. Remove and properly dispose of pollutants on ground surface.

O&M Procedure Reference: Section 5.3

Points of Discharge ② ⑮

Potential Pollutant and Sources: Pollutants could be present within the drainage area to the point of discharge, including sediment, petroleum products, etc.

Source Controls: Use source controls to prevent pollutants within the drainage area from being transported to the point of discharge.

Best Management Practice(s): Inspect for evidence of non-stormwater discharges. If evidence exists, track and eliminate the source of the pollutant.

Dumpsters ③

Potential Pollutant and Sources: Various liquids can leak and solids can rust or leach chemicals onto the ground.

Source Controls: If leaking, use absorbent, scrub with a broom to remove as much of the contaminate as possible, and promptly recover all material. For recurring issues, provide drip pan or absorbent pad.

Best Management Practice(s): Keep dumpsters and trash cans covered and replace damaged containers.

O&M Procedure Reference: Section 5.5

Pertinent Contacts

Emergency: 9-1-1

Police (Non-Emergency): (540) 961-1150

Fire (Non-Emergency): (540) 961-1175

Town Engineer: (540) 961-1124 (Kafi Howard)

Assist. Dir. of Public Works: (540) 961-1145 (Matt Stolte)

Office of Waste Reduction & Recycling: (540) 961-1806

Fueling Area ⑤

Potential Pollutant and Sources: Fuel spills from fueling activities and leaks from pumping equipment or above ground fuel tank.

Source Controls: Maintain a spill kit in the immediate vicinity with posted instruction for use of the kit. Perform timely maintenance repairs to address leaks. Identify location of cut-off switch.

Best Management Practice(s): Cover spills completely with absorbent and subsequently scrub with a broom. Promptly remove and dispose of material in a waste receptacle. For leaks, provide a drip pad or absorbent pad until repaired.

O&M Procedure Reference: Section 5.4

Outdoor Material Stockpiling ⑥ ⑪ ⑬ ⑰ ⑱ ⑳

②② ②⑥ ③②

Potential Pollutant and Sources: Sand, grit, sediment or any other erodible material stored outdoors.

Source Controls: Perimeter controls to prevent transport of stockpiled materials. Cover to prevent exposure to precipitation.

Best Management Practice(s): Regularly inspect stockpile areas and ensure proper maintenance of perimeter controls. Remove and dispose of materials that have migrated outside of perimeter controls daily. Place stockpiles away from outfalls and surface waters.

O&M Procedure Reference: Section 5.9

Salt Storage/Operations ⑩ ⑲ ⑳

Potential Pollutant and Sources: Salt and sand/grit tracked from storage facilities and in mixing locations.

Source Controls: Cover provided by indoor salt storage is the primary source control. Perimeter controls act as source controls for any outdoor stockpiling.

Best Management Practice(s): (1) Remove tracked salt, sand/grit from loading and mixing areas immediately following loading and mixing activities; (2) Install and maintain perimeter controls for outdoor stockpiles.

O&M Procedure Reference: Section 5.10

Outdoor Material Storage ⑫ ⑯ ⑲ ⑳ ㉑

Potential Pollutant and Sources: Petroleum products, solvents, corrosive material, grease or sediment from materials stored outdoors.

Source Controls: Perimeter controls or cover.

Best Management Practice(s): Store materials that could introduce pollutants to runoff indoors. Remove and properly dispose of pollutants on ground surface.

O&M Procedure Reference: Section 5.8

Vehicle/Equipment Washing ⑭

Potential Pollutant and Sources: Downstream transport of solvents, grease, sediment, petroleum product and cleaning agents through wastewater.

Source Controls: Wash only in designated areas that drain to sanitary sewer. No washing is allowed at the wash pad.

Best Management Practice(s): (1) Ensure all washwater is directed to the sanitary sewer by inspecting and maintaining diversion directing the washwater to the sanitary sewer; (2) Provide signage clearly identifying the designated washing location(s); (3) Ensure intake to the sanitary sewer is clear of debris and sediment.

O&M Procedure Reference: Section 5.1

Outdoor Material Loading ㉒ ㉓

Potential Pollutant and Sources: Materials loaded and unloaded at storage buildings.

Source Controls: Material packaging and indoor storage.

Best Management Practice(s): Ensure prompt storage of material under cover. Load in dry weather.

O&M Procedure Reference: Section 5.7

Covered Material/Equip.Storage ⑨ ⑪ ㉔ ㉕ ㉖

Potential Pollutant and Sources: Petroleum products leaks from hydraulic hoses or equipment in disrepair. Grease, sediment and other pollutants on equipment.

Source Controls: Roof cover acts as the primary source control. Drip pans or absorbent pads placed under leaks and containment bags wrapped around leaking components if potential for intermingling with stormwater.

Best Management Practice(s): Repair equipment leaking fuel or oil. Utilize source controls while leaks occur and inspect regularly to ensure pollutants are not exposed to precipitation. Remove and properly dispose of pollutants on ground surface.

O&M Procedure Reference: Sect. 5.3 & 5.8

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Appendix L: Illicit Discharge Detection and Elimination Protocol

Illicit Discharge Detection and Elimination Program



Town of Blacksburg, Virginia
Department of Engineering and GIS
300 South Main Street
PO BOX 90003
Blacksburg, VA 24062-9003
Revised June 17, 2014

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THE NORTH FORK HAS AN AREA OF 573 ACRES WITHIN THE TOWN LIMITS, THE SMALLEST WATERSHED IN TOWN. THE NORTH FORK WAS ORIGINALLY LISTED AS IMPAIRED IN 1996 FOR SEDIMENT AND 1998 FOR BACTERIA AND A TMDL FOR BOTH WAS COMPLETED IN 2006. THE ROANOKE RIVER WAS ORIGINALLY LISTED AS IMPAIRED FOR PCB’S IN FISH TISSUE IN 1996 NEAR THE CITIES OF SALEM AND ROANOKE. A TMDL STUDY WAS COMPLETED IN 2009 IDENTIFYING SOURCES IN THE BLACKSBURG REGION. 5

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Goals

The Town of Blacksburg has developed written procedures to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping, to the small MS4. These procedures shall be implemented and updated as needed to continue to minimize the occurrence of unauthorized discharged to the municipal separate storm sewer system.

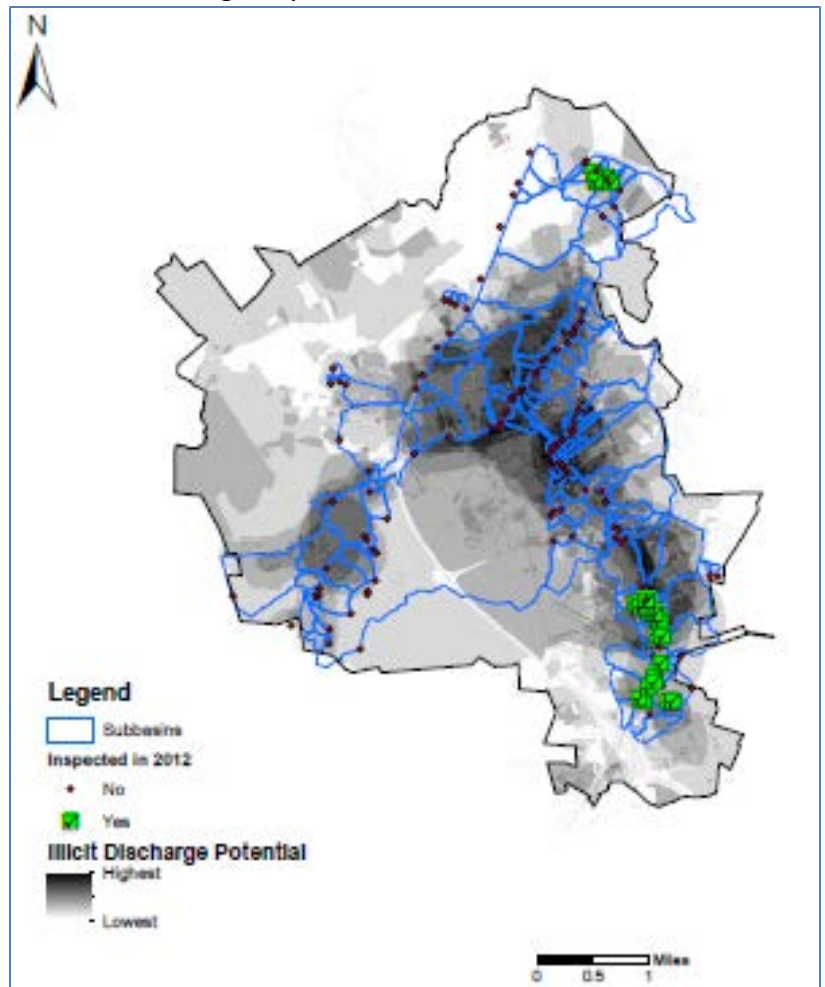
Scheduling Outfall Inspection Activities

The Town of Blacksburg has previously performed a desktop analysis of all of the watersheds. This analysis ranked areas in town with a numerical rank representing its potential as a low, medium or high risk for illicit discharge potential. The ranking was based upon age of infrastructure, land use, known historic discharges and density to wastewater infrastructure. Based on this ranking, the Town has scheduled the field inspections of discharge points with the high-risk areas being inspected first. Some scheduling may have minor variations from the rankings due to the proximity to other field inspections. It is important that the Town also utilize staff time to the maximum and lower risk areas may be inspected with higher if the geographical location is close.

The Town has developed a five year plan to complete all outfall inspections within a permit cycle. The Town has 155 known outfalls within our jurisdiction. If 31 outfalls are inspected each year, Blacksburg will succeed in performing inspections as required.

Dry Weather Defined

The Town defines “dry weather” as beginning after a period of 72 hours with less than 0.10 inches of rain.



Alternatively, dry weather may be based on a waiting period, such as 48 to 72 hours, after rainfall events that produce runoff.

Dry Weather Screening Methodologies

Field inspection of the Town of Blacksburg's MS4 outfalls are conducted during dry weather conditions. Data collection forms developed by the Center for Watershed Protection (CWP) are used to record the physical characteristics of each outfall, as well as its discharge if any is observed. The data collection form includes background information, outfall structural characteristics, quantitative characteristics of discharge, and physical indicators for both flowing and non-flowing outfalls. The original CWP data collection form was amended to include a field for recording the presence and concentration of potassium in observed outfall discharge. The basis for attempting to detect the presence of potassium is discussed later in the Water Quality Testing section of this document.

General information is also collected such as the time since the last rain, the quantity of the last rain, site descriptions (e.g., conveyance type and dominant watershed land uses), estimated discharge rate (e.g., width of water surface, approximate depth of water, approximate flow velocity, and flow rate), and visual observations (e.g., order, color, clarity, floatables, deposits or stains, vegetation condition, structural condition, and biology).

Field personnel are guided to outfalls by field maps depicting the local streets, parcels, and the storm sewer network. Upon arriving at an outfall, the worker will begin filling in the data collection sheet, while taking measurements as needed. Characteristics of the weather such as time since the last rain and quantity of the last rain shall be determined by referencing the NOAA weather station at the Virginia Tech Airport. If flow is observed at the outfall, water quality tests are started immediately and other measurements can be performed while waiting for the results of some of the tests. Width of water surface and approximate depth of water shall be measured onsite at the time of the outfall inspection. Watercourses in the Town are not so large as to become a navigation obstacle; this information can be gathered onsite.

Suspected Sanitary Sewer or other Significantly Contaminated Discharge

If characteristics of the outfall inspection have indications that sanitary sewer or other significantly contaminated discharge is in the water, the persons performing the inspection must do the following:

- (a) Immediately contact the Town of Blacksburg Engineering Department and notify the Director of Engineering of the suspected contaminant.
- (b) The Director, or designated person, shall perform a reconnaissance site visit within 24 hours of the notification. If immediate identification of the source is not apparent, the Engineering department must commence a formal investigation of the source of contaminant within 48 hours of notice. If the 48 hours falls outside of a typical work week, a formal investigation shall begin on the following business day.

Suspected Discharges from Less Hazardous Sources

If characteristics of the outfall inspection have indications that less hazardous discharge is in the water, such as non-contact cooling water or wash water, the persons performing the inspection must do the following:

- (a) Contact the Town of Blacksburg Engineering Department and notify the Town Engineer of the suspected contaminant within 48 hours of discovery of the less hazardous discharge.
- (b) The Town Engineer, or designated person, shall perform a reconnaissance site visit within 24 hours of the notification. If immediate identification of the source is not apparent, the Engineering department must commence a formal investigation of the source of contaminant within 5 days.
- (c) If it is discovered that the discharge is authorized under a separate VPDES or state permit, then it requires no further action under this permit.

Illicit Discharge Source Identification

If an illicit discharge is detected and the source is not immediately identified further investigation is required. The source shall be confirmed by one or more of the following methods:

- Documented visual observation or physical indicators;
- Indicator parameter testing (chemical and bacterial sampling);
- MS4 Investigation: Field crews perform an investigation by either strategically inspecting or testing manholes or by moving systematically upstream or downstream within the storm drain network;
- Drainage Area Investigation – An initial desktop analysis is performed to determine potential generating sites by reviewing land uses followed by inspections or testing in areas where the illicit discharge appears to be specific to a certain type of land use or generating site;
- On-Site Investigation – Dye, video, or smoke testing can isolate segments of the storm drain network to allow for focused on-site investigations;
- Homeowner surveys and surface condition inspections for on-site sewage disposal systems

Methodologies to determine the source of all illicit discharges shall be conducted. If an illicit discharge is found, but within six months of the beginning of the investigation neither the source nor the same non-stormwater discharge has been identified, then the operator shall document such in accordance with Section II B 3 f. If the observed discharge is intermittent, the operator must document that a minimum of three separate investigations were made in an attempt to observe the discharge when it was flowing. If these attempts are unsuccessful, the operator shall document such in accordance with Section II B 3 f.

When a discharge has been eliminated, a follow-up investigation must be completed in 45 days in order to verify that the discharge has been eliminated.

Enforcement Methods

Contaminated spills and illicit discharges found through this methodology will be handled in the following manner:

1. The responsible persons will be notified of the discovery of the illicit discharge or contaminated spill. Notifications may be verbal warnings and inspection reports, notices of corrective action, consent special orders, and notices to comply. Written notices shall be served by registered or certified mail to the address specified in the permit application or by delivery at the site of the activities to the agent or employee supervising such activities.
2. The source, once identified, will be eliminated so that no additional impacts will continue to occur to surface waters.
3. Once the source is contained, any additional enforcement will be appropriate to the scale of the water quality impacts.
 - a. Minor impacts may be handled with the promulgation of educational material.
 - b. More serious impacts shall be subject to a civil penalty not to exceed \$32,500 for each violation within the discretion of the court. Each day of violation of each requirement shall constitute a separate offense.
 - c. Any person who willfully or negligently violates any provision of this article, any order of the Administrator, any condition of a permit or any order of a court shall be guilty of a Class 1 misdemeanor.

Reporting Methods

The Town will promote, publicize, and facilitate public reporting of illicit discharges into or from MS4s. The operator shall conduct inspections in response to complaints and follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party.

1. Receive the complaint/Identify discharge location
2. Inspection of the site.
3. Fill out field report w/ pictures.
4. Enter discharge into database.
5. Attempt to discover source on site.
6. When the source is determined, document the enforcement type and timeframe for follow-up. (see table below)

Notifications may be verbal warnings and inspection reports, notices of corrective action, consent special orders, and notices to comply. Written notices shall be served by registered or certified mail to the address specified in the permit application or by delivery at the site of the activities to the agent or employee supervising such activities.

Infraction Type	Enforcement Type	Follow-Up Actions
Minor Infraction – No impact to MS4	Verbal Warning	Best Management Practices

Moderate Infraction – Minimal impact to MS4	Written Warning Inspection Report Clean-up	Best Management Practices
Major Infraction – Remediation will be required to MS4 system OR Spill made contact with surface waters	Written Warning Inspection Report Consent Special Orders Clean-up Remediation Bill	Best Management Practices Civil Penalties
Fish Kill – Spill made contact with surface waters and determined to be a fish kill event.	Written Warning Inspection Report Consent Special Orders Clean-up Remediation Bill	Best Management Practices Civil Penalties

Tracking

The Town of Blacksburg will employ a system to track the identification and elimination status of illicit discharges and enforcement actions. The system will also track confirmation that illicit connections are removed and the discharge permanently ceased. This system will be maintained in the town’s GIS system.

Discharge Type	Identification Information	Contact List	Response	Enforcement Type	Enforcement Actions	Elimination Status
Illicit Connection	Call received on Friday 7-1-10	Town Engineer	Site visit; Confirmed source; Contacted owners	Building Code	Violation written, provided 30 days to rectify	8-5-10 Confirmed. Site re-inspected after 30 days – no indication of continued discharge
Chemical Spill (transport truck)	Notified by local fire/rescue staff. 2-3-11	Fire & Rescue Clean-up Service Virginia DEQ Town Engineer	Emergency Response and Spill Clean-up	Emergency Response	Spill response charged to company. DEQ to assess fish kill.	2-17-11 Confirmed. Re-inspection of site 14 days later showed no residual material.

Training

The Town of Blacksburg will train staff who are involved in illicit discharge-related activities, or who have field jobs with the potential for witnessing illicit discharges and connections. The training shall be implemented according to the program and include the following:

- The definition of illicit discharges and connections,
- Techniques for finding illicit discharges, including field screening, source identification, and recognizing illicit discharges and connections,

- Methods for eliminating illicit discharges and the proper enforcement response,
- Contact information for staff that has emergency response responsibility,
- General recognition of illicit discharges,
- Where to report them when they are observed,
- Common types of illicit discharges that occur in the local area and the types of illicit discharges that are commonly associated with local land uses,
- The illicit discharge ordinance, including the requirements and authority given to the municipality to eliminate illicit discharges,
- The municipality's storm water infrastructure, and where to obtain municipal storm sewer maps, and
- Illicit discharge preventative measures.

Outreach & Education

- Post illicit discharge protocol and emergency contact at Town of Blacksburg Planning and Engineering Department and Emergency Services offices.
- Have a biannual training session with emergency services personnel to update staff and emergency services on changes to the program.

Appendix M: Approved Nutrient Management Plans for the Town of Blacksburg