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

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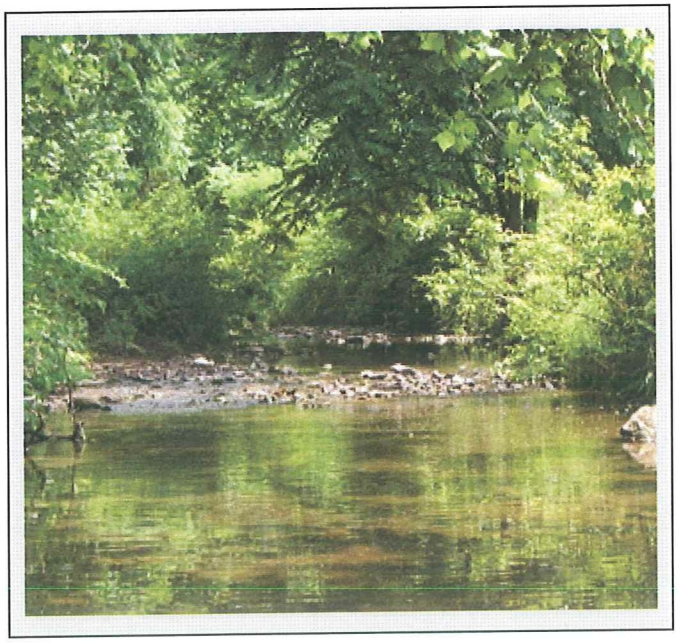

Submitted to the Virginia Department of Conservation and Recreation: December 2008; Revised September 2009 (per DCR Comments); Revised: December 2009 (inclusion of Section I of permit – Discharge Authorization and Special Conditions); Revised September 2011 (per DCR comments from July 2011 review)

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Section 1 - Introduction

The purpose of the document is to serve as the Registration Statement per 4VAC50-60-1230, Small MS4 General Permit for the Town of Blacksburg (300 South Main Street, Blacksburg, Virginia 240602-9003).

The Town of Blacksburg defines its MS4 Program Plan as its Registration Statement for Coverage under the General Permit for Discharges from Small Municipal Separate Storm Sewer Systems dated July 9, 2008 and all documents, policies, procedures specified directly and those documents, policies, procedures necessary to implement all specified programs listed in the registration statement.

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, #8-11.

With this Registration Statement prepared per 4VAC50-60-1230(B) and submitted by the deadline as described in as per 4VAC50-60-1230(A), the Town understands it has met all submission registration statement requirements towards uninterrupted coverage.

<u>January 2010 Update for Special Conditions (TMDL)</u>
The Town is accountable for specific pollutant reductions through the assignment of waste load allocations (WLAs). The TOB currently has three stormwater-related WLA associated with TMDLs. The WLAs are:

- 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

In accordance with 4VAC50-60-1240 Section I.B of the General Permit, the Town's Program Plan is required to be updated to include measurable goals, schedules, and strategies to ensure MS4 Program consistency with the assumptions of any TMDL WLA within 18 months of permit coverage (by January 9, 2010). This updated version of the Program Plan meets these requirements. Based on 4VAC50-60-1240 Section I.B, the Town is required to modify this Program Plan in accordance with the sections of the Small MS4 General Permit described below. Updates and information related to each of these sections can be found in the location indicated in bold lettering.

- 4VAC50-60-1240 Section I.B.2: Identify and evaluate programs, policies, etc. that address the pollutants of concern in watersheds subject to a WLA. This includes

identifying weakness and developing a plan/schedule to address weaknesses; **(See Appendix A)**

- 4VAC50-60-1240 Section I.B.3: Integrate awareness campaign into the existing public education and outreach program that promotes methods to eliminate/reduce the pollutant identified in the WLA;

  A review of the Town's Program Plan demonstrates that this goal is already being met as described below and as part of Minimum Control Measure 1 described in Section 3 of this Program Plan.

  In the Town, significant sources of sediment are from agriculture operations, streambank erosion and erosion and sediment from construction activity. Although a general public awareness campaign is part of the Town's Program Plan and includes a TMDL component (Minimum Control Measure 1), a general public awareness campaign for reduction of sediment is not appropriate for reducing sources of sediment. Instead efforts are targeted to those associated with the contributing sources. This is accomplished through public education outreach sessions for the engineering, contractor and development community regarding erosion and sediment control and stormwater regulation. This type of outreach is further supported by guidance documents on the Town website. In regards to agricultural operation contributions, most of these areas originate on Virginia Tech property, a separate MS4. Another component of public education and outreach include the construction of BMPs on Town projects. These projects serve as examples for the development community. The Town will continue to implement the outreach described here and in more detail within parts of **Minimum Control Measure 1**.

- 4VAC50-60-1240 Section I.B.4: Implement BMPs identified in the TMDL Implementation Plan assigned to the Town **(Minimum Control Measure 3, BMP F)**;

- 4VAC50-60-1240 Section I.B.5: Modify Outfall Reconnaissance monitoring to assure a minimum of 15% of outfalls discharging to the surface water for which the WLA has been assigned are monitored annually **(See Minimum Control Measure 3, BMP B)**;

- 4VAC50-60-1240 Section I.B.6: Evaluate Town owned properties and conduct monitoring and BMP implementation, as needed **(See Minimum Control Measure 3, BMP G)**; and

- 4VAC50-60-1240 Section I.B.7: Conduct characterization that estimates the volume of stormwater discharged and the quantity of pollutant identified in the WLA discharged by the Town. **(See Minimum Control Measure 3, BMP H)**; and

- 4VAC50-60-1240 Section I.B.8 & 9: Conduct additional program evaluation and provide additional information as part of the Town's annual report. This will be included as part of future **Annual Reports**.

Section 2 – General Registration Statement Information

Tab. 1 Information pertaining to 4VAC50-60-1230, Part B, #1-3

B.1.	Regulated small MS4 Owner	Town of Blacksburg
B.2	Type/Address	Incorporated Town, 300 S. Main Street, Blacksburg, VA 24062
B.3	HCUs currently receiving discharge	1) NE60 - Toms Creek - Poverty Creek; 2) NE59 - New River Stroubles Creek; 3) RU06 - North Fork Roanoke River -Dry Run; 4) RU07 - North Fork Roanoke River - Wilson Creek; IMPAIRED: 1) Stroubles Creek (Bethnic) Pollutant - Sediment Listed 1996; 2) Cedar Run (Fecal Coliform) - Listed 2006 TMDL #5026

B.4 See Table 2 below for estimated drainage areas (in acres) served by the regulated MS4 that discharge directly to impaired receiving surface waters. Note that Group IDs shown are per the Final 2006 Water Quality Assessment.

Tab. 2 Areas draining to impaired streams within the corporate limits of the Town of Blacksburg (areas served by the regulated MS4).

TMDL	Group ID	Estimate drainage area (acres)
Stroubles Creek	50299	5414
Wilson Creek/Cedar Run/N. Fork Roanoke River	50264	1830

B.5 According to the Bethnic TMDL for Stroubles Creek in Montgomery County, Virginia, submitted by VDEQ and VDCR, October, 2006 a waste load allocation (WLA) was generated for the Stroubles Creek TMDL sediment goal for the three contributing MS4s (VAR040019, VAR040049, VAR040016) within the watershed of 210.88 tons/year. These MS4s include the Town of Blacksburg, Virginia Tech, and VDOT.

B.6 Regulated, physically interconnected MS4s include:

1. Virginia Tech (VAR040049)
2. Virginia Department of Transportation (VAR040016)

Section 3 – MS4 Program Plan

B.7 Find below the MS4 Program Plan that includes a list of BMPs that the operator proposes to implement for each of the stormwater minimum control measures and their associated measurable goals pursuant to 4VAC50-60-1240, Section II B. For each control measure, the associated BMP includes:

- 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;

- the objectives and expected results of each BMP in meeting the measurable goals of the stormwater minimum control measures;

- the implementation schedule including any interim milestones for the implementation of a proposed new best management practice;

- 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

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 (3).

A. **BMP: Establish a town wide storm water management plan that includes education and outreach on storm water impacts.** To accomplish this minimum control measure, the Town will

   - continue facilitation of a stormwater taskforce that was established and has been actively meeting since May, 2008. The taskforce charge, meeting minutes and a blog are provided on the Town website at:

http://www.blacksburg.gov/Index.aspx?page=548. The taskforce recommendations should include a town wide storm water plan that addresses code requirements, standards, maintenance, LID implementation, infrastructure, financing etc.

- hold a public outreach workshop to go over new Codes, regulations, and expectations for developers, contractors, and engineers. The Town will also utilize WTOB (Public Access Channel), About Town (Town newsletter), and mailings to educate the public on storm water impacts and best management practices. WTOB will air a watershed/stormwater related video 3 times per week.

- continue public outreach efforts by sponsoring or participating in the following three annual events.

  - ✓ 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 (the first weekend in August): A watershed informational booth with Town and other members of the Stroubles Creek TMDL Implementation Steering Committee to dispense information and talk with the public on urban water quality issues is part of this event.

  - ✓ Blacksburg Watershed Open-house: The venue includes available representatives from the local TMDL Implementation Steering Committee, Virginia Tech, Virginia Center for Informational Technology, VDCR, VDEQ, and local watershed historians/researchers. 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.

- Participate and plan development with local groups for stream clean-up efforts, including assistance with mapping and documentation for determining stream stretches, drainage ways, channels and other areas in need of clean-up and record keeping of these activities.

- Implement a storm drain marking program. The town plans to inventory locations of storm drains that would serve as good candidates to receive permanent storm drain curb markers. These would be drains easily accessible to the public that may be vulnerable to dumping. This

inventory will be completed the first year of the permit cycle and markings installed each of the following years through student outreach programs.

- 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)

Schedule and Evaluation: The town wide storm water plan should be implemented during this permit cycle. The Outreach programs listed above should occur during each year of this permit.

Responsible Party: Director of Engineering & Town Stormwater Engineer; Engineering & GIS Department; Neighborhood Services Coordinator

Necessary Documents: Task Force recommendations, any Code section amendments based on recommendations from the Taskforce, stream clean-up documentation, storm drain marking inventory, LID Manual and educational materials.

Measurable Goals: 1) Workshop materials; 2) Taskforce recommendations (and possible adoption) to Town Council; 3) Town sponsorship and/or participation in the above storm water educational outreach programs each year of this permit.

Items to be reported in the Annual Report: Dates of education outreach programs, examples of educational materials, participant numbers, storm water plan or code section amendments arising from plan. Storm drain marking inventory and update summary of program. Mapping and documentation from stream clean up efforts. Relevant information in regards to educational articles in the "About Town" newsletter and WTOB programming scheduling, including title of programming shown.

B. **BMP: Conduct outreach programs to address the proper disposal of Household /Business Universal and Hazardous Waste.** 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 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.

Schedule and Evaluation: The Household Hazardous Waste Day is held annually in May. In addition, the Town partners with the New River Resource Authority in Dublin to provide residents an additional opportunity to properly dispose of their hazardous household waste.

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 Waste Reduction and Recycling Staff continues to promote these programs throughout the year at events such as the annual Sustainability Week and annual "Steppin Out" festival with informational booths, workshops, presentations, and handouts.

Responsible Party: Environmental & Sustainability Manager; Division of Environmental Planning and Sustainability; Operations Coordinator; Office of Waste Reduction & Recycling; Public Works

Necessary Documents: The Hazardous Household Waste (HHW) brochure.

Measurable Goals: Monitor participation in Hazardous Household Waste Days by the number of participants. Monitor participation in electronics recycling program by reporting the number of tons recycled.

Items to be reported in the Annual Report: The Office of Waste Reduction and Recycling staff will report the number of participants in yearly HHW day events and the tonnage of electronics recycled at the YMCA thrift store.

C. **BMP: Detect food service businesses discharging grease and educate them on the effect of grease clogging drains.** 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.

Schedule and Evaluation: The educational outreach to businesses on both BMPs and enforcement actions will continue to be an annual event. The tracking of grease violations will continue through this permit cycle period.

Responsible Party: Water Resource Inspector; Engineering and GIS Department

Necessary Documents: Educational brochures, enforcement action informational letters, and GIS database.

Measurable Goals: The Town will complete one educational outreach effort to each grease generating business each year of this permit.

Items to be reported in the Annual Report: Summary of above actions to include educational brochures that are distributed annually, number of violations, and enforcement actions.

D. **BMP: Educate businesses on the impact of non-storm water discharges.** 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.

The Town will also promote Public Outreach on new Illicit Discharge Ordinance and send out educational materials describing the ordinance provisions.

The Public Works Department continually works to find public outreach opportunities (ex. Garage personnel and the Public Works Director met with representatives from private garages, Virginia Tech, and other municipalities to encourage the use of non-lead wheel weights to balance tires.

Establishments were also encouraged to join the EPA National Partnership for Environmental Priorities Program).

Schedule and Evaluation: Educational literature will be sent annually to businesses on BMP, alternative options, storage, and disposal techniques. A survey will be sent out the third year of this permit cycle. The Public Outreach on illicit discharges and enforcement actions will occur during the second year of this permit cycle.

Responsible Party: Water Resources Inspector; Engineering & GIS Department and Director; Public Works.

Necessary Documents: The annual educational brochure containing BMP information, alternative options, and disposal techniques. The survey that is conducted every five years on non-storm water discharges by businesses. Submit documentation on any additional Public Outreach programs that occurs during that annual report timeframe.

Measurable Goals: The Town will send out educational information during each year of this permit cycle, illicit discharge information during the second year of this permit cycle, and a survey on non-storm water discharges during the third year of this permit cycle.

Items to be reported in the Annual Report: Summary of BMP activities, educational brochures, survey document include educational brochures that are distributed annually, number of violations, and enforcement actions.

E. **BMP: Maintain Town webpage with stormwater related information.** 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 site will be updated as needed. At a minimum, downloads for the updated Program Plan and Annual Reports will be posted each year.

Responsible Party: Stormwater Engineer, Engineering & GIS Department.

Necessary Documents: All information mentioned above. Any new information related to changes in stormwater regulation, annual reports, and other stormwater related information that is critical to facilitation of the Town's program.

Measurable Goals: An up-to-date webpage.

Items to be reported in the Annual Report: Summary of maintenance and/or changes to the webpage.

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. Measures described below are intended to meet public outreach and measurable goals as described 4VAC50-60-1240, Section II B (2).

A. **BMP: Conduct stakeholder meetings for watershed management and storm water quality improvement.** Conduct the Town Comprehensive Plan process and update every 5 years on watershed and storm water goals for the community. This will include public meetings, public hearings, and public input throughout the period of the update. Consider annual Town Comprehensive Plan amendments for watershed management and storm water issues as they are received. This includes a public hearing input process and Town committee input.

The Town will continue to be an active member of the Stroubles Creek TMDL Implementation Plan Steering Committee. Stroubles Creek is the main stream that runs through the center of the Town. The TMDL stakeholders include Virginia Tech, VDCR, VDOT, Montgomery County, Town of Blacksburg and Citizens. The Upper Stroubles Creek Watershed TMDL Implementation Plan" was approved by VDEQ on May 24, 2006. There are several projects identified in the Implementation Schedule that the Town is currently working on to maintain compliance with the program.

Schedule and Evaluation: The Town Comprehensive Plan is updated every five years with annual amendments as needed on storm water issues and watershed management. The Town will continue to work on the TMDL Implementation Schedule to maintain compliance with the program.

Responsible Party: Senior Comprehensive Planner; Planning and Building Department and Town Stormwater Engineer (TMDL); Engineering and GIS Department

Necessary Documents: Comprehensive Plan chapters that pertains to storm water. List of participants in stakeholder meetings for TMDL and Comprehensive Plan meetings. TMDL Implementation Plan.

Measurable Goals: The Town Comprehensive Plan will have a five year revision period with public meetings during the third and fourth year of this permit cycle. The Town will continue to work on the TMDL Implementation Schedule to maintain compliance with the program during all years of this permit.

Items to be reported in the Annual Report: Summary of activities and excerpts of comprehensive plan revisions pertaining to storm water and watershed management. The Town will submit TMDL Implementation Program progress and updates.

B. **BMP: Facilitate a taskforce to evaluate current stormwater regulations and recommend improvements to regulations, intended to enhance watersheds.** To accomplish this minimum control measure, the Town will continue facilitation of a stormwater taskforce that was established and has been actively meeting since May, 2008. The taskforce charge, meeting minutes and a blog are provided on the Town website at: http://www.blacksburg.gov/Index.aspx?page=548. The taskforce recommendations should include a town wide storm water plan that addresses code requirements, standards, maintenance, LID implementation, infrastructure, financing etc. All meetings are open to the public. All agendas, minutes and recommendations are available via the Town website.

Schedule and Evaluation: The taskforce meets on a regular basis. Recommendations are expected to be generated sometime in the year 2010.

Responsible Party: Director of Engineering & Town Stormwater Engineer; Engineering & GIS Department

Necessary Documents: Task Force recommendations, any Code section amendments based on recommendations from the Taskforce. All agenda, minutes and other related information as provided on Town website (described above).

Measurable Goals: Taskforce recommendations (and possible adoption) to Town Council

Items to be reported in the Annual Report: Documentation associated with taskforce meetings and recommendations (when completed).

C. **BMP: Participate in stream clean-up efforts.** To accomplish this minimum control measure, the Town will participate and assist with plan development with local groups for stream clean-up efforts, including assistance with mapping and documentation for determining stream stretches, drainage

ways, channels and other areas in need of clean-up and record keeping of these activities.

Schedule and Evaluation: The Town will participate in a minimum of one stream clean-up per year. Documentation related to the event will be maintained.

Responsible Party: Neighborhood Services Coordinator

Necessary Documents: Stream clean-up documentation.

Measurable Goals: Town participation in the stream clean-up event.

Items to be reported in the Annual Report: Documentation from stream clean-up efforts.

D. **BMP: 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.

Schedule and Evaluation: The site will be updated as needed. At a minimum, downloads for the updated Program Plan and Annual Reports will be posted each year.

Responsible Party: Stormwater Engineer, Engineering & GIS Department.

Necessary Documents: All information mentioned above. Any new information related to changes in stormwater regulation, annual reports, and other stormwater related information that is critical to facilitation of the Town's program.

Measurable Goals: An up-to-date webpage.

Items to be reported in the Annual Report: Summary of maintenance and/or changes to the webpage.

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).

A. **BMP: Develop a storm drain system map.** The Town has been working with the Virginia Tech Center for Geospatial Information Technology (CGIT) to employ GIS and GPS technology to inventory the complete storm sewer system within the Town. The Town Staff continues to work with CGIT on mapping the remaining storm drain system, including stormwater management facilities, and 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 with overall storm structure database.

   Schedule and Evaluation: The inventory of major storm water outfall structures has been completed (see part B of this section). 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 the next permit cycle. Town staff will inventory new storm water infrastructure as needed during all years of this permit.

   Responsible Party: Town Engineer (Stormwater); Engineering and GIS Department and GIS Coordinator; Engineering and GIS Department

   Necessary Documents: Mapping Results and watershed data (GIS shapefiles).

   Measurable Goals: Map all new storm water infrastructure annually. Maintain reliable storm structure data in GIS.

   Items to be reported in the Annual Report: Mapping with updates of new storm water structures and infrastructure from new development.

B. **BMP: 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 Center for Geospatial Information Technology (CGIT) 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 $1/5^{th}$ 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.

Schedule and Evaluation: 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.

Responsible Party: Town Engineer (Stormwater); Engineering and GIS Department

Necessary Documents: Database records for maintaining collected outfall sampling. Field inspection sheets for outfall reconnaissance.

Measurable Goals: An ongoing database, along with summary of actions or research performed in the case of illicit discharge discovered at an outfall.

Items to be reported in the Annual Report: Inspection field sheets. Maintained outfall database available upon request.

C. **BMP: Enforce an ordinance prohibiting illegal dumping and non-storm water discharges.** The Town has established an ordinance to prohibit non-storm water discharges that was adopted by Town Council in spring of 2008 as part of a Comprehensive Stormwater Ordinance.

Schedule and Evaluation: The Town will continue ongoing enforcement of the Stormwater Ordinance, as described above, to its full extent.

Responsible Party: Water Resources Inspector, Director of Engineering & GIS Department

Necessary Documents: Storm Water Ordinance, documentation on detected/reported illicit discharge.

Measurable Goals: Documented actions taken in regards to enforcement of the illicit discharge section of the ordinance. Also, maintain a GIS shapefile for illicit discharge locations.

Items to be reported in the Annual Report: A report summarizing illicit discharge violations per the ordinance, including actions taken by the Town.

D. **BMP: 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 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.

Schedule and Evaluation: The Town will continue to enforce these Ordinances to protect floodplain areas, streams, and riparian zones during all years of this permit.

The Town of Blacksburg is also participating in the Map Modernization process with FEMA and DCR. This process will help better delineate the flood zones within town limits and change the boundaries of the Flood Overlay District based on more current data. This process should be completed by the first year of this permit.

Site plan review by Planning and Building Department will continue to monitor the Overlay Districts to ensure enforcement during all years of this permit.

Responsible Party: Zoning Administrator; Planning and Building Department and Town Engineer, Stormwater; Engineering & GIS Department

Necessary Documents: Zoning Overlay Districts and related Ordinance sections. Updated FEMA flood map

Measurable Goals: Enforce Ordinance sections that prohibit development in Zoning Overlay Districts during all years of this permit. Make flood boundary delineation updates per complete flood map modernization by the end of this permit period.

Items to be reported in the Annual Report: Flood Map Modernization updates, when applicable. Report findings/actions upon adoption of new maps.

E. **BMP: 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. Businesses will receive information on enforcement actions related to illegal discharges to the storm water system. Town employees will receive guidance on detecting illicit discharges and related enforcement actions. Illicit Discharges will continue to be tracked by the Town Geographical Information System to help detect trends and identify repeat offenders.

Schedule and Evaluation: Educational materials developed during the previous permit cycle will continue to be used and updated or improved as needed. Training for town staff and Educational Public Outreach programs will occur during each year of this permit. Tracking of illicit discharges with analysis of trends will occur during all years of this permit.

Responsible Party: Water Resources Inspector; Engineering and GIS Department.

Necessary Documents: Educational materials: Brochure, Enforcement letter, Town newsletter, etc.

Measurable Goals: Use and distribution (including employee training) of educational materials each year.

Items to be reported in the Annual Report: Educational materials and dates presented.

F. **BMP: Implement 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. The Table below provides the Measurable Milestones listed in the Implementation Plan timeline that identifies the Town as the responsible party. The Tables in Appendix B of this Program Plan provide a list of those BMPs assigned to the Town in the Upper Stroubles Creek TMDL Implementation Plan and an update describing the implementation to date for each measure.

Schedule and Evaluation: The Town will continue performing the "annual" and "ongoing" tasks assigned in the Implementation Plan and as described in Table B.1, Appendix B.

Responsible Party: Stormwater Engineer; Engineering and GIS Department, Public Works.

Necessary Documents: Records of inspections of outfalls, infrastructure database (reference BMP 3A), inventory records for street sweeping and storm drain maintenance, any plans or information related to installation of any LID projects, guidance materials in regards to ESC

Measurable Goals: Active participation in the TMDL Implementation plans in regards to Measurable Milestones

Items to be reported in the Annual Report: Any information related to the annual and ongoing milestones assigned in the TMDL Implementation Plan.

G. **BMP: 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:

1. Collect a total of two samples from a representative outfall for each identified municipal property in accordance with the requirements of the VSMP permit.
    a. One sample shall be taken during each of the following six-month periods: October through March, and April through September.
    b. 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.
2. 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: Within the first two years of the required date for updating the MS4Program Plan per Section I of the VSMP permit (January 9, 2010), the Town will perform No. 1 of this BMP as described above. No. 2, as described above, will be completed by the third year of the update to this Program Plan (January 9, 2013).

Responsible Party: Stormwater Engineer; Engineering and GIS Department.

Necessary Documents: As part of the annual reports, the Town will provide outcomes of evaluations and monitoring performed during the annual reporting period. The Town will also report any follow-up action plans.

Measurable Goals: Compilation of the characteristics of runoff related to the TMDL pollutant for Town owned properties.

Items to be reported in the Annual Report: Summary related to the review, monitoring and BMPs for each site.

H. **BMP: 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

Schedule and Evaluation: 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: Stormwater Engineer; Engineering and GIS Department.

Necessary Documents: GIS data for analysis described above, summary of results.

Measurable Goals: Computation of required information per permit requirements.

Items to be reported in the Annual Report: The required information will be reported in each annual report.

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 one acre. 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 one acre or more. Measures described below are intended to meet public outreach and measurable goals as described 4VAC50-60-1240, Section II B (4).

(a) 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.

(b) 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;

(c) 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

A. BMP: 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.

Schedule and Evaluation: The Town of Blacksburg will implement the program according to the requirements listed above during all years of this permit. The Town relies on the Department of Conservation and Recreation's local program review to determine the consistency and compliance with the Va. ESC Law and attendant regulations. If the Town fails to be consistent, the Town will work with DCR to correct the inconsistencies.

Responsible Party: Construction Manager; Engineering and GIS Department

Necessary Documents: Land Disturbance Permit, Plan Review Checklist, Site Inspection Checklist, Compliance and Enforcement Policy (Erosion and Sediment Control Ordinance).

Items to be reported in the Annual Report: Number of Plans approved, Total Number of Disturbed Acres.

B. BMP: 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.

Schedule and Evaluation: 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.

Responsible Party: Construction Manager; Engineering and GIS Department

Necessary Documents: Documentation of E&S violations and corrections

Measurable Goals: Response to all E&S complaints.

Items to be reported in the Annual Report: Total number of complaints documented, along with actions taken.

C. BMP: 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.

Schedule and Evaluation: 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.

Responsible Party: Building Official; Planning and Building Department

Necessary Documents: Trash and Debris Form

Measurable Goals: Use Trash and Debris Form to produce number of violations and violators to identify repeat offenders and use appropriate enforcement actions. The Building Division will carry out this BMP during all years of this permit.

Items to be reported in the Annual Report: Trash and Debris Form results.

D. BMP: 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.

Other efforts are also being made to assure associated documentation to the VSMP permit is being provided on site and is understood by the contractor.

Recommendations to strengthen the Town's Erosion and Sediment Control regulations by the Town's Stormwater Taskforce in regards to erosion and sediment control have been made available for public comment (December 2008). Some of these recommendations involve ensuring a SWPPP has been completed, is acknowledged by the necessary parties and is introduced on-site prior to construction. Recommendations by the taskforce in regards to strengthening the intent of this BMP are provided below.

- "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."

Schedule and Evaluation: 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: Town Engineer; Engineering and GIS Department.

Necessary Documents: Stormwater webpage link; VSMP permit information.

Measurable Goals: Continual acknowledgement by agent and/or owners VSMP permit compliance and copies of permit application.

Items to be reported in the Annual Report: Summary of efforts to meet the intent of this BMP.

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 1 acre. 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 one acre or more. Measures described below are intended to meet public outreach and measurable goals as described 4VAC50-60-1240, Section II B (5).

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 Storm Water 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. The Town of Blacksburg will enforce this ordinance for all of the years in the permit cycle.

Schedule and Evaluation: Ongoing enforcement of the Stormwater Ordinance. . The Town will take the appropriate actions to update the Ordinance if more stringent stormwater management regulations are introduced by the Commonwealth during the permit cycle.

Responsible Party: Town Engineer (Stormwater); Engineering and GIS Department.

Necessary Documents: Town of Blacksburg Stormwater Ordinance, Plan Review Checklist, Site Inspection Checklist, Compliance and Enforcement Policy.

Items to be reported in the Annual Report: A summary of the number of plans approved (which would require a maintenance covenant, if applicable) and the number of stormwater record drawings accepted.

B. **BMP: 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.

A stormwater taskforce has been developed and will make recommendations on dealing with the operation, maintenance, and inspection process of storm water facilities and possible funding sources to assist the Town in implementing the program set forth with the Stormwater Ordinance.

Schedule and Evaluation: 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. Recommendations for funding the implementation of the program described within the ordinance will be formed by the taskforce and presented to Town Council prior to the end of the second year of the permit cycle.

Responsible Party: Town Engineer (Stormwater); Director of Engineering & GIS Department, Director of Public Works

Necessary Documents: Maintenance covenants for proposed stormwater facilities; stormwater management ordinance; annual inspection forms and database

Measurable Goals: Continue to provide proper maintenance for storm water facilities that the Town of Blacksburg is responsible for (Town Owned) during all years of this permit. Maintenance covenants on record for all new stormwater management facilities. An ongoing database that provides maintenance and inspection records for BMPs.

Items to be reported in the Annual Report: A summary of the tasks performed for the maintenance of stormwater facilities and infrastructure. The up-to-date BMP inspection/maintenance database.

C. **BMP: 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 Minimum Control Measure 4. 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. This data will be stored in a manner to necessitate modeling efforts. Mapping of all stormwater facilities will be included as part of this data. Information associated with each facility (type, sixe) will be stored in a database. Mapping of stormwater management facilities, along with the determination of the area treated by each facility is expected to be completed within the second year of the permit cycle. New facilities will be added as constructed for all years of the permit cycle.

Schedule and Evaluation: The Town will continue work under the existing contract with CGIT that includes tracking and geographical location of stormwater facilities.

Responsible Party: Town Engineer (Stormwater); Director of Engineering & GIS Department, Director of Public Works

Necessary Documents: Mapping and database.

Measurable Goals: A database and mapping that provides information and location of stormwater facilities.

Items to be reported in the Annual Report: The mapping and associated facility information collected as of the submission date. Report with procedures to conclude tracking of facilities if needed and procedures to maintain information with the construction of new 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).

A. **BMP: 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.

   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 Towns regular maintenance procedures to reduce pollutants in roads, parking lots, and storage yards.

   The street sweeping program consists of dividing all streets into four quadrants. Each quadrant is swept as needed except when weather prevents sweeping (snow, ice, etc.). The program also addresses public parking lots which are also swept as needed in the spring to help address salt, sediment, and gravel buildup.

Responsible Party: Environmental & Sustainability Manager; Division of Environmental Planning & Sustainability; Deputy Director for Field Operations; Public Works

Necessary Documents: Town's Environmental Management Program; Virginia Environmental Excellence Program (VEEP) Documentation, Public Outreach to advertise above programs.

Measurable Goals: Continue the above programs during each year of this permit

Items to be reported in the Annual Report: Tons of brush and leaves collected.

B. **BMP: 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.

Schedule and Evaluation: The Town and Blacksburg Transit Garages have SPCC plans in place. Capital improvement projects to reduce sanitary sewer overflows have been approved (main projects are line and pump station upgrades). Low Impact Development practices for town owned facilities are being incorporated in site design for new facilities and retrofitting for existing facilities.

Responsible Party: Environmental & Sustainability Manager; Division of Environmental Planning & Sustainability; Town Stormwater Engineer; Engineering & GIS, Sewer Engineer; Engineering & GIS

Necessary Documents: SPCC Plans

Measurable Goals: Continue above programs during all years of this permit.

Items to be reported in the Annual Report: Status of programs, CIP projects and LID practices implemented. The Spill Prevention Program will be incorporated into the Pollution Prevention Operation and Maintenance Program (6E). SPCC training sessions will be conducted as outlined in the SPCC plan and documented by the Public Works and Transit Departments. The information will be forwarded to the Environmental & Sustainability Manager for documentation as part of the Environmental Management Program.

C. **BMP: 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.

Schedule and Evaluation: 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.

Responsible Party: Environmental & Sustainability Manager; Division of Environmental Planning & Sustainability; Operations Coordinator; Office of Waste Reduction & Recycling; Public Works

Necessary Documents: Virginia DEQ Environmental Excellence Program (VEEP) annual report. Tonnages reported to the Montgomery Regional Solid Waste Authority for inclusion in the required annual report.

Measurable Goals: Continue all recycling programs and have training for employees as needed during each year of this permit. The Operations Coordinator in the Office of Waste Minimization and Recycling will hold annual recycling training for all Recycling Assistants. The training information will be forwarded to the Environmental & Sustainability Manager for documentation as part of the Environmental Management Program. Continue to post educational recycling material each building near the recycling drop-off area.

Items to be reported in the Annual Report: Tonnages reported to the Montgomery Regional Solid Waste Authority for inclusion in the required annual report Provide annual updates on Town Solid Waste Management Plan.

D. **BMP: 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.

Schedule and Evaluation: 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.

Responsible Party: Environmental & Sustainability Manager; Division of Environmental Planning & Sustainability; Horticulturist, Public Works; Safety & Emergency Manager, Public Works.

Necessary Documents: Hazardous training media, "Applying Pesticides Correctly" published by the Virginia Cooperative Extension Office, and MSDS chemical listings.

Measurable Goals: 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. The information will be forwarded to the Environmental & Sustainability Manager for documentation as part of the Environmental Management Program.

Items to be reported in the Annual Report: Employee training dates for yearly pesticides training, employee training dates for "Right to Know" Hazardous Chemical training as needed, and status of EPP Policy research.

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.** 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.

Schedule and Evaluation: The Town will formalize a pollution prevention program with current activities in Year 4 of this MS4 cycle and begin adding pollution prevention activities 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: Environmental & Sustainability Manager; Division of Environmental Planning & Sustainability; Assistant Director of Field Operations; Public Works Department.

Necessary Documents: Pollution prevention program documents.

Measurable Goals: Continue current pollution prevention activities as outlined in section 6A – 6D during all years of this permit. Pollution prevention program established.

Items to be reported in the Annual Report: Completion of pollution prevention program. Report on current pollution prevention activities in sections 6A – 6D.

Section 4 – Administrative Information and Certification

This Section provides the administrative information and certification as per 4VAC50-60-1230, Part B, #8-11 of the General Permit.

4VAC50-60-1230 B.8 There is no signed agreements between the operator and any applicable third parties where the operator has entered into an agreement in order to implement minimum control measures or portions of minimum control standards.

4VAC50-60-1230 B.9 The name, address, telephone number and email address of either the principal executive officer or ranking elected official as defined in 4VAC50-60-370:

Principle Executive Officer or Ranking Elected Official:

Title: Town Manager
Name: Marc Verniel
300 South Main Street
Blacksburg, Virginia 24060
Phone: (540) 961-1130
Email: manager@blacksburg.gov

4VAC50-60-1230 B.10 The name, position title, address, telephone number and email address of any duly authorized representative as defined in 4VAC50-60-370:

Duly Authorized Representatives:

Title: Deputy Town Manager
Name: Steve Ross
300 South Main Street
Blacksburg, Virginia 24060
Phone: (540) 961-1130
Email: SRoss@blacksburg.gov

Title: Director of Engineering and GIS
Name: Adele Schirmer, P.E.
300 South Main Street
Blacksburg, Virginia 24060
Phone: (540) 961-1126
Email: ASchirmer@blacksburg.gov

Title: Town Engineer, Stormwater
Staff Contact-Responsible for Program Implementation
Name: Lee Hixon, P.E., C.F.M.

300 South Main Street
Blacksburg, Virginia 24060
Phone: (540) 961-1124
Email: LHixon@blacksburg.gov

Title: Environmental and Sustainability Manager
Name: Susan Garrison
2700 Prosperity Road
Blacksburg, Virginia 24060
Phone: (540) 558-0786
Email: SGarrison@blacksburg.gov

The names on this list will be updated as necessary and included as part of the annual report.

4VAC50-60-1230 B.11 Certification of Registration Statement

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Principle Executive Officer or Ranking Elected Official

Marc Verniel, Town Manager

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 I.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 streambank 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.

Ordinances, BMPs, Policies, Plans, and Procedures	Responsible Party	Pollutant	Description
		Sediment	
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.).
Ordinances, BMPs, Policies, Plans, and Procedures	Responsible Party	Pollutant	Description
		Sediment	
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.

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.

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 *Town of Blacksburg Low Impact Development Manual* 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