# TOTAL MAXIMUM DAILY LOAD (TMDL) ACTION PLAN FOR SEDIMENT REDUCTION IN THE ROANOKE RIVER

## Prepared in Compliance with General Permit No. VAR040026

## Virginia Stormwater Management Program (VSMP)
## Municipal Separate Storm Sewer Systems (MS4s)

April 1, 2020

Town of Vinton
Public Works Department
804 3rd Street
Vinton, VA 24179
540-983-0646
www.vintonva.gov

## CERTIFICATION

"I certify under penalty of the 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."

| | | |
|---|---|---|
| Barry W. Thompson | Town Manager | 5-1-2020 |
| Barry Thompson | Title | Date |

# TOWN OF VINTON, VIRGINIA
# TMDL ACTION PLAN FOR SEDIMENT REDUCTION

## Contents

# I. EXECUTIVE SUMMARY

The Town of Vinton Total Maximum Daily Load (TMDL) Action Plan for Sediment Reduction in the Roanoke River (Sediment Action Plan) has been prepared as required by the Town of Vinton's General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) General Permit No. VAR040026.

The Town's strategy is to progressively implement Best Management Practices (BMPs) to decrease the amount of sediment that enters Town waters in order to meet Virginia state water quality standards for aquatic life. The Town will implement BMPs over multiple state permit cycles and demonstrate that adequate progress is being made to reduce sediment discharges. As additional information is obtained from Virginia Department of Environmental Quality (DEQ) monitoring or other sources, an adaptive iterative approach will be used to modify BMPs implementation as appropriate.

Following is a tabulation of the Best Management Practices (BMPs) that the Town plans to implement and/or continue at this time, to decrease discharges of sediment to the maximum extent practicable, along with their anticipated estimated implementation schedule. Note that all of the BMPs used to address sediment are also effective in addressing the Town's E.coli wasteload allocations and are also included in the Town of Vinton TMDL Action Plan for E.coli Reduction in the Roanoke River, Tinker Creek, and Glade Creek (Bacteria Action Plan).

| **BMP Designation** | **BMP Name/Task** | **Estimated Implementation Dates** |
|---|---|---|
| T-1 | Initial Streams Assessment and BMP Planning | Anticipated completion Fall of 2018 |
| T-2 | Enhanced Public Education and Outreach (Sediment) | Ongoing |
| T-3 | Enhanced Employee Training (Sediment) | Ongoing |
| T-4 | Town Facilities Assessments and Corrections<br>Screen Facilities/Schedule Assessments<br>Perform 1/3 Assessments<br>Perform 2/3 Assessments<br>Perform All Assessments | Completed by July 2019 |
| T-5 | Not Applicable | |
| T-6 | Erosion and Sediment Control Enhanced Enforcement<br>Evaluate Policies<br>Implement Changes (If Needed) | Start July 2017, ongoing<br>RoCo tightened requirements |
| T-7 | Not Applicable | |
| T-8 | Not Applicable | |
| T-9 | Not Applicable | |

| BMP Designation | BMP Name/Task | Estimated Implementation Dates |
|---|---|---|
| T-10 | Stream Buffers<br>Research Ordinances<br>Roanoke County ordinance would be applicable in the Town of Vinton<br>Roanoke County staff to present ordinance to Board of Supervisors | November 2019 |
| T-11 | Street Sweeping | Ongoing |
| | Capital Improvements<br>Identify Feasible Capital Projects<br><br>Construction | Identify Initial Capital Project by July 2018.<br><br>To Be Determined |

This Sediment TMDL Action Plan has been prepared by Town Staff and approved by the Town Manager. However, nothing in this Action Plan shall be construed as binding the Town to any action until such time that the Vinton Town Council provides final approvals and/or appropriates funding for implementation.

This Plan commits to the study of, and consideration of new ordinances, but it does not commit the Vinton Town Council, or the Roanoke County Board of Supervisors to adoption of any specific ordinance or requirement.

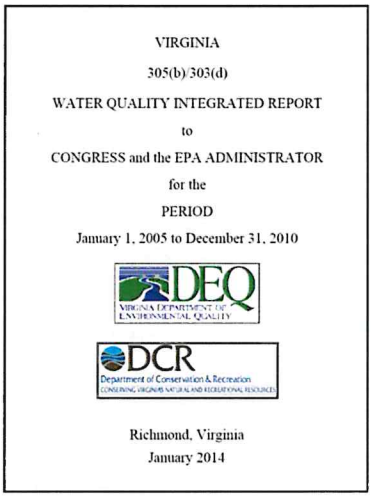
It is expected that this Sediment Action Plan will be revised from time-to-time to add and/or delete proposed BMPs, revise estimated implementation dates, and to reflect new information. Revised Sediment Action Plans will be submitted to DEQ with the MS4 Permit Program Annual Report that is due to DEQ by October 1st of each year.

# II. BACKGROUND

## A. General

The Virginia Department of Environmental Quality (DEQ) routinely monitors and tests the Commonwealth's waters (streams, rivers, lakes, and estuaries) to confirm that they meet Virginia's water quality standards (9 VAC 25-260-10). According to Virginia Water Quality Standards, *"all state waters are designated for the following uses: recreational uses (e.g., swimming and boating); the propagation and growth of a balanced indigenous population of aquatic life, including game fish, which might be reasonably expected to inhabit them; wildlife; and the production of edible and marketable natural resources (e.g., fish and shellfish)."*

Where DEQ determines that a body of water does not meet Virginia's water quality standards, the water is termed "impaired". Impaired waters are listed on the Virginia Water Quality Assessment 305(b)/303(d) Integrated Report that is issued on even-numbered years to meet the requirements of the U.S. Clean Water Act sections 305(b) and 303(d) and the Virginia Water Quality Monitoring, Information and Restoration Act.


VIRGINIA
305(b)/303(d)
WATER QUALITY INTEGRATED REPORT
to
CONGRESS and the EPA ADMINISTRATOR
for the
PERIOD
January 1, 2005 to December 31, 2010
DEQ
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
DCR
Department of Conservation & Recreation
Richmond, Virginia
January 2014

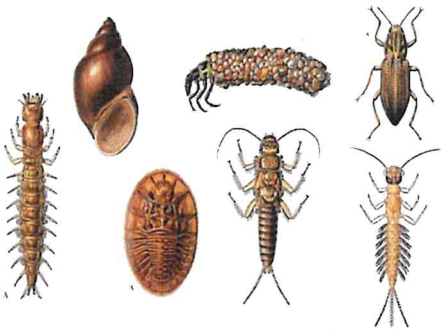
DEQ performs studies on impaired waters to determine the "total maximum daily load" that the water can assimilate and still meet water quality standards. These studies are called TMDL studies. TMDL studies assign "waste load allocations" (WLAs) to permitted point sources of pollution. WLAs are numerical limits of a pollutant of concern that a permitted point source must meet by implementing appropriate strategies, or Best Management Practices (BMPs) using the adaptive iterative approach. BMPs may be implemented over multiple state permit cycles as long as adequate progress to reduce the pollutant of concern is documented.

The Town of Vinton has coverage under the Virginia General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 Permit); General Permit No. VAR040026. Through this permit, all stormwater that passes through a Town owned or operated storm drain or improved channel are considered to be a point source discharge and are subject to WLAs, where appropriate.

The Roanoke River from the confluence with Mason Creek to the backwater from Niagara Dam has WLAs for sediment. Within the Town, Tinker Creek is identified as impaired by excessive sediment. Tinker Creek does not have a separate WLA, but it is considered to be "nested" within the Roanoke River WLA.

The Roanoke River does not properly support aquatic life due to the excessive sediment. Excessive sediment settles over stream bottoms, removing habitat and smothering macroinvertebrates that form the foundation of the aquatic food chain for fish.

Section I.B. of the MS4 Permit requires the Town to have an updated MS4 Program Plan that includes a specific TMDL Action Plan for pollutants allocated to the MS4 in approved TMDLs.



*Examples of Intolerant Benthic Macroinvertebrates*

This specific TMDL Action Plan addresses reduction of sediment discharged into the Roanoke River. Although only the Roanoke River has a WLA for sediment, sediment discharges into all streams that are tributary to the Roanoke River must be decreased.

This TMDL Action Plan becomes effective and enforceable under the Town of Vinton's MS4 Permit 90-days after it is received by DEQ, unless DEQ specifically denies it in writing.

This Sediment Action Plan has been prepared by Town staff and approved by the Town Manager. However, nothing in this Action Plan shall be construed as binding the Town to any action until such time that the Vinton Town Council provides final approvals and/or appropriates funding for implementation.

This Plan commits to the study of, and consideration of new ordinances, but it does not commit the Vinton Town Council or the Roanoke County Board of Supervisors to adoption of any specific ordinance or requirement.

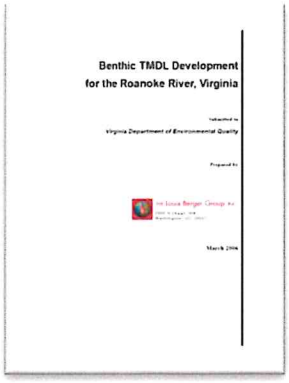
It is expected that this Sediment Action Plan will be revised from time-to-time to add and/or delete proposed BMPs, revise estimated implementation dates, and to reflect new information. Revised Action Plans will be submitted to DEQ with the MS4 Permit Program Annual Report that is due to DEQ by October 1st of each year.

## B. Roanoke River Watershed Description

The Roanoke River originates in Montgomery County; flows through Roanoke County, Salem City, Roanoke City, and Town of Vinton; then flows through Roanoke County again; and continues into Bedford and Franklin Counties and Smith Mountain Lake.

The Town of Vinton borders the Roanoke River for 1.6 miles, and Vinton's entire 3.2 square mile area flows into the Roanoke River.

## C. Impairment and TMDL Wasteload Allocation


Benthic TMDL Development
for the Roanoke River, Virginia

The Roanoke River and Tinker Creek were listed as "impaired" because they did not meet the Virginia water quality standard for wildlife habitat as measured using the modified Rapid Bioassessment Protocols (EPA, 1999). Streams are required to support the propagation and growth of a balanced, indigenous population of aquatic life, including game fish, which might reasonably be expected to inhabit them. Sediment was identified as the probable stressor pollutant that is adversely impacting macroinvertebrates (benthic organisms).

A TMDL study was performed by Virginia DEQ and approved by U.S. EPA on May 10,2006 and the Virginia State Water Control Board on September 7, 2006. This study determined that the Roanoke River has a "moderately impaired benthic community from the confluence with Mason Creek to the backwater from Niagara Dam."

The Town was assigned a WLA of 119.3 tons of sediment/year.

### D. Roanoke River Bacteria and Sediment TMDL Implementation Plan, Part 1

DEQ released the draft Roanoke River Bacteria and Sediment TMDL Implementation Plan, Part 1 on May 1, 2015 for public comment. Town Staff attended meetings and provided comment during the development of this Implementation Plan. While the Town supports the goals of the Implementation Plan, it has concerns about the technical feasibility of the Implementation Plan's proposed BMPs and their related costs.

## III. IMPLEMENTATION STRATEGY

For this permit cycle (November 1, 2018 – October 31, 2023), implementation largely consists of the development of this TMDL Action Plan, study of the Town's streams, consideration of changes to ordinances, preparation and adoption of ordinances, and enhancements to existing MS4 Program BMPs required by the minimum control measures.

Detailed estimated implementation schedule for this permit cycle is provided in Section VI of this TMDL Action Plan. Further implementation this permit cycle, is constrained by our lack of information, which will be addressed through our proposed stream assessments; and staff and budget constraints. The Town is also still coping with the impacts from implementing the new stormwater management regulations and serving as the Virginia Stormwater Management Program (VSMP) local authority, effective July 1, 2014; and the impacts from implementing additional MS4 Permit requirements that became effective with the current permit.

The overarching strategy is to progressively implement BMPs to decrease the amount of sediment that enters Town waters. The Town will implement BMPs over multiple state permit cycles, using the adaptive iterative approach, and demonstrate that adequate progress is being made to reduce sediment discharges.

As additional information is obtained from DEQ monitoring or other sources, an adaptive iterative approach will be used to modify the BMPs implementation as appropriate.

# IV. ONGOING AND PLANNED STUDIES AND MONITORING

The goal of this Sediment Action Plan is to reduce sediment discharged into the Roanoke River to meet the Virginia water quality standards. The TMDL WLAs are a numeric tool used to gauge progress toward reaching this goal; however, the goal is to meet the Virginia water quality standards. Therefore, ongoing DEQ monitoring is important to assess actual long-term progress in improving aquatic habitat.

## A. Outfall Inspections

The Town, as a part of its Minimum Control Measure (MCM) 3: Illicit Discharge Detection and Eliminations, inspects and field screens a minimum of 50 outfalls a year. These outfalls are dispersed throughout the MS4 regulated portion of the Town. When illicit discharges are detected, appropriate follow-up investigations will take place to locate and eliminate them. While this program will continue, it is unlikely that it will locate significant bacteria sources. To date, all of the Town's outfalls have been dry when inspected, and no illicit discharges have been detected.

## B. Street Sweeping

The Town, as part of its Minimum Control Measure (MCM) 6: Pollution Prevention and Good Housekeeping for Municipal Operations, continues its street sweeping program and sweeps all of the primary streets on a weekly basis. Other streets are swept biweekly or at three week intervals. Street sweeping is an effective strategy for removing bacteria and sediment loads prior to them being transported in stormwater runoff. Frequent sweeping of prioritized areas is an effective strategy to receive pollutant reduction credits to meet TMDL targets.

## C. DEQ Monitoring

DEQ has a number of monitoring stations set up in the Roanoke Valley that are periodically sampled and tested under various programs. These monitoring stations are indicated on the individual watershed maps. Many monitoring station locations are used by multiple sampling and testing programs.

The analytical information from these programs are assessed every 2-years (i.e. even numbered years) to identify and list "impaired and threatened waters" as required by Section 303(d) of the federal Clean Water Act. Each bi-annual assessment uses analytical information gathered over a 6-year sampling and testing cycle, with a 2-year lag (i.e. the 2014 assessment is based on data from 2012 – 2007). Long-term progress toward meeting state water quality standards will be based on the ongoing results of DEQ's monitoring programs.

Following is a brief discussion of DEQ's various monitoring programs:

### 1. Ambient Watershed Network

The ambient watershed network was originally established to monitor point source problems (primarily municipal wastewater treatment plants and industries). It has evolved into a

watershed monitoring network. Monitoring stations are typically at bridges, or other locations, where convenient access is present for sampling. There is typically one station for each 6 digit Hydrologic Unit Code (HUC). These stations are used for screening level information. Only limited testing is performed including: E.coli, temperature, pH, conductivity, nitrogen, and phosphorus. Ideally, each station is sampled bimonthly over a two-year period (12 data points) within a 6-year assessment window. If sampling and testing is performed at a location under another program (e.g. biological or probabilistic), sampling and testing under the Ambient Watershed Network may be skipped. This program is not very applicable to sediment.

2. Trend Monitoring Stations

The trend monitoring stations have the longest continuous data records. Some of the monitoring stations were originally established in the 1940's. These stations are useful for looking for long-term trends. Testing includes: pH, temperature, dissolved oxygen, conductivity, fecal and E.coli bacteria, nitrogen, phosphorus, total suspended solids, total solids, and turbidity. They are sampled bimonthly every year. While these stations do test for total suspended solids and total solids, it is very difficult to detect any trends for sediment from these short term grab samples.

3. Biological Monitoring

Biological monitoring consists of sampling and characterizing benthic macroinvertebrates. Benthic macroinvertebrates are organisms without backbones that are visible to the eye without the aid of a microscope, that live on, under, and around rocks and sediment on the bottoms of lakes, rivers, and streams. Many of the benthic macroinvertebrates have complex life cycles of one-year or more and they are extremely sensitive to pollutants. In essence, benthic macroinvertebrates are virtual "living recorders" of water quality conditions over time. By analyzing the presence, or absence, of various organisms, the overall ecological health of a stream can be assessed.

The Roanoke River, in the Roanoke Valley has 5 biological stations that are usually monitored each year, once in the spring and once in the fall. Other biological stations in the Roanoke Valley are monitored very infrequently.

This monitoring program is valuable to detect long-term trends in stream bio-diversity that may result from decreased sediment discharges.

4. Freshwater Probabilistic Monitoring

The other monitoring programs are biased to finding and defining problems (i.e. monitoring stations are set up near industries or wastewater treatment plants). In order to obtain unbiased statewide water quality statistics, the freshwater probabilistic monitoring program was established. Fifty to sixty locations are randomly selected across the state for sampling in the spring and fall. This program performs the most comprehensive testing, including: pH, temperature, dissolved oxygen, conductivity, fecal and E.coli bacteria, nitrogen, phosphorus, dissolved metals, total suspended solids, total solids, turbidity, ions, cations, fish community,

algae community, biological assessment, and quantitative physical habitat. This program is not very applicable to sediment.

5. Citizen Monitoring

Various citizen groups volunteer to perform stream monitoring in various streams across the state. In most cases, the monitoring is biological and the results do not meet DEQ's rigorous quality control requirements. Therefore, these results are not used by DEQ in listing or delisting streams for impairments; but they might be useful to identify a potential problem that warrants further DEQ investigation.

This program may provide some valuable information in detecting trends in improving or declining stream bio-diversity that may be related to sediment.

6. Fish Tissue Monitoring

Fish tissue monitoring is performed for special studies to determine if fish are accumulating any toxics, such as mercury or PCBs, which would warrant consumption advisories.

This program is not applicable to this TMDL Action Plan.

7. TMDL Monitoring

TMDL monitoring stations are established when special studies are performed to set a Total Maximum Daily Load (TMDL). Once a TMDL is established, this program becomes inactive.

8. Implementation Monitoring

A TMLD Implementation Plan is performed by DEQ after a TMDL has been established. Once a TMDL Implementation Plan is completed, DEQ performs implementation monitoring to assess progress towards meeting the TMDL. Usually the same stations that were used in the TMDL study are used for implementation monitoring.
Currently, DEQ is completing an Implementation Plan for the Upper Roanoke River Basin for sediment and E.coli. It is anticipated that implementation monitoring will occur after the Implementation Plan is completed.

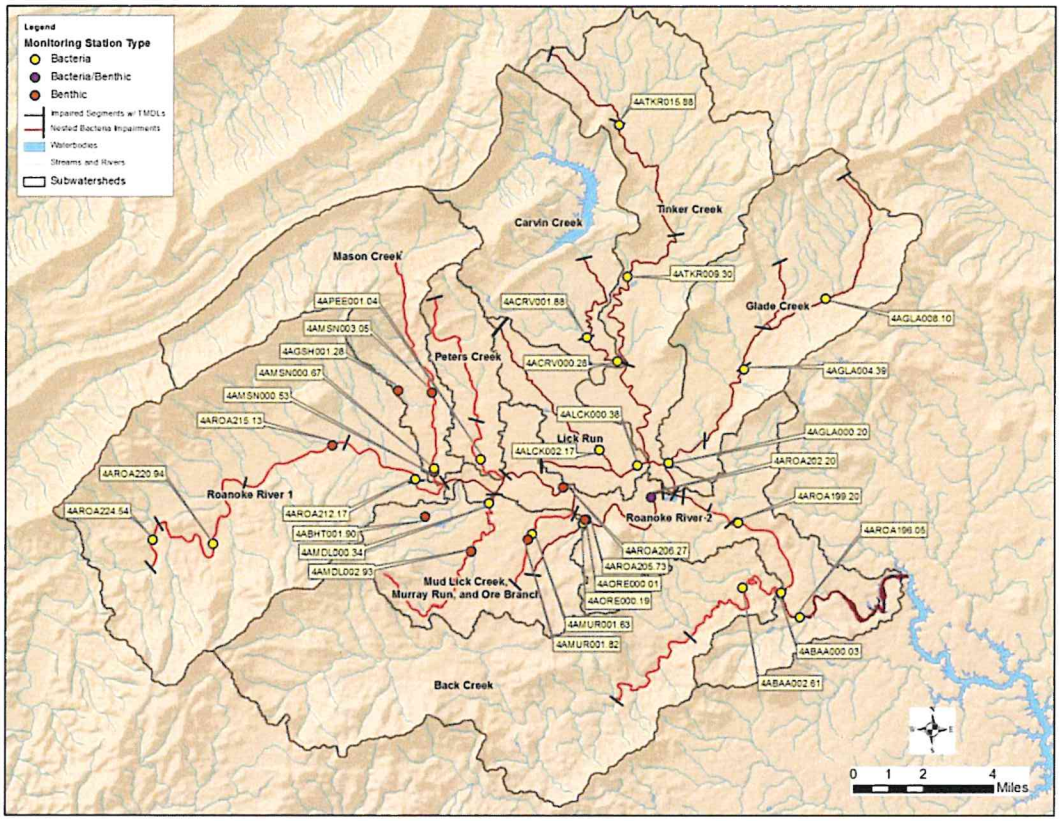



**Figure 6-5: Monitoring Station Map for the Roanoke River Implementation Plan Part I**

*DEQ Proposed Monitoring Stations taken from the April 2015 draft of the Roanoke River Implementation Plan, Part 1*

9. United States Geologic Survey (USGS) Monitoring

The USGS has several monitoring stations that record stream flow.

### D. Stream Assessments

Lowering pollutant loadings to meet the waste load allocations will require significant public investment. In order to properly prioritize spending, the Town of Vinton proposes performing field and office studies to document existing physical conditions and to identify opportunities for BMPs.

Since all of waterways in the Town drain to the Roanoke River, it is important to understand the conditions of all of these streams in order to properly address the Town's TMDL WLAs. Stream Assessment is discussed further in Section VI.

## V. TOWN LEGAL AUTHORITIES

Section I.B. of the MS4 Permit requires the Town to maintain a list of its legal authorities, such as ordinances, state and other permits, orders, specific contract language, and

interjurisdictional agreements applicable to reducing pollutants contained in a WLA. Following is the listing:

- Virginia General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 Permit); General Permit No. VAR040026
- Town of Vinton Code of Ordinances
    - Chapter 79, Stormwater Management (Includes erosion and sediment control and illicit discharges)
- Town of Vinton Agreement with Clean Valley Council to provide certain BMP services
- Town of Vinton Agreement with County of Roanoke
    - For Roanoke County to become and administer the Town of Vinton VSMP Authority which will cover the Town MCM 4: Construction Site Stormwater Runoff Control and MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment
- Stormwater Management (SWM) Facility (BMPs) Maintenance Agreements

# VI. TMDL SPECIFIC BEST MANAGEMENT PRACTICES WITH IMPLEMENTATION SCHEDULE

The following BMPs have been specifically identified to reduce discharges of sediment into Town waterways. The BMPs listed below are also effective in reducing E.coli discharges. BMPs that specifically address TMDLs are designated with a "T" prefix.

## A. Stream Assessment and BMP Planning

**BMP T1 – Initial Streams Assessment and BMP Planning**

The Town of Vinton has approximately 7.36 miles of streams draining 100 acres or more. We propose to assess these streams to better understand their condition and to assist in determining the most cost-effective means of lowering pollutant loads.

In permit year 2014 – 2015, a consultant was hired by Roanoke County to begin assessing streams in the County. We propose to use the County's consultant to begin assessing the Town's streams. This work includes office assessment using existing information, field assessment where appropriate, and prioritized recommendations for BMP implementation.

The Town has received a report from a consultant on an initial assessment of the streams completed by fall of 2018.

After review of stream assessments and coordination with Roanoke County, the Town will be better able to plan BMP capital improvements.

## B. Enhanced Public Education and Outreach

**BMP T2- Enhanced Public Education and Outreach (Sediment)**

This BMP will be implemented Town-wide as an enhancement to the BMPs performed to satisfy Minimum Control Measure 1. Public Education and Outreach on Stormwater Impacts.

The Town's Public Education and Outreach has been enhanced to recognize sediment as a "high-priority water quality issue" and to identify target audiences.

This BMP was implemented beginning with the 2014 – 2015 permit year.

## C. Enhanced Employee Training

**BMP T3 – Enhanced Employee Training (Sediment)**

This BMP will be implemented as an enhancement to the Town employee training program performed to satisfy Minimum Control Measure 6: Pollution Prevention and Good Housekeeping for Municipal Operations.

The Town's employee training program has been enhanced to recognize sediment as a "high-priority water quality issue".

This BMP was implemented beginning with the 2014 – 2015 permit year

## D. Assess Town Facilities

**BMP T4 – Town Facilities Assessments and Corrections**

All Town-owned properties have been screened for conditions that could result in elevated discharges of sediment. Those that have been determined to have a high potential will be inspected in the field and a site specific Stormwater Pollution Prevention Plan (SWPPP) will be prepared. Any potential sources of elevated sediment discharge will be eliminated, and steps will be taken to assure that they do not reoccur. Possible sources of sediment are improper materials storage and disturbed soils.

The initial screening of properties, and estimated inspection schedule has been developed and included in the MS4 Program Plan.

The site inspections and SWPPP preparation for the identified Town owned sites have been completed, and has been reported in the most recent MS4 Annual Report.

## E. Erosion and Sediment Control Enhanced Enforcement

**BMP T6 – Erosion and Sediment Control Enhanced Enforcement**

Roanoke County has administered the erosion and sediment control program in the Town of Vinton since February 1984. The County continues to administer it. Roanoke County's Erosion and Sediment Control Program regulates land-disturbing activities of 2,500 square feet or more, which is less than the state's threshold of 10,000 square feet or more. This lower threshold has been implemented due to the County's steep terrain and highly-erodible clay soils. When violations are observed, the County's priority is to work with the site operators to get the site back into compliance. Most of the time deficiencies are corrected within a mutually agreed upon time-schedule without any formal compliance activities or fines. The County has instituted a Stormwater Contractor Appreciation Program to publicly recognize any land-disturbing contractors who conduct exemplary work through the proper use of erosion and sediment controls and stormwater management best practices.

## F. Stream Buffers

**BMP T10 – Stream Buffers**

Stream buffers can be effective in filtering stormwater runoff that sheet flows through the buffer, removing sediments, bacteria, and other pollutants. Unfortunately, much of the land along streams in the Town has already been developed, which limits where stream buffers could be provided. We propose to consider means to establish and protect stream buffers in cooperation with Roanoke County and City of Roanoke.

In permit year 2016 - 2017, Town staff began to research similar ordinances in Virginia, identify properties that border waterways in the Town, and develop possible stream buffer criteria for new development. County staff completed draft stream buffer requirements, proposed as a revision to the County Erosion and Sediment Control Ordinance. A work session with the BOS to discuss this possible ordinance is scheduled for November 6, 2019. This ordinance would be applicable in the Town of Vinton. In the event that it is decided to not enact any Stream Buffer/No Mow Strip ordinance, stream buffers/no mow strips will still be encouraged on a voluntary basis.

Additionally, in permit year 2017 – 2018, **BMP T2** was expanded to include targeted education of the value of stream buffers/no mow strips to all property owners that are located along waterways.

## G. Capital Improvements

At this time, the Town does not have enough information on its waterways to develop a valid capital improvement plan to identify future projects. We anticipate that by the end of permit year 2020, enough evaluation of streams in Roanoke County may have been done by the County's consultant which should assist Town Staff in identifying and prioritizing projects in the Town.

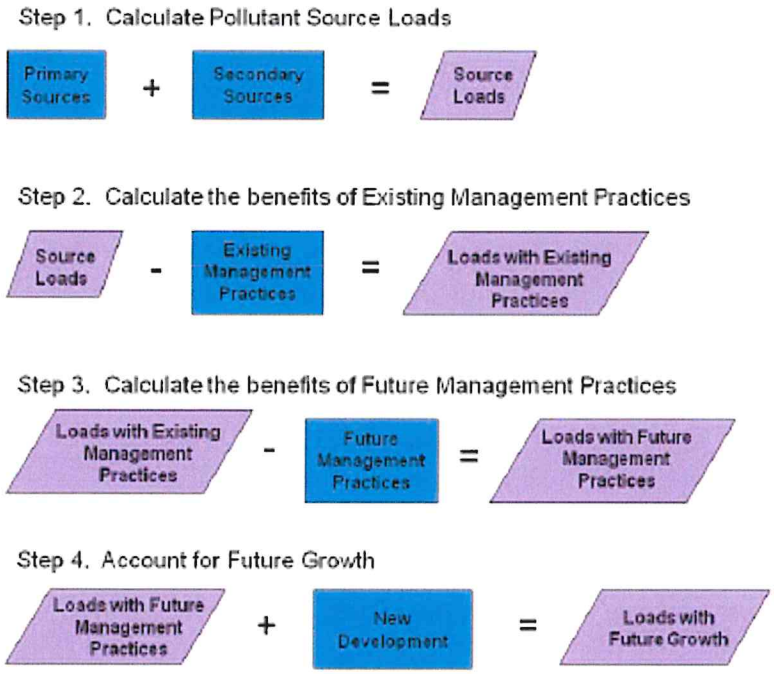
# VII. PLAN ASSESSMENT METHODOLOGY

Section I.B. of the MS4 Permit requires Vinton to develop and implement a method to assess this Sediment Action Plan for its effectiveness in reducing the pollutant (sediment) identified in the WLA. The evaluation shall use any newly available information, representative and adequate water quality monitoring results, or modeling tools to estimate pollutant reductions of sediment from implementation of the MS4 Program Plan.

The Town has been assessing pollutant loads using the Simple Method and watershed land uses as presented in its MS4 Annual Report.

The Town changed its plan assessment methodology to the Watershed Treatment Model, developed by the Center for Watershed Protection, in the submission of the annual report of October 1, 2017.

The Town will also continue to review and evaluate any newly available information; including results of DEQ's ongoing water monitoring program, outfall inspections, and the Stream Assessments.




*Watershed Treatment Model Structure*

# VIII. ANNUAL REPORTING REQUIREMENTS

The MS4 Annual Report covers activities that occur from July 1st to June 30th, and it is due to DEQ by October 1st of each year.

The MS4 Annual Report will be updated to include this Sediment Action Plan, a description of implementation activities, and an assessment of the effectiveness in lowering sediment discharges.

# IX. PERMIT REAPPLICATION REQUIREMENTS

Reapplication for coverage is due to DEQ at least 90 days before the expiration of the current General Permit. As a part of the reapplication submittal, this Sediment TMDL Action Plan will be revised to indicate the BMPs that will be implemented in the next permit cycle.

At that time, the Sediment TMDL Action Plan will be revised to include an estimated end date for achieving the sediment wasteload allocation. This estimate will be used for planning purposes only and will not be binding.