# Attachment 22: Mechumps Creek TMDL Action Plan for E. Coli

**Town of Ashland**
**Bacteria TMDL for Mechumps Creek Action Plan**
May 2015

1. **Requirement:** *The name(s) of the Final TMDL report(s);*

   - Bacteria TMDL for Mechumps Creek ; Hanover County, Virginia (Submitted by DEQ – October, 2004)

2. **Requirement:** *The pollutant(s) causing the impairment(s);*

   - Bacteria

3. **Requirement:** *The WLA(s) assigned to the MS4 as aggregate or individual WLAs;*

   - 9.86E+11 cfu/yr

3. **Requirement:** *Significant sources of POC(s) from facilities of concern owned or operated by the MS4 operator that are not covered under a separate VPDES permit. A significant source of pollutant(s) from a facility of concern means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL;*

   - Residential street run off to MS4 where pet owners walk dogs
   - Although sanitary sewer system is owned by Hanover County Department of Public Utilities and not owned by the Town of Ashland, leaking sanitary sewers are potential significant sources.

5. **Requirement:** *Existing or new management practices, control techniques, and system design and engineering methods , that have been or will be implemented as part of the MS4 Program Plan that are applicable to reducing the pollutant identified in the WLA;*

   - Education and outreach programs (dog waste disposal, stormwater pollution) have been implemented and are ongoing.
   - An Illicit Discharge, Detection, and Elimination (IDDE) program has been implemented and is ongoing.
   - Quarterly water testing of Mechumps Creek has been implemented and is ongoing.
   - A program of flushing and TV inspection of Town owned stormwater pipes has been implemented and is ongoing
   - Low Impact Design (LID) Town projects have been implemented in several areas:
     - College Park permeable pavers and bioretention
     - Mechumps Creek Stream Restoration Phase I
     - Mechumps Creek Stream Restoration at Ashland Police Department
     - Ashland Police Department permeable pavers
   - LID Town projects planned for the near future:

  - Mechumps Creek Stream Restoration Phase II
  - Railroad Avenue Streetscaping Phase II permeable pavers
- Street Sweeping has been implemented and is ongoing.

6. **Requirement:** *Legal authorities such as ordinances, state and other permits, orders, specific contract language, and interjurisdictional agreements applicable to reducing the POCs identified in each respective TMDL;*

The following sections of the Town code address this requirement:
Chapter 4.1 Environmental Protection
- Article I. Stormwater Management (Virginia Code §§ 62.1-44.15:24)
- Article III. Chesapeake Bay Preservation
- Article V. Water Quality Protection
- Article VI. Municipal Separate Storm Sewer System (MS-4) Management Program

Chapter 5 Erosion and Sediment Control (Virginia Code §§ 21-89.1--21-89.15)
- Sec. 5-3. Local erosion and sediment control program.
- Sec. 5-4. Submission and approval of plans; contents of plans.
- Sec. 5-5. Permits; fees; security for performance.
- Sec. 5-6. Monitoring, reports, and inspections.
- Sec. 5-7. Penalties, injunctions, and other legal actions.

7. **Requirement:** *Enhancements to public education, outreach, and employee training programs to also promote methods to eliminate and reduce discharges of the POC(s) for which a WLA has been assigned;*

- Stormwater management and educational materials on Town website.
- Circulate fliers annually on stormwater pollution prevention and pet waste clean up.
- The Town coordinates with Randolph-Macon College annually on Macon a Difference Day (MaDD) for Earth Day. Randolph Macon College students volunteer, participate and engage the community in various activities such as:
  - stream cleanup,
  - storm drain marking,
  - circulate education fliers
  - demonstrate how to make rain barrels
  - BMP maintenance
  - installing and restocking pet waste stations
  - clean up liter in parks
  - and other water pollution prevention awareness activities
- Employee Training: Town staff trained on Illicit Discharge, Detection, and Elimination in accordance with the Town's Stormwater Pollution Prevention Employee Training Plan dated June 2014.

- Employee Training: Town staff trained on Good Housekeeping procedures in accordance with the Town's Stormwater Pollution Prevention Employee Training Plan dated June 2014.
- Town of Ashland Public Education and Outreach Plan.

8. **Requirement:** *A schedule of interim milestones and implementation of the items in 5, 6, and 7;*

- The majority of the items in section 5 of this plan are ongoing, with the exception of "Future LID structures". These will be implemented as follows:
    - APD Parking Lot Retrofit will be completed by December 31, 2015
    - Railroad Avenue Streetscaping Phase II will be completed by March 31, 2016
    - Mechumps Creek Stream Restoration Phase II will be completed upon receipt of funding. Plans are at 90%.
- Water sampling in Mechumps Creek revealed high concentrations of e. coli bacteria in the middle reach. This lead the Town to investigate up stream water quality in storm sewer pipes. High concentrations were detected where a sanitary sewer lateral crosses a storm sewer pipe. The Town hired a TV monitoring company to TV monitor the sewer lateral. Failures in the pipe were detected. The Town worked with the owner to make the necessary repairs to the sewer lateral in December 2014. Improvements have been noted during quarterly sampling in the middle reach of Mechumps Creek. Quarterly monitoring will continue.

9. **Requirement:** *Methods to assess TMDL Action Plans for their effectiveness in reducing the pollutants identified in the WLAs;*

- The Town will continue its quarterly monitoring of Mechumps Creek: *Water sample testing using Coliscan Water Monitoring Kit.*

10. **Requirement:** *Measurable goals and the metrics that the permittee and Department will use to track those goals (and the milestones required by the permit). Evaluation metrics other than monitoring may be used to determine compliance with the TMDL(s).*

Public Education and Outreach on Storm Water Impacts:

- Developed the Town of Ashland Public Education and Outreach Plan which included pet waste as one of the three high priority water quality issues.
- Distribute educational flyers per MS4 Program Plan
- Air slides on the Town's public television station related to pet waste.
- Reminders to pick up after your pet on Town website and social media. At least one each quarter.
- Continue to educate property owners in CBPAs of the Town's requirements for septic tank maintenance.

Public Involvement/Participation:

- Provide for public participation during public education and outreach program development.
- Town of Ashland Public Education and Outreach plan was posted on website. Public input and comments were requested on the website and social media.

Illicit Discharge Detection and Elimination:

- Circulate 100 flyers dedicated to eliminating illicit/ unauthorized non-stormwater discharges to the general public and/or targeted businesses.
- Continue program to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping as outlined in the Town's updated "unauthorized non-stormwater discharge detection and elimination procedures". Keep records and report as specified.
- Inspect the Town's MS4 outfalls as outlined in the Town's updated "unauthorized non-stormwater discharge detection and elimination procedures." Keep records and report as specified.

Mechumps Creek TMDL for E. coli:

- Update MS4 Program with new information on TMDL, if necessary.
- Continue public education program about picking up after pets.
- Continue investigating sources of E. coli bacteria.
- Estimate volume of stormwater and the quantity of E. coli discharged to Mechumps Creek.

11. Progress made to date.
    Sanitary Sewer leak at Henry Clay Shopping Center was discovered as potential source for elevated bacteria levels in Mechumps Creek. Repairs were completed in December 2014. Subsequent water quality testing has shown bacteria levels to have fallen to acceptable levels since the repair.