

# **Browns Run, Craig Run and Marsh Run TMDL Implementation Plan Development**

Thursday, November 4, 2010

Cedar Lee Middle School, Bealeton, Virginia

## **Residential Working Group Report to Steering Committee**

### **Residential Working Group Participants**

Jenny Biche	Oscar Garcia	Bob Slusser
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### **Meeting Dates**

The Residential Working Group met on May 4, 2010 and September 28, 2010.

### **Responsibilities**

The Residential Working Group is charged with focusing on human sources of bacteria in the impaired streams to include:

- failing septic systems;
- uncontrolled discharge of human sewage into streams (straight pipes); and
- pet waste.

The principal objective of the residential working group is to identify obstacles to the implementation of residential bacteria load reductions and practical solutions to these obstacles. The group will focus on the following tasks:

- 1.) Ways to identify and eliminate straight pipes from dwellings and businesses;
- 2.) Ways to manage the disposal of pet waste;
- 3.) Identify difficulties faced by landowners in correcting these problems;
- 4.) Identify potential means of funding corrections;
- 5.) Determine how to get landowners to come forward when there may be a fear of regulatory action and unknown costs;
- 6.) Evaluate technical assistance needed and how to administer assistance; and
- 7.) Identify appropriate educational tools.

### **Key Topics**

The following is a summary of the issues discussed at the Residential Working Group meetings.

- **On-site sewage disposal systems**
  - Fauquier County's ordinance requires that septic tanks be pumped every 5 years, however, there is no enforcement mechanism to address this requirement;
  - Failing septic tanks and straight pipes are illegal in Fauquier County;
  - Health Dept. statistics indicate that most failing systems can be repaired and do not require replacement;
  - Updated information needed is to determine the number of failing septic systems in the watershed;
  - Significant changes in land use and population have occurred in these watersheds since the TMDL study was completed;
  - Technical adequacy of private sector inspectors was questioned;
  - Assistance is needed in locating septic tank and drain field;
  - Education is needed in the function, proper use and maintenance of all residential septic systems;
  - Agency cutbacks have impacted the availability of government staff to address homeowner concerns;
  - Alternative systems:
    - Costly to install, expensive to maintain, and often mechanically complex;
    - Increasing in numbers due to small lot sizes and poor soil quality; and
    - Media disposal sites are difficult to find and few in number; and
    - New laws will require homeowners to have an operator to run and maintain the system and maintain a log documenting yearly inspections and sampling.
- **Residential and Commercial Pet Waste**
  - Proper pet waste management education and implementation is needed:
    - Consider ordinance to require proper management;

- Encourage Home Owners' Associations, veterinarians, kennels, hunt clubs and pet stores to promote proper pet waste management by providing information on the benefits of the following:
      - Pet waste digesters for homeowners;
      - Collection kiosks on walking trails and in parks; and
      - Basic clean-up plans on public and private properties.
- **Land Management**
  - Education is needed on the proper use of fertilizers and the impacts of excessive application; and
  - Information is needed on the programs available to assist homeowners in proper land management.
- **Water Quality**
  - Characteristics of the public water supply concerns residents:
    - Unpleasant odor and taste;
    - Discoloration of laundry and bath fixtures;
    - Damage to glassware; and
    - Frequent need to replace appliances due to mineral build-up.
  - Residents have investigated options for improvements:
    - Whole- home filters; and
    - Working with Fauquier County Water and Sewer Authority.
  - Citizen testing can help identify areas that need additional testing;
  - Amount of bacteria generated by different animals can help prioritize target areas when looking for solutions to reduce bacteria concentrations;
  - Roadside collection devices are needed to collect and filter road runoff;
  - Testing for chemical impacts is very expensive, often not cost effective and done only in extreme cases; and,
  - Fish kills are most often the result of oxygen depletion resulting from excessive nutrients.
- **Program Funding**
  - The availability of additional funding for more comprehensive testing was discussed;
  - The Action Chart identifies source issues, corrective actions, potential funding and agencies to assist with remediation.

## RECOMMENDATIONS

The following recommendations resulted from the discussion of the above Key Topics.

- **On-site sewage disposal systems:**
  - Develop and implement educational/outreach programs to provide information on the design, function and maintenance of the all septic system types - traditional and alternative;
  - Develop a program to assist homeowners in locating their septic system on their property;
  - Review land use changes that have occurred since the TMDL study was conducted and revise land use estimates to reflect such changes;
  - Improve methods used to identify failing septic systems;
  - Identify properties where laundry effluent is being discharged at the surface; and
  - Explore funding sources available to low income households for the repair, replacement or installation of functional septic systems.
- **Residential and Commercial Pet Waste**
  - Pet waste digesters should be promoted as a cost-share program for residential properties;
  - Develop educational materials to encourage home owners' associations, veterinarians, kennels, hunt clubs and pet stores to practice and promote proper pet waste management;
  - Encourage the development of a comprehensive and effective pet waste management ordinance;
  - Encourage the installation of collection kiosks on walking trails, in public parks, and in common areas in neighborhoods; and
  - Encourage the use of biodegradable bags for pet waste clean-up.
- **Land Management**
  - Develop and implement an effective educational program to inform homeowners of proper fertilizer application methods and amounts; and

- Develop and implement a campaign to inform landowners of the public programs available to assist them in managing their land.
- **Water Quality**
  - Increase water quality testing throughout the watersheds;
  - Increase funding to assure testing on a regular basis;
  - Provide funding to increase the implementation of BMPs;
  - Promote the use of roadside collection devices to intercept and filter road surface runoff; and
  - Report citizen's concerns regarding public water supply quality to supervisors and the Fauquier County Water and Sewer Authority.