

Robinson River and Little Dark Run TMDL Implementation Plan Development

Tuesday, November 30, 2010 - 7 P.M.

Madison Volunteer Company

1223 North Main Street

Madison Virginia

Residential Working Group Report to Steering Committee

Residential Working Group Participants:

Jenny Biche, Rappahannock – Rapidan Regional Commission

Leighton Brown, Citizen

Ted Bullard, Virginia Department of Health

Oliver Allen Campbell, IV, Citizen

Deirdre Clark, Rappahannock-Rapidan Regional Commission

Aerin Curtis, Madison Eagle

Bonnie Dixon, Citizen

Phil Hawkins, Citizen

Jim Long, Citizen

Suzanne Long, Citizen

Charlie Lunsford, Virginia Department of Conservation and Recreation

Gail Starling Marshall

Isabel McLaughlin, Rappahannock-Rapidan Regional Commission

Stephanie Mendlow, Citizen

Jennifer Sisney, Citizen

Shawn Sisney, Citizen

Bob Slusser, Virginia Department of Conservation and Recreation

Bryant Thomas, Virginia Department of Conservation and Recreation

Greg Wichelns, Culpeper Soil and Water Conservation District

Meeting Dates

The Residential Working Group met on June 15, 2010 and October 26, 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:

- Problem areas within the watershed include:
 - Areas adjacent to floodplains – flooding can result in temporary septic system failures; however, if setbacks are sufficient and soils are permeable, perc rates should be adequate; and
 - Areas characterized by shallow-to-rock soils, low permeability.
- Proper function
 - All systems require appropriate maintenance and well managed use to function properly;
 - Natural bacterial processes break down most solids, therefore commercial additives are not generally needed;
 - Septic system owners should avoid draining bleach, harsh chemicals, paint and similar materials into their systems; and
 - On average, residential garbage disposal use requires a 3X increase in the size of the system;
 - Although currently not required in Madison County, the VA Dept. of Health strongly recommends pumping septic systems every 5 years.
- Alternative systems:
 - Costly to install, expensive to maintain, and often mechanically complex;
 - Periodic inspections and maintenance are required by the state; and
 - Adding an aeration component to a system extends drainfield function.
- Education/Outreach
 - Newcomers from localities with public sewers need to understand septic system functions and limitations;
 - Although the Health Dept. has the legal ability to cite owners for failing septic systems and straight pipes, they prefer to work with offenders in a supportive manner to correct the problem;
 - Corrective action, education, outreach and maintenance will be an on-going need, even if the streams are removed from the impaired waters list.

Residential and commercial pet waste:

- Streamside kennels with no controls and no waste management programs contribute to the contaminant levels in streams;
- Dog walking areas with collection facilities are needed in communities with small lots;
- Proper pet waste management education is needed:
 - Outreach to confined canine operations is definitely needed;
 - Consider ordinance to require proper management;
 - Encourage veterinarians, kennels, hunt clubs and pet stores to promote proper pet waste management by providing information on the benefits of:
 - Pet waste digesters or composters for homeowners;
 - Collection kiosks on walking trails and in parks; and
 - Basic clean-up plans on public and private properties.

Water quality concerns:

- Concentration of bacterial counts in fecal matter varies among wildlife and domestic species;
- Questionable waste disposal practices at a kennel in the floodplain of the Robinson River may be contributing to foul odors experienced by downstream neighbors;
- Although legally permitted, bio-solid application and management practices are questionable.

Funding sources:

- The Action Chart identifies source issues, corrective actions, potential funding and agencies to assist with remediation; and
- Historic sources of funding for remediating septic problems include limited funding from Madison County, Rapidan Better Housing and the Community Block Grant program.

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 all septic system types, traditional and alternative;
 - Review land use changes that have occurred since the TMDL study was conducted and revise land use estimates to reflect such changes;
 - Encourage the Culpeper Soil and Water Conservation District to continue to work with the Farm Bureau to notify owners of older homes of the availability of funds to repair or replace septic systems and remove straight pipes;
 - Develop and implement a data tracking system that documents the location and maintenance history of on-site sewage systems;
 - Discourage the use of garbage disposals with septic systems;
 - Consider implementing a mandatory pump-out program for Madison County; and
 - Promote available funding, applicable programs and technical assistance through newspaper, bulk mailings, websites, local environmental groups, Culpeper Soil and Water Conservation District, VA Cooperative Extension, Farm Bureau, Old Rag Master Naturalists, Piedmont Environmental Council, etc.
- **Residential and commercial pet waste:**
 - Develop educational materials to encourage homeowners' associations, veterinarians, kennels, hunt clubs and pet-related businesses to practice and promote proper pet waste management;
 - Consider an ordinance to require proper waste management at confined canine facilities;
 - Actively promote
 - Pet waste digesters or composters for homeowners;
 - Collection kiosks on walking trails and in parks; and
 - Basic clean-up plans on public and private properties.
 - Consider a program that would offer kennel owners in sensitive areas a waste management evaluation of their operation;
 - Grant funding could be obtained to implement a kennel waste management demonstration project.

- **Water quality:**
 - Increase water quality testing throughout the watershed;
 - Fund and implement citizen-based water quality testing;
 - Provide funding to increase the implementation of BMPs;
 - Discourage improper disposal of all waste products.