

# Residential Working Group Fact Sheet:

Upper York River Basin Watersheds

Louisa, Orange, and Spotsylvania Counties, Virginia

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## Why Do A TMDL Implementation Plan?

Water quality monitoring conducted by the Virginia Department of Environmental Quality (DEQ) has shown that stream segments within Goldmine Creek (Louisa); Beaver Creek, Mountain Run, Pamunkey Creek and Terry's Run (Orange), and Plentiful Creek (Spotsylvania) have levels of bacteria that exceed the state water quality standard and are therefore considered "impaired" by bacteria. This means that people face an increased chance of gastrointestinal illness or infection during primary contact with the water. The development of a TMDL implementation plan is required by Virginia's Water Quality Monitoring, Information, and Restoration Act, which directs DEQ to "develop and implement a plan to achieve fully supporting status for impaired waters." Implementation plans provide communities with a framework for restoring water quality in their watershed, and often provide opportunities to receive funds for restoration efforts from several sources including federal and state government, as well as private sources.

## How Can I Participate?

One of the primary means of public participation in this TMDL implementation plan process will be through two working groups: agricultural and residential/urban. Citizens may also serve on the steering committee, which will help to guide the overall implementation plan development process. The working groups provide citizens with a venue for active participation in the planning process. Both working groups will report their ideas and recommendations to the steering committee for consideration to be included in the implementation plan. Strong public participation in these groups ensures that the final implementation plan reflects local concerns and ideas with regard to water quality.

## What will the Residential Working Group address?

The Residential Working Group will focus on human sources of bacteria in the watersheds including septic systems and uncontrolled discharges of human sewage into streams (straight pipes), and pet waste. The principle objective of the residential working group is to identify obstacles to implementation of residential bacteria load reductions and practical solutions to these obstacles. The group will focus on the following tasks:

- Ways to address/identify and eliminate straight pipes and failing septic systems from dwellings and small businesses
- Identify difficulties faced by landowners in correcting these problems
- Identify potential means of funding corrections
- Determine how to get landowners to come forward when there may be a fear of regulatory action and un-known costs
- Evaluate technical assistance needed and how to administer assistance
- Determine educational tools that are most likely to help
- Evaluate ways to reduce bacteria from pet waste

## Who makes up the Residential Working Group?

Residential working group consists of homeowners, local citizen organizations, and local and state agency representatives.

# Residential Best Management Practices to Remove Human Sources of Bacteria

## Septic tank pumpout:

Septic tanks are pumped to remove solids that have accumulated in the tank. This maintenance can prevent potentially costly problems in the future. It may allow the individual performing the pumpout to inspect the distribution of septic tank effluent from the distribution box to the drainfield to determine whether it is distributed properly.



## Connection of malfunctioning system or straight pipe to public sewer:

A malfunctioning septic system could be contributing raw or partially treated sewage on the ground's surface, or resulting in a direct source of sewage to adjacent ditches, waterways or groundwater. A straight pipe delivers sewage directly to a stream, pond, lake or river. Connecting to public sewer will improve water quality by transporting the sanitary waste to a treatment facility.

## Septic tank system repair:

Repairing a malfunctioning septic system will improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or ground water during storm events, or sewage that is direct source of contamination to surface water or groundwater. A repair may include a septic tank pumpout, and repair or partial replacement of the components of the septic tank system including the septic tank, distribution box, and subsurface drainfield



## Septic tank system installation/replacement:

Replacement of a malfunctioning septic system that cannot be repaired, or a straight pipe, will improve water quality by allowing for the appropriate treatment of sewage. Septic system installation may include the installation of septic tank and subsurface drainfield components. Before a malfunctioning septic system can be replaced, the septic tank may require pumping in order to remove solids from the tank.



## Alternative on-site waste treatment systems:

In some cases, an alternative waste treatment system is required to replace a malfunctioning septic system or straight pipe. Alternative systems are capable of functioning under conditions where a conventional septic system may not be appropriate (e.g., insufficient land area available for drainfield, unsuitable soils for drainfield). Examples of alternative systems include: aerobic treatment units, low pressure and drip irrigation distribution systems, sand filters, elevated sand mounds, constructed wetlands, and peat filters.