

FAIRFAX COUNTY, VIRGINIA

PROBLEM

During the past three decades, the population of Fairfax County has grown to more than one million people. With sanitary sewers at or near capacity, the number of individual wastewater systems began to multiply, eventually rising to more than 24,000. Inappropriately sited, improperly designed, and/or poorly managed individual systems have the potential to contribute to the pollution and degradation of the county's 900 miles of perennial and intermittent streams and a number of freshwater lakes and ponds.

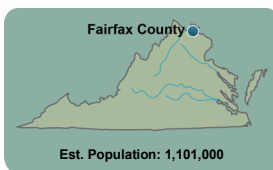
SOLUTION

Fairfax County adopted an ordinance requiring routine pumping of septic tanks every five years and alternating drainfields and drainfield reserve areas to ensure system performance.

Onsite Sewage and Water
Division of Environmental Health
Fairfax County Health Department
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OVERVIEW

Fairfax County's decentralized wastewater management program has

evolved since the first measures to improve onsite treatment were enacted in 1928. The program now includes:

- **A treatment system inventory and database**
- **Requirements for alternating drainfields and reserve areas**
- **Tank pump-outs at least once every five years, and pump-out manifests provided to the county health department**

ALTERNATING DRAINFIELDS AND RESERVE AREA

The Fairfax County Health Department issues permits and provides inspections and evaluations for new and existing individual wastewater system repairs and expansions. All new and repaired systems are designed with a flow diversion valve to allow portions of the drainfield to dry out; this improves treatment and avoids soil saturation problems. A suitable reserve area is required in the event that the system needs to be repaired or replaced.

FIVE-YEAR PUMP-OUT AND MANIFEST SYSTEM

An ordinance specifies that septic tanks must be pumped every five years. The service provider and the system owner both provide copies of the pump-out manifests to the county health department which tracks maintenance. The information is maintained in a database and is used to track compliance with the local ordinance. The database generates five-year pump-out reminder notices that the Health Department mails to system owners. The health department also offers \$200 individual system inspections if required by a mortgage lender at the time of property transfer.

FUNDING SOURCES

Fairfax County sustains its annual \$1.5 million onsite program through user fees and dedicated funds. The fees cover approximately 30% of the program costs. The remainder is financed through dedicated state and local funds.

RESULTS

A recent study found that the average malfunction rate for systems in the county was only 2.1% of the 15,401 systems reviewed. In addition, many systems thought to have outlived their life expectancy are still functioning satisfactorily.

The creation of a database for system inventory has allowed the county to track septic tank pump-outs and categorize all systems according to system type, greatly assisting the enforcement of existing codes and regulations. The use of alternating drainfields has increased the average lifespan of sewage disposal systems.

The five-year pump-out requirement has resulted in better maintained systems and the identification of system malfunctions that would otherwise go undetected. As a result of these measures, fewer owners are facing costly major repairs or system replacements.

Through its program, Fairfax County now better understands and manages its many onsite systems even in light of a fast-growing population.

References and Resources

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