Situation
There are over 360,000 onsite wastewater treatment systems (i.e., septic systems) in New Jersey. These systems require regular management and maintenance to continue to function properly and minimize their impact on the environment. Often homeowners deal with their septic systems only when a problem has occurred, resulting in large repair or replacement costs that could have been avoided through regular management and maintenance.

The United States Environmental Protection Agency (USEPA) recognizes the importance of properly managing onsite wastewater treatment systems and has released management guidelines for these systems. In New Jersey, only a few of the 566 municipalities have adopted onsite wastewater management ordinances/programs. Although the Township of Montgomery in Somerset County, New Jersey has one of the most successful onsite wastewater treatment system management programs in the State, the system was built on an obsolete database system that prevents the Township from integrating the database with its new Geographic Information System (GIS).

Action
The overall goal of this project was to assess and evaluate the onsite wastewater treatment system management program in Montgomery Township, New Jersey, which had been identified by the New Jersey Department of Environmental Protection (NJDEP) as a great success. A cost-benefit analysis was completed to inform other municipalities of the economics of such a program. Onsite wastewater treatment system management records within the jurisdiction were incorporated into a newly customized database that could be linked to the Township’s GIS system. Through this linkage of the tracking database and the GIS, the onsite wastewater management systems could be spatially related to the surrounding physical features such as soil types, streams, ponds, land use/land cover, and public access areas, thereby allowing the Township to anticipate future failing systems and waterways that could be impacted by these failing systems. This database, tailored to the Montgomery Township onsite wastewater treatment system management program, was developed to aid the Health Department in management efficiency and oversight. The use of the Microsoft Access database software enabled the database to be customized with the Township’s standard forms that the residents and clerk were already accustomed.
Impact
The tracking system developed for Montgomery Township is currently being used and saving the municipality money by simplifying the management of their operating permit program. Initial cost savings to the municipality have been estimated to be 15% of the annual operating cost of the onsite wastewater treatment system management program (or approximately $5,000/year in savings). As the program grows and expands, these cost savings will also increase. The system also allows the management program to be linked to the Township’s GIS so that environmentally sensitive areas within the Township can be targeted for advanced onsite wastewater treatment system management. By allowing the Township to better identify potential problem areas in the municipality, corrective measures can be implemented to completely eliminate fecal coliform and nutrient pollution from failing or mismanaged systems.

The Septic Records folder produced by the RCE Water Resources Program is now ready to ship! This file folder has been produced to encourage homeowners to keep track of inspections, pump-outs, and repairs of their septic system. The folder contains valuable information on how a septic system and leach field work, maintenance requirements, and the do’s and don’t’s of owning and maintaining a septic system. Plus, no more lost receipts and missing phone numbers!

For more information, please contact Cheryl Burdick at (732) 932-9800 ext. 6106. Folders will be sold in quantities of 50 at a cost of only $1 per folder.