# NSFC Helps Local Man with Failing Septic

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When Dr. Todd Crocco saw wet, smelly sewage surfacing in his front yard, he knew that he definitely had a problem. His 10-year-old septic system was failing, and Crocco, a Morgantown, West Virginia resident, found himself reading home improvement books and searching the internet for answers to his dilemma. Surprisingly enough, he didn't have to search far for help. Help was literally right in his neighborhood.

After conducting a web search, Crocco's father-in-law told him about the National Small Flows Clearinghouse (NSFC). The NSFC is located in Morgantown, West Virginia, and housed in the National Research Center for Coal and Energy building on the campus of West Virginia University. The NSFC is a nonprofit organization devoted to protecting the public health and environment of the nation's small communities by providing wastewater information and assistance. This service is done through educational products, publications, information, and technical assistance. After learning of the NSFC, Crocco contacted their technical staff. "To me it would have been kind of foolish to contact someone who might be located a long way away, when I've got this authority right in Morgantown," Crocco said.

NSFC technical assistants and engineering scientists Ed Winant, Jennifer Hause, and Andrew Lake visited Crocco's home to assess the situation. They walked the property and determined that Crocco's serial drainfield was failing. Winant said that serial drainfields are common in West Virginia where the ground is sloped. A serial drainfield consists of a series of trenches. The first trench comes out of the septic tank and has an overflow pipe that leads from the first trench downhill to the second trench. The pipes have holes in the bottom, and when water comes into the pipe, it seeps out the bottom. When the trench becomes clogged, water can't seep out the bottom anymore and it goes to the top of the pipe and into the overflow. The first trench must be completely filled up before water flows into the second trench and so on.

"You are only using one trench at a time, because once a trench has failed, it's not treating any more water. When there is nowhere else for it to go, it comes to the surface," Winant said. "A serial drainfield is always going to fail eventually."

The technical assistants found that the best solution to Crocco's problem was an alternating drainfield. Crocco's next dilemma was finding a contractor to install the new drainfield. "Todd had a contractor he had worked with and trusted, Jimmy Rogers with Rogers Excavating, but Jimmy didn't know anything about alternating drainfields," Winant explained. "So his question to us was, 'Do I go with someone I trust and know will do a good job, or do I go with somebody that I don't know who might know how to do this kind of work?'"

To solve the problem, Winant volunteered to assist Rogers Excavating with the installation of the new drainfield. "I told him that it's not that hard of a concept, and I could teach the contractor how to put it in," Winant said.

At Crocco's residence, a second drainfield was installed with three separate lines with distribution boxes to evenly distribute the flow. Modifications were made to the first drainfield by replacing the overflows with gravity manifold and distribution boxes. "The water comes out of my tank and goes to a splitter valve. I run it to one field for two years, and then I can take off the cap, turn the valve, and send it to the opposite field for another two years," Crocco said. "The valve is below grade. You can't see it, and I can mow over top of it."

Crocco said that he was very pleased with the help he received from the NSFC. "They were phenomenal. I couldn't ask for better service," he said. "NSFC technical assistants helped design the new system. They helped me get it approved through the health department. They helped me figure out exactly what needed to be purchased. They advised my excavator, who had not put one of these in before. They were onsite while the yard was dug up and items were being placed in the ground. So they were physically here for all the important steps."

NSFC helps individuals and small communities all over the U.S. If you have a wastewater problem or question, contact our technical assistants at (800) 624-8301 or visit our Web site for more information on NSFC at www.nsfc.wvu.edu.


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