

Puraflo®

Peat Fiber Biofilter

Quick Facts

Application:
Replacement of failing and ineffective systems

Product:
Puraflo®

Distributor:
W.J. Clark Inc.

Installer:
TR Davis, Inc.

Location:
Mud River, WV

Puraflo Protects the Local Watershed for Homeowners

Situation

The Left Fork watershed of the Mud River is a low income rural community in Lincoln County, West Virginia.

Phase 1 was an agreement between the Lincoln County Commission and the U.S. Environmental Protection Agency (US EPA). Phase 2 was funded through the American Recovery and Reinvestment Act of 2009 (ARRA).

Phase 3 of the Lincoln County Green Wastewater Project is in progress, funded through the West Virginia Department of Environmental Protection and the US EPA. At the conclusion of phase 3, 50 homes will have received Puraflo peat fiber biofilter onsite wastewater treatment systems replacing old, failing ones that resulted in raw sewage ponding under homes, ineffective treatment of sewage prior to entering the water table, streams or tributaries.

Solution

The Lincoln County Commission, West Virginia Department of Health and Human Resources, West Virginia Department of Environmental Protection and the local Left Fork community worked together to trouble shoot, prioritize installations, award bids, hold workshops, oversee installation and maintenance and analyze the systems' effectiveness.

The aforementioned parties learned the importance of having a technology manufacturer that is engaged in the project and willing to help solve problems. Prior to Phase 2, there were manufacturers who were hesitant or slow to come to the watershed to look at problems.

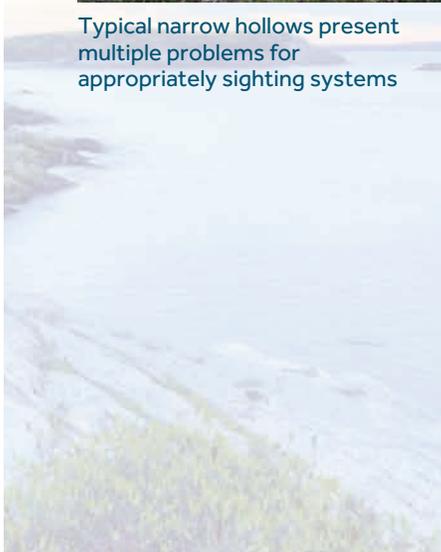
According to Ric MacDowell, director of the Lincoln County Green Wastewater Treatment Project, "Without manufacturer commitments, we have found that systems will not work properly. Anua's—the manufacturer of the Puraflo peat fiber biofilter—ongoing involvement has been pivotal to the project's success."



Typical ridges and valleys in the Left Fork Watershed



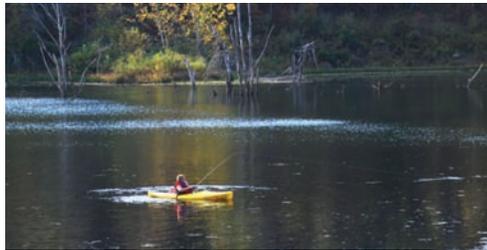
Typical narrow hollows present multiple problems for appropriately sighting systems



Results

Direct discharge sampling at the final drop into the tributaries demonstrated the effectiveness of the system technology. During eight months of direct discharge sampling, 55 different samples were taken from 18 different onsite wastewater treatment systems. None of the samples were over the 200 E. coli colonies per 100 mL limit set as the project's benchmark. In fact, 78% of the 55 samples had less than 10 E.coli colonies per 100 mL.

The project's watershed sampling analysis demonstrates that installing alternative wastewater systems in contiguous homes decreases bacterial levels in tributaries. Based on Anua's support and the consistent effluent quality results, Puraflo was the system of choice for phase 3 of the project.



Mud River Lake at the
Camp Lake View beachfront



Puraflo

