The community of Ashland in McDowell County was settled in 1894 and, until last month, had never had a wastewater treatment system. A new pilot project for the community is eliminating straight pipe discharges of raw sewage into nearby streams.

Pipeline to prosperity

Wastewater treatment plan is reshaping McDowell community

By Tom Aluise

ASHLAND — There are no quick fixes to the well-chronicled problems that plague rural McDowell County in southern West Virginia.

Still, a sense of pride and determination exists in its people. They're eager for change, willing to make the necessary sacrifices and focused on finding the resources needed to improve their quality of life.

A perfect example of that positive energy is in the small community of Ashland. The former coal camp is the site of an innovative wastewater treatment pilot project, partly sponsored by the Nonpoint Source Pollution section of the Department of Environmental Protection's Division of Water and Waste Management.

The project is equipping 23 homes and two businesses with a viable onsite wastewater treatment system for the first time. It also is eliminating the community's archaic practice of dumping raw sewage into local streams, an environmental hazard that is all too prevalent in McDowell County.

"It's been straight pipes into the creek since 1894," said Jackie Persiani, who grew up in Ashland and now serves as president of the Ashland Community Utili-

Staight pipes like this release untreated wastewater into streams throughout McDowell County in southern West Virginia.

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ties.

Sharon Walden, a Gary native and community development leader in McDowell County, said she was once asked by a curious out-of-state visitor about the abundance of straight pipes in local streams.

"He asked what they were," Walden said. "When I told him, he said, 'My God, in the United States of America?' "

Located about six miles north of Northfork, Ashland was settled over 100 years ago when entrepreneurs from Ashland, Pa., opened the lucrative coal seams in the area. The community took a heavy blow in 1979 when the mines shut down for good but has benefitted economically of late from the popular Hatfield-McCoy Trail System and the recent development of the Ashland Resort campground just a mile up the road.

ATV and motorcycle riders can access the Hatfield-McCoy Trail from the campground, which features cabins, cottages and lodges, as well as RV and tent sites.

Another tourist stop in Ashland is the old coal company store that has been renovated into the quaint Ashland Company Store. It includes a restaurant, as well as homemade crafts, furniture and food items. Close to $1 million was invested in the project.

"The next big tourist attraction here is going to be trout fishing after we get the stream cleaned up," Persiani said. "That's going to be another tremendous economic value for us. Right now, 80 to 85 percent of our visitors are from out of state. Everyone I talk to loves coming here and I think that has a lot to do with the fact that we're trying to clean up the community. And they love the mountains, just like we do. We have a lot of great opportunities around here."

A tour group, including the DEP's Teresa Koon, far right, and Jennifer DuPree, left, visit the wetland cells that are part of the Ashland wastewater treatment system.

None of which will reach their full potential unless steps to protect McDowell County's natural resources continue.

The foundation for those important measures was laid following devastating floods in 2001 and 2002. After rising creek water contaminated wells with raw sewage, Ashland residents and other county leaders decided to take action.

"The people here wanted to start working on something," said the DEP's Teresa Koon, who, along with co-worker Alvan Gale and the Canaan Valley Institute, has been involved with the Ashland project since its inception. "They put together a plan for the county and state calling for different funding. They documented that their streams had water quality problems. They produced a watershed plan for the whole area."

The Wastewater Treatment Coalition of McDowell County was formed in 2003 with a simple goal: to provide effective wastewater treatment systems to as many homes as possible in the county and to do it cost effectively, both from a construction and operation standpoint.

Top, engineer Mark Whittaker demonstrates some of the wetlands technology to the DEP's Alvan Gale, center, and the EPA's Leo Essenthier and Fred Suffian. Bottom, the Ashland project was made possible through the contributions of many.

In 2005, the Coalition, with the help of the DEP and others, released its wastewater treatment plan for the entire county. The plan highlighted McDowell's impaired streams, its substandard wastewater treatment options and infrastructure and outlined ideas for addressing sewage issues.

It also included the shocking statistic that 67 percent, or approximately 7,480 households in the county lacked adequate wastewater treatment. Only 25 percent of the county's households were being served by McDowell's four municipal treatment plants.

The plan went on to point out that the aver-

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The wastewater treatment system's three wetland cells are located on top of a mountain adjacent to the community of Ashland. From here, water will flow down to a drainfield.

age American flushes the toilet five times per day.

In McDowell County, that translates to approximately 314,283 gallons of untreated effluent disposed daily into the county's streams.

Ashland, which sits on the banks of Windmill Gap Creek at the headwaters of the North Fork of Elkhorn Creek, was a 100-year contributor to the problem. Fecal coliform counts in the creek were substantially higher than state standards.

It was the perfect place, the Coalition decided, to begin the long journey toward adequate sewage treatment for all households in the county. Ground was officially broken on the $580,000 Ashland Community wastewater treatment project on Jan. 12, 2009, although work had already begun.

On Oct. 28 — the same day representatives from the DEP and U.S. EPA visited Ashland to inspect and learn more about the operation — Persiani flipped the switch not only on the system's pumps, but on a new era in Ashland history.

"This is going to benefit everybody downstream, all the way to the ocean," Persiani said.

The decentralized cluster system at Ashland uses underground household septic tanks as the primary treatment vessels before pumping the sewage to an adjacent mountaintop. There, it's passively treated in wetland cells before gravity returns the effluent to a drainfield below.

The system is designed to address wastewater issues in narrow stream valleys, where space for conventional septic systems is limited.

Canaan Valley Institute came up with the concept for the Ashland project and Stafford Engineering Consultants engineered the job, along with Versa-Con Inc.

"This particular system is one of a kind in West Virginia," Persiani said. "If it works like it's supposed to, I'm thinking there will be a lot to follow."

The whole Ashland project — from start to finish — in fact, is worth following. It offers the perfect model for how a community can work together, as well as with outside agencies, to educate itself on an issue and then show a willingness to accept change.

"These are some pretty amazing people … the fact that they stuck with this project," said Koon, adding that without 100 percent participation from Ashland residents, a permit could not have been issued for the system.

"Every resident had to sign that they were willing to connect to the system," Koon said.

"One of the critical things is we had 100 percent buy-in from the community," Walden said. "There was an educational process involved and it remains an ongoing thing. You know, a straight pipe is free and there is not a lot of maintenance. A lot of people said, 'Why should I do it when a lot of people down the road aren't doing it?' It has to start somewhere."

Each household in Ashland will pay $27 per month to the Ashland Community Utilities for wastewater treatment.

Persiani said that won't be easy for all.

"The main thing is that everybody is proud that we actually own this system and that we got involved and did our part to help the environment," Persiani said. "It might not seem like a big thing, but it really is for us."

"It's just a great example of what a community can do with a lot of great people, a lot of great support and a lot of help from the DEP," Walden said.

"I think we're making a difference. We're not building a huge subdivision, but you have to build one septic at a time. We're so proud of what we've done."

The Ashland project was funded through a variety of sources, including state and federal dollars, as well as foundation grants and private donations.

The West Virginia Ministry of Advocacy and Work Camps provided volunteer labor valued at $35,000 to dig ditches for the drainfield.

"It's an exciting project," said Jennifer DuPree, Southern Basin coordinator for the DEP. "It's been a good example for other watershed groups."

Koon hopes the momentum from Ashland's success continues as county and state officials work their way downstream on their mission to improve wastewater treatment throughout the county.

"For homes that can go on individual septic systems, we're working with those people to correct their problems," Koon said.

"Where we can put a septic system in, we're going to help do that for a seven-mile stretch downstream."

About eight months ago, the DEP's DuPree and others began going door-to-door downstream from Ashland, encouraging residents who have no wastewater treatment to take advantage of government-sponsored low-interest loans to install individual septic systems.

"We hope to have 15 systems in by the end of next September," DuPree said. "We have a 319 (Clean Water Act) grant to put in 25 systems."

DuPree said most people she visited wanted to move forward with efforts to clean up their streams.

"We told them we just want to see this creek swimmable for your kids and for you to feel safe about living along the creek," DuPree said. "No one slammed a door in our face."