



KAREN VIBERT-KENNEDY/Sun-Gazette

A decade of building plants

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State-of-the-art sewage systems throughout Lycoming County not only are contributing to a cleaner Chesapeake Bay, they also are significantly reducing the amount of pollution in local waterways.

The effort to upgrade systems began about a decade ago, and upgrades have been completed or are nearing completion

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Clean waters: A decade of building plants

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in just about every corner of the county.

Following is a look at where each project stands:

Williamsport

The Williamsport Sanitary Authority is in the process of completing a \$125 million combined project to upgrade both the Central Plant on Basin Street and the West Plant on Arch Street.

The West Plant phase one modifications began in 2000 and were completed during the 2011-12 DEP water year, while the more extensive Central Plant phase one construction project has continued through this summer, said Walt Nicholson, director of operations.

The improvements are to meet nutrient reduction goals and to handle more stormwater flows. The Central Plant is receiving extensive modifications to reduce nitrogen discharge. The West Plant was a predominantly wet-weather flow project to reduce the frequency of combined sewer overflows that occur during major rainstorms. It also was built with some nitrogen-removal capabilities.

Both plants' combined nitrogen discharge in 2010-11 was 602,251 pounds. The cumulative totals for the first nine months of this compliance water year is 189,443 pounds. The annual permit cap is 230,970 pounds.

The plants' combined phosphorus discharge for 2010-11 was 54,017, which improved to 28,755 this year. The limit is 30,002.

"As we have put more facilities on-line, reductions continue to improve through the current compliance year," Nicholson said.

Their basic sanitary sewer service rate in 2009 at the beginning of construction was \$4.95 per 1,000 gallons or \$64.35 per three-month quarter for an average 13,000 gallon-per-quarter residential customer.

The current rate that went into effect Jan. 1, 2012, is \$10.60 per 1,000 gallons, and that rate should hold through the end of 2013, Nicholson said. This is a quarterly rate, unlike the other authorities' monthly billing.

The authority will have to wait and see if it'll need to buy nutrient credits but anticipates being a seller in the future, he said.

Tiadaghton Valley

Tiadaghton Valley Municipal Authority is building a new \$20 million wastewater treatment plant in Nippenose Township on Rice Road. Construction started in September 2012 and the anticipated completion date is Dec. 26, said Executive Director



Construction continues on sewer lines for the Tiadaghton Valley Municipal Authority's treatment plant in Nippenose Valley. Another view appears on Page A-1. KAREN VIBERT-KENNEDY/Sun-Gazette

Shawn Lorson. It will be on the other side of the river from the existing plant on North Pennsylvania Avenue.

While that plant is being built, a collection system in Nippenose Township also is being constructed, "so we'll have sewers coming from three municipal jurisdictions," Lorson said.

The existing plant will continue to function until the new plant is finished and tested. Once the new plant is fully functioning, the goal is to use reserve contingency funding from grants and loans to demolish the existing plant. The residual property will be turned over to Jersey Shore Borough, and a recreation area may be built, Lorson said.

Last year, about 53,000 pounds of nitrogen were discharged, along with about 7,000 pounds of phosphorus, he said. The new plant is projected to discharge 19,178 pounds of nitrogen annually and 2,057 pounds of phosphorus.

Because the plant is under construction, discharge amounts will go over permit limits this year, so the authority entered into an agreement with Lycoming County to purchase about 3,000 nitrogen credits and a little more than 500 phosphorus credits, Lorson said.

The average residential sewer rate per unit per single-family home from the old plant was \$38.50. The current rate during construction is \$40. The final rates can't be set until construction capital costs are worked in, Lorson said.

The authority implemented a rate increase due to the new

facility and collection system. The authority hired the Jersey Shore Area Water Authority (a separate entity) to do the sewer billings, Lorson said.

West Branch

Rather than go through a host of expensive upgrade projects with the Muncy and Montgomery treatment plants, which are in flood zones, a new plant will replace the two to meet bay requirements as the West Branch Regional Wastewater Treatment Plant, said West Branch Regional Authority Director Eric Moore.

The new \$33 million facility will be across from the State Correctional Institution between Muncy and Montgomery. Construction started in June and should be done by late 2014. It will serve the area from Clarkstown on the east end to the county landfill on the west end, about 10 miles.

The combined discharges for both treatment plants for water year 2011-12 for nitrogen is 115,000 pounds a year, and phosphorus is 5,700 pounds. The cap limits, combined for both plants, for nitrogen is 41,000 pounds a year and 5,500 pounds of phosphorus, Moore said. When the new plant is functioning, it will remove the excess nutrients to be in compliance.

In order to stay in compliance until the new treatment plant is finished and running, nutrient credits will be purchased.

Along with the plants merging, the billing will be consolidated and billed at one flat rate.

Moore said. Before, customers paid a range of prices between \$27 and \$55 a month, and in some cases, \$90, he said. The new flat rate will be \$55.

Lycoming County

The Lycoming County Water and Sewer Authority in Montoursville completed a \$10 million upgrade for the Montoursville Regional Sewage Treatment Plant in the fall of 2012, according to Executive Director Christine Weigle.

Average nitrogen concentrations since September 2012 were 2.9 parts per million, which is far under the 16.6 parts per million in 2009, and better than the 7.1 parts per million in 2010. The target concentration is 6 parts per million. It shows a drastic improvement due to the new equipment and the ability to better manage the process, Weigle said.

Average phosphorus concentrations in 2009 were 1.59 parts per million, and the average in 2010 was 0.65. From September on, the average concentration has been 0.45, a good deal under the 0.8 parts per million target goal.

Prices for customers have gone up with the upgrade. In 2010, the charge was \$55 a month per single household. It was raised to \$60 in 2011. The authority is looking at possibly going to \$65, but rising operating costs could result in rates as high as \$70.

"We are hopeful that if the service territory grows, the costs may be spread out to a larger customer base and may hold at the \$60 to \$65 range," Weigle said. "We've been trying

very hard to control the cost during the upgrade, and manage the cost afterward in hopes that the customer-base growth keeps up with the increased cost."

Because the plant is achieving better results than regulated in the permit limits, and they're under flow capacity, it will be able to sell nutrient credits to other plants, Weigle said.

Hughesville/Wolf Authority

The Hughesville/Wolf Sewer Authority opted out of upgrading because its the new plant finished completion in 1995, and a study showed it would be more cost-effective to buy nutrient credits to come into compliance, authority Chairman Rick Marsh said. The authority serves Hughesville Borough, Wolf Township and a portion of Muncy Creek Township.

"It's cheaper to buy credits (than upgrade) at this time. Eventually, we'll have to do some upgrading, but we hope it's in the distant future," Marsh said.

Rates did not go up due to the purchase of nutrient credits, Marsh said. They bill their customers \$38 a month, the same amount as last year, although that amount may change in the future, he said.

The plant discharged 10,958 pounds of nitrogen last year, under the 12,000-pound limit, Marsh said. Phosphorus was discharged at 4,241 pounds, over the 1,644 limit, so the authority bought nutrient credits from the county.