

WV struggling to hold the line on trees, runoff

Rapid increase in population and infrastructure gobbling up state's canopy, ability to control stormwater.

- *By Whitney Pipkin on June 15, 2015*









Efforts to conserve portions of West Virginia's treed landscape from being developed are under way. The Potomac Conservancy recently purchased 1,700 acres of land called White Horse Mountain. (Steve Droter)

If there's one sight visitors to West Virginia expect to see, it's trees. Tree-covered mountains and tree-lined streams are central to the image of the state — and to the rest of the Chesapeake Bay's water-quality equation.

But the eight-county portion of West Virginia that makes up its Eastern Panhandle in the Bay watershed is struggling to “hold the line” on tree canopy, let alone add more trees than it's losing to increasing population and infrastructure projects.

“Out here, we are losing canopy at a very high rate,” said Frank Rodgers, executive director of the Cacapon Institute, a nonprofit based near its eponymous river in West Virginia.

Since its start in 1985 as a response to increasing development that was threatening the Cacapon, the institute has expanded its focus to encompass more of the Potomac River and Bay watershed into which the Cacapon feeds.

Rodgers also serves as the West Virginia representative on the Chesapeake Bay Program’s Forestry Workgroup, which is working on a strategy to protect tree canopy in the watershed.

He told the group during a call this winter about the factors working against tree canopy in West Virginia, which only last year joined the Chesapeake Bay Agreement as an official state signatory.

“Our land cover growth is happening faster than our population growth, which is indicative of sprawl,” Rodgers said. “The I-81 corridor that runs through Martinsburg has the fastest rate of urban land cover growth in the watershed.”

Part of West Virginia’s Monroe County in the southern part of the state is also in the Bay watershed, but most Bay-focused efforts are concentrated in the state’s Eastern Panhandle. This portion of the state has grown as a bedroom community for those willing to commute more than an hour into Northern Virginia or Washington, DC.

Though the recession slowed the building of new homes, the state’s tree canopy continued to take hits from new infrastructure projects, some of which won’t even serve its residents. The state loses trees, sometimes in 60-foot-wide swaths, to new transmission lines and pipelines taking energy to population centers surrounding the state.

“Because of where we’re located, we do have big infrastructure projects that run through this area — gas pipelines, railroads, power lines — this is an area of transmission and delivery to the bigger urban watershed,” said Joseph Hankins,

who, as vice president and director of the Conservation Fund's Freshwater Institute, has lived near Shepherdstown for 30 years.

This panhandle of West Virginia witnessed the most recent boom in its population between 2000 and 2010, according to the U.S. Census. When the population data was released in 2012, Rodgers said his institute was surprised to see in the statistics what they'd noticed anecdotally — a lot more people along the I-81 corridor.

Berkeley County's population grew by more than 37 percent and Jefferson County's by nearly 27 percent over that decade, the census showed, placing the region among the fastest growing in the nation.

Brian Farkas, executive director of the West Virginia Conservation Agency, said the panhandle's propensity for outsized growth started much earlier.

He worked as a news editor for The Associated Press and a census reporter in West Virginia for more than 13 years and remembers the steady addition of residents, distribution centers and federal facilities to the region that began in the 1980s.

"At one time, Jefferson County was adding some phenomenal amount of children to their school system, a couple of hundred a year; they had to build another high school," Farkas said. "So, by the time the 2000 census came out, the area was just growing tremendously."

That census bumped Berkeley County up to the second most populous in the state, a tipping point for the state whose largest counties in the past century had been heavily industrialized.

Farkas said a portion of the growth over that period was fueled by U.S. Sen. Robert C. Byrd, who was well-known for steering billions of dollars worth of federal projects to his home state of West Virginia. He helped send sizable federal projects, such as the FBI's repository for computerized fingerprint records

and the U.S. Coast Guard's computing and office facilities, and the jobs that came with them to the state.

"This was back in the day of pork, and he made sure the barrel rolled there," Farkas said.

The pace of growth has slowed since 2010, with each county growing by about 5 percent over the last five years, according to the census' annual population estimates.

As one might expect, an increase in urban stormwater runoff has come with the state's increase in development, according to calculations based on the Chesapeake Bay Watershed model.

And urban runoff from this portion of the region has increased since the mid-1980s at a rate higher than that of comparable swaths in the Bay watershed, according to the model.

From 1985 to 2014, the amount of nitrogen reaching the Bay from urban runoff in West Virginia increased by 25 percent, compared with a 20 percent increase Baywide, according to the model. The state's rate of increasing runoff compared with the rest of the region seems to have accelerated over the last five years (though Virginia's still grew faster over that period).

West Virginia's watershed implementation plan includes a goal to hold the line on stormwater discharge in the region in order to reach its 2025 milestone. That plan gives smaller municipalities a voluntary option of enacting more stringent stormwater standards to meet that goal — which is why Matt Pennington has been spending so much time in his car.

He's been canvassing this region as the Chesapeake Bay Program coordinator for the Eastern Panhandle Regional Planning and Development Council, trying to sell communities on smarter growth policies that hold and filter more of water — and hold the line on pollution contributions to the Bay.

“The nice thing with the voluntary ordinance is that they know their communities best and what will work and what won’t,” Pennington said over the phone during one of his regular drives across the area that goes by Region 9 in the state. “This voluntary program gives them the chance to create their own stormwater management ordinance that fits for them.”

Two municipalities in the region, Martinsburg and Berkeley County, manage their stormwater under Phase 2 MS4 permits that require them to collect, retain and infiltrate 1 inch of rain.

Pennington works to engage smaller local planning commissions on the topic of stormwater discharge and encourages them to adopt similar standards to reduce the impact of new development.

He often starts the conversation with “Stormwater 101,” explaining how a drastic change in land use can greatly increase the amount of polluted water running off it.

“When you go from a forest on 5 acres to a big box retail and show those stormwater volumes, it’s quite surprising,” he said.

His program provides templates for ordinances and suggests that communities require new and redeveloped properties to capture or infiltrate 1 inch of the rain that falls on them. The planning commissions can decide how big a new development needs to be to trigger that requirement, but there would be some consistency across the region.

The goal is to see three of these communities voluntarily — yet formally — adopt such ordinances by the end of the year.

Jefferson County adopted one at the beginning of 2014, and Harper’s Ferry followed suit in February. Pennington said Charles Town, Ranson and Shepherdstown are each “on the verge” of adopting the standards as well.

“That all starts by getting to know one another,” Pennington said.

He gave an example about attending a parent-teacher event to talk about planting trees for both water and community health, which was one of several items on the agenda. Afterward, he stuck around to help set up for a family fun night.

“It’s little things like that that can help with progress,” he said. “We’re all influencing stormwater and pollution, but stormwater and the Bay is not their main priority. Getting other things done is a big priority, too.”

When it comes to finding common ground on that list of priorities, trees meet a lot of the criteria. New residents move to the state to be surrounded by them, but advocates for them — and for a cleaner watershed — are making the case that residents could do more to protect them from development.

“The main threat that we’re addressing — that we’re focusing on because we can do something about it — is the loss of tree canopy,” Rodgers said.

His Cacapon Institute runs a program called CommuniTree that’s one of several spreading branches in the region. Eighteen groups signed up to plant a total of 1,000 trees in the region this spring, along with rain gardens in some cases.

Despite residents’ interest in maintaining trees, there is not a statewide policy discouraging new development from displacing them. There is no requirement that a new big box store, for example, replant the 5 acres of trees that are removed for its footprint, Rodgers said, and the pressures against trees are myriad.

“There are robust restrictions on forest harvesting, but if a property owner decides he wants to remove all the trees from his property, there’s nothing to impede that,” Rodgers said.

Farkas gave examples of several large retailers that have built stores in towns like Charles Town only to build a newer one a few years later.

“Trees are something that get in the way when you’re trying to develop land,” he said. “They seem to suffer the most with commercial development.”

Commercial development is mostly welcomed by West Virginians, especially in parts of the state that need the economic boost they bring. In such circumstances, it's difficult to see the environmental downside to a manufacturer bringing hundreds of jobs to the region, even if a new factory would take the place of forest or open space.

Rodgers said that's partly because there's still so much forest that trees are seen more as economic engines than as natural resources that need protecting.

"On a state level, there is not the value of the forest like there is in more urban areas of the Bay. Out here in West Virginia, in many cases, people still look at the forest and all they see is standing lumber," said Rodgers, who sees trees as "the gold standard" of land cover when it comes to what's best for the Bay.

But residents are beginning to see how finite the forest can be. The emerald ash borer has taken out up to 17 percent of the forest in parts of Berkeley and Jefferson counties, opening resident's eyes to the resource's vulnerability. And other threats to the forests continue.

Hankins, of the Freshwater Institute, said another factor to consider is future development. In Jefferson County, many of the fields that are still growing corn or forest are already subdivided into lots waiting for the right buyer, Hankins said, noting that that pent-up development could make it even harder for the state to meet its water quality goals once the lots are developed.

Though maintaining the tree canopy can feel like an uphill battle in parts of the state, some residents are digging in their heels. The Cacapon Institute is collaborating on programs that help residents to better appreciate and perpetuate the forests in their backyards. Some subdivisions in the region have up to 60 percent tree canopy, and they want to keep it that way — even as new development arrives.