

The Chickahominy and the Chesapeake Bay

The Chesapeake Bay is a body of water and, like a human body, its health depends on what goes into it. But as everyone knows, the Chesapeake is not as healthy as it once was. The problems stem, in part, from the declining quality of rivers that feed the Bay. The Chickahominy River is one of the cleaner tributaries to the Bay, providing important wildlife habitat in the marshes, swamps, river and surrounding lands.

HISTORY

The Chickahominy River is named after the Native American people who still inhabit the region. Chickahominy means "coarse pounded corn people". At the time of the earliest English settlement, the Chickahominy people existed surrounded by the powerful Powhatan confederacy of which they were not a part. It was members of the Chickahominy tribe who captured Captain John Smith of Jamestown when he was exploring the Chickahominy River. They turned Smith over to Chief Powhatan, whose daughter Pocahontas is said to have begged her father to spare Smith's life, beginning a friendship that enabled the survival of the English on this continent. Today, although they do not have a reservation, the Chickahominy tribe is the largest Native American tribe in Virginia with over a thousand members, and private land holdings in the Chickahominy watershed.

During the Civil War, the Chickahominy River dominated the planning and operations of both armies. In 1862 and 1864, the Chickahominy River swamps frustrated attempts by federal troops to capture the Confederate capital of Richmond. Early in the war, as federal troops were making their way from Hampton Roads toward Richmond, the Chickahominy River, its bridges flooded by spring rain, forced the federal army to split its forces isolating a regiment at the famous battle of Seven Pines. Upon assuming field command of the Confederate army, General Robert E. Lee immediately ordered his troops to start constructing extensive earth works in the central part of the Chickahominy watershed. Later in the war with Lee's and Grant's troops positioned just north of the River, worries over becoming mired in the Chickahominy's swamps influenced troop placement for the Battle of Cold Harbor. Again, elaborate fortifications were constructed. Many of the trenches and mounds constructed by both armies survive today, located near Mechanicsville, along Beaverdam Creek, in Cold Harbor, and at Gaines Mill. Historical battlefields are located both on private lands and in the Richmond National Battlefield Park.

THE WATERSHED

It would take about two hours, including traveling both interstate and back roads, to drive the length of the Chickahominy River from its beginnings near the Wyndham subdivision in western Henrico County, to the mouth of the river where it empties into the James just upstream of Governor's Land in James City County. The watershed (defined as the land area draining to the Chickahominy River) covers 470 square miles or approximately 300,000 acres.

The drainage basin of the Chickahominy River begins north and west of Richmond in rural areas which are becoming more suburban. Headwater streams drain West Broad Street and Glen Allen in Henrico County, and Elmont and the Town of Ashland in Hanover. Farther downstream the drainage basin includes areas on the

north side of Richmond such as Lakeside, Bryan Park, and the State Fairgrounds area. Across the river is rapidly urbanizing Mechanicsville in Hanover County. After winding through extensive wetlands, including dense and beautiful cypress swamps, the river becomes Chickahominy Lake, impounded at Walker's Dam to supply drinking water to the City of Newport News. Two other creeks in the Chickahominy watershed are impounded for Newport News drinking water: Little Creek and Diascund Creek. Because of the drinking water impoundments, the Chickahominy is afforded special water quality protection from point source, or end-of-pipe, discharges such as those from factories and municipal wastewater.

Compared to the upper one-third of the watershed, the middle and lower sections of the river have less residential development. Surrounding land includes some farmland and residential areas but forest is the predominant land use and timber harvesting is an important part of the local economy. Below Walker's Dam the river becomes tidal, flowing southward through thousands of acres of marsh and emptying into the James River.

NATURAL RESOURCES

Teeming with fish, birds, and other wildlife, the Chickahominy River and associated wetlands draw thousands of hunters, fishermen, and other nature enthusiasts each year. The middle and lower sections are especially well-known to bass fishermen and duck hunters. Although the Chesapeake Bay region as a whole has experienced declines in duck populations, according to a former Game Department waterfowl surveyor, "the whole Chickahominy drainage is an excellent wood duck swamp, . . . from Lanexa to Route 5, it is excellent for mallards and good for black ducks and several others."

Ospreys and the endangered bald eagle also nest along the shores. Rookeries of tree-nesting egrets and great blue herons are found in the swamps. The Chickahominy River's extensive wetlands and adjacent forest areas are important habitat to migrating songbirds on their extended north-south flights.

In the middle and lower sections of the watershed, large swampy areas, difficult to access, have been left undisturbed and are home to rare plant species such as swamp pink, yellow cowlily, and sensitive joint vetch. Even fresh water mussels, highly sensitive to environmental disturbance, are found in the tributaries to the Chickahominy. The rare crayfish snake has been spotted along the River and, although most of the Chickahominy watershed has not been thoroughly surveyed, scientists suspect the habitat is right for other rare reptiles and amphibians as well.

Beavers are very active in the watershed and are known to cause alterations to the water level and flow patterns of the river system by damming up and causing temporary flooding of new areas. Most likely, this has been part of the natural cycle of the river for thousands of years.

THREATS

Changing land uses in the watershed of the Chickahominy result in a loss of wildlife habitat and an increase in nonpoint source pollution. Nonpoint source pollution includes runoff from urban streets, lawns, farm fields, construction sites, and timber harvests. The State Water Quality Assessment Report identifies two sub-watersheds of the Chickahominy in the top five percent for urban pollution potential in the state. These areas are in the upper part of the Chickahominy

watershed in Henrico County. Excess nutrients and soil erosion are identified as the potential pollutants. A U.S. Geological Survey study of the upper Chickahominy revealed higher loads of sediments and heavy metals such as lead coming from more urbanized tributaries.

Land clearing activities related to building development or timbering also cause changes to and the loss of wetlands and other wildlife habitat. Different species of wildlife have different requirements for their living spaces or habitat. In some cases additional edge-of-field habitat may be created, benefitting some species while causing a loss of habitat for others.

Water withdrawals pose potential threats to certain Chickahominy watershed ecosystems. Increasing demands for drinking water from surface and ground water supplies may pose a threat to sensitive wetland systems if water levels change significantly.

PROTECTION

Local governments throughout the watershed have programs to control some of the potential problems for the river created by land use changes. These include flood plain ordinances, stormwater management and erosion and sediment control programs. They also implement the Chesapeake Bay Preservation Act, which requires setbacks from streams to protect water quality. Some of these programs receive assistance from the local Soil and Water Conservation Districts (SWCDs). Colonial, Hanover-Caroline and Henricopolis are the three Districts which serve the Chickahominy watershed. The SWCDs also conduct programs to help farmers prevent pollution from farm runoff that can carry excess sediment, fertilizers, and pesticides into waterways. Water quality protection is now also required for forestry activities to protect streams from the excess sediment during the construction of logging roads or from crossing streams to harvest trees.

A section of the Chickahominy River is designated as a state Scenic River, from where the river crosses under Route 360 at Mechanicsville, to the New Kent County line. This is an honorary designation with no associated regulatory controls. Hopefully, this recognition of significant natural and recreational resource values will inspire voluntary actions to restore and protect the river. An evaluation is being conducted by the state Department of Conservation and Recreation to determine if an expansion of the Scenic River should be recommended.

A comprehensive effort is underway to document resource values of the Chickahominy and learn more about how the health of the Chickahominy wetlands and waterways are related to the surrounding land use. The [U.S. Fish and Wildlife Service](#) has teamed up with state and federal agencies and university researchers to study the effects of people and natural forces changing the landscape in the Chickahominy watershed. With existing information and new research, they hope to identify key areas to focus public and private conservation efforts.

WHERE TO SEE THE CHICKAHOMINY RIVER:

1. Headwaters: In the Wyndham community (Henrico), Otter Pond Park has a one mile nature trail with boardwalks that go along a stream to the headwaters of the Chickahominy river. Notice tree canopy shading the stream, beaver activity, and a variety of wetlands plants. For permission, call or stop by the Wyndham sales

center.

2. Bottomland Hardwood Forest: Vawter Street Park, from an urban area of eastern Henrico off Laburnum Avenue, take the path at the bottom of the hill straight ahead. Cross board walks through mature hardwood forest. See large oaks with holly in the understory on the way to the swampy river bank.

3. Cypress Swamp: New Kent Forestry Center, off Route 60, just west of Providence Forge, once on the driveway take the first road to the right past warehouses to parking on the right. A one-mile nature trail winds through changing vegetation of forested uplands and wetlands. Boy Scouts have built several sections of boardwalk taking you over swampy areas with cypress knees extending out of the water. Part of the trail comes up into the nursery and ends at river's edge, where you can peer into the dense cypress swamp that lines the Chickahominy through this middle section of the river.

4. Chickahominy Lake: Several commercial marinas operate along the shores of the Lake and lower sections of the river. Some rent small motor boats, and canoes can be rented near Providence Forge. Explore!

5. Marshes: Chickahominy Wildlife Management Area has a public boat ramp on Morris Creek which is lined by wide marshes and winds its way to the tidal lower river.

HOW YOU CAN HELP

- Be a [BayScaper](#): Prevent erosion by keeping your yard vegetated and by using splash blocks at downspouts.* Leave natural plant buffers near streams. * Plant native trees and shrubs for wildlife habitat and to hold soil in place.* Refrain from over-fertilizing lawns and gardens.
- Recycle used motor oil and antifreeze; don't dump in the storm drain.
- Developers and contractors can install effective anti-siltation devices to keep exposed soil from washing into streams during construction.
- Farmers and loggers can employ Best Management Practices to protect water quality.