Dan River Basin Watershed

<u>Size:</u> 3,300 sq miles <u>Linear Stream Miles:</u> 11,123 <u>Lake Acres:</u> 25,042 <u>Federal & State Conservation Acres:</u> 45,946 <u>Other Conservation Acres:</u> 42,858 <u>Counties:</u> 8 full, 8 partial



The Dan River has its origin on the eastern slope of the Blue Ridge Mountains in Patrick County, Virginia. From there it travels 200 miles, passing through Stokes, Rockingham, Caswell and Pittsylvania Counties, before reaching Halifax County, where it enters Kerr Reservoir near the town of South Boston, VA. Along the way, it is fed by five main tributaries - the Smith, Mayo, Sandy, Hyco, and Bannister Rivers. The Dan River Watershed forms part of the headwaters of the Roanoke River Basin, which feeds the Albemarle Sound in coastal North Carolina, part of the second largest estuary in the United States. The largely un-developed Dan River Basin is a well-keptsecret, bursting with natural, cultural and recreational resources.

Virginia

North Carolina

The basin has long supported a diverse abundance of life, including rare and endangered plants, animals and aquatic organisms. The Virginia cup-plant, goldenseal and small-anthered bittercress are a few examples of endangered plant species that can be found on the shores of the Dan River and its tributaries.

The Virginia Commonwealth has every natural bird or animal habitat that occurs between Maine and Florida; this rich diversity is celebrated by the Virginia Birding and Wildlife Trail. Several of the loops on the trail traverse the Dan River Basin, including the Fairystone, Turkeycock, Southwest Piedmont and Dan River Loops. These driving loops take you on a tour of the many state parks, reservoirs, nature preserves, hiking trails and scenic overlooks that offer a first-hand experience of the abundant wildlife that thrives in the Basin.⁽⁵⁾

Unfortunately, the Basin has not been immune to the widespread impairment of waterways throughout Virginia and North Carolina, however low rates of development in the area have preserved the pristine quality of most rivers & streams. The Basin's waterways are an exceedingly rare stronghold of endangered aquatic organisms, such as the James spiny mussel, a small freshwater mussel that is now found only in the upper tributaries of the James and Dan River basins.⁽²⁾ The Roanoke logperch, a small fish often found in rivers and streams with very low turbidity, is another endangered species that has managed to persist in the basin's clear waters.⁽³⁾



Fall hunting for wild turkeys is a long-established tradition in the Basin. Turkey and other wild game were staple food sources for settlers who explored the area in the 17th, 18th and 19th centuries. Natural Heritage inventories conducted in Stokes and Rockingham, NC were able to identify nineteen unique natural areas that are significant on the regional, state and national level. Ongoing efforts by the Piedmont Land Conservancy, Dan River Basin Association, Natural Resources Conservation Service and others aim to protect and enhance the ecological function of the Dan River Watershed to ensure the long-term viability of its natural resources.⁽²⁾



Aside from plant & animal habitat, the Dan River Basin also supports a culture that has historically been rich in farming and forestry. Prior to and during the arrival of European colonists, the Dan River Basin area was home to many Indigenous tribes, notably the Sappony. The Sappony settlements of Upper and Lower Sawra/Cheraw were in what was mapped in 1749 as Anson County, North Carolina (modern-day Stokes and Rockingham Counties). Additionally, throughout the centuries, the Sappony traveled and settled widely throughout the entire river basin, including many locations in what were mapped in 1749 as Lunenburg and Brunswick Counties in Virginia and Granville County in North Carolina (modern-day Patrick, Henry, Halifax Counties in Virginia and Caswell and Person Counties, North Carolina). Living along the Staunton (originally the Sappony River) and Nottoway Rivers and tributaries of the Dan River, such as the Sandy River, Flat Rock Creek, Blue Wing Creek, and the Hyco-o-tee River afforded tribes access to food, transportation, and trade.

As European economy and power progressed, tobacco became an important cash crop in the area; the Brightleaf tobacco curing process originated in Caswell, bringing great wealth to the area. Prior to the Civil War, Caswell was one of the wealthiest counties in North Carolina as evident by its collection of Antebellum homes, one of the largest in the state.⁽¹⁾ In the late 18th century and early 19th century, the Danville and Western and the Norfolk and Southern Railroads made it much easier for tobacco to be grown, processed and sold from towns such as Martinsville, Danville and Halifax. The railroads also made timber production more viable and companies moved in to harvest timber from the Basin, which was used to meet demand in the Northeastern and Midwestern U.S, where forest resources had been greatly depleted.⁽³⁾



While forestry still plays an important role in economy of the Basin, the advent of companies like R.J. Reynolds in Winston-Salem, NC meant the consolidation of small farms and factories. With the decrease in tobacco farming came the furniture and textile industries. Cities like Bassett, Martinsville, Danville, Eden and Roxboro saw a boom in industrial mills, however, many of these jobs would be outsourced globally beginning in the 1970's. This decline in manufacturing lead to a major economic slump that persists today.

As more and more nature and adventure-seekers are beginning to realize, the opportunities for outdoor recreation in the Dan River Basin are unlimited. There are many local, state and national parks and recreation areas, including Hanging Rock State Park in Stokes County, NC, Mayo River State Park in Rockingham County, NC and the Blue Ridge Parkway and Rocky Knob National Recreation Areas in Patrick County, VA.

The movement to create networks of Greenways & Blueways throughout the basin has taken off in the past several years. Counties and Municipalities have embraced efforts to create recreational amenities that highlight the unique heritage of the area, such as the Dick & Willie Passage Trail in Martinsville/Henry County, VA. This 4.5 mile paved trail follows the route of the old Danville & Western Railroad, a key piece of the basin's history.



The number of river access points on the Dan and its tributaries has greatly increased, providing more opportunities for fishing and paddling. Prior to 2001, there was only one river access on the Smith River in Henry County, today there are eight. The basin can accommodate paddlers of any nature. The fast-moving white-water runs of the Dan River in Kibler Valley eventually turn into slow, relaxing floats as the Dan crosses the Virginia/North Carolina border. The many lakes and reservoirs of the basin serve as attractions for outdoor enthusiasts who enjoy fishing, paddling or wildlife viewing.



According to "Adventures in the Dan River Basin", there are 21 dams in the Dan River Watershed. These dams, some of which are no longer operable, power mill operations, provide industrial cooling, generate electricity and provide recreational opportunities.(4). Some of the larger dams also serve as a defense against damaging floods. While downstream, the dams have interfered with the spawning habits of native fish such as the Hickory Shad, they've also created some excellent fisheries. A great example of this is the Smith River below Philpott Dam. The Smith is one of the most productive Trout fishing tailrace streams in the State of Virginia.

The Dan River Basin Association is currently working with entities such as the Virginia Department of Game and Inland Fisheries and the Army Corp of Engineers to regulate flow rates from electricity-producing dams in a way that will improve fish habitat while also making the rivers more recreation friendly.



The Dan River Basin is largely rural, with less than five percent of land mass having seen city or town development. Despite this, a considerable number of the basin's assessed waters are considered impaired, with over half of these impaired waters citing higher than acceptable levels E.Coli. The rate and nature of impaired waters in the basin indicate historic and on-going degradation of water resources, a result of pollution from agriculture, forestry, and manufacturing practices.⁽³⁾

"Perhaps the largest threat to the watershed is that the Virginia-North Carolina state border divides it. The Environmental Protection Agency (EPA) gives mandates to State environmental agencies on standards and protocols for water quality monitoring based on their region. The Virginia DEQ and North Carolina DEQ do not work across state borders. Virginia is in the EPA Region 3. whereas North Carolina in EPA Region 4.



Virginia is in the EPA Region 3, whereas North Carolina in EPA Region 4." $^{\scriptscriptstyle (3)}$

Thanks to the many entities that recognize the importance of protecting the Basin's invaluable resources, there are several ongoing initiatives aimed at conserving critical aquatic and land habitats. The Dan River Watershed Protection Initiative, led by the Piedmont Land Conservancy, has been able to protect 2,248 acres of habitat in Stokes and Rockingham Counties.

There are also ongoing efforts by the Department of Conservation & Recreation and the Department of Environmental Quality in partnership with local entities to implement projects aimed at restoring water quality. Since 2002, the Dan River Basin Association (DRBA) has been coordinating initiatives to protect the natural and cultural resources of the watershed. DRBA offers educational programs that teach children and adults the value of protecting their environment and hold regular community clean-up events. The organization also helps localities develop public river and trail facilities that increase access to nature and encourage healthy lifestyles. Aside from these programs, DRBA advocates for sustainable economic development based around the smart-use of the Basin's abundant natural and cultural resources.



1 - Caswell County, NC Website. Accessed February 2013. http://www.caswellcountync.gov/faq.htm.
2 - Piedmont Land Conservancy. Accessed Online February 2013. http://www.piedmontland.org/sites/Dan_River.php.
3 - Piedmont Triad Regional Council & Dan River Basin Association. "Dan River Basin Watershed Assessment". Published 2012.
4 - Altman, Forrest.
"Adventures in the Dan River Basin".
5 - Virginia Department of Game and Inland Fisheries. Accessed Online February 2013. http://www.dgif.virginia.gov/vbwt/