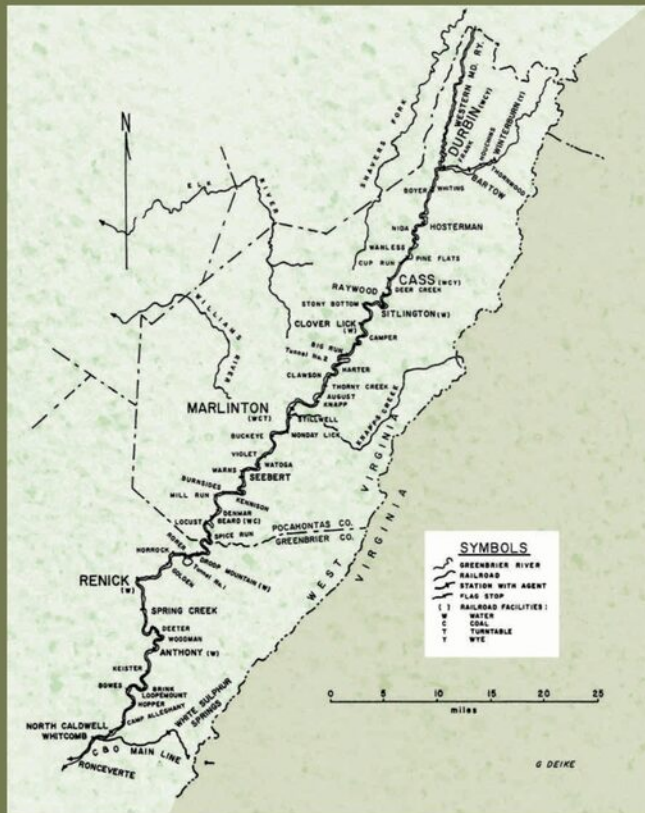


A DIVISION THAT UNITED THE VALLEY



FROM UNDER A MOUNTAIN TO THE STARS

The 402-foot-long Droop Mountain Tunnel was completed in 1900 to shortcut a 2.5-mile horseshoe bend in the river. Note the “tell tale” outside of each end, a horizontal bar with ropes hanging down to warn a brakeman riding on top of the train of an approaching tunnel.

On top of the mountain is the site of the Battle of Droop Mountain on November 6, 1863, the last major battle of the Civil War in West Virginia, now a state park.

Photo shows engineers from the National Radio Astronomy Observatory at the tunnel's south end in 1961 testing a mock-up of a telescope bearing for clearance. The 17.5-foot-diameter nickel-steel hemispherical bearing, the largest ever made, was limited in size by the height of the tunnel it had to go through, thereby dictating the maximum size (140-feet) of the radio telescope they could build at that time! You can visit Green Bank Observatory near Cass Scenic Railroad to learn the history of radio astronomy and see all the telescopes.

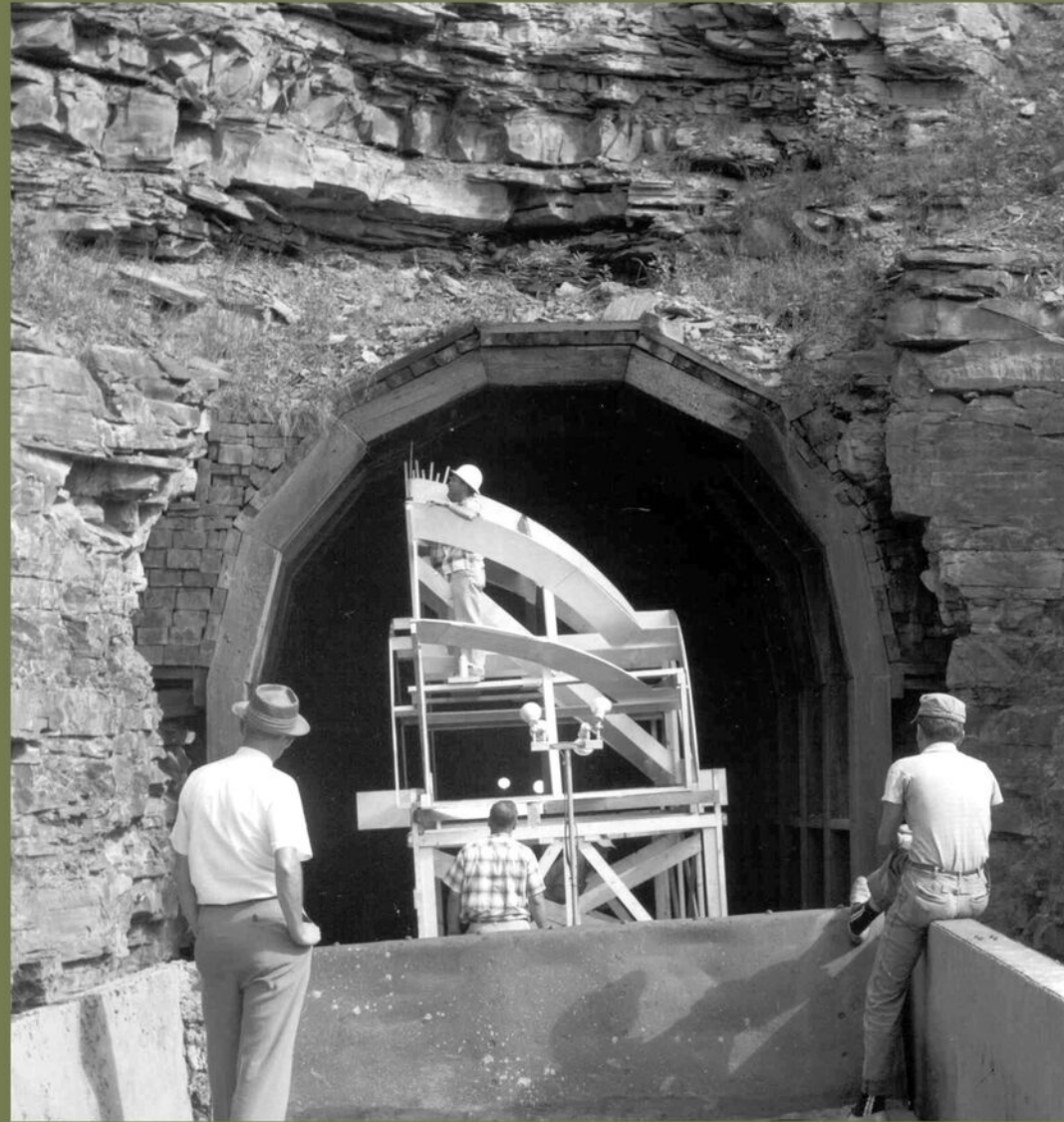


Photo: NRAO/AUI/NSF.

GREENBRIER COUNTY



Greenbrier County Courthouse in Lewisburg

Created by the Virginia Assembly from parts of Botetourt and Montgomery Counties in 1778, its name derives from Greenbrier River, a translation of “Rivière de la Ronceverte” given by early French-speaking explorers.

At 1,025 square miles, Greenbrier is the second-largest county in West Virginia by area. Much of its eastern half is dominated by karst topography, comprised of more than 1,500 caves formed in thick limestone bedrock underlying an extensive sinkhole plain. The largest of these have a collective length of 400 miles and include Lost World Caverns and Organ Cave, commercially open to visitors.

Public lands include Monongahela National Forest, Greenbrier River Trail, and Greenbrier State Forest. Large areas of the western part of the county are coal land or corporate forest. Also in the west is the Meadow River, whose headwaters comprise the second largest wetland in West Virginia and whose lower reaches are followed by the Meadow River Trail.

Farming is the foundation of the county's economy. Timber production and wood products reached its height in the early 20th century and remains an important industry today. Tourism, beginning over 200 years ago at several “healing springs,” is now preeminent at the world-renowned Greenbrier Hotel at White Sulphur Springs. The historic county seat of Lewisburg, voted “Coolest Small Town in America,” is a major regional tourist center.

POCAHONTAS COUNTY

Created by the Virginia Assembly from parts of Bath, Pendleton, and Randolph counties in 1821, it was named in honor of Pocahontas, the Powhatan princess associated with European settlers of the 1607 Jamestown colony.

At 942 square miles, Pocahontas is the third-largest county in West Virginia by area. Called the “Birthplace of Rivers” for the headwaters of eight rivers arising therein, much of the county lies within the Monongahela National Forest. Watoga, Droop Mountain Battlefield, Beartown, and Cass Scenic Railroad State Parks, as well as the Greenbrier River Trail and two state forests, add to the extensive public lands.

Also open to the public near Cass, the campus of Green Bank Observatory contains the world’s largest fully-steerable radio telescope and seven others. All of the county lies within the National Radio Quiet Zone, so especially in northern Pocahontas, mobile phones may not receive cell tower signals.

Although farming has been a mainstay of the county’s economy, the cutting and milling of timber boomed for several decades, peaking about 1909. Tourism is now the largest industry. Snowshoe Mountain Resort, located at an elevation of 4,848 feet, 28 miles north of the county seat of Marlinton, offers premier winter sports. Its other three-season activities complement the year-round adventures available throughout Pocahontas County.



Pocahontas County Courthouse in Marlinton

THE LIFE OF SPICE

Spice Run Lumber Company was organized in 1910 and began operations on this site in 1913. The band mill was located between the C&O Railway (now Greenbrier River Trail) and the river, and the town was on the other side of the tracks. Those sturdy concrete bridge piers you see in the river supported a railroad carrying timber from an 8000 acre tract on Spice and Davy Runs on the east (opposite) side of the Greenbrier River.

In 1915, construction started five miles upriver (MM 40.9) on a long railroad branch line running west from the C&O through challenging terrain, up Mill Run and across Droop Mountain to a 7000-acre tract on Bruffeys and Hills Creeks. By 1925 the trees had all been cut and the sawmill was closed.

Spice Run was named after a native shrub, *Lindera benzoin*, known as “spicebush”, which still grows prolifically along the Trail and in the 6000-acre Spice Run Wilderness area of Monongahela National Forest.



*Spice Run Lumber Co. sawmill and town, 1913-1925. The bridge piers in the river and only one of the original 50 houses are all that remain.
Photo: West Virginia and Regional History Collection, West Virginia University Libraries.*

REPURPOSING DENMAR



West Virginia Colored Tuberculosis Sanitarium prior to the 1939 hospital. Note the large awning windows of the "solariums" on the second floor porch and adjacent building. Patients would lie at bed rest there breathing the fresh air for several hours per day.
Photo: West Virginia and Regional History Collection, West Virginia University Libraries.

The station was established in 1910 at the sawmill town of the Maryland Lumber Company and named for its president, J. A. Denison, and the company (Den-Mar). In 1917, the State of West Virginia bought and repurposed the 185-acre town as the West Virginia Colored Tuberculosis Sanitarium. A new hospital building was completed in 1939.

In 1957, Denmar was converted to a hospital for the chronically ill. In 1993 it was repurposed once again to the medium-security Denmar Correctional Center, which now also includes the Greenbrier Birthing Center for pregnant Federal inmates.

The logging railroad bridge piers are still visible at MM 39.8. The 16,726-acre logged land is now Calvin Price State Forest and part of Watoga State Park.

Previously called "consumption" for its body wasting, pulmonary tuberculosis (TB) was associated with crowded conditions. Sanitariums were long-term TB medical facilities of the late nineteenth and early twentieth centuries. Fresh air and the higher altitude of places such as Denmar (2,200 ft.) were thought to be beneficial. Although antibiotics and newer treatments ended sanitariums, TB still kills millions worldwide. Buried in the hospital cemetery are 277 former TB patients.

RAFT TO RAIL

FLOATING THE LUMBER TO MARKET

Following the Civil War, two major changes occurred in the lumber industry in the Greenbrier Valley. The first was completion of the Chesapeake & Ohio Railway from Virginia, across Greenbrier County and on to the Ohio River. The second was the change from water-powered to steam engine-powered sawmills, the latter capable of producing much more lumber than could be sold locally. The new C&O rail line provided access to national markets, but the primitive roads of the period restricted the distance lumber could be hauled economically to the railroad by wagon.

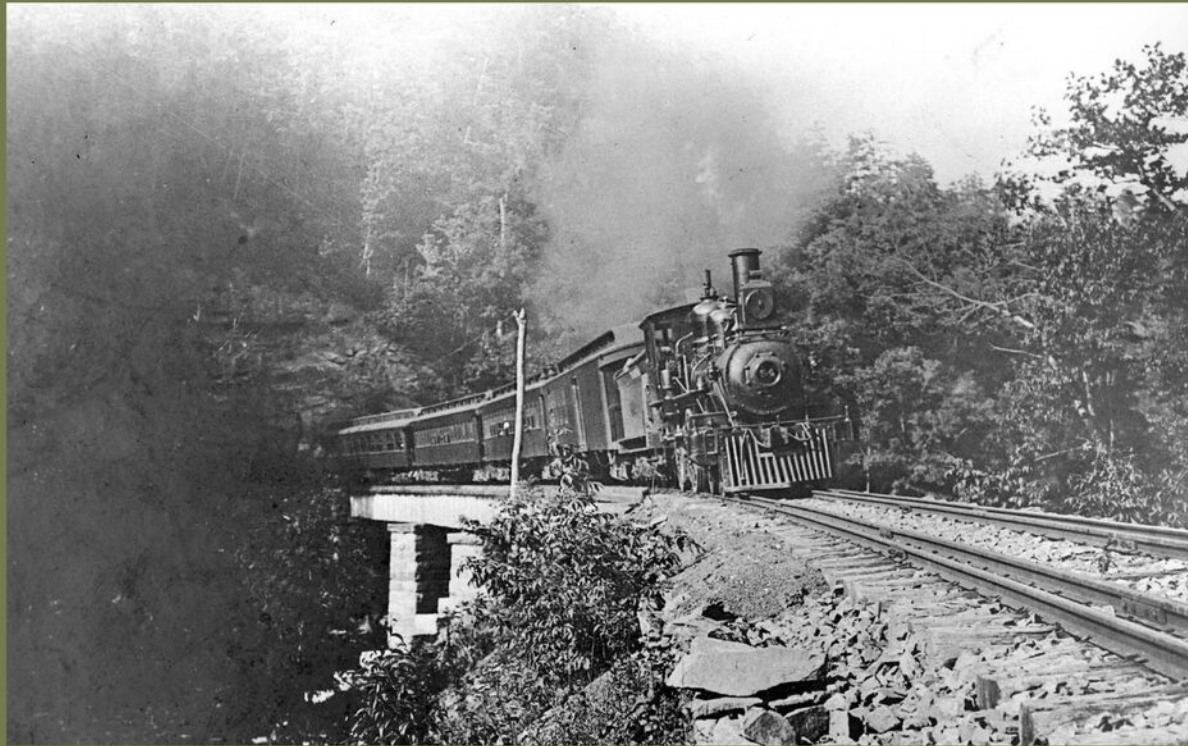
The solution, starting in the early 1880's, was to construct rafts of the lumber. Walnut, cherry, cucumber, and ash would float, but not the more dense oak. Most rafts started at Marlinton, were up to 120 ft. long and 18 ft. wide, and drew no more than 18 inches of water.

A skilled pilot had to know every rock, rapid, shoal and current to avoid wrecking the raft. For the \$5 he got paid, he still had to walk the 46-land miles back home the next day. The building of a rail line up the Greenbrier River in 1899-1902 ended lumber rafting, with the last one going down the river in 1902.



With a four foot rise in the river, a raft could run the 65 miles to Ronceverte in 13 hours. This only known photo shows the 30-foot steering oars, front and back. Photo: Pocahontas County Historical Society.

BETWEEN A ROCK AND A HARDER PLACE



*Steam-powered passenger train passing through Sharps Tunnel and crossing the river, headed south to Ronceverte.
Photo: Pocahontas County Historical Society.*

This bridge and Sharps Tunnel is the iconic spot on the trail. Built in 1900, it is the original bridge, the only major bridge not replaced in the rail-line upgrading in 1929. A problem occurred during construction when the curved steel girders arrived facing the wrong way on the railroad car! An emergency wye track had to be built at Marlinton to turn them around.

The 511-foot tunnel, one of two on the Greenbrier Division, was built to avoid a long bend in the river and an extra mile of railroad. The name comes from the Sharp family who granted the land.

Less than a half mile south is Harter, the location of the sawmill and town of the Harter Brothers Lumber Company (1903-1912). Their unusual railroad suspension bridge was built to replace an original bridge destroyed by an ice mass moving down the river in January 1904.

BEE CAREFUL IF YOU LICK THE CLOVER

Clover Lick's name comes from the white clover and salt licks found here that attracted large numbers of deer. In 1882, a steam-powered sawmill was located at the mouth of Clover Creek. The railroad's arrival in 1901 sparked several more timber-related businesses, a mill on the west side of the tracks (1901-1904) for production of barrel staves and the DeRan Lumber Company sawmill (1905-1911) located a mile up Clover Creek. The F.S. Wise & Sons lumber mill (1913), later under other names, operated on the other side of the river until 1929, then sold its 10,800 acres to become most of Seneca State Forest.

Ticket sales at Clover Lick depot were discontinued in 1952 but it remained a flag stop until passenger service ended in 1958. Later the depot was moved to another location away from the tracks, but was moved here in 1995.



The depot in the mid 1950's. Note the water tank for steam locomotives (background right) adjacent to the depot at its former location 150 feet south of present site. Seen here also is a self-propelled railcar (no separate locomotive) that carried passengers and freight, nicknamed a "doodlebug," that came into use to save costs as railroad traffic declined. Photo: Jack and Barbara Coyner Collection.

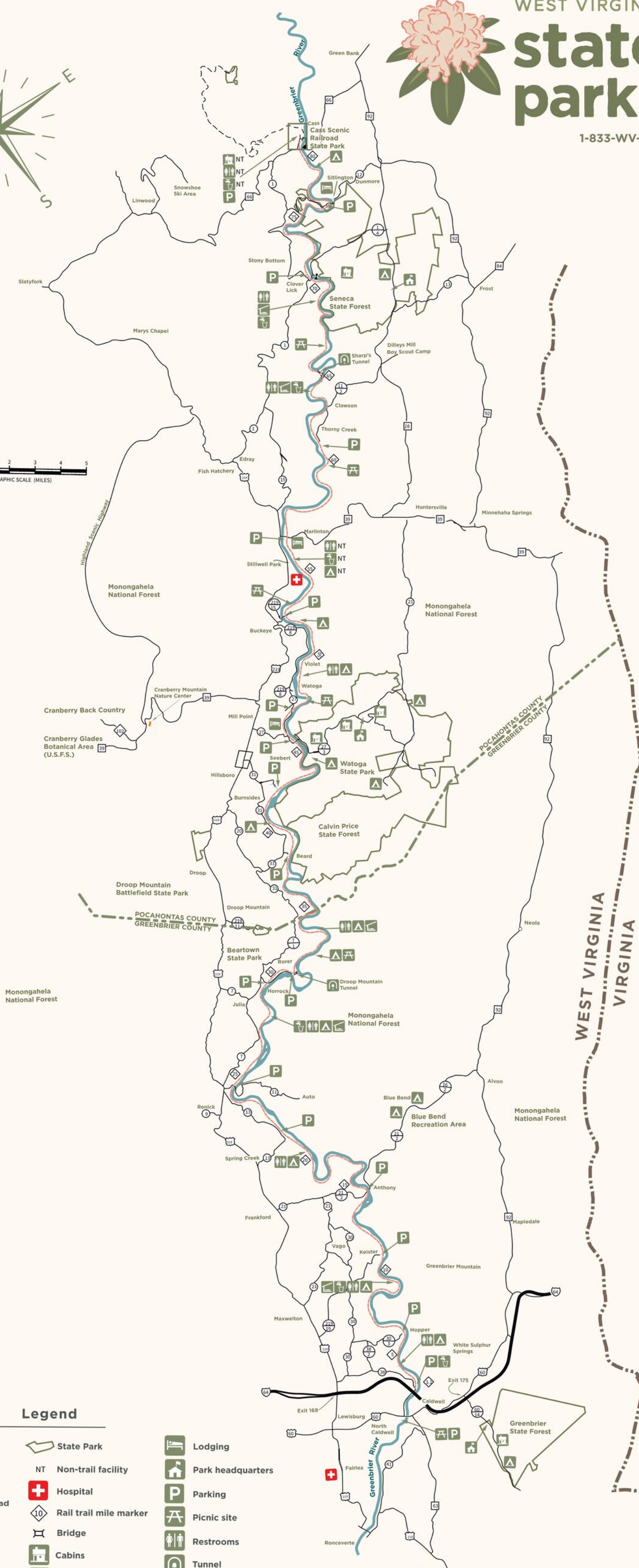


WEST VIRGINIA state parks

GREENBRIER RIVER TRAIL

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0 1 2 3 4 5
GRAPHIC SCALE (MILES)



Legend

- | | | |
|----------------------|------------------------|-------------------|
| Rail trail | State Park | Lodging |
| State line | NT Non-trail facility | Park headquarters |
| County line | Hospital | Parking |
| Cass Scenic Railroad | Rail trail mile marker | Picnic site |
| Interstate | Bridge | Restrooms |
| U.S. Route | Cabins | Tunnel |
| WV State Route | Camping | Water |
| WV County Route | Camping shelter | |
| Forest Route | | |
| River | | |

ADVENTURE AWAITS

Scan this code with your smartphone's camera to access the exclusive West Virginia State Parks Interactive Vacation Guide.



WHY DOES THE GREENBRIER RIVER TRAIL START AT MILE MARKER 3.1?



Switching station at Whitcomb, WV, ca.1900-1920, looking east across the mainline Greenbrier River bridge. The start of the Greenbrier Division tracks (MM 0) is seen curving to the left behind the station. Photo: West Virginia and Regional History Collection, West Virginia University Libraries.

As you travel the Greenbrier River Trail you will see mile posts, also referred to as mile markers (MM). Distances on the Trail are calculated to a fraction of those. The Greenbrier Division of the C&O Railway started at Whitcomb (MM 0), 3.1 miles south of the southern trailhead where the mainline tracks cross the Greenbrier River.

When the Greenbrier Division was abandoned in 1978, there was still a prospect of commercial rail business at the industrial area around US 60 in Caldwell, so the railroad did not abandon the section of rail up to MM 3.1. However, by 1989 that was no longer viable and the remaining right-of-way was sold to private parties.

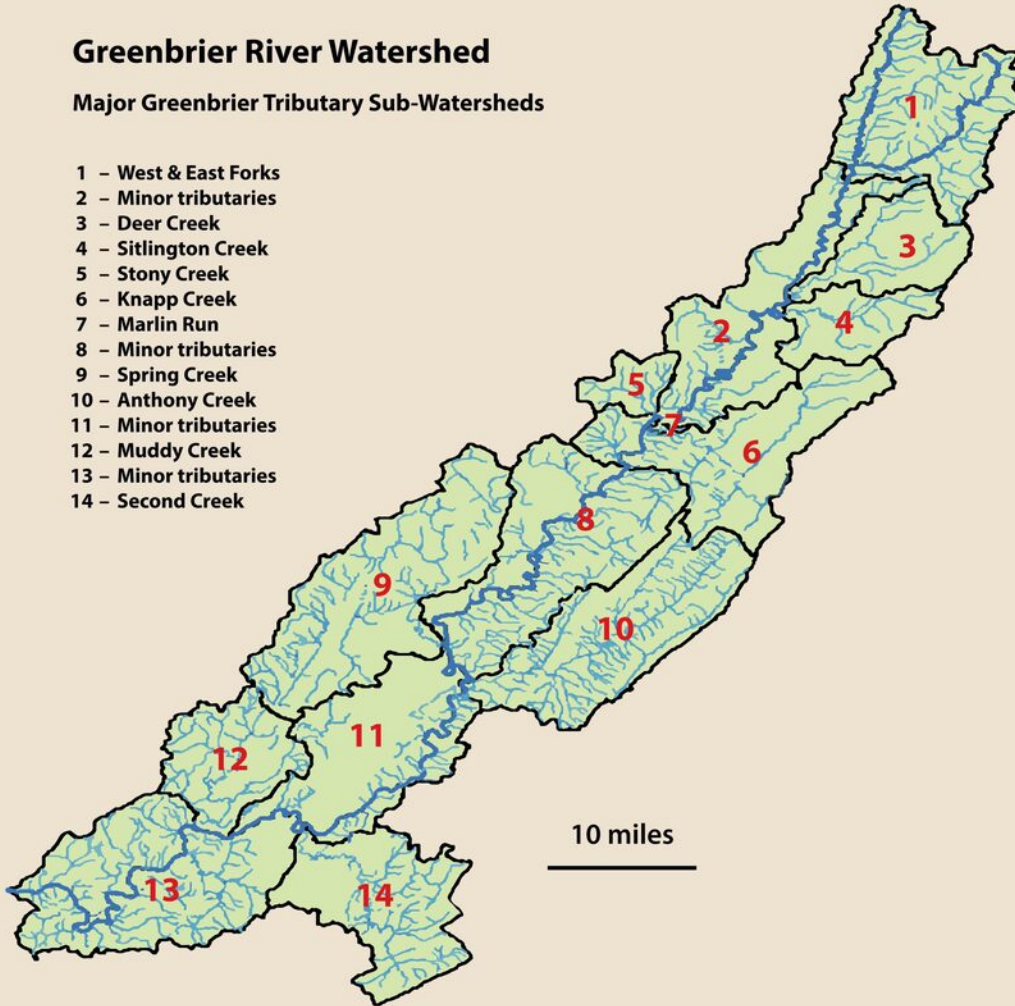
Lewisburg and White Sulphur Springs were never on the Greenbrier Division, but the idea of connecting them to the Trail via novel routes has been a dream for some. Perhaps, someday, this sign will need to be replaced because its information is outdated!

THE UNTAMED RIVER

Greenbrier River Watershed

Major Greenbrier Tributary Sub-Watersheds

- 1 – West & East Forks
- 2 – Minor tributaries
- 3 – Deer Creek
- 4 – Sitlington Creek
- 5 – Stony Creek
- 6 – Knapp Creek
- 7 – Marlin Run
- 8 – Minor tributaries
- 9 – Spring Creek
- 10 – Anthony Creek
- 11 – Minor tributaries
- 12 – Muddy Creek
- 13 – Minor tributaries
- 14 – Second Creek



Greenbrier River (heavy blue) and surface tributaries (light blue). Note areas with fewer surface streams, indicating karst geology with water flowing underground through caves. Image: A. Khatri-Chhetri, PhD, West Virginia University

From the headwaters of its East and West Forks in northern Pocahontas County, the 194-mile-long Greenbrier River is the longest free-flowing river in the eastern U.S. Flowing south-southwest, it joins the New River at Hinton, WV.

Most of the Greenbrier River watershed's eastern border is the WV/VA state-line ridge of Allegheny Mountain, which is also the Eastern Continental Divide. Therefore, its waters flow past New Orleans into the Gulf of Mexico via the New, Kanawha, Ohio, and Mississippi Rivers.

Much of the of the Greenbrier River watershed is karst, a dense concentration of sinkholes draining into extensive cave systems formed within the Greenbrier Limestone, an ancient rock stratum up to 400 feet thick.

The Greenbrier River watershed hosts the state's two endemic species of salamanders. Fish in the river include smallmouth bass, rock bass, brown trout, rainbow trout, brook trout, bluegill, carp, catfish, walleye, and muskie.

WHAT'S WITH THE HUMP?



The 2016 landslide created a blockage on the Trail 400-feet long and over 100-feet high. Photo: Jack OConnell.

Mile marker 13 is the only point of significant elevation on the Greenbrier River Trail, the result of a massive landslide that followed torrential rains in June 2016. Boulders tumbling off the cliff buried the unoccupied campsite below. Lives were lost and homes swept away elsewhere in Greenbrier County.

During the railroad days, MM 13 had been the site of many landslides blocking the passage of trains. Thanks to necessity and the efficiency of C&O Railway employees, they were rapidly cleared. This time it was determined that it was more cost effective to bow to Mother Nature and route the Trail over the slide rather than remove it. After being closed for more than a year, the continuity of the Trail was restored in July 2017.

A silver lining of this disastrous and humbling event is the beautiful view from “The Hump”. Keep an eye out for eagles who frequently perch in the trees across the river to take advantage of good fishing in the water below.

BOOM TO BUST TO NATIONAL TREASURE

West Virginia in the 19th Century was covered with dense old-growth forest. Before the Civil War, local lumber needs were supplied by water-powered sawmills.

The C&O Railway's mainline arrival ten years earlier sparked construction of the "Big Mill" in Ronceverte in 1882, but there would be no railroad up the Greenbrier for another 18 years. White pine logs could be floated downriver by lumberjacks during spring floods.

The mill's ravenous saws had a capacity of 110,000 board feet per day. Until it closed in 1908, it was the largest softwood lumber mill in the country.



The Greenbrier River was harnessed with dams, cribs, booms, and equipment at Ronceverte to receive and store millions of logs. Photo: West Virginia and Regional History Collection, West Virginia University Libraries.



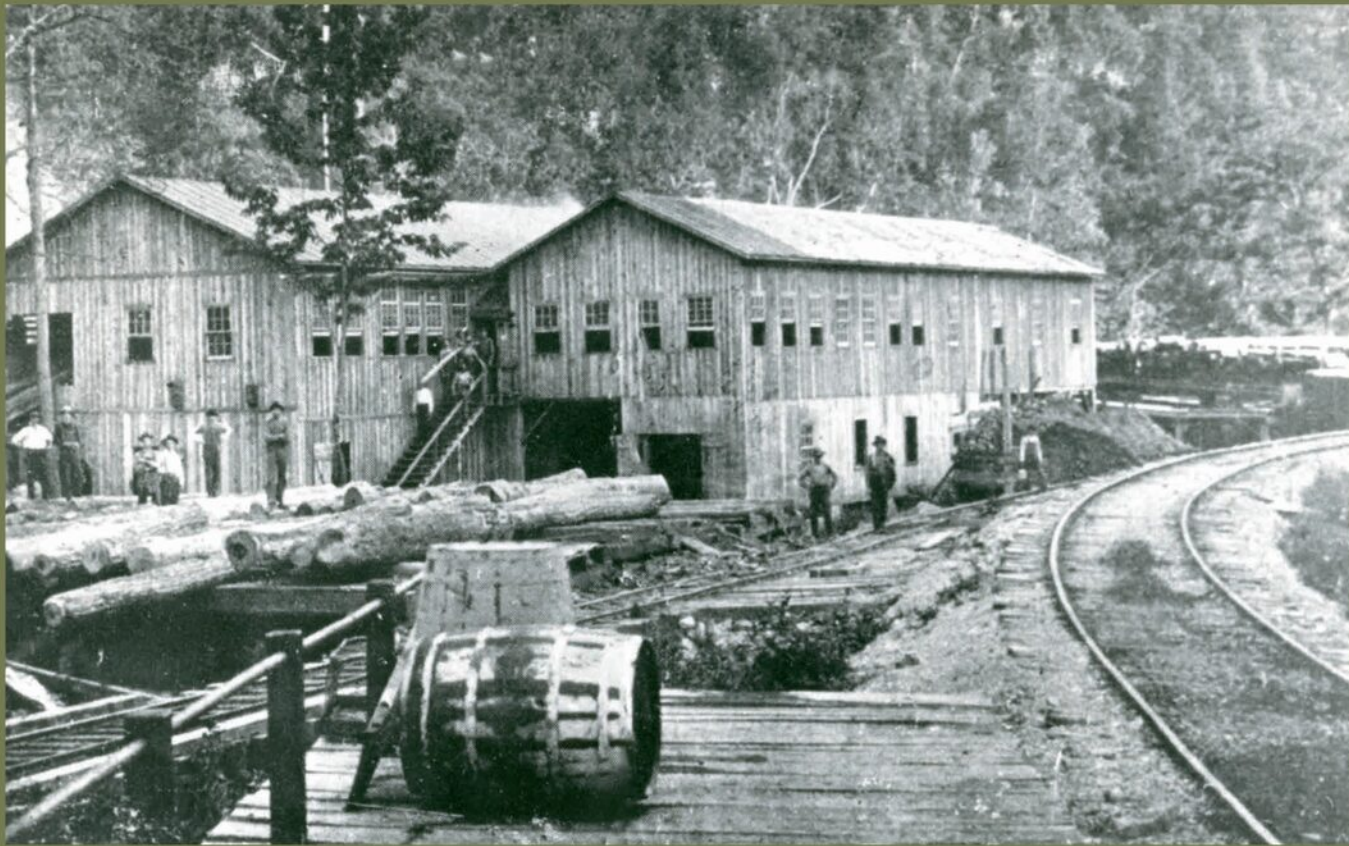
Much of the ravaged land in West Virginia was consolidated into the Monongahela National Forest starting in 1920. Photo: West Virginia and Regional History Collection, West Virginia University Libraries

The Greenbrier Division, a C&O branch line constructed north to Durbin in 1899-1902, was typical of the rail logging boom all over West Virginia. Sawmill towns mushroomed. Logging operations peaked around 1910, then declined into the 1920's with the forests eventually timbered out.

Promoters said the Alleghany Mountains virgin forest would never run out. It took only 40 years. Wildfires on the slash left behind burned thousands of acres. Accelerated runoff from denuded hills caused soil erosion, major floods, and degradation of watersheds. The mountain slopes became "The Lands Nobody Wanted."

Yet this availability of land and a new Federal law in 1911 allowed formation of the eastern national forests. This is now our shared national treasure.

THE BRIDGE TO WOODMAN



Donaldson Lumber Company Sawmill on C&O at Woodman, WV, 1913. Photo: West Virginia and Regional History Collection, West Virginia University Libraries.

“At Woodman is the Donaldson Lumber Co, one of the largest, most modern, and best equipped on the road,” according to a 1909 description. You can see the piers of the logging railroad crossing from the opposite side on “a metal structure set upon concrete piers that is as substantial as any bridge in the country.” Today only the piers remain.

The company worked a tract of 11,000 acres extending up Laurel Run, a tributary that joins upriver on the other side. Also on the opposite side was the company store, office, and employee housing. A 14-mile private narrow-gauge rail line carried logs to the sawmill at this site.

Named after company president Frank Woodman, it began operations here in 1906 and continued until 1915, when all their virgin forest had been cut. The land became part of Monongahela National Forest in 1936.

THE LOWDOWN ON KARST

As you travel the Greenbrier River Valley, you will encounter “karst” topography. Karst landscape features limestone rock formations that have been dissolved by flowing groundwater to form gorges, cavities, sinkholes, caves, and underground springs and streams.

Caves contain a fragile beauty unique to the underground world. Their streams and passages provide irreplaceable environments for specially-adapted, often rare species of animals, most of which could not survive elsewhere. The springs and streams are also a source of drinking water. But the porous nature of karst produces very high pollution potential. Streams and surface runoff enter sinkholes and caves and bypass natural filtration through soil and sediment. Groundwater can travel rapidly through these underground networks transmitting contaminants to wells and springs.

Unless watersheds are protected, these direct connections between the surface and the subsurface can threaten the quality of our drinking water. Protecting and preserving the environment is everyone's shared responsibility.



Numerous funnel-shaped sinkholes dot the landscape, leading to caves below. Photo: Bill Jones, Cave Conservancy of the Virginias.

SPRING CREEK STATION

One of the last of the major lumber operations on the Greenbrier Division, the Spring Creek Lumber Company sawmill (1920-1934) was located between the C&O Railway and the river. A separate logging railroad went up Spring Creek from the mill, crossing the C&O near this point. You can see the grade of that railroad from the south side of the bridge looking up Spring Creek to the west.



Spring Creek Lumber Company, 1920-1934. Photo: Pocahontas County Historical Society.



Temporary bridge over Spring Creek looking downstream on the Greenbrier soon after the track was completed to this point in 1900. Note the construction train on the bridge and, on a temporary siding, the string of camp cars which housed the construction crews. Photo: Pocahontas County Historical Society.

After the closing of the Spring Creek Lumber Company, the mill site was used by the S. J. Neathawk Lumber Company and later Greenbrier Lumber Company. Lumber operations ended here in 1977.

The Spring Creek railway depot was located 470 feet southwest of the current bridge, along with a section foreman's house, bunk house, and tool house.

The two concrete foundation blocks seen near the bridge are the bases of safety signals that were required at the intersection of the C&O and logging railroad tracks. About a mile north, there is a concrete remnant that was a base for a well house used by track workers.

AN ENTERPRISE FOR RENICK



A steam engine-powered machining building and dry kiln/storage building were used to prepare and season the oak lumber for rail shipment. Photo: Glen & Twyla Diehl Collection.

At this location, the Horrocks Desk Company of Herkimer, NY, had a factory for the preparation of quarter-sawn oak lumber. The facility seasoned the lumber and cut away waste, saving costs of shipping it to Herkimer, where it was made into furniture. Horrocks was part of the Standard Furniture Co., the largest producer of office furniture in the country.

In 1903, Horrocks purchased 1052 acres of timber on Droop Mountain and located a sawmill there. Additional timber was purchased elsewhere in Greenbrier and Pocahontas Counties. The site of a rail siding, located five miles north along the C&O, was named Horrock. The factory operated in Renick from 1904-1925.



Downstream view from near this location of the flooded Renick waterfront in the early 1900's. Note the covered bridge in the background. Photo: Glen & Twyla Diehl Collection.