

Middle Fork New River Restoration

Section 1B



Restoration Project Description

The Middle Fork New River (MFNR), located in Watauga County, flows through Blowing Rock and Boone before discharging into the South Fork New River. The MFNR is listed as impaired (Category 5) for benthos beginning from the source to Sumpter Cabin Branch (AU # 10-1-2(1)), meaning that the river is not currently supporting the diversity of macroinvertebrate life along the streambed. In 2017, New River Conservancy (NRC) developed a comprehensive watershed plan to address the impairment of the MFNR with the goal of improving water quality and ultimately removing the MFNR from the 303d impaired list. This watershed plan is available for the public and we know is being used by students from Appalachian State University.

NRC, in partnership with Blue Ridge Conservancy, Middle Fork Greenway, and Blue Ridge Resource Conservation & Development, secured funding from NC Land & Water Fund to conduct a topographic survey and geomorphic assessment, develop an engineered design, and secure permits for the restoration of the Middle Fork South Fork New River in what has been identified as section 1B in the Middle Fork New River Restoration Prioritization Plan developed by Jennings Environmental. This reach, known as Section 1B, was also identified in the watershed plan developed by NRC in 2017. This funding has resulted in completed engineered designs for the restoration of Section 1B. With the support of the Town of Blowing Rock, Watauga County, and other landowners, the partnership is moving forward to secure permits for future implementation.

Reach 1B, situated between Highway 321 and the Blue Ridge Parkway on both Federal and Town of Blowing Rock land, is highly unstable, with eroding streambanks, and poor riparian vegetation. The channel is located along the right side of the valley, against a steep valley wall. To the left of the stream are open, low-lying fields and the Blowing Rock Water Plant which is now being threatened by the severely eroded and meandering channel. The restoration approach for Reach 1B will include the following:

- Enhancement of the riparian buffer.
- Realignment of approximately 1,200 linear feet of channel to maximize floodplain access and width.
- Creation of off-channel wetlands for habitat and water storage.
- Creation of an education/interpretation area in the vicinity of the new river channel and wetlands possibly accessed via a spur trail from the Middle Fork Greenway.

Improving the water quality of the Middle Fork New River is vital because in the Blue Ridge Mountains, headwaters are the drinking source water. If the MFNR is suffering from sedimentation and over-widening due to erosion, then there is a risk of our water supply developing excessive algae that can be toxic to both animals and humans. Restoring the banks of this reach of the MFNR will lead to more opportunities for restoration throughout the rest of the impaired watershed and will, collectively, ensure that the source headwaters of the New River continue to improve and become more resilient to the development of the High Country.

This partnership is now pursuing funding for implementation of our designs from both NC Land & Water Fund and the federal 319 impaired waters program through NC Division of Water Resources.

Middle Fork New River Section 1B - Photosheet



NRC President, George Santucci, on river left observing the severe erosion along the property boundary of the Blowing Rock Water Plant.



Tortuous sinuosity and sedimentation observed looking upstream on Blue Ridge Parkway property.



NRC board member, Mike O'Connor, standing river left of an eroding stream bank on Blowing Rock property.

Middle Fork New River Section 1B - Photosheet



Jonathan Hartsell of Blue Ridge RC&D standing river left of a severely eroding stream bank on Blue Ridge Parkway property.

Riverbanks are actively eroding and have changed drastically over the last year further emphasizing the importance of this restoration project. Below are photos of the same location taken one year apart. The building visible in the photo is the Blowing Rock Water Treatment Plant - currently threatened by the erosion.



Middle Fork New River Section 1B - Photosheet

