



# STATE of our RIVERS

## French Broad River Watershed

Recreation in Western North Carolina's waterways has skyrocketed in the last decade. A growing number of people are appreciating the value of our beautiful mountain streams, rivers, and lakes. While recreational use is increasing, our water quality results are mixed.

We developed this guide to illustrate overall trends in water quality across different parameters over time. To do this, we synthesized benthic, fish, chemical, biological, and bacteriological data from different organizations, including NCDEQ, EQI, and MountainTrue. When comparing this year's report card to 2018's report, it is important to note that the way we process our water samples for E.coli at MountainTrue has changed. Up until 2018, we used an EPA-approved method using Coliscan Easygel. The results from this method were sometimes subjective and thus could be less accurate. In 2019, we switched to another EPA-approved protocol, using the Idexx system. Those results are quicker, more objective, and more accurate. This report card for 2021 includes E.coli data from both methods of analysis (2018 Swim Guide data using Coliscan Easygel, and 2019-2021 Swim Guide data using the Idexx system).

Overall, we observe a general decline in water quality. We attribute this to two primary factors – climate change and increasing construction and development throughout the watershed. Asheville and the surrounding region have experienced more frequent heavy rains in the last several years. This causes increased stormwater runoff from urban areas and agriculture operations and more sewer overflows and saturated septic fields surrounding failing septic systems. It also brings extra sediment into our waterways from construction sites and weak riverbanks, which can smother aquatic habitats, increase water temperature, and transport toxins into our rivers. All of this is happening during a period of unprecedented recreational growth on the river.

# FRENCH BROAD RIVER WATERSHED



We documented the most dramatic change in Transylvania County. In our 2018 report, the Upper French Broad got an A- grade. This year it dropped to a C-. We attribute part of this drop by our transition to new, more accurate E.coli sampling protocols. However, that doesn't explain the whole picture since other parts of the watershed didn't drop as steeply. Notoriously the wettest county in the state, this drop in water quality is indicative of the effects that a changing climate coupled with increasing development are having on our region.

On a positive note, the Nolichucky watershed went from a B+ to an A-. The watershed saw high grades in benthic and fish samples. Such pristine waters cannot be taken for granted, which is why we're advocating for the Nolichucky River between Poplar, NC, and Erwin, TN, to be permanently protected with a [Wild and Scenic Rivers](#) designation.

We're at a critical point in the history of the French Broad, and now is the time to comprehensively address the challenges we face. Visit our [I Love Rivers](#) campaign to advocate for comprehensive solutions that will help our waterways meet the goals of the Clean Water Act to have all waters be fishable and swimmable.

## WATER GRADING INFORMATION

- |  |   |
|--|---|
| <b>A</b> These streams have excellent water quality, low pollution levels and healthy aquatic insect and fish populations.   | <b>D</b> These streams have below average water quality. Pollution is a concern and aquatic life and fish populations are not as healthy as they should be. |
| <b>B</b> These streams have good water quality; but have some pollution inputs. The aquatic life and fish populations are mostly healthy.                            | <b>F</b> These streams have poor water quality. Pollution levels are often high and aquatic life and fish populations are not healthy or widespread.        |
| <b>C</b> These streams have average water quality. There are some concerns about pollution levels. Generally the aquatic life and fish populations are not thriving. |   |



**There are four sets of data that MountainTrue uses to formulate our water quality rankings for each stream including:**

- M** E. coli data taken by MountainTrue
- S** Aquatic insect data (SMIE) from the nonprofit Environmental Quality Institute
- V** Chemical data (VWIN) from the nonprofit Environmental Quality Institute
- Q** Chemical, aquatic insect, fish, and bacteria data from NC DEQ

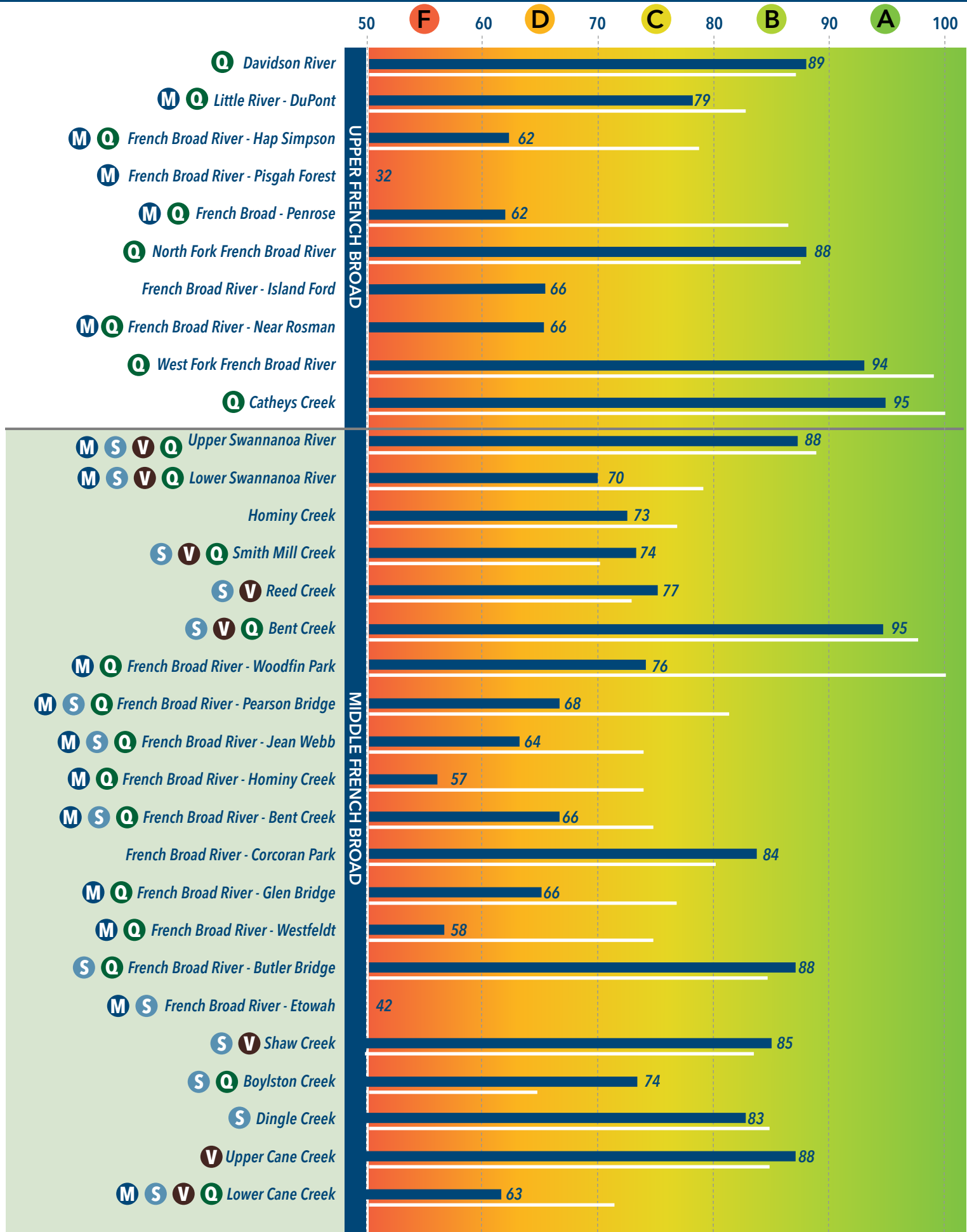




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50 **F** 60 **D** 70 **C** 80 **B** 90 **A** 100

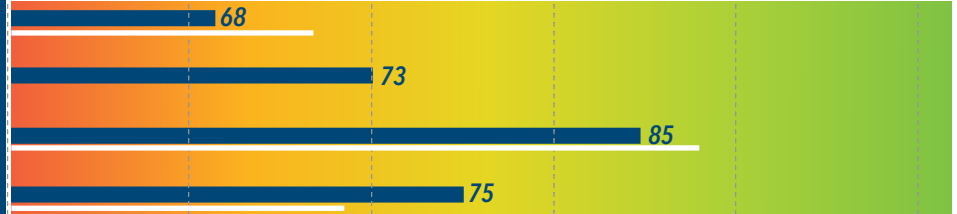
**M S V Q** Mud Creek

**S V** Mill Pond Creek

**M S V Q** Mills River

**S V Q** Clear Creek

MID FRENCH BD



**S V** Flat Creek

**S V Q** Newfound Creek

**S V** Turkey Creek

**S V Q** Sandymush Creek

**M S V Q** Reems Creek

**S V Q** Big Ivy River - Downstream of I-26

**S V Q** Big Ivy River - Upstream of I-26

**S V Q** Ivy Creek

**M V Q** Big Laurel

**M Q** French Broad River - Hot Springs

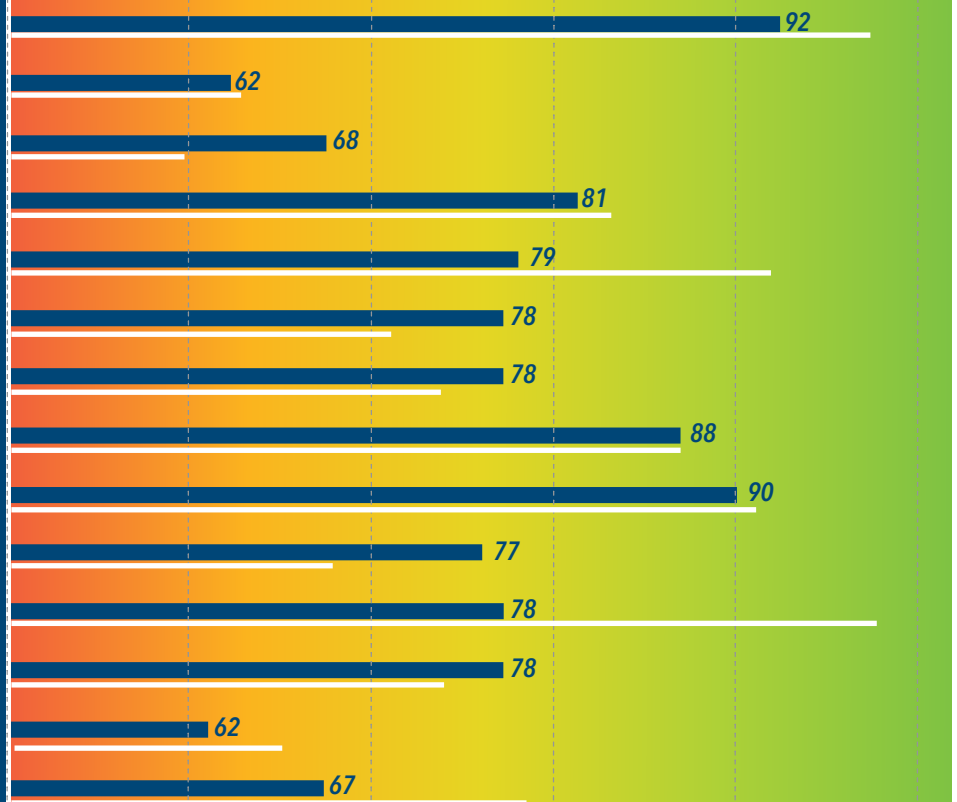
**M Q** Spring Creek

**M Q** French Broad River - Barnard

**S V** French Broad River - Walnut Island

**M S Q** French Broad River - Ledges Park

LOWER FRENCH BROAD



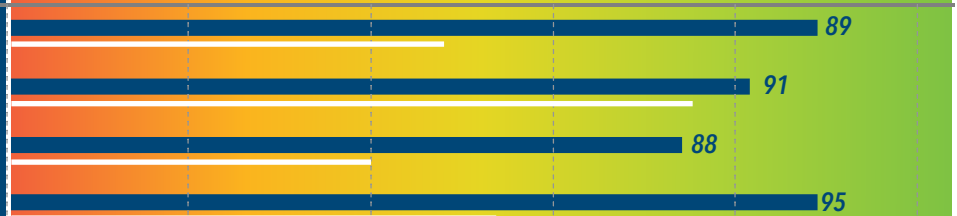
**Q** Nolichucky River

**V Q** Cane River

**V Q** North Toe River

**Q** South Toe

NOLICHUCKY



**M S Q** Pigeon-Below Walter's Power Plant

**S V Q** Fines Creek

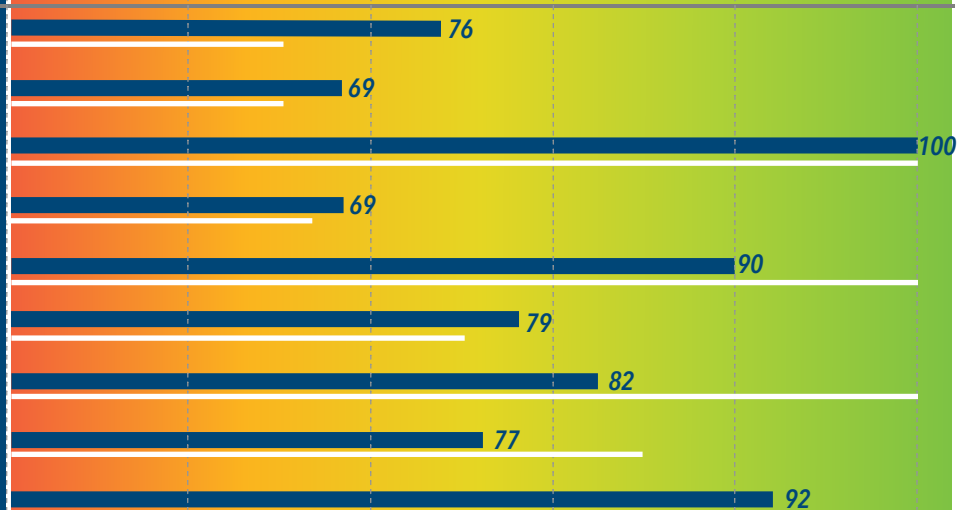
**V Q** Cataloochee Creek

**S V Q** Crab Creek/Ruse Fork

**S V Q** Jonathan Creek

**S V Q** Richland Creek

PIGEON



**S V Q** Pigeon River - Upstream of Canton

**M S V Q** Pigeon River - Below Canton

**V Q** West Fork Pigeon River