



Water quality conservation in the Ivy River Watershed



Our Mission

- To raise awareness and to facilitate voluntary projects with multiple partnerships in order to conserve the Ivy River Watershed and Madison County Waterways.

Water Supply Watershed History

- 1995 Water Supply Assessment
 - Big Ivy vs. Little Ivy
- 1997-2005 WADE Program
- 2006 Removed from 303(d) list (benthic integrity)
- 2010 Source Water Assessment Report (NC Division of Water Resources) Susceptibility Rating of Higher
- 2013 Source Water Protection Plan (Mountain Valleys RC&D, Madison County SWCD)
- 2014
 - Ivy River Partners formed
 - 303(d) list for fecal coliform
 - IRP Awarded EPA 319 Grant
- 2016 Weaverville Expansion

Legend

- Streams
- County_Boundaries
- Sub Watersheds**
 - Bull Creek
 - Dillingham Creek
 - Little Ivy Creek
 - Lower Ivy Creek
 - Upper Ivy Creek

Little Ivy History

- EPA's 303(d) List
 - Impaired for Benthic Integrity (Removed in 2006)
 - 2014 Impaired for Fecal Coliform
- Sources of Pollution
 - Agriculture
 - Septic Systems
 - Construction, I-26, Hwy 19
 - Types of Pollutants
 - Fecal Coliform, nutrients, sediment



Little Ivy Improvements

- \$2 + million spent to address pollution
 - CWMTF, NC DENR (WaDE), EPA 319,
 - Madison County SWCD- 30+ Livestock farmers have installed BMPs



Launching Ivy River Partners (IRP)

**IVY RIVER WATERSHED
SOURCE WATER PROTECTION PLAN**
Madison and Buncombe Counties, North Carolina



Prepared by:

Mountain Valleys Resource Conservation and Development Council
&
Madison County Soil and Water Conservation District

Financed by a Grant from:

The Pigeon River Fund
May, 2013

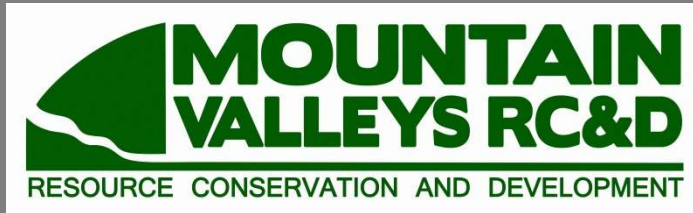


Z. Smith Reynolds
FOUNDATION



www.ivyriverpartners.org

A Partnership between:



**For Madison and
Buncombe County**

The Town of
Weaverville
NORTH CAROLINA

Ivy River Partners is sponsored by Mountain Valleys RC&D,
a non-profit organization.

Other Groups Involved

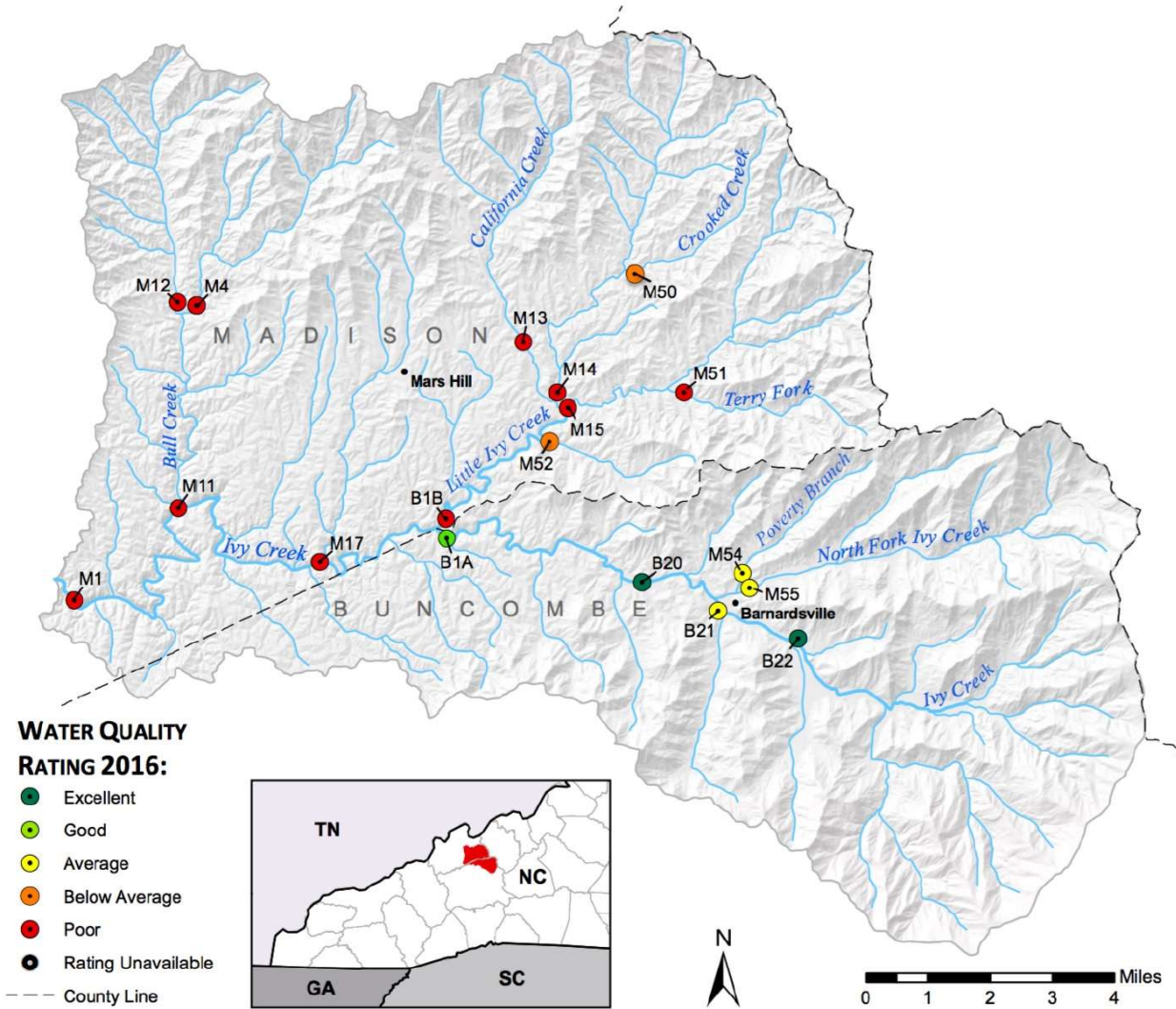


IRP: Monitoring

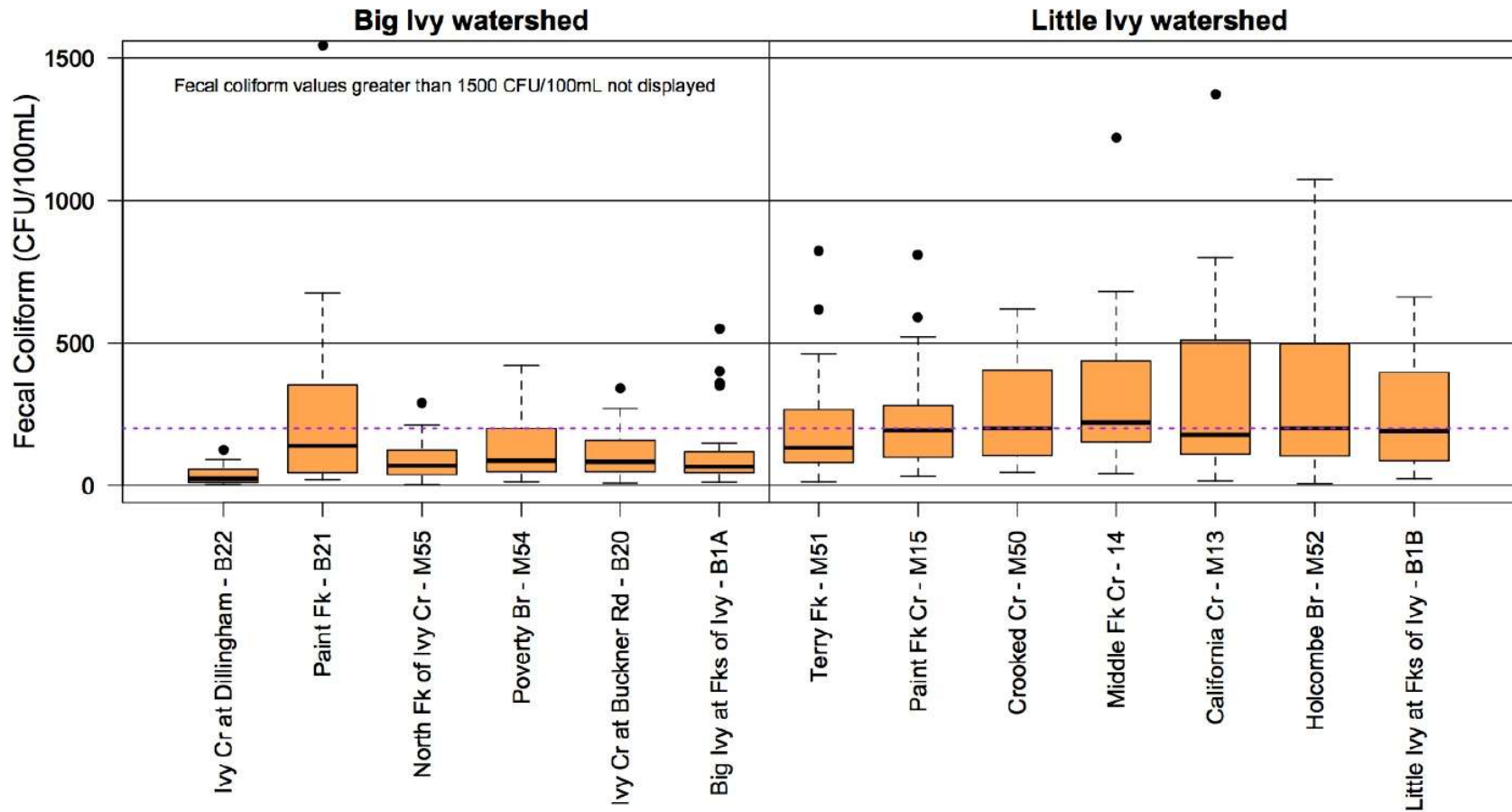
- What we test for:
 - Fecal Coliform
 - Ammonia and Nitrates
 - Phosphates
 - Turbidity
 - Total Suspended Solids (TSS)
 - Conductivity
 - pH
- Chemical- MHU and EQI (VWIN)
- Biological- EQI Stream Monitoring Info Exchange (SMIE)



2016 VWIN Water Quality Ratings

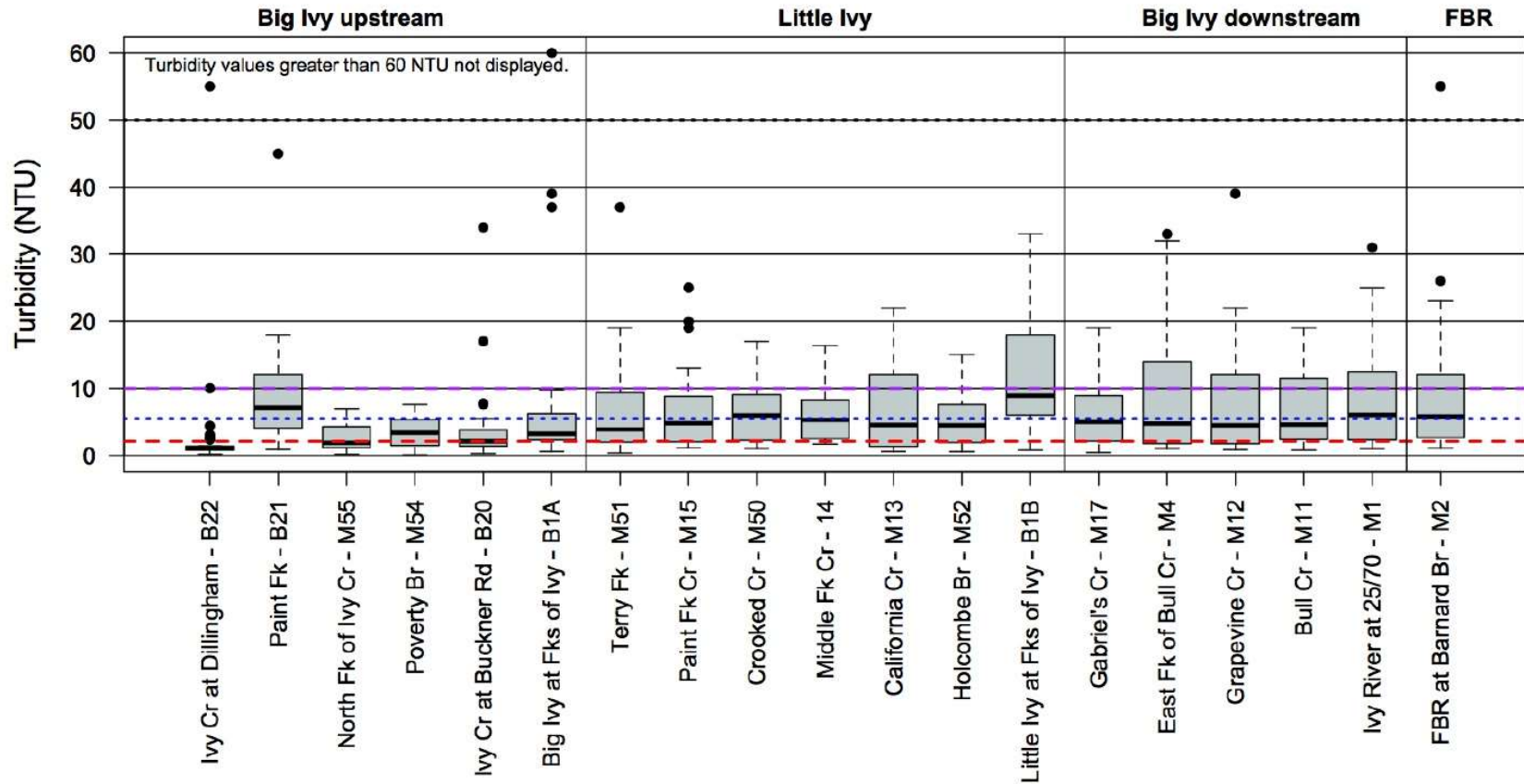


Fecal Coliform Results- 2014-2016



State regulatory limit = geometric mean of 200 organisms/100 mL in Class C Freshwaters (fishable/swimmable)

Turbidity Results- 2014-2016



Blue dotted line - Regional average median = 5.5 NTU
 Red dashed line - Forested average median = 2.1 NTU
 Purple dashed line - State regulatory limit for trout = 10.0 NTU
 Black dotted line - State regulatory limit for aquatic life = 50.0 NTU

IRP: Technical & Financial Assistance



- Septic System repairs and new septic systems to eliminate straight piping.





– Stormwater Wetland at Barnardsville Elementary

“Daylighting”- Culvert Removal



Stream Repairs/Streambank Stabilizations



Stream Repairs/Streambank Stabilizations





Stream Repairs/Streambank Stabilizations



Stream Repairs/Streambank Stabilizations



IRP: Outreach and Education



Kids in the Creek
Adopt-a-Stream & Stream Clean-ups
Events & Presentations
Shade Your Stream
Electronics Amnesty



Electronic Amnesty



Photo by Rob Amberg: Paw Paw Creek, at Anderson Branch, March 2016

TVs by Ivy Creek, September 2016



Electronics Amnesty- 830 TVs Recycled at Madison Landfill with funds from CFWNC and DWRF



Litter Cleanups- 24,460 lbs





Shade Your Stream- Free Workshops for landowners, students, etc.



Become Involved!

- Sign up to be a volunteer
- Adopt-a-Stream in the watershed or volunteer for stream clean-ups
- Sign up for our Newsletter
- Install a BMP
- Become a member/donate

Spread the word, talk to your neighbors

WWW.IVYRIVERPARTNERS.ORG