

## Blue Ridge Priority Waters Strategic Plan

### Priority Water: Blue Ridge, VA

Five-year Vision Statement: Five years from now, TU will have an established a program in the Blue Ridge region of Virginia focused on connecting high quality headwater habitat that serve as strongholds for brook trout by implementing strategic Aquatic Organism Passage projects to provide access to thermal refugia and build climate change resiliency into targeted patches of brook trout. The brook trout that exist on the western and eastern flanks of the Blue Ridge Mountains in Virginia are iconic and well recognized throughout the east because the majority trace their source waters to the Shenandoah National Park. The coldwater streams of the Shenandoah National Park are some of the most popular brook trout fisheries for anglers in Virginia but face increasing risk of dwindling habitat from warming water temperatures and persistent impacts from acid deposition. Over the next 5 years, TU will establish and develop the partnerships and funding necessary to staff a program dedicated to restoring and reconnecting habitat for

### Five-year Conservation Goals

1. **Sustain**-Maintain and expand funding and partnerships with private sources, state, and federal programs to facilitate long term programmatic presence.
2. **Sustain**-Continue to engage volunteers in assessment and monitoring activities to further develop environmental stewards in the watershed and expand our understanding of brook trout population dynamics in the priority area.
3. **Restore** – Further efforts to restore natural hydrologic functions, at a watershed and basin-scale, to increase resilience to climate change.
4. **Restore**- Expand existing efforts to restore instream and riparian buffer habitat to increase carrying capacity and resilience.
5. **Restore** – Repatriate brook trout to extirpated streams formerly within their historical range.
6. **Reconnect** - Reconnect headwater sources vital to spawning, rearing and forage by continuing to remove barriers to aquatic organism passage.
7. **Protect**-Facilitate long term protection of stronghold brook trout patches through land protection efforts and conservation easements.
8. **Protect and Sustain**- Continue to secure water quality and habitat protection via state and federal regulations.

### Primary Conservation Strategies

- Actively pursue new funding sources and maintain existing funder partnerships by developing competitive and objective driven grant proposals and agreements.
- Solicit assistance from volunteers for fish passage culvert assessments, water quality, habitat, and biological monitoring, advocacy activities at the local, state and federal levels, and engaging local college and university students in related fields of study for project development.
- Implement aquatic organism passage projects through cooperative restoration agreements with the United States Forest Service on public lands, and through United States Department of Agriculture Farm Bill Programs and Virginia Ag Cost Share Program (local Soil and Water Conservation Districts) on private lands.

- Implement best management practices on farms: livestock exclusion, alternative water sources, riparian buffer establishment, streambank stabilization, etc.
- Restore riparian forest buffers, aquatic organism passage, and in-stream habitat (Natural Stream Channel Design, Large Wood Material Techniques, Stream Simulation, and others)
- Monitor and assess brook trout populations in patches.
  - Conduct fisheries surveys.
- Identify additional source populations and candidate streams to re-introduce native strain brook trout within their historic range.
- Fisheries Management-Continue to support and promote actions by state and federal partners to improve brook trout fisheries.
- Assist landowners with the establishment of conservation easements to protect cold-water habitat on private lands.
- Continue to protect and improve water quality through regulatory functions and restoration actions.

#### Current Partners

- Army Corps of Engineers (regulatory functions)
- Local Soil and Water Conservation Districts (private lands restoration efforts)
- Farm Service Agency (private lands restoration efforts)
- Shenandoah National Park
- Local TU chapters (private and public lands restoration and monitoring efforts)
- National Fish and Wildlife Foundation (Funding to support public and private lands monitoring, assessment, and restoration efforts)
- Friends of the Rappahannock River
- Piedmont Environmental Council
- Virginia Environmental Endowment (Funding to support private lands restoration efforts)
- Natural Resources Conservation Service (private lands restoration efforts)
- United States Fish and Wildlife Service (private and public lands restoration efforts, regulatory functions)
- Private Landowners (private lands restoration efforts)
- United States Forest Service (public lands- Monitoring, assessment and restoration efforts)
- Virginia Department of Wildlife Resources (public and private lands restoration efforts)
- Virginia Department of Environmental Quality (private lands restoration efforts and regulatory functions)
- Virginia Division of Forestry (private lands restoration efforts)

#### Potential Partners and Affected Communities

- New and emerging local watershed groups
- Virginia Department of Transportation
- Counties of Nelson, Rappahannock, Madison, Greene, Albemarle, Page, Amherst, Augusta, Rockingham, Bedford, Botetourt.

## Decisionmakers

- Army Corps of Engineers (Regulatory functions for water bodies)
- Private Landowners (Manage private lands)
- Shenandoah National Park (manage public lands)
- United States Fish and Wildlife Service (Regulatory functions regarding Endangered Species and restoration actions)
- United States Forest Service (Manage public lands)
- Virginia Department of Environmental Quality (Water quality regulatory and funding)
- Virginia Department of Transportation (Aquatic Organism Passage barrier prioritization)
- Virginia Department of Wildlife Resources (Fisheries Management and regulatory functions)

The Blue Ridge Priority Waters is rich in coldwater habitat and the majority (73%) of the coldwater streams are allopatric brook trout streams. Below is a snapshot of summary statistics for the priority area.

### **Blue Ridge Priority Waters**

Total Area (sq miles)	1620
total coldwater streams (mile)	647
brook trout streams (allopatric and sympatric) (mile)	518
allopatric brook trout streams (mile)	473
Class I or Class II (mile)	482
% of public lands	~50%
allopatric brook trout streams/sq mile of area	0.29

# Blue Ridge Priority Waters

