

LAND USE ISSUES IMPACTING YOUR WATERSHED

- Increases in the amount of impervious surface (pavement) usually associated with development increases runoff that leads to increased sedimentation, increased water temperatures, and pollutants which compromises in-stream habitat.
- Lack of forest cover or tree canopy increases in stream temperatures, reducing viable fish habitat.
- Poor agricultural, forest, and land use practices degrade water quality parameters throughout the Chesapeake Bay watershed e.g. sedimentation, erosion, etc.

Four Easy Ways To Help

- Plant a tree near a stream
- Decrease areas of lawn
- Reduce development footprints
- Place lands in conservation easements

GET INVOLVED!

Plant riparian buffers

Restore brook trout habitat by planting native trees and shrubs, particularly adjacent to streams. Tree cover cools stream temperatures, and plant roots filter and capture sediment and pollutants that are degrading water quality.

Protect existing habitat

Protect high quality habitat that remains by keeping your land, particularly stream corridors, vegetated. Maintain new plantings as they grow and replace those that don't succeed.

Construct and maintain SWM facilities

Encourage your homeowner's association to naturalize stormwater basins and conveyance channels with native plants to help slow, cool, and filter runoff. Retrofit old stormwater basins, create rain gardens, and remove invasive plants so native plants can flourish. Make sure they are inspected regularly.

Get involved in land use decisions

Planning boards, conservation districts, townships, counties, and most public land management agencies ask for public input. Be there and ask the question "How does this decision affect waters that sustain wild Brook Trout?"

Consider placing a conservation easement on your property to prevent its future disturbance or explore other long term preservation options with watershed partners.

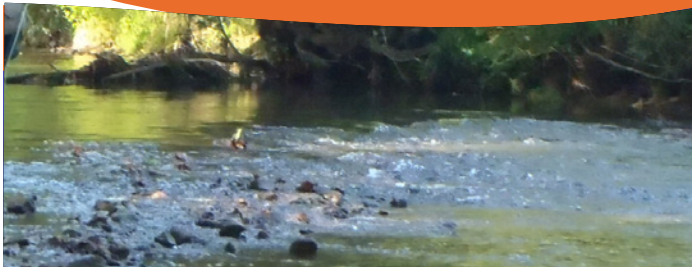
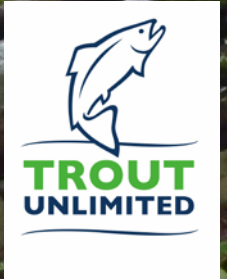
Be The Eyes and Ears of local land management

Be observant of changes to water quality and quantity. Sometimes these changes can be subtle, like changes in color. Sometimes they can be overt like channelization, damming, and poor land management. Contact your state wildlife agency when you see something that doesn't look right.

Aside from improving the water quality in your watershed, Prettyboy reservoir, and the Chesapeake Bay, you will also be helping to protect brook trout!

UPPER GUNPOWDER WATERSHED

BROOK TROUT PARTNERSHIP



ABOUT THE PARTNERSHIP

The Mission of the Upper Gunpowder Watershed Brook Trout Partnership:

A coalition of volunteers, community organizations, and governmental agencies, the Partnership works collaboratively to improve water quality and stream habitat, helping to conserve and restore brook trout populations in the Upper Gunpowder Watershed.

The purpose of the partnership is to:

- Ensure the protection and conservation of Maryland's remaining high quality habitat that supports brook trout populations.
- Return marginal stream habitat to a condition which will support the conservation and where feasible restoration of healthy historic brook trout ranges.
- Educate and engage landowners, emphasizing the importance and value of preserving the limited number of habitats in Maryland that support brook trout populations.
- Help land owners realize the full economic benefit of their property through best practices in conservation, forestry, and land management.
- Collaborate with private and public land owners to implement scientifically proven storm water management techniques that improve water quality in the Chesapeake Bay watershed.
- Connect private land owners with grant opportunities to improve land management practices.
- Promote land use and conservation strategies that respect land use rights while ensuring the protection of our water resources, habitat, and native flora and fauna.

BROOK TROUT IN UPPER GUNPOWDER

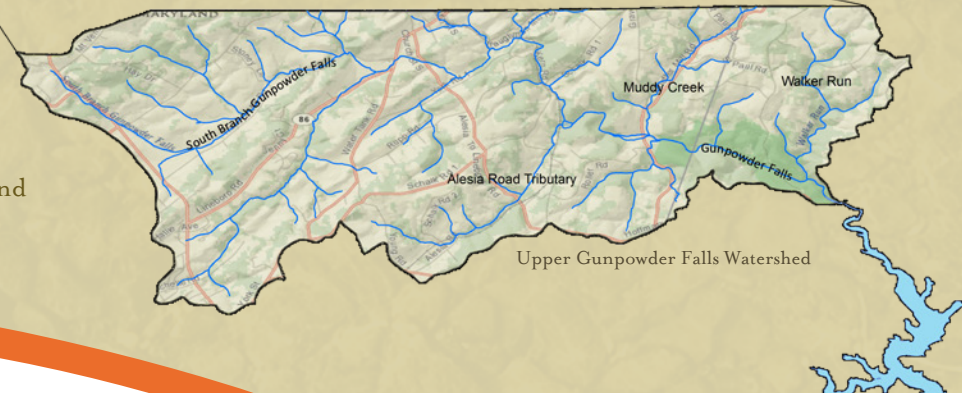
About Brook Trout

- Brook Trout are Maryland's only native freshwater trout species
- MD DNR has listed Brook Trout as a 'Species of Greatest Need of Conservation' in its Federally mandated Wildlife Diversity Conservation Plan
- Maryland's Gunpowder basin supports the second-highest number of brook trout in the state, holding 25.2% of the total Maryland population
- The vast majority (82%) of the remaining Maryland populations are classified as "greatly reduced", meaning that within the subwatersheds where they occur they occupy only 1% to 10% of the area that was historically inhabited
- Brook trout are an Indicator Species; their presence in an area is directly linked to the overall health of the stream system. Their persistence in local watersheds is indicative of healthy ecological systems whose protection should be prioritized.
- Human impacts such as deforestation, agricultural land use, and urbanization have resulted in the extirpation of brook trout from 62% of their historic habitat in Maryland.
- Of the more immediate threats to brook trout populations in Maryland, urbanization is the most serious. In watersheds where human land use exceeds 18% brook trout populations cannot survive.
- 41% of Brook Trout Waters are on privately owned land. Keep reading to find out how easy it is for you to help.



A watershed is an area of land where rainwater all flows into the same river system.

The Upper Gunpowder Falls watershed is 38 square miles and contains 60 miles of streams.



An iconic symbol of persistence and adaptability

The eastern brook trout (*Salvelinus fontinalis*) represents the pristine wilderness that once covered North America prior to European settlement. Today it is estimated that less than 9% of the habitat that historically supported brook trout remain viable.

