

## BOTTOM CREEK

### Boundary Description

**Bottom Creek** in Montgomery & Roanoke Counties from its confluence with Big Laurel Creek downstream to its confluence with Goose Creek to form the South Fork of the Roanoke River for a total distance of approximately 7.5 miles.

(Boundary was altered during rulemaking and is as follows:

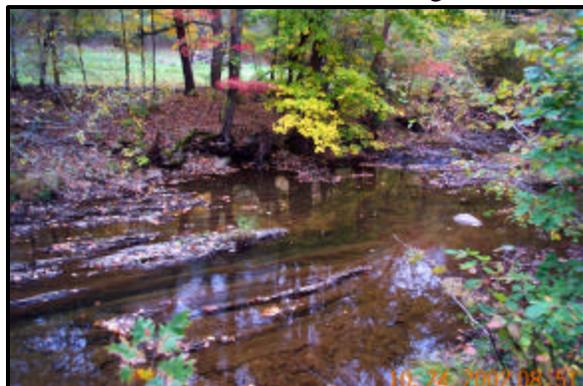
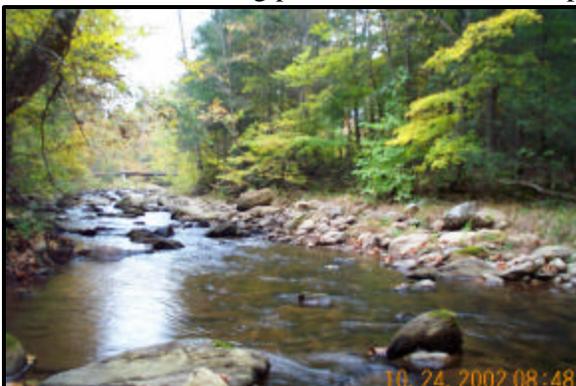
Bottom Creek in Montgomery County and Roanoke County from Route 669 (Patterson Drive) downstream to the last property boundary of the Nature Conservancy on the southern side of the creek.)

### Observations

On October 24, 2002, a site visit to various points along the nominated segment of Bottom Creek in Roanoke and Montgomery Counties was conducted by David C. Whitehurst as required by DEQ Exceptional Waters guidance. This summary of the site visit will provide a summary of observations in terms of the Lower (from the confluence with Goose Creek upstream approximately one mile) and the Gorge (that portion within Nature Conservancy property). Unfortunately, DEQ staff was unable to access that part of Bottom Creek upstream of the Nature Conservancy property due to private landowner constraints.

Although the land on both sides of the Lower Bottom Creek is privately owned, the creek was easily viewed from a road, which paralleled it for approximately one mile. The creek and its surroundings in this segment are aesthetically pleasing and what one may refer to as "pastoral" with about 60 percent being agricultural (cattle) and the remainder a mix of what appeared to be vacation homes and year-round dwellings. The stream has a well-established buffer zone on both sides and no livestock appeared to have access to the stream.

Though the creek in this portion was not what one would consider a high gradient, flow was relatively quick. Cobble and pebble dominated the substrate of Bottom Creek in the vicinity of the confluence with Goose Creek and the streambed was rather straight and wide with minimal meander. Moving upstream, the substrate becomes larger with boulder and cobble being predominant and at the uppermost-observed reach within this segment the



substrate was predominantly bedrock.

The segment of Bottom Creek that flows through Bottom Creek Gorge is best described as dramatic with its large boulders, repeated plunge pools, and extremely steep sides.



Access to the stream is severely limited due to the extremely steep sides of the gorge. The substrate of the stream in this area is, in order of dominance, bedrock, boulder, and large cobble. A cursory benthic survey was performed where I could access the stream, I overturned rocks and inspected leaf packs and found numerous individuals of the families ephemeroptera (mayflies), plecoptera (stoneflies), and trichoptera (caddisflies). Mountain redbelly dace, blacknose dace, and torrent sucker were also observed. Though considered a Class ii wild natural trout stream by the Department of Game and Inland Fisheries, no salmonids were observed in the relatively short segment of the stream that I was able to access.

Fishing and hunting are prohibited on Nature Conservancy lands but other activities such as hiking, bird- and wildlife watching, and photography is welcome. Though surrounded by privately owned land and less than an hour drive from Salem and Roanoke, there is a definite feeling of remoteness in this area.

### Conclusion

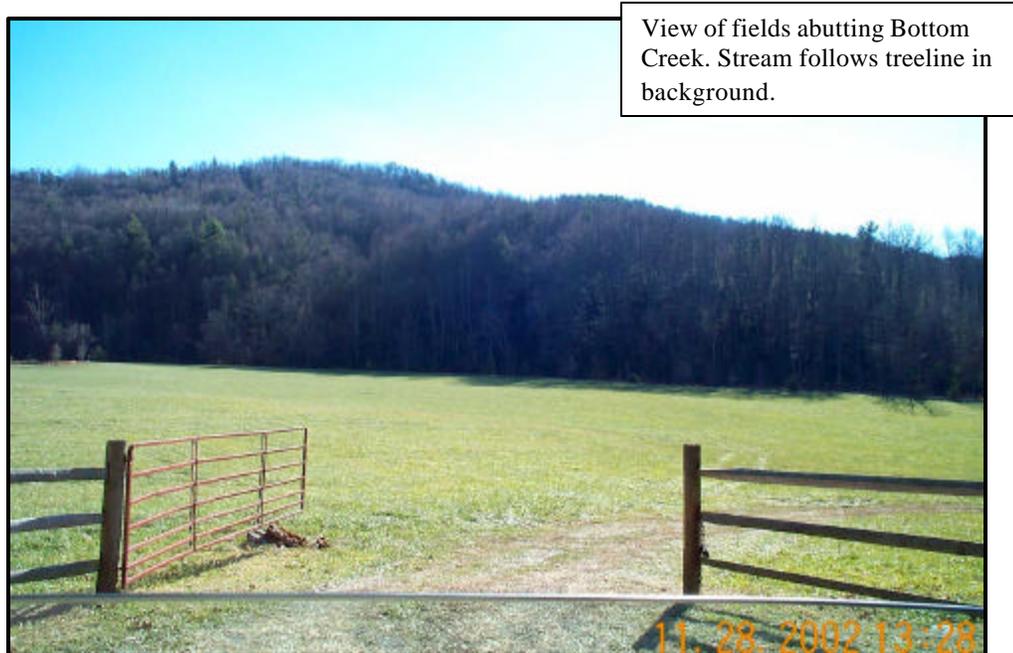
After considering observations made during a visit to the site, staff has concluded that the environmental setting, recreational opportunities, and aquatic communities in the nominated segment of Bottom Creek appear to be of exceptional quality.



**ADDENDUM**  
**Bottom Creek - Additional Observations**

Comments made by a riparian landowner on the nominated section of Bottom Creek regarding the applicability of eligibility criteria to the stream through his property generated some concerns about the appropriateness of a Tier III designation. This prompted a site visit by DEQ staff to the segment in question on November 28, 2002. This segment is located from the upstream boundary at the confluence of Big Laurel Creek and Bottom Creek, downstream to the vicinity of the property boundary of the Nature Conservancy's Bottom Creek Gorge Preserve. This is a distance of approximately one and a half miles, which is about 20% of the total length of the nominated segment. Private property surrounds this portion of the stream and was accessible only in areas where the public road paralleled the stream and at two bridges.

The landowner sent comment to DEQ staff stating his property had, previous to his acquisition, been farmed for many years, which resulted in the loss of many trees along the stream bank. The property was also a dairy farm and then a cattle operation. He states that these activities resulted in damage to the banks of the stream causing substantial silting which, according to the landowner, has resulted in no native trout and very little aquatic life in the creek to support a game fish population. He also cites a lack of canoeing and swimming as well as a lack of game fish in Bottom Creek.



Most of the areas observed in this segment of the stream were lacking in substantial tree canopy with the majority of the vegetation being either grasses, pioneering brushy growth, and/or small trees. This may be one factor contributing to the rather thick diatom film covering much of the substrate that is composed mostly of gravel, some cobble, and sand. Accumulations of silt were visible in most areas observed.

The environmental setting of this segment, while very attractive in some areas, were not noted to be exceptional. No fish were observed and a cursory benthic survey resulted in the observation of a few caddisfly (trichoptera) and snails.

The presence of the private property surrounding this segment of the nominated portion of Bottom Creek precludes the possibility of recreational opportunities for most citizens of the Commonwealth.

After considering observations made during a visit to this segment of the nominated portion of Bottom Creek, staff has concluded that the environmental setting, recreational opportunities, and aquatic communities *in this segment* do not appear to be of exceptional quality.

