

Hazel River Exceptional State Waters Eligibility Survey Report April 26 & 27, 2006

Background

DEQ staff conducted a site visit to the Hazel River on November 3 & 4, 2005 according to the DEQ Guidance Memorandum 04-2021, "Guidance for Exceptional State Waters Designations in Antidegradation Policy Section of Virginia Water Quality Standards Regulation (9 VAC 25-260-30.A.3). The evaluation of observations made during that visit indicated that the portion of the Hazel River within Culpeper County did not meet the essential eligibility criteria of possessing an exceptional environmental setting. At the Board's March 15, 2006 meeting, staff presented the results of this site visit and based upon that and other information the Board directed staff to revisit the section of the Hazel River in Culpeper County and contact local citizens to determine whether any segment or segments of the river meet the criteria for Exceptional State Waters.

Two Central Office staff (David Whitehurst and Warren Smigo) revisited the Culpeper County portion of the river on April 26 & 27, 2006 and made observations by navigating three segments. Approximately 20 of the 32 total miles of river within Culpeper County were observed (63% of the portion in Culpeper). The table below indicates the start and stop point of each segment and segment mileage. A reference map is provided as Appendix A.

	<u>Upper Culpeper Segment*</u>	
Route 522 → Route 729		length approx. 9 miles
	<u>Middle Culpeper Segment</u>	
Woll residence → Route 229 bridge		length approx. 5 miles
	<u>Lower Culpeper Segment</u>	
Route 625 → confluence w/ Rappahanock River		length approx. 6 miles

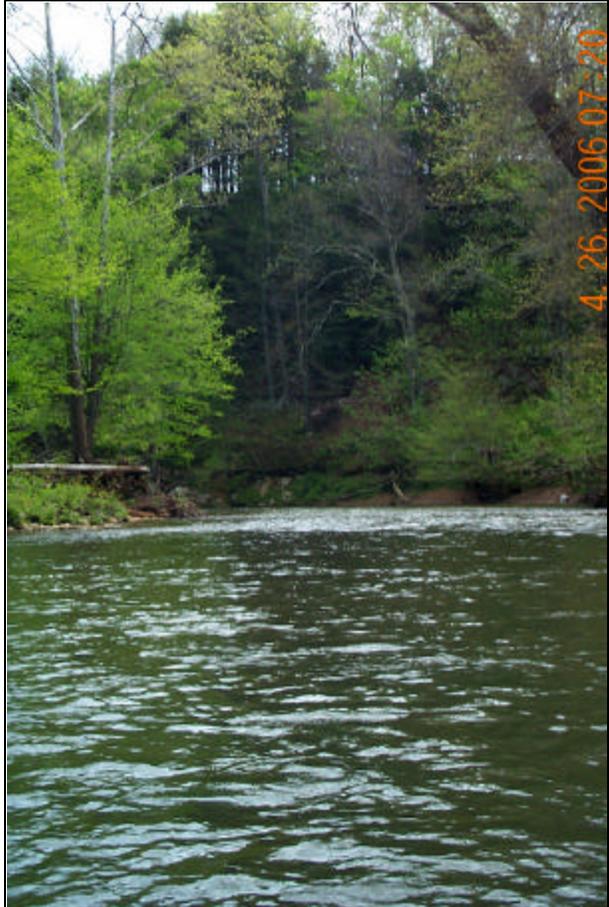
*Approximately 2,200 feet of this segment is within or borders Rappahannock County.

The Upper and Middle Culpeper segments were very sinuous and each bend was typically accompanied by large riffle areas. The substrate was dominated by sand and gravel with some cobble in riffle areas and the river bank becomes rather steep in most places observed. Many large bedrock outcroppings protruding into and over the river were observed. The majority of the river bank was either heavily wooded or had substantial wooded buffer between the river and agricultural development. Five to ten percent of the river banks, however, did show signs of heavy erosion caused by the removal of all trees on the river bank. These agriculturally impacted areas tended to be closer to the road crossings. Dogwood and redbud trees were common and the top of the river banks were frequently lined with Virginia bluebells and mayapple. A cursory benthic survey from the November 2006 site visit noted caddisfly, mayfly, stonefly, aquatic snail, and freshwater clams. Three houses were visible from the river in the Upper and Middle Culpeper segments combined and motorized vehicle access was minimal. During periods of sufficient flow, these segments provide for high quality canoe or kayak activities. Representative photographs of the Upper and Middle Culpeper segments are on the following pages.

Hazel River – Upper
Culpeper Segment



Hazel River – Upper Culpeper Segment
Geologic formation



Hazel River – Upper
Culpeper Segment



Hazel River – Upper Culpeper Segment
Riffle section

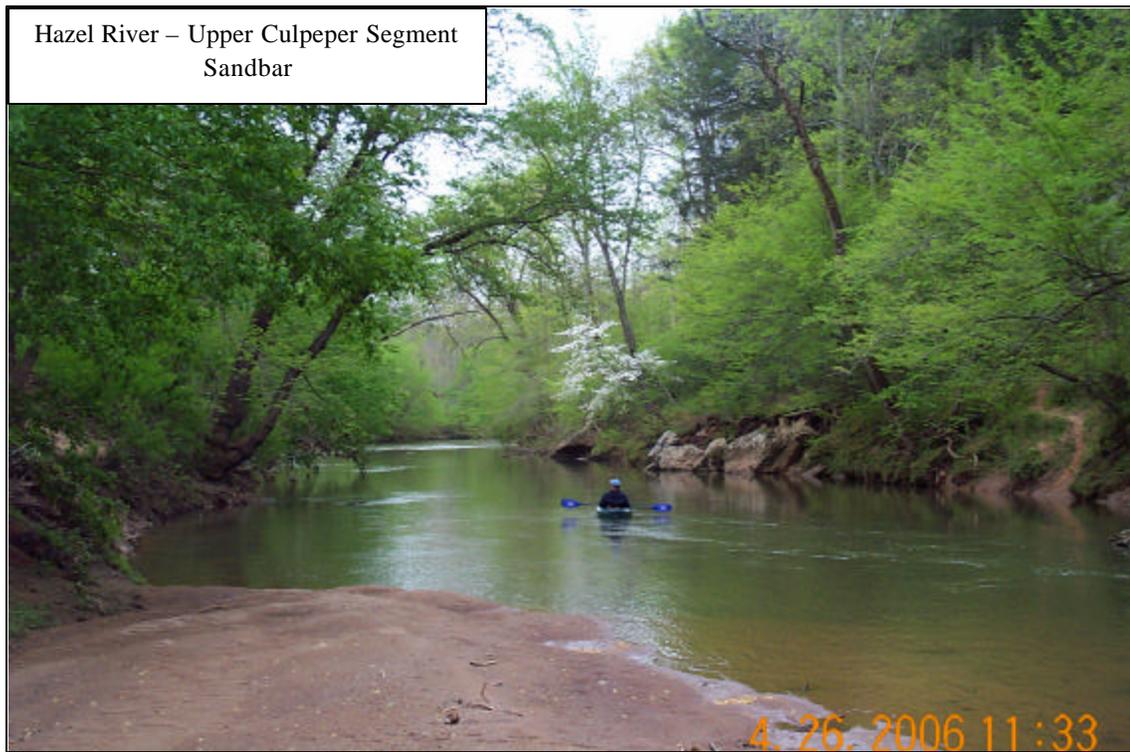


Hazel River – Upper Culpeper Segment
Agriculture adjacent to the river



Hazel River – Upper Culpeper Segment
Bank erosion due to lack of riparian buffer



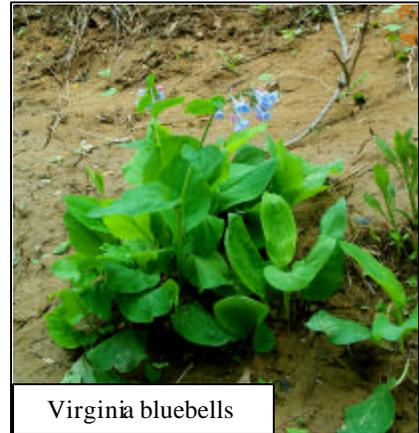




Hazel River – Middle Culpeper Segment
Bank erosion due to lack of riparian buffer



Hazel River – Middle Culpeper Segment
Geologic formations



Virginia bluebells



Mayapple

The Lower Culpeper segment of the Hazel River was less sinuous than the Upper and Middle segments and the substrate was composed mostly of sand and gravel. As with the first two, this segment had interesting geologic formations protruding into and over the river. The river becomes broader and deeper here and better lends itself to year-round canoeing or kayaking. Houses visible from the river were rare (two or three were noted) and motorized vehicle access was minimal. Staff estimated approximately 80% of the land adjacent to the three segments (approx. 20 miles) observed was wooded. Five to ten percent of the river banks showed signs of heavy erosion caused by the removal of all trees on the river bank.

Waterfowl and other birds were abundant throughout the three sections of the river. Mallards, wood ducks, Canada geese, kingfishers, great blue herons, red tailed hawks, osprey, and a bald eagle were observed. Other wildlife such as whitetail deer, woodchucks, and beaver were also observed.

Considering the scenic beauty observed, the relatively undeveloped surroundings of the river, the lack of public access by motorized vehicle, abundant wildlife, and the potential for a quality outdoor experience, staff concur that the Culpeper County section of the Hazel River meets the necessary requirements to be considered for Exceptional State Waters designation.

Representative photographs of the Lower Culpeper segment are below and on the following pages.



Hazel River – Lower Culpeper Segment



Hazel River – Lower Culpeper Segment

