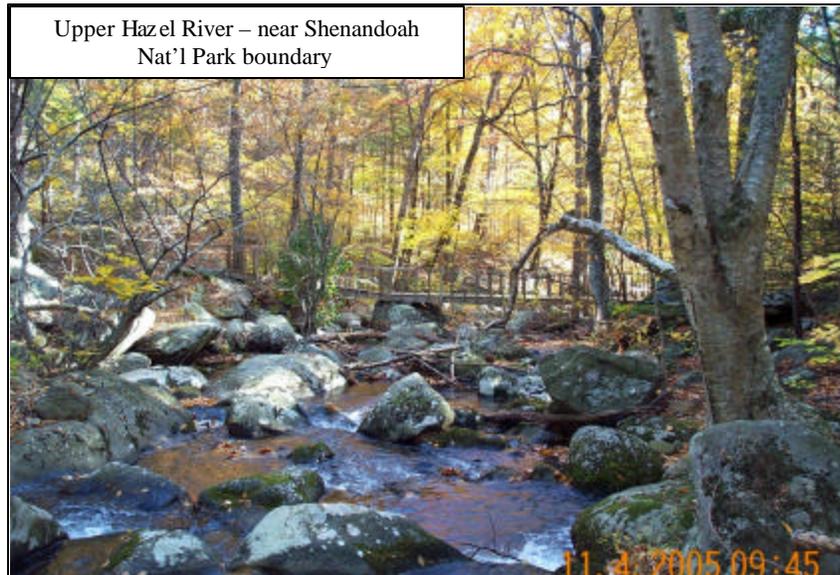


Summary Report for the Hazel River Staff Site Visit November 3 & 4, 2005

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), November 15, 2004, DEQ staff conducted a site visit to the Hazel River on November 3 & 4, 2005 (David Whitehurst and Warren Smigo from DEQ Central Office and Greg Brown and Jeff Talbott, Northern Regional Office). Staff also evaluated the eligibility criteria of these waters as “exceptional” under this guidance. A previous site visit was conducted on August 24, 1995 after a petition for the same waterbody was submitted and again on March 17 & 18, 2002 after the petition was reactivated for a second time. The nominated segment is from its headwaters in the Shenandoah National Park in Rappahannock County to its confluence with the Rappahannock River in Culpeper County. The summary of observations is in terms of the Upper (headwaters downstream to the Rappahannock /Culpeper Co. line), and Lower Hazel River (through Culpeper Co. to the confluence with the Rappahannock River).

Upper Hazel River

The upper segment of the river within the Shenandoah National Park is a coldwater habitat headwater stream with a steep gradient and the surrounding area is heavily forested. The Hazel River is classified by the Department of Game and Inland Fisheries as a Class II wild trout stream from its headwaters downstream through most of Rappahannock County and, according to Exceptional State Waters guidance, satisfies the eligibility criteria of possessing an exceptional aquatic community. Approximately 1 mile of the stream was observed. The streambed is dominated by boulder and cobble substrate and is characterized by numerous plunge pools that provide excellent habitat for native brook trout. Two brook trout were observed and two different species of the cyprinid family were also noted. The benthic macroinvertebrate community that

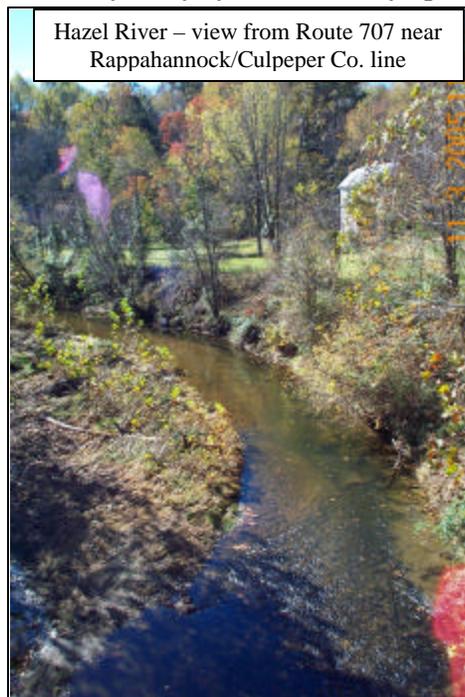


was observed appeared to be what would be expected to inhabit a coldwater mountain stream, consisting of stonefly, mayfly, and caddisfly species. The environmental setting, recreational opportunities, and aquatic communities all appear to be of exceptional quality.

Shortly after the Hazel River exits the national park, it may best be described as a transition from a coldwater fishery to a warmwater fishery. Though the terrain is still somewhat mountainous, the gradient becomes less steep and the substrate becomes mostly cobble, gravel, and sand with occasional bedrock outcroppings. Most segments of the river observed had adequate riparian buffer zones though others had pasture land directly abutting the river without the benefit of riparian buffers. A cursory benthic survey was done and caddisfly, mayfly, and stonefly species were noted.



Upper Hazel River – outside of Shenandoah Nat'l Park



Hazel River – view from Route 707 near Rappahannock/Culpeper Co. line

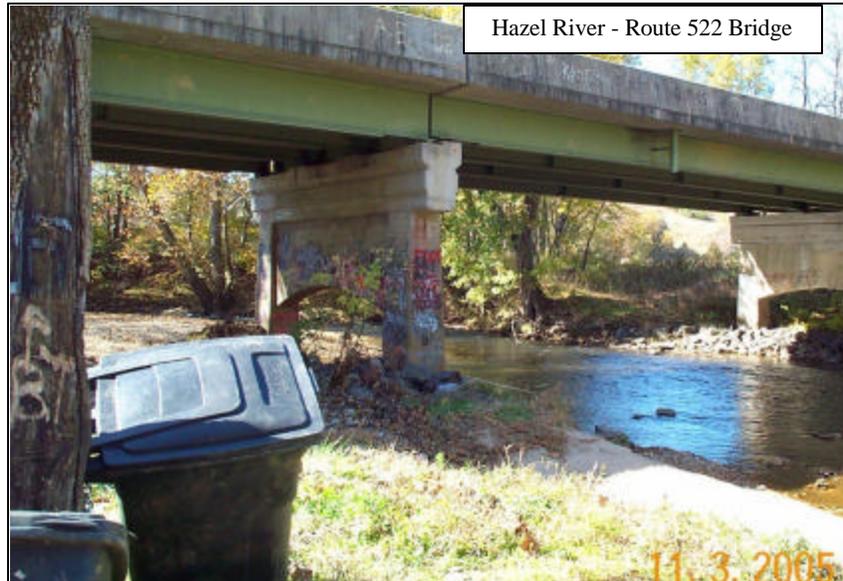
Access to the river outside of the park is difficult unless one owns land on the river or has landowner permission to access the river through private property. Bridges provide limited access. Of the five or so bridges within this segment, only two provided what may be considered reasonable access for a canoe or kayak. Canoeing or kayaking the majority of this segment would probably only be feasible during periods of high flow. It should be noted that a number of the properties along the length of the Hazel River are claimed to be King's Grant properties and as such landownership extends to the riverbed and the landowner is in control of fishing rights. Staff concurred the environmental setting through the Upper segment from outside the park boundaries downstream to the Rappahannock/Culpeper County line may be considered "exceptional" to "good" and the aquatic communities as healthy and diverse. The recreational opportunities outside of the national park may be rated as good though limited by accessibility.

Lower Hazel River

As the Hazel River flows from the Rappahannock/Culpeper County line to its confluence with the Rappahannock River, the substrate is dominated by sand and gravel with some cobble in riffle areas and the river bank becomes rather steep and high in most places observed. The surrounding land is more actively farmed or utilized for livestock though riparian buffers are

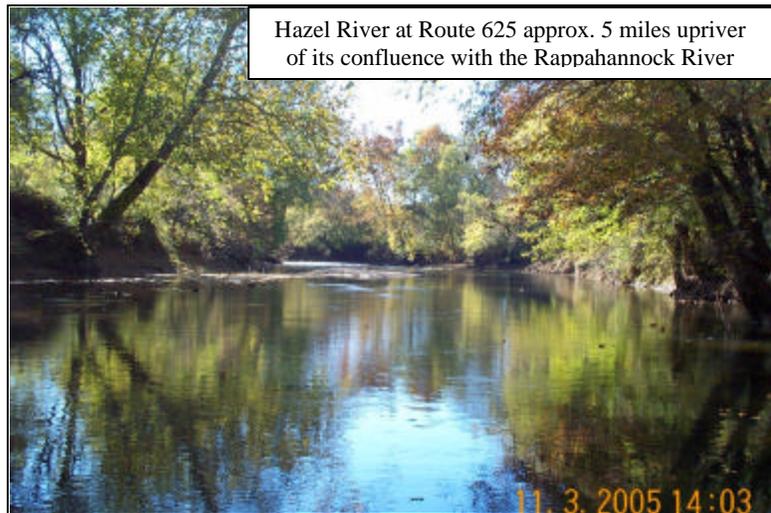
prevalent and the river appears to flow through long stretches of woodland. In the opinion of agency staff this portion of the river becomes a typical third order Piedmont river as it passes through Culpeper County. Based on an assessment of 2002 data, a segment of the Hazel River has been listed as impaired for recreational uses due to exceedences of the fecal coliform bacteria standard. The 303(d) listed segment begins at the confluence of Blackwater Creek near the Rappahannock/Culpeper County line and extends downriver 5.58 miles.

A cursory fish survey was done and tessellated darters, swallowtail shiners, longnose dace, brook lamprey, and margined madtoms were noted. All of these species are intolerant to moderately intolerant of poor water quality. A cursory benthic survey was done and caddisfly, mayfly, and stonefly species were observed as were aquatic snails and freshwater clams. Beaver and muskrat activity were evident as were sign of other wildlife. The river becomes broader and deeper in the lower reaches and better lends itself to canoeing or kayaking. Accessibility, though possible at some of the bridges, is still somewhat limited and the issue of King's Grant properties is still present on the river segment within Culpeper County. One of the areas near the Route 522 bridge exhibited signs of frequent use (trash, brush piles, refrigerator). In general, the environmental settings observed in this segment would be described as "good" to "very good" though typical of moderate sized Piedmont rivers. The same may be said of the aquatic communities and recreational opportunities.



Hazel River - Route 522 Bridge

The river becomes broader and deeper in the lower reaches and better lends itself to canoeing or kayaking. Accessibility, though possible at some of the bridges, is still somewhat limited and the issue of King's Grant properties is still present on the river segment within Culpeper County. One of the areas near the Route 522 bridge exhibited signs of frequent use (trash, brush piles, refrigerator). In general, the environmental settings observed in this segment would be described as "good" to "very good" though typical of moderate sized Piedmont rivers. The same may be said of the aquatic communities and recreational opportunities.



Hazel River at Route 625 approx. 5 miles upriver of its confluence with the Rappahannock River

Conclusions

The agency staff that conducted the site visit to the Hazel River are in agreement that the upper portion of the river in Rappahannock County, particularly that segment within the Shenandoah National Park, satisfies all eligibility criteria necessary to initiate a rulemaking to designate it as an Exceptional State Water. Staff are also in concurrence that the lower portion that flows through Culpeper County, though the majority of this portion of the river is situated in a pleasant rural setting, does not meet the crucial eligibility criteria of possessing an exceptional environmental setting.