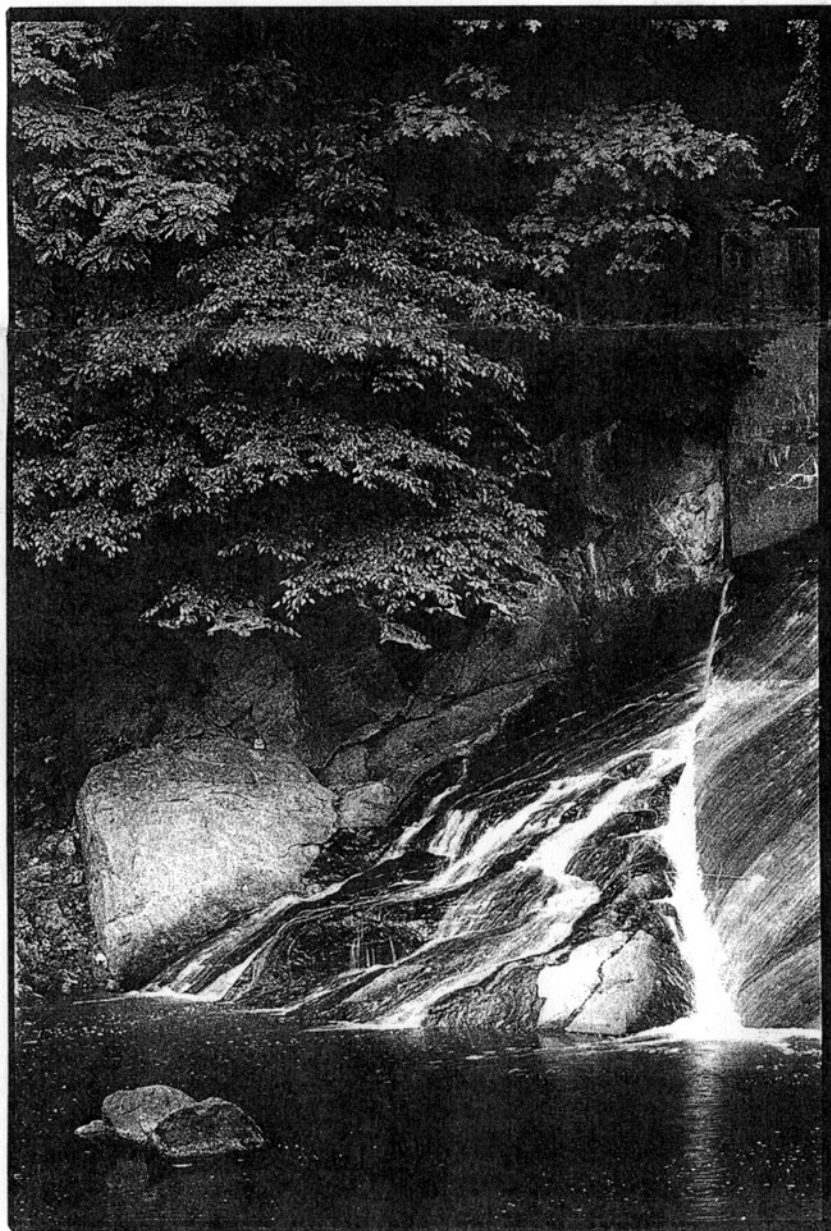


# MONTGOMERY TRAIL



*Seeking  
a balance  
between wetlands  
and development*



Only 50 yards from the road surface, this spillway teems with wildlife because of the excellent water quality of the Paint Branch and Northwest Branch streams.

Story by Joel Davis • Photography by David Hobby

**T**hrough some of the most dense residential development in Montgomery County, Paint Branch winds its way, eventually meeting up with the Northeast Branch of the Anacostia River in Prince George's County.

The stream looks like many others in the county—shallow, running swiftly in most places, with deep, cool pools in others. A canopy of trees overhangs the banks, shading the water and dropping leaves which will wind up as the first part of the food chain of the ecosystem in the creek.

If you look closely, under logs and in the shallows, a host of small animals are living their lives next to the stream. Several species of frogs, toads and salamanders need the stream for water, and also see it as a place to lay eggs and hide from predators.

In the early morning, deer come to the creek to drink and graze on the plant life at the banks. Raccoons, skunks, squirrels and the occasional fox make their home there as well, much as they do at other streams in the area and around the county.

Birds, from Great Blue Herons down to the smallest warbler, also live along the creek, using the water and the surrounding woods to find food, shelter, and places to raise their young.

All of this abundant natural action is carried out close to human environments, where local residents work, play and raise their children without much thought of the natural world a few yards away beneath the bridges and behind the townhomes.

Paint Branch is a stream with a difference, though.

It is not a difference readily apparent to the naked eye, or with the other senses, unless you don't mind sticking your head under water in the right spot.

Under the surface of the water, usually at the downstream end of rapids or in the deep pools along the stream, are Brown Trout, a sport fish never getting much above a foot in length. They may be small, but the Brown Trout have enough power to bring to a grinding halt the best laid plans of government and developers.

The unassuming little fish is not even native, having emigrated from Germany more than 100 years ago. It spread quickly by its own efforts, and the help of human hands interested in hooking its relatives.

The little fish is not commercially valuable, not especially beautiful, not endangered in the sense that, say, the blue whale is endangered, and really of not much use to anyone save for a few anglers schooled in the art of fly fishing.

But over the past several years, the Brown trout has been responsible for halting, delaying or relocating several local projects, including Briggs Chaney Middle School, a water main connecting the Patuxent River supply to most of Montgomery County, a park and ride lot, the new Fairland Elementary School and several housing developments.

Now the scaly little stream-dweller may be on its way to stopping the biggest project of its career in Montgomery County. Brown Trout populations in Paint Branch could very well force the relocation of the Inter-County Connector, a project which has been estimated to cost as much as \$600 million.

Why does this diminutive fish have such power? Why does the mere mention of the name drive strong developers to screaming fits, and county facilities planners to tearing their hair?

It's not so much the fish, but where the fish lives. Protecting wetlands and water quality resources has recently become a national priority, and the Brown Trout likes to hang out near wetlands, in water of the highest quality, eating bugs and laying eggs, with no idea of the turmoil it causes to the dominant species above the water line.

## Trout as tool

The habitat of the trout is the key to the environmental issue. Simply put, the fish must have a near-perfect environment in which to survive, and the presence of a healthy Brown Trout population is proof positive that the wetland areas are worth preserving.

"We are not saving the trout because of its commercial value, or even because of its recreational value," said Nazir Baig, chief environmental planner with the Montgomery County Planning Board. "We are saving it as an indicator species. Its existence in a



At a bridge on Route 29, a sign reminds motorists that it's not just cars and buses that try to cross the road during rush hour. Deer populations along the stream valley areas continue to grow each year.

stream indicates a very high quality stream, because the trout cannot live without a cool temperature, clean water, and plenty of dissolved oxygen. They indicate what kind of environment exists, if it is biologically alive and healthy."

The state of Maryland uses the trout to classify its streams. Two of the classifications apply strictly to the fish. A stream in which trout can live, but not reproduce, is automatically a class IV stream, and certain restrictions apply to development in the watershed of such a stream.

If the trout can live *and* reproduce in the stream, then the stream is a class III stream, with even more stringent regulations about development.

Paint Branch is a class III stream. Northwest Branch, which begins near Sandy Spring, is a class IV stream, and the watersheds of both are strongly protected against potential pollution

### Keeping it wet

In addition to state regulations concerning our humble friend, there are strict federal regulations about wetland areas which also stop projects, and benefit the trout.

Wetlands are areas which are a part of the watershed of a stream which have certain characteristics.

Current regulations (which may be relaxed soon) use three criteria for judging what is a wetland and what is not. The presence of vegetation associated with water; soils with certain characteristics; and the presence of water covering the land for a significant portion of the year are all grounds to designate a particular patch a protected wetland.

If a builder or government agency finds he must destroy wetlands, he must also replace them, at a rate of at least two acres for every acre destroyed, up to a rate of six acres for every acre for extremely valuable wetlands, such as salt marshes.

According to Barbara Medina, who coordinates a monitoring effort on Paint Branch for the Interstate Commission on the Potomac River Basin (ICPRB), wetlands are valuable for a several reasons involving quality of life.

First, wetlands are important to stream habitats

because they slow water down and trap sediment and pollution.

Without marshy wetlands acting as a filter, substances such as grit, auto emissions, motor oil, paint, lawn chemicals and other materials would flow freely into the stream from impermeable surfaces such as rocks, houses and parking lots. The result is water quality that is inhospitable for many species of aquatic animals. Pollutants poison the animals more directly, and can concentrate in animals further up the food chain.

Wetlands also slow down the flow of water. If water is moving too fast, it can cause erosion of stream banks, destroying the cooling tree canopy and creating more sediment from the very stream itself. If the sediment problem is too severe, the stream can become blocked, and simply die out into a series of pools stagnating in the sun.

Wetlands also provide food sources and mating and raising areas for animals which depend on the stream for another part of their lives. Wetlands are generally able to support many times more biological activity than the same acreage of dry land habitat.

Also, wetlands and protected stream valleys are a source of pleasure for many, giving rise to quality of life arguments as a rationale for preservation.

"I like to use an example from New Jersey, with two communities right next door to each other," said Medina. "Montclair is nice, with tree-lined streets, and nice parks and a lot of animal habitat. Cedar Grove, just over the hill, is a lot different, with houses all clustered together without much open space, a lot of polluted creeks and very little animal habitat. Guess which has the higher land values?"

"It's really very simple," said Medina. "Houses in areas with open space and tree-lined streets are more valuable than those in areas without. I care about wildlife for itself, but a lot of people don't realize how these things impact their pocketbooks."

### Save Paint Branch, save the bay

In Maryland, the economic cost of poor water quality and the benefit of good water quality is

particularly dramatic. The Chesapeake Bay is the single greatest natural water resource in the world, and an incredible economic engine for the state.

"Forget about beauty, this is a dollars and cents issue," said Medina. "If (pollution) kills the fishing industry and the crab industry, all those people are out of work. It's not something esoteric — like save some wild orchid no one ever heard of. It's 'Save the crabs!' Besides, I like to eat them, and everyone can understand that."

Seafood from the bay, especially blue crabs, are transported all over the world. The largest estuary in the world, the bay is among the single most fertile animal habitats in the world as well, and nearly all those animals are edible.

In recent years, however, there has been a drop-off in the size of the catch in the bay, and pollution bears most of the blame.

The very things that keep the trout thriving in Paint Branch — cool water, low sediment, the right balance of nutrients, few toxics — are the things that make the bay such a healthy environment for fish and crabs. The abundant high quality water which used to pour into the bay, along with saltwater from the ocean, made the bay so incredibly rich.

The lack of that high quality water could kill the bay, turning it into a huge, salty drainage ditch for the urban sprawl covering the watersheds feeding the bay.

### Trout 1, humans 0

Though wetlands protection is thought to be necessary for preserving the bay, the process is not without its costs.

Building and real estate interests have lobbied against the most stringent protections, and, in terms of money, the protection can be quite expensive for those wanting to build on potential wetlands.

"It's hard to put an exact figure on it, but it's definitely into the tens of thousands of dollars to have testing done on all our potential building sites," said Dr. Phil Rohr, assistant superintendent of schools for facilities in Montgomery County. "There's no stock answer because each site is different. In one site, all that may be required is for an engineer to walk around the site. At others, it could take much more than that."

Rohr remembers one site in particular very well. Briggs Chaney Middle school, now located on Rainbow Drive in Spencerville, was originally intended for a site on Briggs Chaney Road which was later found to have wetlands present on it. Since the site was in the Paint Branch watershed, Planning Board permission was denied to build the school at the original site.

A new search ensued, which finally came up with the Rainbow Drive site and cost about \$1 million more than the original county-owned site. In addition, the school was delayed for a year, forcing the students into a less than ideal situation at Key Middle School where they have shared the building this school year.

The incident highlights one of the most annoying things to potential builders about wetlands regulations: they are constantly changing.

"That site was purchased before the term wetlands was even used," said Rohr. "We went through all the procedures, including inter-agency review, before we ran into the dilemma. As a result, we are doing wetlands analysis on all of our future sites."

Rohr said the future is still bright for finding school sites for new schools in the eastern part of the county, though he said it is harder there than in any other part do to the number and quality of streams in the area.

The Inter-County Connector may not be as lucky. When the ICC plan was first proposed, wetlands regulations were not as stringent as they are now, and planners were convinced they could mitigate damage to wetlands by using engineering techniques such as high overpasses, minor route changes and careful planning of construction techniques in careful planning

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*Hazin Baig*



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in order to get permits for the highway from the federal government.

Now planners are not so sure. Recently John Bruck, a State Highway Administration planner, sent a memo to people who attended an ICC workshop sponsored by the Audubon Society in April. In the letter, Bruck says a special study is needed on the Paint Branch crossing of the ICC "to determine if the ICC can be constructed without affecting the water quality or reproductive processes of Brown trout," located in Paint Branch or its tributaries.

Previous statements from the state on the highway had expressed optimism that such concerns could be mitigated, but Bruck's epistle leaves room for doubt.

Federal officials in charge of permitting construction in wetlands areas have flatly denied the project can be built under existing regulations with the present alignment, and have suggested the controversial alternative alignment located to the north of the Route 198.

Residents along the new alternative are protesting the suggestion, and are basing their arguments on the grounds that the new route "you guessed it" would encroach on even more wetlands.

Private projects are not immune from the bite of the trout either.

Hampshire Greens, a golf course and housing development at the corner of Ednor Road and New Hampshire Avenue, was recently withdrawn from consideration before the Planning Board after Planning Board staff recommended denial of the golf course project because of excessive wetlands destruction.

Staff and the developers of Elm Street Corp are currently negotiating to see if a solution can be found.

## Tough, but tough enough?

Strict regulations for wetlands have stopped some projects and do offer substantial protection of fragile habitats, but there is disagreement about whether the rules are enforced strictly enough.

For builders and others who have had projects halted, the answer is obviously a resounding "yes."

For others, however, the rules are tight enough, but enforcement could use some improvement.

"From my point of view, the Montgomery County environmental enforcement unit is doing all they can, but they don't have enough people to do the job they should," said Medina. "There is still a lot of work that needs to be done in monitoring sediment control measures that is not done due to budgetary constraints."

Stewart McKenzie, legislative analyst for the environment to the County Council, says the enforcement effort could use some improvements, but overall a good job is being done.

"There has been in the past inadequate sediment control enforcement, but that has been somewhat beefed up," said McKenzie. "I advocate aerial enforcement, but that has not been adopted yet. The law mandates regular enforcement and control of stormwater management facilities, but that is really just starting, and is certainly not adequate yet. Also, as of now, there is no adequate stream monitoring mechanism. We have come a long way, but we need to go even further to preserve these fragile environments."

The Brown Trout may not appreciate it, but human beings are working to keep their environment safe and healthy for future fish generations. In the effort to help the lowly fish, residents and officials will continue to place more and more streams under scrutiny, and some stream may even be renovated to improve quality.

Somewhere down the line, the regulations may be enough to ensure a high level of water quality in all streams for fish and humans to enjoy.

Until then, the trout of Paint Branch will swim and eat and make little trout, never knowing the turmoil their presence under the clean water of the stream causes to humans up above.