Beavers Bring their Skills to a Kentucky Creek's Restoration

By James Bruggers

Beavers are adding a whole new dimension to a pioneering stream restoration project in Bernheim Forest.

Nearly a decade ago, construction crews put the curves and meanders back in a nearly 4,000 foot-long stretch of Wilson Creek that had long ago been squeezed up against the side of its hollow, to make room for farm land. Native trees and wildflowers were planted, and fish populations grew.

Two years ago, beavers moved in and are now putting their own engineering skills to work on the creek. And Bernheim officials couldn't be happier.

"There are not a lot of beavers living in places that let beavers do what beavers do," said Andrew Berry, the forest manager at Bernheim.

The creek now has "incredible biodiversity," aided in part by the addition of new beaver dams that have created a couple of beaver ponds.

The ponds are great for birds, amphibians and reptiles, he said. The area has attracted raccoon, river otters and birds of prey.

I first saw the project nearly a decade ago, when it was under construction and wrote about it this way:

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Today Wilson Creek has "incredible biodiversity."

In a Bullitt County hollow hidden from highways and towns, scientists are piecing together a Bernheim Forest creek as it existed more than a century ago.

They examined every slope and dip in the soil along the nearly 4,000-foot-long stretch of Wilson Creek - and studied other creeks in Kentucky – before moving even a single rock in the $500,000 restoration effort that's being hailed as innovative in Kentucky.

Today, the Wilson Creek project looks more like a subdivision development than an ecological restoration; earth-moving equipment that dug the new channel scraped the land bare, and workers have dotted the landscape with stakes that mark where trees will be planted, or the boundaries of a researcher's experiment plot.

You see, more than a century ago, Wilson Creek wandered through a 20-acre hardwood forest. But eventually, the trees were cleared and the creek pushed to the edge of the hollow to provide open land for planting crops.

The altered Wilson Creek had functioned more like a swift-moving drainage channel atop bedrock, leaving it less friendly to aquatic life. It also hasn't been restoring nutrients to the hollow's soils.

Even Bernheim Forest had prevented trees from returning to the valley for decades by planting corn and other food crops for deer, before deciding a more natural approach would be better.

Now that natural approach is in full bloom, so to speak. The creek has room to spread out, and when it does, it deposits nutrients across the flood plain. Trees have grown tremendously during the last decade, some reaching more than 20 feet into the air.

One of the most striking features is the clarity of the water. I have seen a lot of creeks and rivers in Kentucky, and they often are choked with sediment. This water was clear enough to see a few feet down to the bottom of the beaver ponds.

The project was funded largely with U.S. Environmental Protection Agency money. Work was done by the University of Louisville Stream Institute. The restoration project is in an area that's generally off limits to the public. But Bernheim officials occasionally lead guided walks there.

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This is how Wilson Creek looked nearly ten years ago after construction crews restored the stream's meanders.