

## Pemigewasset River Restoration Success Story

Fishable and swimmable. These shortcut words for the condition of our waters neatly illustrate the objectives of the Clean Water Act. Trout Unlimited (TU), one of NHDES' many partners in clean water, reported direct evidence of these objectives being restored to the Pemigewasset River as a result of a NHDES-funded watershed restoration project completed in 2009.

Gerry Crow, of New Hampshire Rivers Guide Service, is a professional fishing guide whose livelihood depends on clean water. He regularly brings both new and experienced clients to New Hampshire rivers to learn how to fly fish or to work on their technique. Active in many conservation projects, Gerry is past president of the Merrimack River Valley Chapter of TU.

After many trips this summer to the stretch of the Pemi in Woodstock, near Exit 31 west of I-93, Gerry said in an email to the local TU chapter, "Many of my clients caught fish in that area, even though almost all were beginners who only learned to fly fish that day. More importantly, I noted that there are a tremendous amount of saddle case and other caddis flies on the rocks near each of the large boulder structures. As we all know, that area was quite sterile prior to the project being implemented. I am sure we will see increased amounts of various insects in the future. Most days the water temp ranged between 62F and 66F, even when there was a heat wave."

The project Gerry mentioned is the Pemigewasset River Restoration Project completed by the Pemigewasset Chapter of TU under the direction of then-Chapter President Todd



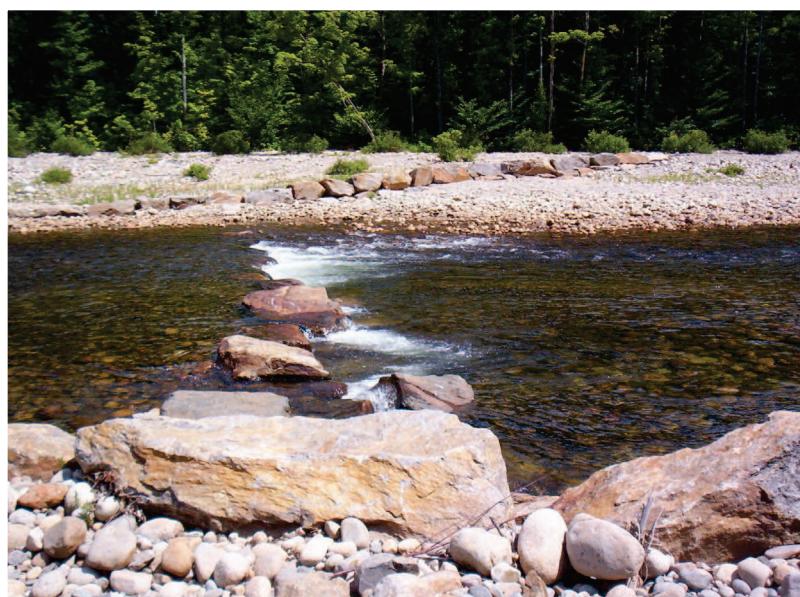
*A new angler lands a trout in the restored Pemigewasset River.*

*Photo credit: Gerry Crow, N.H. Rivers Guide Service.*

Baldwin. TU successfully competed for funds in response to NHDES's annual solicitation for Watershed Assistance Grants, which are funded through Section 319 of the Clean Water Act by the U.S. Environmental Protection Agency.

This nearly half-mile long reach of the Pemi was characterized by ongoing bank erosion, which led to channel widening, formation of multiple channels, and degradation of cold water fisheries habitat. The primary focus of the project included stabilizing the channel and banks, plus returning the river along this reach to a state of equilibrium, which means a balance between erosion and deposition attained by mature rivers. The river was reconnected with its floodplain so that flood waters can disperse over a broad floodplain as the river wants to do naturally.

In addition to Todd's expertise in project management and construction, the project was made possible by the technical skills of project engineers and river scientists Sean Sweeney of Headwaters Hydrology and Tyler Phillips of Horizons Engineering. We all benefit from validation of our work from time to time, and sometimes it's hard to know when we succeed in meeting our environmental goals. We are thankful for, and inspired by, our partners on the Pemi, whose success in restoring a river was documented first-hand. ■



*Rock veins on the banks direct flows during high flows while a lower rock sill creates riffle and pool habitat during low flows.*