



Why are Catskill Mountain Streams Important?

Our Catskill streams are more than aesthetic wonders and resources for recreation. They perform important environmental functions and services, from providing the lifeblood of countless organisms — including humans and biota — to draining floodwaters and moving rock and soil eroded from the mountains to build fertile valleys. These functions are complex and interrelated. The stream is a dynamic feature of the landscape, ready to swell in a heavy rainstorm or shrink to a trickle during a drought. Understanding these relationships is vital to well-informed living on our streams.

"Managing streams is very important in my town. Landowners, town officials and government agencies all can become involved in stream management. Getting together on a collective plan has been a very important way to get more done and the support of the DEP Stream Management Program and the local Soil and Water District has made a big difference for us here in Greene County."

— Pat Meehan, Windham Town Supervisor

Water in Motion

Streams drain the landscape. When rain falls or snow melts, water that doesn't seep into the ground becomes runoff. This runoff drains into a network of streams, brooks, creeks



and rivers. Along this network, stream channels shape themselves to carry the high water of spring snow melt. Flows that exceed the stream channel's capacity become floods, which can range from minor events to raging torrents that carve new channels. The floodwater is routed down the valley across the floodplains, which play an important role in a watershed's drainage system. By dissipating the water's erosive energy, floodplains help keep stream channels stable and able to carry regular daily flows.

The Woodland Valley Creek in Ulster County (above) after a large tropical storm drenched the Catskills. Below, the flood of January 1996 naturally deposited excess gravel in Bagley Brook in Delaware County. This photo illustrates how a stream, over time, naturally moves and carries gravel downstream.

Streams at Work

Streams shape the land. From small creeks to meandering rivers, streams are the great sculptors of the Catskill Mountain landscape. Streams move sediment of all sizes and deposit this load downstream and across floodplains. Fine sediment like clay can be carried along for miles in moderate flows, while boulders make their way downstream only during rare flood events. Streams also process sediment during transport — boulders break into cobbles, cobbles are crushed into gravel, and gravel is ground into sand. By eroding, transporting, and depositing sediment, Catskill streams perform the geologic wonder of transforming mountains into fertile valleys.



Source of Life

Water sustains all life. The water flowing in Catskill streams not only supports wildlife and plants, but it also quenches the thirst of millions of people who drink it daily. Brook trout rest in the pools of creeks; stoneflies emerge from their

nymph casings on boulders above the swirling water; a great blue heron wades the shallow riffle looking for dinner; a deer drinks from a pool; a child drinks from a New York City fountain. Monitoring and protecting the quality of this essential substance ensures that cool, clean water is the precious resource passed on to future generations.



Above are two bald eagles nesting by the Rondout Reservoir. Since eagles often scavenge for food — baitfish or alewives — they are attracted to the free food source washed into the reservoir through aqueducts from the Cannonsville, Neversink and Pepacton Reservoirs.

Why is Stewardship Important?

Given the many roles that streams play in our lives, it's not surprising that views on what's best for streams depends on who's looking. Whether streamside landowners, recreational users, agency resource managers or water suppliers, we are all stewards of this extraordinary natural resource and it is essential that competing objectives be reconciled with resource management decisions. Preserving the beauty and pleasure provided by these mountain streams is as important as protecting the multiple environmental functions that streams perform.

Coordinated stream management ensures a comprehensive approach that identifies and integrates various goals — from property conservation to the protection of water quality, wildlife habitat and scenic views.

The Brandywine Restoration project on the Batavia Kill (below, left) attracts anglers, who enjoy fishing the plunge pools created by installed rock weirs. The Esopus Creek Restoration Project (below, right) protects private property, distances septic leach fields from the stream, allows for recreation and improves water quality.

