

# Trout Unlimited Watershed Strategic Action Plan

## Owego Creek–Tioga/Tompkins/Cortland Counties NY



**Vision:** Trout Unlimited will work with local partners to better understand the trout populations, spawning habitats, threats and opportunities in the Owego Creek watershed and continue the implementation of survey, management and improvement projects that reconnect, restore and sustain brook and brown trout populations.

**Why Owego Creek?:** The Owego Creek watershed was chosen by TU as a priority watershed based upon the size, quality and interconnectedness of its brook trout habitats. It is the largest, most intact brook trout system (our official State fish) in western New York. It also hosts extremely rare mussel species, supports rare native minnow species and is a possible location for American eel recovery. TU's work will benefit all of these species. Owego Creek receives several cold groundwater inputs in a rural, primarily forested landscape, thus making it a strong candidate for long-term resilience.

**The Water and its Trout:** The Owego/Catatonk Creek watershed lies primarily in Tioga County, with important spawning headwaters also in Tompkins and Cortland Counties. Although the Owego and Catatonk systems are generally thought of as separate, they in fact join above the Village of Owego, thus making the Catatonk a tributary of the Owego. This is a critical distinction for trout management because some of the best trout spawning areas are in the headwaters of the Catatonk.

Before 2010, brook and brown trout were reported to be abundant with catch rates of up to 5-10 fish/hour documented in prime habitats. After that, a steep, more than 50% decline in the population was noted. The cause of this precipitous decline is suspected to be a series of major flood events and flash droughts that began in 2005 and which eliminated multiple years of spawning effort:

**What We Will Do:** We will act to restore connectivity to maximize the ability of trout to migrate seasonally, especially to spawning reaches and cold-water refuges and to complete other projects that enhance spawning, flood and drought resiliency to restore the wild brook and brown trout population to their pre-flood and pre-drought level of abundance:

**Assessment:** Identify critical spawning tributaries and cold water refuges, conduct electrofishing surveys and identify culverts and dams that are barriers to trout movements and spawning. In conjunction with our partners at the Ithaca Community Science Institute (CSI) we will:

- Place temperature loggers throughout the watershed to build a year-around thermal profile of the system
- Collect conductivity, pH and dissolved Oxygen samples at critical locations
- Collect sediment samples to analyze for contaminant levels
- Measure water temperatures above and below key beaver impoundments to assess thermal impacts
- Conduct focused assessments of key tributaries for possible reintroductions of native, wild trout

Much of the assessment work conducted by CSI will focus on the upper Catatonk in Tompkins County due to the number of management and recovery opportunities in headwaters such as Michigan, Miller, Danby and Willseyville creeks.

**Reconnection:** Replace barrier culverts with larger structures and remove or modify dams to allow fish passage.

**Habitat Improvement:** Stabilize eroding banks and add woody material to over-wide, shallow downstream reaches, replace or install pool diggers at priority locations and consider the creation of cold, groundwater ponds that are connected to the stream for summertime refuge. Manage key spawning areas and consider reintroduction of brook trout to suitable unoccupied tributaries that were cut off by dam or culvert barriers.

**Outreach:** Promote a catch and release ethic for brook trout to help the population recover. Collect data and advice from the angling community, update the plan annually and conduct annual workshops. Maintain communication with local municipalities and conservation organizations.