

# Connecticut Rivers & Hydropower

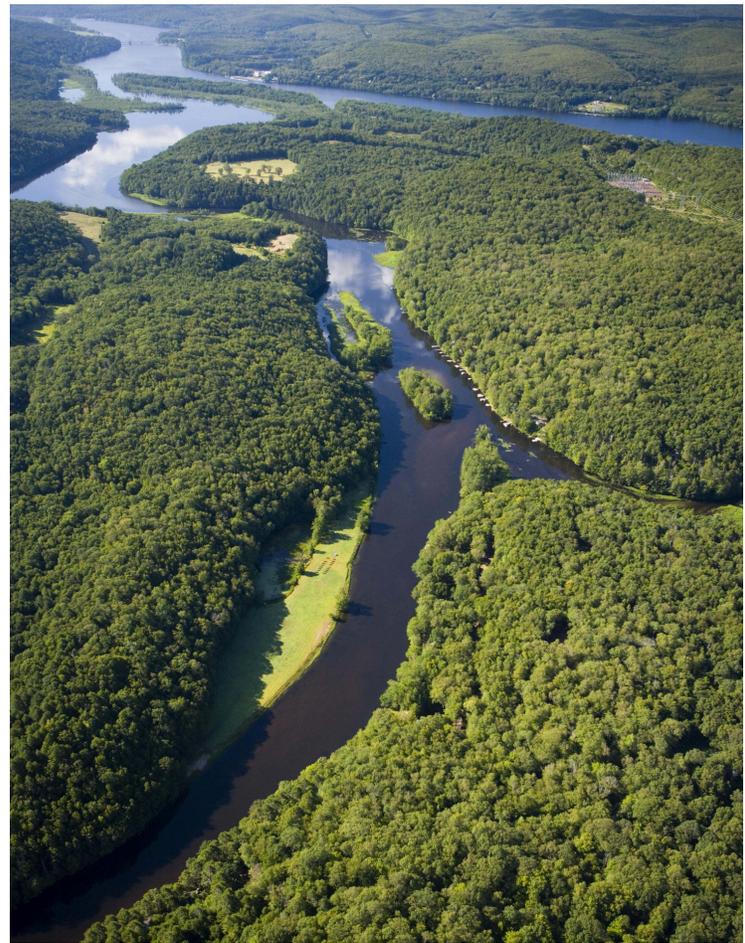
## Shared solutions for ecosystem & climate resilience

### OUR SHARED FUTURE

Imagine a future for Connecticut where both people and ecosystems thrive—where the air is clean, wildlife and fish are abundant, and our communities are safe. To reach this future in the face of the interconnected climate and biodiversity crises, **we need solutions that balance clean energy, ecosystem health, economic stability, and local community resilience.**

Connecticut's goal of achieving zero-carbon energy generation by 2040 means we must quickly expand renewable energy sources over the next decade. While hydropower will be part of this clean energy transition, we must make sure that clean energy progress does not come at the cost of our rivers, ecosystems, and communities.

The Governor's Council on Climate Change has prioritized protecting river health and resilience to foster climate resiliency and encourage nature-based adaptive climate solutions. Hydropower decisions must reflect these priorities to ensure a clean energy future that also allows Connecticut's residents and rivers to thrive.



Salmon River, Connecticut. © Jerry & Marcy Monkman

### THE ROLE & CHALLENGE OF HYDROPOWER

Hydropower is a renewable, reliable, and flexible source of electricity. With sufficient water supply, it can provide a steady source of power to support continuous (baseload) energy demand or quickly adjust generation output to meet periods of high (peak) demand, helping to stabilize the energy grid and provide energy storage.

However, **hydropower also comes with serious negative ecological impacts** and has contributed significantly to the global biodiversity crisis, where species losses in freshwater ecosystems far exceed those on land or in the ocean. In Connecticut, dams pose significant barriers to fish passage, severely restricting migratory species' access to critical habitats for feeding, growth, and reproduction.

Many of Connecticut's hydropower facilities are at least 100 years old, and more than half are classified as high hazard risks. As climate change increases the frequency of extreme weather events, these dams become more vulnerable to failure—putting downstream communities and infrastructure at greater risk.

Current hydropower regulatory systems often fall short in protecting the interests of local communities and ecosystems. More than one-third of Connecticut's hydropower facilities have permanent federal licensing exemptions, meaning their social and ecological impacts are rarely reviewed. Even for fully licensed projects, where licenses last anywhere from 30 to 50 years, regulators are only required to give "equal consideration" to power and non-power values. This can result in non-power environmental and social considerations being overlooked.

# THE SOLUTION

Our group of partners is committed to helping decision-makers reach Connecticut's zero-carbon goal while ensuring the health of our freshwater ecosystems and the resilience of our local communities. To this end, we propose a solution with **3 key actions**:

## 1 Incentivize Only Socially and Environmentally Responsible Hydropower

Maintain and improve existing criteria used to assess, qualify, and incentivize hydropower projects in the Renewable Portfolio Standard, Procurements, and Incentive Programs.

The **2024 report from Connecticut's Hydropower Task Force**<sup>1</sup> recommends criteria<sup>2</sup> for ecological river flows, safe fish passage, clean water, and healthy surrounding watersheds to ensure that only projects meeting strong social and environmental values receive support.

## 2 Conduct a Transparent, System-Wide Study on the Grid Contributions of Hydropower

Assess how hydropower contributes to Connecticut's current and future energy grid needs, including its role in supporting baseload (continuous) and peak (high) energy demand, energy storage, and other grid services.

A transparent study—including analysis of cost to ratepayers along with full costs of required environmental and safety measures—will help build a shared understanding of hydropower's role in a zero-carbon future and guide balanced decision-making.

## 3 Allocate Sufficient Resources for Social and Environmental Improvements at Dams and Hydropower Facilities

Ensure that funding and staff resources are available to guide responsible hydropower decisions and implementation, including:

- State agency staff with sufficient time allocation to conduct thorough reviews and provide oversight of hydropower projects to protect public and environmental interests
- Upgrades and improvements for existing facilities where benefits outweigh impacts, to reduce harm to river ecosystems and communities
- Retirement and removal of facilities where impacts outweigh benefits, to restore river health and minimize risks to local communities.

<sup>1</sup> [Connecticut's Hydropower Assets: 2024 Report from the Task Force to Study Hydropower](#)

<sup>2</sup> These recommendations were primarily based upon criteria & standards for low-impact hydropower developed by the [Low Impact Hydropower Institute](#).

### COLLABORATIVE PARTNERS INCLUDE...

American Rivers  
Appalachian Mountain Club  
Connecticut River Conservancy  
Farmington River Watershed Association  
Housatonic Valley Association

Low Impact Hydropower Institute  
Rivers Alliance of Connecticut  
Save the Sound  
The Nature Conservancy  
Trout Unlimited



Contact: Cary Lynch, PhD [cary.lynch@tnc.org](mailto:cary.lynch@tnc.org)  
Climate and Energy Policy Manager, The Nature Conservancy (Connecticut Chapter)