



ORLEANS COUNTY NRCDC TREES FOR STREAMS PROGRAM

ESTABLISHING WOODY VEGETATION
IN RIPARIAN AREAS TO IMPROVE &
PROTECT WATER QUALITY

OVERVIEW

The primary goal of *Trees for Streams* is to improve and protect water quality by establishing woody vegetation in riparian areas. Adding plants along streams and rivers minimizes bank erosion by holding soil in place, and helps trap, store, and filter nutrients from runoff and overland flow during storms and flooding. Vegetated stream banks improve wildlife habitat by shading and cooling water temperatures, and providing a food source and shelter.

Trees for Streams (TFS) projects are typically efforts initiated by OCNRCDC based on site assessment and/or restoration priority areas. OCNRCDC works with property owners or a community to restore a riparian area along a tributary, at a nominal cost to the landowner.

Your property might be a good candidate for our TFS program!



HOW IT WORKS

- 1) OCNRCDC staff meet with landowners to assess the site to determine the suitability of the property and to discuss the landowners goals and program options.
- 2) If the project is selected, OCNRCDC conducts additional onsite assessments and develops a planting plan to review with the landowner.
- 3) OCNRCDC secures grant funding and serves as the project manager of logistics and communications, orders plant material, and coordinates contractors and volunteer crews to install the plants.
- 4) Landowners sign a 10-year maintenance agreement committing to taking care of the site, in partnership with OCNRCDC staff who conduct survivability monitoring.

COMMON QUESTIONS

What is the average cost to the landowner?
TFS projects are often grant funded and do not require a landowner financial commitment. Landowner match is welcomed.

How do we decide on what species to plant?
OCNRCDC staff along with the landowners select native plants best suited to the site conditions, soils, and existing vegetation.

How big does the buffer have to be?
The minimal width of the buffer is 35 feet.

What if the plants die?
Mortality is planned for and expected with all bare root planting projects. A mortality rate of 20% is typical. OCNRCDC will work with the landowner to monitor the site and replant as needed.

Can I plant trees and shrubs that I can harvest from?
Yes! We call this a productive buffer. These buffers provide both ecological benefits and economic opportunities.

What is an ideal property for TFS?

- Adjacent to water bodies
- High runoff potential
- Erosion-prone areas
- Opportunity for ecosystem enhancement



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COMPLETED PROJECT: DOWNINGS

In 2016, we worked with the Downings to establish a riparian buffer on their property along the sinuous and dynamic Whitney Brook and the Black River headwaters. The site had long been cropped as a continuous silage corn field by a local farm with inadequate buffers.

Grant \$: \$12,000 from VTDEC via VACD

Length of buffer: 3,800

Size of buffer: 6 acres

Average width: 50 feet

Stems planted: 1000

of species: 7 species; 600ft willow fascines



Map of Downing planting areas & monitoring transects.

OTHER RELEVANT PROGRAMS

Partners for Fish & Wildlife Program (US Fish & Wildlife Service) - Assists landowners to conserve, protect, and restore fish and wildlife habitat on their property

Conservation Reserve Enhancement Program (USDA NRCS & FSA) - CREP Provides technical and financial assistance to eligible farmers to address natural resource concerns in an environmentally beneficial and cost-effective manner

Environmental Quality Incentives Program (USDA NRCS) - EQIP offers financial and technical assistance to landowners to manage their land for conservation goals.

CONTACT

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PROJECT: TOWN OF CRAFTSBURY

Ten years ago, we worked with the Town of Craftsbury to install a riparian buffer on town property in the village on the east bank of the Black River, just south of the old mill dam. The existing vegetation was limited to some honeysuckle with no large woody vegetation. In addition to creating bank stability, shade and aquatic habitat, the project goal was to create public awareness in a visible location.

Grant \$: \$1800 from VTDEC via VACD with \$1800 match from Town

Length of buffer: 330 feet

Size of buffer: .36 acres

Average width: 50ft

Stems planted: 150

of species: 6

OUR PARTNERS

We work closely with the following partners to identify, design, implement, and fund TFS projects.

- *NorthWoods Stewardship Center* - Provides crews and technical expertise
- *VT Dept of Environmental Conservation, Watershed Division* - Shares expertise on landscape conservation priorities
- *USFWS Partners Program* - Provides matching funds and expertise
- *VT Land Trust* - Close working relationship to support landowner conservation goals
- *Vermont Assoc. of Conservation District* - Provides guidance, leadership and block grant funding