



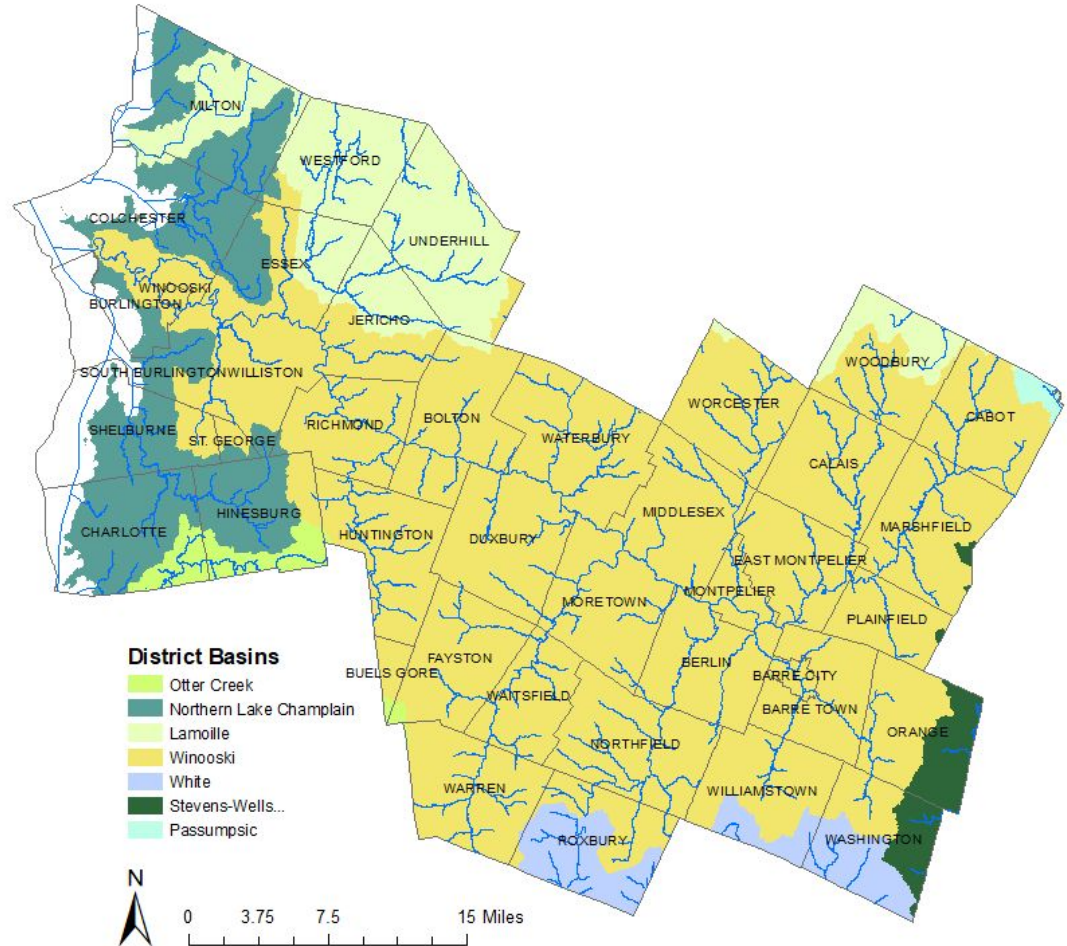
**Introduction to our 2022-2023 projects & programs**

# Mission

Since 1940, the Winooski Natural Resources Conservation District has promoted the wise use, sustainable development, and conservation of our district's natural resources. We connect residents and communities with education and technical assistance to implement on-the-ground projects to improve water quality, soil health, and wildlife habitat.

# Service Area

- We serve all of Chittenden & Washington Counties, as well as 3 towns in Orange County
- Over 40 towns in our service area
- Winooski is the largest Conservation District in Vermont in terms of geographical area as well as population served.



# **Education and Outreach Programs**



# Storm Smart

- Storm Smart is a residential site assessment program that guides property owners in the identification, prioritization, and implementation of practices that reduce negative impacts of stormwater.
- Partnership with Friends of the Mad River and Friends of the Winooski River- 125 assessments under new LCBP grant agreement between now and March 2025
- Available for FREE to ANY resident within the Winooski Conservation District.



# Rethink Runoff Stream Team

WNRCD is contracted to coordinate the Stream Team which is Rethink Runoff's community engagement arm and offers volunteer opportunities, educational workshops, and engaging events in 9 Chittenden County MS4's.

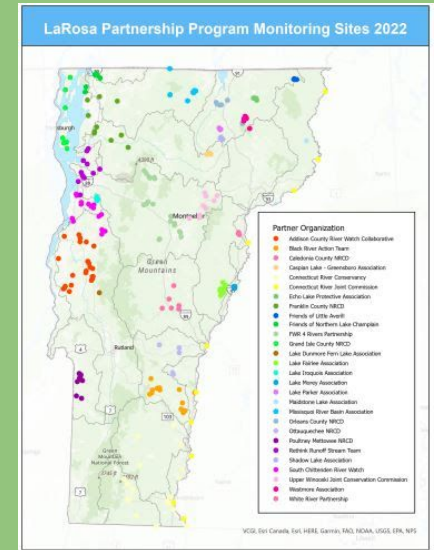
Recent projects include:

- Adopt-a-Drain
- Rain Barrel Workshop
- Stream Clean Up
- Rain Garden Installation
- Stream Monitoring and Water Quality Sampling



# Summer Rain Barrel Workshop

Residents from around Chittenden County joined in the fun and built rain barrels for their homes!



# Vermont Envirothon

Winooski NRCDC is coordinating the 2023 Vermont State Envirothon Competition!

Envirothon is a state-wide competition where high school students put their knowledge of forestry, wildlife, soils and water resources to the test.

Envirothon provides an opportunity for students to participate in hands-on STEM learning and connect with professionals in the fields of soil & water conservation, wildlife, forestry and agriculture.

Teams are composed of five students in grades 9-12 coordinated by one coach, typically a teacher or parent.



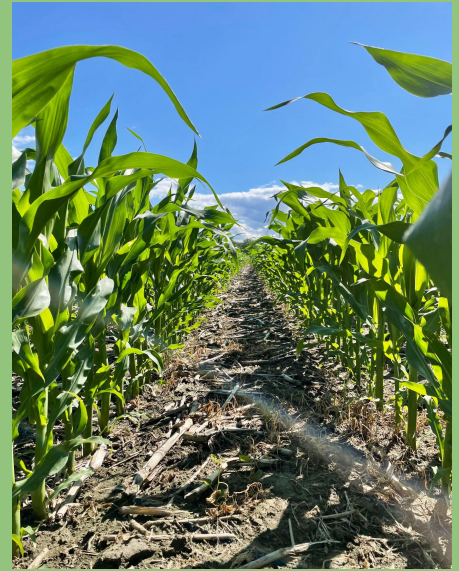
If you if you know a teacher, student, or parent who would be interested in participating please have them contact me: [remy@winooskinrcd.org](mailto:remy@winooskinrcd.org) !

# **Agricultural Programs**



# Agricultural Technical Assistance

- Work with farmers to provide technical assistance and connect them with the resources and funding they need to implement BMP's.
- This includes services such as:
  - Soil Sampling
  - Kitchen Table Talks
  - Workshops
  - Nutrient Management Planning
- We have a soil aerator available for farmers to rent.
- Building closer relationships with NRCS to assist with EQIP, CSP, and CTA contracts.



# VT Pay for Phosphorus Program

- This Program provides performance-based payments to farmers for reductions of phosphorus (P) losses from their fields.
- Enrolled farms will receive payment for annual net reductions from the TMDL baseline, above a threshold.
- WNRCD is contracted to assist Farmers within our District to input and update data in FarmPREP as well as verify data in the field.

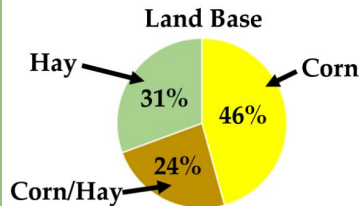


## VPFP Vermont Pay For Phosphorus Program

Performance-based payments for phosphorus reductions on farms

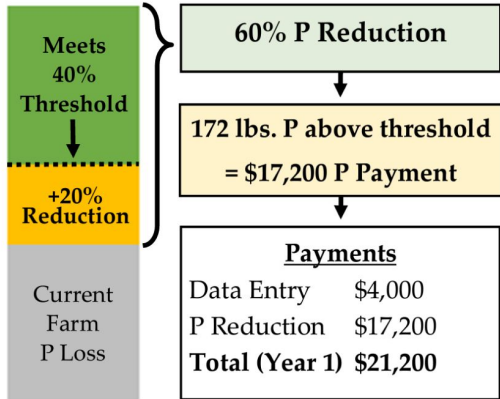
### Farm #1

This dairy farm manages 430 acres with fields primarily located on poorly drained silt loams in corn, hay, and corn/hay rotations.



#### Field Management

- Nutrient Management Planning
- Extended crop rotations
- No-till on annual crops
- Cover crops
- Surface applied manure





# VT Agricultural Water Quality Partnership

MISSION: Improve agricultural water quality in Vermont by coordinating partner efforts to provide education, technical and financial assistance to the farming community.

WNRCD is the regional coordinator for Washington and Chittenden Counties and works to facilitate meetings, set agendas, drive discussion, guide the partnership, and invite presenters.

Partners include:

NRCS, VACD, USFWS, UVM Extension, DEC, FSA, VAAFM, LCBP, and VHCB

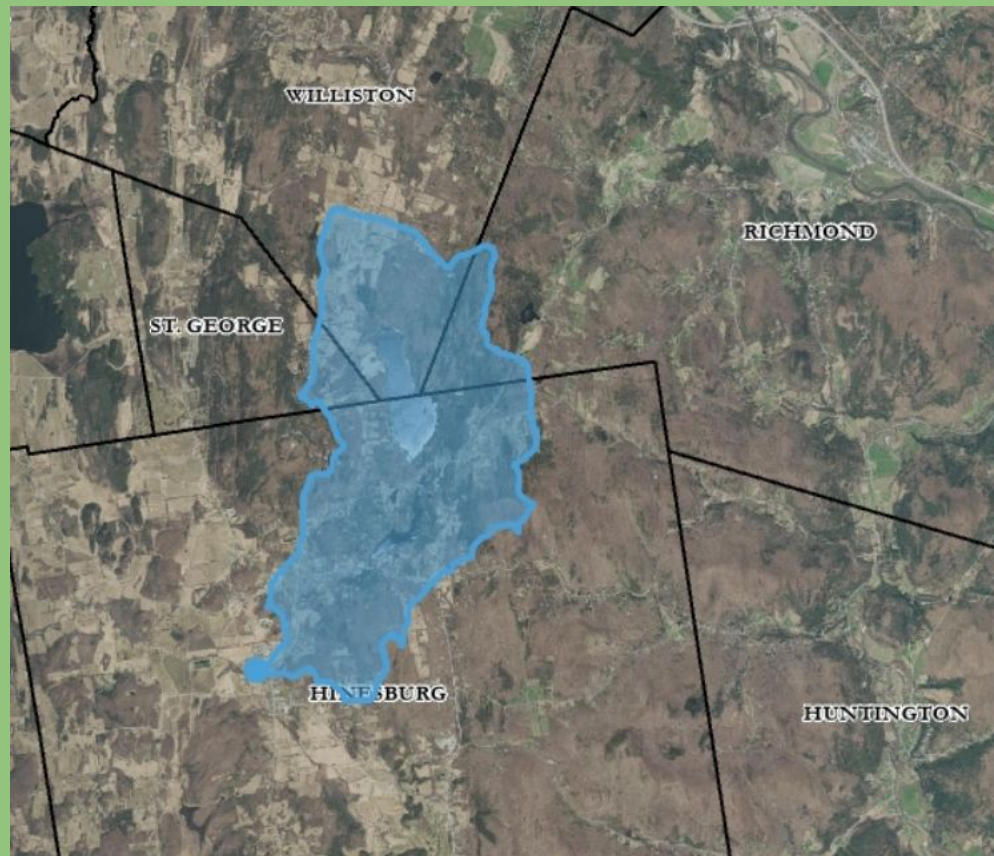


# **Clean Water Projects and Programs**



# Lake Iroquois Watershed Action Plan

- Partnering with Lake Iroquois Association and Lewis Creek Association
- Develop a unified Watershed Action Plan for Lake Iroquois, Sunset (Lower) Lake and Patrick Brook
- Serve as a shared roadmap to cost-effectively address top priority opportunities that remediate stormwater runoff and phosphorus pollution to improve water quality, wildlife habitat, and climate change resilience.
- Seeks to identify and prioritize 40-50 projects within the watershed through assessing roads, tributaries, and private property.
- Top 5-7 projects will receive 30% designs



# Trees for Streams

Trees for Streams seeks to partner with landowners to establish or improve riparian buffers by planting tree and shrub species to control streambank erosion, improve flood resiliency and wildlife habitat.

Last Year WNRCD planted ~1,500 trees and shrubs along riparian areas.

We partner with towns, recreation districts, private landowners, schools, conservation commissions, etc. If you have a project you would like to partner on please reach out.





Located in Washington,  
VT

# Hands Mill Dam Removal

Significant safety  
hazard to human health  
and infrastructure

Removal will restore 14.7  
miles of high quality,  
cold water brook trout  
habitat in the Jail  
Branch of the Winooski  
River

Will remove 14,300 CY  
of impounded  
sediment and a large  
amount of phosphorus.

Stream will be restored  
to equilibrium and  
improve flood resiliency  
within the watershed.





# Hands Mill Continued

- Project is currently wrapping up final design
- Securing funding for implementation which is planned for 2024
  - Secured \$50k through NFWF
  - Secured \$125k through VT DEC CWF
  - Applying for \$600k through the Vermont HMGP and the NFPP



Figure 1. Photo of existing conditions at Hands Mill looking upstream.



Figure 2: Photographic simulation of project site following dam removal

Assisting Town of Washington with the acquisition of a downstream property.

Structures will be removed, site permanently conserved, and restored for a public park with historical signage.





# Aquatic Organism Passage

- WNRCD staff work closely with the United States Fish and Wildlife Service to restore historic habitat function by removing fish passage barriers, including dams and culverts, currently blocking aquatic organism passage (AOP) and natural stream function.
- The project aims to restore 50 miles of brook trout habitat by removing barriers for fish passage.
- The District is currently in the scoping stage for AOP barriers within our District and will continue to work towards creating a more hydrologically connected watershed.



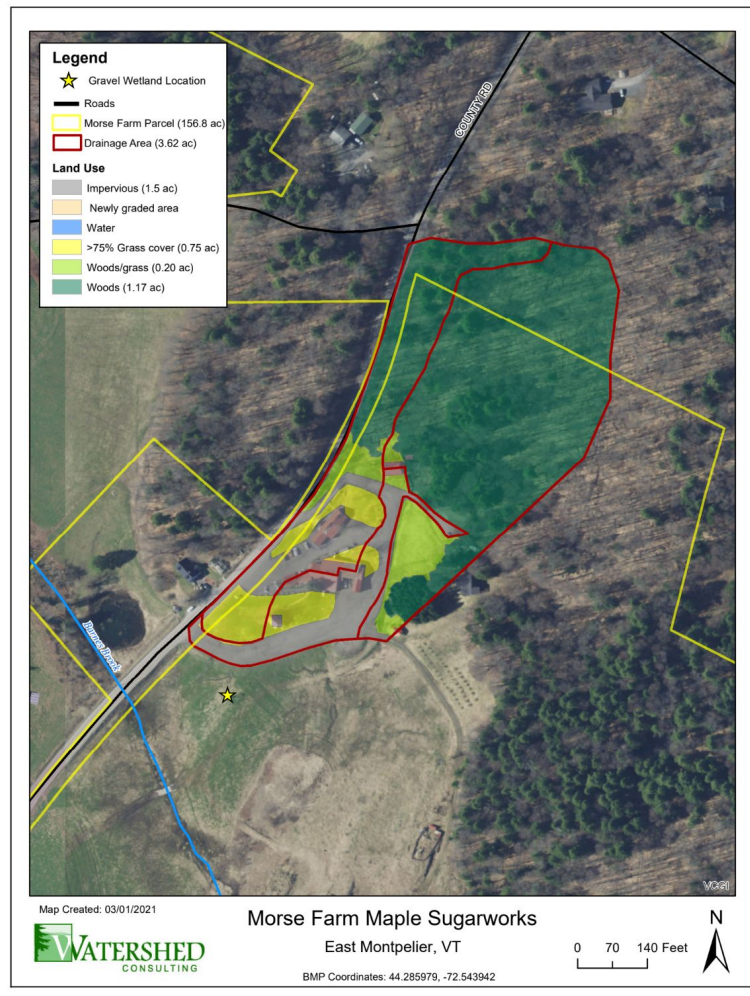
# Morse Farm Gravel Wetland

The Morse Farm property is a priority location for stormwater and erosion treatment due to its heavy land use activity that takes place closely to Barnes Brook, a tributary of the Winooski River. The 3.6 acre drainage area includes unmanaged impervious cover from Morse Farm and a segment of municipal-owned County Road.

Completed Final Design and looking to secure funding for implementation in the coming year.

Final design includes:

- Stone lined ditch, grass lined swale, and a single cell gravel wetland
- Estimated Phosphorus reduction is 1.36kg/year





# Shady Rill Streambank Restoration and Park Redesign

Prior to its confluence with the North Branch, Martins Brook runs along the edge of Shady Rill Recreation Area; a popular picnic spot for Vermonters in and around Middlesex, VT.

The site's access road constrains Martins Brook, and encourages visitors to park immediately adjacent to its banks. Along the reach, evidence of uncontrolled access and heavy use is apparent, resulting in compacted, unvegetated, and crumbling stream banks and significant soil erosion into the brook.



















# Projects on NRCD's radar

- Project Development within Browns River
  - Underhill Central School
    - Substorage stormwater system near the parking area
    - Identified as a top priority in Underhill's SWMP
- Projects identified in Richmond SWMP
- Projects identified through Lake Iroquois Watershed Action Plan
- Morse Farm Gravel Wetland Implementation
- Culvert Replacement in Washington on the Jail Branch above Hands Mill Dam



# What are the biggest resource concerns in your community?

