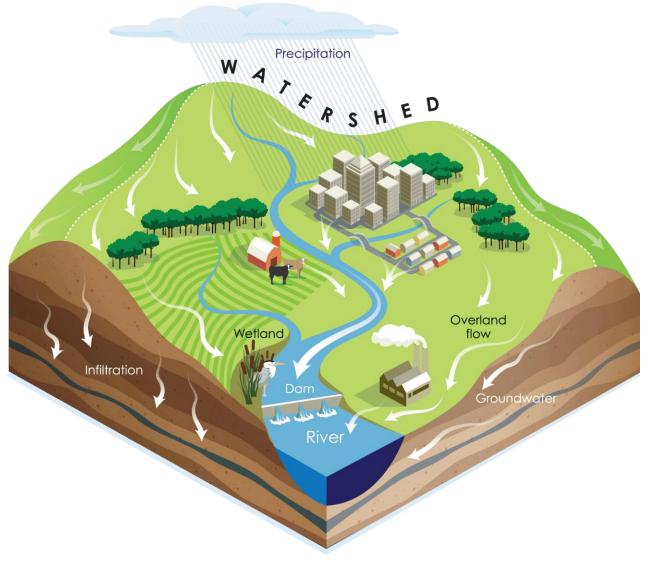


Watershed Planning With Connecticut's Soil and Water Conservation Districts

CEEJAC Water Subcommittee March 31, 2025











Brief History of Conservation Districts in CT

Conservation districts were formed as a result of the Dust Bowl in the 1930's and established by State Statute in CT in the 1940's to assist farmers with soil erosion. This was part of an effort to provide local input to assist the newly formed USDA Soil Conservation Service, now the Natural Resources Conservation Service (NRCS).

Today, we are part of network of over 3,000 districts nation-wide that provide technical assistance, outreach, and education to farmers, landowners, municipalities, and other groups on soil and water conservation and related resources and operate as 501-c-3 organizations.

The Work of the 5 Conservation Districts in CT

CT's 5 conservation districts provide a variety of services focused on sustainable soil and water conservation practices that provide for abundant local food supply and clean water across Connecticut.

We work on soil health, water quality protection, watershed management, regenerative agriculture, sustainable urban/suburban development and construction, natural resource and habitat protection; and host educational programs. These programs are available to all communities both rural and urban.

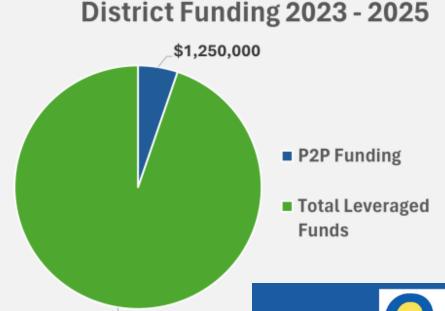
We work on activities across all landscapes – Every Acre Counts!

- Soil health, ag waste management, and conservation planning with farm and forest producers focused on regenerative agriculture
- Urban agriculture and agro-forestry
- Stormwater management and addressing flooding and erosion from storm events
- Water quality assessment and watershed management
- Stream bank stabilization and restoration
- Migratory fish passage projects and other habitat improvement
- Site plan reviews, and soil erosion and sediment control construction inspections
- Municipal wetland agency training, wetland agent services, wetland boundary review
- Pollinator plantings, and promoting use of CT native plants through annual sales
- Educational outreach, including the CT Envirothon high school program, and workshops and publications to promote backyard stewardship for the public









\$22,803,152

Each District in Connecticut gets \$100,000 per year from the State of Connecticut to work on soil and water conservation.

Conservation districts leverage state and federal dollars to assist local communities and landowners with soil and water conservation projects.

2023 - 2025



Community work by the numbers:

Total Funds Leveraged	Funds for Dairy Farmers	Watershed Management Acres	Municipalities Assisted	Educational Publications
\$22,803,152	\$10,488,351	367,958	98	40,536
\$				



CONNECTICUT Conservation Districts

Where We Work

Eastern Connecticut Conservation District
Dan Mullins, Executive Director, 860-319-8808,
dan.mullins@comcast.net, conservect.org/eastern/

Andover-Ashford-Bozrah-Brooklyn-Canterbury-Chaplin-Columbia-Eastford-East Lyme-Franklin-Griswold-Groton-Hampton-Killingly-Lebanon-Ledyard-Lisbon-Mansfield-Montville-New London-North Stonington-Norwich-Plainfield-Pomfret-Preston-Putnam-Scotland-Sprague-Sterling-Stonington-Thompson-Union-Voluntown-Waterford-Windham-Woodstock

North Central Conservation District
Joanna Shapiro, Executive Director, 860-875-3881
jshapiro@conservect.org, conservect.org/northcentral/

Avon-Bloomfield-Bolton-Bristol-Burlington-Canton-Coventry-East Granby-East Hartford-East Windsor-Ellington-Enfield-Farmington-Glastonbury-Granby-Hartford-Manchester-Plainville-Simsbury-Somers-South Windsor-Stafford-Suffield-Tolland-Vernon-West Hartford-Wethersfield-Willington-Windsor-Windsor Locks

Northwest Conservation District
Annette Lott, Interim Executive Director, 860-626-7222
annettel@nwcd.org, nwcd.org/

Barkhamsted-Bethel-Bethlehem-Bridgewater-Brookfield-Canaan-Colebrook-Cornwall-Danbury-Goshen-Hartland-Harwinton-Kent-Litchfield-Morris-New Fairfield-New Hartford-New Milford-Newtown-Norfolk-North Canaan-Plymouth-Roxbury-Salisbury-Sharon-Sherman-Southbury-Thomaston-Torrington-Warren-Washington-Watertown-Winchester-Woodbury

Southwest Conservation District
Chris Sullivan, Executive Director, 203-859-7014
csullivan@conservect.org, conservect.org/southwest/

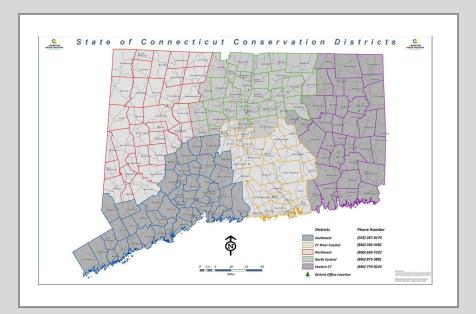
Ansonia-Beacon Falls-Bethany-Branford-Bridgeport-Cheshire-Darien-Derby-East Haven-Easton-Fairfield-Greenwich-Guilford-Hamden-Meriden-Middlebury-Milford-Monroe-Naugatuck-New Canaan-New Haven-North Branford-North Haven-Norwalk-Orange-Oxford-Prospect-Redding-Ridgefield-Seymour-Shelton-Southington-Stamford-Stratford-Trumbull-Wallingford-Waterbury-West Haven-Weston-Westport-Wilton-Wolcott-Woodbridge

Connecticut River Coastal Conservation District Jane Brawerman, Executive Director, 860-346-3282 jbrawerman@conservect.org, conservect.org/ctrivercoastal

Berlin-Chester-Clinton-Colchester-Cromwell-Deep River-Durham-East Haddam-East Hampton-Essex-Haddam-Hebron-Killingworth-Lyme-Madison-Marlborough-Middlefield-Middletown-Newington-New Britain-Old Lyme-Old Saybrook-Portland-Rocky Hill-Salem-Westbrook

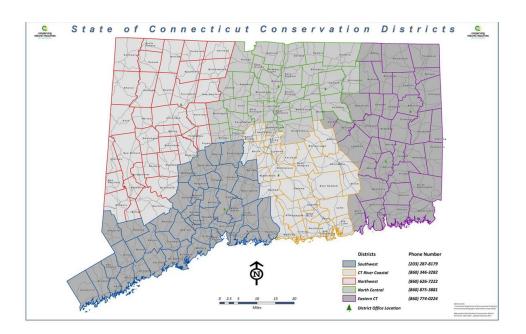


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CONNECTICUT Conservation Districts



Did you know that in accordance with State Statute any resident of Connecticut interested in soil and water conservation is eligible to become a conservation district board member? Board members are elected at the Annual Meeting – usually held in fall of each year. You must be a resident of the towns served by the board.

Conservation districts are always looking for new board members. If you are interested contact your local conservation district or Denise Savageau, President of the CT Association of Conservation Districts.



Southwest Conservation District

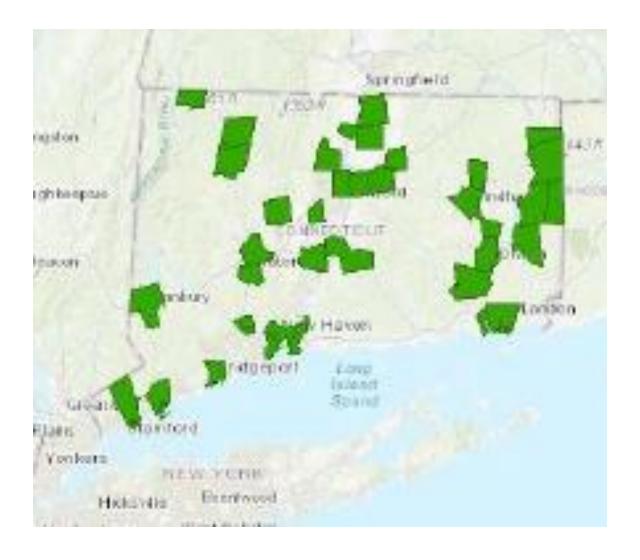
Farm River Watershed Planning Work





LISFF Urban Waters Partners Grant

- Diversity & Equity Training
 - Staff and Board
 - Pre survey of attendees
 - Multiple sessions
 - Outcome to form Standing Committee
- Districts conduct outreach in underresourced communities
- Implementation work in same communities
 - Gardens
 - Education work (Enviroscape)
 - Canoe/kayak access install
- Board Diversification



Where is SWCD?

- HQ in Hamden
- SWCD Service Area
- 43 municipalities
- New Haven & Fairfield
- Diverse Socioeconomically



4/1/2025

Farm River Watershed Work

- First task when hired (2019)
- Stakeholders
- Contractor
- Link to report here

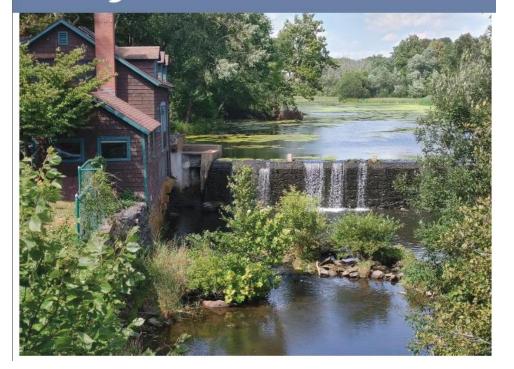




Farm River Watershed Management Plan

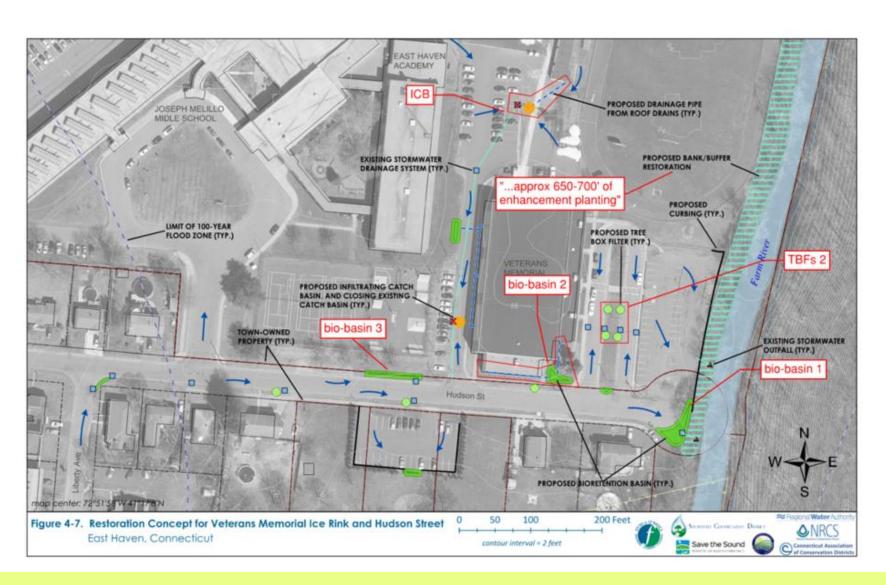
prepared by fuss&O'NEILL

AUGUST 2021



Green Stormwater Infrastructure

- East Haven Hockey Rink
- Project from WBP
- Infiltration practices
- Riparian Buffer Restoration
- Test Holes earlier in March





Environmental Justice, Community Engagement, and Outreach

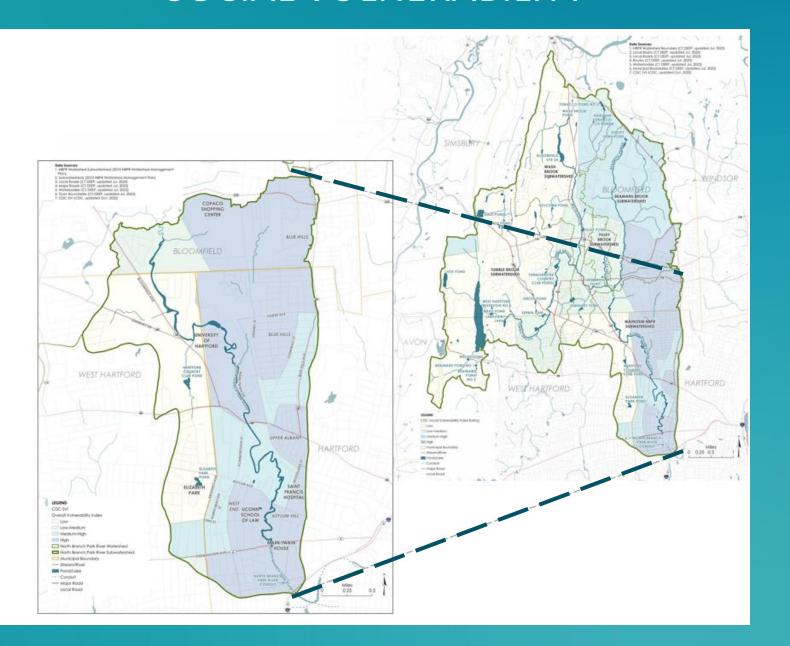
Presented by Joanna Shapiro Executive Director, North Central Conservation District

TABLE OF CONTENTS

- 1. Vulnerabilities within the watershed (social, heat, and flood)
- 2. Watershed Plan Update Goals
- 3. Community engagement: Meetings and activities
- 4. Climate and community resilience recommendations

The entire portion of the watershed in Hartford (designated as a distressed municipality) and sections of Bloomfield and West Hartford meet the definition of an **Environmental** Justice Community.

SOCIAL VULNERABILITY



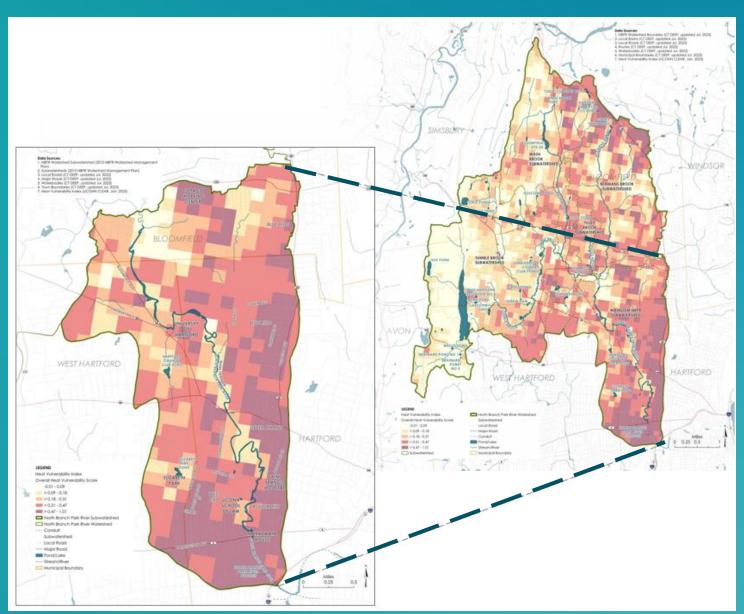
Most of the watershed has a medium-high social vulnerability index rating, with areas of higher social vulnerability in portions of the watershed within Hartford and in the Blue Hills section of Bloomfield.



HEAT VULNERABILITY

The watershed has
moderate to high
vulnerability to
extreme heat. The
shaded squares of
darker red represent
areas with a higher
CCVI heat
vulnerability score



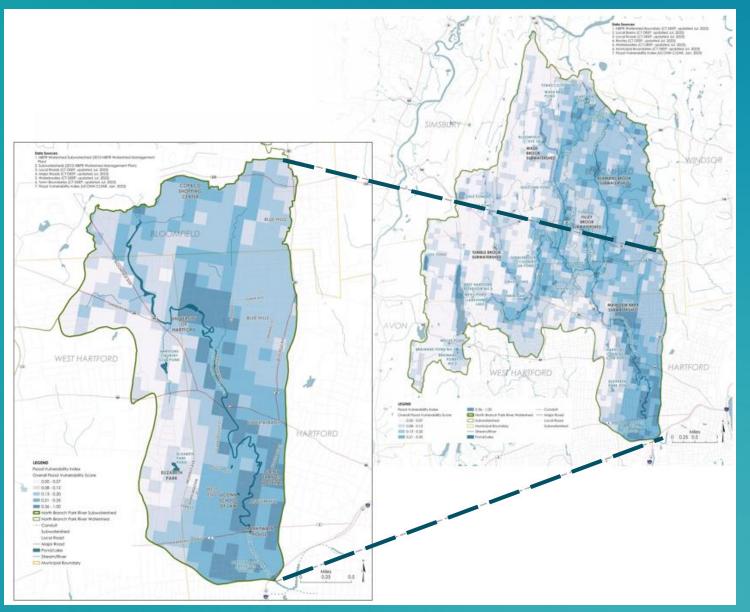




The areas most
vulnerable to extreme
heat (as shown by the
darker red squares) are
dominated by
hardscape. It's notable
that forested areas
within the urban
portion of the lower
watershed have
significantly lower heat
vulnerability scores.

FLOOD VULNERABILITY

The watershed has moderate to high vulnerability to riverine and drainage-related flooding, with the more heavily developed eastern half of the watershed being most vulnerable.



The shaded squares of darker blue represent areas with higher CCVI flood vulnerability scores compared to the lighter shades. Factors contributing to higher flood vulnerability include high impervious cover, low open space, high building density, and a variety of ecological and social factors.

WATERSHED MANAGEMENT PLAN UPDATE

UPDATED PLAN GOALS AND OBJECTIVES

NEW GOAL

- 1. Capacity and Plan Implementation
- A. Watershed Organization
- B. Collaboration
- C. Funding

2. Water Quality

- A. Combined Sewer Overflows
- B. Green
 Infrastructure and
 Low Impact
 Development
- C. Illicit Discharges
- D. Monitoring
- E. Field Assessments

3. Climate and Community Resilience

- A. Riverine Flooding and FloodManagement
- B. Stormwater
 Flooding and
 Impervious Surface
 Mitigation

4. Habitat Protection and Restoration

- A. Riparian Restoration
- B. Urban Forests and Tree Canopy
- C. Invasive Species
 Control
- D. Stream Cleanups

5. Sustainable Growth and Land Use

- A. Smart Growth
- B. Open Space
 Protection & Land
 Acquisition and
 Conservation
- C. Public Access
- D. Urban Landscape Design

6. Public Education and Stewardship

- A. Youth and Students
- B. Campuses and Institutional Property Owners
- C. Residents and Homeowners
- D. Municipal Staff and Volunteer
 Commissions
- E. Businesses and Commercial Landowners

EQUITY

COMMUNITY ENGAGEMENT MEETINGS

COMMUNITY MEETING AT CLASSICAL MAGNET SCHOOL

- June 10, 2024Purpose was to seek
- feedback on green
 infrastructure design
 concepts from
 stakeholders in the lower
 portion of the watershed
- Program consisted of a field walk to discuss green infrastructure conceptual designs, a project presentation, and interactive design stations

GREATER HARTFORD FLOOD COMMISSION QUARTERLY MEETING

- September 18, 2024
- Team presented a project update which summarized the 2025 Watershed Plan update including project background, goals, and the green infrastructure design process
- Preliminary green infrastructure designs were presented for a proposed floodplain restoration project and green stormwater infrastructure retrofits

COMMUNITY MEETING AT UNIVERSITY HIGH SCHOOL OF SCIENCE & ENGINEERING

- October 16, 2024
- Purpose was to seek feedback on green infrastructure design concepts from stakeholders in the Mark Twain Drive/Blue Hills portion of the watershed
- Program consisted of a field walk to discuss green infrastructure conceptual designs, a project presentation, and interactive design stations

VIRTUAL COMMUNITY MEETING - ENVIRONMENTAL JUSTICE FOCUS

- December 5, 2024
- Included "office hours" prior to the start of the meeting for informal discussion
- Included a presentation by the NCCD team and Sarah Huang, CTDEEP Office Director for Environmental Justice
- Community questions and discussion followed
- Recorded and made available through local public e-newsletters

COMMUNITY ENGAGEMENT

ACTIVITIES

COMMUNITY ACTIVITIES & WALKSHOPS

- July 15, 2023: Walkshop with Asylum Hill Neighborhood Association (AHNA) Green Committee, Immanuel Congregational Church, West End Civic Association, Trust for Public Land, and Park Watershed.
- July 25 & August 21, 2023: Volunteer service & walkshop activities with Our Piece of the Pie (OPP) and AHNA Green
- September 30, 2023, November 17, 2023, & September 28, 2024: Neighborhood volunteer stream cleanups & invasive species removal projects
- October 28 & November 2-3 2023: Bioretention basin maintenance conducted by volunteers from UConn School of Law & Trinity College.
- June 1, 2024: AHNA Green volunteers assisted with cleanup of the Classical Magnet rain garden and east banks of the North Branch
- April 26 27, 2024: University of St. Joseph hosted a North Branch Bioblitz, which included a walk led by Sierra Club, HIU and Hartford youth.
- **November 20, 2024:** Connecticut River Conservancy hosted an online presentation of the NCCD project work for Lower River stewards.

WATERSHED SURVEY

- Developed to obtain feedback from community and other stakeholders
- ~140 survey responses received
- Helped inform the watershed plan update

PROJECT WEBSITE

- Provides online access to project-related information during the plan update & design process
- Includes project background, community engagement, maps, green infrastructure designs, and the 2025 Watershed Management Plan update
- Houses copies of summaries, presentation materials, and recordings from the community meetings and other activities

COMMUNITY ENGAGEMENT













CLIMATE AND COMMUNITY RESILIENCE RECOMMENDATIONS

Replace undersized culverts and bridges -

Asylum Avenue Bridge and culverts downstream of Granby Street Conduit outlet (railroad and Mark Twain Drive).

- Develop a hydraulic and sediment transport model (HEC-RAS) of the North Branch Park River to evaluate and design channel and floodplain improvements to reduce riverine flood risk and geomorphic instability.
 - Manage large woody debris (LWD) -

trees that have fallen into the river channel because of bank undercutting and can be mobilized by high flows and eventually get caught up in clusters that can create dams and adversely impact bridge and culvert openings.

- Develop and implement a North Branch Park River Maintenance Program trash and debris cleanup, channel repairs, and storm drain outfall maintenance and repairs
- Perform targeted sediment removal along the North Branch Park River at the Park River Conduit inlet and Granby Street Conduit outlet.
- Implement improvements to the Park River Conduit inlet structure to create easier access to the structure to remove debris.
- Complete preliminary and detailed design of the North Branch Park River channel and floodplain improvements to improve flood resilience and geomorphic stability
 - Restore and re-naturalize developed portions of the North Branch Park River floodplain





Eastern CT Conservation District

Improving Drinking Water Quality
In
Environmental Justice Communities:
Windham and Putnam

Windham/Willimantic

Natchaug River provides drinking water to Windham and portions of Mansfield

Previous Projects

> Mt Hope River Implementation Project Perry Hill Estates

Installed 12 pet waste stations, two rain gardens, constructed dumpster pads and installed storm drain filters

➤ Development of Natchaug Healthy Watershed Protection Plan; 1st Healthy Watershed Plan in CT (2020)

Current Project

Implementation of recommendation from *Natchaug Healthy Watershed*Protection Plan to create the Natchaug River Advisory Board

Putnam

Little River provides drinking water to Putnam's residents

Plans Developed

- Muddy Brook and Little River Water Quality Improvement Plan (2009)
- Roseland Lake Management Plan (2018)
- ➤ Little River Watershed Based Plan Update (2023) facilitated the redesignation of the Little River Watershed as a National Water Quality Initiative by NRCS

Implementation Projects

- > aerated compost facility for dairy mortality and heifer manure
- > Free-stall barn with agricultural waste facilities
- Multiple silage bunkers
- > Two precision planters for two farms
- Denitrifying woodchip bioreactor
- Silage bunker, sub-surface drainage, high-low flow separator, ag waste transfer system and storage tanks, pumphouse and liquid/solid separator

Questions?

Contact:

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