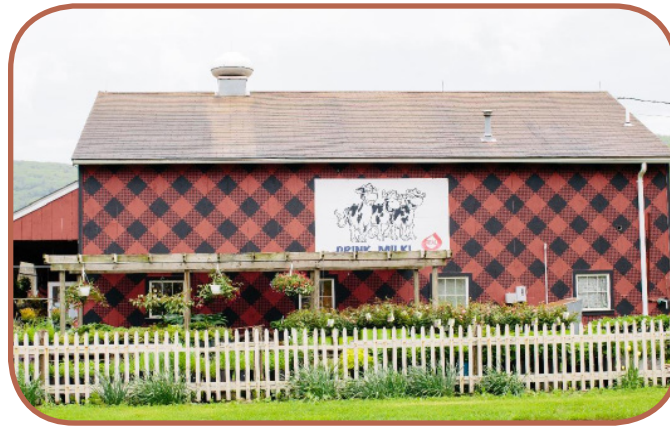


The Voice of Local Conservation

Spring/Summer 2018



You are invited to the NWCD's Annual Meeting
on August 9th, 2018

Freund's Farm Market & Bakery

324 Norfolk Road, East Canaan, CT 06024

5:30 PM Farm Tour, followed by a buffet and awards

For reservations call 860-626-7222 or email info@nwcd.org



**NORTHWEST
CONSERVATION
DISTRICT**
www.nwcd.org

Serving the following 34 towns:

Barkhamsted, Bethel, Bethlehem, Bridgewater, Brookfield, Canaan (Falls Village), 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 and Woodbury.

Conserving Water and Soil Resources for Our Future

Growing up with a gardening mother, I learned early about compost and manure, roses and tomatoes, aphids and slugs. I did not learn how they connected to a bigger picture. Compost and manure was mysterious and nourished plants. I learned little, if anything, about how waste decomposed into essential elements and organic matter.

Playing in the woods, collecting frog spawn and raising tadpoles in a galvanized tin bathtub in the garden was great fun and a learning experience but I didn't learn how frogs eat insects and other critters and are, themselves, eaten by other larger predators. I now know about the food chain – an essential cycle of life that includes plants, animals, insects and soil microbes. Everything eats!

'Something Wasn't Right'

Reading "Silent Spring" in the 70's, I anguished about the use of toxic chemicals and fertilizers on farms and home gardens. Later, I discovered the organic movement and permaculture, a design system started by Bill Mollison of Australia. Permaculture emerged as an alternative design system for humans to produce our essential needs in ways that mimic nature without destroying the planet in the process. To understand permaculture, we first need to look deeply at nature.

This may take practice as we are not accustomed to deep observation of our surroundings the way indigenous people are. Permaculture includes a set of principles and ethics to inform everything we want to do. These ensure that human activities consider the

An Introduction to Permaculture

by Cynthia Rabinowitz

rights of others and the protection of the environment. The whole planet – the gaseous atmosphere; the hydrological systems of the oceans and freshwater; the land, with its regenerating soil, all working in a balanced, self-perpetuating system.

The Most Important Human Endeavor?

Agriculture could be considered the most important human endeavor, since we must have food to live. As agriculture replaced hunting/gathering, humans generally worked on a small scale, without the use of machines and not impacting the self-regulating systems of the earth in ways that destroy them. There was no fossil fuel. This agriculture

was permanent agriculture.

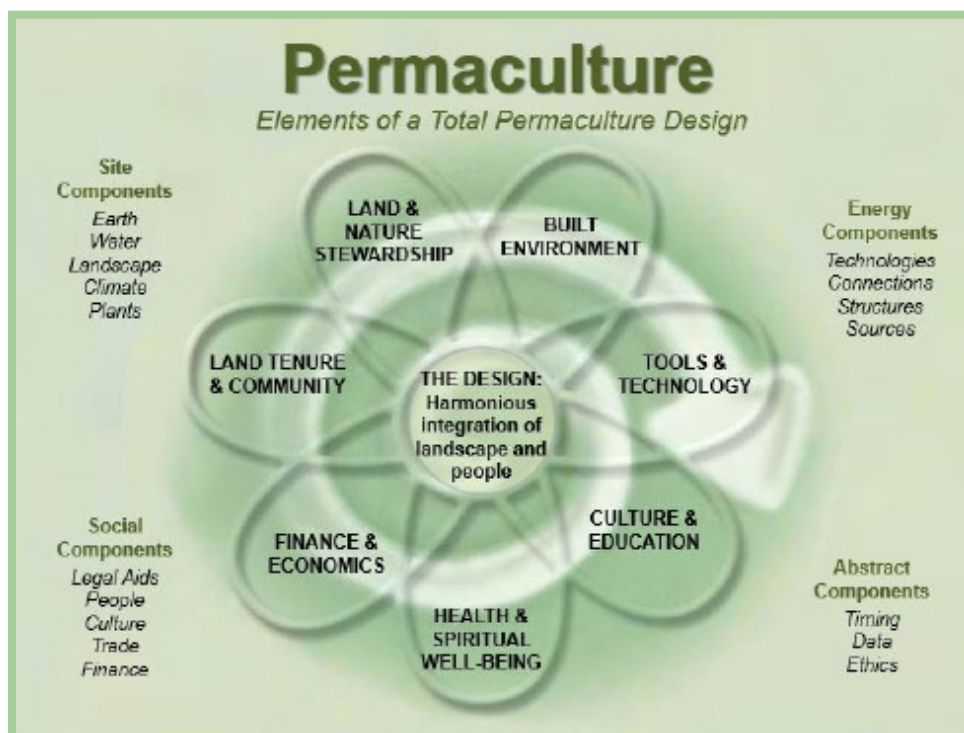
Permanent meaning forever replicable. This is what is meant by sustainability. Waste becomes a resource.

Permaculture shows us how to return to sustainable agriculture by strengthening key components of regenerative ecosystem management:

- Increasing biomass
- Increasing biological activity
- Intentional re-mineralizing of the soil
- Increasing biodiversity.

Application

To spread these ideas, Mollison, with his student (later partner) David Holmgren, developed an educational protocol known as the



Permaculture Design Certification Course (PDC). The minimum 72-hour PDC is taught worldwide by trained instructors and practitioners of the design system drawing on science and design knowledge. Permaculture is practiced on all continents and the skills enable people to apply the ethics and principles to large or small-scale permaculture projects.

Adapted to each region and climatic zone, permaculture guides us to a deep understanding of our resources and limitations, and how to sustainably manage our small or large properties, neighborhoods and towns, to develop resilient communities with thriving local economies.

Training starts with site assessment. Sites are apartment balconies, large farms, urban or suburban neighborhoods, or towns. Site assessment is deep observation and gathering information about the soil, hydrology, climate and weather patterns, sun exposure, topography, vegetation, human resources, and the built environment.

Design Phase

In the design phase we imagine the systems we want and how to position them for convenience and best use of energy, including our own. The design should incorporate permaculture principles. It is useful to think of each element that you want in your design and how it relates to the permaculture principles. Each design element should fulfill multiple functions.

Once the overall design is created, the details are worked out within each element of the design. Designing the details may be an ongoing activity since new ideas and better ways to do things emerge in time.

A Lifestyle Choice

To summarize, permaculture is a lifestyle. Permaculture is a framework within which we may produce everything we need for survival, leaving as small a footprint on the planet as possible.

Permaculture is a design process through which we visually organize our projects. Permaculture is a movement and people worldwide are practicing and engaging to build better lifestyles for themselves and their communities.

Greetings to all NWCD members and supporters!

My journey to the NWCD began in the 1980's. With my new agronomy and environmental horticulture degree in hand, I began as a soil science and inland wetland consultant with a firm in Cheshire. Soon, I was recruited by UConn to be County Agriculture and Community Resource Development Agent for New Haven County. I worked with small farmers, home gardeners, the Master Gardener program, and helped organize community gardens and farmers' markets. It was an exciting time for small farms and the beginning of the organic farming movement in Connecticut. I was drafted to be part of the founding board of the Northeast Organic Farmers Association (NOFA) Connecticut Chapter, a life-changing experience. I hope to explore ways for NWCD to promote agriculture that restores soil health and our water resources, while protecting birds and beneficial insects.



Years on, I started my own consulting firm and a commercial greenhouse operation producing unusual and hard-to-find plants. After 15 years, I chose to concentrate completely on the ecology consulting business, specializing in inland wetland investigations, restoration landscape plans and permaculture.

I am grateful to work with the dedicated NWCD Board Members, staff, and volunteers to continue the work of the District and introduce new program areas. Upcoming programs are listed on the back page.

For information about Bill Mollison and the history of **permaculture** follow this link: <https://www.permaculture.co.uk/articles/bill-mollison-birth-global-movement>.

For information on the District's monthly Permaculture discussion group or for a presentation for your group, contact us at cynthiar@nwcd.org.

A Low Impact Development Design Manual



The Northwest Conservation District (NWCD), in partnership with the Northwest Hills Council of Governments (NHCOG), obtained grant funding from the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) for Low Impact Development (LID) initiatives in northwestern towns served by NWCD and the NHCOG. The mission of CIRCA, a partnership of the University of Connecticut and CT DEEP, is to increase the resilience and sustainability of vulnerable communities to the growing impacts of climate change on the natural, built and human environment. The grant, with additional funding from the Connecticut Community Foundation, supported NWCD's work with the Town of Morris to create and assist in the implementation of a Low Impact Development Design Manual into their land use regulatory processes.



The manual was designed by Trinkaus Engineering, LLC in collaboration with Morris Town Planner Tom McGowan. The manual describes the need for the LID approach, engineering specifications for successful systems and sample enforcement tools. While the initial focus of LID remains on stormwater management, the idea of identifying, evaluating and preserving sensitive natural resources has gained traction. This approach leads to creating more sustainable development practices. Therefore, the more appropriate name for the manual's approach became Low Impact Sustainable Development (LISD). The LISD practices in the manual serve to increase the resilience of Connecticut's small towns by protecting drinking water supplies and other water resources, improving water quality within watersheds, protecting agricultural resources, and protecting the built human environment from flooding. The Morris manual focuses on the need for higher scrutiny of the land around Bantam Lake in order to address increasing concerns for the long-term health of the lake. Thus, this product serves as a model for other small towns in our region, as well as statewide, looking to tackle similar strategies. The NWCOG and NWCD envision this design manual to serve as a model for stormwater water management and climate resiliency in the part of Connecticut that we treasure and call home.

Visit <http://northwesthillscog.org/wp-content/uploads/2017/12/Morris-LISD-Manual-FINAL-1-1.pdf>

Watch for these Birds and other Wildlife

Look for these Plants and Trees

Native Meadows Preserve

Wildlife

Wildlife is a key component of the Native Meadows Preserve. The preserve is a natural habitat for many species of birds and other wildlife. The preserve is a natural habitat for many species of birds and other wildlife. The preserve is a natural habitat for many species of birds and other wildlife.

Flood Control & Water Quality

Native meadows provide natural flood control and water quality benefits. The meadows act as a natural sponge, absorbing excess water and filtering out pollutants. This helps to reduce the risk of flooding and improve the quality of the water in the nearby streams and rivers.

Wetland Habitat

Native meadows provide important habitat for many species of birds and other wildlife. The meadows are a natural habitat for many species of birds and other wildlife. The meadows are a natural habitat for many species of birds and other wildlife.

Invasive Plants

Native meadows are a natural habitat for many species of birds and other wildlife. The meadows are a natural habitat for many species of birds and other wildlife. The meadows are a natural habitat for many species of birds and other wildlife.

Riparian Buffer, Flood Channel

Native meadows provide important habitat for many species of birds and other wildlife. The meadows are a natural habitat for many species of birds and other wildlife. The meadows are a natural habitat for many species of birds and other wildlife.

Northwest Conservation District
Learn more online at NWCD.org
Email us at info@nwcd.org

VISIT NATIVE MEADOWS AND SEE OUR NEWLY INSTALLED PARKING LOT AND EDUCATIONAL SIGNAGE!

4



From Concept to Reality - Brookfield's Still River Greenway

On October 19th, 2016, the Town of Brookfield had a ribbon cutting ceremony to officially open two miles of the recently completed Still River Greenway. Dennis DePinto, Brookfield Park and Recreation Director, in opening remarks, addressed the

history of the "Sixteen years from concept to reality" of the design and creation of the trail.

Mr. DePinto gave credit to the many persons and entities that helped make it possible starting with the late Arthur Harris, a long time Brookfield resident that had a vision back in the 1960's to establish what was then simply called the "Route Seven Linear Park". Mr. DePinto addressed the work in the last sixteen years during which the town's Recreation Enhancement Council examined the possibilities of expanding the trail system to the current configuration. It was during those years that a "grass roots" group of individuals went on to raise tens of thousands of dollars that paid for professional consultants, countless studies and grant writers. These studies very quickly put the Town in a position to qualify for a variety of grant funding opportunities, including grant opportunities that opened the door to partnership with the Northwest Conservation District.

During the construction phase the District was the environmental inspector designed by the Town of Brookfield's land use commissions to oversee the construction of the trail for environmental management and wetlands protection. The District oversaw the wetlands mitigation in the trail's numerous environmentally sensitive wetlands areas and coordinated and help fund the revegetation of a valuable vernal pool adjacent to the trail. Since the trail opening, the District has helped fund the design and implementation of a failing detention basin at the Trail parking lot and has created educational signage that is now in place along the trail.

All of us at the District have been honored to be part of this exemplary project and to partner with the many townspeople, town staff and officials that helped to make this project an environmental success and a source of community pride for many decades to come.

Still River Greenway
B R O O K F I E L D C T

Vernal Pools

Disappearing Habitat
Look carefully just across the trail. Do you see shallow ponds or leaf covered shallow depressions? These are very unique habitats called vernal or spring pools. Perhaps you have heard the wonderful chirping sounds of new life in early spring coming from a vernal pool. These shallow depressions usually found in forested wetlands can be used over in winter, contain water in the spring and early summer and appear dry and lifeless in the summer and early fall months.

Vernal Pool Life
The Greenway Trail has been carefully designed to loop around these vernal pools for their long term protection and preservation. They are essential breeding habitat for certain species of wildlife, called "obligate" species. Connecticut obligate species include Wood Frogs, Spotted, Marbled and Jefferson Salamanders and Fairy Shrimp.

Protect Vernal Pools
Vernal pools in the Connecticut landscape are threatened by development. The loss of critical terrestrial habitat around them is leading to the local loss of amphibian species and a decrease in diversity. You can help to notice and protect them and their unique concert of croaks and chirps signaling the long awaited arrival of spring.

From November to March, frogs, salamanders and shrimp can be seen traveling to this unique and ever-changing habitat to find protection from predators, mate and lay eggs before the pools dry up again and fade into the summer forest floor. In fact, these species return to breed in the very same pool where they were spawned. Because these pools cannot support breeding populations of fish, they are a safe habitat. Vernal Pools receive water from the rising water table in fall and winter and spring snowmelt and run-off.

LEADERSHIP TRAINING FOR SUSTAINABILITY

OCTOBER 13, 9:30-3:30PM, NEW MORNING
MARKET, 129 MAIN ST NORTH, WOODBURY

NWCD is presenting a Leadership Training for Sustainability event designed to help people work within a new statewide program called SustainableCT (<http://sustainablect.org/>). Co-facilitators for the event are Giovanni Ciarlo and Kathleen Sartor, best known for their work with Ecoaldea Huehucocoyotl in Tepoztlan, Mexico, an ecovillage based on principles of sustainability through the arts and ecology. The workshop will help participants explore and develop personal leadership styles and effective communication styles in a collective and supportive setting. Participants will engage in a series of activities and reflections on the importance and need to create sustainable actions in their town. For more information or to register, email info@nwcd.org or call 860-626-7222.

CT Envirothon 2017-2018

CT Envirothon, a natural resource based education program started in 1992 by the state's Soil and Water Conservation Districts, provides high school students with a year-long competitive problem solving natural resource event. The program provides in-class curriculum and hands-on field experience in core categories of forestry, aquatics, wildlife, and soils.

CT Envirothon, following the mission of the NCF-Envirothon, is to develop knowledgeable, skilled and dedicated citizens. These future community members will gain an understanding of natural resources and are willing and prepared to work towards achieving and maintaining a balance between the quality of life and the quality of the environment.

In 2017, NWCD's area schools, Marvelwood, Housatonic Valley Regional, Northwest Regional 7, Wamogo Regional, Thomaston and Nonnewaug High Schools participated in a statewide field day

competition at the Tolland Ag Center in Vernon. As part of the 2017 national current topic, "Agricultural Soil and Water Conservation," teams presented oral presentations on a permaculture project designed for their school or town. Prior to her arrival at NWCD in September, Cynthia Rabinowitz worked with CT Envirothon to guide and educate participating students and teachers on the principles of permaculture in preparation for their field day presentation.



Housatonic Valley Agriscience took first place overall. Representing Connecticut, the team traveled to Maryland to participate in the NCF-Envirothon competition.

This year, NWCD's area schools Housatonic Valley Regional, Northwest Regional 7, Wamogo Regional and Nonnewaug High School participated in the statewide field day competition at Topsmead State Forest in Litchfield. As part of the 2018 national current topic, "Western Rangeland Management", teams presented oral presentation on management plans for UConn's Horsebarn Hill. The plan was designed to provide for the needs of the farm operation, while allowing bobolink chicks time to fledge and low impact recreation to the farm and to grassland birds. Attendees were treated to bobolinks flying over the farm fields surrounding the event.

A big NWCD shout-out goes to Mari Cullerton, Housatonic Valley 2018 graduate and longtime CT Envirothon team member. Mari took time from her Environmental Science studies at UConn to volunteer at field day and cheer on all the attending schools.

For more information how you can start or support a team, visit ct.envirothon.org.

NRCS Assistance and Funding Opportunities

The Natural Resource Conservation Service (NRCS) is currently meeting with farmers and forest land owners to discuss potential 2019/2020 projects. While we do not have grants, we do provide free technical assistance and may be able to provide financial assistance through our Environmental Quality Incentives Program (EQIP)

We can assist with helping control soil erosion and improving soil health, address water quality and quantity issues, provide guidance

for livestock grazing and nutrient management, improve forest health and wildlife habitat, address energy efficiency in buildings and throughout your operation, including maple



syrup production. We work with large and small farms to assist you in meeting long and short term goals.

If you think you may be interested in NRCS assistance, please contact our office at 860-626-8852 or stop in for guidance before making any agreements with foresters or contractors to make sure you have all the most up-to-date program information as some agreements may make you ineligible for program assistance.

CONSERVATION AWARDS 2017

Last year's annual meeting at the Painted Pony in Bethlehem saw three Conservation winners honored.

The CONSERVATION VOLUNTEER Award was presented to Lynn Fulkerson, a long time Litchfield resident and retiring NWCD board member, in recognition of her tireless and selfless dedication to protecting and preserving natural resources, promoting energy conservation and creating locally grown, healthy food sources for the northwest hills community through example and advocacy in all walks of life. In 2000, Lynn co-founded the Interreligious Eco-Justice Network (IREJN). Connecticut's only faith-based environmental non-profit organization. Lynn currently serves on the Litchfield

Energy Task Force, and Litchfield Green Team and is an active member of Goshen Green Garden that raises fresh organic vegetables to distribute to those in need.

The CONSERVATION EDUCATOR Award was presented to Tara Jo Holmberg, Northwestern Connecticut Community College (NCCC) Professor of Environmental Science and Biology and NWCD board member. Tara Jo's award was in recognition of her years of educational outreach on environmental sustainability to her students, fellow staff members and community partners, and also her tireless work to create and further a culture of engagement for the protection and preservation of all natural resources. Tara Jo was named the 2016 Connecticut Community Engaged Educator by Connecticut Campus Compact, an award that honors an outstanding individual for having significant influence on student civic learning and development. In collaboration with NWCD, Tara Jo was instrumental in the

construction of rain, pollinator, and buffer gardens on the NCCC campus to repair natural habitats along the Still River which runs through the NCCC campus.

The CONSERVATION FARMERS Award was presented to Sister Emmanuelle, Abbey of Regina Laudis in Bethlehem. The award was given in recognition of the Abbey's dedication to producing their food using environmentally sustainable methods and a commitment to making their community better by implementing conservation farming practices that protect soil and water resources.



Left to right, Tara Jo Holmberg, Sister Emmanuelle, Curtis Read, Lynn Fulkerson and Cynthia Rabinowitz

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 Dick Leavenworth, Vice Chair
 Sharon Tingley, Secretary
 Doreen Lynch-Sudol, Treasurer
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Cynthia Rabinowitz,
Executive Director
 Karen Griswold Nelson,
Programs
 Jean Cronauer,
Development
 Kelsey Sudol,
Environmental Associate

Dear NWCD Friends & Supporters,



As many of you know, last summer I accepted the position of Executive Director of the Lake Waramaug Task Force. It was with mixed feelings that I left the District where I had worked with so many dedicated people and organizations, including the

Lake Waramaug Task Force, to further conservation and sound stewardship of natural resources in our corner of the state. My new position presents a unique opportunity for me to positively affect that work, and I'm looking forward to this new chapter. I also am looking forward to collaborating with District staff, Cynthia, Karen, Kelsey and Jean, to help be successful in any way I can. Connecticut's Conservation Districts are an important resource. Stay in touch. Sean Hayden - Executive Director Lake Waramaug Task Force www.lakewaramaug.org seanhayden@lakewaramaug.org

Northwest Conservation District
1185 New Litchfield Street
Torrington, CT 06790

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2018 Annual Meeting
Freund's Farm
Register by email info@nwcd.org
or call 860-626-7222

Conservation Calendar

nwcd.org 860 626 7222

AUGUST

- 9 NWCD Annual Meeting - Freund's Farm Market & Bakery, 5:30pm farm tour, buffet & annual meeting, register at info@nwcd.org or call 860-626-7222
- 16 Dam Party - Heritage Land Preservation Trust, celebrate the restoration of historic 1904 gatehouse, 4-6 pm, at Hotchkiss Place, Torrington, no charge
- 18 Bantam Lake Day - Annual Meeting, 5K Race, Morris Town Beach

SEPTEMBER

- 22 Family Nature Day - at White Memorial, 9-5, day full of fun for all: animals, raffles, wagon rides, bake sale & more
- 23 BLUE BASH: A Celebration of Our Rivers - Pomperaug River Watershed Coalition, 3-6, South Farms, Morris
- 29 Residential Passive Solar & Renewable Energy Tour - NWCD sponsored, check nwcd.org soon for details

OCTOBER

- 4 Annual Invasive Plant Symposium - at UConn Storrs Student Union, 8-4:30, details at <https://cipwg.uconn.edu/>
- 13 Leadership Training for Sustainability - skills training for taking action at the local level; sponsored by NWCD, 9-3:30, at New Morning Natural Market, Woodbury

