

Northwest
Conservation
District

NCD works to conserve local natural resources by delivering technical services and educational programs.

We focus on sustainable resource and energy use, promote ecosystem planning, watershed and open space protection and lower impact development techniques. We serve 34 communities in northwest Connecticut.

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2014 NCD Annual Meeting

October 22 at the Candlewood Lake Club

Despite looming rain clouds on the horizon at sunset, NCD held their Annual Meeting in the warm and welcoming Candlewood Lake Club. It was a fun evening of good company, conversation and celebration. Environmental education was also on the agenda as the keynote speaker George Knocklein (a consulting limnologist) spoke about the impact of climate change on Connecticut lakes.

Four 2014 Conservation Award winners were honored. Phyllis Schaer, a volunteer with the Candlewood Lake Authority (pictured below), was recognized for her commitment to protecting and conserving the largest lake in Connecticut, Candlewood Lake. The Conservation Farmer Award was given to Paul Buccigliaglia and Rebecca Batchie, owners of Fort Hill Farm, in recognition of their dedication to producing locally grown food using environmentally sustainable methods and promoting community-based agriculture. The Town Conservation Award was presented to the Brookfield Land Use Department in recognition of the department’s commitment to managing land use change through a transparent and professional process. Beth Cavagna of the Town of Bethel was presented with the Conservation Award in recognition of her tireless efforts to improve the quality of life in Bethel through open space preservation efforts and ensuring development is accomplished in a manner protective of natural resources.



Left to right: Curtis S. Read, NCD Board Chairman, Phyllis Schaer, NCD Conservation Award recipient, and Larry Marsicano, Candlewood Lake Authority Executive Director

If you would like to attend next year’s Annual Meeting and celebrate conservation, let us know and we will add you to our mailing list. Thanks to everyone for making this year another successful year for NCD and conservation.

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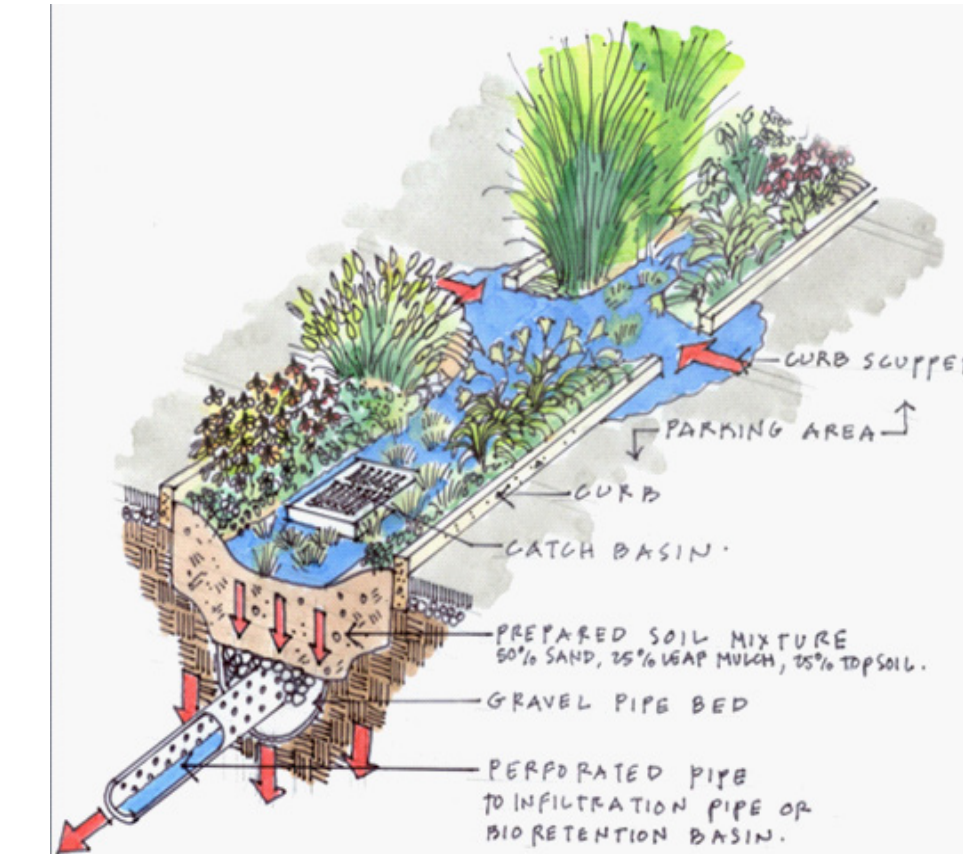
Promoting Low Impact Development

NCD Partners with the Connecticut Community Foundation

The quality of life in the Northwest Corner of Connecticut is the reason why most people choose to live here. The landscape and historical development patterns create a striking and beautiful sense of place. Rolling hills, streams and lakes, forests and farmland, all interspersed with towns and small cities, create a landscape that is truly worth conserving. The health of the environment is also directly connected to the health of residents who make this part of Connecticut their home.

NCD has been promoting the implementation of Low Impact Development (LID), an ecologically friendly approach to site development and stormwater management that aims to mitigate development impacts to soil, water and air. The LID approach uses site design and stormwater management strategies to conserve natural systems and mimic the way undeveloped land would absorb water. Some of the goals of a LID project are to reduce impervious areas, slow and filter runoff by using landscape features close to where stormwater is generated, and pollution prevention. In summary, developing to LID standards creates a project that is in harmony with the natural environment while ensuring a landowner's wishes are achieved. The diagram at right illustrates how a simple LID landscape feature can be incorporated into a parking lot to filter and clean polluted stormwater runoff through a living filter before it is released to a nearby wetland or stream.

Thanks to a grant from the Connecticut Community Foundation, NCD is educating our member towns about LID and providing them with the tools they need to adopt LID regulations. A number of large towns and cities in Connecticut have adopted regulations that require all development and redevelopment be designed to LID standards. However, most of our member towns are small, and none have adopted required LID



Bioswale graphic courtesy of Blades & Goven - Landscape Architect

standards. NCD's goal is to identify small towns with important natural resources and assist them in the promotion, creation and adoption of LID regulations. In addition, we are conducting regional forums in the Pomperaug, Bantam Lake and Lake Lillinonah regions to present CLEAN (*comprehensive, lasting, environmentally sustainable, attractive and natural*) watershed solutions as well as tours of successful LID projects in towns including Morris, Torrington, Thomaston and Litchfield. NCD is creating a Storm Water Center in our Torrington office that includes the best in LID design manuals as well as an online source for LID information. Our focused approach provides educational opportunities for land use commission and land use staff charged with managing permanent land use change, while implementing

good land use development practices. We also provided these educational opportunities to the design community responsible for incorporating CLEAN watershed practices into their project planning.

NCD is committed to providing our member towns with the tools they need to adopt LID development standards because there is no downside. It has been proven many times over that developing land to the principals and standards of LID is cheaper, more efficient at water quality and wetland protection, and more attractive as compared with conventional development practices.

After all, is there a better tool to help preserve the quality of life we enjoy here in Northwest Connecticut?

To learn more, email seanhayden@conservect.org.

Rain Gardens

Clean Water the Natural Way

This summer, we at NCD worked with many partners to develop the three beautiful rain gardens described below.

The **THOMASTON** Rain Garden is located in Nystrom's Park, which has a beach, bathhouse, picnic area, playground and multiple sports fields. This rain garden will provide water quality protection education to many families, sports teams, spectators and the general public. In addition, this rain garden solved a historic drainage problem that had been interfering with youth sports. It was funded in part by the Connecticut Community Foundation and the Connecticut DEEP through U.S. EPA Clean Water Act Section 319 in conjunction with Rivers Alliance of Connecticut. Thanks also to the Town of Thomaston and its Recreation Department.

The **TORRINGTON** Rain Garden (as pictured to the right) was part of a total site effort to protect water quality in the Naugatuck River while enhancing the neighborhood's quality of life. Before,

this parking lot sent polluted stormwater runoff directly into the river. Now, it is a stunning example of how to use LID tools like pervious pavers and a rain garden to soak up and filter polluted stormwater on-site before slowly releasing clean water into the Naugatuck River. NCD worked with Torrington officials to achieve this success. It was funded in part by the CT DEEP through U.S. EPA Clean Water Act Section 319 and the Community Foundation of Northwest Connecticut.

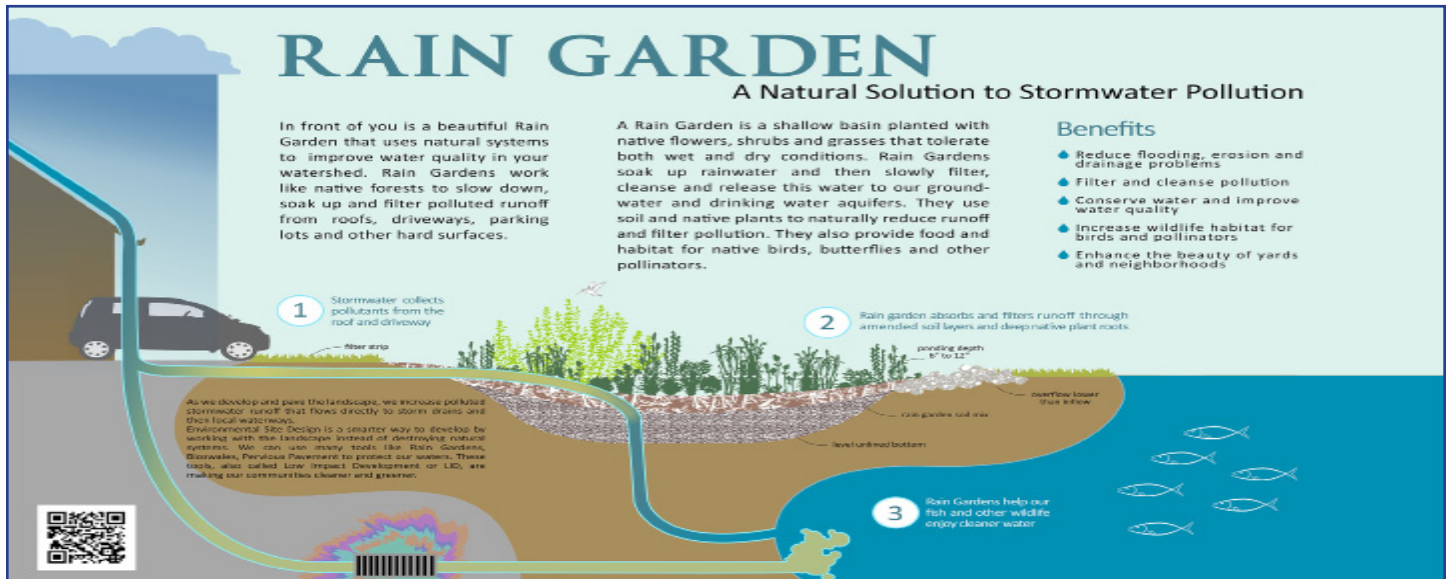
The **WATERTOWN** Rain Garden location, adjacent to the Steele Brook Greenway and a large office building, provides daily education to a large and diverse regional audience. The number of users will steadily increase as the



greenway is further developed.

Our special thanks for the generous support of the Connecticut Community Foundation and the Watertown Foundation. Thanks also to the Town of Watertown, Steele Brook Greenway, Siemon Company, Cynthia Rabinowitz of Consoil and the Watertown Garden Club.

Whether sited in a rural, urban or commercial setting, these rain gardens combined with educational signage, will not only have a lasting benefit on the environment but will help to increase public understanding and make the science of clean water more accessible.



The three rain gardens were constructed by Kevin Greene of 4Evergreen LLC. Signs were produced by WriteWay Signs & Designs of Torrington and Fossil Industries. For more information, contact seanhayden@conservect.org.

Green Hydropower in CT? Housatonic River Project P-2576

NCD is partnering with FirstLight Power Resources to conduct a series of land use educational seminars for professionals, Realtors and contractors engaging in work within the Federal Energy Regulatory Commission's (FERC) project boundary. FirstLight generates electricity under a license from the FERC Project P-2576. The five generators that compose this project, from north to south, are the Falls Village, Bulls Bridge, Rocky River, Shepaug and Stevenson stations. When constructed in the early part of the 20th century, they impounded large sections of the Housatonic River and its watershed to drive the industrial revolution. Today these stations provide renewable energy generation in Connecticut. The Bulls Bridge Station and the Falls Village Station only generate power when water is available. The remaining three stations generate on demand: Rocky River Station, which created Candlewood Lake, generates 29,000 kilowatts; the Shepaug Station, which created Lake Lillinonah, generates 43,000 kilowatts; and the Stevenson Station, which created Lake Zoar, generates 28,900 kilowatts.

Overtime, the lands surrounding

these facilities and lakes have been developed for both residential and commercial use, allowing many to access and use the project lands and lakes. As development pressure has increased along the shorelines of hydroelectric impoundments and reservoirs nationwide, FERC has required hydroelectric licensees, including FirstLight, to develop Shoreline Management Plans (SMP) as part of the relicensing of these projects. These comprehensive plans are to manage the multiple resources and uses along hydroelectric project shorelines in a manner that is consistent with their licensing criteria and addresses public needs, both residential and commercial, in an environmentally sensitive fashion. FirstLight's SMP was approved in 2013. As part of a requirement of the FERC order approving the SMP, FirstLight developed a Shoreline Management Manual (SMM) to aid its neighbors in understanding the history, techniques and new regulations for uses of project lands and waters. This comprehensive manual provides guidance for the uses and development of FirstLight lakefront lands, with key components being requirements for the preservation and re-

establishment of vegetated buffers and the use of alternate types of shoreline stabilization. The SMM, complete with design and implementation criteria, will ensure that permitted uses on FirstLight lands will not only protect but enhance the scenic, recreational and environmental values of project lands, and will reduce the effects of polluted stormwater run-off to all downstream water resources.

NCD's partnership with FirstLight to provide educational seminars is reaching a wide range of professionals, from Realtors selling lakefront residential properties to engineers, landscape architects and designers, contractors and the design/build community engaged in any work on FirstLight property. The intent of these seminars is not only to support FirstLight in its charge to manage its lands and resources according to the manual but to support the message that the techniques outlined in the manual will improve and help protect water quality for future generations.

To register for upcoming Contractors' and Realtors' CEU Workshops (dates and locations TBA), contact ncd@conservect.org or call 860-626-7222.

Native Meadows - New Milford

We are coming to the end of both grant funding streams that have allowed us to make some progress at the Native Meadows Preserve site in New Milford over the past four years. Our USDA/NRCS Wildlife Habitat Incentives Program (WHIP) grant was due to expire last June. However, due to the nature of our last conservation practice obligation, preparing and planting a 2.1-acre area for pollinator habitat, we applied for and were granted a one-year extension to June 2015.

This spring, summer and fall, we have been preparing an area along U.S. Route 7 for this USDA/NRCS conservation practice. Our U.S Fish & Wildlife grant will expire in December 2015. We have utilized this grant to assist us with the design and approval for a 10-car pervious parking area to be located at the northwest corner of the site along U.S. Route 7. With the money remaining in this grant and hoped-for additional grant funds from other sources, we plan to install this parking area sometime in the summer of 2015.



For more information, contact Michael Morin at 860-626-7222 or ncd.michael-morin@gmail.com.

State of the State's "Open Space Preservation" 2014

The state's overall open space goal, as established in 1997, is to preserve 21% of Connecticut's land as open space by the year 2023, a total of 673,210 acres. Earlier this year, Governor Dannel P. Malloy said that the State is now around 75% of that goal.

Public Act 14-169, approved in June 2014 (similar to Public Act 12-152 approved in June 2012) will make information about critical conservation resources and lands of high conservation value immediately available to the public as well as to state, municipal and other decision-makers. Concurrently, the DEEP is working to revise and update the state's Green Plan. DEEP's open space protection decisions are currently guided by the 2006-2012 Green Plan. DEEP is encouraging stakeholders to review 'Revising The Green Plan' and submit comments, by email, as it works to update this critical open space planning document. The link to the Draft Green Plan is http://www.ct.gov/deep/cwp/view.asp?a=2706&q=511558&deepNav_GID=1641.

In May of this year, Gov. Malloy addressed the impending approval of \$5 million to assist cities, towns, and land trusts with the purchase of important lands to protect as open space through the Open Space and Watershed Land Grant Program. Additional information on the open space grant program can be found at www.ct.gov/deep/openspace.

As our state struggles to meet the growing financial needs of all of its citizens, it is important to track open space initiatives and offer comment, especially when encouraged.

NRCS Grant Opportunities in Connecticut

The Natural Resources Conservation Service (NRCS) has grants available to assist farmers and land owners to install conservation practices. The grants are through the Environmental Quality Incentives Program (EQIP). EQIP is a program authorized through the Agricultural Act of 2014.

Through EQIP, farmers and forest owners install conservation practices to help protect soil, water and air quality; create wildlife habitat improvements; and save energy. Northwest Connecticut farmers are using EQIP to install rotational grazing systems to improve forage quality and manure storage facilities to

reduce nutrient-rich runoff from entering streams. Greenhouse growers have had energy audits prepared and then installed the recommended automatic heat and humidity controllers and end wall insulation. Forest landowners are getting up-to-date forest management plans and then completing practices such as timber stand improvement cuts and patch cuts for wildlife habitat.

Don't expect an EQIP grant to cover the entire cost of a practice. Each year NRCS staff determine the average cost of installing specific practices in this area and then pays a percentage of this average cost, once your practice

is installed. Usually this is 75% of the average cost, but it might be 90% for beginning farmers or other historically under-represented groups. Successful applicants will receive a signed contract that spells out the specific details of funding prior to getting started on installation.

EQIP applications can be submitted at any time during the year. NRCS received a new allocation of funds for this program on October 1, 2014.

To apply for EQIP grants, contact your local USDA/NRCS office at 860-626-8258 and request that an application package be mailed to you.

SBEA Success Stories *Business owners happy to cut costs*

As more local business owners take advantage of the CT Small Business Energy Advantage (SBEA) program, the word is spreading. It's a true win/win way to get new lighting or equipment and cut your electric bill. SBEA, one of several innovative solutions offered by Energize CT, is a great opportunity for many kinds of small businesses: restaurants, retail stores, grocery and convenience stores, and more.

Michelle Gorra, business manager for the Aspetuck Animal Hospital in Marbledale, reported, "The SBEA program worked great for us. We found the program very easy and consider it

only a start on making our business as energy efficient as possible. We are also exploring solar."

Pat Call, owner of Town & Country Hair Design in Torrington, said she was "grateful to have this opportunity to upgrade equipment and cut my electric bill. It's excellent for my business."

SBEA can also be a great fit for non-profit organizations. We at NCD were able to cut our electric bill in half! The United Church of Christ in Goshen used SBEA to increase energy efficiency in their church, parsonage and community center. Their pastor, Reverend Paige Besse-Rankin, explained, "Our goals

are to care for the earth as well as to increase our financial viability in order to be able to do more for the people we serve."

A utility-approved contractor will conduct a no-cost, no-obligation energy audit of your business. You'll receive a customized report that shows how much energy and money you could save by upgrading to new efficient equipment. Incentives and no-interest financing on your utility bill are available.

NCD gratefully acknowledges the support of the Alcoa Foundation.

For more information, contact jean-cronauer@conservect.org.



The FARMINGTON RIVER “Wild & Scenic”

“It Will Never Work” - (But It Did!)

By Eileen Fielding, Executive Director,
Farmington River Watershed Association

On June 22, a crowd gathered at People’s State Forest to celebrate the anniversary of an unlikely victory. Twenty years ago, the West Branch of the Farmington River became a national Wild and Scenic (W&S) River. At the time, supporting designation required a big leap of faith. It embraced the idea that an untried combination of federal, state, town and non-profit partners could really manage a river together.

Back in 1994, W&S Rivers were mostly out West. W&S designation was used primarily to protect western rivers, on federal land, from federally funded hydropower projects. Simple! But designating eastern rivers, where land was privately owned, was more complicated and contentious. It required a whole new approach, the “Partnership” W&S model. Partnership W&S designation ensured local control, protected private property rights, and depended on local endorsements and a jointly produced plan from local partners. But someone had to be the first to try it.

Luckily, the Farmington River Watershed Association (FRWA), the MDC, CT DEEP, the West Branch towns and other stakeholders took the leap. The Farmington West Branch became one of the first Partnership W&S Rivers in the country. And it worked!

Over the years the W&S Partners have done so much together: fix erosion, study river flow, monitor water quality, provide technical service to towns, award scholarships, improve river access, help acquire conservation land, restore habitat, control storm-water runoff—all locally determined projects that fill local needs. Now, with 20 years of success, we look forward with confidence to future tasks. There’s plenty still to do!

For more information, visit www.frwa.org and www.farmingtonriver.org.

NCD is just one of the state’s five Soil and Water Conservation Districts that have been working together since 1992 to sponsor this natural-resource-based education program, which draws high school students from the entire state of Connecticut. The mission of Envirothon is to promote environmental awareness, knowledge and active personal stewardship among students through education and team competition. During the year, participating students work in teams led by a teacher and/or advisor. Teams receive curriculum materials and are invited to a series of training workshops in the Envirothon study areas of Soils, Aquatics, Wildlife, Forestry and a Current Environmental Issue. The theme of 2014 was sustainable agriculture. Workshops are presented by volunteers, including foresters, soil scientists, aquatic ecologists and wildlife biologists, well versed in the current environmental topic. The year culminates in May when teams meet for a fun-filled, all-day field competition where they are challenged to work together to answer questions and conduct hands-on investigations in the four areas of study and present a short oral presentation on the current environmental issue.

This year’s field competition, May 22, at the Tolland County Agricultural Center, saw 55 teams from 47 schools competing with great enthusiasm despite rain and thunderstorms. For the first time, a homeschooling team, Greenstreet Homeschooling, took first place overall followed by Housatonic Valley Agriscience and Litchfield High. Ian Gibson, Greenstreet Homeschooling biology class teacher and manager of a chemical-free 3-acre farm in Higganum, shared a bit about his unique winning team: “When I first pitched the idea of an Envirothon team to some students in a biology class that I was teaching in 2011, they jumped at it.” Finishing 11th (a good showing) in 2013, they vowed to do better, aiming for a win in 2014. As Ian summed up, 2014 was easier. “After talking with Dave Moran (a teacher from Housatonic Valley, the winner of the last two competitions) and watching his team at a joint study session, I integrated some of his system-specifically investing all the kids with teaching each other. I simply organized, moderated, corrected errors and omissions...just keeping them on task. I divided up each of the topic sections and made each student responsible not only for info in each section, but also put each one of them in charge of a whole topic. Therefore they could make sure the rest of the team was on task within their area of responsibility, and they could have the final say in disputes over answers in the test. With students being asked to assimilate that much information, a real team framework was an utmost necessity. In the end, the plan worked not because of the plan itself, which wasn’t anything spectacular. We won because a group of pretty amazing teenagers put egos aside, worked their tails off and stuck to a rigorous game plan from September to May. I’m just glad they took me along for the ride.” And we are glad too to be a part of CT Envirothon and would encourage any interested school, traditional or non, to start an Envirothon team.

For more information, visit ctenvirothon.org.

We know that money doesn’t grow on trees, but you can help support all of our great environmental conservation work this holiday season.



- 1) Click on our “Donate” button on the front page of our website, conservect.org/northwest
- 2) Contact us to become a member and receive a newsletter and contribution envelope. Call 860-626-7222 or email ncd@conservect.org.

Fracking

To Regulate or to Ban?

(continued from back page)

While the industry describes fracked natural gas as a source of cleaner, cheaper, more reliable power, natural gas is still methane. It burns cleaner than coal or oil, thus reducing the emission of the greenhouse gas carbon dioxide. But it is the nature of gas to leak and when it does leak, it is a much more powerful greenhouse gas than carbon dioxide. Nationwide, experts warn that the volume of leaks will always be large and the effects severe.

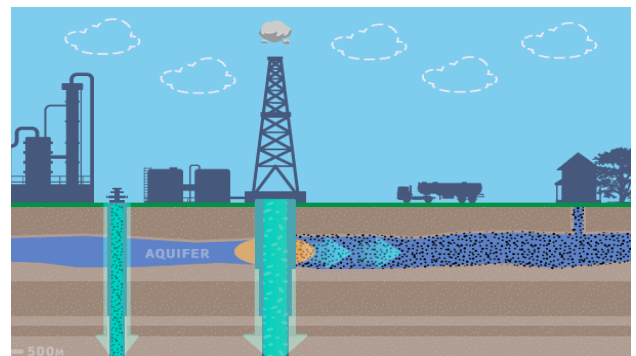
What to do with the waste has become an urgent question for the industry. In 2012, Vermont passed a ban on both fracking and the disposal of fracking waste; the ban is to be revisited in four years if fracking proves to be safe. In Connecticut, anti-fracking sentiment also surged, and a significant number of environmental advocates and allies in the legislature began to call for a similar ban. In 2014, efforts led to high-energy policy fights. At the outset, a ban on fracking itself was dropped as an issue, and the focus moved to whether Connecticut would accept fracking waste for treatment or disposal. The greenest legislators and most committed advocates declared for a ban. DEEP asked for regulation. But when the bill passed, the environmental community generally acknowledged that although legislators had worked hard for a moratorium, there are relatively substantial protections in the bill, but a ban on fracking waste should still be the goal.

Public Act 14-200, An Act Prohibiting the Storage or

Disposal of Fracking Wastes in Connecticut, sets a three-year moratorium on the importation of fracking waste. The regulations are described thus in a summary by the Office of Legislative Review: "The act requires DEEP to submit regulations to the Regulations Review Committee for approval after June 30, 2017 and no later than July 1, 2018. Until the regulations are approved, activities involving any wastewater, wastewater solids, brine, sludge, drill cuttings, or any other substance generated as a part of or in the process of fracking as well as products derived from or containing any of these wastes are prohibited in Connecticut. The regulations must (1) subject these wastes from energy production to the state's hazardous waste management regulations; (2) ensure any radioactive components of fracking waste do not pollute the air, land, or waters or otherwise threaten human health or the environment; and (3) require disclosure of the composition of the waste. The act prohibits the sale, manufacture, and distribution of de-icing and dust suppression products derived from or containing fracking waste until DEEP adopts regulations controlling these products."

Environmental groups will have plenty to do tracking the development of the regulations and the movements of waste transports. Rivers Alliance has been looking at two questions in particular. Why wait years to subject fracking waste to the state's hazardous waste regulations? That could be done now. Pro-mining federal lawmakers

passed a federal rule that bars the categorization of any mining waste as hazardous; it can melt your Geiger counter but it's not hazardous under federal law. States do not have to follow that rule. Connecticut adopted the rule but could drop it immediately; in fact, could have dropped it last year. There is also a question as to whether our hazardous waste facilities are capable of handling highly toxic fracking wastes and whether our regulators have the resources to enforce stricter rules (or even today's rules).



Finally, there's the question of why it's a "wrong message" to ask fracking industries to meet high health and environmental standards. One reason it's wrong is that high standards cost more, and then fracked gas wouldn't be cleaner, cheaper, and more reliable. It would be more expensive and politically undesirable. Fossil fuels, including natural gas, are unlikely ever to be clean, cheap, and reliable. They will continue to emit greenhouse gases, heat the planet, and foul water. No fuel source is perfect. But let us push hard on Connecticut policy leaders to make a dramatically stronger commitment to, and investment in, non-fossil fuels.

Visit riversalliance.org for the full article and supporting legislation.

Northwest Conservation District
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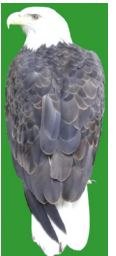
Conservation Calendar

www.conservect.org 860-626-7222

December 20, 2014 - March 4, 2015. Shepaug Eagle Observation at FirstLight Shepaug Hydro Station, 2225 River Road, Southbury. For reservations, call 1-800-368-8954 Tuesday-Friday, 9AM to 3PM.



April 24 - 26. NCD's 33rd Annual Earth Day Plant Sale at the Goshen Fairgrounds. For order forms, available March 1, 2015, call 860-626-7222 or email us at ncd@conservect.org.



Fracking Waste

To Regulate or to Ban? That is Still the Question

Thoughts from Margaret Miner, Executive Director, Rivers Alliance of Connecticut

Fracking (short for "hydrofracturing") for natural gas is especially controversial among advocates for clean water. The process involves injecting large quantities of water (about 5 million gallons per well) into rock (in particular, carbon-rich Marcellus shale). The water is mixed with sand and toxic chemicals, including biocides, to facilitate the mining process, and then is injected below ground under pressure to break open cracks in the rock and release trapped gas.

The water used in fracking becomes highly contaminated, due both to the materials mixed into the water and the additional contaminants picked up underground. These underground contaminants include lethally concentrated salts, arsenic, and radioactive materials. Thus far, no practical methods have been developed to clean the waste adequately for disposal in surface water. Disposal in clusters of deep injection wells is associated with small earthquakes.

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