

# Connecticut NEMO Newsletter

Nonpoint Education for Municipal Officials  
Spring 2005



## Moving From Why to How

For well over a decade NEMO has been educating local officials about linkages between the use of the land and the health of our natural resources. Our philosophy is simple: with a deeper understanding of their commission's responsibilities and the potential consequences of their decisions, local officials will devise and enact solutions that will protect the environment, enhance their community, and support healthy economic growth. In other words, we view NEMO education as a catalyst for local action.

Evidence of the success of this view is rolling in and this issue of the NEMO newsletter highlights a growing number of tools available to help towns move from the "why" of protecting water quality to the "how". The primary focus of this issue and, indeed of the NEMO program over the next year, is the new Connecticut Department of Environmental Protection **Stormwater Quality Manual**. This manual embodies many of the principles

and practices that we have promoted over the years and provides technical guidance to developers, contractors, town staff and commissions. This issue also includes an article on **Putting Communities in Charge**, a recent NEMO publication that gives specific examples of towns implementing policies and practices that protect water quality. We also list some new educational modules and websites that will provide further assistance to municipalities.

It is apparent to us that there are a lot of talented and dedicated volunteers who are putting the philosophy of sustainability, low impact development, smart growth, or whatever it will be called next month into practice. The dedication of these volunteers to move from understanding a problem toward tangible change is what makes what we do interesting and effective. Ten years into this NEMO thing and we feel we are just getting started. Here's to the next decade of creative action. ☀

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Spotlight On . . .

# the Connecticut Stormwater Quality Manual

help is on the way

What was news just ten years ago is now well-accepted fact: the transformation of the natural landscape to the developed landscape has implications for the health of our water resources. But just knowing these facts is not making our waters any cleaner and as our communities grow, we need real strategies and practices that can mitigate the impacts of development and preserve those areas that are most treasured by their citizens.

Enter the new **Connecticut Stormwater Quality Manual**. The manual, which was assembled by a team whose expertise ranged from the environment and public health to engineering and construction practices, provides guidance on the practices necessary to protect both surface and ground water. The manual is not a new regulatory document. Rather, it is a true guidance document that is a valuable new resource for both the development community and the municipal regulatory bodies that oversee development. The manual is designed to focus on water quality issues and thus complement existing guidance documents dealing with flood control, soil erosion and sedimentation.



The manual provides a three-tiered approach to stormwater quality management. The first, and by far the most important, step is focusing on **proper site planning and design**. Proper site planning addresses both stormwater quantity and quality issues by preserving the natural interaction of rainwater and the land. The manual outlines a number of ways that the natural hydrology of a site can be maintained. Alternative design techniques that reduce the amount or impact of impervious surfaces such as narrower streets, reduced parking lot size and distributed infiltration on a site are key elements of site planning and design. Other practices, commonly characterized as low impact development (LID), emphasize the use of vegetated swales, buffers, rain gardens and green roofs as other site design elements that will help to retain the natural hydrology of a site.



*(From left) Engineered grass overflow parking lot at Westfarms Mall, West Hartford; Pervious parking area at Cornfield Point, Old Saybrook.*





(From left) Water quality grass swales and pervious paver roadway at the Jordon Cove research and demonstration subdivision, Waterford; Porous pavement demonstration site, Haddam; Stonington Stormwater Task Force meeting; Stormwater retention basin serving Walmart shopping center, Waterford.

**2** After proper site design is implemented, there often is still an amount of stormwater runoff that must be considered and the remainder of the manual addresses these concerns. **Controlling the sources** of pollution is key to keeping water clean and the manual provides guidance on the “good house-keeping” practices that municipalities, businesses and homeowners can follow to keep pollutants out of stormwater runoff.

**3** Sometimes a site, either because of the intensity or type of land use or a limitation involving soils or topography, requires an engineered solution to mitigate runoff quality. Termed **stormwater treatment practices (STP)**, these elements cover a range of accepted practices from stormwater ponds and wetlands to bioretention and swales. The STPs are divided into primary and secondary practices depending on the documented effectiveness of the practice to remove pollutants. The proper selection and sizing of these practices involves a thorough understanding of site characteristics and much of the manual is devoted to providing detailed guidance for those professionals developing a stormwater strategy for their project.

## 2005 Stormwater Manual Workshops

- May 17, 2005, 7:00 – 9:00 P.M.  
**Location:** Middlesex Co. Extension Center, Haddam  
**Contact:** Linda Krause (860) 388-3497 or Geoff Colegrove (860) 347-7214
- May 24, 2005, 2:00 – 4:30 P.M. & 6:30 – 8:30 P.M.  
**Location:** West Hartford Town Hall  
**Contact:** Mary Ellen Kowalewski (860) 522-2217 ext. 22
- May 26, 2005, 2:00 – 4:30 P.M.  
**Location:** Brookfield Town Hall  
**Contact:** John Chew (203) 775-6256
- May 26, 2005, 7:00 – 9:00 P.M.  
**Location:** Cornwall Town Hall  
**Contact:** Dan McGuinness (860) 868-7341
- June 14, 2005, 12:00 – 2:30 P.M.  
**Location:** S.W. Regional Planning Agency, Stamford  
**Contact:** Patty Payne (203) 316-5190
- Sept. 29, 2005, 2:00 – 4:30 P.M. & 6:30 – 8:30 P.M.  
**Location:** Northeast CT COG, Killingly  
**Contact:** John Filchak (860) 774-1253

More workshops may be scheduled. Check the NEMO website for an updated list of workshops:  
[nemo.uconn.edu/workshops\\_initiatives/stormwater.htm](http://nemo.uconn.edu/workshops_initiatives/stormwater.htm)

The manual is filled with other information that will be useful for a wide audience. A detailed plant list specifying the appropriate plants for roadsides, xeriscapes or a stormwater wetland are provided. Also, guidance for towns wishing to incorporate these new stormwater practices into their local regulations is included, as is information on STP maintenance and inspection. In short, the manual is a valuable reference document for anyone interested in reducing the impact of stormwater on our water resources.

If you are interested in learning more about the manual, or would like to get a copy of your very own, you're in luck! The DEP, NEMO and Fuss & O'Neill Inc. (who was responsible for the writing of the manual) are currently giving workshops around the state (see schedule, left). The workshops give an overview of the manual and provide an opportunity for you to ask questions to the authors of the document. The manual is in limited supply, but all who attend the training receive their very own copy, which is certainly worth the price of admission (usually free!). For those who cannot attend the workshops, the manual can be downloaded from the DEP's website.

[dep.state.ct.us/wtr/stormwater/stmwmrman.htm](http://dep.state.ct.us/wtr/stormwater/stmwmrman.htm) ☀

# New & Noteworthy

## One Web, One Print, One Workshop

- The **Connecticut's Changing Landscape** website now includes on-demand town and watershed maps. At the *Your Town* or *Your Watershed* portions of the site, you can click the state map or use the pull-down menu to access land cover and land cover change data tables, statistics, maps and (for a lucky few) animations. NEMO's Emily Wilson made this possible with something called "active server page" technology. Whatever it's called, it's pretty cool—check it out at:
  - [clear.uconn.edu/projects/landscape/local/town.asp](http://clear.uconn.edu/projects/landscape/local/town.asp)
  - [clear.uconn.edu/projects/landscape/local/rbasin.asp](http://clear.uconn.edu/projects/landscape/local/rbasin.asp)



- **Putting Communities in Charge** is a new booklet that highlights the work of a number of communities that have been working with NEMO over the past decade. It demonstrates the wide range of activities and initiatives that a community can pursue, once it begins to implement an agenda of natural resource-based planning. It also has succinct and painless summary information on NEMO programs, research, partners, etc. Released as a can't-miss stocking stuffer around the holidays, our supply was quickly exhausted—but thanks to our NEMO parent/partners at Connecticut Sea Grant, we are doing a second printing. So, order a free copy today by calling John at 860-345-5225 or visiting the NEMO pubs page at:



[nemo.uconn.edu/publications/index.htm#impacts](http://nemo.uconn.edu/publications/index.htm#impacts)

- **Map Reading 101** is a new NEMO educational workshop that focuses on the basics of site design review. Have you ever felt at a disadvantage as soon as an applicant's engineer whips out the site plans (c'mon, be honest...)? This workshop will benefit anyone who has ever had trouble locating the North arrow or been perplexed determining where the water drains from those irritating topo lines. The workshop is a typical 2-hour extravaganza, with interactive exercises and plenty of time for Q&A, and was developed in collaboration with the Connecticut Land Use Education Partnership and NEMO's CLEAR sister project, the Green Valley Institute. A perfect primer for all land use boards that review plans. Call John at 860-345-5225. ☀

## NEMO Welcomes Mike Dietz

Dr. Michael Dietz will be joining the NEMO program team in June as an Extension Educator, specializing in "low impact development" (LID) stormwater practices. Mike is no stranger to UConn, having earned all his degrees here, including his recently completed PhD from the Natural Resources Management and Engineering Department. Working with Dr. Jack Clausen, Mike has participated in a number of projects researching the effectiveness of stormwater practices, including the Jordan Cove Project in Waterford and his doctoral research on the rain garden treating the roof runoff from NEMO Central at the



Mike Dietz, the new NEMO Extension Educator.

Middlesex County Extension Center. Mike's addition brings long-sought engineering expertise to the NEMO Team, and beefs up our ability to develop educational programs and conduct applied research in the burgeoning field of LID. With our current emphasis on the Connecticut Stormwater Quality Manual (page 2) and the increased use of LID practices around the state (including at UConn), Mike's arrival couldn't be better timed. Mike is a nice guy (another new wrinkle for the NEMO Team!) and can be reached here at Haddam after June 3<sup>rd</sup> at 860-345-4511 or by email at [michael.dietz@uconn.edu](mailto:michael.dietz@uconn.edu). ☀

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