

Network Initiative Updates

As the Network has grown, it has begun to demonstrate that it can be far more than the sum of its parts, helping to leverage federal and state information, programs and dollars in a unique and effective way. The power and potential of a national network of land use education programs is being demonstrated through several recent initiatives.

Enhancing Coastal NEMO Programs

In 2001-2002, four branches of NOAA collaborated on the **Coastal NEMO Enhancement Grant Program**. The Coastal Programs Division, National Sea Grant College Program, National Estuarine Research Reserve System and Coastal Services Center worked with the Network Hub to make available \$200,000 of NOAA funding in competitive grants to coastal NEMO programs, to enhance their educational efforts. The purpose was twofold: to stimulate intra-NOAA collaboration between the four arms of NOAA, and to give a “shot in the arm” to the NEMO Network. The resultant six projects (*map, funded states in orange*), each involving a long list of partners, strengthened not only the NEMO programs in these states but the entire Network. Examples of projects include:

Maine NEMO used its Enhancement Grant to help focus its materials and programs to coastal communities. This included “train the trainer” workshops and technical assistance mini-grants for key personnel from the Maine NEMO

partner agencies that resulted in over 25 **educational workshops** conducted for communities in Maine’s mid-coast region. The program also expanded its **Maine NEMO Toolbox** for communities, adding several publications and a resource list of technical contacts, publications and websites.



The **New Hampshire NEMO** effort, NROC, adapted the “Logic Model” of **program evaluation** for NEMO’s focus on community impacts involving policies, plans, regulation and site design. This information is becoming the basis for a comprehensive NROC Progress Report, and also provided input to the Network Hub during the creation of the web-based NEMO Network Reporting Form.

New York NEMO used its grant to expand its geographic coverage into Suffolk County, which covers the eastern half of Long Island. NOAA funds were leveraged with EPA dollars from the Long Island Sound Study National Estuary Program to create detailed **GIS and remote sensing datasets** for five



Initiatives on the Web

You can learn more about these initiatives at our website: nemonet.uconn.edu. (Click on the “Projects” tab.)

priority areas: the Nissequogue River watershed and the four North Shore harbors of Northport, Stony Brook, Port Jefferson and Mount Sinai. The new data and imagery have been used to enhance the NY NEMO educational message on inter-jurisdictional watershed management and to strengthen the partnership between NEMO, the Suffolk County Watershed Management Plan and the state Stormwater Phase II program.

Ohio NEMO used the grant to enhance its use of GIS data and technology, and to expand its programs to Ohio’s coastal area through work in the Chagrin, Old Woman Creek and Grand River watersheds of the Lake Erie Basin. The project created regional **impervious coverage coefficients** for use by local planners and for NEMO partners through use of the ISAT model (*page 31*). The project also developed several fact sheets and leveraged funding from the Ohio Department of Natural Resources. It also **created a strong partnership** between NEMO and another Ohio State University effort, the Stream Restoration, Ecology and Aquatic Management Solutions (STREAMS) program.

South Carolina NEMO developed highly accurate impervious surface coefficients for a wide variety of land uses in the three-county region surrounding Charleston, South Carolina. Four communities of varying size, ranging from the City of Charleston to the small town of Bonneau, were used to **create impervious cover data** that can be used with the ISAT model (*page 31*) to analyze watersheds and create educational images for NEMO programming. The coefficients can also be used by other Southeastern NEMO programs.

The largest of the Coastal NEMO Enhancement Grants was used to help **establish the Texas Coastal Watershed Program, or Texas NEMO**. Six regional workshops were conducted in partnership with the Houston-Galveston Area Council, and a major workshop on compact growth, *Density by Design*, was held in Houston. NOAA funds were leveraged by a grant from the Texas General Land Office to provide GIS capability to the program, further establishing Texas NEMO as a source of natural resource and land use education and information. Texas NEMO also used the funds to develop an urban growth primer for local officials.

Initiative Updates Continued...



Planning for Open Space

In 2002, the NEMO Network and the EPA Office of Policy, Economics and Innovation, Division of Development, Community and the Environment (a.k.a. the “Smart Growth” Office) conducted the **Open Space Planning Boot Camp**. Attendees were taught how to demystify open space planning for local leaders through a series of practical steps that outline the information gathering, prioritization, public input and public outreach phases of open space planning. As a result of this training, several Network programs have integrated open space planning training into their educational efforts. Examples of impacts from the training include:

The **Alabama NEMO** Program has helped the Cities of Fairhope and Valley initiate **community resource inventories** to identify open space priorities.

The **Delaware NEMO** Program held a statewide “*Community Planning for Open Space and Natural Resource Protection*” workshop that was attended by approximately 100 planners, local officials and other interested stakeholders. The workshop convinced the Delaware Office of State Planning Coordination to develop a **conservation design manual** and to partner with the DE NEMO Program to help expand the message statewide. The Sussex County Land Trust partnered with NEMO to develop a

resource **inventory of environmentally sensitive areas** that is being used to set priorities for conservation land purchases. The DE NEMO Program also developed a best management practices manual for natural resource based planning.



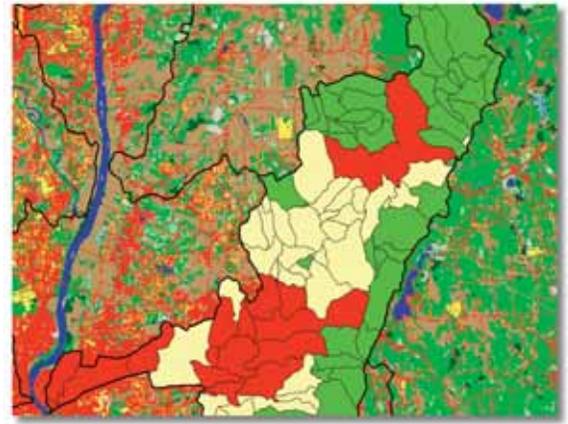
(Top photo) Participants of the Open Space Planning Boot Camp, held at UConn's Avery Point campus, Groton, Connecticut in 2002. (Bottom photo) Open Space Boot Camp participants pose for a group photo.

The Coastal **Georgia NEMO** Program focused their open space educational efforts on Bryan and Glynn Counties. Bryan County completed a **resource inventory** that was used to secure funding to purchase property for permanent

protection or conservation easements. Land protection priorities were also incorporated into the County’s **open space plan**, which seeks to protect over 20,000 acres. Glynn County set land protection priorities and developed an open space planning matrix that was used to **purchase several properties for protection**, including 65 acres along the Altamaha River and 13 acres on St. Simons Island. (See the spotlight on Georgia NEMO, page 22.)

Planning with POWER, the **Indiana NEMO** effort, worked with Hendricks County on the development of an **open space subdivision regulation** and other site design standards. The County has developed a **conservation design ordinance** and revised a rural estate subdivision ordinance to require a rezone for added density in rural areas after sewer services become available.

A team that included several **Northland NEMO** partners developed a new **educational brochure and companion CD** entitled *A Guide to Using Natural Resource Information in Local Decision Making*. The materials obtained at the Open Space Boot Camp heavily influenced the content of the guide. For more information on the guide and how it has been used, see the Northland NEMO spotlight on page 10.



ISAT analysis for the Hockanum River Watershed, Connecticut.

Assessing Watersheds Through Impervious Surface Research

In 2001, UConn's Geospatial Technology Program, the National NEMO Network and NOAA Coastal Services Center developed the **Impervious Surface Analysis Tool (ISAT)**, a GIS tool that helps communities estimate levels of imperviousness through the use of land cover coefficients. Since these coefficients vary considerably from region to region, a workshop was held in October 2002 to train Network members in the use of ISAT and to develop standard protocols for the development of local coefficients. Several NEMO programs have put the ISAT tool to good use for communities, including the following examples:

The Office of Environmental Health Hazard Assessment at the California EPA, a **California NEMO** partner, is using ISAT as part of a **watershed risk assessment** of the Secret Ravine Watershed in Placer County. The office is analyzing impervious areas within each subwatershed as one physical stressor that affects the population of fall-run Chinook salmon in the creek. These efforts have launched an initiative to develop statewide impervious surface coefficients.

The **Connecticut NEMO** Team used the ISAT tool to chart **statewide changes**

in impervious cover levels over a 17-year period. The analysis was conducted at the local watershed level, and in particular identified watersheds that had experienced significant increases in imperviousness. The data is being used by the state DEP as part of an effort to prioritize coastal lands for open space acquisition.

Northland NEMO used ISAT in calculating impervious surfaces for the City of Duluth, which included this information in **determining which tax forfeit lands to protect**. ISAT is also currently being used to calculate impervious surfaces for Minnesota's entire Lake Superior Watershed.

South Carolina NEMO developed **impervious surface coefficients** for a wide variety of land uses in the three-county region surrounding Charleston, South Carolina. The data helps fuel NEMO educational efforts in the area.

The **Maine NEMO** Program used the ISAT tool to evaluate existing impervious surface coverage compared to projected conditions for the Town of Freeport. The results spurred the town to revise their **comprehensive plan and zoning** to significantly limit the amount of impervious surfaces at full build out.

