The Candlewood Lake Authority (CLA) is a local government agency that is dedicated to the long-term health of Connecticut’s largest lake. In 1972, the member municipalities of the CLA—Brookfield, Danbury, New Fairfield, New Milford and Sherman—each adopted an ordinance giving the CLA its powers. The CLA acts as a technical resource focused on the Lake and its 26,000-acre watershed, and leads regional efforts to protect the lake through a variety of approaches, including assisting communities with revisions to town plans and regulations.

In January 2000, the CLA obtained a grant through the CT DEP to review, and make recommendations to improve land use regulations relative to the well-being of Candlewood Lake. An advisory committee, comprised of designees from each member town’s chief elected official, was assembled to assist the CLA on this project. Other participants in the project included the Housatonic Valley Council of Elected Officials, CT DEP, the Natural Resources Conservation Services and a consultant.

**NEMO’s Role**

In 2001, the CLA was accepted into the Municipal Initiative to assist in the above project. The NEMO Team provided outreach education to town land use commissions and the general public in the Candlewood Lake watershed. The workshops included *Linking Land Use to Water Quality* and *Clean Waters*, a presentation focused on homeowners.

In conjunction with the workshops, a GIS analysis of impervious cover was performed for the watershed. The analysis used an ArcView® tool called the Impervious Surface Analysis Tool (ISAT), developed by the NEMO Team in collaboration with NOAA’s Coastal Services Center. ISAT allows a community to estimate the amount of impervious surfaces in a watershed and its sub-basins, using land cover information. This, in turn, allows resource managers to assess the potential impacts on water quality from existing land use practices.

NEMO staff also participated in a Special Advisory Committee to assist the CLA in its review of member towns’ land use plans and regulations. The Advisory Committee crafted an Action Plan for the watershed, from which specific implementation measures were proposed. NEMO assisted in the preparation and delivery of a presentation reviewing the recommendations of the Action Plan, which was given to land use boards in member towns.

**CLA’s Actions**

The CLA Action Plan reviewed the plans and regulations in their five member towns and made specific recommendations on how
to protect the lake. These recommendations included standards for stormwater management and impervious surface coverage in both zoning regulations and site design requirements.

The Action Plan specifically calls for a Lake Protection Zone (LPZ), an overlay zone for land uses immediately around the lake. (An overlay zone such as the LPZ does not supplant existing zoning; rather, it applies additional standards on top of the current zoning.) In order to protect water quality, the LPZ sets impervious surface limits, requires buffers around water resources and sets minimum lot area requirements. The LPZ also incorporates innovative standards that allow for flexibility in site design. For example, if the lot configuration or existing structures limit the amount of new impervious cover allowed, the owners can exceed the limits if they provide for other water quality management practices (see the following examples).

From the Candlewood Lake Action Plan language for a Lake Protection Zone:

**Regulatory Buffers and Minimum Lot Area Requirements: Exceeding the Impervious Surface Limit**

- Replace an existing lawn with a vegetative buffer strip of natural vegetation designed to absorb/treat stormwater
- Remove a beach area and replace it with natural shoreland vegetation
- Remove an accessory building to compensate for a home addition
- Install on-site systems for retention and treatment of stormwater.

To date, the towns of New Milford and Brookfield have adopted the LPZ into their zoning regulations, setting standards in this zone for impervious surface coverage and management of stormwater runoff. Sherman is looking to follow suit and has adopted an increased upland review area (regulated by the Inland Wetlands Commission) to 200 feet, making it consistent with other CLA towns. New Fairfield, working with a consultant, has included recommendations from the CLA Action Plan in the update of their Plan of Conservation and Development; they are currently working on specific language to adopt the LPZ and require stormwater management plans for new development.