

Connecting Land Use Decision Makers to Their Changing Landscape: Integration of Research with Tools, Training and Outreach at the University of Connecticut (12)

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Land use in the United States is largely dictated at the local level, by decision makers serving at the municipal (town) and regional (county) levels. Since under this system state and federal regulation and policies can play only a limited role in influencing land use decisions, assistance to local land use officials is a critical need for the future of American communities. How best to provide this assistance? This presentation will focus on a multidisciplinary and integrated approach at the University of Connecticut, using examples from our projects and programs. The authors will also discuss future needs in the areas of research, tools, training and outreach, and the integration of these disciplines. As requested in the Call for Abstracts, we seek to contribute to the discussion of "...how science can serve society in making more rational local and regional land use decisions."

The Center for Land Use Education and Research (CLEAR) is dedicated to the task of assisting local land use decision makers to better protect their natural resources through more informed land use decisions. To accomplish this objective, CLEAR takes a multidisciplinary approach, combining geospatial science with land use planning and natural resource management expertise. CLEAR strives for complete integration of its landscape research with the creation of analytical tools, technology training, and on-the-ground community outreach. Examples of CLEAR projects and programs can be found at: <http://clear.uconn.edu>.

CLEAR research expertise is in remotely sensed land cover, focusing on characterizing and analyzing the landscape and changes to it. Land cover provides a useful framework for linking

land use and natural resources; for instance, impervious cover and forest cover have both been shown to be strongly correlated with the health of water resources. CLEAR research projects include impervious surface estimates, coastal riparian buffer characterization, and the Connecticut's Changing Landscape project, which charts the increase in developed areas from 1985 to the present. This research is then used to develop and drive planning tools, as well as provide the foundation for outreach programs.

CLEAR tools and training focus on geospatial technologies and applications that enhance, rather than complicate, local land use planning. In addition to traditional GIS tools, CLEAR is developing web tools that require no GIS expertise. The approach is to disseminate information in a variety of formats, in order to maximize access by citizen and professional planners.

CLEAR outreach programs are comprised of workshops for local officials that are conducted at their request, in their community, and in full cognizance of the constraints of their world. Workshops cover a wide range of topics related to natural resource-based planning, from open space planning to low impact development, most enhanced by Center remote sensing and GIS information. On-the-ground changes at the local level demonstrate that this integrated approach can reap real benefits, despite the complexities of the land use decision making process. Further, the flagship CLEAR outreach program, Nonpoint Education for Municipal Officials (NEMO), has been adapted in over 30 states, showing that this approach has wide applicability.