



The Vermont Water Resources and Lake Studies Center

A Brief History...and a Look Ahead

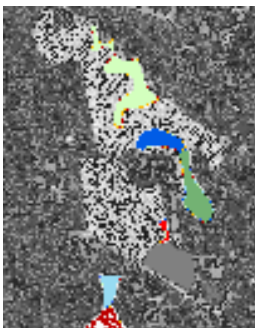
The Vermont Water Resources and Lake Studies Center at the University of Vermont is one of 54 institutes established by Congress through the Water Resources Research Act of 1964. Throughout its history, the Vermont Water Center has served the citizens of Vermont by supporting research on major issues of concern to the state, by distributing information on water resources throughout Vermont, and by helping to educate students about water resources.

In 2006 the Vermont Water Resources and Lake Studies Center entered an exciting new partnership with the Vermont Agency of Natural Resources to focus on issues related to River Corridor Management. This new partnership will complement the Center's recent efforts to produce new knowledge and tools that will help resource managers, policy makers, and local residents understand how to better manage our valuable water resources.

Serving Vermont

...through USGS-supported research on relevant state-wide water issues

The **Vermont Water Resources and Lake Studies Center** has been collaborating scientists from the **University of Regina, Saskatchewan, Canada** and **Allegheny College in Pennsylvania** in a project designed to reconstruct the nutritional status of Lake Champlain over the last 400 years. Although comprehensive monitoring of Lake Champlain was not initiated until relatively recently (1992), inferences about the status of the lake can be obtained from chemical and biological indicators that accumulate in deposited sediments on the lake bottom. Data from this project can be used to assess the relative impacts of different land uses and urban activities on the health of the lake and will be of value to a wide range of stakeholders in addition to research scientists.



The **Vermont Water Resources and Lake Studies Center** has been collaborating with the **Vermont Agency of Natural Resources (Department of Environmental Conservation, Water Quality Division, Stormwater Program)** on a project entitled *Development of an integrated, watershed-scale, planning tool for stormwater management in Vermont*. This project is helping agency staff to develop an objective and scientifically-defendable foundation for the development of TMDL's for stormwater impacted streams in Vermont. .

The **Vermont Water Resources and Lake Studies Center** has been collaborating with the **US Environmental Protection Agency**, the **City of South Burlington Vermont**, the **Winooski Conservation District** and **local stakeholders and residents** in an innovative new project called *Redesigning the American Neighborhood (RAN)* which is focused on to better managing the impacts of stormwater runoff from residential developments. The RAN project is providing a blueprint for other communities to follow as well as valuable information to agency stakeholders who have to management stormwater runoff to protect the environment but also to allow economic development.



The **Vermont Water Resources and Lake Studies Center** has been collaborating with the **Vermont Agency of Natural Resources (Department of Environmental Conservation, Water Quality Division, River Management Program)** on a project entitled *Geomorphic Assessment of Stormwater-Impacted Streams in Chittenden County*. Chittenden County is the most urbanized of Vermont's 14 counties and lies directly on the shores of Lake Champlain, a freshwater resource of both regional and international significance. Results from this project will be used to provide baseline data for monitoring future changes in streams draining urban areas in Vermont and to help inform permitting and policy decisions regarding stormwater management.



The **Vermont Water Resources and Lake Studies Center** has been collaborating with the **Vermont Agency of Natural Resources (Department of Environmental Conservation, Water Quality Division, Stormwater Program)** on a project entitled *Mapping Impervious Surfaces and Forests with QuickBird Satellite Data as a Component Of Integrated Stormwater Management* in which we are utilizing new remote sensing tools to quickly quantify imperious surfaces from satellite imagery. This information will be used to models used to quantify targets for watershed-wide stormwater management, for permitting and policy decisions, and for enforcement activities.



The **Vermont Water Resources and Lake Studies Center** has a strong program of **outreach to local stakeholders, communities, and schools** on important issues related to water resources management. For example, scientists from the Water Center are working with campus planners from the University of Vermont to help the university lead by example in developing effective ways to reduce storm water impacts. We meet with neighboring communities to assist them as they struggle to meet their obligations as Phase II regulated storm water municipalities. And we participate actively in state and regional government initiatives to manage the valuable water resources upon which we all depend.



For more information visit our web site at <http://www.uvm.edu/envnr/vtwater> or contact

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