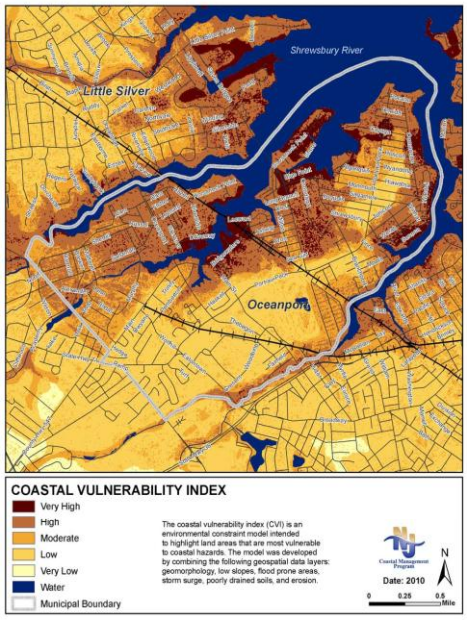
Coastal Resiliency Planning

To help assess their communities' vulnerability and resilience to coastal hazards, coastal decision-makers need access to resources, tools and science-based information. The New Jersey Coastal Management Program developed two assessment tools to ensure that coastal communities have consistent and comprehensive guidance to assess their vulnerability and capacity for resilience. The *Coastal Community Vulnerability Assessment and Mapping Protocol* (CCVAMP) was developed to guide communities through the development of an assessment to characterize the vulnerability of buildings, infrastructure, facilities and other important community resources such as public access locations and facilities, while the *Getting to Resilience (GTR)* questionnaire was assembled to assist local decision-makers review and characterize their existing planning, response and recovery efforts to identify opportunities to support community resilience.

Coastal Community Vulnerability Assessment and Mapping Protocol: Community resilience is highly dependent upon the location of development in relation to high hazard areas. In order for local governments to take proactive measures to adapt, mitigate, and plan for episodic events or long-term changes in the shoreline, they must first be aware of the hazards they face and the potential exposure of people, property, and resources. The *Coastal Community Vulnerability Assessment and Mapping Protocol* (CCVAMP) was developed to assist land use planners, hazard mitigation planners, emergency managers, and other local decision-makers in the identification of their community's vulnerability to coastal hazards.



The *CCVAMP* defines the necessary steps to geospatially identify vulnerable land areas under present and future inundation scenarios, whether it be shallow coastal flooding due to spring tides, storm surge, or sea level rise. Through the development of inundation scenarios, coastal decision-makers can then determine threats to built infrastructure, sensitive natural resources, and special needs populations. The first step in the analysis is the development of a Coastal Vulnerability Index (CVI), which stratifies high hazard areas in coastal communities by compiling available hazard, elevation, and landscape geospatial data into an analysis that considers environmental hazards. Armed with the understanding of areas naturally predisposed to risk, coastal decision-makers may guide future development away from high hazard areas and mitigate future losses.

The CCVAMP Report is available at http://www.state.nj.us/dep/cmp/docs/ccvamp-final.pdf.

Getting to Resilience: *Getting to Resilience (GTR)* is a non-regulatory tool to assist local decision-makers in the collaborative identification of planning, mitigation, and adaptation opportunities to reduce vulnerability to coastal storms, flooding and sea level rise. GTR was envisioned to work in conjunction with the mapped information provided through the CVI and CCVAMP initiative (see *Coastal Resiliency Planning* fact sheet). GTR is not intended to grade the resiliency of a community. It is, however, intended to start a dialogue among decision-makers, by encouraging creative, synergistic and collaborative thinking regarding plans and practices that increase community resiliency for current and future generations.

GTR highlights the importance of local plan integration and consistency with municipal building codes, ordinances and zoning to seamlessly support flood protection efforts. GTR should be conducted as a collaborative discussion and commence with a review of available vulnerability assessments and/or the results of CCVAMP. Participants will then be fully aware of the hazards their community faces when assessing its resilience.

Since the development of the original GTR questionnaire, the Jacques Cousteau National Estuarine Research Reserve (JC NERR) has translated the GTR tool into an interactive online tool (http://www.prepareyourcommunitynj.org/) that provides information on recommended strategies where improved community resilience is warranted. This online GTR tool goes beyond the original questionnaire and also provides information on where these recommendations overlap with other community planning tools (e.g., National Flood Insurance Program Community Ratings System). A link to this tool is available on the public access website (http://www.state.nj.us/dep/cmp/access/paresources.htm).

What can DEP do to help you?

The DCLUP has previously piloted these assessment tools in multiple municipalities. In Greenwich Township, Cumberland County, CZM worked with the municipality to run the CCVAMP and produced a Coastal Community Vulnerability Assessment & Mapping Protocol Report. Greenwich found the effort very informative, and used the information during their preparatory and recovery efforts for Hurricane Irene and Superstorm Sandy. The Report is available at http://www.state.nj.us/dep/cmp/docs/ccvap-greenwich.pdf.

CZM combined the CCVAMP and GTR assessment tools in Cape May Point, Oceanport, and Little Silver to produce the New Jersey Coastal Community Demonstration Project Report. The report is available at http://www.state.nj.us/dep/cmp/docs/ccvap-pilot-final.pdf.

For more information, please contact the Division of Coastal and Land Use Planning.

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