

## **NYSG Facilitates Lake Ontario Scenarios Look at the Future of Great Lakes Ecosystems**

**N**ew York Sea Grant (NYSG) and the U.S. Geological Survey (USGS) organized a Lake Ontario Scenarios Workshop to help 30 diverse stakeholders representing research, management, businesses, and conservation organizations manage future uncertainty.

Escalating changes in Great Lakes ecosystems are driving future trajectories of ecosystem goods and services in uncertain directions, prompting concerns for sustainable management of coastal resources under uncertainty.

Scenarios are gaining acceptance among ecologists as tools for proactive strategic planning and the synthesizing of cross-disciplinary information about known and unknown processes that may be driving ecosystems into different states. Scenarios are a suite of projections into the future from the current state, representing alternative, but logically, consistent views of likely future states. Decisionmakers use scenarios to critically evaluate the uncertain future dynamics that could result in sudden events, catastrophic or otherwise, and how these events could unfold.

Participants in the NYSG/USGS-led scenarios workshop focused on Lake Ontario identified two major uncertainties, i.e., will conditions be dry or wet, and will the lake region population increase or decrease, that would be driving the future of Lake Ontario climate change as a basis for further breakout discussion. Four future scenarios focused on the following combinations:



*The Lake Ontario Scenarios Workshop drew 30 diverse stakeholders interested in the lake system's future. Photo: NYSG*

1. Dry climate and higher population
2. Dry climate and lower population
3. Wet climate and high population, and,
4. Wet climate and lower population.

Based on workshop evaluations, participants were unanimous in their support for the scenario process, the realism of scenarios developed by the group, educational value in better understanding the complex ecological and social forces that could be shaping the future of Lake Ontario, and the utility of these scenarios for future planning.

This workshop, funded by the Great Lakes Restoration Initiative, will serve as the basis for educating scientists, other stakeholders, and policymakers about the connectedness of ecosystems with societal needs and for incorporating uncertainty in future sustainable management of coastal resources. Other groups and organizations, recognizing the value of scenario workshops, have requested scenario exercises from NYSG.

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*This project meets the performance goals of Sea Grant's Healthy New York Coastal Ecosystems Focus Area.*

New York Sea Grant is a joint program of Cornell University, the State University of New York, and NOAA. New York Sea Grant Extension administration is located at 112 Rice Hall, Cornell University, Ithaca, NY 14853.

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