

NYSG's interactive Lake Ontario inundation mapping tools help communities and property/business owners enhance their flooding preparedness

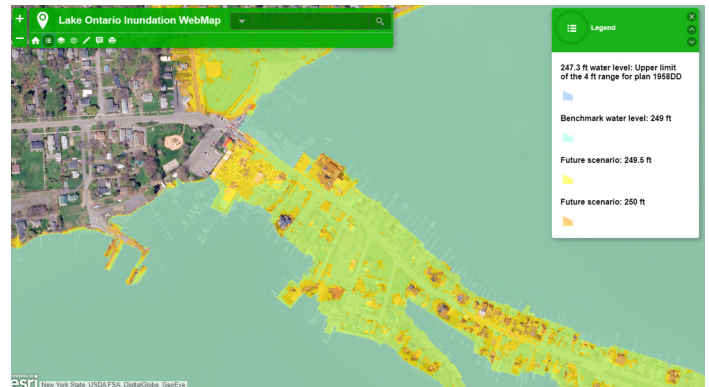
NYSG Develops Lake Ontario Inundation Mapping Tools

Record-high water levels were reached in two of the last three years on Lake Ontario. As a result of efforts to help communities and property owners develop resiliency for any such future events, New York Sea Grant (NYSG) took the initiative to address the needed ability to visualize parcel-level flood risk.

NYSG has created online, interactive mapping tools that provide users with the ability to see parcel-level views of flood-risk predictions along Lake Ontario and its embayments. These mapping tools were developed with Lake Ontario community leaders as the intended primary beneficiary, however, the tools will also be helpful to waterfront residents and business owners.

The maps, based on predetermined water levels and digital elevation data, overlay different water levels to bring awareness about infrastructure and services that may be at risk. Using the highest quality elevation data available for each of New York's Lake Ontario counties, and applying a "bathtub method," inundation layers were created based on the elevation of static water.

The visualization of inundation scenarios derived from these mapping tools may be used to consider property planning (e.g., location/triage of accessory structures and belongings during high water), to identify areas prone to inundation to inform community-level preparedness planning, or to address areas that warrant in-depth analyses.



NYSG's new inundation mapping tools help communities and coastal property owners enhance flooding preparedness.

NYSG Lake Ontario Inundation Mapping Tools & Step-by-Step User Guides:
www.nyseagrant.org/ccd >Resources >Tools

Examples of community-based activities that can be informed by these tools include enhancing flood response (sandbag prioritization) and local policy for post-flood resilience. Currently, with wave run-up data not readily available, generated maps assume only flat water associated with lake levels, not stormwater drainage issues.

The Lake Ontario mapping tools were developed as part of a larger NYSG project creating a Coastal Resiliency Index. The tools' developers NYSG Coastal Community Development Specialist Mary Austerman (concept) and NYSG Hudson Estuary Specialist Jessica Kuonen (interactive design) are considering a similar mapping tool for Lake Erie. For more information, contact the New York Sea Grant: Newark office at 315-331-8415.

Project Partner:

National Oceanic and Atmospheric Administration
 Community Climate Adaptation Initiative (funding)

*Inundation on Sodus Bay, a Lake Ontario embayment, in 2017.
 Photo: Mary Austerman, NYSG*



The Sea Grant Focus Area for this project is Resilient New York Communities and Economies.

New York Sea Grant is a joint program of Cornell University, the State University of New York, and NOAA.
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