

Lake Erie Hypoxia Forecast

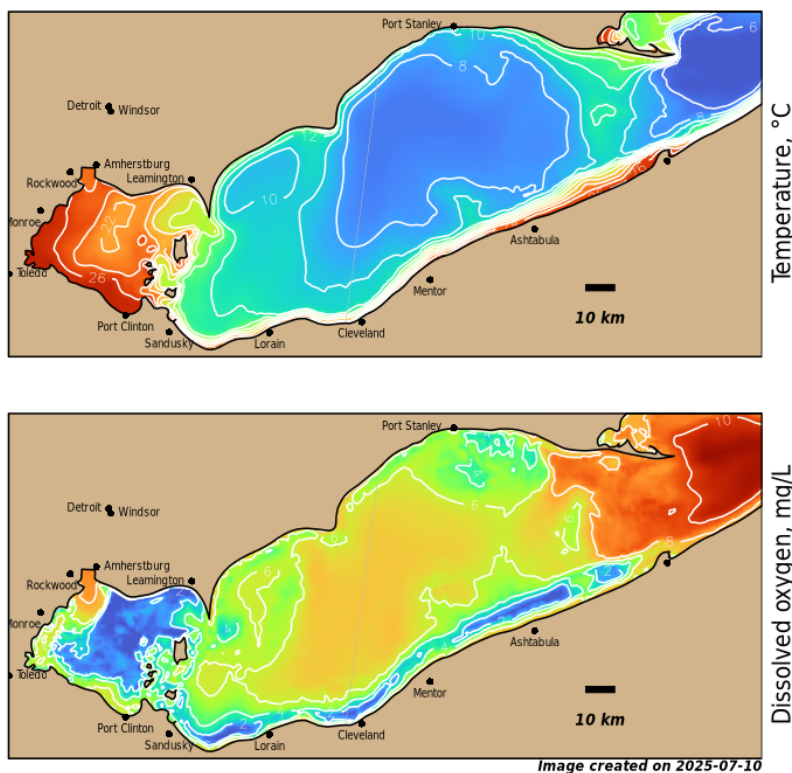
2025-07-10

Summary

Localized hypoxic upwelling is possible this weekend along the Ohio coast. A narrow band of hypoxic waters (<2 mg L⁻¹ dissolved oxygen) is located just offshore of the Ohio coast from Sandusky to east of Ashtabula. Southerly winds throughout the weekend may cause this water to move onshore, causing localized hypoxic events. While the western basin does not typically have hypoxic events because winds tend to keep the shallow basin mixed, hypoxia has recently been observed near the bottom, and there is a potential risk from Thursday into the weekend. This text will change if the risk changes. ##--Stumpf, 09 July 2025

Forecasted Temperatures and Oxygen Levels at Bottom

Fri 11 Jul 2025 11:00 EDT
2025-07-11 15 GMT



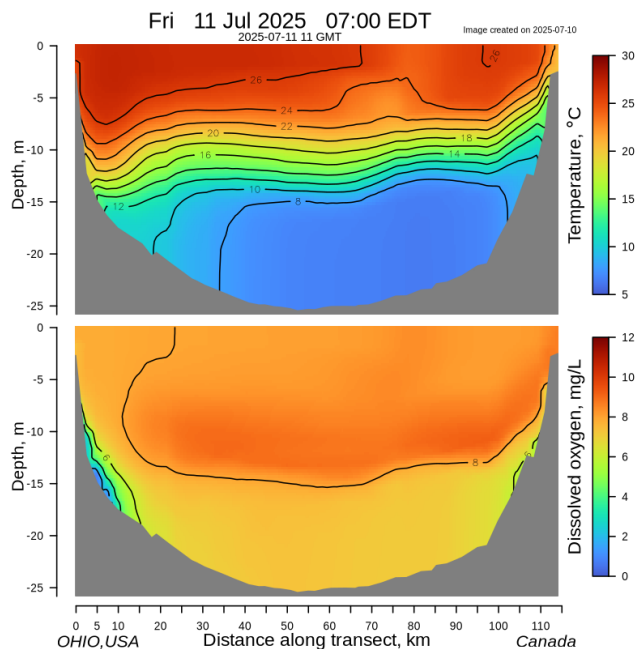
Model output includes near real-time estimated oxygen levels and temperatures in the bottom water across Lake Erie. In the top panel (temperatures), red colors indicate high temperatures (30 C) while blue colors indicate low temperatures (5 C). In the bottom panel (oxygen), red colors indicate high oxygen, while blue-green colors indicate hypoxic (< 2 mg/L) or anoxic (0 mg/L) conditions.

For more information visit: <http://coastalscience.noaa.gov/lake-erie-hypoxia-forecast>

For questions regarding the forecast contact the NCCOS HAB Forecasting Branch: hab@noaa.gov

Vertical transect of Forecasted Oxygen and Temperature

This transect, marked as a light line on the map of Lake Erie, extends from just west of Cleveland, OH to west of Port Stanley, ON. In this cross-sectional view you can see today's modeled distribution of temperatures (top) and oxygen (bottom) in the water column in the center of the lake. The color scales are the same as in the whole-lake images.



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Lake Erie Forecasted Changes in Bottom Water Temperature and Dissolved Oxygen

Change in Bottom Temperature and Dissolved Oxygen

Fri, 11 Jul 2025 12:00 with reference to Wed, 09 Jul 12:00 EDT

2025-07-11 16 with reference to 07-09 16 GMT

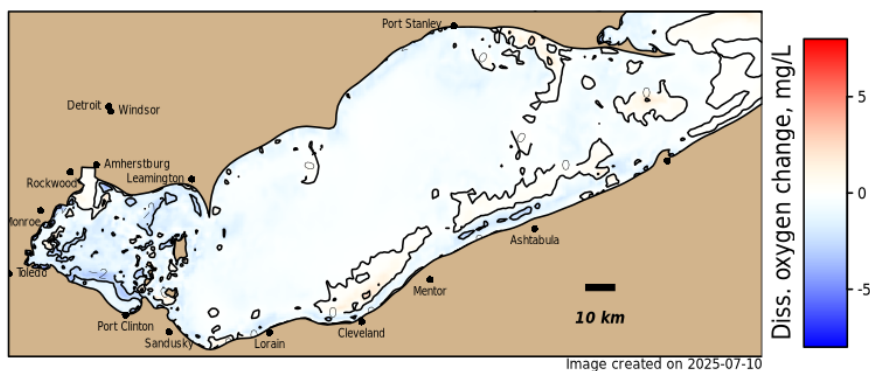
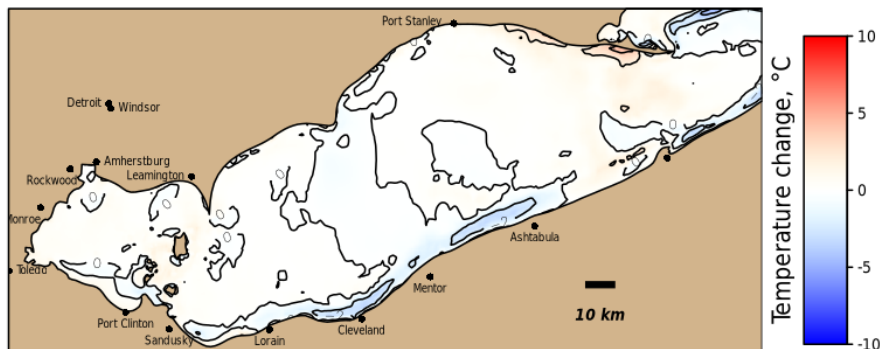


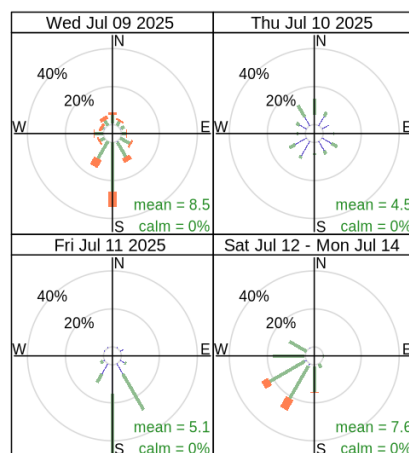
Image created on 2025-07-10

Changes in bottom water temperature and dissolved oxygen (mg/L)

Lake Erie Forecasted Winds Counts by Direction (Wind Rose Plot)

This panel depicts the frequency of occurrence of wind directions and speeds for yesterday, today, tomorrow, and the following 3 days. The length of each spoke indicates how frequently a wind blows from a particular direction. Wind speeds are indicated by color, as given by the color scale at the bottom of the plot. The data were sampled from the wind data used to drive the hydrodynamic model simulation at locations around the central basin of Lake Erie

Wind Rose, Lake Erie Central Basin



0 to 5 5 to 10 10 to 15
(kt)

Image created on 2025-07-10

Frequency of counts by wind direction (%)

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