



Lake Erie influences regional weather

what is happening outside now

& climate.

the average weather in a location over a long period of time

Lake Erie influences the regional **CLIMATE** by absorbing, storing and moving heat and water.

- water absorbs heat from the sun.
- water loses heat by evaporation.
- ice cover on Lake Erie reflects heat from the sun and slows evaporation.

Changes in Lake Erie's water circulation, temperature and ice cover produce changes in local **WEATHER**.

Lake effect precipitation can occur downwind when weather systems absorb moisture as they move over the lake.

Until the lake is ice-covered, typical precipitation patterns cause a regional snow belt to form in winter from Cleveland to Buffalo.

Lake Erie's water temperatures change slower than air temperatures; the temperature of the air above and along Lake Erie is impacted by the water temperature.

- Generally, coastal areas will be cooler in early spring and warmer in the fall than areas 5 to 10 miles inland.
- In late spring when inland nighttime temperatures drop below freezing, the coastal air temperature will remain similar to the lake's water temperature preventing frost.

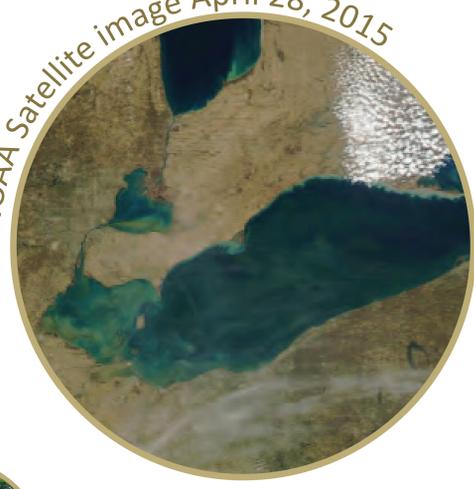
NOAA Satellite image February 28, 2015



NOAA Satellite image March 28, 2015



NOAA Satellite image April 28, 2015



NOAA Satellite image July 28, 2015



NOAA Satellite image from January 7, 2015

