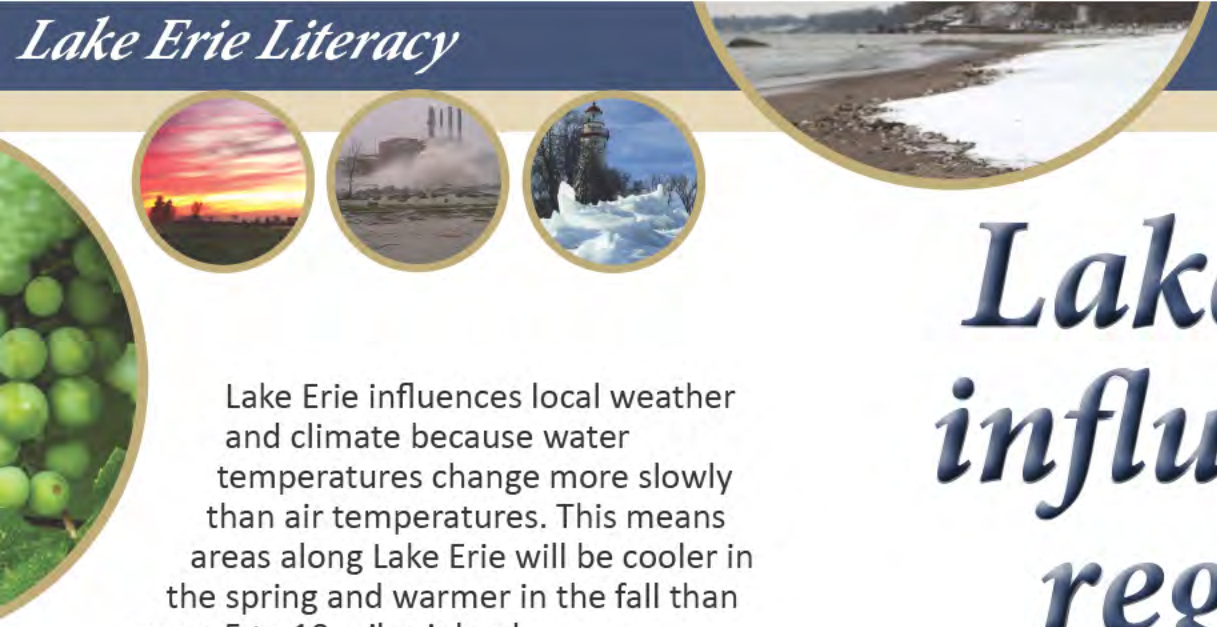


Lake Erie influences regional weather and climate.

what is happening outside now.

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

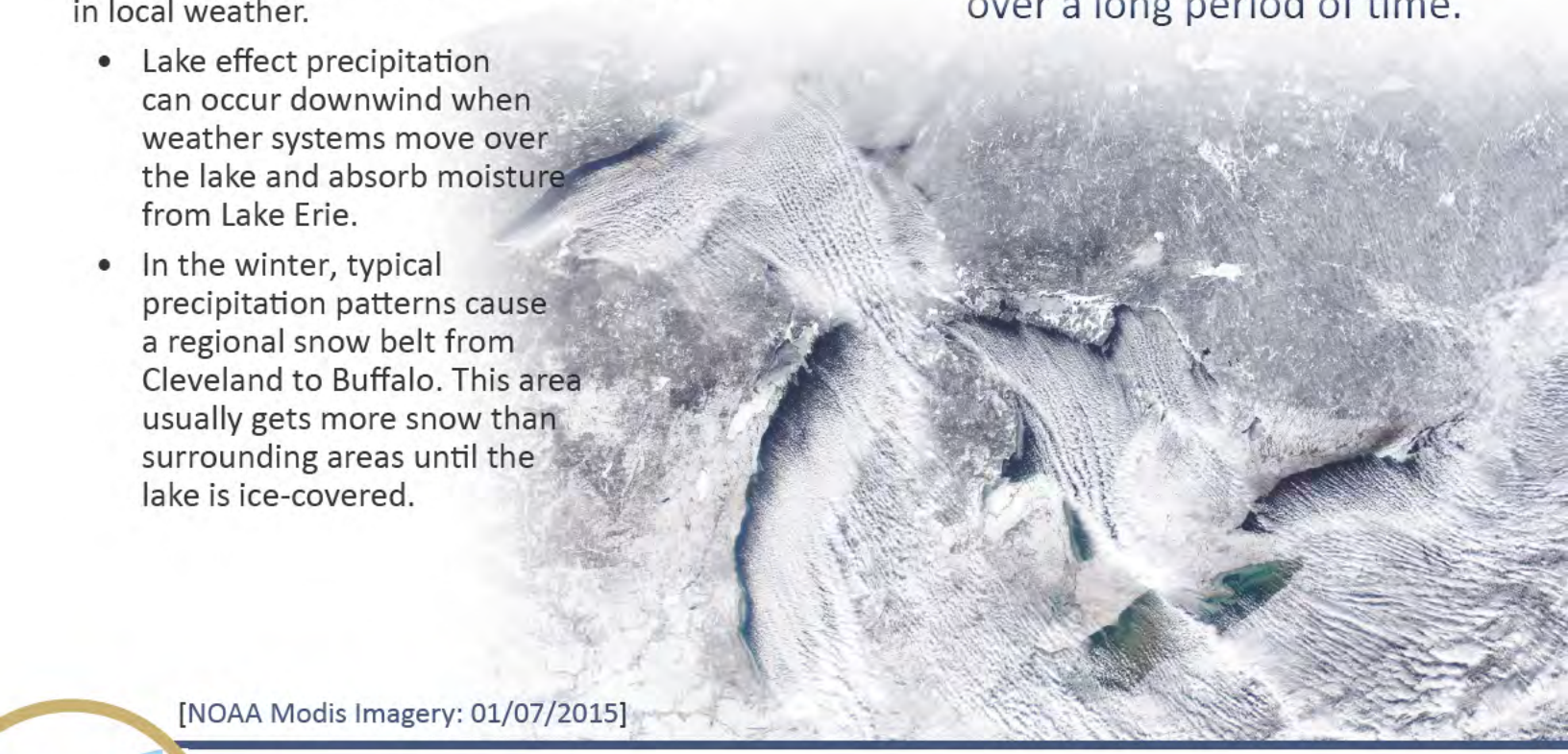
Lake Erie influences local weather and climate because water temperatures change more slowly than air temperatures. This means areas along Lake Erie will be cooler in the spring and warmer in the fall than areas 5 to 10 miles inland.

Lake Erie significantly influences regional climate by absorbing, storing and moving heat and water.

- Lake Erie absorbs heat from the sun.
- Lake Erie loses heat by water evaporation.
- When Lake Erie is covered by ice, it reflects heat from the sun. The ice also slows evaporation.

Changes in Lake Erie's water circulation, temperature and ice cover produces changes in local weather.

- Lake effect precipitation can occur downwind when weather systems move over the lake and absorb moisture from Lake Erie.
- In the winter, typical precipitation patterns cause a regional snow belt from Cleveland to Buffalo. This area usually gets more snow than surrounding areas until the lake is ice-covered.



[NOAA Modis Imagery: 01/07/2015]