Climate Change Impacts in the Great Lakes Basin

Climate change is threatening the health of the Great Lakes and the many ecosystem services they provide, affecting the people, plants, and animals across the basin who rely on the Great Lakes. Increase in lake-effect snow and other extreme weather events

More variable and intense precipitation

Increase in storm-induced runoff carrying nutrients and contaminants into the lakes

Increase in combined sewer overflows, leading to the release of untreated sewage into the lakes and increased levels of *E. coli* (a public health threat)



Increase stress on drinking water infrastructure (e.g., intake crib)

Increase in algal blooms and dead zones

More frequent extreme

Increase in flooding and shoreline erosion

high and low water levels

Loss of coastal wetlands and other wildlife habitat (e.g., breeding, spawning, and nursery)

Increase in unsafe ice conditions for travel and recreation



Potential for reduced or interruptions to shipping and hydropower generation

Increase in invasive species, pests, and diseases such as:



Quagga Mussels Sea Lamprey Round Goby Alewife



Loss of cold/coolwater fish species habitat such as:



Northern Pike Lake Trout Rainbow Trout Wide Mouth Bass



Increase in the resuspension of contaminated sediments that can accumulate up the aquatic food chain

