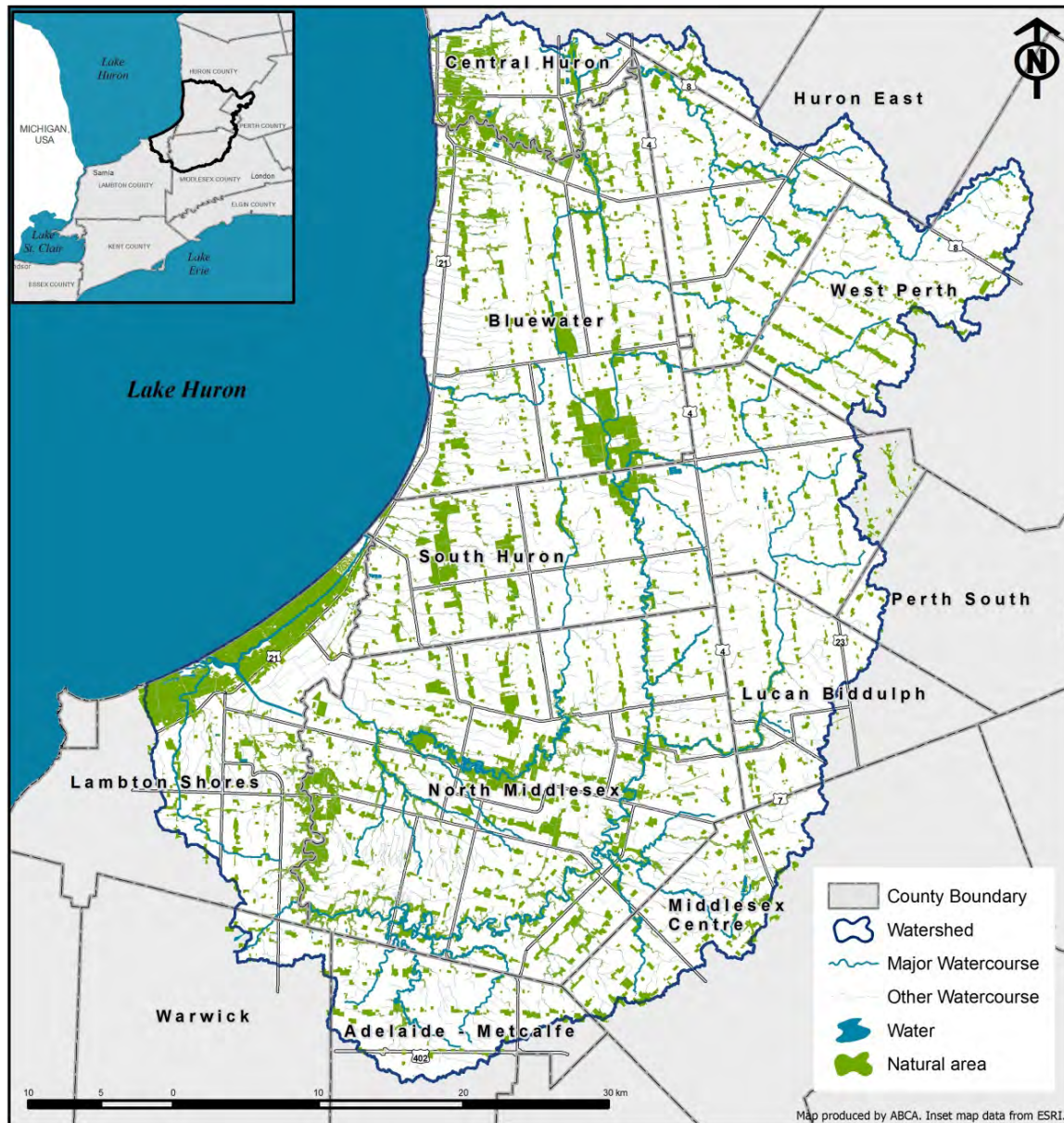

Ausable Bayfield Conservation Authority

Project Committee Meeting
Shoreline Management Plan Update
July 15, 2015





CA's Hazard Role

- Conservation Authorities represent the province with regard to natural hazards
 - CA's are the delegated lead commenting agencies with respect to Section 3.1 of the Provincial Policy Statement (PPS)
 - permitting agency in natural hazard areas – Section 28 of the *Conservation Authorities Act*
- control of flooding and erosion
- the protection of life
- the prevention and reduction of damages and social disruption arising from naturally hazardous lands
- the conservation of ecosystems
- Delegated the responsibility for Great Lakes shorelines and connecting channels in 1988



CA's Hazard Role

- in land use planning and development province provides policy direction
 - Provincial Policy Statement (PPS)
 - public health and safety
- PPS clear about directing development away from naturally hazardous areas
 - Section 3.1.1
 - Section 3.1.2
- planning horizon of 100 years
- development in PPS includes new lot creation, change in land use, construction of buildings and structures requiring *Planning Act* approval
- proactive



CA's Hazard Role

- Development within natural hazard areas requires a permit under Section 28 of the *Conservation Authorities Act*
- Ontario Regulation 147/06 - *Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*
- floodplains,
- river and stream valleys
- wetlands
- shorelines (2006)



CA's Hazard Role

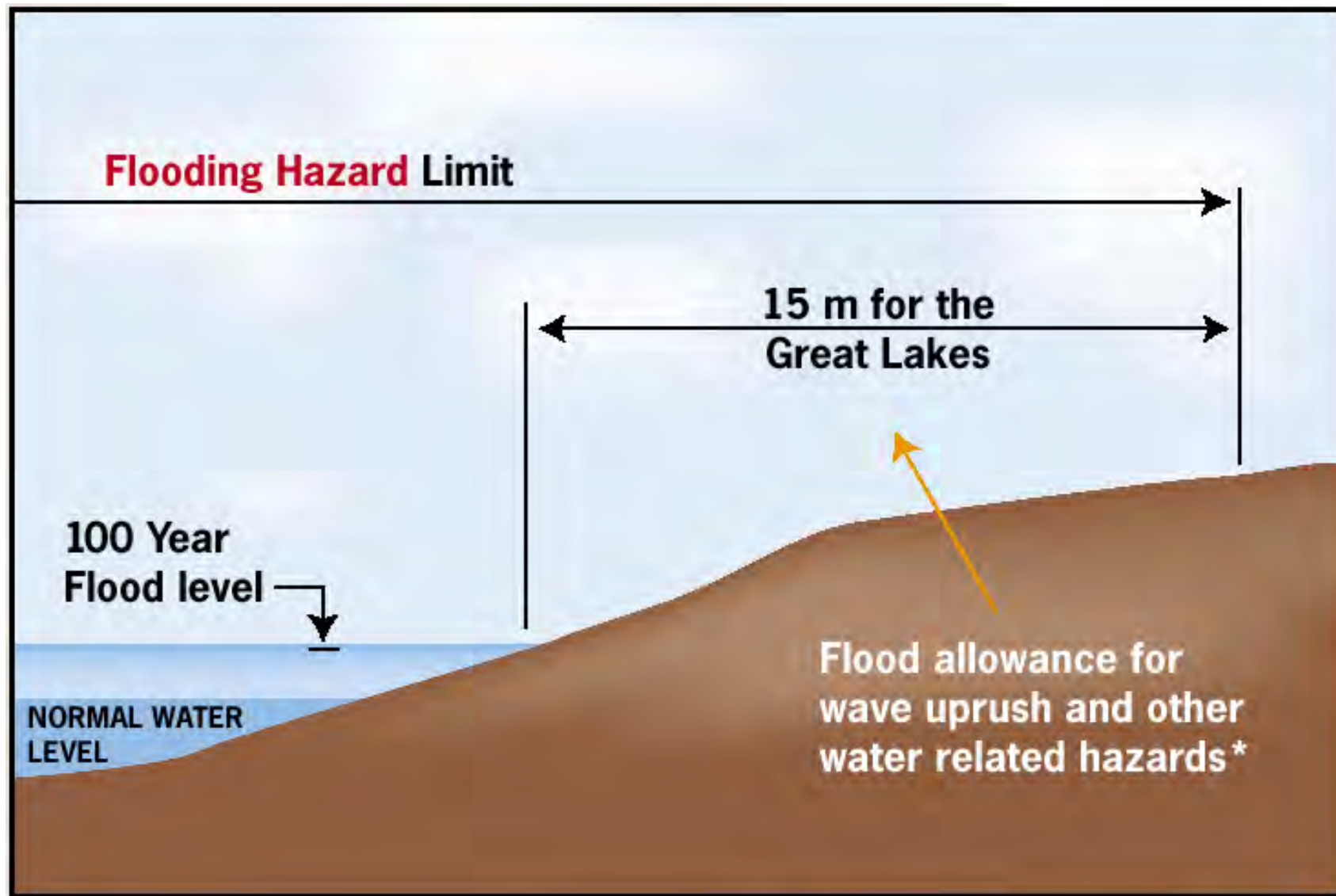
- Development under the *Conservation Authorities Act* includes
 - the construction, reconstruction, erection or placing of building or structure of any kind
 - any change to a building or structure that would have the effect of altering the use, increasing the size or number of dwelling units
 - site grading; or
 - temporary placing, dumping or removal of any material, originating elsewhere or on the site.
- management



Shoreline Hazards

- Flooding
 - all portions of the shoreline
 - not many structures affected
- setback from high water level to account for waves and other water related hazards (ice)



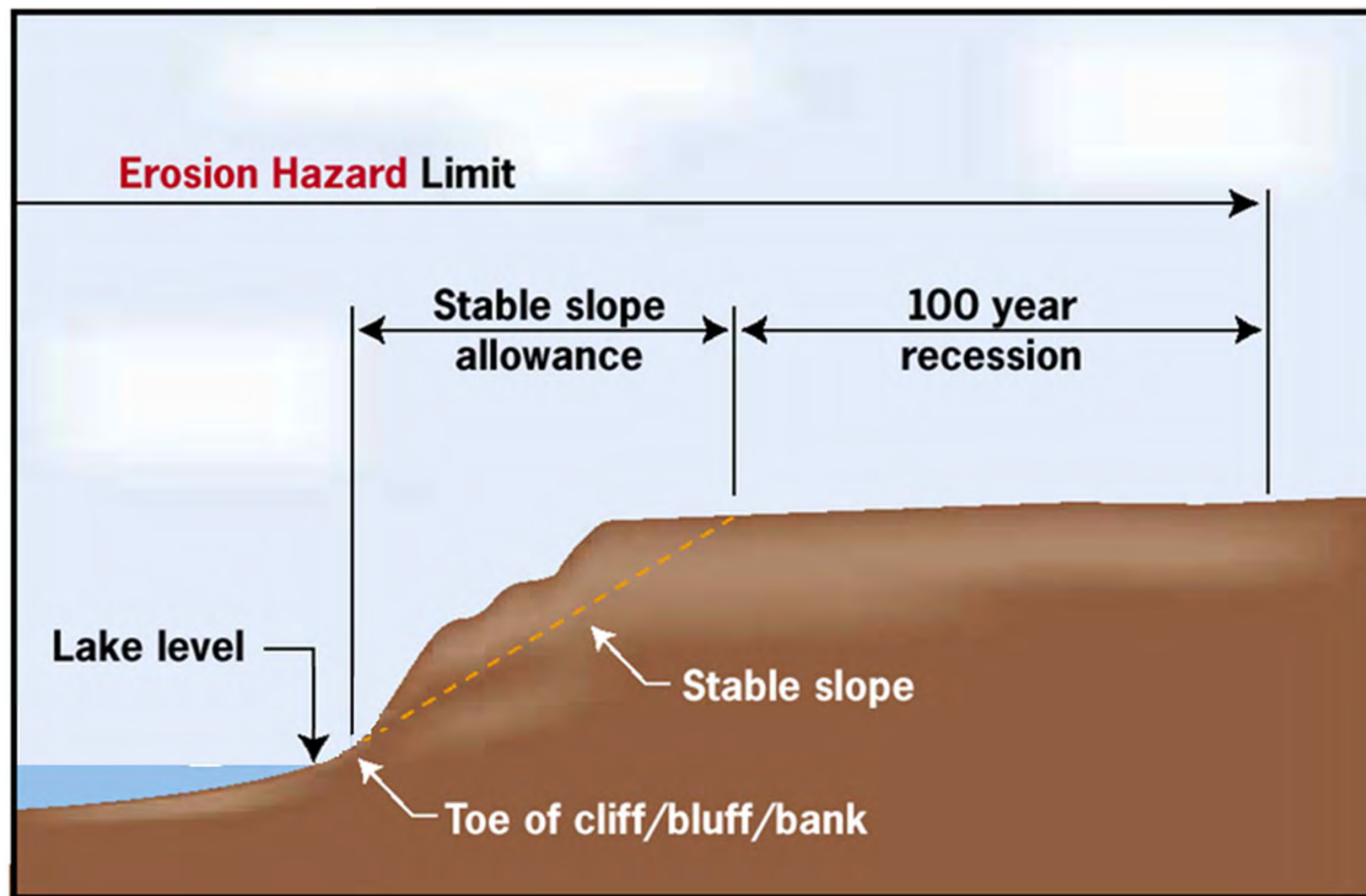


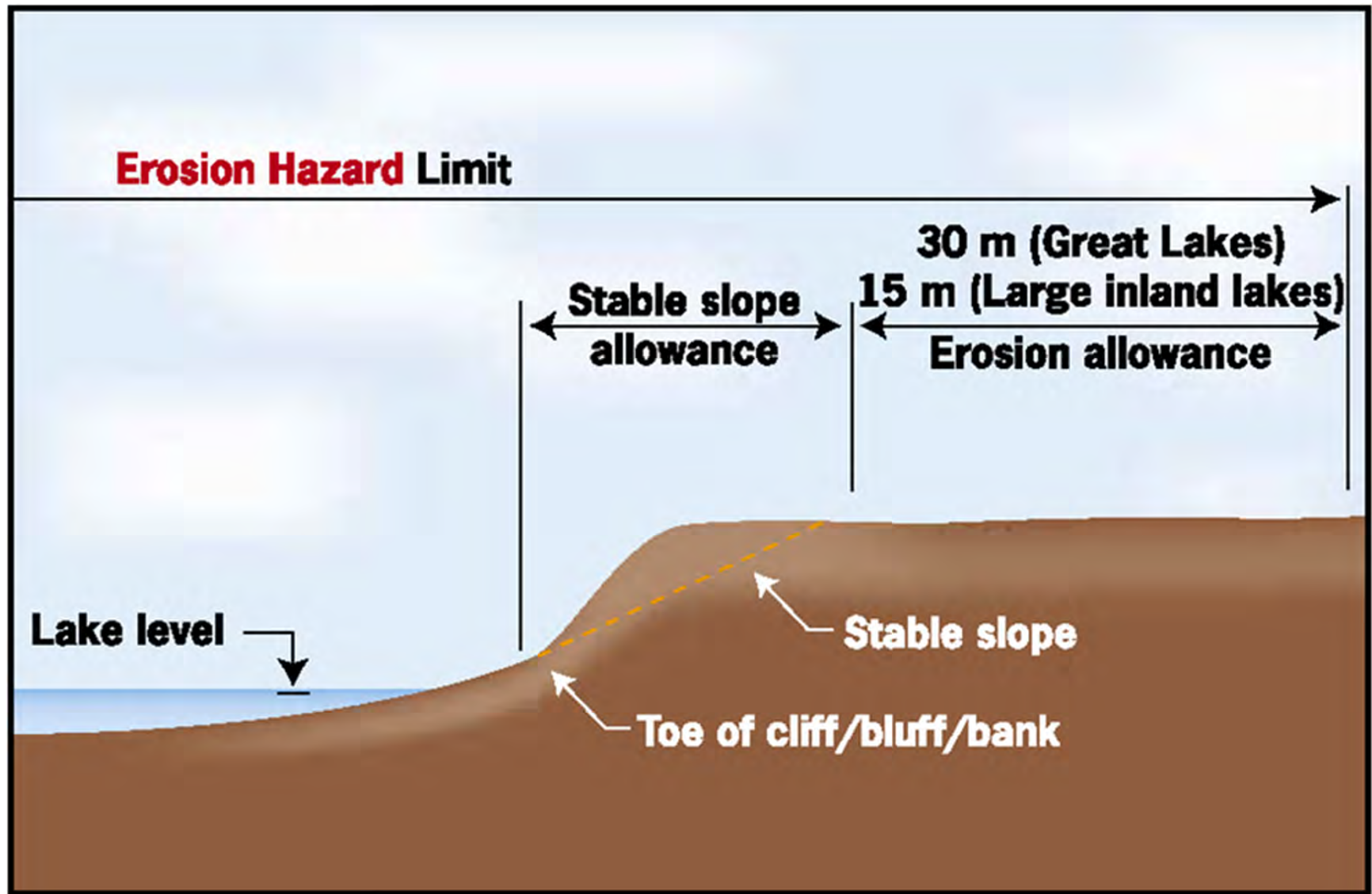


Shoreline Hazards

- Flooding
 - all portions of the shoreline
 - not many structures affected
- Erosion
 - all portions of shoreline but predominately bluff north of Lake Huron
Primary Water Supply (Port Blake water intake)

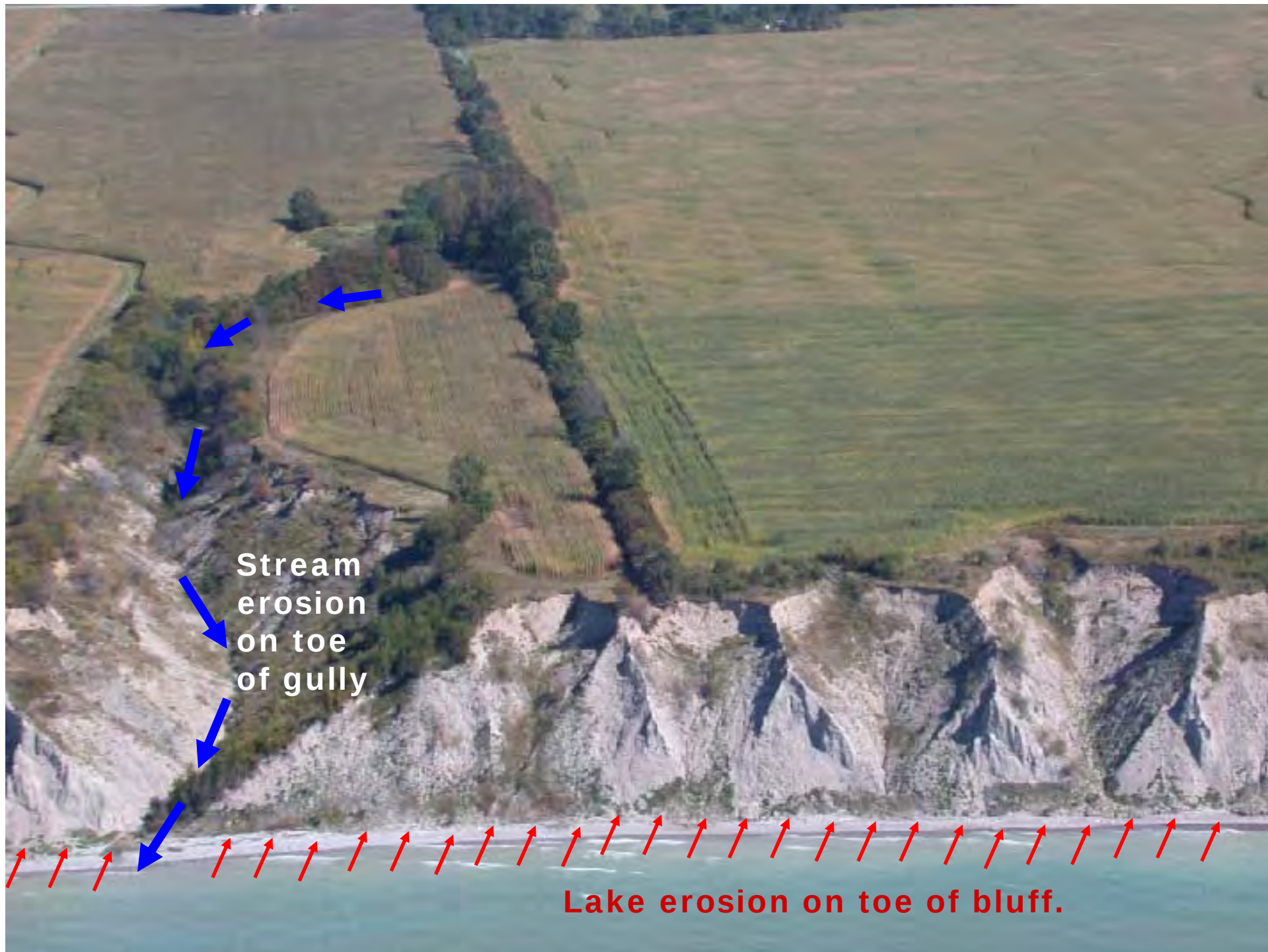








Lake erosion on toe of bluff.



Stream
erosion
on toe
of gully

Lake erosion on toe of bluff.



Overland Flow

**Stream
erosion
on toe
of gully**

Lake erosion on toe of bluff.









Shoreline Hazards

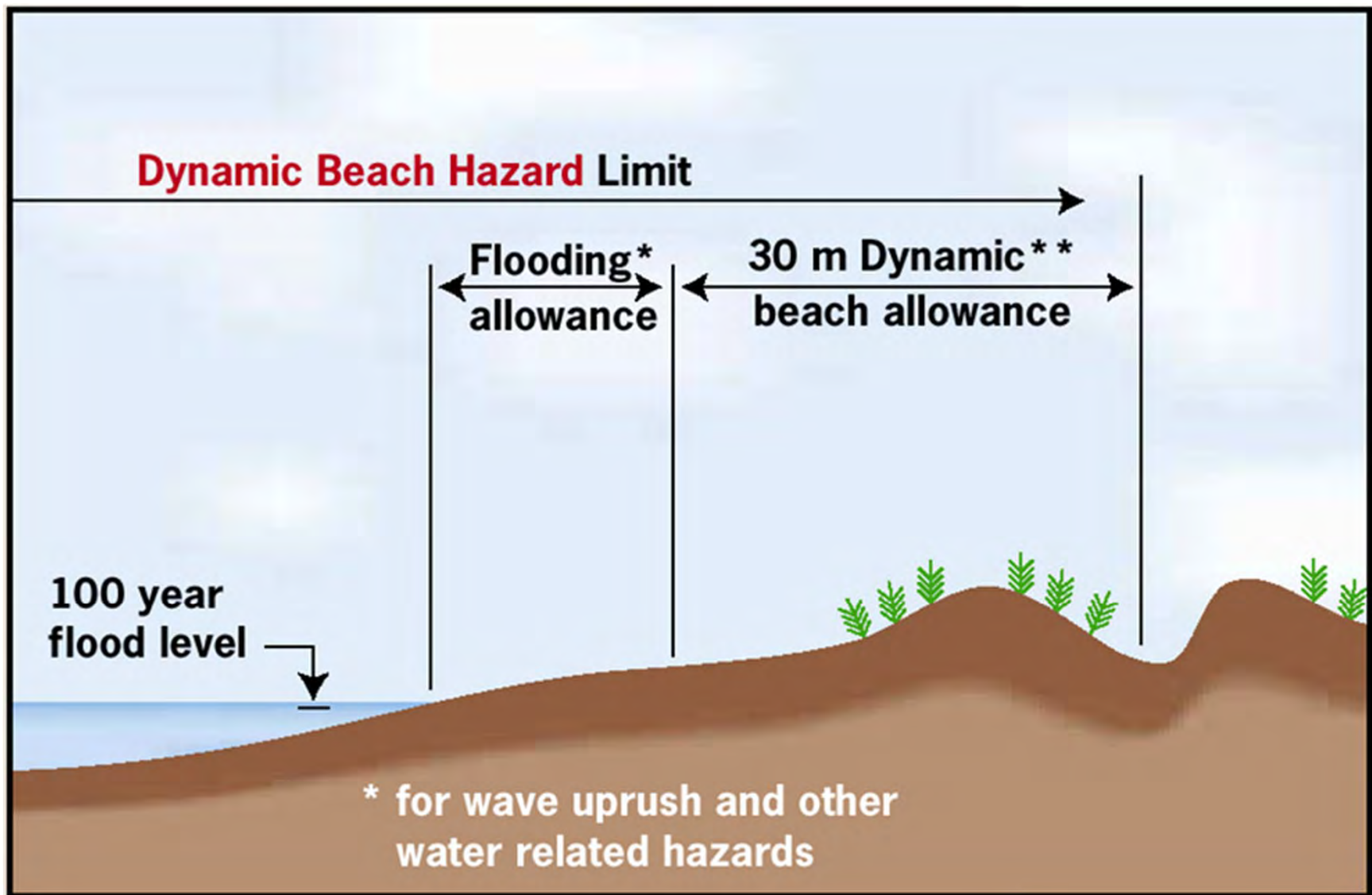
- Flooding
 - all portions of the shoreline
 - not many structures affected
- Erosion
 - all portions of shoreline but predominately bluff north of Lake Huron Primary Water Supply (Port Blake water intake)
- Dynamic Beaches
 - south of Lake Huron Primary Water Supply (Port Blake water intake)



Dynamic Beach

- area where accumulated sediment continuously moves - unstable
 - wind
 - water
 - changes in the rate of supply





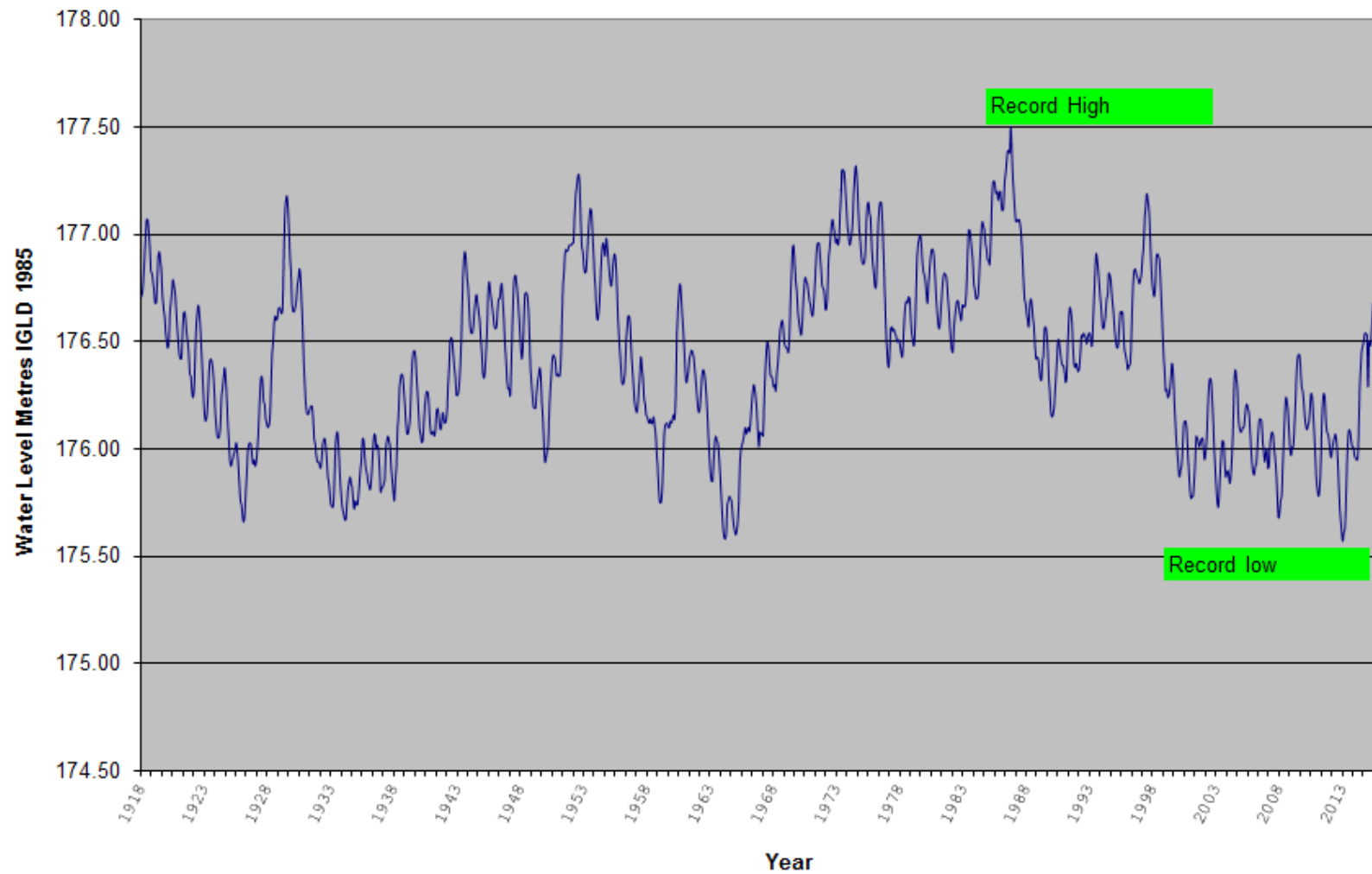


Impacts to Shoreline Processes

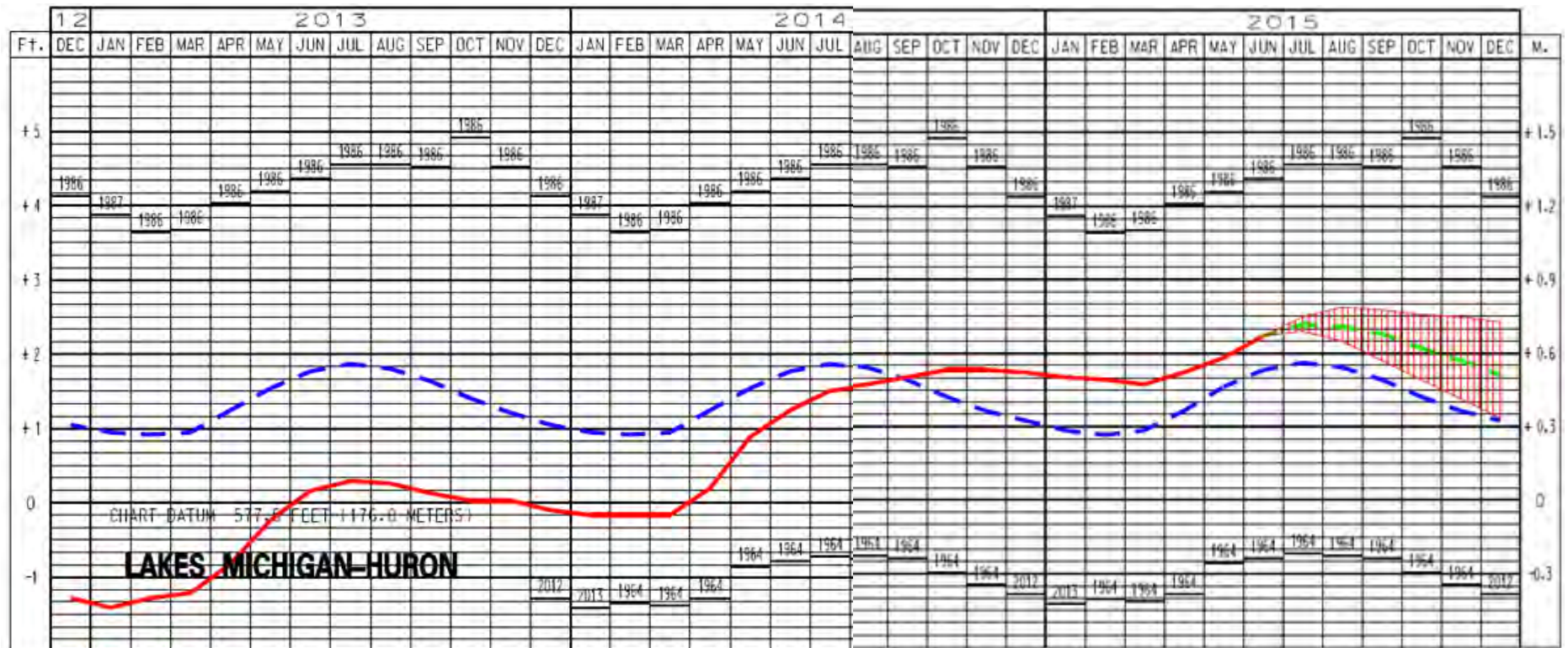
- wave climate
- characteristics of nearshore and shoreline
- climate – precipitation, ice cover
- storm events
- shoreline protection
- disturbances to sensitive areas
- climate change
- lake water levels



Lake Huron - Michigan Monthly Waterlevels 1918 to 2015



LAKES MICHIGAN-HURON WATER LEVELS - JULY 2015



January 2013 to July 2015 change – 1.11 m or 3.64 ft





