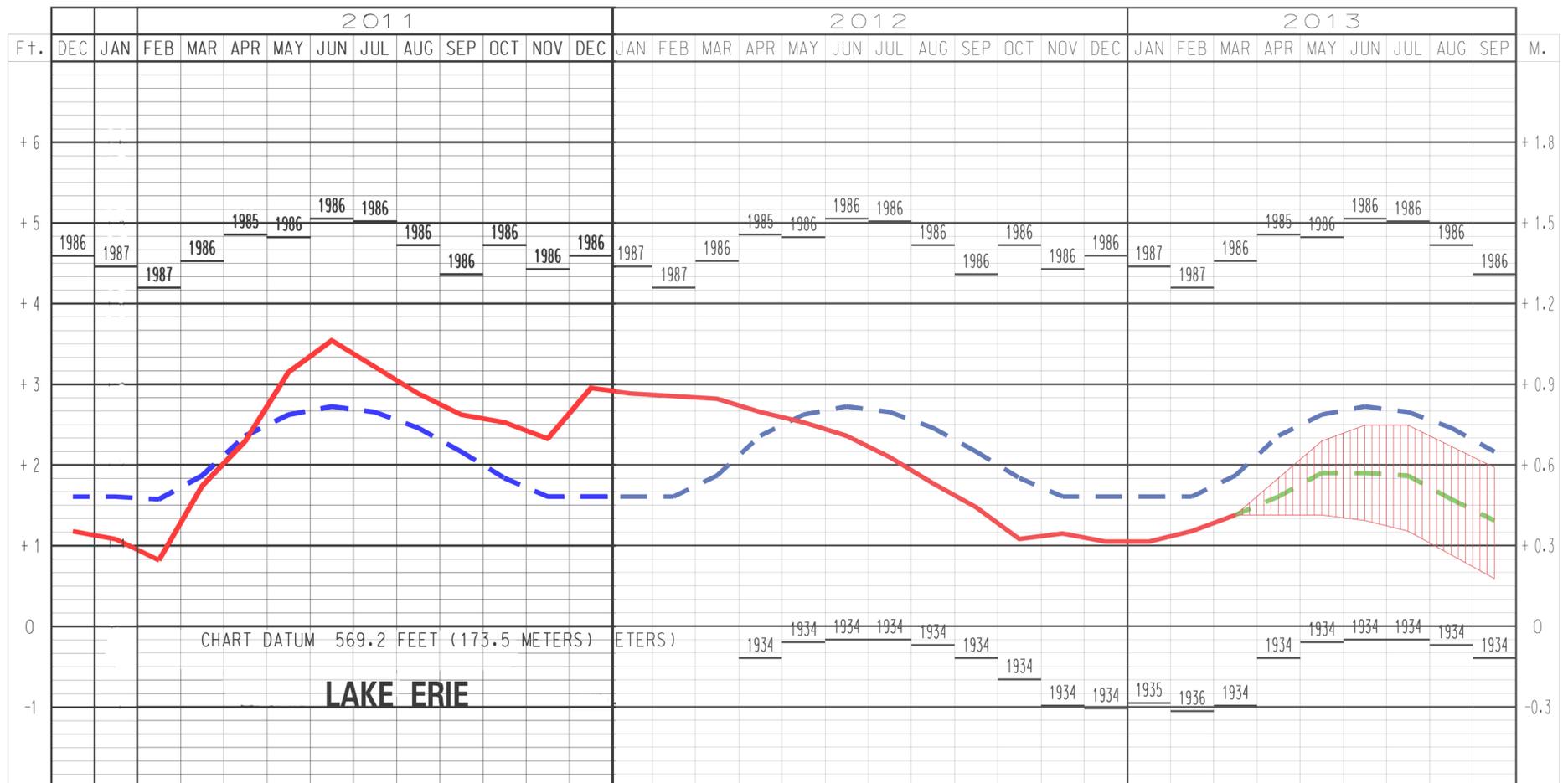


# Water Levels

## Consistently & Constantly Changing

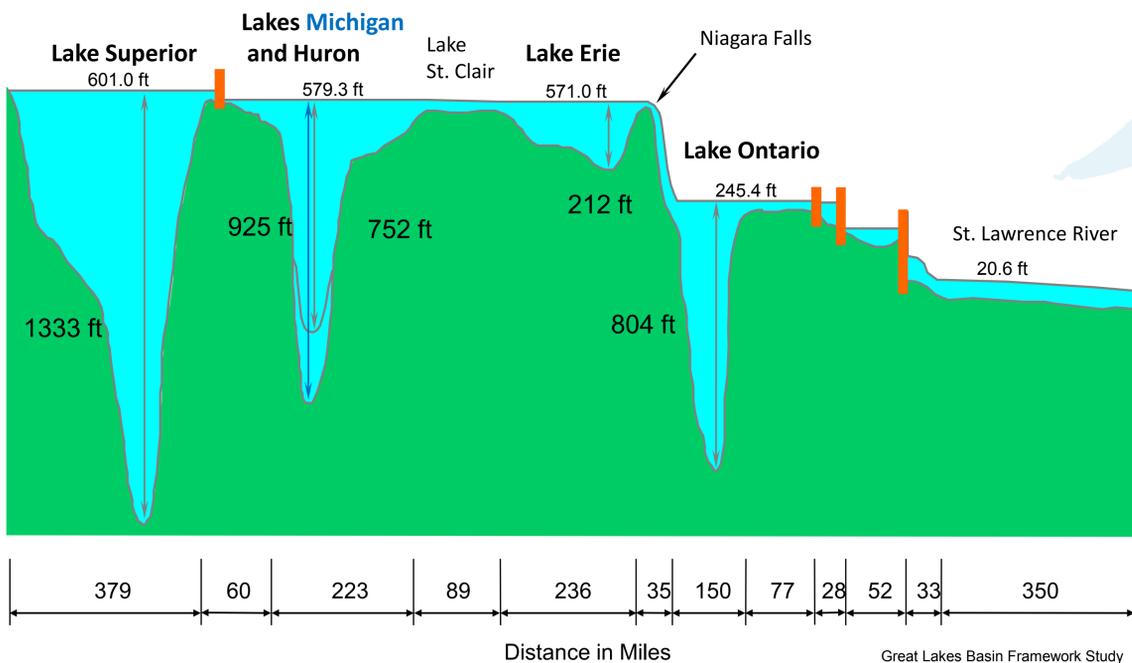


Graph: U.S. Army Corps of Engineers - Lake Erie Water Levels Monthly Bulletions December 2011 and April 2013 merged [www.lre.usace.army.mil/Portals/69/docs/GreatLakesInfo/docs/WaterLevels/MBOGLWL-erie.pdf](http://www.lre.usace.army.mil/Portals/69/docs/GreatLakesInfo/docs/WaterLevels/MBOGLWL-erie.pdf)



TYPE	1985	1985	1973	1973
AVERAGE **				
MAXIMUM **				
MINIMUM **	1936	1934	1926	1934

\*\* Average, Maximum and Minimum for period 1918-2012



### Lake Level Information

#### Lake Erie

Record Monthly High (June 1986) – 574.3 feet\* IGLD 1985  
 Ordinary High Water Mark – 573.4\*  
 Chart Datum – 569.2\*  
 Record Monthly Low (Feb. 1935 & Feb. 1936) – 568.17\*

#### Great Lakes Long Term Average (Period of Record 1918-2011)

Superior – 602.18\*  
 Michigan-Huron – 579.10\*  
 St. Clair – 574.40\*  
 Erie – 571.40\*  
 Ontario – 245.20 \*

\* All measurements in feet based on the International Great Lakes Datum 1985

Source: U.S. Army Corps of Engineers

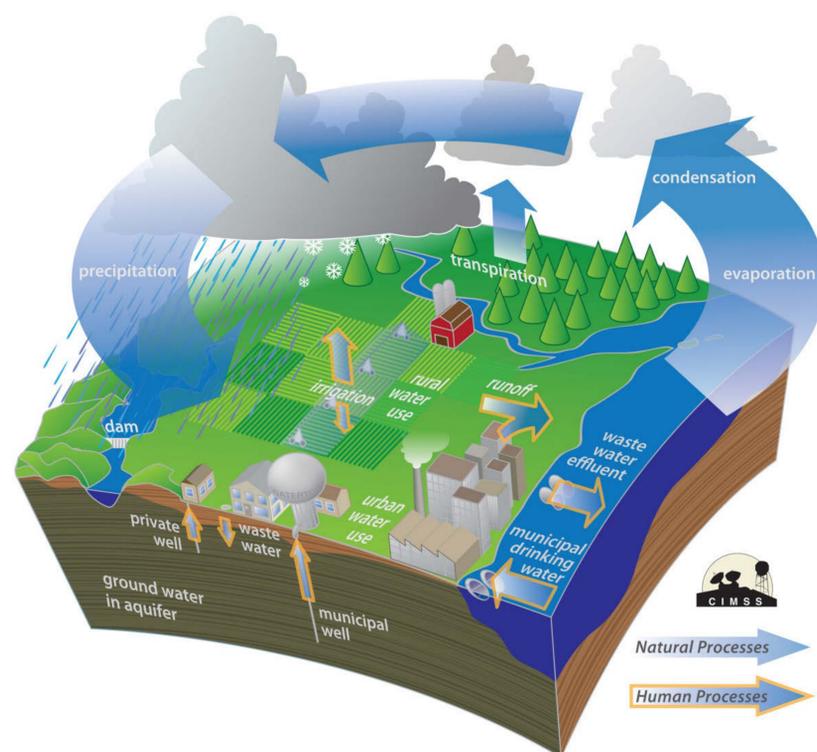
# Water Levels Fluctuate

Lake levels change due to climate influences that impact the amount of water going into and going out of the lake.

The difference between the amount of water coming into the lake and the amount of water leaving will determine if the volume of water will increase (rise in water level), decrease (drop in water level), or remain unchanged.

$H_2O$  going in: precipitation, runoff and conveyance

$H_2O$  going out: evaporation, consumptive use, conveyance



## Types of Water Level Changes

**Short-term fluctuations:** last minutes to days and are primarily related to local weather (example: seiche).

**Seasonal fluctuations:** caused by yearly climate variations (i.e. more precipitation at certain times of the year/more evaporation at other times of the year).

**Long-term fluctuations:** caused by climate variation (longer-term climate patterns) and glacial isostatic adjustment (rebounding of the Earth's crust from the weight of the glaciers).

