



RESOLUTION

Adopted March 5, 2025

Updating the Accuracy of the International Great Lakes Datum (IGLD)

Whereas, movement of the Earth's crust across the Great Lakes - St. Lawrence River system occurs on a very gradual, continuous and non-uniform basis (in some areas in the magnitude of centimeters per decade), referred to as "glacial isostatic adjustment" or rebounding of the land surface from the weight of glaciers that retreated over 10,000 years ago; and

Whereas, water levels in the Great Lakes-St. Lawrence system fluctuate on a short-term, seasonal and long-term basis, requiring careful and accurate measurements within an accurately established vertical datum; and

Whereas, the safety and economic viability of the Great Lakes commercial navigation industry, the extensive recreational boating community, and ports and harbors across the region all rely heavily on accurate water level forecasts and maintenance of congressionally authorized dredging programs to provide depths in the navigation channels including waterways connecting the Great Lakes; and

Whereas, all coastal zone management, including erosion prediction, flood prediction and response, and coastal structure design, construction and maintenance, rely upon an accurate vertical elevation datum; and

Whereas, all coastal habitat restoration, rehabilitation, creation, enhancement, improvement and protection activities currently underway and being implemented under the Great Lakes Restoration Initiative (GLRI) require an accurate vertical datum; and

Whereas, prediction of the magnitude, timing and duration of extreme weather events as they affect the Great Lakes-St. Lawrence River system, and the development of adaptive management approaches thereto, require accurate water level measurements and forecasts; and

Whereas, the vertical elevation datum for the Great Lakes, known as the International Great Lakes Datum (IGLD), first established in 1955 and last updated in 1985, should be updated every 25 to 35 years to reflect continuous and differential changes in land surface elevations across the region; and,

Whereas, IGLD (1985) is long overdue for an update; and,

Whereas, the updated IGLD (to be known as IGLD 2020) is scheduled to be completed and released by 2027; and,

Whereas, Low Water Datum (LWD), or Chart Datum, on the Great Lakes-St. Lawrence River system, which sets authorized depths for navigational improvement projects, is also anticipated to be revised; and

Whereas, changes to the IGLD and anticipated changes to the LWD will be communicated to impacted and interested stakeholders over the next several years.

Therefore, Be It Resolved, that the Great Lakes Commission urges the National Oceanic and Atmospheric Administration (NOAA) to redouble its efforts to complete and release the IGLD 2020 update by 2027 and to continue coordinating its activities with Canadian federal and provincial partners, to ensure that this foundational vertical datum is compatible with the existing Canadian Geodetic Vertical Datum of 2013, and is maintained to the highest accuracy possible using the best available technologies including the utilization of more accurate Global Navigation Satellite Systems technology instead of traditional leveling used in IGLD 1985; and

Be It Further Resolved, that the Great Lakes Commission urges NOAA to partner with states, Canadian provinces and federal entities to extend the accuracy of the new IGLD in all ports and harbors of refuge that were not updated in 1985; and

Be It Further Resolved, that the Great Lakes Commission urges NOAA to fulfill its promise to engage in meaningful outreach with interested and affected stakeholders including states and provinces, Indigenous Nations, coastal communities, shoreline property owners and associations, emergency responders, the electric power industry, water and wastewater management entities, maritime transportation interests, recreational boaters and associations, elected officials, and others; and

Be It Finally Resolved, that the Great Lakes Commission urges the U.S. Congress to provide the necessary financial resources and other support to complete the IGLD update, and further requests that the Canadian federal government provide a commensurate share to ensure completion of this important endeavor on schedule.

*Adopted at the 2025 Semiannual Meeting of the Great Lakes Commission, March 4-5, 2025,
held in Washington, D.C. The resolution was passed unanimously.*