

## **2005 WATER LEVELS**

As 2005 began, water levels on all five Great Lakes were higher than the year before, but very dry weather starting in the spring led to lower water levels on all but one Lake by the end of the year. In fact, moderate to severe drought conditions prevailed across the entire Great Lakes basin.

Lake Superior was near its long-term average (LTA) early in the year, but slipped below LTA by April and remained so for the next eight months. Lake Michigan-Huron (hydrographically considered one body of water) was below LTA the entire year.

Lake Erie rose early in the year, peaking at 4 inches above LTA in May. Erie's water level then steadily fell and the Lake ended the year 5 inches below LTA. Only Lake Ontario remained above LTA the entire year, but the margin was slim by the end of 2005, only 1 inch.

### **IMPACTS OF LOWER WATER LEVELS ON COMMERCIAL NAVIGATION**

LCA-registered vessels carry anywhere from 50 to 267 net tons of cargo for each inch of loaded draft and, when water levels permit, load to drafts that range from 19 to 28 feet or more. (Some of the largest vessels have loadlines that allow for drafts of 30 feet or deeper, something currently unattainable given the project depth in the connecting channels and most ports.) Therefore, severe fluctuations in water levels can dramatically affect waterborne commerce. The table below illustrates how water levels have affected Great Lakes shipping in recent years. While the cyclical nature of water levels is a fact of life, dredging to maintain harbors and waterways at project depth can offset fluctuations in water levels. However, Operation and Maintenance dredging on the Great Lakes has been underfunded for decades. As a result, it is estimated three of every four cargos LCA members have carried in the past 5 years represented less than full loads.

### **COMPARISON OF LARGEST CARGOS IN VESSELS OF COMPARABLE SIZES CALENDAR YEARS 2000-2005 AND 5-YEAR AVERAGE**

(net tons)

PORT	COMMODITY	LARGEST CARGO						AVERAGE 2000-2004
		2000	2001	2002	2003	2004	2005	
Two Harbors, MN	Iron Ore	64,723	65,981	67,118	64,860	67,645	66,498	66,066
Escanaba, MI	Iron Ore	63,402	67,878	67,643	64,244	65,464	64,493	65,727
Superior, WI	Coal (Head-of-Lakes)	64,642	64,681	67,258	64,831	67,531	66,735	65,789
Presque Isle, MI*	Limestone	33,109	34,521	33,123	30,346	34,557	33,239	33,132
Alpena, MI**	Cement	15,393	15,919	16,696	15,927	16,662	16,106	16,119

\* 1,000-footers rarely carry limestone. The vessel used to benchmark Presque Isle, the self-unloading barge Great Lakes Trader, is 740 feet long.

\* Due to the capacity of storage silos, cement moves in comparatively small cargos. The vessel used to gauge Alpena, the self-unloading barge Integrity, is 460 feet long.