

Table 1: Summary of planned observing system implementation for 2010 in support of GLOS objectives and focus areas.

User Needs - Focus Area	Implementation Objective	GLERL	UMich	UWM	UMD	GLRC	MTU
Climate Change Impacts	Improve wind/wave forecasting and circulation modeling	3 Buoys	Buoy	Buoy	Buoy	2 Buoys	Buoy
	Improve lake heat and water balances	2 Buoys	Buoy	Buoy	Buoy Glider	2 Buoys	Buoy
Protection of Public Health	Reduce risk of contaminated water supplies	2 Buoys		Buoy		2 Buoys	
	Improve capability to protect public beach users	1 Buoy	Buoy	Buoy			
Navigation Safety And Efficiency	Reduce loss of life and property damage to commercial navigation and recreational boating	3 Buoys	Buoy	Buoy	Buoy	Buoy	Buoy
Ecosystem and Food Web Dynamics	Enhance understanding of nutrient dynamics, water quality, and algal blooms	3 Buoy		Buoy Vessel	Glider	2 Buoys Vessel	Buoy Vessel
	Advance nearshore ecological forecasting	2 Buoys		Buoy Vessel	Glider	2 Buoys Vessel	Buoy Vessel

Table 2: Location and institution leads for planned 2010 observing system implementation.

Site	Lead	Observing System and Sensors
Lake Michigan		
Milwaukee	UW-Milwaukee	Buoy: Temp profile, meteorology, currents, water chemistry
Little Traverse Bay	U. Michigan	Buoy: Temperature, meteorology, waves
Ludington	U. Michigan	Buoy: Temperature, meteorology, waves
Cross-lake transects	UW-Milwaukee	Vessel: Surface Temperature, meteorology, water chemistry
Lake Superior		
Duluth	UMD	Buoys: Temperature profiles, meteorology, water chemistry
Nearshore transects	UMD	Glider: Temperature profiles, meteorology, currents, water chemistry
North entrance to Keweenaw Waterway	MTU	Buoy: Temperature profiles, meteorology, waves
South entrance to Keweenaw Waterway	MTU	Buoy: Temperature profiles, meteorology, waves, water chemistry
Cross-lake transects	MTU	Vessel: Surface Temperature, water chemistry
Lake Huron		
Alpena	GLERL	Buoy: Temperature profile, meteorology, currents, waves
Lake Erie		
Cleveland	GLERL	Buoy: Temperature profile, meteorology, currents, waves, water chemistry
Buffalo	GLRC-Buff State	Buoy: Temp record, meteorology
Lake Ontario		
Oswego	GLRC- ESF	Buoy: Temp record, meteorology, currents, water chemistry
Cross-lake transects	GLRC- ESF	Vessel: Surface Temperature, water chemistry

GLERL: NOAA's Great Lakes Environmental Research Laboratory, UMD: University of Minnesota-Duluth, MTU: Michigan Tech University, GLRC: SUNY's Great Lakes Research Consortium working with SUNY-ESF and Buffalo State