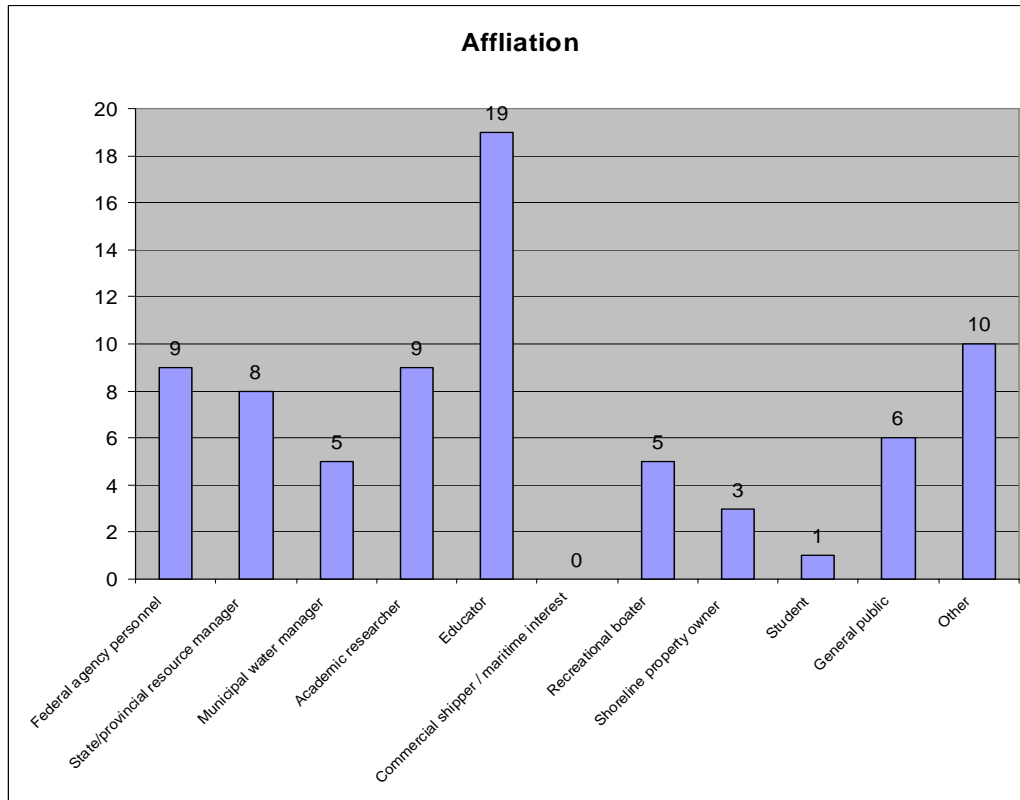
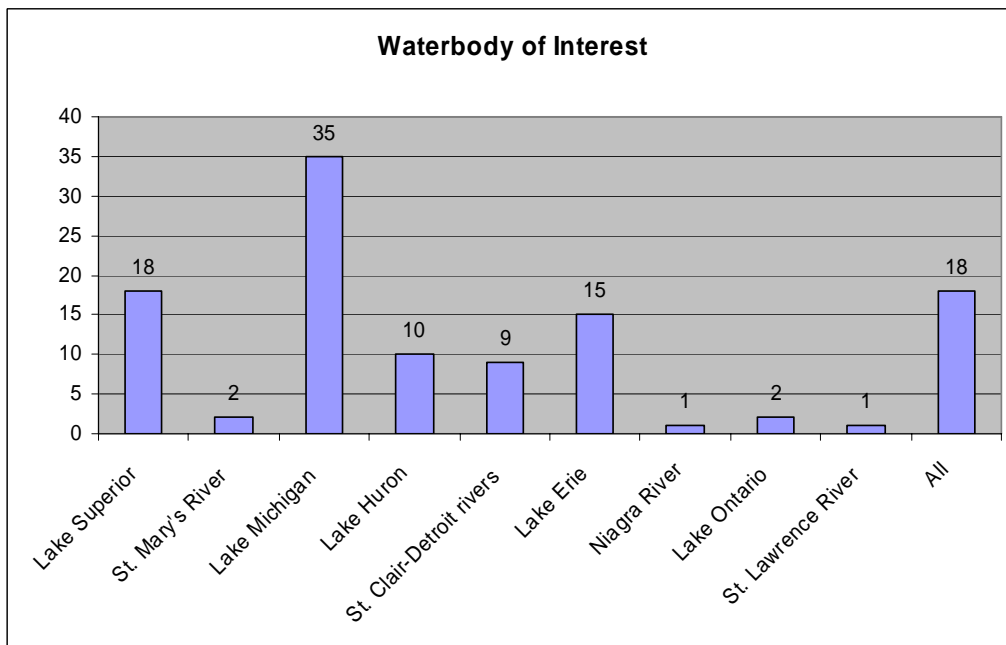
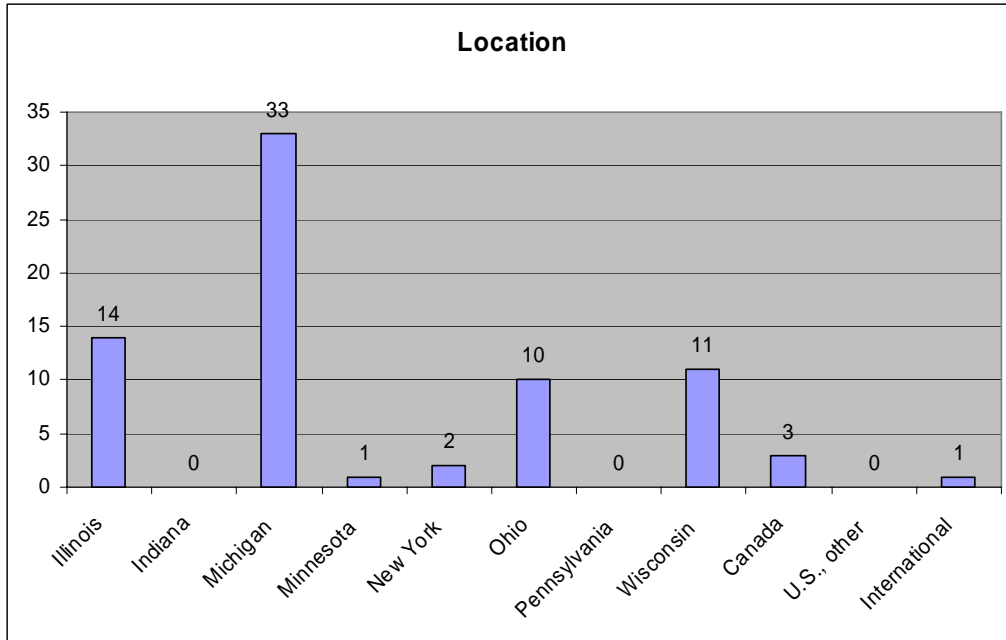


GLOS Survey Results

82 individuals have participated in the online GLOS Public Survey as of August 24, 2005. Part A shows the breakdown of who filled out the surveys. Part B shows the responses to the survey questions.

Part A

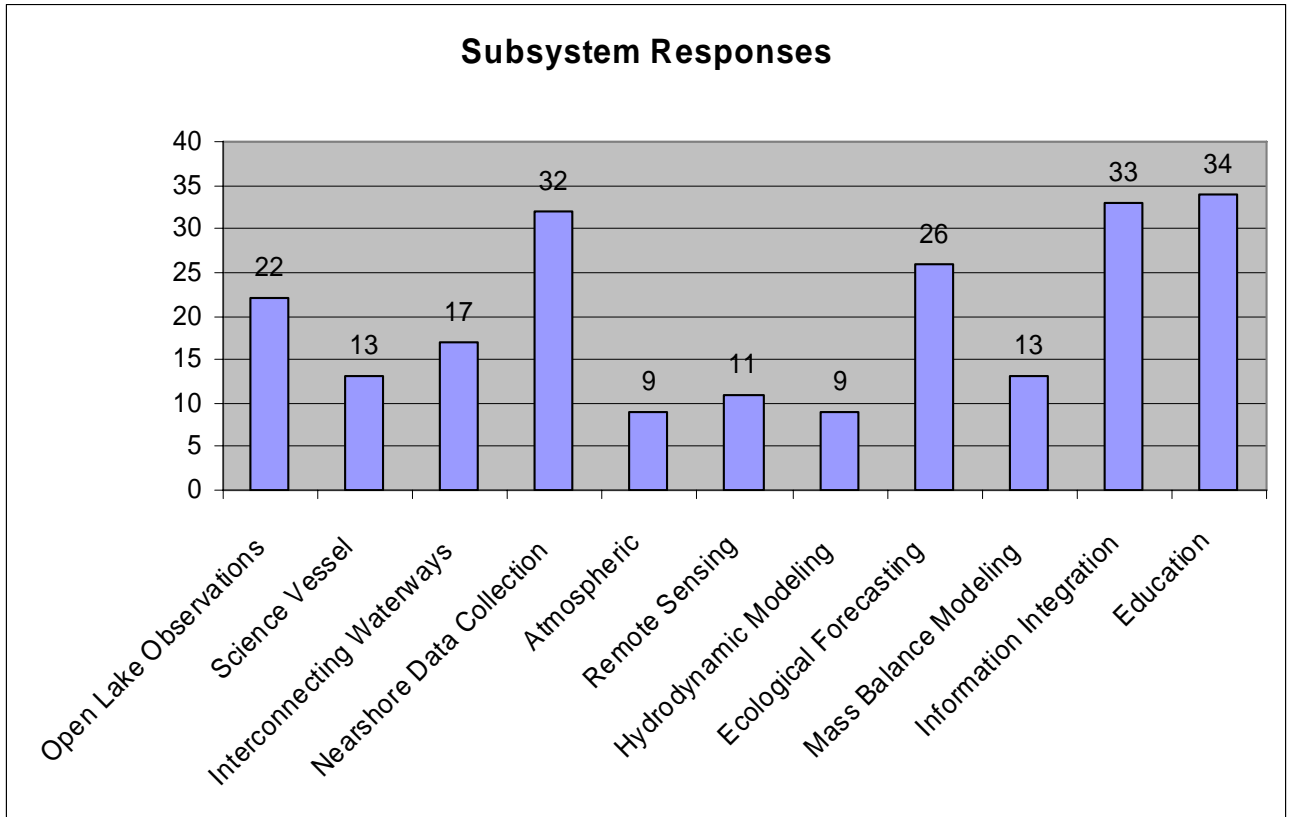




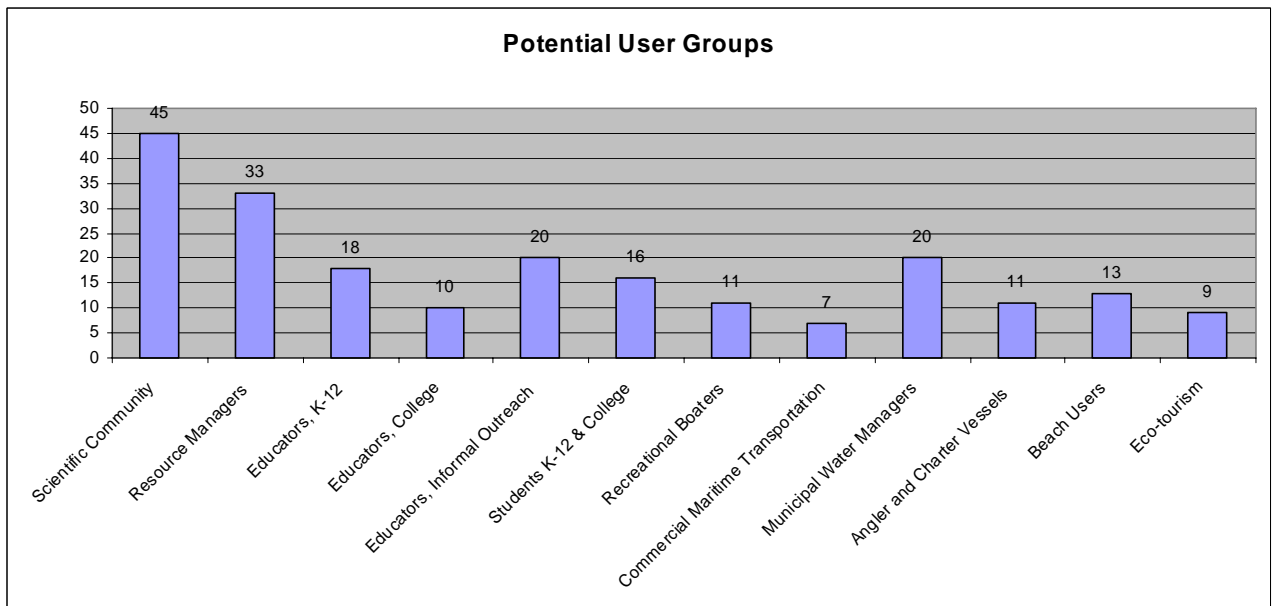
Note: Some respondents selected a body of water (i.e. Lake Michigan) and selected All.

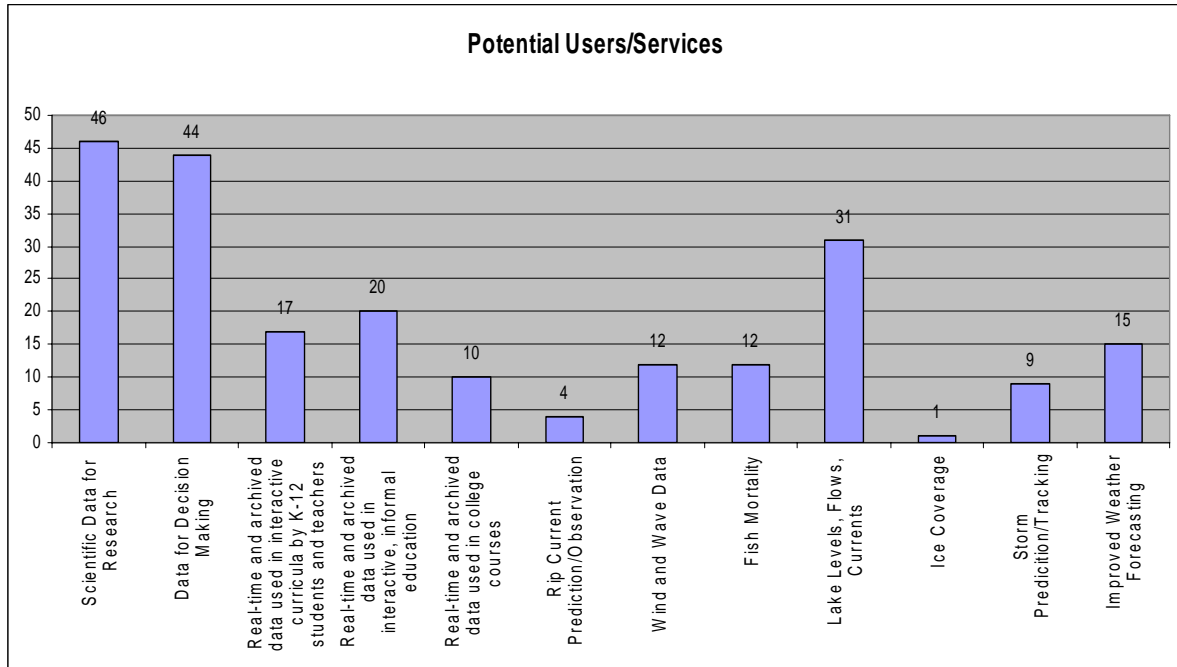
Part B

1) Based on your needs and interests, please check your top 3 subsystems.



2) Are there other user groups that might benefit from products from this initiative? And, if so, what services might GLOS provide?





3) Are there any specific monitoring/observations that you feel are needed but not currently collected or publicly accessible?

38 of the 82 respondents replied. Comments below:

- *High frequency (daily or greater) physical and chemical profile. Nearshore underwater camera surveillance.*
- *More than 5 minutes that I have now – later*
- *Mercury deposition into Lake Erie.*
- *It would be useful for educators to be able to link to a National Weather Service archive for the date and time matching a particular observation. For instance, when a big storm surge occurs, what did the weather service show to people in advance, during and after?*
- *Continuous Dissolved Oxygen measurements in the Central Basin of Lake Erie from June to September.*
- *higher resolution AVHRR. real time temperature profiles of the GL*
- *Collection of perishable data after rip current event. This could include near shore bathymetry and current measurements.*
- *Wind and wave monitoring in the near shore environment to aid in the forecasting and prediction of the rip currents.*
- *There is a lack of nearshore real-time weather & wave data in NW Michigan. North Manitou Shoals Light and Mission Point Light would be good additions to the coastal observing program.*
- *Nutrient data in the Nearshore (i.e. 0 - 15 m depths) of Great Lakes*

- *trends in water quality*
- *More awareness/monitoring/observations in remote areas such as farms (pesticides), country roadside/highway small businesses, heavy equipment ops/storage, small municipal airports and other small scale potential sources of contamination to local streams, rivers and smaller lakes.*
- *Is there a website with this info?*
- *The contributions from large, individual sources. Power plants, and in Zion, IL a sludge burner is now being built. The contributions to beach closings from sewage overflows through ravines, etc. And not only beach closings but the contributions to contaminants in the lakes. Maintenance of bluffs.*
- *The general public needs a better understanding of the sources and flows of contaminants which result in beach closings in the Chicago area. The information being provided by the press is of low quality. It is hard to imagine that these flows are not well-understood but perhaps we need more real-time monitoring.*
- *Not at this time*
- *Too few buoys are available for groundtruthing of satellite data.*
- *Sedimentation and erosion rates system wide and esp. problem areas requiring remediation. Understanding the cycles (water levels, temperatures, precipitation) that the lakes region experiences and the impacts of these cycles.*
- *Airborne pollutants (i.e. mercury) emissions that are downwind of water bodies*
- *we need a better handle of invasive species impacts and management*
- *Several National Park units protect nearshore waters and shoreline features in Lakes Michigan and Superior. Park monitoring resources, however, are usually focused on inland waters. Addition of nearshore monitoring sites close to national park units would be of great use to park managers and research and monitoring coordinators.*
- *Turbidity, E. coli, algal counts*
- *Local data on wave heights and currents*
- *Some type of trophic index, which could be updated no less than weekly. Such data would be very useful in conjunction with satellite (e.g. MODIS) data and surface temperatures.*
- *Over-lake measurements of meteorology and air-sea interaction (e.g., evaporation, sensible heat flux) are scarce. It would be nice to establish a sustained monitoring program to accurately collect such measurements (e.g., through eddy flux buoys). I emphasize \"sustained,\" since weather and climate can be highly variable, and long-term monitoring is needed to give a complete picture, especially as it relates to climate change.*
- *I'd like to see more information on the economic impacts of natural phenomenon such as aquatic invasive species (i.e. zebra mussels), fluctuating lake levels, loss of commercial fisheries, tourism impacts, etc. I'd also like to see better data on recreational trends along the Great Lakes.*

- *Yellow perch/round goby population data for southern Lake Michigan*
- *Lake Superior is very underserved in terms of short and long term data collection.*
- *The effects of collection of bottled water and other commercial uses on water quality and quantity. Also, ground water monitoring and dissemination of results would be a deterrent to polluters.*
- *Pulses of accumulated contaminants that are released in mass when ice cover melts*
- *Possibly more water chemistry data and data on sediment transport*
- *There's a whole range of things that need to be done in Michigan's upper peninsula, especially looking at the near shore situation and how it impacts Lake Superior and vice versa.*
- *Greater number of local observation stations in expanded networks.*
- *Organic pollution monitoring*
- *We need more observations in the marine environment. Observations over the water, or at least on the beach side of the dunes are necessary for weather forecasting and monitoring.*
- *Shoreline pollution such as swimming beaches and the causes seem to be neglected as well as the enforcement of no swimming during high pollution days.*
- *Observations are not accessible at one location, i.e. NOAA GLERL has video monitors at ports but doesn't include those with lakes on line. U of M stuff should be on the NOAA site.*
- *I would like to see over-water observations of meteorological parameters from fixed platforms (such as those in the TAMPA PORTS program) that could be used for studies of air-surface exchange. Multiple layer measurements (5 and 10 m?) would be very helpful for the study of bi-directional exchange of trace gases.*

4) Are you satisfied with the reliability of current short- and long-term environmental predictions of Great Lakes water levels, waves, currents, water temperatures? Please explain why or why not?

34 of the 82 respondents replied. Comments below:

- *Generally yes, we rely quite heavily on the Great Lakes forecasting System, and find it is reasonably accurate. Long-term predictions (e.g. the impact of climate change) are still a bit dubious.*
- *For Lake Michigan, GRERL models work well for Physics. Don't know of a water temp prediction model and wouldn't use it.*
- *Yes*
- *When they are available they appear to be reliable. My concern is that sometimes when I am teaching I go to find the Lake Erie glfs and the site is not online.*

- *Seems to work based on limited observation.*
- *We need better resolution for near shore area*
- *the reliability of the data is adequate for what I need. Preciseness is not critical in the public outreach mode.*
- *Need more information on near shore waves and currents to help with rip current predictions*
- *No. Because the current short and long term prediction are mainly for the open lake environment. I would like to see more emphasis on the near shore environment.*
- *At this point from my experience long term predictions are not much better than the Farmers Almanac!*
- *See 3 above*
- *Yes*
- *not applicable for my situation*
- *No - I do not think there is enough monitoring and testing going on at regular intervals.*
- *I need to know more before I can answer*
- *No. Lake current information is not being used effectively to address beach closings and related local water quality issues. If the data were reliable then they would be referenced constantly by scientists and the press.*
- *Yes. Water levels are now real-time available to masters.*
- *Yes they are satisfactory.*
- *Not satisfied. To be honest, I do not feel that I have easy access to this information. Nor do the professionals that I interact with.*
- *Yes*
- *Satellite views of surface temperatures are somewhat unreliable, typically during the periods when they are most useful (i.e. mid and late summer.) The current Sea Grant images are only taken once per day, also. Twice per day would be much more useful, given the short time cycles of significant temperature change during any kind of wind or current event.*
- *Yes, although I do not access such information very often.*
- *I'm satisfied with the reliability of these predictions but not with the accessibility of the related data. I'd like such data and the resulting predictions to be easily accessible by educators, the public and resource/property managers. Having "one stop shopping" where data and user-friendly information would be readily available would benefit us immensely.*
- *No, wave height/wind speed predictions are often wrong for Near Shore Marine Forecast.*

- *More winter data is needed. There is no data for half of the year on Lake Superior.*
- *I don't know where to view this data.*
- *not concerned*
- *Yes*
- *No. They are hardly useful for safe or efficient travel of even a one-day duration to and/or from locations 30-50 miles distant.*
- *I do not know if they are reliable or not. I am not familiar with any of these prediction methods.*
- *Yes, but we can do better with more observations in the marine environment.*
- *No. Weather conditions are very unpredictable through most government sources. Perhaps that will continue without any improvement no matter what data you gather and offer.*
- *Just not enough real-time data.*
- *I have found the lake water temperature data available through coastwatch to be very helpful in a weather forecasting class that I am currently teaching at the University of Michigan.*

5) Please check your top 3 preferences for how you would most like to receive GLOS information.

