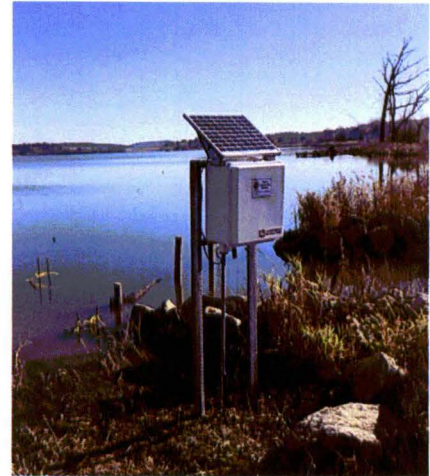


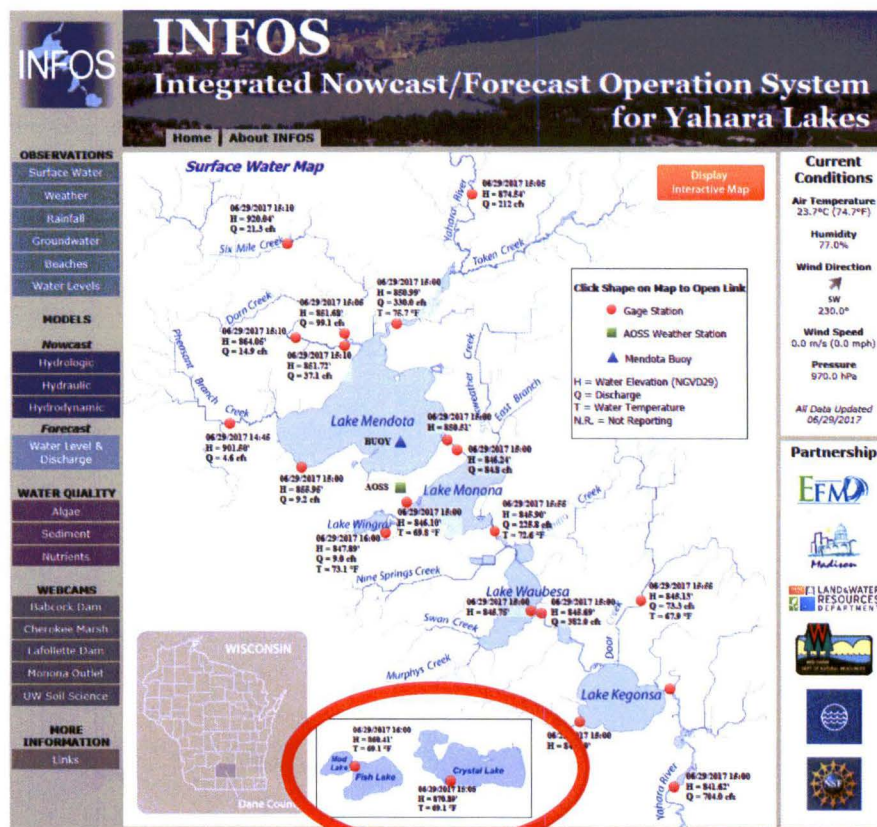
Crystal Lake Monitoring Station

A real-time monitoring station was installed to provide water level and temperature data for Crystal Lake. Previously, water levels were recorded by manual measurement and occur at approximately a monthly time step. Past data is not real time, requires manual work, and measurements are sporadic throughout the year. This project solves those issues and provides continuous data through the year.

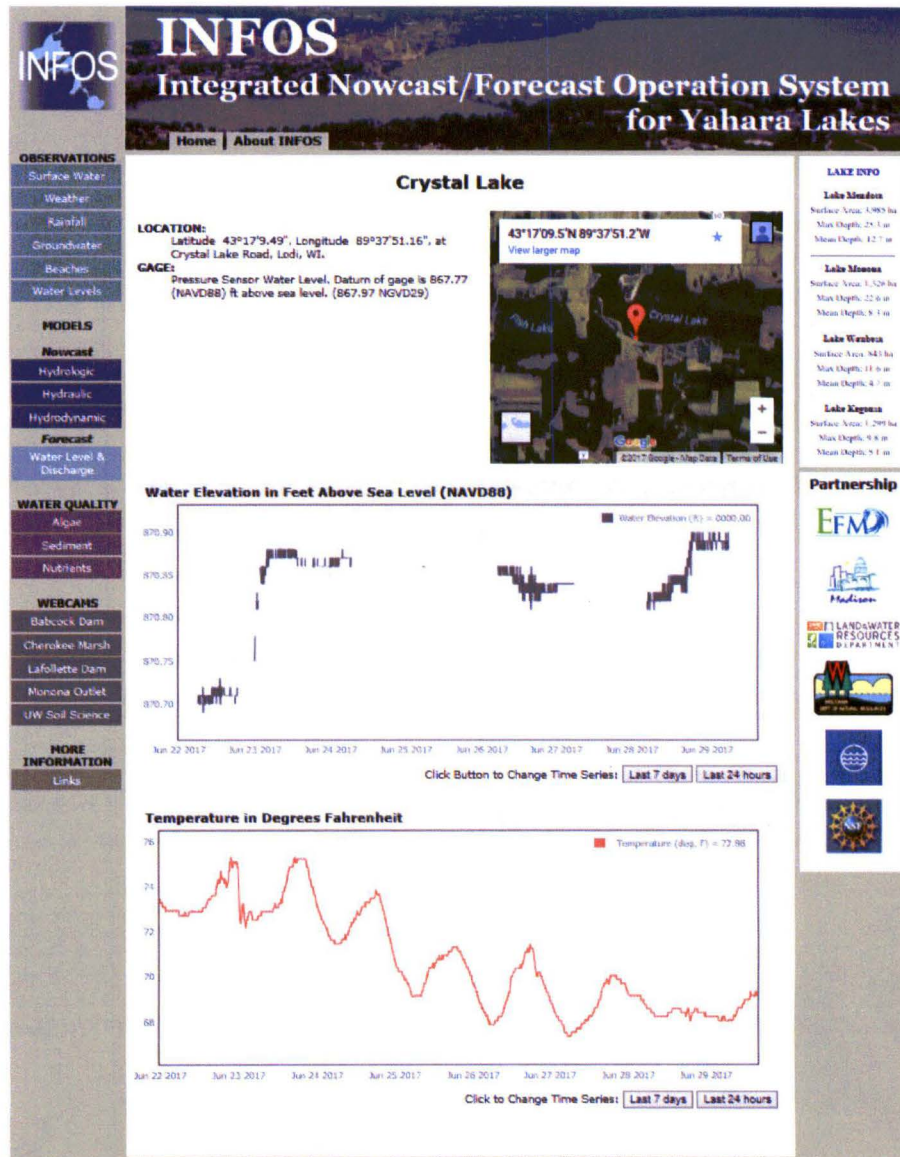
The main equipment purchased was a pressure sensor, data logger, wireless modem, and a cabinet box. We fabricated posts and brackets for attachment of equipment on land and in water. See picture to the right of the final installed system.



Water level and temperature data is shared through INFOS (www.infosyahara.org). The data is wireless transmitted in real-time to INFOS. On the home page, a map of Crystal Lake is presented at the bottom of the page (circled in red in the figure below). The map shows the location of the monitoring station and the text display provides the most recent measurement.



Further time series data can be seen in a graph format by clicking on the red dot of the monitoring station location from the home page. The figure below shows the past one week of data.



The data is currently being used by the local community and lake associations. In the future, the data may be used in studies such as lake water budgets (ground water versus surface water) and climate predictions.