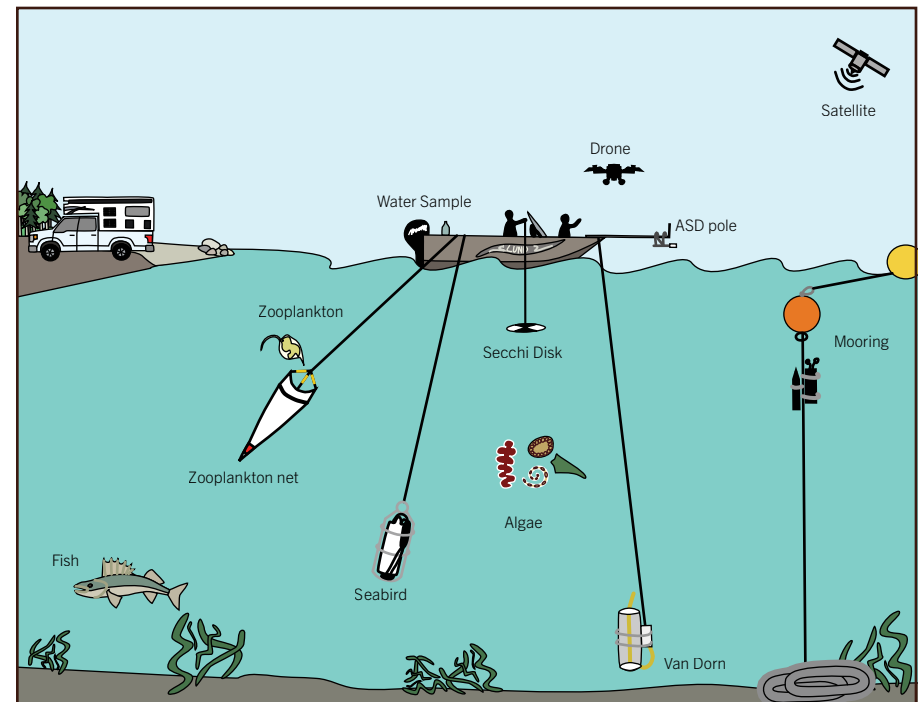


The Manitoba Great Lakes Program

For Manitoba, an abundance of clean, reliable freshwater is the centerpiece to the province's economic and social infrastructure. From clean drinking water and agricultural irrigation to hydroelectric power and recreational activities, the very identity of Manitoba is built upon its freshwater supply.

With a combined area of 34,508 km², Lakes Winnipeg, Manitoba, and Winnipegosis make up nearly 5.5% of the total land area of the province and act as major waterways in the Hudson Bay watershed, one of the largest watersheds in North America, draining water from as far west as the Rockies and as far east as Quebec into Hudson Bay. This interconnected lake system (collectively called the upper Manitoba Great Lakes) is important to Manitobans for recreational activities, commercial and recreational fishing, and as a source of drinking water.

The Manitoba Great Lakes (MBGL) Program is a climatological and limnological research program focused on the upper Manitoba Great Lakes. This interconnected system of large lakes has been identified by Environment and Climate Change Canada (ECCC) as a priority ecosystem within the Lake Winnipeg Basin. Our research program is the only project ever to have investigated the three great lakes as a single limnological system—and we are conducting the only limnological research currently underway on Lakes Waterhen and Winnipegosis. Since 2011, the Centre for Earth Observation Science (CEOS) has conducted climate and water quality-related research on these lakes in support of science-informed management of resources.



The MBGL key research areas include:

- In-lake processes and land cover effects on nutrient export;
- Remote sensing of algal blooms and surface water temperature;
- Algal community dynamics and toxin production; and
- Carbon transport through the freshwater-marine spectrum

