**IISD-ELA General Metadata Notes**

**Site Locations**

Locations of the Sites 1, 2, and 3 lakes, and the four streams (ABCD) connected to Site 1 have been generalized to a coordinate at the IISD-ELA research station, which is near the sites.

* Latitude: 49.6603
* Longitude: -93.7283

The IISD-ELA meteorological station is near the research station and lakes.

* Latitude: 49.6642
* Longitude: -93.7327

**Manipulations/Treatments**

For the hackathon datasets provided, lakes and streams are specified as either “reference” or “fertilized”. Reference sites have not had any treatments applied and are suitable as control sites in a natural state. The fertilized site (lake) has been treated with additions of nitrogen and phosphorus for over 50 years, so it represents a eutrophic lake.

* 1969 until 1989 – Nitrogen and Phosphorus additions
* 1990 to Present – Phosphorus additions only

**Lake and Stream site characteristics**

All the lakes are relatively small (≤ 50 hectares), deep, and stratified. For more quantitative values, see the bathymetry dataset included in the metadata folder. The four streams are connected to the site 1 lake and are very small. See the hydrology discharge data for more quantitative values. If stream chemistry data are of interest, stream hydrology should be considered alongside as the most important contributing factor. The IISD-ELA is located on the Canadian Shield.

**Info Sheets**

PDF “info sheets” have been provided for more detailed data, but all sheets include more information than is needed for the datasets available for the hackathon. Search for relevant information in the info sheets and ignore the rest.

For **chemistry** data, the info sheet provides column heading definitions and some other basic information. To find information about chemistry lab methods used to determine values for parameters (e.g. how Chlorine anion is determined from a sample) see “Stainton et al. 1977 - The Chemical Analysis of Fresh Water.pdf”. Note that ammonia, nitrate, and nitrite measures are closely related, as they are all “as N”. Also note that total phosphorus or total nitrogen can be determined by summing total dissolved with suspended, that is:

* TotalP = TDP + SUSPP
* TotalN = TDN + SUSPN