

Appendix A: PLFP Data Collection

To meet the Environmental Performance monitoring requirements as part of the project's Environmental Assessment, Waterfront Toronto and TRCA have established a monitoring program to collect environmental performance data throughout the construction and eventual operation of the new river.

A variety of data in the Don River Watershed and Lake Ontario. Data is collected for both long-term monitoring and specific to the Don Mouth Naturalized Project (DMNP)/PLFP project monitoring. Some data is discrete (point-in-time) while other data is continuous; some data is further processed and / or modelled. Examples of natural environment datasets available from TRCA include fish, terrestrial flora and fauna. The below table outlines some of the data that is currently collected as part of the Environmental Assessment.

Dataset	Description	Data Type	Comments
Fish	Fish sampling is conducted at least once per year using boat electrofishing. The species of fish caught as well as their weight are recorded. Typically, samples are conducted along a standardized for 1000 seconds. Several transects are located around the DMNP/PLPF site including in the Keating Channel.	Discrete; Excel	Metrics such as the Index of Biotic Integrity (IBI) which is an ecosystem health indicator can be calculated from this data. Other possible metrics include: %native species, %invasive species, %cold/cool/warm water species, % based trophic levels, etc.
Water Temperature	Continuous water temperature data is collected at several locations in the Keating Channel and Lower Don River	Continuous; Excel	Water temperatures are usually recorded every 15 minutes from spring through fall.
Water Quality	Continuous water quality data in the Keating Channel – includes: dissolved oxygen, turbidity, water temperature, pH, conductivity.	Continuous, Excel	Note: No data in 2020. Only one location currently (Keating Channel) but another location will be added in the new river mouth when it opens. Measurements are recorded every 15 to 30 minutes
Stream Flow	Continuous water level and discharge data.	Continuous, Excel	. Current stream flow station located at Dundas Street. See: www.trcagauging.ca
Ecological Land Classification (ELC)	ELC defines ecological units on the basis of bedrock, climate (temperature, precipitation), physiography (soils, slope, aspect) and corresponding vegetation.	Discrete; GIS shapefiles	Additional data is available for the PLFP area before the project started as well as the communities that the project is being designed to have in the future. Future monitoring will provide additional data.
Flora & Fauna	Point location for flora (plants) & fauna (animals) – includes date, GPS coordinates, TRCA L-rankings	Discrete; GIS shapefiles	Locations and dates of terrestrial plant and animal species are recorded. L-ranks is a system of species sensitivity. See: https://trca.ca/news/species-spotlight-how-trca-ranks-flora-and-fauna/

For examples of the above types of data, please visit <https://data.trca.ca> to download examples by dataset area. If additional data is desired or there are questions about the data available, please send your questions/requests to innovationchallenge@waterfrontontario.ca by March 25, 2021.

Please note the above table is not an exhaustive list. For more details on the monitoring program of Don Mouth Naturalization and Port Lands Flood Protection Environmental Assessment, please see the following sections of the Environmental Assessment:

- Chapter 8: <https://trca.ca/conservation/green-infrastructure/don-mouth-naturalization-port-lands-flood-protection-project/don-mouth-environmental-assessment/>
- Chapter 3: <https://s3-ca-central-1.amazonaws.com/trcaca/app/uploads/2018/10/17173844/Chapter-3.pdf>
- Appendix M: <https://s3-ca-central-1.amazonaws.com/trcaca/app/uploads/2018/10/17173847/AppM.pdf>