



95 Wellington Street West
Suite 1010, P. Box 44
Toronto Dominion Centre
Toronto, Ontario M5J 2N7
416-628-0216

Hope Bay Belt Project Scientific Research – Equipment

Equipment type and number	Size – dimensions	Proposed use
Meteorological station (3)	3 m x 2 m x 2 m 10 m high Assembled	Monitor ambient climate
Wind tower (3)	~60 m high	Monitor wind and potential wind resources on site
Dust collection canisters (~10)	2 m x 1m x 1m	Monitor dustfall
Air samplers (2)	1 m x 0.5 m x 0.5 m	Monitors air quality
Snow core sampler (1)	1.5 m x 10 cm	Monitor dust deposition
Noise meter (2)	1 m x 0.5 m x 0.5 m	Monitors noise
Drill (1)	Variable 1m ³ to ~20 m ³ in size	Collects soil and rock samples for geochemical, geotechnical, and used to install ground temperature cables and groundwater sampling devices
Thermistors (~75)	Cables of variable lengths.	Monitors ground and infrastructure temperatures
GPS (5)	<1 m ³	Monitors position
Rock drill (1)	3 ft long	Installation of hydrological loggers and meteorological station
Depth sounder or Ground penetrating radar (1)	<1 m ³	Bathymetric surveys
Stream flow sampling equipment (2)	2 m long, 3 cm diameter pole	Manual measurement of stream and river flow rates
Hydrological station (~10)	2 m x 2 m x 2 m assembled	Monitor water level and flow onsite
Current meters (1)	<1 m ³	Monitor marine currents
Water monitoring probes (2)	<1 m ³	Measures water column for temperature, DO, pH, conductivity etc.
Manual water sampling equipment (2)	5 L ; 2 ft long	Collect water samples
Manual sediment and benthic invertebrate sampling equipment (2)	30 cm x 30 cm x 30 cm	Collect sediment and benthos samples
Zooplankton nets (1)	.3 m x 1.5 m	Collect zooplankton samples

Fish sampling gear (nets, minnow traps, electrofisher, box traps, fish fence, rods, underwater cameras,) (various quantities, but generally <10)	Gillnets – 45 m x 2.4 m Beach seines – 45 m x 2 m Minnow traps – 1 m by 0.4 m Electrofisher backpack - <1 m ³ Box trap – 45 m x 2 m Fish fence – 40 m x 2 m (FA NNLP) Angling Rods – 2m long Underwater cameras (video/photo) – <1 m ³ Sonar – <1 m ³ Snorkeling gear - <1 m ³ Dip nets - <1 m ³	Monitor fish presence, densities, and collect fish samples for various biometrics
Shovels (2)	<1 m ³	Soil and vegetation sampling
Wildlife cameras (~80)	<1 m ³	Monitoring of wildlife – either mounted on tripods, attached to infrastructure or rocks, or attached to drones
Trucks, boats, snowmobiles, Helicopters, planes, and tundra vehicles	Various	For transportation to study locations or for conduct of surveys

Note: equipment may vary in type, number and size.