Table S1. Ranges of dates where OHAWS was affected by snow capping (i.e. periods over which precipitation data at OHAWS were approximated from their relationship to precipitation recorded at OPAWS). Total precipitation approximated over snow capping periods is also shown.

Start	End	Total precipitation (mm)
2011-02-14	2011-03-09	37.8
2012-03-04	2012-04-10	170.0
2012-12-11	2013-01-15	47.8
2014-01-09	2014-01-26	41.1
2014-11-21	2015-01-21	137.6
2016-11-27	2017-01-11	52.7

Table S2. Summary table listing time series, measurement interval and years of availability. For years highlighted in green, timeseries data are available with no large data gaps (>1 month). For years highlighted in orange, timeseries data are available with one or more large gaps. For years highlighted in white, no timeseries data are available.

Data set	Time series/Location	Interval	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Lake level	Lake O'Hara raw level	30/60 min														
	Lake O'Hara corrected level	30/60 min														
	Opabin Lake raw level	30/60 min														
	Opabin Lake corrected level	30/60 min														
Snow survey	OPAWS	Yearly														
	OHAWS	Yearly														
Stream Discharge	Gorge	30/60 min														
	Hungabee	30/60 min														
	Lefroy Oesa	30 min														
	Mary	30/60 min														
	Oesa Falls	30/60 min														
	Opabin East	30/60 min														
	Opabin West	30/60 min														
	Outlet	30/60 min														
	Upper Opabin Creek	30/60 min														
Water chemistry	Various sample locations	1/2 weeks														
Weather	OHAWS air temperature	60 min														
	OHAWS relative humidity	60 min														
	OHAWS wind speed	60 min														
	OHAWS wind direction	60 min														
	OHAWS raw precip. geonor	60 min														
	OHAWS precip. TBRG	60 min														
	OHAWS net radiation	60 min														
	OHAWS depth to snow	60 min														
	OHAWS snow depth	60 min														
	OHAWS battery voltage	60 min														
	OHAWS corrected precip.	60 min														
	OPAWS air temperature	30 min														
	OPAWS relative humidity	30 min														
	OPAWS wind speed	30 min														
	OPAWS wind direction	30 min														
	OPAWS raw precip. geonor	30 min														
	OPAWS precip. TBRG	30 min														
	OPAWS depth to snow	30 min														
	OPAWS snow depth	30 min														
	OPAWS SW in	30 min														
	OPAWS SW out	30 min														
	OPAWS LW in	30 min														
	OPAWS LW out	30 min														
	OPAWS net radiation	30 min														
	OPAWS battery voltage	30 min														
	OPAWS corrected precip.	30 min														

Table S3. Universal Transverse Mercator coordinates of weather (OHAWS and OPAWS) and stream gauging stations (Zone 11, North American Datum 1983).

Station	Easting	Northing
OHAWS	545820	5689974
OPAWS	547234	5688222
Gorge	546951	5688770
Mary	546407	5689381
Oesa Falls	546986	5689650
Outlet	546024	5689869
Upper Opabin Creek	547193	5688116
Hungabee	547340	5688082
Opabin West	546750	5689402
Opabin East	546900	5689437
Lefroy Oesa	547951	5689574

Table S4. Measured sensor heights at OPAWS and OHAWS over the monitoring period of 2004 – 2017.

Station	Date	Sensor	Height (m)
OPAWS	11-Jun-15	SR-50	2.42
		HMP45	2.53
		Geonor T200B	2.37
		CNR1	2.69
	28-Aug-12	SR-50	2.49
		CNR1	2.74
		HMP45	2.60
		RM Young 05103	4.05
	24-Sep-12	SR-50	2.87
		CNR1	2.71
		HMP45	3.40
		RM Young 05103	4.67
	23-Jan-07	SR-50	2.99
	5-Dec-06	SR-50	1.91
		CNR1	2.50
		HMP45	3.33
	20-Jun-06	SR-50	1.56
OHAWS	11-Jun-15	SR-50	2.15
		HMP45	2.19
		NR-Lite	2.00
		RM Young 05103	3.10
		Geonor T200B	2.22
	28-Sep-11	SR-50	2.10
	06-Dec-06	SR-50	1.79
	21-Jun-06	SR-50	1.56
	21-Apr-06	SR-50	1.87