



Snow Survey and Water Supply Bulletin – May 1st, 2018

The May 1st, 2018 snow survey is now complete. Data from 150 snow courses and 72 automated snow weather stations around the province (collected by the Ministry of Environment Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada forms the basis of the following report¹.

Weather

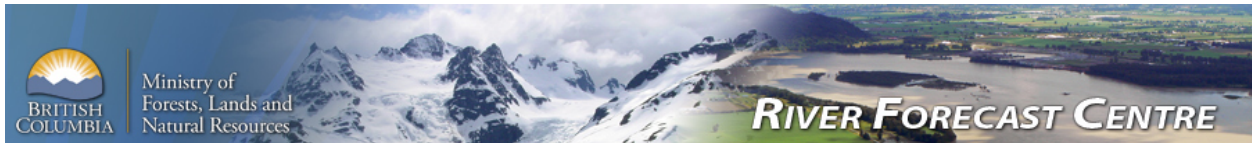
The weather in April was mixed. Temperatures were generally 1-2 °C or more below normal for most areas of the BC Interior, and closer to normal, or slightly above normal in coastal BC. Precipitation was much higher than normal, particularly in the South Interior, Central Interior and Kootenay. Monthly summaries do not reflect weather patterns within the period. Cool and wet weather for the first few weeks of April led to on-going snow accumulation, followed by a rapid warming late in the month. During a high pressure system late-April temperatures reached into the mid-to-upper 20s, and many daily temperature records were set. This led to a rapid transition to spring conditions, with significant melt of low to mid-elevation snow.

Snowpack

Snow basin indices for May 1st 2018 range from a low of 69% of normal in the Stikine to a high of 264% in Upper Fraser West (Table 1 and Figure 1). Overall, the province has well above normal snow pack for May 1st. The average of all snow measurements across the province is 168% of normal, increasing significantly from 127% of normal on April 1st. Of the 222 snow measurements taken for the May 1st survey period, 60 locations exceeded their previously recorded maximum May 1st values. High snow basin indices reflect actual increases in snow water amounts over the past months in many locations. However, it is important to note that, particularly in areas which typically experience significant melt between April and May, extremely high basin index values can be reflecting the greater difference between current conditions and what would normally be a melting snow pack. Therefore, snow basin index values are enhanced when there is a delay in the melt season.

Extremely high snow packs (>150%) are present in the Upper Fraser West, Nicola, Okanagan, Similkameen, Boundary, Skagit, West Kootenay, East Kootenay. The May 1st snow index for the Okanagan is 206% of normal, which is the highest observed snow pack dating back to 1980. While many snow basin index values increased by 50% or more since April 1st, the amount of increase in snow water content over this period has been more in the 5-16% range for most basins. In the Liard basin, the high basin value represents a delay in the melt season rather than high seasonal snowpack.

¹ Every effort is made to ensure that data reported on these pages are accurate. However, in order to update the graphs and indices as quickly as possible, some data may have been estimated. Please note that data provided on these pages are preliminary and subject to revision upon review.



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In general, low to mid-elevation snow pack was significant across the province this year. In the last week of April and the first week of May this snow has been melting rapidly, leading to significant flood challenges in many areas of the province.

Table 1 - BC Snow Basin Indices – May 1, 2018

Basin	% of Normal	Basin	% of Normal
Upper Fraser West	264	Boundary	238
Upper Fraser East	112	Similkameen	210
Nechako	103	South Coast	126
Middle Fraser	115	Vancouver Island	104
Lower Fraser	125	Central Coast	143
North Thompson	108	Skagit	198
South Thompson	126	Peace	84
Upper Columbia	116	Skeena-Nass	90
West Kootenay	180	Stikine	69
East Kootenay	150	Liard	144
Okanagan	206	Northwest	112
Nicola	204	Fraser (Entire Basin)	109

Outlook

Seasonal forecasts (May to July) from Environment and Climate Change Canada are indicating an increased likelihood of above normal temperatures across British Columbia, and this has been the general weather pattern over the past two weeks.

By May 1st, 100% of the annual BC snow pack has typically accumulated. For most areas, the transition from snow accumulation to snow melt generally occurs in the middle of April; this transition began at the end of April this year. In low-to-mid elevations snowmelt was rapid over the last week of April and into early May, leading to flooding in many mid-elevation watersheds across the BC Interior.

Extremely high snow packs (>150%) in the Nicola, Similkameen, Okanagan, Boundary, Kootenay and Upper Fraser West are indicating significant flood risks this year, and in many of these areas flooding is already occurring. Snow pack in the South Thompson has also increased significantly over the past month to levels of increased seasonal flood risk. High snowpack in coastal areas tend to have less of an influence on seasonal flood risk, as coastal rivers usually have peak flows in response to extreme rainfall events in the fall and winter. Some rivers do experience “hybrid” regimes, and can have significant flows in the spring. With snow packs this year, elevated risk may be present in the Lillooet River and basins and Central Coast including the Bella Coola River and tributaries, and Dean River and tributaries.



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While the snow pack in the overall Fraser River basin is only slightly above normal (109%), under specific weather conditions it is possible for snow to melt rapidly throughout the entire basin. Current flow on the Fraser River at Hope (Water Survey of Canada gauge 08MF005) is 7400 m³/s, which is near or above the maximum recorded flow for this early in the season. Given weather forecasts over the next 10 days the trend of higher than normal flow on the Fraser River is expected to continue. Currently modelling is indicating the potential for flows in the 9,000-10,500 m³/s range at Hope by the middle of May, and the potential to exceed that into the third week of the month.

Snow pack is one element of seasonal flood risk during BC's freshet season. Weather patterns during the snow melt season play a critical role in whether or not flooding occurs. Intense or prolonged rainfall and extreme temperatures are important factors that can lead to flooding, even for areas with a near normal snow pack. Weather patterns forecasted over the next 10 days indicate the potential for deteriorating river conditions in most areas of the province. Typically the freshet flood season in British Columbia lasts from early May to late-June, and is occurring earlier this year. There is still abundant snow at higher elevations to maintain seasonal flood risk for another month or more.

Seasonal volume runoff forecasts (see below) are near-normal or slightly above normal (100-115%) for the Upper Fraser, Middle Fraser, Thompson, Skeena and Cowichan basins. Well above-normal (>140%) for areas of the South Interior, including the Okanagan, Similkameen, and Nicola.

Hydrological Effects of BC Wildfires in 2017

Many areas that were affected by wildfires last year have been experiencing flooding already this spring. Areas which have higher elevation terrain and may still be susceptible to increased flood risk due to the fires include the Chilcotin River, Deadman River and areas in the upper Kootenay River.

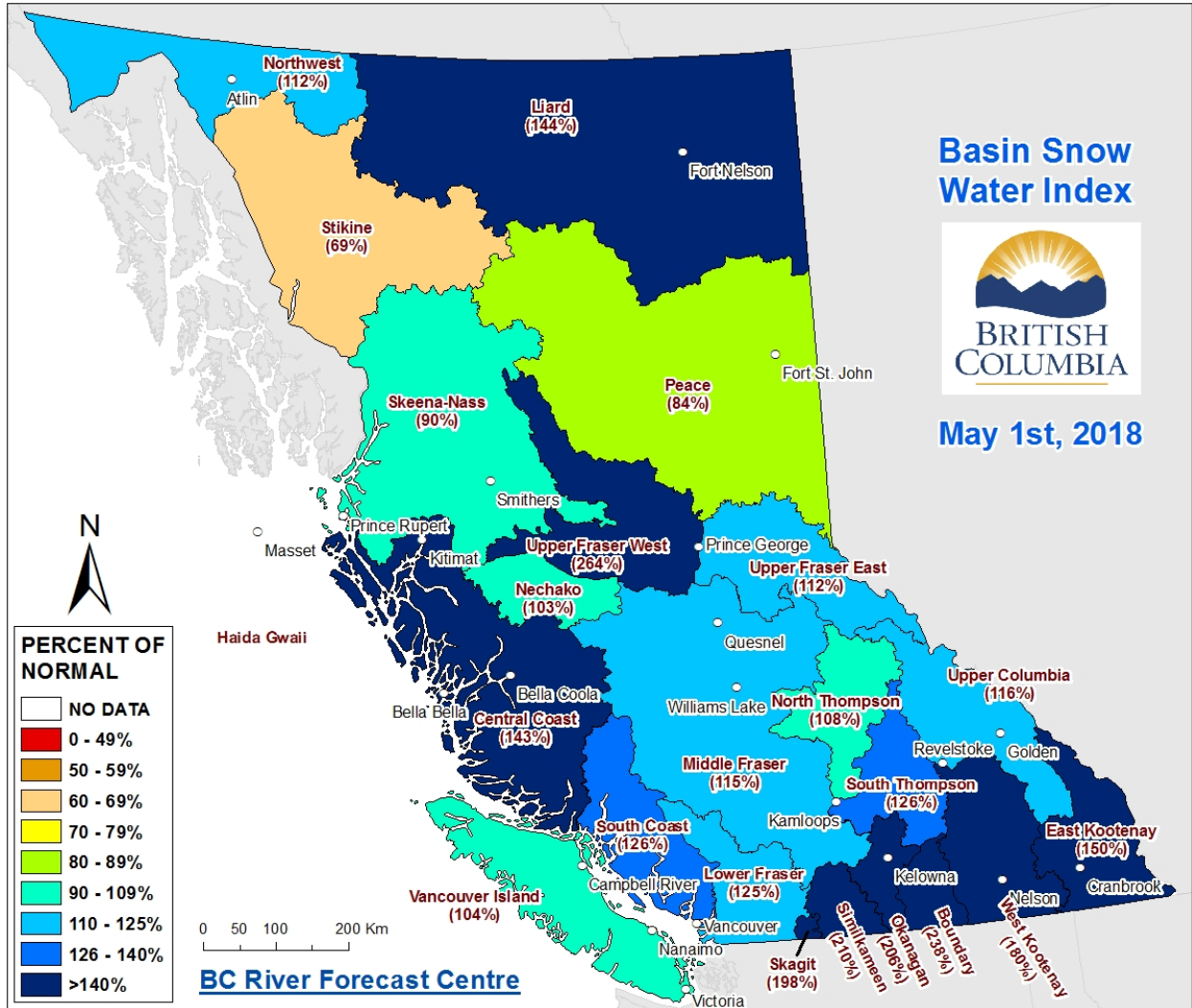
The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the May 15th 2018 bulletin, which is scheduled for release on May 22nd.

BC River Forecast Centre
May 7, 2018



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Figure 1: Basin Snow Water Index – May 1st, 2018



2018 Automated Snow Weather Station/Manual Snow Survey Data				May 1					Historic Snow Water Equivalent (mm)						
Station ID	Name	Basin	Elevation (masl)	Survey Date YYYY-MM-DD	SD (cm)	SWE (mm)	Code	SWE % 1981-2010 Normal	2017 SWE (mm)	2016 SWE (mm)	Minimum (mm)	Maximum (mm)	1981-2010 Normal (mm)	Years of Record	
1A01P	Yellowhead Lake	Upper Fraser East	1847	2018-05-01	145	648		115%	564	386	254	833	565	21	
1A02P	McBride Upper	Upper Fraser East	1608	2018-05-01	128	490		106%	430	203	198	749	462	26	
1A03P	Barkerville	Upper Fraser East	1483	2018-05-01	73	281		81%	328	2	123	604	346	43	
1A05	LONGWORTH (UPPER)	Upper Fraser East	1693	2018-05-02	192	806		97%		462	296	1370	830	63	
1A05P	Longworth Upper	Upper Fraser East	1740	2018-05-01	217	767			657		657	657		1	
1A06A	HANSARD	Upper Fraser East	622	NS	NS	NS	NS							0	2
1A10	PRINCE GEORGE A	Upper Fraser East	684	NS	NS	NS	NS				0	216	10	41	
1A11	PACIFIC LAKE	Upper Fraser East	756	2018-05-02	153	732		144%	297	0	93	976	507	55	
1A12	KAZA LAKE	Upper Fraser West	1247	N	N	N	N		230	200	132	481	328	55	
1A12P	Kaza Lake	Upper Fraser West	1248	2018-05-01	99	334			241	193	193	241		2	
1A14P	Hedrick Lake	Upper Fraser East	1118	2018-05-01	187	786		96%	427	248	214	1279	820	18	
1A15	KNUDSEN LAKE	Upper Fraser East	1598	2018-05-02	225	1001		115%	679		501	1346	868	50	
1A15P	Knudsen Lake	Upper Fraser East	1601	2018-05-01	204	640			526		526	526		1	
1A16	BURNS LAKE	Upper Fraser West	820	2018-04-27	40	124		477%	0	0	0	148	26	40	
1A17P	Revolution Creek	Upper Fraser East	1676	2018-05-01	210	871		108%	673	517	326	1349	804	33	
1A19P	Dome Mountain	Upper Fraser East	1768	2018-05-01	190	715		88%	673	535	298	1163	810	12	
1A23	BIRD CREEK	Upper Fraser West	1196	2018-05-01	61	218		559%	58	0	0	204	39	27	
1B01	MOUNT WELLS	Nechako	1489	2018-05-01	150	627		129%	590	255	201	958	487	64	
1B01P	Mount Wells	Nechako	1489	2018-05-01		725		127%	672	325	227	919	569	26	
1B02	TAHTSA LAKE	Nechako	1319	2018-05-01	236	1060		84%	1265	877	701	2073	1256	65	
1B02P	Tahtsa Lake	Nechako	1319	2018-05-01		1249		92%	1359	1012	464	2348	1362	26	
1B05	SKINS LAKE	Nechako	877	2018-05-01	13	42		1400%	0	0	0	100	3	47	
1B06	MOUNT SWANNELL	Nechako	1596	2018-05-01	94	337		117%	312	15	109	499	287	28	
1B07	NUTLI LAKE	Nechako	1502	2018-05-01	121	481		94%	579	227	250	870	513	26	
1B08P	Mount Pondosy	Nechako	1413	2018-05-01		824		104%	1013	527	363	1277	794	26	
1C01	BROOKMERE	Middle Fraser	994	2018-04-30	26	97		149%	99	0	0	419	65	72	
1C05	MCGILLIVRAY PASS	Middle Fraser	1715	2018-04-27	130	544		95%	590	321	239	1118	573	66	
1C05P	McGillivray Pass	Middle Fraser	1766	2018-05-01		618									
1C06	PAVILION	Middle Fraser	1209	2018-04-30	0	0					0	0	0	16	
1C08	NAZKO	Middle Fraser	1029	N	N	N	N				0	46	3	25	
1C09A	HIGHLAND VALLEY	Middle Fraser	1547	2018-04-24	60	181		905%	101	0	0	142	20	49	
1C12P	Green Mountain	Middle Fraser	1766	2018-05-01		774		85%	788	736	429	1373	909	24	
1C13A	HORSEFLY MOUNTAIN	Middle Fraser	1612	2018-04-30	153	612		150%	460	282	136	676	408	48	
1C14	BRALORNE	Middle Fraser	1382	2018-04-27	39	133		229%	161	0	0	255	58	54	
1C14P	Bralorne	Middle Fraser	1382	2018-05-01	27	58									
1C17	MOUNT TIMOTHY	Middle Fraser	1632	2018-05-01	99	370		144%	235	90	118	536	257	57	
1C18P	Mission Ridge	Middle Fraser	1903	2018-05-01		646		130%	659	238	147	1028	496	48	

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1C19	GNAWED MOUNTAIN	Middle Fraser	1617	N	N	N	N		160	0	0	241	54	48
1C20P	Boss Mountain Mine	Middle Fraser	1477	2018-05-01	145	619		104%	574	394	255	821	597	24
1C21	BIG CREEK	Middle Fraser	1130	2018-04-28	0	0		0%	0		0	48	12	7
1C22	PUNTZI MOUNTAIN	Middle Fraser	939	2018-05-01	0	0					0	22	0	11
1C23	PENFOLD CREEK	Middle Fraser	1687	2018-05-01	232	991		93%		829	525	1420	1064	47
1C25	LAC LE JEUNE (UPPER)	Middle Fraser	1471	2018-05-04	41	162		540%		0	0	168	30	44
1C28	DUFFEY LAKE	Middle Fraser	1253	NS	NS	NS	NS				206	624	377	14
1C29	SHOVELNOSE MOUNTAIN	Middle Fraser	1456	2018-04-30	62	255		311%		0	0	305	82	36
1C32	DEADMAN RIVER	Middle Fraser	1463	N	N	N	N		0	0	0	194	32	34
1C33A	GRANITE MOUNTAIN	Middle Fraser	1175	2018-05-04	31	114		128%		0	0	221	89	11
1C37	BRALORNE(UPPER)	Middle Fraser	1980	N	N	N	N		764	513	290	1092	676	23
1C38	DOWNTON LAKE (UPPER)	Middle Fraser	1884	N	N	N	N		888	852	450	1340	856	23
1C38P	Downton Lake Upper	Middle Fraser	1829	2018-05-01		687			869	807	807	869		2
1C39	BRIDGE GLACIER (LOWER)	Middle Fraser	1393	2018-04-27	164	654		109%	612	640	244	1018	600	23
1C40	TYAUGHTON	Middle Fraser	1946	2018-04-27	135	532		120%	394	258	198	806	443	23
1C40P	North Tyaughton	Middle Fraser	1969	2018-05-01		439			354	180	180	354		2
1C41P	Yanks Peak East	Middle Fraser	1683	2018-05-01	199	923		112%	818	619	365	1058	825	21
1C42	CAVERHILL LAKE	Middle Fraser	1400	NS	NS	NS	NS				172	172		2
1D06P	Tenquille Lake	Lower Fraser	1669	2018-05-01	263	1192		114%	1401	953	526	1705	1047	17
1D08	STAVE LAKE	Lower Fraser	1211	2018-04-25	348	1721		114%	1918	1210	62	3120	1513	51
1D09	WAHLEACH LAKE	Lower Fraser	1395	N	N	N	N			236	4	709	615	50
1D09P	Wahleach Lake Upper	Lower Fraser	1408	2018-05-01		1200		115%	632	595	290	1757	1043	26
1D10	NAHATLATCH RIVER	Lower Fraser	1530	N	N	N	N		1739	1196	468	2720	1361	49
1D16	DICKSON LAKE	Lower Fraser	1147	2018-04-25	418	2002		129%		876	4	3180	1553	26
1D17P	Chilliwack River	Lower Fraser	1621	2018-05-01	364	1873		124%	1769	1253	675	2436	1513	26
1D19P	Spuzzum Creek	Lower Fraser	1197	2018-05-01	303	1663		102%	1881	1119	162	2930	1635	19
1E01B	BLUE RIVER	North Thompson	673	2018-04-26	54	186		641%	146	0	0	265	29	34
1E02P	Mount Cook	North Thompson	1574	2018-05-01	316	1397		104%	1327	1527	684	1665	1346	18
1E03A	TROPHY MOUNTAIN	North Thompson	1907	2018-04-30	172	654		108%	664		417	960	607	43
1E05	KNOUFF LAKE	North Thompson	1189	NS	NS	NS	NS				0	142	45	10
1E07	ADAMS RIVER	North Thompson	1769	2018-04-27	198	864		119%	934	740	396	1173	726	47
1E08P	Azure River	North Thompson	1625	2018-05-01	221	1034		85%	1338	1010	528	1635	1214	21
1E10P	Kostal Lake	North Thompson	1760	2018-05-01	193	911		102%	974	903	417	1268	891	33
1E14P	Cook Creek	North Thompson	1280	2018-05-01	118	710			64	0	120	604	372	11
1F01A	ABERDEEN LAKE	South Thompson	1262	2018-04-27	36	114		600%	47		0	165	19	61
1F02	ANGLEMONT	South Thompson	1168	2018-04-30	85	376		235%		0	0	496	160	58
1F03P	Park Mountain	South Thompson	1857	2018-05-01	253	1175		123%	993	890	379	1343	955	33

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1F04P	Enderby	South Thompson	1950	2018-05-01	332	1195			1146		1146	1146		1
1F06P	Celista Mountain	South Thompson	1533	2018-05-01	230	1229		134%	1114	1013	506	1187	914	13
2A01A	CANOE RIVER	Upper Columbia	866	NS	NS	NS	NS				0	147	5	26
2A02	GLACIER	Upper Columbia	1249	2018-04-26	163	676		105%	614	481	320	1247	643	72
2A03A	FIELD	Upper Columbia	1310	NS	NS	NS	NS				0	178	20	52
2A06P	Mount Revelstoke	Upper Columbia	1770	2018-05-01		1316		104%	1383	1117	595	1625	1265	25
2A07	KICKING HORSE	Upper Columbia	1648	2018-04-30	111	426		144%	322	120	63	589	296	68
2A11	BEAVERFOOT	Upper Columbia	1924	2018-04-27	80	238		140%	238	44	0	495	170	69
2A14	MOUNT ABBOT	Upper Columbia	2031	2018-04-25	334	1460		109%	1495	1063	600	1885	1345	59
2A16	GOLDSTREAM	Upper Columbia	1914	2018-04-26	292	1193		99%	1339	1039	584	1781	1200	55
2A17	FIDELITY MOUNTAIN	Upper Columbia	1852	2018-04-28	312	1420		109%	1395	1108	590	1986	1306	55
2A18	KEYSTONE CREEK	Upper Columbia	1839	2018-04-26	234	903		110%	1004	705	414	1421	823	51
2A18P	Keystone Creek	Upper Columbia	1850	2018-05-01		1069			1288	744	544	744		2
2A19	VERMONT CREEK	Upper Columbia	1533	2018-04-27	114	449		137%	424	180	0	1026	327	52
2A21P	Molson Creek	Upper Columbia	1930	2018-05-01		1186		108%	1144	886	481	1678	1100	37
2A22	SUNBEAM LAKE	Upper Columbia	2066	2018-04-26	268	1083		115%	1045	762	469	1562	939	51
2A23	BUSH RIVER	Upper Columbia	1982	2018-04-26	227	870		104%	993	677	483	1392	834	51
2A25	KIRBYVILLE LAKE	Upper Columbia	1739	2018-04-26	319	1341		108%	1540	1162	671	1797	1243	46
2A27	DOWNIE SLIDE (LOWER)	Upper Columbia	964	2018-04-26	164	698		135%	584	348	0	910	517	40
2A29	DOWNIE SLIDE (UPPER)	Upper Columbia	1628	2018-04-26	360	1564		112%	1640	1320	335	2242	1402	40
2A30P	Colpitt Creek	Upper Columbia	2131	2018-05-01		1106			1122	602	602	1122		2
2A31P	Caribou Creek Upper	Upper Columbia	2201	2018-05-01		1189			1214	795	795	1214		2
2A32P	Wildcat Creek	Upper Columbia	2122	2018-05-01		690			751	442	442	751		2
2B02A	FARRON	Lower Columbia	1229	2018-04-27	101	437		239%	309	66	0	406	183	45
2B05	WHATSHAN (UPPER)	Lower Columbia	1476	2018-04-25	199	831		149%	596	374	255	983	557	57
2B06P	Barnes Creek	Lower Columbia	1595	2018-05-01		794		147%	549	550	272	821	541	25
2B07	KOCH CREEK	Lower Columbia	1813	2018-04-25	254	974		125%	971	701	391	1201	778	58
2B08P	St. Leon Creek	Lower Columbia	1822	2018-05-01		1403		126%	1394	949	536	1501	1113	25
2B09	RECORD MOUNTAIN	Lower Columbia	1906	2018-04-28	230	914		126%	1080	520	157	1278	727	43
2C01	SINCLAIR PASS	East Kootenay	1374	2018-04-30	21	74		200%	30	0	0	246	37	72
2C04	SULLIVAN MINE	East Kootenay	1580	2018-04-28	110	416		229%	288	54	0	518	182	71
2C07	FERNIE EAST	East Kootenay	1213	2018-04-28	80	318		234%	202	0	0	541	136	67
2C09Q	Morrissey Ridge	East Kootenay	1966	2018-05-01		735		110%	812	325	308	1332	670	38
2C10P	Moyie Mountain	East Kootenay	1840	2018-05-01	100	534		158%	583	0	18	689	338	39
2C14P	Floe Lake	East Kootenay	2110	2018-05-01		951		124%	994	528	331	1188	767	25
2C15	MOUNT ASSINIBOINE	East Kootenay	2230	2018-04-27	180	650		115%		434	270	930	566	47
2C16	MOUNT JOFFRE	East Kootenay	1763	2018-04-27	128	447		129%	362	216	36	772	346	49

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2C17	THUNDER CREEK	East Kootenay	2062	2018-04-27	114	362		134%	360	189	163	556	271	49
2D02	FERGUSON	West Kootenay	929	2018-04-26	125	586		137%		313	160	773	429	70
2D03	SANDON	West Kootenay	1072	2018-05-02	52	266		591%	132	0	0	399	45	68
2D04	NELSON	West Kootenay	952	2018-04-25	71	299		209%	67	0	0	508	143	60
2D05	GRAY CREEK (LOWER)	West Kootenay	1558	2018-04-30	141	600		140%	512	305	229	726	429	69
2D06	CHAR CREEK	West Kootenay	1290	2018-05-01	159	660		147%	549	287	79	838	449	52
2D07A	DUNCAN LAKE NO. 2	West Kootenay	662	NS	NS	NS	NS				0	42	14	5
2D08P	East Creek	West Kootenay	2004	2018-05-01		1033		114%	1164	794	480	1346	910	37
2D09	MOUNT TEMPLEMAN	West Kootenay	1879	N	N	N	N		1240	903	520	1679	1075	51
2D10	GRAY CREEK (UPPER)	West Kootenay	1926	2018-04-30	234	987		129%	946	648	505	1300	767	48
2D14P	Redfish Creek	West Kootenay	2086	2018-05-01	408	1770		136%	2035	1494	751	2035	1298	16
2E01	MONASHEE PASS	Kettle	1387	2018-04-25	124	487		183%	305	114	67	505	266	60
2E02	CARMI	Kettle	1254	2018-05-01	17	63		525%	0	0	0	173	12	54
2E03	BIG WHITE MOUNTAIN	Kettle	1672	2018-05-01	171	723		160%	547	340	237	762	451	52
2E07P	Grano Creek	Kettle	1874	2018-05-01	190	878		157%	708	546	285	814	561	20
2F01A	TROUT CREEK (West)	Okanagan	1430	2018-04-25	82	298		266%	160	30	93	292	112	7
2F01P	Trout Creek West	Okanagan	1420	2018-05-01	58	302	E							0
2F02	SUMMERLAND RESERVOIR	Okanagan	1304	2018-04-26	79	305		363%	185	0	0	368	84	53
2F03	MC CULLOCH	Okanagan	1266	2018-04-30	22	82		683%	42	0	0	188	12	70
2F04	GRAYSTOKE LAKE	Okanagan	1818	2018-05-01	144	564		164%	450	232	120	940	343	44
2F05P	Mission Creek	Okanagan	1794	2018-05-01	188	804		167%	590	471	141	784	481	48
2F07	POSTILL LAKE	Okanagan	1358	2018-04-30	69	268		221%	191	0	0	282	121	66
2F08P	Greyback Reservoir	Okanagan	1550	2018-05-01	87	270			270		270	270		1
2F09	WHITEROCKS MOUNTAIN	Okanagan	1789	2018-04-29	150	647		138%	708	456	175	1013	470	47
2F10P	Silver Star Mountain	Okanagan	1839	2018-05-01	287	1238	E		809	784	784	809		2
2F11	ISINTOK LAKE	Okanagan	1651	2018-04-26	94	318		324%	174	0	0	437	98	53
2F12	MOUNT KOBAN	Okanagan	1817	2018-04-28	150	568		184%	468	300	53	597	309	52
2F13	ESPERON CR (UPPER)	Okanagan	1634	2018-04-30	116	464		134%	456	346	119	805	346	48
2F14	ESPERON CR (MIDDLE)	Okanagan	1440	2018-04-30	94	390		181%	372		0	551	216	32
2F18P	Brenda Mine	Okanagan	1453	2018-05-01		260		203%	288	7	0	342	128	25
2F19	OOYAMA LAKE	Okanagan	1365	2018-05-01	43	154		280%	84	0	0	185	55	48
2F20	VASEUX CREEK	Okanagan	1403	2018-04-28	62	186		454%	96	0	0	192	41	46
2F21	BOULEAU LAKE	Okanagan	1405	2018-04-25	129	476		190%	344	16	40	488	251	47
2F23	MACDONALD LAKE	Okanagan	1742	N	N	N	N		590	420	198	650	421	40
2F24	ISLAHT LAKE	Okanagan	1492	2018-04-27	106	428		183%	320	189	64	433	234	36
2F25	POSTILL LAKE UPPER	Okanagan	1500	N	N	N	N			0	0	0		3
2G03P	Blackwall Peak	Similkameen	1934	2018-05-01	223	1000		130%	812	663	375	1569	768	50

2018 Automated Snow Weather Station/Manual Snow Survey Data				May 1					Historic Snow Water Equivalent (mm)					
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2G04	LOST HORSE MOUNTAIN	Similkameen	1988	2018-04-29	124	455	B	212%	236	10	64	554	215	58
2G05	MISSEZULA MOUNTAIN	Similkameen	1602	2018-04-29	67	229	B	225%	206	0	0	323	102	58
2G06	HAMILTON HILL	Similkameen	1477	2018-04-28	76	304	B	160%	254	0	0	838	190	58
3A01	GROUSE MOUNTAIN	South Coast	1126	2018-04-30	341	1730		148%	1730	752	0	2870	1170	68
3A02	POWELL RIVER (UPPER)	South Coast	1002	2018-04-19	256	1110		142%			533	1712	783	9
3A05	POWELL RIVER (LOWER)	South Coast	882	2018-04-19	154	679		195%			181	426	349	7
3A09	PALISADE LAKE	South Coast	898	2018-05-01	273	1524		118%	1648	670	0	3600	1291	68
3A10	DOG MOUNTAIN	South Coast	1007	2018-04-27	290	1514		133%	1762	662	0	2760	1137	34
3A19	ORCHID LAKE	South Coast	1178	2018-05-01	416	2240		120%	2423	1453	100	3845	1866	46
3A20	CALLAGHAN CREEK	South Coast	1009	2018-04-27	205	990		139%		598	0	1568	711	41
3A22P	Nostetuko River	South Coast	1457	2018-05-01	117	609		112%	527	355	201	1053	542	29
3A24P	Mosley Creek Upper	South Coast	1655	2018-05-01	112	384		151%	319	19	143	532	254	29
3A25P	Squamish River Upper	South Coast	1387	2018-05-01	369	1802		113%	1775	1459	695	2910	1597	28
3A26	CHAPMAN CREEK	South Coast	1022	2018-05-01	370	1873	A				756	1710	262	8
3A27	EDWARDS LAKE	South Coast	1070		NS	NS	NS				400	1180		6
3B01	FORBIDDEN PLATEAU	Vancouver Island	1110	2018-04-25	322	1562		104%	1507	1386	0	3500	1507	61
3B02A	MOUNT COKELY	Vancouver Island	1267	2018-05-02	195	962		118%		100	0	2062	813	35
3B04	ELK RIVER	Vancouver Island	270	2018-04-25	0	0			0	0	0	40	0	34
3B10	UPPER THELWOOD LAKE	Vancouver Island	1014	2018-04-25	269	1248		84%	1460	1136	0	3560	1484	60
3B17P	Wolf River Upper	Vancouver Island	1422	2018-05-01		1300		96%	1373	1112	374	2691	1356	36
3B18	WOLF RIVER (MIDDLE)	Vancouver Island	1050	2018-04-25	101	422		77%	586	120	0	1652	546	48
3B19	WOLF RIVER (LOWER)	Vancouver Island	615	2018-04-25	14	54		40%	62	0	0	1118	134	48
3B23P	Jump Creek	Vancouver Island	1134	2018-05-01	242	1320		112%	1432	426	0	3485	1180	22
3B24P	Heather Mountain Upper	Vancouver Island	1190	2018-05-01	327	1893			1933	1248	1248	1933		2
3B26P	Mount Arrowsmith	Vancouver Island	1465	2018-05-01	307	1265								0
3C07	WEDEENE RIVER SOUTH	North Coast	196	2018-04-30	54	280		206%	36	0	0	749	136	30
3C08P	Burnt Bridge Creek	North Coast	1329	2018-05-01	148	620	E	80%	729	392	382	1464	776	20
3D01C	SUMALLO RIVER WEST	Skagit	801		N	N	N		96	0	0	371	66	25
3D02	LIGHTNING LAKE	Skagit	1254	2018-04-27	79	332	B	149%	213	155	7	599	223	46
3D03A	KLESILKWA	Skagit	1134	2018-04-25	59	254		247%	105	0	0	752	103	45
4A02P	Pine Pass	Peace	1386	2018-05-01	242	1052		98%	959	956	363	1704	1072	29
4A03	WARE (UPPER)	Peace	1563	2018-04-30	95	237		86%	213	149	90	402	274	57
4A03P	Ware Upper	Peace	1565	2018-05-01	71	255			216		216	216		1
4A04	WARE (LOWER)	Peace	969	2018-04-30	41	104		84%	71	13	0	229	124	56
4A04P	Ware Lower	Peace	971	2018-05-01	19	114			36		36	36		1
4A05	GERMANSEN (UPPER)	Peace	1489	2018-05-01	104	295		83%	238	259	156	597	355	57
4A06	TUTIZZI LAKE	Peace	1043	2018-05-01	38	134		86%	83	0	0	325	155	55

2018 Automated Snow Weather Station/Manual Snow Survey Data				May 1				Historic Snow Water Equivalent (mm)						
Station ID	Name	Basin	Elevation (masl)	Survey Date YYYY-MM-DD	SD (cm)	SWE (mm)	Code	SWE % 1981-2010 Normal	2017 SWE (mm)	2016 SWE (mm)	Minimum (mm)	Maximum (mm)	1981-2010 Normal (mm)	Years of Record
4A07	LADY LAURIER LAKE	Peace	1460	2018-04-29	143	501		90%	439	425	194	926	555	55
4A09	PULPIT LAKE	Peace	1331		N	N			325	270	152	623	418	55
4A09P	Pulpit Lake	Peace	1331	2018-05-01	82	308		76%	258	183	133	633	407	28
4A10	FREDRICKSON LAKE	Peace	1323	2018-04-30	59	155		67%	131	87	93	358	231	55
4A11	TRYGVE LAKE	Peace	1409	2018-04-30	90	282		74%	267	220	119	599	381	55
4A12	TSAYDAYCHI LAKE	Peace	1173	2018-05-01	104	349		90%	328	250	166	700	386	55
4A13	PHILIP LAKE	Peace	1013	2018-05-01	38	109		56%	89	52	0	406	196	55
4A16	MORFEE MOUNTAIN	Peace	1427	2018-05-01	166	674		83%	606	597	265	1181	812	49
4A18	MOUNT SHEBA	Peace	1480	2018-05-02	220	958		108%	805	591	369	1371	891	49
4A20	MONKMAN CREEK	Peace	1566	2018-05-02	177	768		132%	603	337	190	1042	580	44
4A21	MOUNT STEARNS	Peace	1514	2018-04-29	55	135		92%	206	17	0	271	146	44
4A25	FORT ST. JOHN A	Peace	692		NS	NS			0		0	56	0	28
4A27P	Kwadacha North	Peace	1554	2018-05-01	90	306			267		267	267		1
4A30P	Aiken Lake	Peace	1061	2018-05-01	34	143		79%	123	17	71	313	181	33
4A31P	Crying Girl Prairie	Peace	1358	2018-05-01		229			313	0	0	313		2
4A33P	Muskwa-Kechika	Peace	1196	2018-05-01		37			101	0	0	101		2
4A34P	Dowling Creek	Peace	1456	2018-05-01		1254			444		444	444		1
4B01	KIDPRICE LAKE	Skeena-Nass	1415	2018-05-01	202	913		96%	997	593	551	1591	951	65
4B02	JOHANSON LAKE	Skeena-Nass	1480	2018-05-01	79	187		62%	226	200	108	433	301	55
4B03A	HUDSON BAY MTN.	Skeena-Nass	1452	2018-04-25	162	585		115%	443	272	168	795	509	46
4B04	CHAPMAN LAKE	Skeena-Nass	1485	2018-04-25	170	630		133%	463	286	308	749	473	51
4B06	TACHEK CREEK	Skeena-Nass	1133	2018-04-25	92	288		165%	130	58	55	363	175	49
4B07	MCKENDRICK CREEK	Skeena-Nass	1048	2018-04-25	124	453		203%	158	72	80	422	223	50
4B08	MOUNT CRONIN	Skeena-Nass	1491	2018-04-25	212	789		128%	595	429	422	1125	616	49
4B10	NINGUNSAW PASS	Nass	647	2018-04-26	44	164		62%		0	0	676	263	39
4B11A	BEAR PASS	Nass	437		N	N	N			0	256	860	541	25
4B12P	Granduc Mine	Skeena-Nass	790	2018-05-01	268				82		82	82		1
4B13A	TERRACE A	Skeena-Nass	219		N	N	N		0		0	68	14	8
4B14	EQUITY MINE	Skeena-Nass	1434		N	N	N		434	220	212	690	373	41
4B15	LU LAKE	Skeena-Nass	1296		N	N	N		276	132	144	528	267	40
4B15P	Lu Lake	Skeena-Nass	1308	2018-05-01	96	441		194%	320	106	79	517	227	20
4B16P	Shedin Creek	Skeena-Nass	1320	2018-05-01	164	593		61%	514	487	195	1310	972	22
4B17P	Tsai Creek	Skeena-Nass	1360	2018-05-01	212	1185		91%	1053	834	302	2081	1307	20
4B18P	Cedar-Kiteen	Skeena-Nass	912	2018-05-01					267	11	178	1075	612	17
4C01	SIKANNI LAKE	Liard	1390	2018-04-30	76	145		55%	171	88	78	404	266	55
4C01P	Sikanni Lake	Liard	1400	2018-05-01	73	275			159		159	159		1
4C02	SUMMIT LAKE	Liard	1291	2018-04-26	55	115		261%	120	0	0	200	44	53

2018 Automated Snow Weather Station/Manual Snow Survey Data				May 1					Historic Snow Water Equivalent (mm)					
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4C03	DEASE LAKE	Liard	805	NS	NS	NS	NS			0	0	178	38	50
4C05	FORT NELSON AIRPORT	Liard	368	2018-04-26	10	24		200%			0	103	12	32
4C15	JADE CITY	Liard	943	NS	NS	NS	NS			0	28	350	189	15
4D01	TELEGRAPH CREEK	Stikine	490	NS	NS	NS	NS			0	0	163	23	42
4D02	ISKUT	Stikine	931	N	N	N	N				0	146	18	25
4D11P	Kinaskan Lake	Stikine	1020	2018-05-01	25	112		32%	262	114	0	305	352	22
4E02B	ATLIN LAKE	Yukon	730	2018-04-26	12	37				0	0	140		11
Code	Description													
A	Sampling problems were encountered													
B	Early or late sampling													
C	Early or late sampling w/problems encountered													
E	Estimate													
N	Scheduled, but not sampled													
NA	Not available													
NS	Not scheduled													
SD	Snow Depth													
SWE	Snow Water Equivalent													
T	Trace Amount													

Ministry of Forests, Lands and Natural Resource Operations
River Forecast Centre
Volume Runoff Forecast May 2018

Location	May - Jun Runoff				May - Jul Runoff				May - Sep Runoff			
	Forecast (kdam ³)	Normal (1981-2010) (kdam ³)	% of Normal	Std. Error (kdam ³)	Forecast (kdam ³)	Normal (1981-2010) (kdam ³)	% of Normal	Std. Error (kdam ³)	Forecast (kdam ³)	Normal (1981-2010) (kdam ³)	% of Normal	Std. Error (kdam ³)
Upper Fraser Basin	Fraser at McBride				3370	3534	95%	297	4940	5000	99%	373
	McGregor at Lower Canyon				3792	3552	107%	376	4899	4598	107%	563
	Fraser at Shelley				12944	13672	95%	1070	16917	17732	95%	1657
Middle Fraser Basin	Quesnel River at Quesnel				4151	4117	101%	396	5533	5448	102%	574
Thompson Basin	N. Thompson at McLure				8548	8209	104%	425	10911	10379	105%	785
	S. Thompson at Chase				5738	5298	108%	403	7495	6865	109%	659
	Thompson at Spences Bridge				15489	13923	111%	825	20165	17903	113%	1510
Bulkley and Skeena	Bulkley at Quick				2823	2383	118%	185	3481	2980	108%	220
	Skeena at Usk				18771	17317	108%	964	22924	21661	106%	1463
Nicola Lake	Inflows	193	105	185%	28	241	122	198%	33			
Nicola River	at Spences Bridge	663	409	162%	76	792	476	166%	98			
Okanagan and Kalamalka-Wood Lake	Okanagan Lake Inflow	691	349	198%	81	779	376	207%	103			
	Kalamalka-Wood Lake Inflow	41	19	214%	8	47	20	229%	11			
Similkameen River	Similkameen at Nighthawk	1619	1101	147%	152				2148	1411	152%	193
	Similkameen at Hedley	1220	827	148%	91				1545	1015	152%	105
Cowichan River	Cowichan Lake Inflows	123	118	105%	32				157	153	103%	50

1 kdam³=1,000,000 m³

Note that missing values reflect that forecasts were not made for that time interval

Disclaimer: Seasonal forecasts were developed using a Principle Component Analysis of snow pack, climate and streamflow data.

Cowichan Lake Inflows are based on a multi-variate regression analysis and reflects a normal scenario for summer weather conditions

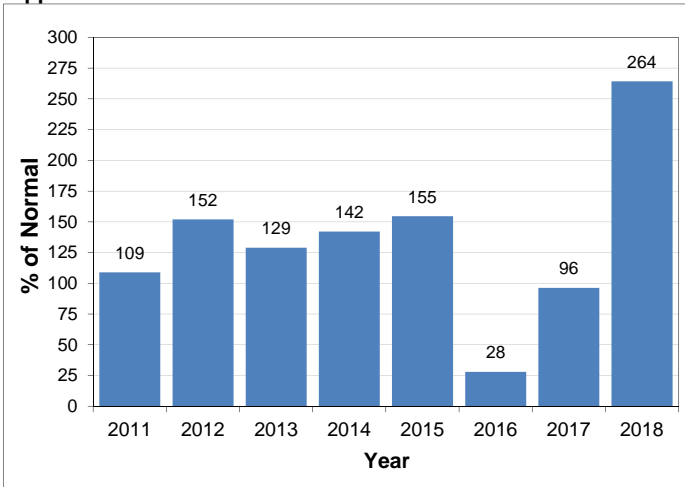
The Standard Error in the Cowichan forecast reflects model error, and does not capture uncertainty over seasonal weather

There is inherent uncertainty in runoff forecasts including potential errors in data and the unpredictable nature of seasonal weather

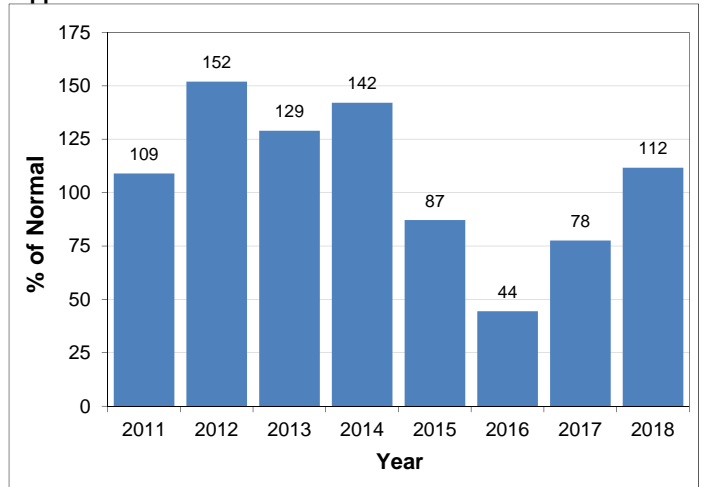
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Snow Basin Index Graphs - May 1, 2018

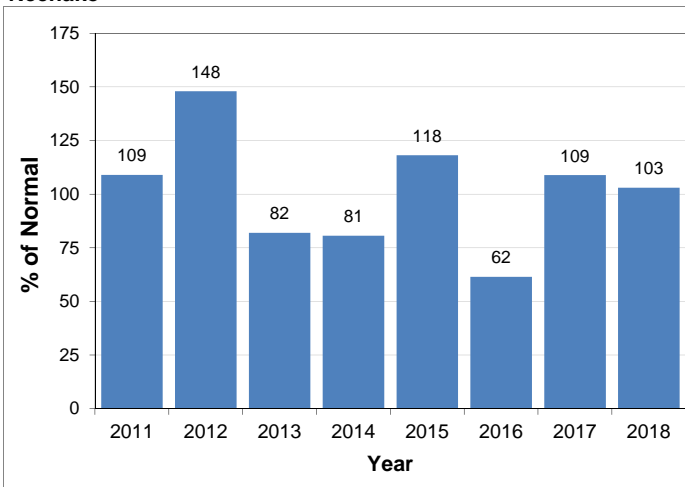
Upper Fraser West



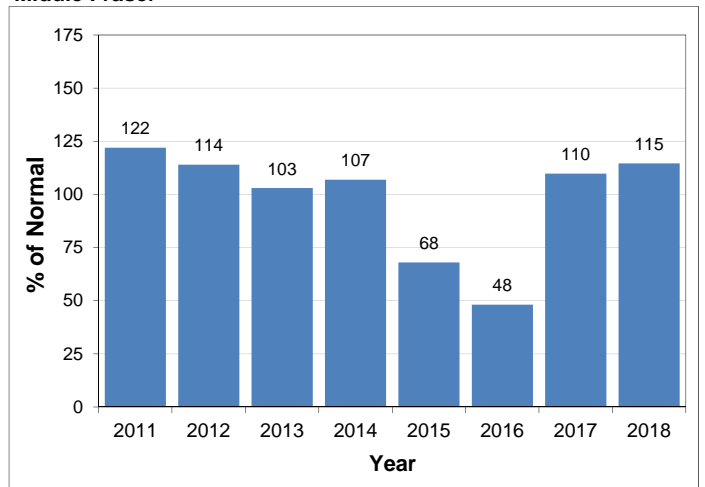
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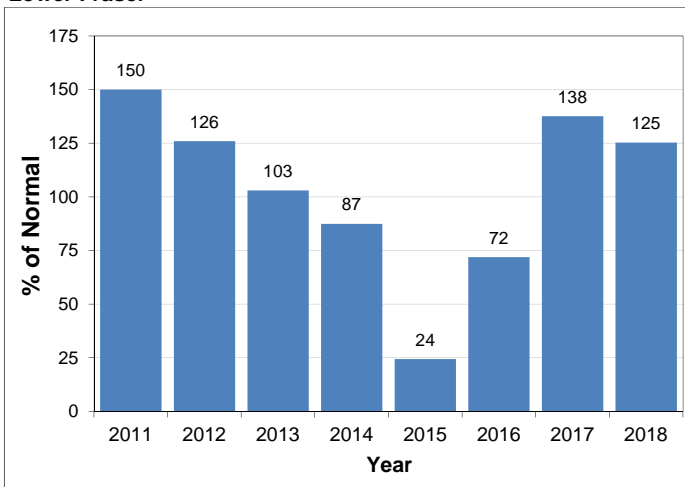
Nechako



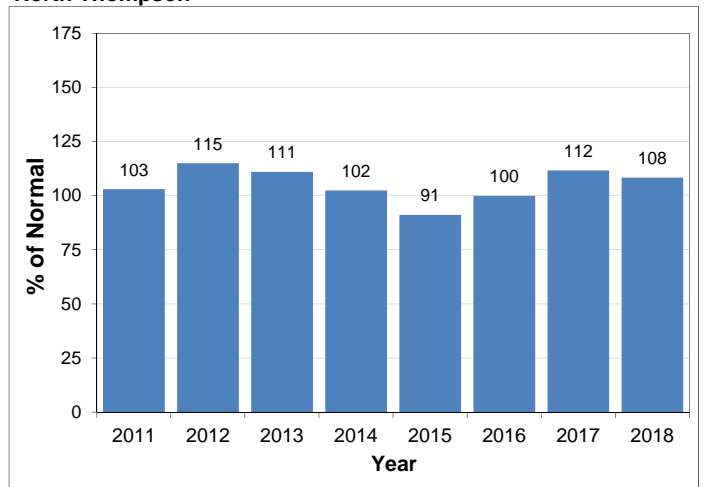
Middle Fraser



Lower Fraser

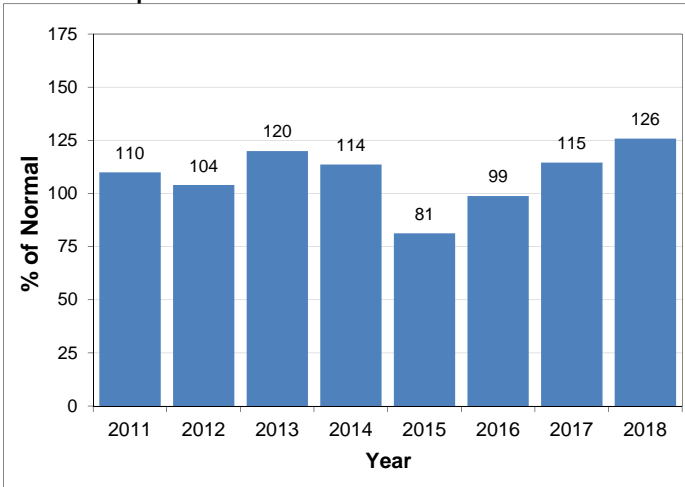


North Thompson

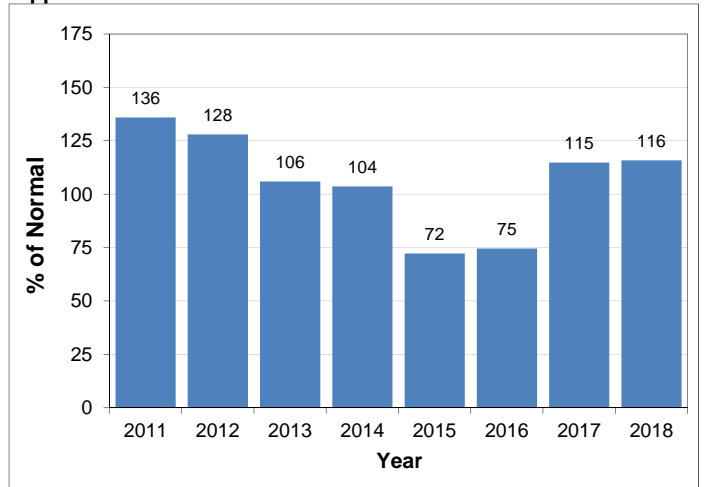


Snow Basin Index Graphs - May 1, 2018

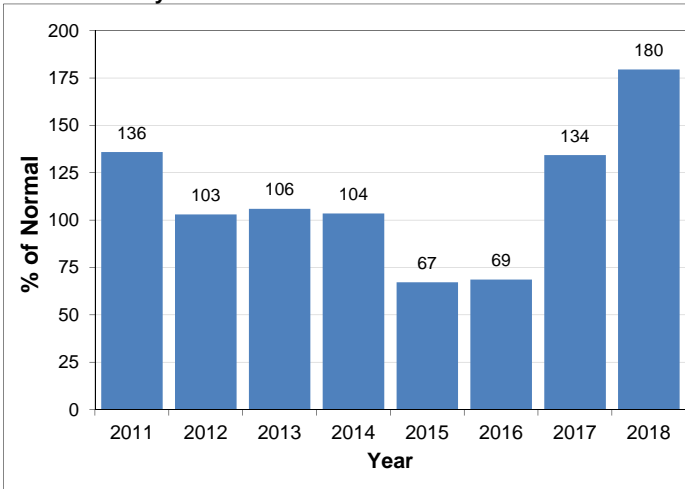
South Thompson



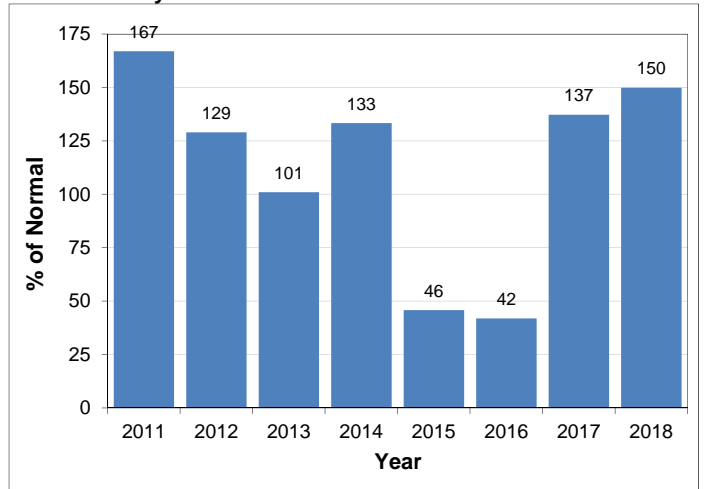
Upper Columbia



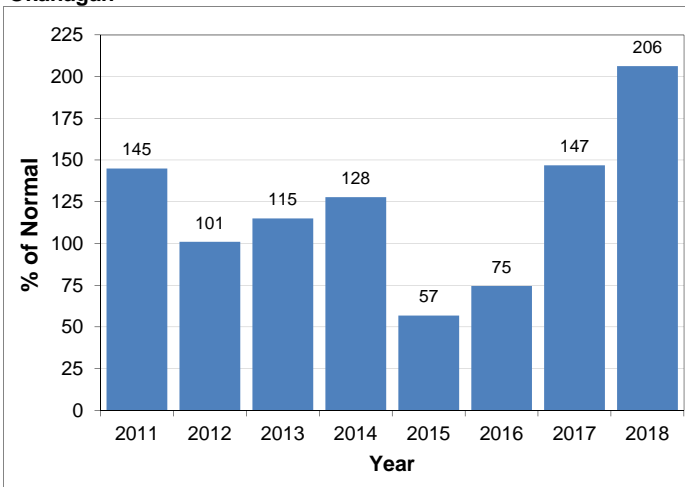
West Kootenay



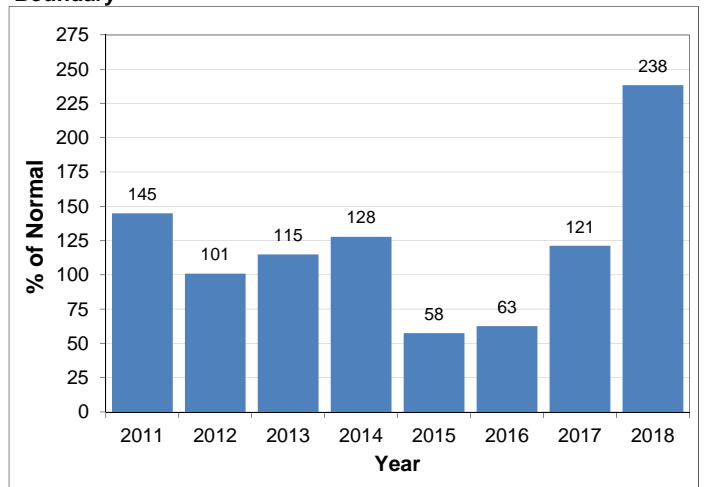
East Kootenay



Okanagan

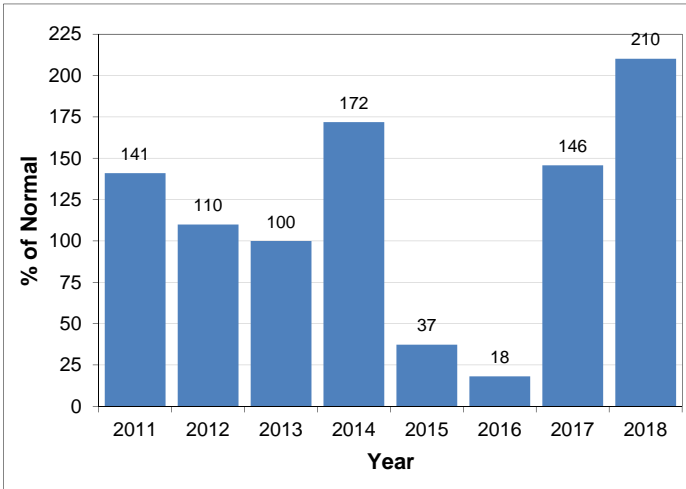


Boundary

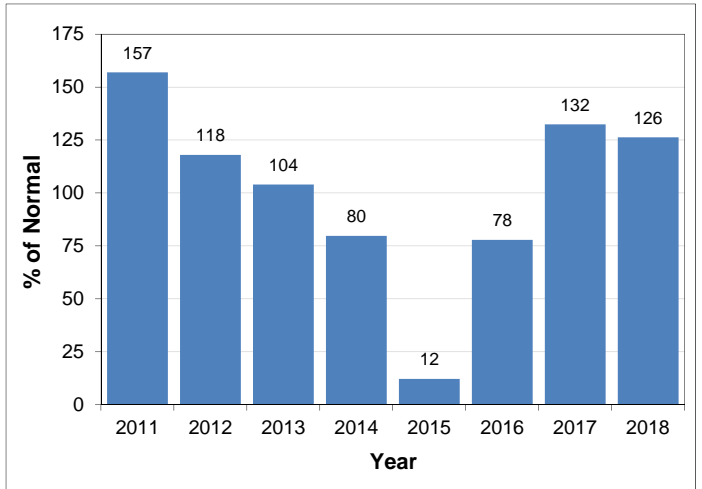


Snow Basin Index Graphs - May 1, 2018

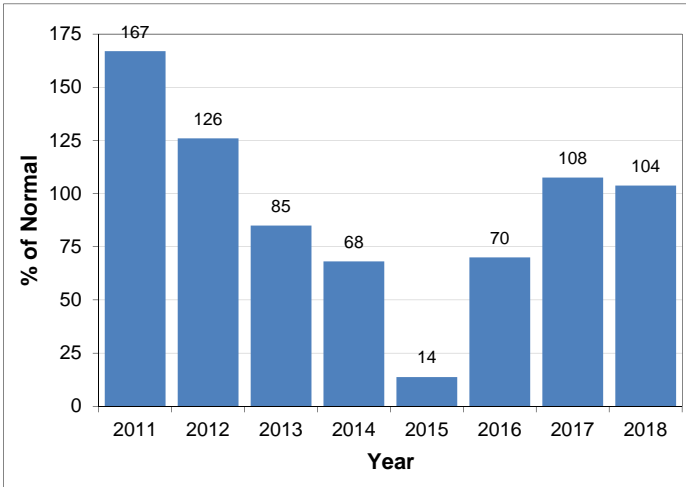
Similkameen



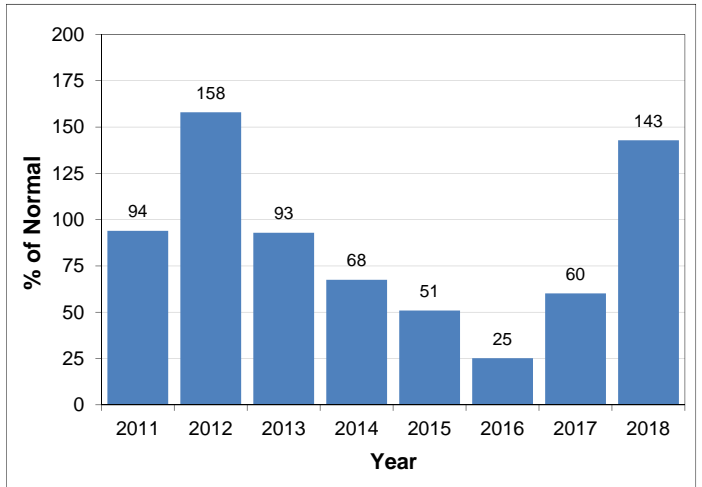
South Coast



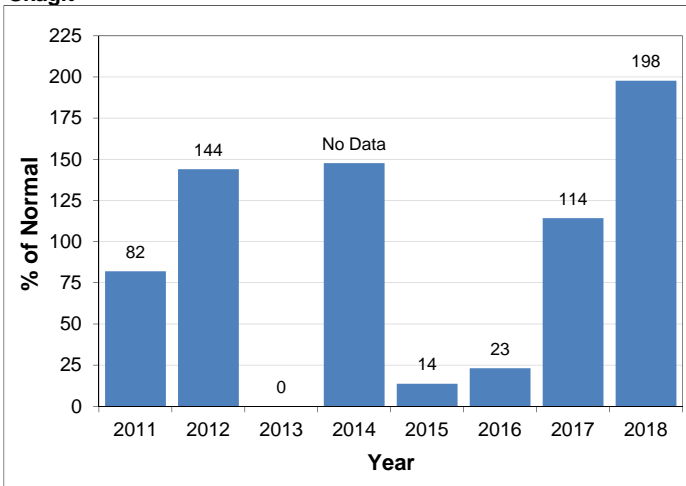
Vancouver Island



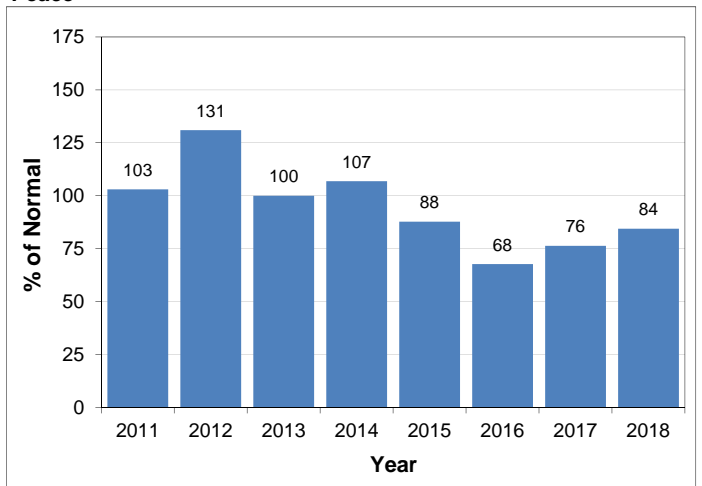
Central Coast



Skagit

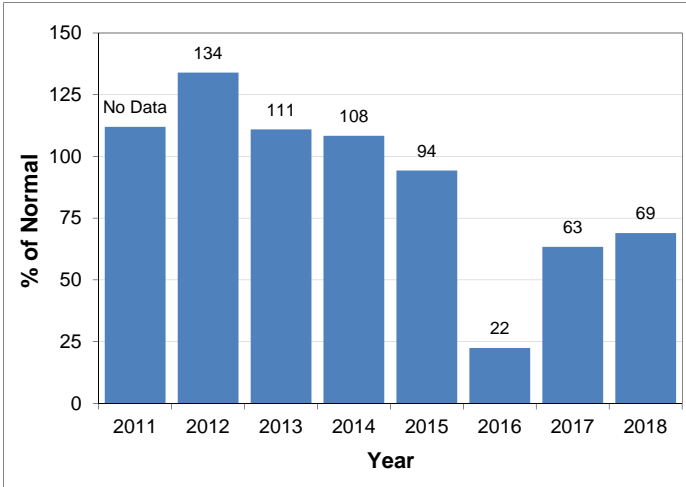


Peace

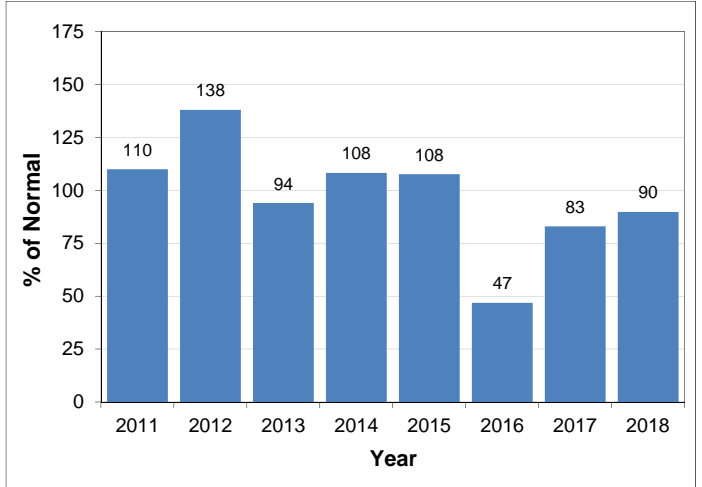


Snow Basin Index Graphs - May 1, 2018

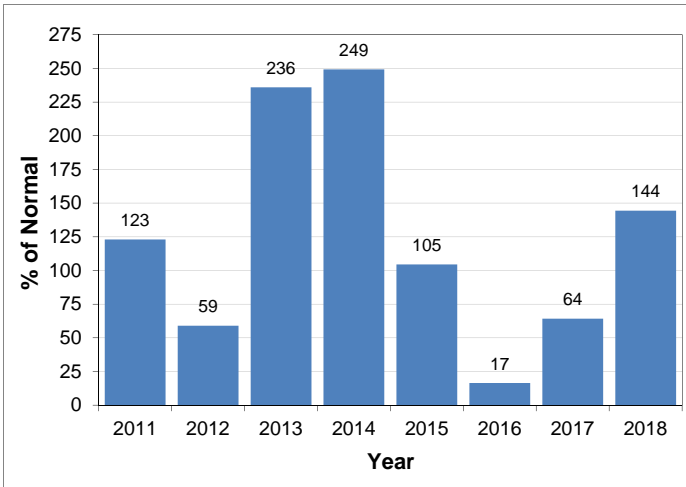
Stikine



Skeena-Nass



Liard



Northwest

