



Snow Survey and Water Supply Bulletin – January 1st, 2022

The January 1st snow survey is now complete. Data from 51 manual snow courses and 86 automated snow weather stations around the province (collected by the Ministry of Environment and Climate Change Strategy's Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada and the provincial Climate Related Monitoring Program have been used to form the basis of the following report¹.

Weather

Drought impacted much of the province through the summer and was particularly intense in southern British Columbia. The weather pattern shifted dramatically in mid-September, switching to successive storm systems. Well above normal precipitation fell on focused areas including the North Coast, southern Vancouver Island and the South Coast from September through November, with some locations achieving record high precipitation. Many of the storm systems were classified as atmospheric rivers, with historic events resulting in significant flooding in mid and late November on Vancouver Island, the Fraser Valley, the Coquihalla Highway, the Coldwater/Nicola Rivers and Tulameen/Similkameen Rivers. Temperatures for September through November were generally seasonable except for northern B.C., which was slightly above normal.

December was defined by very cold conditions with temperatures -6.0 to -1.0 °C below normal, with the coldest temperatures in the northeast. Precipitation was variable in December, with well below normal precipitation in the North Coast, Central Coast and northern Vancouver Island and well above normal precipitation in the South Interior, particularly the West Kootenay. Other regions in the province experienced closer to normal precipitation. There was significantly more precipitation falling as snow in cities, towns, valley bottoms and lower elevations throughout southern B.C relative to the previous December (2020).

Several storm systems occurred January 1-3 and January 5-6, affecting the southern areas of the province. Temperatures were sufficiently cold that these events created additional snow accumulation at low and high elevations. A significant atmospheric river event is arriving to the South Coast for January 11 to 13. The heavy rain is expected to rapidly melt low and mid elevation snow, whereas higher elevations will likely experience an increase in snow water equivalent. The storm system is expected to add more snow into the Interior mountains.

Snowpack

Snow basin indices for January 1st, 2022 range from a low of 84% of normal in the Okanagan to a high of 140% in the Upper Columbia (Table 1 and Figure 2, 3). Generally, the province has above normal snow pack for January 1st, with the average of all snow

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measurements across the province at 115%. The Okanagan is the only region currently below normal at 84% for January 1st. Normal snow packs (90-110%) were measured for the Upper Fraser West, Lower Fraser, South Thompson, Boundary, Similkameen, South Coast, Vancouver Island, Skagit, Peace and Stikine. Slightly above normal snow packs (110-120%) exists in the North Thompson and Skeena-Nass. Snow basin indices that are above normal (120-130%) include the Upper Fraser East, Middle Fraser, West Kootenay and East Kootenay. Areas of the province that are well above normal (>130%) include the Central Coast and Upper Columbia. The overall snow basin index for the entire Fraser River basin (e.g., upstream of the Lower Mainland) is 110%.

As the Middle Fraser encompasses a large and geographically diverse area, it can be divided into sub-basins to display snow conditions and potential flood risks in localised areas. The Bridge region measures 140% of normal, the Quesnel area 115%, the Lower Thompson 129% and the Chilcotin sub-basin did not have any snow surveys scheduled for January 1st. It is important to remember that there are fewer manual snow surveys completed for January 1st compared to upcoming bulletins. In some cases, a regional snow basin index is calculated from only one snow measurement; therefore, it may not be indicative of conditions across the entire watershed. Please review the full summary data tables at the end of this report for further interpretation.

Table 1 - BC Snow Basin Indices – January 1, 2022

Basin	% of Normal (2021 value)	Basin	% of Normal (2021 value)
Upper Fraser West	94 (103)	East Kootenay	121 (94)
Upper Fraser East	122 (117)	Okanagan	84 (132)
Nechako	99 (102)	Boundary	103 (112)
Middle Fraser	126 (93)	Similkameen	104 (97)
Lower Thompson*	129 (152)	South Coast	106 (109)
Bridge*	140 (79)	Vancouver Island	100 (108)
Chilcotin*	N/A (N/A)	Central Coast	135 (119)
Quesnel*	115 (129)	Skagit	95 (NA)
Lower Fraser	103 (115)	Peace	99 (105)
North Thompson	115 (101)	Skeena-Nass	113 (95)

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South Thompson	104 (113)	Stikine	100 (113)
Upper Columbia	140 (119)	Liard	N/A (121)
West Kootenay	125 (101)	Fraser	110 (108)
		British Columbia	115 (108)

* sub-basin of Middle Fraser

Early season snow pack was quick to develop this year because of continual storm systems affecting the province beginning as early as mid-September. Accumulation continued into mid-November. A very strong and relatively warm atmospheric river in mid-November resulted in a rain-on-snow flood event that reduced snow pack at many south coastal locations and lower elevation snow stations in the South Interior. Another series of atmospheric rivers in late-November contributed to both snow accumulation and melt along the coast. By December 1st, the average snow pack observed at automated snow weather stations across British Columbia was 131% of long-term median. During the final month of 2021, snow continued to accumulate, especially at lower elevations.

There are several snow stations with all-time record highs for this time of year:

- 1C33A Granite Mountain: 140 mm SWE (154% of normal) – period of record 16 years
- 2C14P Floe Lake: 563 mm SWE (163% of normal) – period of record 27 years
- 2D14P Redfish Creek: 810 mm SWE (136% of normal) – period of record 20 years

One additional automated snow weather station was added to the network in 2021- BC Hydro's Glacier NP Rogers Pass (2A34P) in the Upper Columbia region at an elevation of 1182 m. Two manual snow surveys started this year in the West Kootenay: 2D17 Lost Ledge (2050 m) & 2D18 Kootenay Joe (2060 m).

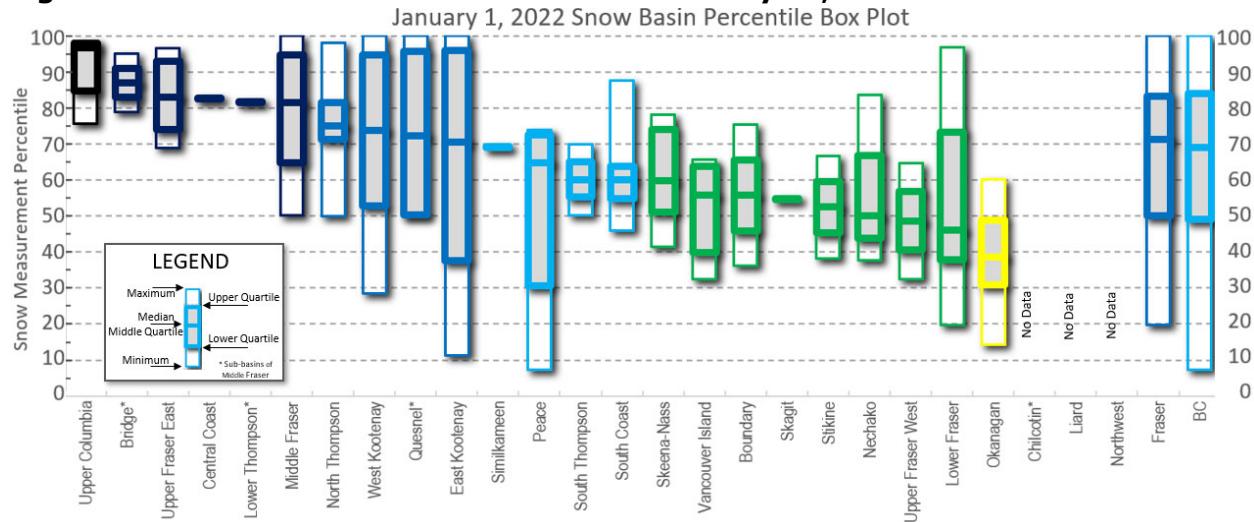
There are 17 de-activated manual snow surveys for the upcoming season: two in the Upper Fraser East, seven in the Middle Fraser, two in the Upper Columbia, one in the East Kootenay, one in the Okanagan, and four in the Peace. Reasons for de-activation include: classification as no longer required due to co-location beside a relatively new automated snow weather station, site in disrepair, site destroyed by fire, and discontinuation due to lack of resources.

The River Forecast Centre began including percentiles into the final data summary table in the 2020 bulletin in addition to using percent of normal to analyze snow pack. Percentiles offer a more accurate interpretation of variance, especially in regions when the percent of normal can be extremely high or low. The regions with the highest average percentile is the Upper Columbia (92nd percentile); the region with lowest is the Okanagan (39th). A box plot displaying the percentile variance ordered from highest to lowest median, including sub-basins, is provided below in Figure 1.



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Figure 1. Snow Basin Percentile Box Plot – January 1st, 2022



Outlook

The Climate Prediction Center (CPC) shows that El Niño Southern Oscillation (ENSO) demonstrated La Niña conditions during the fall of 2021. This is the second La Niña in a row, with La Niña present during the fall-winter of 2020-21. La Niña occurs when oceanic temperature anomalies along the equatorial Pacific Ocean region are below normal for an extended period. Historically, La Niña conditions create cooler temperatures for British Columbia and wetter weather in the South Coast and Vancouver Island during the winter months. Conditions this year have so far followed this typical La Niña scenario.

Forecasts from the CPC indicate a high likelihood (95% chance) of continued La Niña conditions through the remainder of winter 2021-22 (January-March), with a potential transition to neutral conditions (60% likelihood) during spring 2022 (April-June). Historically, when winter La Niña conditions exist in British Columbia, the April 1st snow pack is often above normal, particularly for the South Coast and Southern Interior. La Niña conditions that persist into the spring can lead to late-season snow accumulation and delayed snowmelt, which increases the risk for freshet flooding.

Seasonal weather forecasts from late December by Environment and Climate Change Canada indicate an increased likelihood of colder than normal temperatures from January through March for the entire province. There is an increased likelihood of greater than normal precipitation for most of the province for January through March. The northern portion of the province does not show any precipitation trend for the 3-month period.

By early January, nearly half of the annual B.C. snow pack has typically accumulated. Snow pack throughout the province ranges from 84 to 140% of normal. Two strong storms have

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already affected the South Coast and Vancouver Island in early January, with snow accumulation spilling over into the southern Interior. Another large storm system is expected to arrive on the coast for the second week of January. The provincial average for all snow measurements across the province is 115% of normal and indicates a higher risk for snowmelt related flooding during the spring months (freshet). With three or more months left for snow accumulation, seasonal snow packs can still change significantly.

The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the February 1st, 2022 bulletin, which is scheduled for release on February 8th.

BC River Forecast Centre
January 11, 2022



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Figure 2: Basin Snow Water Index – January 1st, 2022

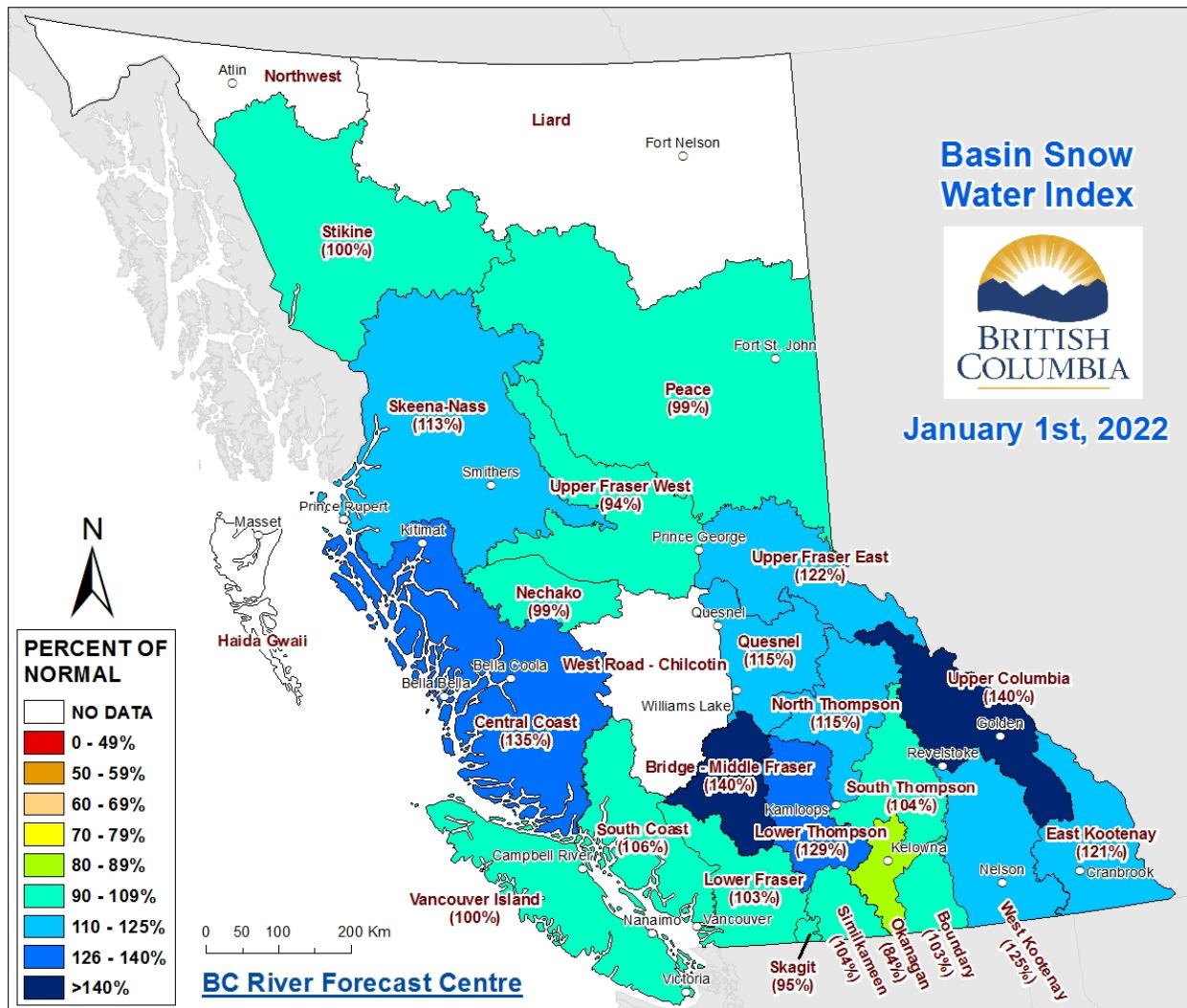


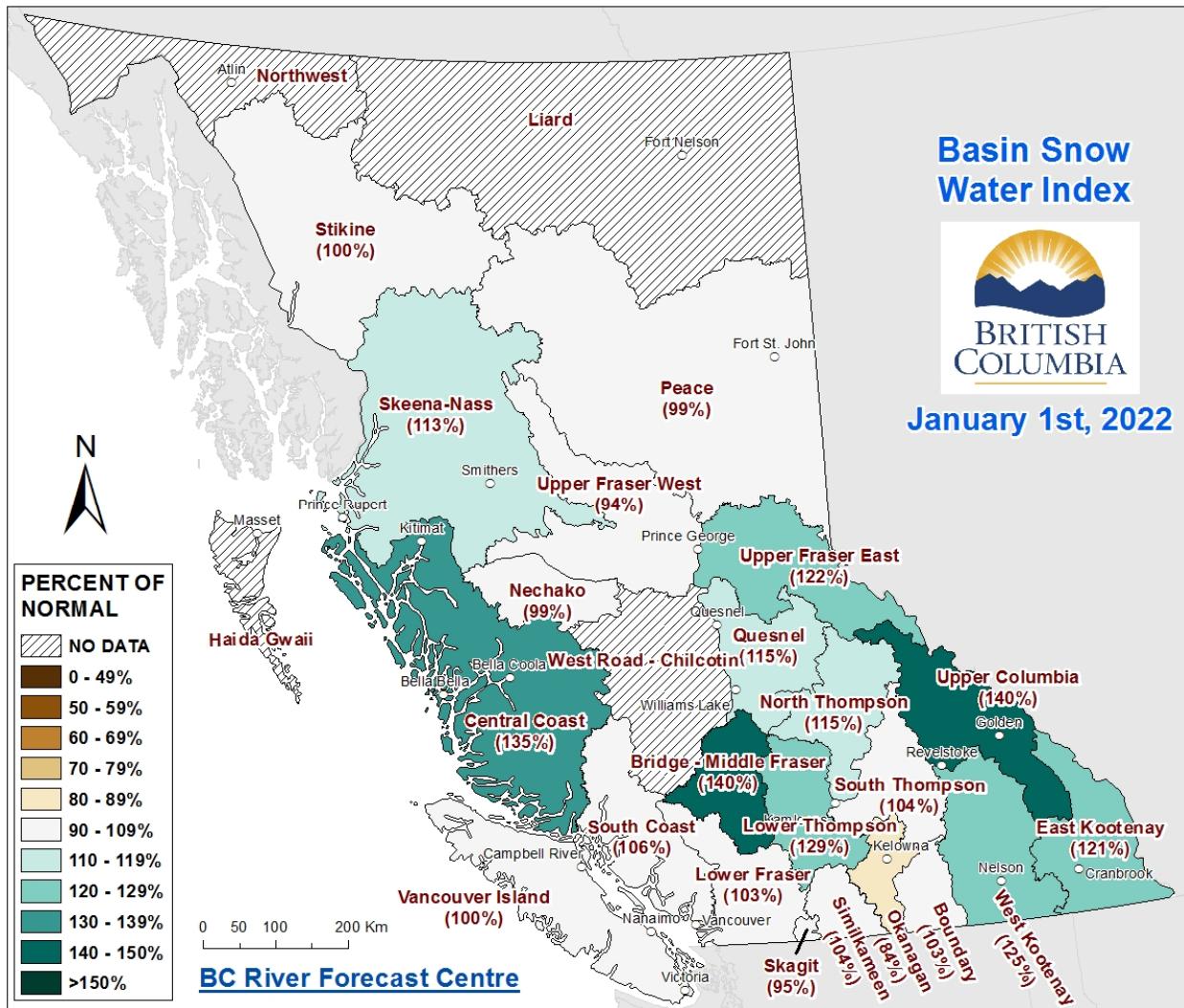
Figure 3: Basin Snow Water Index – January 1st, 2022 – Colour Friendly



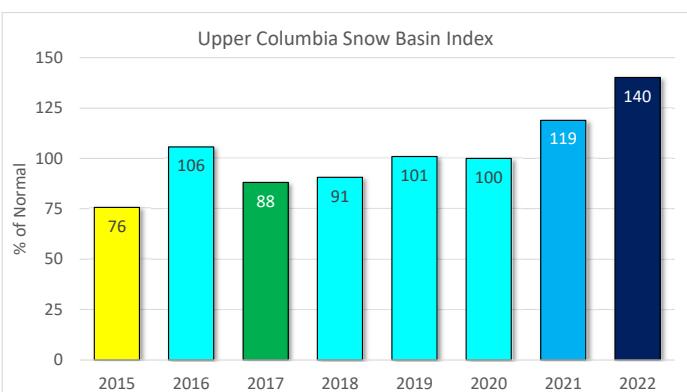
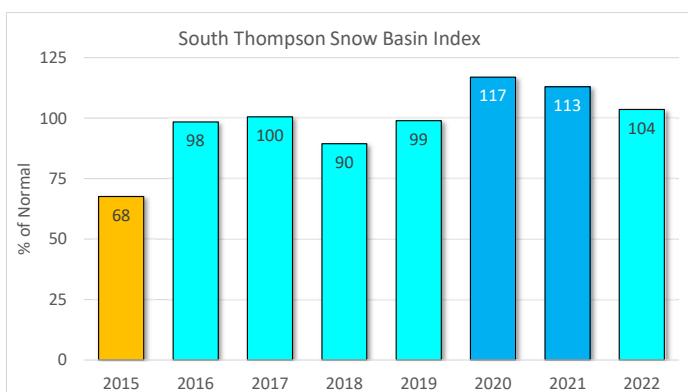
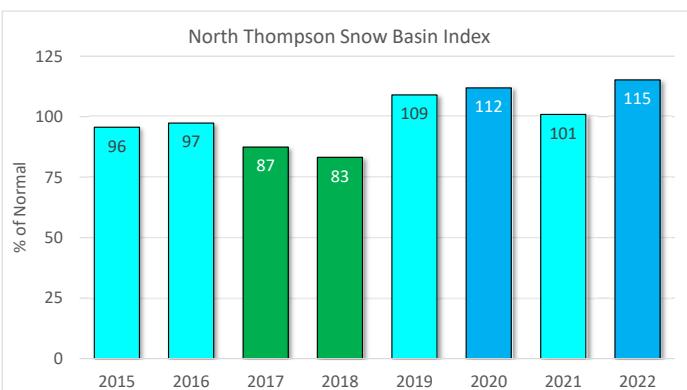
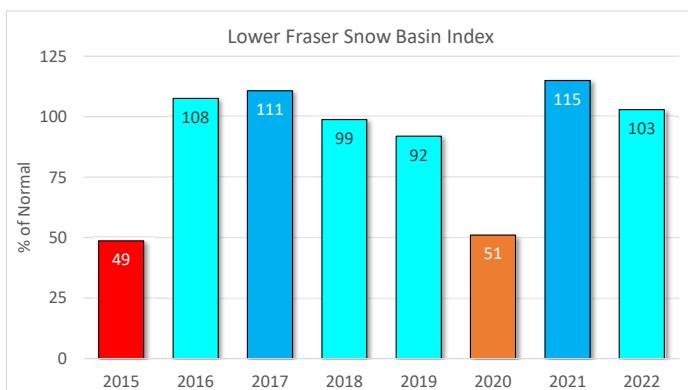
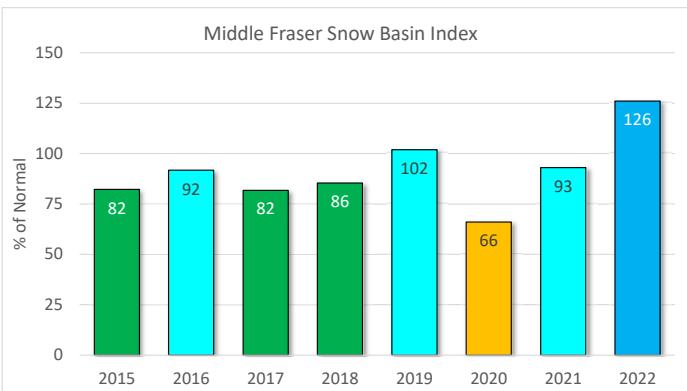
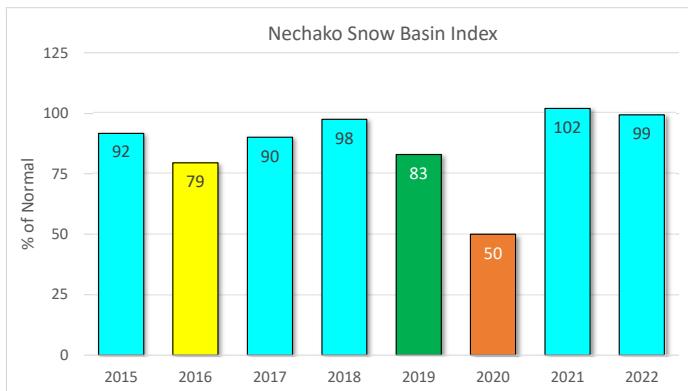
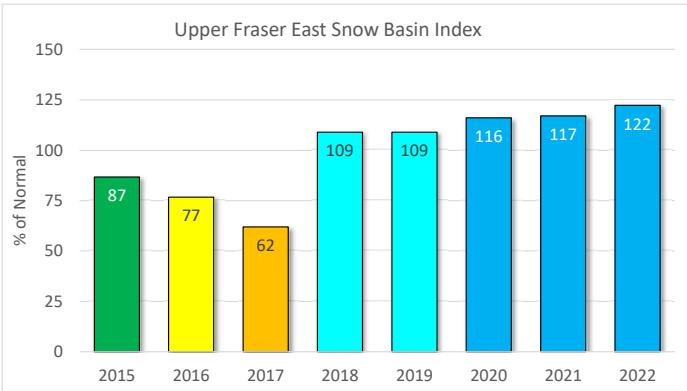
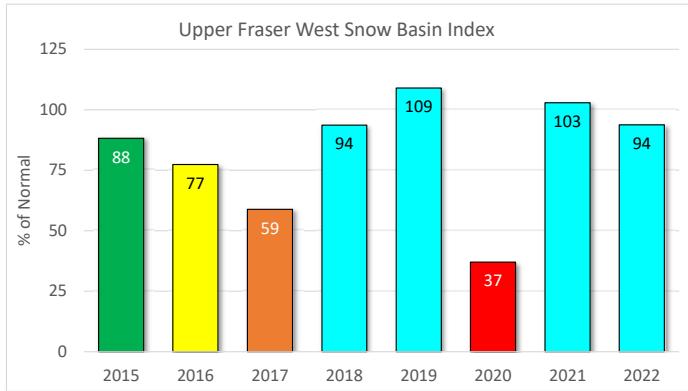
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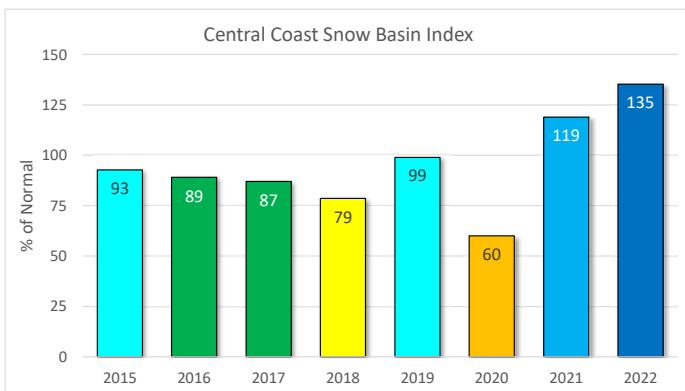
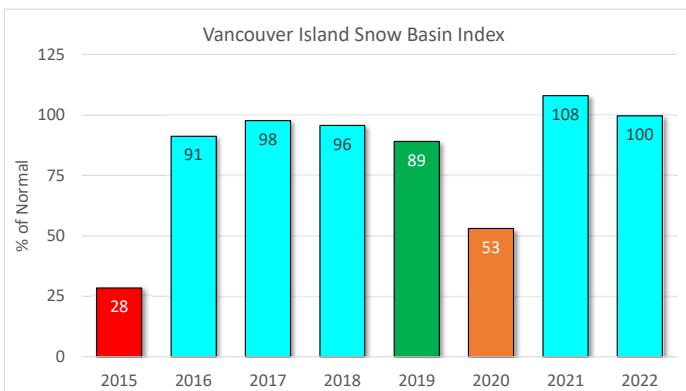
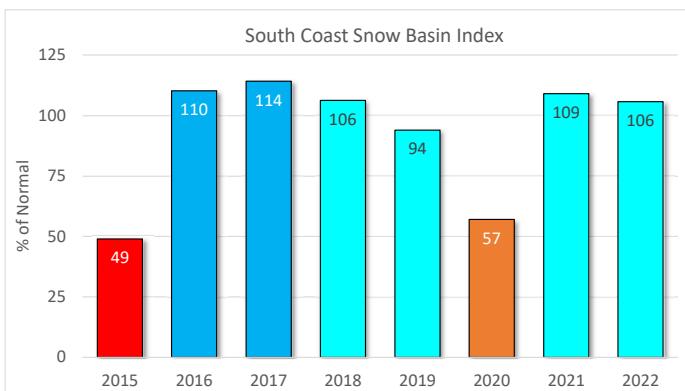
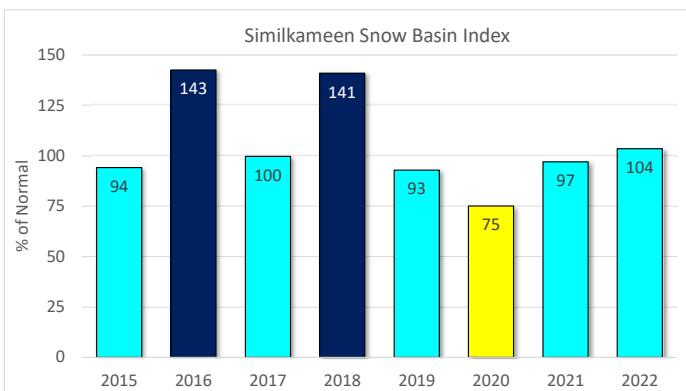
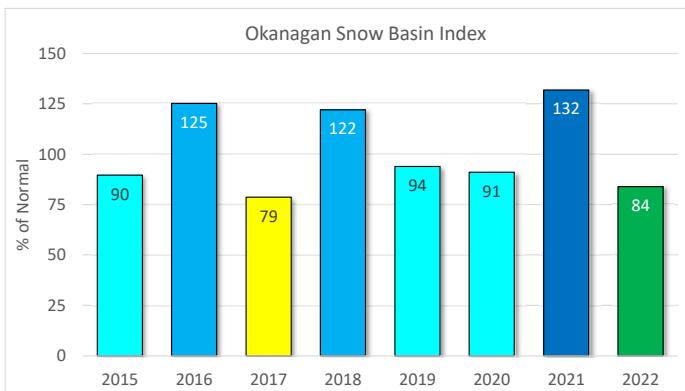
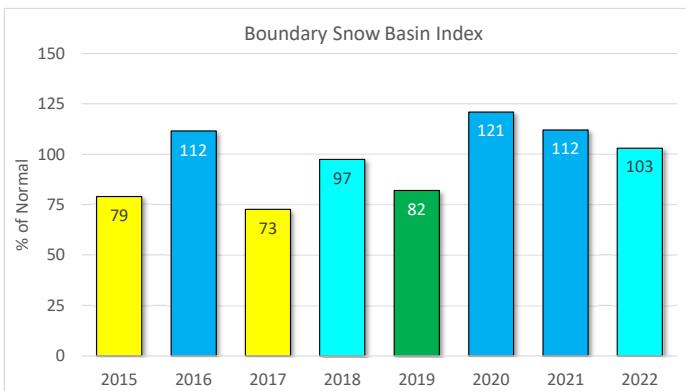
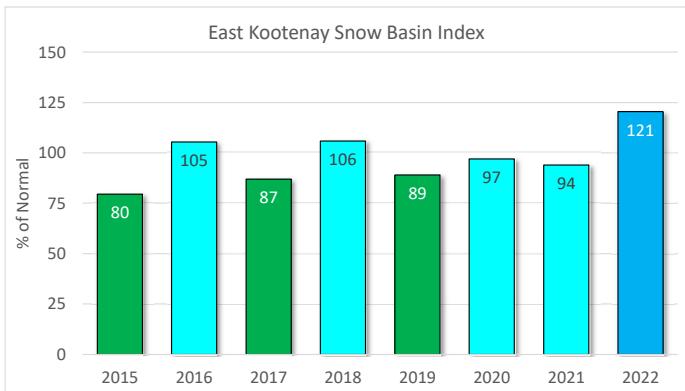
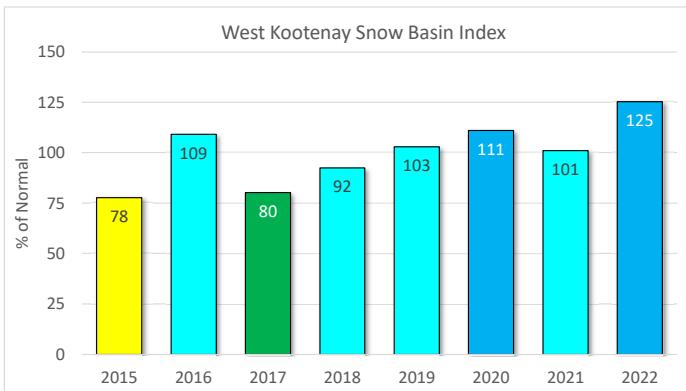
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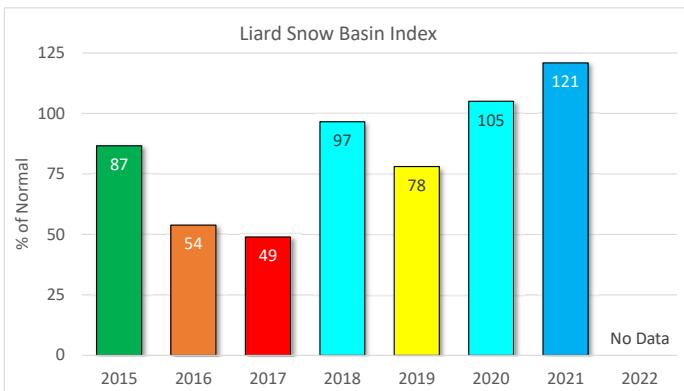
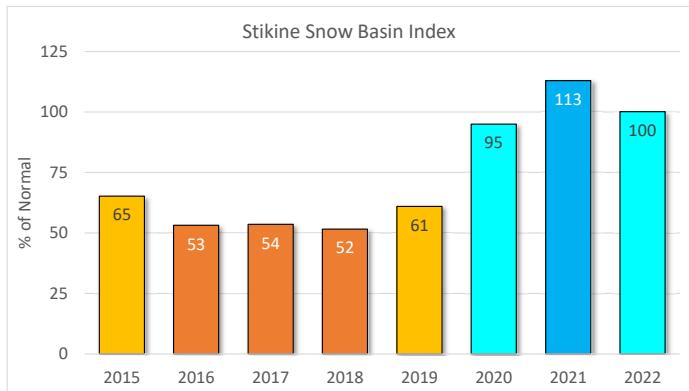
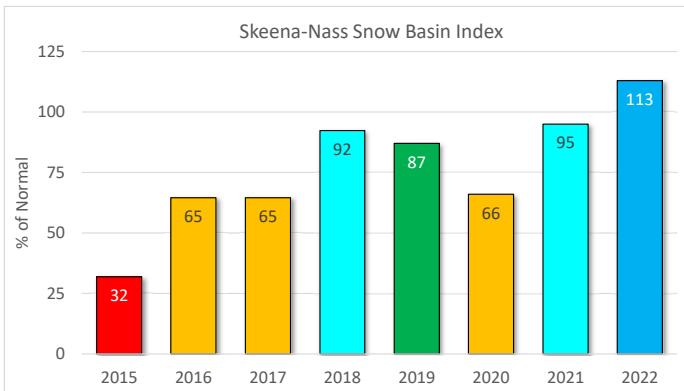
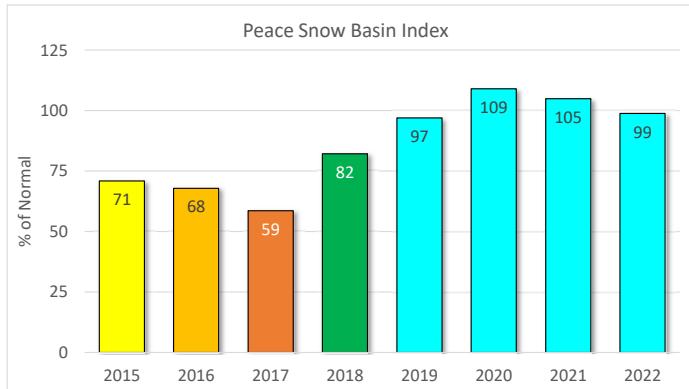
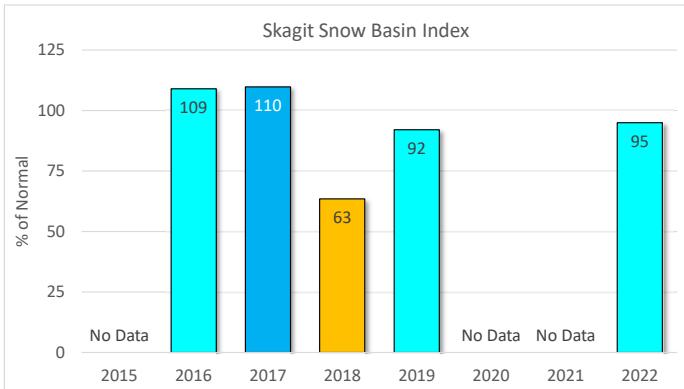
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Snow Basin Index Graphs - January 1, 2022



Snow Basin Index Graphs - January 1, 2022



January 1, 2022 Automated Snow Weather Station / Manual Snow Survey Data

UPPER FRASER EAST		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A01P	Yellowhead Lake	1860	2022-01-01	N	N	N	N	N/A	N/A	292	234	153	263	420	280	23
1A02P	McBride Upper	1611	2022-01-01	111	293	26		126%	93	263	274	112	217	383	233	30
1A03P	Barkerville	1520	2022-01-01	87	176	20		125%	74	163	192	38	150	312	140	43
1A05P	Longworth Upper	1740	2022-01-01	147	472	32		N/A	N/A	560	475	192	475	560	N/A	5
1A06A	HANSARD	608		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1A10	PRINCE GEORGE A	689	2022-01-06	48	113	24		189%	97	52	76	0	66	156	60	57
1A11	PACIFIC LAKE	755		N	N	N	N	N/A	N/A	395	299	56	290	721	316	36
1A14P	Hedrick Lake	1100	2022-01-01	125	407	33		114%	69	313	357	150	358	718	356	22
1A15P	Knudsen Lake	1601	2022-01-01	130	476	37		N/A	N/A	584	349	209	349	584	N/A	5
1A17P	Revolution Creek	1690	2022-01-01	185	540	29		136%	83	509	568	183	407	814	397	33
1A19P	Dome Mountain	1774	2022-01-01	146	368	25		101%	63	415	435	215	345	575	366	14
			Average	122	356	28		132%	80							

Basin Index Calculation	Average SWE	316
	Average Normal	259
Upper Fraser East Basin Index - January 1, 2022	122%	

Stations used in Basin Index:
1A02P, 1A03P, 1A10, 1A14P, 1A17P, 1A19P

UPPER FRASER WEST		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A12	KAZA LAKE	1250	2021-12-31	75	183	24		104%	65	N	NS	92	170	371	175	31
1A12P	Kaza Lake	1257	2022-01-01	88				N/A	N/A	197	226	116	186	226	N/A	6
1A16	BURNS LAKE	800	2022-01-07	33	56	17		71%	33	82	26	26	68	192	79	44
1A23	BIRD CREEK	1180		NS	NS	NS	NS	N/A	N/A	NS	68	68	74	174	N/A	4
			Average	65	120	21		87%	49							

Basin Index Calculation	Average SWE	120
	Average Normal	127
Upper Fraser West Basin Index - January 1, 2022	94%	

Stations used in Basin Index:
1A12, 1A16

NECHAKO		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1B01	MOUNT WELLS	1490		NS	NS	NS	NS	N/A	N/A	NS	227	220	242	465	N/A	4
1B01P	Mount Wells	1490	2022-01-01		387			128%	84	366	213	146	297	516	302	28
1B02	TAHTSA LAKE	1300		NS	NS	NS	NS	N/A	N/A	NS	295	295	528	1084	N/A	4
1B02P	Tahtsa Lake	1300	2022-01-01		577			89%	38	604	311	258	634	1168	646	28
1B05	SKINS LAKE	890		N	N	N	N	N/A	N/A	N	53	0	53	127	51	35
1B06	MOUNT SWANNELL	1620		NS	NS	NS	NS	N/A	N/A	NS	132	132	144	247	N/A	4
1B07	NUTLI LAKE	1490		NS	NS	NS	NS	N/A	N/A	NS	130	130	190	527	N/A	4
1B08P	Mt. Pondosy	1400	2022-01-01		390			94%	50	421	184	184	404	687	415	26
			Average		N/A	451	N/A	104%	57							

Basin Index Calculation	Average SWE	451
	Average Normal	454
Nechako Basin Index - January 1, 2022	99%	

Stations used in Basin Index:
1B01P, 1B02P, 1B08P

LOWER THOMPSON			January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C06	PAVILION	1230		NS	NS	NS	NS	N/A	N/A	NS	NS	0	25	80	N/A	10
1C09A	HIGHLAND VALLEY	1510		NS	NS	NS	NS	N/A	N/A	NS	NS	12	41	104	N/A	11
1C25	LAC LE JEUNE (UPPER)	1509	2022-01-04	49	90	18		129%	82	106	52	10	61	146	70	49
1C29	SHOVELNOSE MOUNTAIN	1450		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C29P	Shovelnose Mountain	1460	2022-01-01	45	93	21		N/A	N/A	140	96	94	96	140	N/A	2
1C32	DEADMAN RIVER	1430		NS	NS	NS	NS	N/A	N/A	NS	NS	0	55	141	N/A	8
1C42	CAVERHILL LAKE NEW	1400		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
			Average	47	92	20		129%	82							

Basin Index Calculation	Average SWE	90
	Average Normal	70
Lower Thompson Basin Index - January 1, 2022		129%

Stations used in Basin Index:

1C25

BRIDGE / LILLOOET			January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C05P	McGillivray Pass	1718	2022-01-01		308			N/A	N/A	185	129	129	228	285	N/A	4
1C12P	Green Mountain	1780	2022-01-01		526			124%	79	315	90	90	397	756	426	28
1C14P	Bralorne	1382	2022-01-01	62	121	20		N/A	N/A	77	36	36	93	119	N/A	4
1C18P	Mission Ridge	1850	2022-01-01		438			167%	95	266	157	149	237	659	262	45
1C28	DUFFEY LAKE	1200		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C38	DOWNTON LAKE (UPPER)	1887		N	N	N	N	N/A	N/A	344	N	272	425	690	474	20
1C38P	Downton Lake Upper	1829	2022-01-01		629			N/A	N/A	426	182	182	423	487	N/A	6
1C39	BRIDGE GLACIER (LOWER)	1390		N	N	N	N	N/A	N/A	174	82	74	300	466	287	25
1C40P	North Tyaughton	1969	2022-01-01		304			N/A	N/A	238	62	62	204	240	N/A	6
			Average	62	388	N/A		146%	87							

Basin Index Calculation	Average SWE	482
	Average Normal	344
Bridge/Lillooet Basin Index - January 1, 2022		140%

Stations used in Basin Index:

1C12P, 1C18P

CHILCOTIN			January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C21	BIG CREEK	1140		NS	NS	NS	NS	N/A	N/A	NS	NS	10	30	68	30	29
1C22	PUNTZI MOUNTAIN	940		NS	NS	NS	NS	N/A	N/A	NS	NS	0	34	106	35	45
			Average	N/A	N/A	N/A		N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Chilcotin Basin Index - January 1, 2022		N/A

Stations used in Basin Index:

N/A

QUESNEL			January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C17	MOUNT TIMOTHY	1660	2022-01-07	93	246	26		151%	94	N	126	38	145	350	163	22
1C20P	Boss Mountain Mine	1460	2022-01-01	116	279	24		98%	50	383	255	55	278	495	284	28
1C23	PENFOLD CREEK	1685		NS	NS	NS	NS	N/A	N/A	NS	NS	525		525	N/A	1
1C33A	GRANITE MOUNTAIN	1150	2022-01-07	94	140	15		154%	100	102	96	46	97	124	91	16
			Average	94	140	15		154%	100							

*record high

1C41P	Yanks Peak East	1670	2022-01-01	126	424	34	104%	51	522	598	206	423	598	406	25
		Average		107	272	25	127%	74							

Basin Index Calculation	Average SWE	272
	Average Normal	236
	Quesnel Basin Index - January 1, 2022	115%

Stations used in Basin Index:
1C17, 1C20P, 1C33P, 1C41P

MIDDLE FRASER

Basin Index Calculation	Average SWE	306
	Average Normal	243
	Middle River Basin Index - January 1, 2022	126%

Stations used in Basin Index:
1C12P, 1C17, 1C18P, 1C20P, 1C25, 1C33P, 1C41P

LOWER FRASER		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1D06P	Tenquille Lake	1680	2022-01-01		699			150%	97	469	268	221	469	795	466	21
1D08	STAVE LAKE	1250	2021-12-29	212	592	28		106%	46	640	278	112	601	976	561	28
1D08P	Lamont Creek Upper	1217	2022-01-01		623			N/A	N/A	N/A	N/A	N/A	N/A	N/A		0
1D09P	Wahleach Lake Upper	1480	2022-01-01		314			81%	41	478	246	164	364	640	386	28
1D10	NAHATLATCH RIVER	1550	N	N	N	N	N	N/A	N/A	493	N	219	561	975	617	22
1D16	DICKSON LAKE	1160	2021-12-29	154	436	28		66%	20	780	N	210	668	1196	663	23
1D17P	Chilliwack River	1600	2022-01-01	163	701	43		107%	67	N/A	456	353	638	1161	654	28
1D18	DISAPPOINTMENT LAKE	1050	2021-12-31	226	840	37		126%	79	790	340	112	762	1196	666	18
1D18P	Disappointment Lake	1050	2022-01-01	214				N/A	N/A	N/A	275	275	592	1304	661	12
1D19P	Spuzzum Creek	1180	2022-01-01	173	532	31		89%	35	748	261	198	598	1270	599	23
	Average		Average	190	592	33		104%	55							

Basin Index Calculation	Average SWE	588
	Average Normal	571
	Lower Fraser Basin Index - January 1, 2022	103%

Stations used in Basin Index:
1D06P, 1D08, 1D09P, 1D16, 1D17P, 1D18, 1D19P

NORTH THOMPSON		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1E01B	BLUE RIVER	670	2022-01-02	80	164	21		110%	75	140	168	50	152	263	149	33
1E02P	Mount Cook	1550	2022-01-01	198	706	36		110%	82	N	683	439	675	1075	643	17
1E03A	TROPHY MOUNTAIN	1860	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	NS	NS	NS	N/A	0
1E07	ADAMS RIVER	1720	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	205	293	475	N/A	14
1E08P	Azure River	1652	2022-01-01	227	739	33		128%	98	601	N	383	580	769	575	21
1E10P	Kostal Lake	1770	2022-01-01	140	428	31		100%	50	348	360	281	428	615	429	35
1E14P	Cook Creek	1280	2022-01-01	108	316	29		128%	71	340	326	120	244	364	247	12
	Average		Average	151	471	30		115%	75							

Basin Index Calculation	Average SWE	471
	Average Normal	409
	North Thompson Basin Index - January 1, 2022	115%

Stations used in Basin Index:
1E01B, 1E02P, 1E08P, 1E10P, 1E14P

SOUTH THOMPSON		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1F01A	ABERDEEN LAKE	1310	2022-01-04	41	66	16		N/A	N/A	103	138	38	85	138	N/A	9
1F02	ANGLEMONT	1190	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	164	164	164	N/A	1
1F03P	Park Mountain	1890	2022-01-01	124	395	32		96%	50	460	519	256	394	632	410	37
1F04P	Enderby	1950	2022-01-01	175	578	33		N/A	N/A	776	768	496	552	776	N/A	5

1F06P	Celista Mountain	1500	2022-01-01	158	467	30		111%	70	482	461	305	446	506	422	16
			Average	125	377	28		104%	60							

Basin Index Calculation	Average SWE Average Normal	43% 41%
South Thompson Basin Index - January 1, 2022		104%

Stations used in Basin Index:
1F03P, 1F06P

FRASER RIVER

Basin Index Calculation	Average SWE Average Normal	40% 36%
		Fraser River Basin Index - January 1, 2022 110%

Stations used in Basin Index:
1A02P, 1A03P, 1A10, 1A14P, 1A17P, 1A19P, 1B01P, 1B02P, 1B08P, 1C12P, 1C17, 1C18P, 1C20P, 1C25, 1C33P, 1C41P
1D06P, 1D08, 1D09P, 1D16, 1D17P, 1D18, 1D19P, 1E01B, 1E02P, 1E08P, 1E10P, 1E14P, 1F03P, 1F06P

UPPER COLUMBIA		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth	SWE	Density		SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			(cm)	(mm)	%	Code									
2A02	GLACIER	1250	2021-12-30	148	470	32	152%	99	413	407	147	312	519	310	51
2A03A	FIELD	1285	NS	NS	NS	NS	N/A	N/A	NS	NS	38	91	127	83	12
2A06P	Mount Revelstoke	1850	2022-01-01		704		124%	83	633	623	293	572	861	568	28
2A07	KICKING HORSE	1650	2022-01-02	88	234	27	161%	98	156	186	66	157	257	145	42
2A11	BEAVERFOOT	1890	2021-12-28	73	164	22	157%	96	N	100	52	100	215	105	35
2A14	MOUNT ABBOT	2010	2022-01-04	282	978	35	163%	99	631	597	298	590	1065	601	37
2A16	GOLDSTREAM	1920	2022-01-05	248	840	34	145%	97	714	559	355	572	906	578	34
2A17	FIDELITY MOUNTAIN	1870	2022-01-03	261	907	35	150%	97	736	656	331	590	1228	603	47
2A18P	Keystone Creek	1840	N	N	N	N	N/A	N/A	474	402	402	475	518	N/A	6
2A19	VERMONT CREEK	1520	2021-12-28	117	277	24	133%	76	N	166	91	202	328	209	34
2A21P	Molson Creek	1935	2022-01-01		789		138%	97	635	538	285	540	1072	573	41
2A23	BUSH RIVER	1920	N	N	N	N	N/A	N/A	523	N	216	453	722	448	34
2A25	KIRBYVILLE LAKE	1750	2022-01-05	250	789	32	129%	98	N	509	351	599	830	609	33
2A27	DOWNIE SLIDE (LOWER)	980	2022-01-05	152	398	26	127%	81	436	332	166	302	504	314	31
2A29	DOWNIE SLIDE (UPPER)	1630	2022-01-05	262	884	34	129%	85	804	N	335	653	1022	688	30
2A30P	Colpitti Creek	2131	N	N	N	N	N/A	N/A	499	399	204	421	499	N/A	12
2A31P	Caribou Creek Upper	2201	2022-01-01		681		N/A	N/A	514	408	408	465	511	N/A	6
2A32P	Wildcat Creek	2122	2022-01-01		474		N/A	N/A	371	358	258	327	371	N/A	6
2A34P	Glacier NP Rogers Pass Lower	1182	2022-01-01	137	442	32	N/A	N/A						N/A	0
			Average	183	602	30	142%	92							

Basin Index Calculation	Average SWE	62%
	Average Normal	44%
Upper Columbia Basin Index - January 1, 2022		140%

Stations used in Basin Index:
2A02, 2A06P, 2A07, 2A11, 2A14, 2A16, 2A17, 2A19, 2A22, 2A25, 2A27, 2A29

WEST KOOTENAY

WEST KOOTENAY		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth	SWE	Density	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE	2020 SWE	Minimum SWE	Median SWE	Maximum SWE	1991-2020 Normal SWE	Years of Record	
			(cm)	(mm)	%				(mm)	(mm)	(mm)	(mm)	(mm)	Years		
2B02A	FARRON	1220	N	N	N	N	N/A	N/A	184	108	40	143	330	144	37	
2B05	WHATSHAN (UPPER)	1525	2021-12-31	97	257	26		84%	31	259	418	169	289	543	307	28
2B06P	Barnes Creek	1620	2022-01-01		243			94%	42	306	385	130	250	405	258	29
2B07	KOCH CREEK	1860	2021-12-31	120	296	25		83%	29	287	337	170	330	473	357	24
2B08P	St. Leon Creek	1800	2022-01-01		722			148%	97	559	682	221	492	855	489	27
2B09	RECORD MOUNTAIN	1890	2022-01-05	148	358	24		107%	74	318	293	134	318	575	335	33
2D02	FERGUSON	880	2021-12-31	121	340	28		135%	88	270	270	93	257	409	253	42

2D03	SANDON	1070	NS	NS	NS	NS	N/A	N/A	NS	NS	157	157	N/A	1
2D04	NELSON	930	2022-01-05	111	208	19	132%	72	139	98	66	151	366	157
2D05	GRAY CREEK (LOWER)	1550	NS	NS	NS	NS	N/A	N/A	NS	NS	69	182	372	21
2D06	CHAR CREEK	1310	2021-12-31	102	239	23	103%	64	155	117	110	223	480	233
2D07A	DUNCAN LAKE NO. 2	630	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0
2D07AP	Duncan Lake Dam 2	559	2022-01-01	34	78	23	N/A	N/A	41	105	41		105	N/A
2D08P	East Creek	2030	2022-01-01		748		171%	98	499	485	206	420	858	438
2D09	MOUNT TEMPLEMAN	1860	2021-12-31	221	742	34	139%	93	N	N	277	520	902	536
2D10	GRAY CREEK (UPPER)	1940	NS	NS	NS	NS	N/A	N/A	NS	NS	222	353	634	N/A
2D10P	GRAY CREEK (UPPER)	1930	2022-01-01	148	409	28	N/A	N/A	376		376		376	N/A
2D14P	Redfish Creek	2104	2022-01-01	224	810	36	136%	100	618	689	364	621	751	597
2D17	Lost Ledge	2050	2022-01-02	215	613	29	N/A	N/A	NS	NS			0	
2D18	Kootenay Joe	2060	2022-01-03	206	631	31	N/A	N/A	NS	NS			0	
	Average		146	446	27		121%	71						

Basin Index Calculation	Average SWE	451
	Average Normal	360
West Kootenay Basin Index - January 1, 2022	125%	

Stations used in Basin Index:
2B05, 2B06P, 2B07, 2B08P, 2B09, 2D02, 2D04, 2D06, 2D08P, 2D09, 2D14P

*record high

EAST KOOTENAY			January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2C01	SINCLAIR PASS	1370	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	25	53	107	N/A	13
2C04	SULLIVAN MINE	1550	2022-01-07	87	194	22		157%	95	146	68	29	114	226	123	35
2C09Q	Morrissey Ridge	1860	2022-01-01		253			87%	46	179	240	123	255	706	291	37
2C10P	Moyie Mountain	1930	2022-01-01	45	127	28		69%	11	168	197	76	174	354	183	42
2C11	KIMBERLY UPPER	2140	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
2C12	KIMBERLY MIDDLE	1680	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
2C14P	Floe Lake	2090	2022-01-01		563			163%	100	392	380	172	334	510	346	27
2C15	MOUNT ASSINIBOINE	2230	N	N	N	N	N	N/A	N/A	N	255	111	270	567	273	34
2C17	THUNDER CREEK	2010	N	N	N	N	N	N/A	N/A	N	132	61	122	276	133	33
	Average		66	284	25			119%	63							

Basin Index Calculation	Average SWE	284
	Average Normal	236
East Kootenay Basin Index - January 1, 2022	121%	

Stations used in Basin Index:
2C04, 2C09Q, 2C10P, 2C14P

*record high

BOUNDARY			January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2E01	MONASHEE PASS	1370	2021-12-31	63	140	22		89%	36	179	245	84	160	245	158	37
2E02	CARMI	1250	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	86		102	N/A	2
2E03	BIG WHITE MOUNTAIN	1680	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	112	212	326	261	17
2E07P	Grano Creek	1860	2022-01-01	90	236	26		114%	76	228	223	93	202	319	207	24
	Average		77	188	24			101%	56							

Basin Index Calculation	Average SWE	188
	Average Normal	182
Boundary Basin Index - January 1, 2022	103%	

Stations used in Basin Index:
2E01, 2E07P

OKANAGAN		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth	SWE	Density		SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
			(cm)	(mm)	%	Code										
2F01A	TROUT CREEK (West)	1430	NS	NS	NS	NS	N/A	N/A	NS	NS	68		140	N/A		
2F01AP	Trout Creek West	1420	N	N	N	N	N/A	N/A	151	110	83	123	151	N/A		
2F02	SUMMERLAND RESERVOIR	1280	2022-01-05	66	116	18		108%	60	163	110	42	107	198	108	5
2F03	MCCULLOCH	1280	NS	NS	NS	NS	N/A	N/A	NS	NS	28	86	144	N/A	3	
2F04	GRAYSTOKE LAKE	1840	2022-01-04	67	132	20		86%	36	232	N	96	151	278	154	1
2F05P	Mission Creek	1780	2022-01-01	88	187	21		82%	29	263	273	104	220	364	229	5
2F07	POSTILL LAKE	1370	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A		
2F08	GREYBACK RESERVOIR	1550	NS	NS	NS	NS	N/A	N/A	NS	NS	56	106	181	118	3	
2F08P	Greyback Reservoir	1550	2022-01-01	58	133	23		N/A	N/A	110	121	81	110	137	N/A	
2F09	WHITEROCKS MOUNTAIN	1830	NS	NS	NS	NS	N/A	N/A	NS	NS	122	259	447	N/A	2	
2F10	Silver Star Mountain	1840	NS	NS	NS	NS	N/A	N/A	NS	NS	163	342	565	N/A	3	
2F10P	Silver Star Mountain	1839	2022-01-01	124	393	32		N/A	N/A	464	483	314	389	483	N/A	
2F11	ISINTOK LAKE	1680	2022-01-06	45	80	18		105%	51	83	60	16	77	196	76	5
2F12	MOUNT KOBAU	1810	2021-12-28	46	70	15		54%	14	113	88	28	113	261	129	4
2F13	ESPERON CR (UPPER)	1650	NS	NS	NS	NS	N/A	N/A	NS	NS	156	229	457	N/A		
2F14	ESPERON CR (MIDDLE)	1430	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A		
2F18P	Brenda Mine	1460	2022-01-01		143			86%	42	213	126	112	151	302	166	2
2F19	OYAMA LAKE	1340	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A		
2F19P	OYAMA LAKE		2022-01-01	36	90	25		N/A	N/A	148		148		148	N/A	
2F20	VASEUX CREEK	1400	NS	NS	NS	NS	N/A	N/A	NS	NS	32	60	117	N/A	1	
2F23	MACDONALD LAKE	1740	NS	NS	NS	NS	N/A	N/A	NS	NS	81	178	328	N/A	1	
2F24	ISLAHT LAKE	1480	NS	NS	NS	NS	N/A	N/A	224	NS	224		224	N/A		
2F25	POSTILL LAKE UPPER	1540	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A		
			Average	66	149	21		87%	39							

Basin Index Calculation	Average SWE Average Normal	121 144
	Okanagan Basin Index - January 1, 2022	84%

Stations used in Basin Index:
2F02, 2F04, 2F05P, 2F11, 2F12, 2F18P

Basin Index Calculation	Average SWE Average Normal	412 398
Similkameen Basin Index - January 1, 2022		

Stations used in Basin Index:
2G03P

SOUTH COAST			January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)		Density % Code		SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD				%	Code			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
3A01	GROUSE MOUNTAIN	1100	2021-12-30	171	536	31			103%	60	685	314	24	473	878	521	4
3A02	POWELL RIVER (UPPER)	1040	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	NS					N/A
3A05	POWELL RIVER (LOWER)	910	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	NS					N/A
3A09	PALISADE LAKE	880	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	86		334		N/A
3A09P	Palisade Lake	900	2022-01-01	159	619	39			N/A	N/A	636	206	206	475	636		N/A

3A10	DOG MOUNTAIN	1080	2021-12-29	154	481	31	97%	46	650	208	78	520	897	497	35
3A19	ORCHID LAKE	1190	2021-12-31	248	816	33	115%	64	790	440	180	694	1360	708	35
3A20	CALLAGHAN CREEK	1040	NS	NS	NS	NS	N/A	N/A	NS	NS	100	297	638	N/A	12
3A20P	Callaghan	1017	2022-01-01	145.6	367	25	N/A	N/A	429	244	244	409	481	N/A	3
3A22P	Nostetuko River	1500	2022-01-01	97			N/A	N/A	224	108	32	232	540	257	29
3A24P	Mosley Creek Upper	1650	2022-01-01	88	225	26	119%	88	132	123	85	178	491	188	32
3A25P	Squamish River Upper	1340	2022-01-01		702		101%	55	643	457	289	645	1160	697	31
3A26	CHAPMAN CREEK	1022	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
3A27	EDWARDS LAKE	1070	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
3A28P	Tetrahedron	1420	2022-01-01	234	723	31	N/A	N/A	739	611	741	744	N/A	3	
Average		162	559	31			107%	62							

Basin Index Calculation	Average SWE	552
	Average Normal	522
South Coast Basin Index - January 1, 2022		106%

Stations used in Basin Index:
3A01, 3A10, 3A19, 3A24P, 3A25P

VANCOUVER ISLAND		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3B01	FORBIDDEN PLATEAU	1100	2021-12-29	223	656	29		106%	65	N	452	0	601	1287	618	37
3B02A	MOUNT COKEY	1190	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3B04	ELK RIVER	270	2021-12-29	40	89	22		193%	66	N	18	0	29	264	46	34
3B10	UPPER THELWOOD LAKE	990	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	546	578	734	N/A	4
3B17P	Wolf River Upper	1490	2022-01-01		587			107%	60	432	212	141	551	1057	550	34
3B18	WOLF RIVER (MIDDLE)	990	2021-12-29	84	194	23		73%	36	N	325	0	224	590	264	31
3B19	WOLF RIVER (LOWER)	640	2021-12-29	56	98	18		58%	32	N	116	0	144	388	168	28
3B23P	Jump Creek	1160	2022-01-01	140	427	31		104%	52	476	134	6	393	1054	409	24
3B24P	Heather Mountain Upper	1190	2022-01-01	127	490	39		N/A	N/A	691	283	283	603	691	N/A	6
3B26P	Mount Arrowsmith	1465	2022-01-01	157	454	29		N/A	N/A	493	170	170	389	402	N/A	4
Average		118	374	27				107%	52							

Basin Index Calculation	Average SWE	342
	Average Normal	343
Vancouver Island Basin Index - January 1, 2022		100%

Stations used in Basin Index:
3B01, 3B04, 3B17P, 3B18, 3B19, 3B23P

CENTRAL COAST		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3C07	WEDEENE RIVER SOUTH	220	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	242		242	N/A	1
3C08P	Burnt Bridge Creek	1330	2022-01-01	162	547	34		135%	82	483	258	146	398	696	404	23
Average		162	547	34				135%	82							

Basin Index Calculation	Average SWE	547
	Average Normal	404
Central Coast Basin Index - January 1, 2022		135%

Stations used in Basin Index:
3C08P

SKAGIT		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3D01C	SUMALLO RIVER WEST	790	2021-12-29	61	114	19		N/A	N/A	NS	NS	47		82	N/A	2
3D02	LIGHTNING LAKE	1220	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3D03A	KLESILKWA	1175	2021-12-29	60	115	19		95%	55	104	N	0	112	386	121	29
Average		61	115	19				95%	55							

Basin Index Calculation	Average SWE	115
	Average Normal	

Stations used in Basin Index:

Skagit Basin Index - January 1, 2022

95%

PEACE		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4A02P	Pine Pass	1400	2022-01-01	190	578	30		107%	61	721	598	259	549	1016	540	31
4A03P	Ware Upper	1565	2022-01-01	58	110	19		N/A	N/A	112	138	101	127	139	N/A	5
4A04P	Ware Lower	971	2022-01-01	50	94	19		N/A	N/A	88	105	68	105	117	N/A	5
4A05	GERMANSEN (UPPER)	1480	2021-12-31	69	165	24		85%	30	214	239	93	177	364	195	38
4A06	TUTIZZI LAKE	1045	N	N	N	N	N	N/A	N/A	146	153	69	138	223	133	31
4A07	LADY LAURIER LAKE	1440	2021-12-30	107	328	31		117%	73	N	230	140	245	472	280	36
4A09P	Pulpit Lake	1311	2022-01-01	78	137	18		59%	7	151	250	129	229	366	231	31
4A10	FREDRICKSON LAKE	1325	2021-12-30	61	104	17		80%	31	130	205	54	125	250	130	31
4A11	TRYGVE LAKE	1410	2021-12-30	80	200	25		109%	72	154	246	119	170	299	183	30
4A12	TSAYDAYCHI LAKE	1190	N	N	N	N	N	N/A	N/A	299	253	128	207	393	232	38
4A12P	Tsaydaychi Lake	1195	2022-01-01	90	183	20		N/A	N/A						0	
4A13	PHILIP LAKE	1035	N	N	N	N	N	N/A	N/A	175	141	48	138	288	161	38
4A13P	Philip Lake	1028	2022-01-01		122			N/A	N/A	165	117	117		165	N/A	2
4A16	MORFEE MOUNTAIN	1430	N	N	N	N	N	N/A	N/A	498	508	199	446	710	429	25
4A18	MOUNT SHEBA	1490	N	N	N	N	N	N/A	N/A	N	494	106	447	793	446	31
4A18P	MOUNT SHEBA	1484	2022-01-01	146	482	33		N/A	N/A	547	565	505	547	565	N/A	3
4A20P	Monkman Creek	1570	2022-01-01		300			N/A	N/A	210	190	190	210	240	N/A	3
4A21	MOUNT STEARNS	1505	N	N	N	N	N	N/A	N/A	64	64	14	73	151	81	31
4A25	FORT ST. JOHN A	690	N	N	N	N	N	N/A	N/A	48	48	0	46	134	56	41
4A27P	Kwadacha North	1554	2022-01-01		183			112%	74	154	210	82	159	307	163	32
4A30P	Aiken Lake	1050	2022-01-01	66	137	21		103%	69	125	140	71	125	262	133	34
4A31P	Crying Girl Prairie	1358	2022-01-01		94			N/A	N/A	112	68	68	115	133	N/A	6
4A33P	Muskwa-Kechika	1196	2022-01-01		81			N/A	N/A	70	17	17	69	75	N/A	6
4A34P	Dowling Creek	1456	2022-01-01		538			N/A	N/A	775	113	113	301	775	N/A	5
4A36P	Parsnip Upper	790	2022-01-01	68	136	20		N/A	N/A	202	118	118	197	202	N/A	3
4A37P	McQue Terrace	1200	2022-01-01		69			N/A	N/A	50	56	50		56	N/A	2
		Average		89	213	23		97%	52							

Basin Index Calculation	Average SWE	229
	Average Normal	232
Peace Basin Index - January 1, 2022		

Stations used in Basin Index:
4A02P, 4A05, 4A07, 4A09P, 4A10, 4A11, 4A27P, 4A30P

SKEENA-NASS		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4B01	KIDPRICE LAKE	1370	NS	NS	NS	NS	NS	N/A	N/A	NS	298	369	415	894	N/A	4
4B02	JOHANSON LAKE	1420	2021-12-30	71	156	22		97%	51	160	225	84	155	282	162	37
4B03A	HUDSON BAY MTN.	1480	N	N	N	N	N	N/A	N/A	278	190	135	265	470	271	46
4B04	CHAPMAN LAKE	1460	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4B06	TACHEK CREEK	1140	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4B07	MCKENDRICK CREEK	1050	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4B08	MOUNT CRONIN	1480	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4B10	NINGUNSAW PASS	690	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	277		277	N/A	1
4B11A	BEAR PASS	460	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	170		170	N/A	1
4B13A	TERRACE AIRPORT	180	2021-12-30	41	51	12		63%	41	NS	NS	0	62	264	81	34
4B14	EQUITY MINE	1420	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	118	160	228	N/A	11
4B15	LU LAKE	1300	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	96	117	182	N/A	9
4B15P	Lu Lake	1300	2022-01-01	62	148	24		102%	53	189	106	49	145	293	144	24

4B16P	Shedin Creek	1480	2022-01-01	163	424	26	113%	66	300	293	195	360	596	377	25
4B17P	Tsai Creek	1360	2022-01-01	178	597	34	108%	77	475	288	288	510	970	552	24
4B18P	Cedar-Kiteen	885	2022-01-01	146	435	30	155%	78	302	154	90	229	563	282	20
	Average		110	302	25		106%	61							

Basin Index Calculation	Average SWE	302
	Average Normal	266
Skeena-Nass Basin Index - January 1, 2022	113%	

Stations used in Basin Index:
4B02, 4B13A, 4B15P, 4B16P, 4B17P, 4B18P

LIARD		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4C01	SIKANNI LAKE	1385		N N	N N	N N	N N	N/A	N/A	164	152	44	135	257	136	36
4C01P	Sikanni Lake	1387	2022-01-01	71	143	20		N/A	N/A	147	154	72	147	161	N/A	5
4C02	SUMMIT LAKE	1280		NS NS	NS NS	NS NS	NS NS	N/A	N/A	NS NS	NS NS	6	45	83	N/A	4
4C03	DEASE LAKE	820		NS NS	NS NS	NS NS	NS NS	N/A	N/A	NS NS	NS NS	20	60	168	71	47
4C05	FORT NELSON AIRPORT	380		NS NS	NS NS	NS NS	NS NS	N/A	N/A	NS NS	NS NS	4	49	112	49	49
	Average			N/A	N/A	N/A	N/A	N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Skeena-Nass Basin Index - January 1, 2022	113%	

Stations used in Basin Index:
N/A

STIKINE		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4D02	ISKUT	1000		NS NS	NS NS	NS NS	NS NS	N/A	N/A	NS NS	NS NS	76	76	76	N/A	1
4D10P	Tumeka Creek	1220	2022-01-01		273			92%	38	290	301	167	314	591	296	23
4D11P	Kinaskan Lake	1020	2022-01-01	92	212	23		113%	67	256	216	95	180	378	188	23
	Average			92	243	23		102%	53							

Basin Index Calculation	Average SWE	243
	Average Normal	242
Stikine Basin Index - January 1, 2022	100%	

Stations used in Basin Index:
4D10P, 4D11P

NORTHWEST		January 1, 2022 Data					Jan 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4E01	LOG CABIN	900		NS NS	NS NS	NS NS	NS NS	N/A	N/A	NS NS	NS NS	NS NS	NS NS	NS NS	N/A	0
4E02B	ATLIN LAKE	730		NS NS	NS NS	NS NS	NS NS	N/A	N/A	NS NS	NS NS	NS NS	NS NS	NS NS	N/A	0
	Average			N/A	N/A	N/A	N/A	N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Northwest Basin Index - January 1, 2022	100%	

Stations used in Basin Index:
N/A

BRITISH COLUMBIA

Basin Index Calculation	Average SWE	384
	Average Normal	334
British Columbia Basin Index - January 1, 2022	115%	

Stations used in Basin Index:
All stations with measurements in B.C.

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
N/A	Not available
NS	Not scheduled
SD	Snow Depth
SWE	Snow Water Equivalent
T	Trace Amount



Snow Survey and Water Supply Bulletin – February 1st, 2022

The February 1st snow survey is now complete. Data from 97 manual snow courses and 87 automated snow weather stations around the province (collected by the Ministry of Environment and Climate Change Strategy's Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada and the provincial Climate Related Monitoring Program have been used to form the basis of the following report¹.

Weather

The provincial weather pattern shifted in January, switching from very cold and relatively dry conditions in late December to wetter conditions for the first half of the month. Predominantly drier weather persisted throughout much of B.C for the latter half of the month. Temperatures in January ranged from 0.0 to +3.0 °C above normal. The warmest anomalies were centred in the Northwest and the South Interior. Above normal precipitation was measured on southern Vancouver Island, the South Coast, the South Interior, the North Coast and the Northwest, whereas other regions in the province were near normal.

Several storm systems have already affected B.C. since the start of February. Most notably, the Skeena-Nass and Upper Fraser East regions have measured considerable additional snow. Upcoming weather forecasts display another storm expected for the northern regions of the province, whereas the southern areas are forecast to be dry over an extended period.

Snowpack

Snow basin indices for February 1st, 2022 range from a low of 88% of normal in the Boundary to a high of 143% in the Liard (Table 1 and Figure 2, 3). Generally, the province has above normal snow pack for February 1st, with the average of all snow measurements across the province at 109%. The Boundary and Okanagan are the only regions slightly below normal (80-89%) for February 1st. Normal snow packs (90-110%) were measured for the Nechako, Lower Fraser, South Thompson, Okanagan, Similkameen, South Coast, Vancouver Island, Peace, Skeena-Nass and Stikine. Slightly above normal snow packs (110-120%) exists in the Upper Fraser West, Upper Fraser East, Middle Fraser, North Thompson, West Kootenay and East Kootenay. Snow basin indices that are above normal (120-130%) include the Upper Columbia, Central Coast and Skagit. Well above normal (>130%) snow pack was measured in the Liard. The overall snow basin index for the entire Fraser River basin (e.g., upstream of the Lower Mainland) is 108%.

As the Middle Fraser encompasses a large and geographically diverse area, it can be divided into sub-basins to display snow conditions and potential flood risks in localised areas. The Bridge region measures 117% of normal, the Quesnel area 109%, the Lower Thompson 86% and the Chilcotin sub-basin at 170%. Please review the full summary data tables at

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the end of this report for further interpretation.

Table 1 - BC Snow Basin Indices – February 1, 2022

Basin	% of Normal (Jan 1 st value)	Basin	% of Normal (Jan 1 st value)
Upper Fraser West	117 (94)	East Kootenay	117 (121)
Upper Fraser East	119 (122)	Okanagan	89 (84)
Nechako	97 (99)	Boundary	88 (103)
Middle Fraser	115 (126)	Similkameen	95 (104)
Lower Thompson*	86 (129)	South Coast	102 (106)
Bridge*	117 (140)	Vancouver Island	102 (100)
Chilcotin*	170 (N/A)	Central Coast	128 (135)
Quesnel*	109 (115)	Skagit	126 (95)
Lower Fraser	103 (103)	Peace	101 (99)
North Thompson	118 (115)	Skeena-Nass	108 (113)
South Thompson	102 (104)	Stikine	96 (100)
Upper Columbia	130 (140)	Liard	143 (N/A)
West Kootenay	116 (125)	Fraser	108 (110)
		British Columbia	109 (115)

* sub-basin of Middle Fraser

There are two snow stations with period of record highs for February 1st:

- 2A14 Mount Abbot: 1212 mm SWE (145% of normal) – period of record 63 years (UPPER COLUMBIA)
- 2A30P Colpitti Creek: 785 mm SWE – period of record 12 years (UPPER COLUMBIA)

The River Forecast Centre began including percentiles into the final data summary table in the 2020 bulletin in addition to using percent of normal to analyze snow pack. Percentiles offer a more accurate interpretation of variance, especially in regions when the percent of normal can be extremely high or low. The region with the highest average percentile is the Upper Columbia (92nd percentile); the region with lowest is the Boundary (34th). A box plot

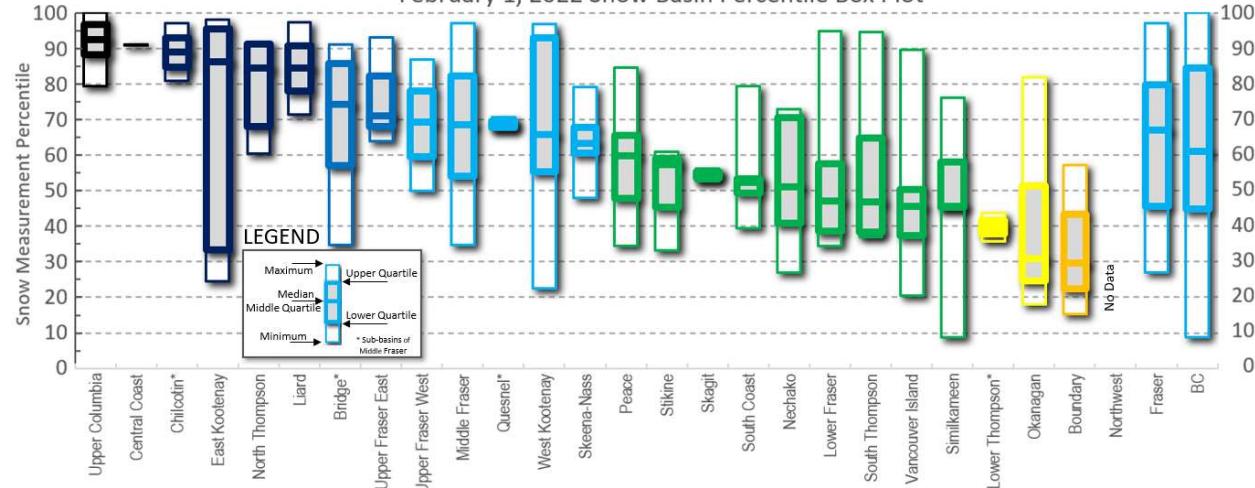


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displaying the percentile variance ordered from highest to lowest median, including sub-basins, is provided below in Figure 1.

Figure 1. Snow Basin Percentile Box Plot – February 1st, 2022

February 1, 2022 Snow Basin Percentile Box Plot



Outlook

The Climate Prediction Center (CPC) shows that El Niño Southern Oscillation (ENSO) demonstrated La Niña conditions during the fall of 2021. This is the second La Niña in a row, with La Niña present during the fall-winter of 2020-21. La Niña occurs when oceanic temperature anomalies along the equatorial Pacific Ocean region are below normal for an extended period. Historically, La Niña conditions create cooler temperatures for British Columbia and wetter weather in the South Coast and Vancouver Island during the winter months. Conditions this year have so far followed this typical La Niña scenario.

Forecasts from the CPC indicate a likelihood (67% chance) of continued La Niña conditions (March-May 2022), with a potential transition to neutral conditions (51% likelihood) during spring 2022 (April-June). Historically, the April 1st snow pack is often above normal when winter La Niña conditions exist in British Columbia, particularly for the South Coast and Southern Interior. La Niña conditions that persist into the spring can lead to late-season snow accumulation and delayed snowmelt, which increases the risk for freshet flooding.

Seasonal weather forecasts from late January by Environment and Climate Change Canada indicate an increased likelihood of colder than normal temperatures from February through April for the entire province. There is an increased likelihood of greater than normal precipitation in the Northeast, Peace and Upper Fraser East for February to April, whereas there is a greater probability of below normal precipitation for Vancouver Island and the South Coast.

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Seasonal volume runoff forecasts (see below) are near-normal (90-110%) for the Thompson, Bulkley and Skeena. Slightly above normal (110-120%) are forecast for the Upper Fraser and Middle Fraser. The Similkameen is forecast to be well above normal (>140%) and likely a reflection of extremely high antecedent flow conditions caused by extreme rainfall last November. In 2021, an updated model was developed for Nicola Lake, Nicola River, Okanagan Lake and Kalamalka-Wood Lake. Further details can be found in the February 1st 2021 Snow Bulletin. There is significant variability between the newer and older seasonal volume forecasts for Nicola Lake, Nicola River, Okanagan Lake and Kalamalka-Wood Lake. Several predictor variables were outside the historic range for which the modeling was developed, resulting in increased uncertainty for the upcoming forecast. Any interpretation of seasonal volume runoff forecasts must include this critical fact. Near normal snow pack on Vancouver Island and the South Coast indicates an average year of spring runoff for other watersheds within the regions.

By early February, nearly two-thirds of the annual B.C. snow pack has typically accumulated. Snow pack throughout the province ranges from 88 to 142% of normal. Several storm systems have already affected B.C. since the start of February. Most notably, the Skeena/Nass and Upper Fraser East regions measured considerable additional snow. Upcoming weather forecasts predict generally dry conditions to persist through most of B.C. for the upcoming week. The provincial average for all snow measurements across the province is 109% of normal and indicates a higher risk for snowmelt related flooding during the spring months (freshet), particularly for the Interior. With a few months left for snow accumulation, seasonal snow packs can still change significantly.

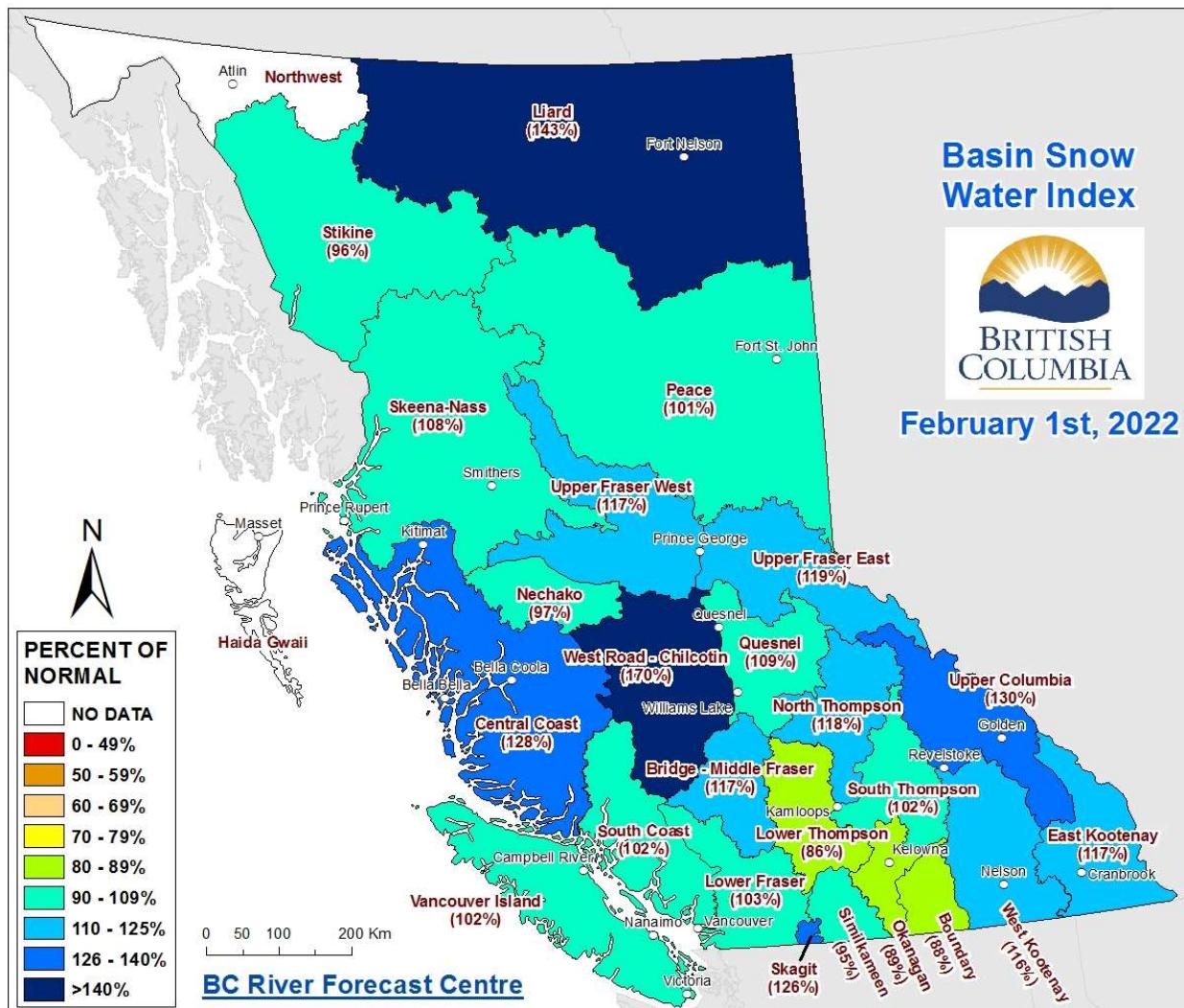
The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the March 1st, 2022 bulletin, which is scheduled for release on March 9th.

BC River Forecast Centre
February 8, 2022

**The February 1st Snow Survey and Water Supply Bulletin was revised on February 11, 2022. The previously reported record high snow measurement at 1C25 Lac Le Jeune in the Lower Thompson of the Middle Fraser was rejected due to sampling errors. Additional snow surveys were reported for 1C09A Highland Valley (Lower Thompson / Middle Fraser), 1F01A Aberdeen Lake (South Thompson), 2F01A Trout Creek West (Okanagan), 2F10 (Silver Star Mountain) after the original release of the bulletin on February 8. The updated data resulted in changes to the Snow Basin Indices for the Lower Thompson, Middle Fraser, South Thompson, Okanagan and all British Columbia. The updated snow surveys also slightly reduced seasonal volume forecasts for Nicola River, Nicola Lake and Okanagan Lake using the older volume runoff model.*

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Figure 2: Basin Snow Water Index – February 1st, 2022

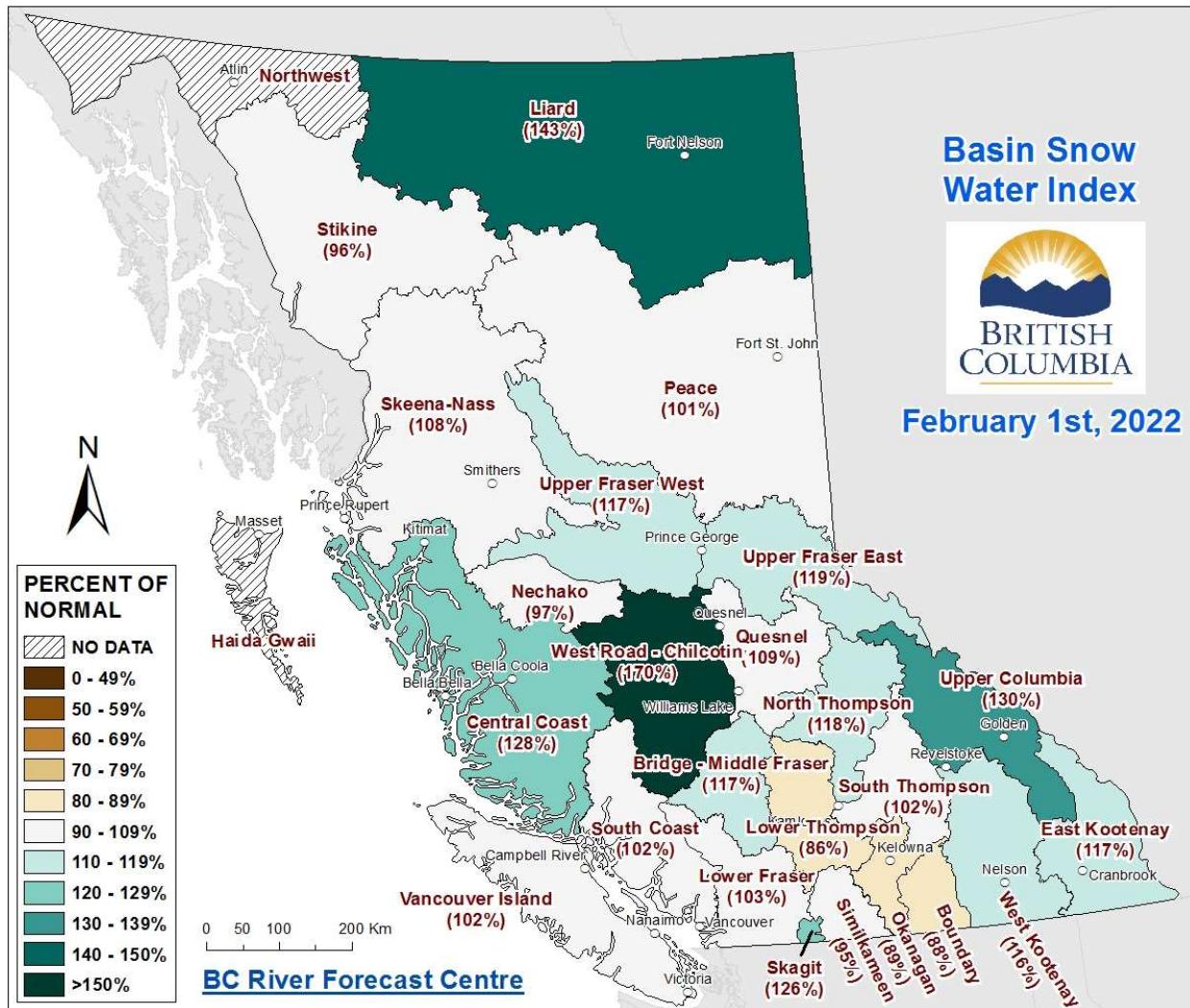


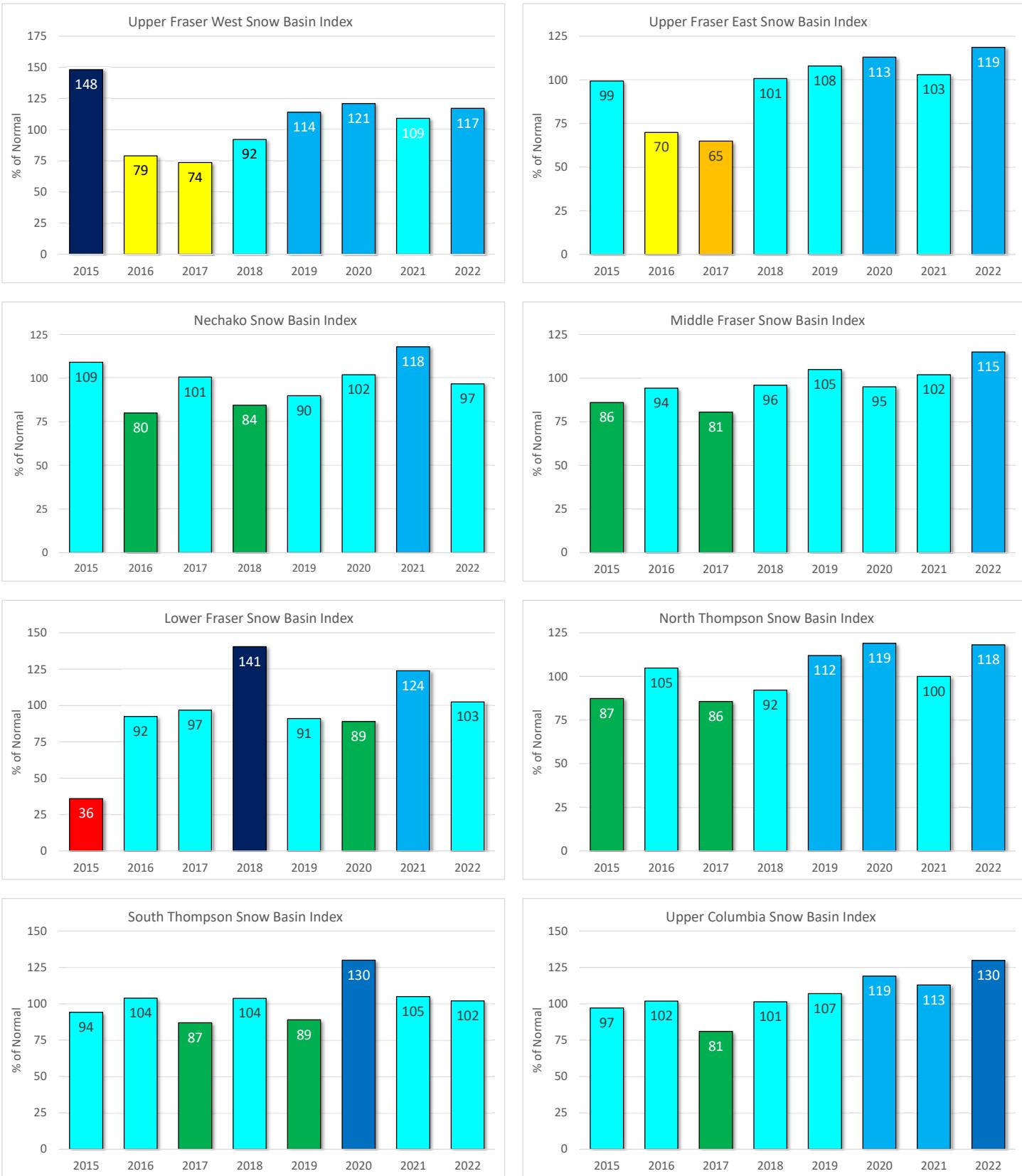
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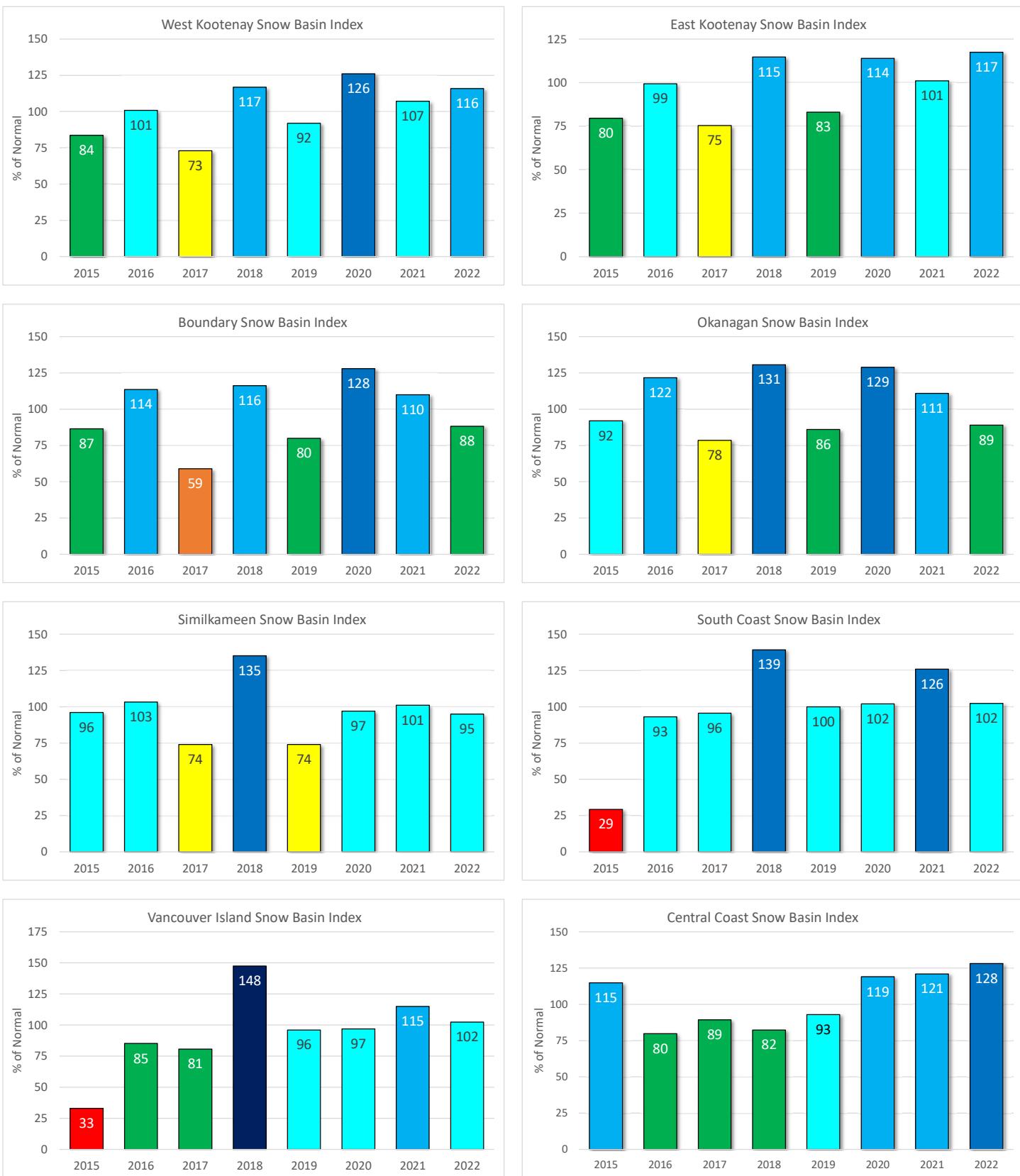
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Figure 3: Basin Snow Water Index – February 1st, 2022 – Colour Friendly

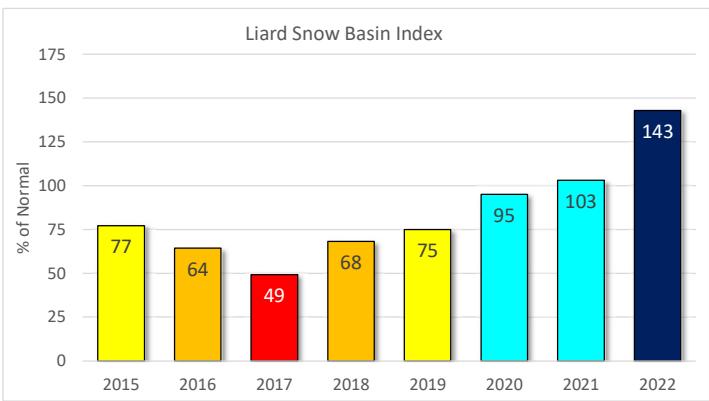
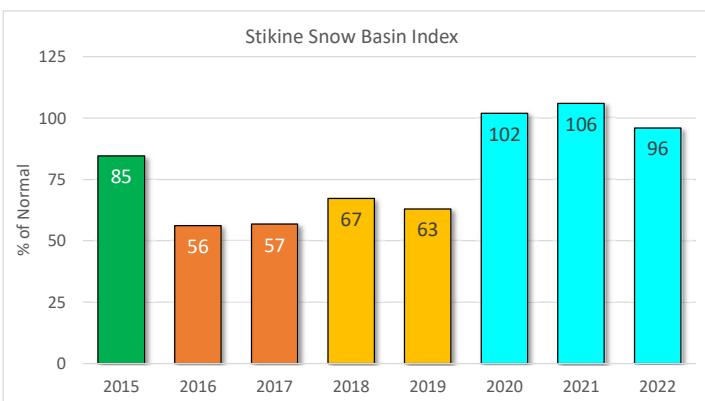
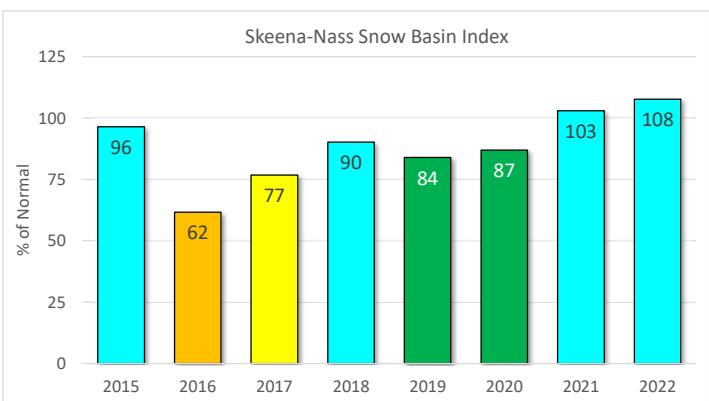
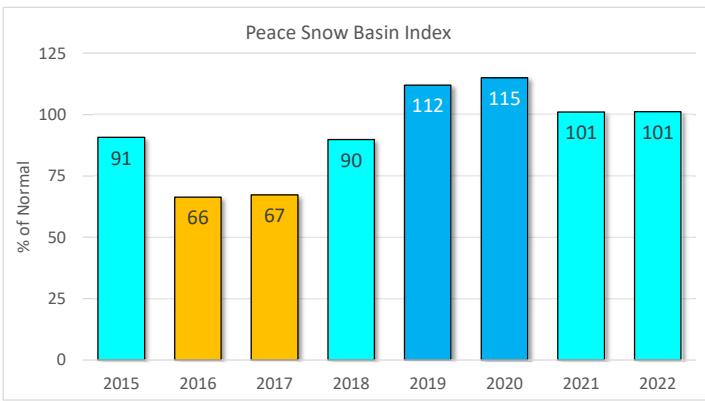
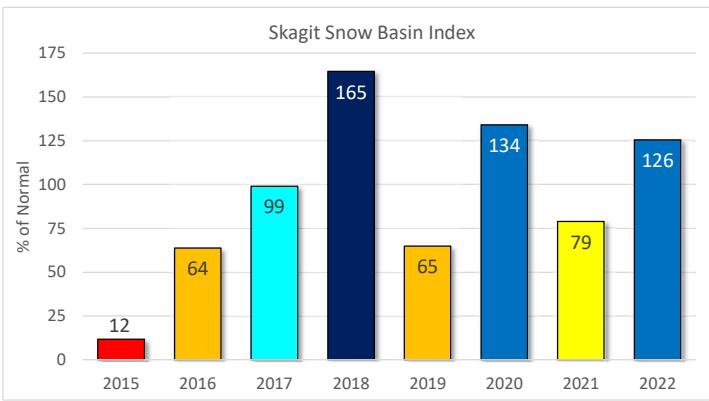




Snow Basin Index Graphs - February 1, 2022



Snow Basin Index Graphs - February 1, 2022



Ministry of Forests, Lands and Natural Resource Operations and Rural Development
River Forecast Centre
Volume Runoff Forecast February 2022

Location		Feb - Jun Runoff				Feb - Jul Runoff				Feb - 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		4,223	3,858	109	333	5,883	5,325	110	396			
	McGregor at Lower Canyon		4,662	4,185	111	553	5,796	5,231	111	672			
	Fraser at Shelley		18,232	16,786	109	1,716	22,518	20,845	108	2,033			
Middle Fraser Basin	Quesnel River at Quesnel		5,639	4,930	114	551	7,257	6,261	116	661			
Thompson Basin	N. Thompson at McLure		10,099	9,411	107	710	11,865	11,580	102	925			
	S. Thompson at Chase		6,574	6,389	103	650	8,257	7,956	104	940			
	Thompson at Spences Bridge		16,981	16,353	104	1,381	20,923	20,333	103	1,775			
Bulkley and Skeena	Bulkley at Quick		2,548	2,784	92	1,655	3,134	3,381	93	2,173			
	Skeena at Usk		19,735	19,604	101	1,553	24,494	23,948	102	2,123			
Nicola Lake		120	131	92	33	162	148	109	38				
*new model - Normal (1984-2019)		73	140	52	29	101	159	64	27	111	165	68	28
Nicola River at Spences Bridge		747	549	136	100	865	616	140	123				
*new model - Normal (1970-2019)		663	561	118	79	715	624	115	91	820	666	123	93
Okanagan Lake		495	488	101	99	521	515	101	120				
*new model - Normal (1970-2019)		680	513	133	91	713	537	133	95	721	520	139	102
Kalamalka-Wood Lake		25.7	33.1	78	12.8	26.1	34.5	76	15.1				
*new model - Normal (1975-2019)		40.8	28.6	143	N/A	45.8	27.5	166	N/A	43	25.2	172	N/A
Similkameen River	at Nighthawk	1,987	1,391	143	166					2,486	1,701	146	196
	at Hedley	1,519	1,080	141	139					1,828	1,268	144	148

Note: 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.

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

Use at your own risk

February 1, 2022 Automated Snow Weather Station / Manual Snow Survey Data

UPPER FRASER EAST			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A01P	Yellowhead Lake	1860	2022-02-01					N/A	N/A	414	403	207	385	619	386	22
1A02P	McBride Upper	1611	2022-02-01	147	413	28		124%	93	345	400	203	317	522	332	30
1A03P	Barkerville	1520	2022-02-01	106	263	25		118%	71	207	287	116	220	368	223	44
1A05P	Longworth Upper	1740	2022-02-01	221	720	33		N/A	N/A	681	573	296	573	681	N/A	5
1A06A	HANSARD	608	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	112	148	326	N/A	19
1A10	PRINCE GEORGE A	689	2022-02-03	64	120	19		125%	64	70	124	0	105	224	96	60
1A11	PACIFIC LAKE	755	2022-01-26	146	480	33		110%	69	535	420	179	425	679	435	54
1A14P	Hedrick Lake	1100	2022-02-01	201	650	32		119%	77	433	447	282	537	934	546	22
1A15P	Knudsen Lake	1601	2022-02-01	189	692	37		N/A	N/A	704	432	298	415	704	N/A	5
1A17P	Revolution Creek	1690	2022-02-01	243	772	32		133%	88	634	758	296	593	1043	579	33
1A19P	Dome Mountain	1774	2022-02-01	184	537	29		105%	67	530	585	307	487	853	514	15
			Average		167	516	30	119%	76							

Basin Index Calculation	Average SWE	462
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	Average Normal	389
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Upper Fraser East Basin Index - February 1, 2022	119%
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Stations used in Basin Index:

1A02P, 1A03P, 1A10, 1A11, 1A14P, 1A17P, 1A19P

UPPER FRASER WEST			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A12	KAZA LAKE	1250	2022-01-27	104	266	26		110%	69	280	279	125	227	440	241	50
1A12P	Kaza Lake	1257	2022-02-01	113				N/A	N/A	284	304	164	256	334	N/A	6
1A16	BURNS LAKE	800	2022-02-07	44	104	24		93%	50	104	144	44	104	232	112	51
1A23	BIRD CREEK	1180	2022-02-01	68	150	22		131%	87	NS	144	56	112	220	114	29
			Average		82	173	24	111%	69							

Basin Index Calculation	Average SWE	208
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	Average Normal	178
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Upper Fraser West Basin Index - February 1, 2022	117%
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Stations used in Basin Index:

1A12, 1A16, 1A23

NECHAKO			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1B01	MOUNT WELLS	1490	2022-02-01	135	425	31		114%	73	469	364	188	364	606	373	37
1B01P	Mount Wells	1490	2022-02-01		467			114%	72	471	442	216	395	658	410	28
1B02	TAHTSA LAKE	1300	2022-01-30	212	740	35		87%	40	1006	N	508	802	1442	854	66
1B02P	Tahtsa Lake	1300	2022-02-01		785			89%	27	1022	885	621	881	1533	886	25
1B05	SKINS LAKE	890	2022-02-01	44	86	20		99%	54	86	102	35	84	224	87	53
1B06	MOUNT SWANNELL	1620	2022-02-01	81	209	26		94%	41	333	260	88	213	382	222	32
1B07	NUTLI LAKE	1490	2022-02-01	132	410	31		108%	70	460	357	218	365	729	378	29
1B08P	Mt. Pondoosy	1400	2022-02-01		537			94%	48	618	592	273	541	872	570	26
			Average		121	457	29	100%	53							

Basin Index Calculation	Average SWE	457
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	Average Normal	472
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Nechako Basin Index - February 1, 2022	97%
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Stations used in Basin Index:

1B01, 1B01P, 1B02, 1B02P, 1B05, 1B06, 1B07, 1B08P

LOWER THOMPSON			February 1, 2022 Data						Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	NS	NS						NS	NS	0	53	130	N/A	31
1C06	PAVILION	1230	2022-01-28	37	76	21			N/A	N/A	NS	NS	20	81	188	N/A	25
1C09A	HIGHLAND VALLEY	1510		A	A	A	A	A	N/A	N/A	N	88	13	91	177	104	48
1C25	LAC LE JEUNE (UPPER)	1509	2022-01-30	55	146	27			86%	36	149	N	48	165	307	171	40
1C29	SHOVELNOSE MOUNTAIN	1450	2022-02-01	60	148	25			N/A	N/A	194	165	143	165	194	N/A	3
1C29P	Shovelnose Mountain	1460		NS	NS	NS	NS	NS	N/A	N/A	NS	NS	50	75	130	N/A	7
1C32	DEADMAN RIVER	1430		NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C42	CAVERHILL LAKE NEW	1400		NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
			Average		51	123	24		86%	40							

Basin Index Calculation	Average SWE	146
	Average Normal	171
Lower Thompson Basin Index - February 1, 2022		86%

Stations used in Basin Index:
1C25, 1C29

BRIDGE / LILLOOET			February 1, 2022 Data						Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	NS	NS						NS	NS	238	618	985	606	28
			2022-02-01	70	180	26			N/A	N/A	175	134	134	181	222	N/A	4
1C05P	McGillivray Pass	1718	2022-02-01		474				N/A	N/A	360	333	333	393	484	N/A	4
1C12P	Green Mountain	1780	2022-02-01		667				110%	65	531	405					
1C14P	Bralorne	1382	2022-02-01						N/A	N/A	441	430	185	405	794	391	45
1C18P	Mission Ridge	1850	2022-02-01		572				146%	91							
1C28	DUFFEY LAKE	1200	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	371	371				1
1C38	DOWNTON LAKE (UPPER)	1887	2022-01-28	213	754	35			122%	84	N	N	208	623	980	618	22
1C38P	Downton Lake Upper	1829	2022-02-01		803				N/A	N/A	646	501	501	580	646	N/A	6
1C39	BRIDGE GLACIER (LOWER)	1390	2022-01-28	133	396	30			94%	35	400	386	112	418	688	421	26
1C40P	North Tyughton	1969	2022-02-01		369				N/A	N/A	355	187	187	248	355	N/A	6
			Average		139	527	30		118%	69							

Basin Index Calculation	Average SWE	597
	Average Normal	509
Bridge/Lillooet Basin Index - February 1, 2022		117%

Stations used in Basin Index:
1C12P, 1C18P, 1C38, 1C39

CHILCOTIN			February 1, 2022 Data						Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	NS	NS						NS	NS	44	0	41	100	45
1C21	BIG CREEK	1140	2022-01-30	35	74	21			163%	81	55	19	0	41	100	45	48
1C22	PUNTZI MOUNTAIN	940	2022-01-28	43	96	22			176%	97	76	44	0	52	126	54	51
			Average		39	85	22		170%	89							

Basin Index Calculation	Average SWE	85
	Average Normal	50
Chilcotin Basin Index - February 1, 2022		170%

Stations used in Basin Index:
1C21, 1C22

QUESNEL			February 1, 2022 Data						Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	NS	NS						NS	NS	397	663	663	663	N/A
1C17	MOUNT TIMOTHY	1660	2022-01-26	86	254	30			109%	71	N	193	92	222	384	233	53
1C20P	Boss Mountain Mine	1460	2022-02-01	173	436	25			108%	67	478	386	143	397	611	405	28
1C23	PENFOLD CREEK	1685	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	663	663	663	N/A	2
1C33A	GRANITE MOUNTAIN	1150	N	N	N	N	N	N	N/A	N/A	99	142	79	142	175	140	16

1C41P	Yanks Peak East	1670	2022-02-01	193	641	33	111%	69	606	790	304	559	803	580	25
		Average		151	444	29	109%	69							

Basin Index Calculation	Average SWE	444
	Average Normal	406
	Quesnel Basin Index - February 1, 2022	109%

Stations used in Basin Index:
1C17, 1C20P, 1C41P

MIDDLE FRASER

Basin Index Calculation	Average SWE	404
	Average Normal	352
	Middle River Basin Index - February 1, 2022	115%

Stations used in Basin Index:
1C12P, 1C17, 1C18P, 1C20P, 1C21, 1C22, 1C25, 1C29, 1C38, 1C39, 1C41P

LOWER FRASER		February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1D06P	Tenquille Lake	1680	2022-02-01	269	919	34		132%	95	754	702	344	724	1092	695	20
1D08	STAVE LAKE	1250	2022-01-26	217	909	42		110%	49	1041	857	163	913	1448	824	48
1D08P	Lamont Creek Upper	1217	2022-02-01		1010			N/A	N/A	1228		1228		1228	N/A	1
1D09P	Wahleach Lake Upper	1480	2022-02-01		513			85%	35	715	575	246	581	1061	602	28
1D10	NAHATLATCH RIVER	1550	2022-01-26	239	886	37		105%	45	N	N	262	903	1359	846	41
1D16	DICKSON LAKE	1160	2022-01-26	147	658	45		78%	35	1070	828	122	827	1538	840	26
1D17P	Chilliwack River	1600	2022-02-01	195	1029	53		103%	57	N/A	1042	371	1000	1586	998	28
1D18	DISAPPOINTMENT LAKE	1050	2022-01-27	239	1115	47		124%	59	1315	892	164	934	1580	903	19
1D18P	Disappointment Lake	1050	2022-02-01	267				N/A	N/A	1124	750	194	1039	1673	1014	12
1D19P	Spuzzum Creek	1180	2022-02-01	189	829	44		84%	40	1229	820	308	972	1902	982	23
	Average			220	874	43		103%	52							

Basin Index Calculation	Average SWE	857
	Average Normal	836
	Lower Fraser Basin Index - February 1, 2022	103%

Stations used in Basin Index:
1D06P, 1D08, 1D09P, 1D10, 1D16, 1D17P, 1D18, 1D19P

NORTH THOMPSON		February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1E01B	BLUE RIVER	670	2022-01-31	127	266	21		108%	68	188	318	98	233	380	245	37
1E02P	Mount Cook	1550	2022-02-01					N/A	N/A	1027	642	884	1432	902	17	
1E03A	TROPHY MOUNTAIN	1860	NS	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
1E07	ADAMS RIVER	1720	2022-01-29	167	554	33		116%	85	538	582	285	467	654	479	40
1E08P	Azure River	1652	2022-02-01	288	960	33		121%	91	862		525	802	1043	793	24
1E10P	Kostal Lake	1770	2022-02-01	201	631	31		105%	61	512	515	417	605	790	603	35
1E14P	Cook Creek	1280	2022-02-01	178	564	32		141%	91	520	563	248	394	589	399	12
	Average			192	595	30		118%	79							

Basin Index Calculation	Average SWE	595
	Average Normal	504
	North Thompson Basin Index - February 1, 2022	118%

Stations used in Basin Index:
1E01B, 1E07, 1E08P, 1E10P, 1E14P

SOUTH THOMPSON		February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1F01A	ABERDEEN LAKE	1310	2022-02-05	49	107	22		90%	39	138	180	48	118	193	119	64
1F02	ANGLEMONT	1190	2022-02-02	103	277	27		100%	55	257	437	130	263	483	276	62
1F03P	Park Mountain	1890	2022-02-01	167	556	33		94%	37	605	750	334	583	870	591	37
1F04P	Enderby	1950	2022-02-01	213	724	34		N/A	N/A	914		607	707	914	N/A	4

1F06P	Celista Mountain	1500	2022-02-01	233	691	30	114%	95	670	736	421	642	736	607	16
		Average		153	471	29	100%	56							

Basin Index Calculation	Average SWE	408
	Average Normal	398
South Thompson Basin Index - February 1, 2022	102%	

Stations used in Basin Index:
1F02, 1F03P, 1F06P

FRASER RIVER

Basin Index Calculation	Average SWE	509
	Average Normal	473
Fraser River Basin Index - February 1, 2022	108%	

Stations used in Basin Index:
1A02P, 1A03P, 1A10, 1A11, 1A14P, 1A17P, 1A19P, 1A12, 1A16, 1A23, 1B01, 1B01P, 1B02, 1B02P, 1B05, 1B06, 1B07, 1B08P
1C12P, 1C17, 1C18P, 1C20P, 1C21, 1C22, 1C25, 1C29, 1C38, 1C39, 1C41P, 1D06P, 1D08, 1D09P, 1D10, 1D16, 1D17P, 1D18, 1D19P
1E01B, 1E07, 1E08P, 1E10P, 1E14P, 1F02, 1F03P, 1F06P

UPPER COLUMBIA			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2A02	GLACIER	1250	2022-01-30	195	656	34		137%	98	524	606	241	468	828	480	80
2A03A	FIELD	1285	2022-01-27	69	188	27		153%	97	127	157	46	122	233	123	82
2A06P	Mount Revelstoke	1850	2022-02-01		962			119%	85	848	960	464	814	1196	808	28
2A07	KICKING HORSE	1650	2022-01-27	104	333	32		150%	94	234	286	102	246	384	221	75
2A11	BEAVERFOOT	1890	2022-01-28	85	210	25		144%	91	152	170	78	145	249	146	51
2A14	MOUNT ABBOT	2010	2022-02-01	340	1212	36		145%	100	988	902	396	823	1209	837	63
2A16	GOLDSTREAM	1920	2022-01-27	293	1057	36		130%	96	925	963	460	777	1136	813	52
2A17	FIDELITY MOUNTAIN	1870	2022-01-28	309	1200	39		139%	95	1004	1085	430	851	1376	861	58
2A18P	Keystone Creek	1840	2022-02-01		684			N/A	N/A	696	679	608	648	696	N/A	6
2A19	VERMONT CREEK	1520	2022-01-28	131	398	30		138%	90	313	318	102	309	574	288	50
2A21P	Molson Creek	1935	2022-02-01		927			122%	90	830	806	417	756	1067	760	40
2A23	BUSH RIVER	1920	2022-01-27	216	750	35		128%	88	735	684	292	582	902	588	48
2A25	KIRBYVILLE LAKE	1750	2022-01-27	268	945	35		113%	80	892	993	381	843	1160	836	45
2A27	DOWNIE SLIDE (LOWER)	980	2022-01-27	182	584	32		118%	86	566	692	256	480	740	494	39
2A29	DOWNIE SLIDE (UPPER)	1630	N	N	N	N		N/A	N/A	1024	1088	466	911	1422	990	38
2A30P	Colpitts Creek	2131	2022-02-01		785			N/A	100	684	639	243	524	684	N/A	12
2A31P	Caribou Creek Upper	2201	2022-02-01		858			N/A	N/A	748	673	570	654	748	N/A	6
2A32P	Wildcat Creek	2122	2022-02-01		618			N/A	N/A	486	542	325	457	542	N/A	6
2A34P	Glacier NP Rogers Pass Lower	1182	2022-02-01	218	659	30		N/A	N/A						N/A	0
	Average			201	724	33		134%	92							

Basin Index Calculation	Average SWE	725
	Average Normal	558
Upper Columbia Basin Index - February 1, 2022	130%	

Stations used in Basin Index:
2A02, 2A03A, 2A06P, 2A07, 2A11, 2A14, 2A16, 2A17, 2A19, 2A21P, 2A23, 2A25, 2A27

WEST KOOTENAY			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2B02A	FARRON	1220	2022-01-27	73	223	31		103%	55	277	241	63	215	346	216	48
2B05	WHATSHAN (UPPER)	1525	2022-01-28	128	394	31		82%	23	496	661	242	455	759	479	43
2B06P	Barnes Creek	1620	2022-02-01		367			100%	61	392	518	149	356	566	367	29
2B07	KOCH CREEK	1860	2022-01-26	144	441	31		83%	36	590	591	203	513	708	530	40
2B08P	St. Leon Creek	1800	2022-02-01		998			138%	95	760	1053	322	731	1170	725	27
2B09	RECORD MOUNTAIN	1890	2022-02-01	136	384	28		79%	24	510	544	117	463	802	485	46
2D02	FERGUSON	880	2022-02-02	179	556	31		133%	93	418	501	237	411	616	417	49

2D03	SANDON	1070	NS	NS	NS	NS	N/A	N/A	NS	NS	264	328	N/A	2
2D04	NELSON	930	2022-02-02	93	300	32	120%	66	248	257	79	259	508	250
2D05	GRAY CREEK (LOWER)	1550	N	N	N	N	N/A	N/A	295	358	127	312	511	313
2D06	CHAR CREEK	1310	2022-02-06	123	388	32	107%	65	314	402	117	363	650	364
2D07A	DUNCAN LAKE NO. 2	630	2022-02-01	64	190	30	149%	92	N	192	60	110	283	128
2D07AP	Duncan Lake Dam 2	559	2022-02-01	47	192	41	N/A	N/A	19	165	19	165	N/A	2
2D08P	East Creek	2030	2022-02-01		937		153%	97	721	787	281	611	1012	614
2D09	MOUNT TEMPLEMAN	1860	2022-01-26	250	885	35	123%	86	N	N	409	705	1115	718
2D10	GRAY CREEK (UPPER)	1940	N	N	N	N	N/A	N/A	N	574	268	506	792	492
2D10P	GRAY CREEK (UPPER)	1930	2022-02-01	197	548	28	N/A	N/A	510		510		510	N/A
2D14P	Redfish Creek	2104	2022-02-01	299	1075	36	124%	95	993	1149	529	865	1149	864
2D17	Lost Ledge	2050	2022-02-01	259	822	32	N/A	N/A	NS	NS			0	
2D18	Purcell	2060	2022-01-26	234	760	32	E	N/A	N/A	NS	NS		0	
			Average	159	556	32	115%	68						

Basin Index Calculation	Average SWE	549
	Average Normal	474
West Kootenay Basin Index - February 1, 2022		

Stations used in Basin Index:
2B02A, 2B05, 2B06P, 2B07, 2B08P, 2B09, 2D02, 2D04, 2D06, 2D07A, 2D08P, 2D09, 2D14P

EAST KOOTENAY			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2C01	SINCLAIR PASS	1370	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	33	102	208	N/A	44
2C04	SULLIVAN MINE	1550	N	N	N	N	N	N/A	N/A	275	249	46	213	397	188	76
2C09Q	Morrissey Ridge	1860	2022-02-01		376			84%	25	295	473	180	448	886	446	38
2C10P	Moyie Mountain	1930	2022-02-01	77	236	31		82%	33	255	324	104	271	521	289	42
2C11	KIMBERLY UPPER	2140	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	114	320	571	N/A	23
2C12	KIMBERLY MIDDLE	1680	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	81	190	356	N/A	23
2C14P	Floe Lake	2090	2022-02-01		691			145%	98	541	533	225	458	750	478	27
2C15	MOUNT ASSINIBOINE	2230	2022-01-28	155	508	33		144%	95	377	409	140	351	592	352	45
2C17	THUNDER CREEK	2010	2022-01-28	87	232	27		134%	86	195	187	69	173	335	174	45
			Average	106	409	30		118%	68							

Basin Index Calculation	Average SWE	409
	Average Normal	348
East Kootenay Basin Index - February 1, 2022		

Stations used in Basin Index:
2C09Q, 2C10P, 2C14P, 2C15, 2C17

BOUNDARY			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2E01	MONASHEE PASS	1370	2022-01-26	77	207	27		88%	30	260	360	103	237	364	236	60
2E02	CARMI	1250	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	51	112	196	N/A	28
2E03	BIG WHITE MOUNTAIN	1680	2022-01-31	111	246	22		75%	15	N	394	178	324	483	329	53
2E07P	Grano Creek	1860	2022-02-01	106	321	30		103%	57	342	381	157	308	476	313	23
			Average	98	258	26		88%	34							

Basin Index Calculation	Average SWE	258
	Average Normal	293
Boundary Basin Index - February 1, 2022		

Stations used in Basin Index:
2E01, 2E03, 2E07P

OKANAGAN			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD													
2F01A	TROUT CREEK (West)	1430	2022-02-02	58	156	27		101%	49	172	174	84	157	212	155	12
2F01AP	Trout Creek West	1420	2022-02-01					N/A	N/A	181	182	114	182	189	N/A	4
2F02	SUMMERLAND RESERVOIR	1280	2022-01-26	70	128	18		79%	19	211	199	65	170	307	163	57
2F03	MCCULLOCH	1280	2022-01-31	51	162	32		128%	82	157	175	57	122	196	126	85
2F04	GRAYSTOKE LAKE	1840	2022-02-04	86	186	22		81%	18	268	330	128	234	330	229	22
2F05P	Mission Creek	1780	2022-02-01	106	261	25		79%	21	341	427	167	311	525	331	51
2F07	POSTILL LAKE	1370	2022-02-01	53	120	23		83%	31	146	200	73	144	243	145	71
2F08	GREYBACK RESERVOIR	1550	N	N	N	N	N	N/A	N/A	172	202	60	163	269	172	48
2F08P	Greyback Reservoir	1550	2022-02-01	63	166	26		N/A	N/A	133	190	111	133	222	N/A	5
2F09	WHITEROCKS MOUNTAIN	1830	NS	NS	NS	NS	NS	N/A	N/A	N	N	135	364	693	379	47
2F10	Silver Star Mountain	1840	2022-02-02	140	434	31		85%	30	N	NS	229	483	721	513	57
2F10P	Silver Star Mountain	1839	2022-02-01	155	513	33		N/A	N/A	577	692	359	519	692	N/A	6
2F11	ISINTOK LAKE	1680	2022-01-27	40	92	23		80%	28	95	176	26	109	307	115	56
2F12	MOUNT KOBAU	1810	2022-01-28	72	210	29		105%	51	214	181	43	204	400	201	55
2F13	ESPERON CR (UPPER)	1650	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	156	229	457	N/A	4
2F14	ESPERON CR (MIDDLE)	1430	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	146	218	399	N/A	11
2F18P	Brenda Mine	1460	2022-02-01		206			87%	25	282	232	152	230	368	238	25
2F19	OYAMA LAKE	1340	2022-01-28	47	123	26	E	103%	53	132	190	31	115	193	119	53
2F19P	OYAMA LAKE	1360	2022-02-01	43	123	29		N/A	N/A	196		196		196	N/A	1
2F20	VASEUX CREEK	1400	2022-01-27	44	92	23		80%	53	86	84	44	89	208	91	34
2F23	MACDONALD LAKE	1740	NS	NS	NS	NS	NS	N/A	N/A	372	N	132	289	411	N/A	21
2F24	ISLAHT LAKE	1480	2022-01-31	106	199	19		89%	36	237	298	119	216	364	223	39
2F25	POSTILL LAKE UPPER	1540	NS	NS	NS	NS	NS	N/A	N/A	N	200	111	153	210	N/A	7
			Average		76	198	26		91%	38						

Basin Index Calculation	Average SWE	182
	Average Normal	204
Okanagan Basin Index - February 1, 2022		89%

Stations used in Basin Index:
2F02, 2F03, 2F04, 2F05P, 2F07, 2F11, 2F12, 2F18P, 2F19, 2F20, 2F24

SIMILKAMEEN			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD													
2G03P	Blackwall Peak	1940	2022-02-01	174	558	32		99%	52	573	549	159	550	1076	564	54
2G04	LOST HORSE MOUNTAIN	1920	2022-01-26	74	190	26		124%	76	151	154	70	150	335	154	59
2G05	MISSEZULA MOUNTAIN	1550	2022-01-26	49	84	17		60%	9	173	124	60	139	284	140	55
2G06	HAMILTON HILL	1490	2022-01-27	58	180	31		89%	39	178	176	91	203	411	203	58
			Average		89	253	26		93%	44						

Basin Index Calculation	Average SWE	253
	Average Normal	265
Similkameen Basin Index - February 1, 2022		95%

Stations used in Basin Index:
2G03P, 2G04, 2G05, 2G06

SOUTH COAST			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD													
3A01	GROUSE MOUNTAIN	1100	2022-01-28	192	805	42		100%	50	1140	928	50	806	1530	802	72
3A02	POWELL RIVER (UPPER)	1040	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3A05	POWELL RIVER (LOWER)	910	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	437		620	N/A	2
3A09	PALISADE LAKE	880	2022-01-27	189	927	49		N/A	N/A	NS	NS	318	564	914	N/A	3
3A09P	Palisade Lake	900	2022-02-01	185	829	45		N/A	N/A	1027	534	534	622	1027	N/A	3
			Average		76	198	26		91%	38						

3A10	DOG MOUNTAIN	1080	2022-01-26	162	735	45	101%	48	1030	803	77	750	1243	727	38
3A19	ORCHID LAKE	1190	2022-01-27	268	1145	43	108%	53	1420	1087	273	1118	1855	1060	42
3A20	CALLAGHAN CREEK	1040	2022-01-31	195	598	31	109%	52	686	628	50	570	1040	548	37
3A20P	Callaghan	1017	2022-02-01	196.1	547	28	N/A	N/A	641	634	634	641	759	N/A	3
3A22P	Nostetuko River	1500	2022-02-01	108			N/A	N/A	408	385	30	386	782	390	31
3A24P	Mosley Creek Upper	1650	2022-02-01	85	280	33	119%	80	222	215	98	219	509	235	32
3A25P	Squamish River Upper	1340	2022-02-01		1011		95%	39	1082	1097	503	1088	1555	1064	31
3A26	CHAPMAN CREEK	1022	2022-01-27	210	870	41	99%	55	1202	850	540	856	1306	880	12
3A27	EDWARDS LAKE	1070	2022-01-27	151	660	44	N/A	53	818	560	410	634	944	N/A	10
3A28P	Tetrahedron	1420	2022-02-01	294	1056	36	N/A	N/A	1122		857	995	1122	N/A	3
		Average		186	789	40	105%	54							

Basin Index Calculation	Average SWE	778
	Average Normal	759
South Coast Basin Index - February 1, 2022		102%

Stations used in Basin Index:
3A01, 3A10, 3A19, 3A20, 3A24P, 3A25P, 3A26

VANCOUVER ISLAND			February 1, 2022 Data				Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3B01	FORBIDDEN PLATEAU	1100	2022-02-01	254	966	38		104%	47	1142	1060	42	1001	1640	931	66
3B02A	MOUNT COKEYL	1190	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	234	552	1050	N/A	6
3B04	ELK RIVER	270	2022-02-01	67	233	35		333%	90	0	67	0	77	544	70	62
3B10	UPPER THELWOOD LAKE	990	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	28	843	1534	N/A	19
3B17P	Wolf River Upper	1490	2022-02-01		782			93%	35	821	704	171	869	1383	840	34
3B18	WOLF RIVER (MIDDLE)	990	2022-02-01	88	260	30		69%	20	434	358	0	402	742	378	49
3B19	WOLF RIVER (LOWER)	640	2022-02-01	82	242	30		98%	44	244	258	0	246	572	246	48
3B23P	Jump Creek	1160	2022-02-01	163	702	43		109%	51	804	543	0	683	1367	643	24
3B24P	Heather Mountain Upper	1190	2022-02-01	153	799	52		N/A	N/A	1045	793	593	869	1282	N/A	6
3B26P	Mount Arrowsmith	1465	2022-02-01	196	728	37		N/A	N/A	841	628	628	766	886	N/A	4
		Average		143	589	38		134%	48							

Basin Index Calculation	Average SWE	531
	Average Normal	518
Vancouver Island Basin Index - February 1, 2022		102%

Stations used in Basin Index:
3B01, 3B04, 3B17P, 3B18, 3B19, 3B23P

CENTRAL COAST			February 1, 2022 Data				Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3C07	WEDEENE RIVER SOUTH	220	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	105	340	497	N/A	13
3C08P	Burnt Bridge Creek	1330	2022-02-01	190	756	40		128%	91	711	684	240	536	1119	590	23
		Average		190	756	40		128%	91							

Basin Index Calculation	Average SWE	756
	Average Normal	590
Central Coast Basin Index - February 1, 2022		128%

Stations used in Basin Index:
3C08P

SKAGIT			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD														
3D01C	SUMALLO RIVER WEST	790	2022-01-26	57	191	34			122%	56	102	200	0	150	368	157	27
3D02	LIGHTNING LAKE	1220	NS	NS	NS	NS	NS		N/A	N/A	NS	NS	67	189	242	N/A	4
3D03A	KLESILKWA	1175	2022-01-26	50	207	41			129%	53	150	256	0	193	508	160	63
	Average			54	199	37			125%	55							

Basin Index Calculation	Average SWE	199
	Average Normal	159
Skagit Basin Index - February 1, 2022		126%

Stations used in Basin Index:
3D01C, 3D03A

PEACE			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD														
4A02P	Pine Pass	1400	2022-02-01	260	806	31			104%	48	933	932	469	822	1257	772	29
4A03P	Ware Upper	1565	2022-02-01	73	152	21			N/A	N/A	138	175	130	175	182	N/A	5
4A04P	Ware Lower	971	2022-02-01	60	145	24			N/A	N/A	126	165	89	163	168	N/A	5
4A05	GERMANSEN (UPPER)	1480	2022-01-27	82	223	27			92%	49	N	308	140	227	371	242	52
4A06	TUTIZZI LAKE	1045	N	N	N	N	N		N/A	N/A	225	207	95	176	348	192	52
4A07	LADY LAURIER LAKE	1440	2022-01-28	134	412	31			112%	82	454	344	224	334	679	369	50
4A09P	Pulpit Lake	1311	2022-02-01	102	319	31			103%	46	212	331	182	320	463	310	31
4A10	FREDRICKSON LAKE	1325	2022-01-27	67	156	23			89%	43	163	241	105	161	309	176	53
4A11	TRYGVE LAKE	1410	2022-01-27	103	263	26			102%	69	234	299	160	236	434	258	50
4A12	TSAYDAYCHI LAKE	1190	N	N	N	N			N/A	N/A	N	335	146	267	507	292	52
4A12P	Tsaydaychi Lake	1195	2022-02-01	106	257	24			N/A	N/A	371	371	371	371	N/A	1	
4A13	PHILIP LAKE	1035	2022-01-27	77	203	26			97%	60	235	223	118	191	355	210	54
4A13P	Philip Lake	1028	2022-02-01		199				N/A	N/A	230	250	230	230	250	N/A	2
4A16	MORFEE MOUNTAIN	1430	2022-01-26	165	510	31			86%	35	610	710	323	581	952	592	53
4A18	MOUNT SHEBA	1490	2022-01-26	188	634	34			105%	66	660	770	299	568	932	602	52
4A18P	MOUNT SHEBA	1484	2022-02-01	205	683	33			N/A	N/A	724	814	724	732	814	N/A	3
4A20P	Monkman Creek	1570	2022-02-01		397				N/A	N/A	250	303	250	303	339	N/A	3
4A21	MOUNT STEARNS	1505	2022-01-28	55	137	25			137%	85	79	98	40	98	196	100	47
4A25	FORT ST. JOHN A	690	2022-02-04	65	84	13			102%	66	51	70	22	70	154	83	47
4A27P	Kwadacha North	1554	2022-02-01		243				107%	62	207	264	137	221	371	227	31
4A30P	Aiken Lake	1050	2022-02-01	82	188	23			100%	58	195	185	100	184	330	188	34
4A31P	Crying Girl Prairie	1358	2022-02-01		153				N/A	N/A	153	173	100	169	190	N/A	6
4A33P	Muskwa-Kechika	1196	2022-02-01		101				N/A	N/A	91	60	23	83	93	N/A	6
4A34P	Dowling Creek	1456	2022-02-01		1080				N/A	N/A	N/A				N/A		
4A36P	Parsnip Upper	790	2022-02-01	99	248	25			N/A	N/A	266	272	266	272	305	N/A	3
4A37P	McQue Terrace	1200	2022-02-01		97				N/A	N/A	57	101	57	57	101	N/A	2
	Average			113	320	26			103%	59							

Basin Index Calculation	Average SWE	321
	Average Normal	318
Peace Basin Index - February 1, 2022		101%

Stations used in Basin Index:
4A02P, 4A05, 4A07, 4A09P, 4A10, 4A11, 4A13, 4A16, 4A18, 4A21, 4A25, 4A27P, 4A30P

SKEENA-NASS			February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD														
4B01	KIDPRICE LAKE	1370	2022-01-30	188	670	36			99%	67	816	N	403	595	1220	678	61
4B02	JOHANSON LAKE	1420	2022-01-27	86	215	25			103%	64	220	267	115	191	355	209	51
4B03A	HUDSON BAY MTN.	1480	2022-01-31	128	392	31			107%	71	408	315	210	341	665	367	50

4B04	CHAPMAN LAKE	1460	NS	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
4B06	TACHEK CREEK	1140	N	N	N	N	N	N/A	N/A	N	N	99	156	298	159 20	
4B07	MCKENDRICK CREEK	1050	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	264		264	N/A 1	
4B08	MOUNT CRONIN	1480	NS	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
4B10	NINGUNSAW PASS	690	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	171	295	603	304 40	
4B11A	BEAR PASS	460	N	N	N	N	N	N/A	N/A	545	N	192	415	821	422 32	
4B13A	TERRACE AIRPORT	180	2022-01-31	45	157	35		127%	63	66	217	0	121	330	124 41	
4B14	EQUITY MINE	1420	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	174	246	444	N/A 13	
4B15	LU LAKE	1300	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	134	200	352	N/A 12	
4B15P	Lu Lake	1300	2022-02-01	79	206	26		100%	48	226	218	94	210	353	206 24	
4B16P	Shedin Creek	1480	2022-02-01	189	580	31		104%	61	459	487	262	564	877	555 25	
4B17P	Tsai Creek	1360	2022-02-01	217	781	36		99%	59	741	635	423	755	1482	790 24	
4B18P	Cedar-Kiteen	885	2022-02-01	184	632	34		142%	79	452	322	233	395	847	446 19	
				Average	140	454	32	110%	64							

Basin Index Calculation	Average SWE	454
	Average Normal	422
Skeena-Nass Basin Index - February 1, 2022		108%

Stations used in Basin Index:
4B01, 4B02, 4B03A, 4B13A, 4B15P, 4B16P, 4B17P, 4B18P

LIARD		February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4C01	SIKANNI LAKE	1385	N	N	N	N	N	N/A	N/A	188	177	81	169	325	185	52
4C01P	Sikanni Lake	1387	2022-02-01	92	189	21		N/A	N/A	190	202	94	190	237	N/A	5
4C02	SUMMIT LAKE	1280	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	36	74	146	N/A	21
4C03	DEASE LAKE	820	2022-02-01	71	120	17		118%	72	99	127	36	92	218	101	53
4C05	FORT NELSON AIRPORT	380	2022-01-28	52	120	23		182%	97	77	47	35	76	128	66	54
		Average		72	143	20		150%	84							

Basin Index Calculation	Average SWE	120
	Average Normal	84
Liard Basin Index - February 1, 2022		143%

Stations used in Basin Index:
4C03, 4C05

STIKINE		February 1, 2022 Data					Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4D02	ISKUT	1000	2022-02-01	46	88	19		112%		55	94	30	77	162	79	42
4D10P	Tumeka Creek	1220	2022-02-01		361			88%	33	405	426	212	404	744	408	24
4D11P	Kinaskan Lake	1020	2022-02-01	103	281	27		103%	57	344	318	113	253	516	273	24
		Average		75	243	23		101%	45							

Basin Index Calculation	Average SWE	243
	Average Normal	253
Stikine Basin Index - February 1, 2022		96%

Stations used in Basin Index:
4D02, 4D10P, 4D11P

NORTHWEST			February 1, 2022 Data				Feb 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			(cm)	(mm)	%		(mm)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
4E01	LOG CABIN	900	2022-01-26	107	277	26	N/A	N/A	NS	NS				N/A	0
4E02B	ATLIN LAKE	730	2022-01-27	45	104	23	N/A	N/A	NS	NS	50		50	N/A	1
	Average			76	191	24	N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Northwest Basin Index - February 1, 2022	N/A	

Stations used in Basin Index:
N/A

BRITISH COLUMBIA

Basin Index Calculation	Average SWE	465
	Average Normal	426
British Columbia Basin Index - February 1, 2022	N/A	109%

Stations used in Basin Index:
All stations with measurements in B.C.

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
N/A	Not available
NS	Not scheduled
SD	Snow Depth
SWE	Snow Water Equivalent
T	Trace Amount



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The March 1st snow survey is now complete. Data from 123 manual snow courses and 87 automated snow weather stations around the province (collected by the Ministry of Environment and Climate Change Strategy's Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada and the provincial Climate Related Monitoring Program have been used to form the basis of the following report¹.

Executive Summary

The March 1st, 2022 snow pack throughout British Columbia is slightly above normal. The average of all measurements across B.C. decreased to 105% in the past month due to drier conditions (February 1st: 109%). The snow basin index for the Fraser River at Hope is above normal at 119%. By early March, nearly 80% of the annual B.C. snow pack has typically accumulated. Snow pack throughout the province ranges from 83 to 129% of normal. There is a higher risk for snowmelt related flooding during the spring months (freshet). The combination of normal to above normal March 1st snow pack, La Niña conditions forecast to persist through spring, and seasonal weather forecasts that predict cooler conditions for the province means an elevated risk for freshet-related flooding. Snow pack is also only one factor related to freshet flood risk. Weather conditions from April through June determine the timing, magnitude and rate of snow melt, and heavy rainfall events can exacerbate the situation.

Weather

Weather patterns over the past month contrasted significantly between the northern and southern halves of the province. The north experienced generally warmer conditions and greater precipitation than normal, with the warmest and wettest conditions occurring in the most northwesterly sections of B.C. In contrast, southern regions of the province recorded seasonable temperatures and dry conditions. The driest weather relative to normal occurred on Vancouver Island and the South Coast.

The strong storm system at the end of February continued into the first couple days of March, adding additional precipitation. This strong storm system at the very end of the February accounted for most of the monthly precipitation in the south. Relatively dry conditions have persisted since and are expected to continue for the near future. An unsettled weather pattern is forecast to return this weekend (March 11-13) and will likely continue next week.

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Snowpack

Snow basin indices for March 1st, 2022 range from a low of 83% of normal on Vancouver Island to a high of 129% in the Upper Fraser East (Table 1 and Figure 2, 3). Generally, the province has slightly above normal snow pack for March 1st, with the average of all snow measurements across the province at 105%. This has decreased from 109% observed on February 1st. The Okanagan and Vancouver Island are the only basins that are slightly below normal (80-89%) for March 1st. Normal snow packs (90-110%) were measured for the Upper Fraser West Nchako, Lower Fraser, South Thompson, West Kootenay, Boundary, Similkameen, South Coast, Central Coast, Skagit, Peace, and Skeena-Nass. Slightly above normal snow packs (110-120%) exists in the Middle Fraser, East Kootenay and Stikine. Snow basin indices that are above normal (120-130%) include the Upper Fraser East, North Thompson, Upper Columbia, Liard and Northwest.

The average of all snow measurements for the entire Fraser River basin (e.g., upstream of the Lower Mainland and inclusive of Upper Fraser West, Upper Fraser East, Nchako, Middle Fraser, Lower Fraser, North Thompson and South Thompson) is 107%, decreasing slightly from 108% on February 1st. The River Forecast Centre calculates an additional Snow Basin Index for the Fraser River at Hope based on each basin's contribution to the total annual flow of the river. For example, the Upper Fraser East contributes approximately 30% of the total flow for the Fraser River at Hope, the North Thompson about 16%, the South Thompson about 11% and the Quesnel approximately 9%. The Fraser River at Hope Snow Basin Index is 119%, which is 11th highest since 1970, due primarily to the high snow pack in the Upper Fraser East, North Thompson and Quesnel. The current year's March 1st value is the 5th highest in the last 30 years (1999: 140%, 2007: 128%, 2012: 121%, 1997:120%).

As the Middle Fraser encompasses a large and geographically diverse area, we divide it into sub-basins to analyze snow conditions and potential flood risks in localised areas. The Bridge region measures 105% of normal, the Quesnel area 125%, the Lower Thompson 99% and the Chilcotin sub-basin is at 163%. Beginning March 1st, a Nicola Snow Basin Index, comprised of stations in the Lower Thompson that are within the Nicola and Okanagan sites that border the Nicola, is calculated at 89% of normal. Please review the full summary data tables at the end of this report for further interpretation.

Table 1 - BC Snow Basin Indices – March 1, 2022

Basin	% of Normal (Feb 1 st value)	Basin	% of Normal (Feb 1 st value)
Upper Fraser West	103 (117)	Okanagan	86 (89)
Upper Fraser East	129 (119)	Boundary	91 (88)
Nchako	95 (97)	Similkameen	100 (95)



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Middle Fraser	111 (115)	South Coast	94 (102)
Lower Thompson*	99 (86)	Vancouver Island	83 (102)
Bridge*	105 (117)	Central Coast	101 (128)
Chilcotin*	163 (170)	Skagit	98 (126)
Quesnel*	125 (109)	Peace	99 (101)
Lower Fraser	95 (103)	Skeena-Nass	109 (108)
North Thompson	124 (118)	Stikine	110 (96)
South Thompson	102 (102)	Liard	123 (143)
Upper Columbia	123 (130)	Northwest	123 (N/A)
West Kootenay	108 (116)	Fraser	107 (108)
East Kootenay	111 (117)	Fraser River at Hope	119 (N/A)
Nicola**	89 (N/A)	British Columbia	105 (109)

* sub-basin of Middle Fraser

** sub-basin of Lower Thompson – includes representative stations within Okanagan

There are three snow stations with period of record highs for March 1st; however, the stations have relatively short periods of record:

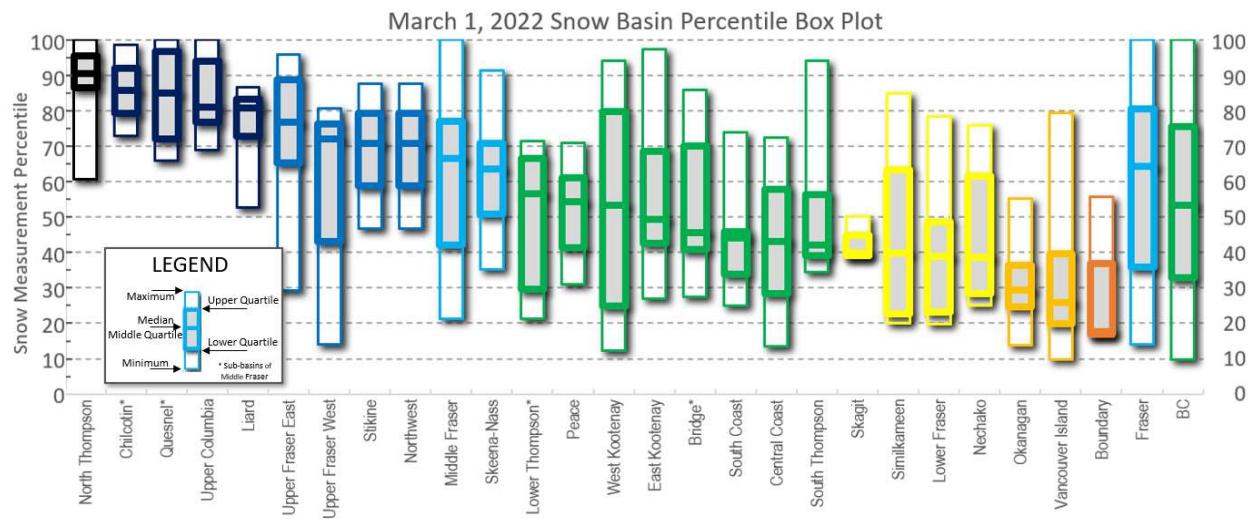
- 1C33A Granite Mountain: 246 mm SWE (141% of normal) – period of record 16 years (QUESNEL – MIDDLE FRASER)
- 1E14P Cook Creek: 790 mm SWE (161% of normal) – period of record 12 years (NORTH THOMPSON)
- 2A30P Colpitti Creek: 906 mm SWE – period of record 12 years (UPPER COLUMBIA)

The River Forecast Centre began including percentiles in addition to using percent of normal to analyze snow pack in the 2020 bulletin. Percentiles offer a more accurate interpretation of variance, especially in regions when the percent of normal can be extremely high or low. The region with the highest average percentile is the North Thompson (87th percentile); the region with lowest is the Boundary (30th). A box plot displaying the percentile variance ordered from highest to lowest median, including sub-basins, is provided below in Figure 1.



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Figure 1. Snow Basin Percentile Box Plot – March 1st, 2022



Outlook

The Climate Prediction Center (CPC) shows that El Niño Southern Oscillation (ENSO) demonstrated La Niña conditions during the fall of 2021. This is the second La Niña in a row, with La Niña present during the fall-winter of 2020-21. La Niña occurs when oceanic temperature anomalies along the equatorial Pacific Ocean region are below normal for an extended period. Historically, La Niña conditions create cooler temperatures for British Columbia and wetter weather in the South Coast and Vancouver Island during the winter months.

Forecasts from the CPC indicate a likelihood (77% chance) of continued La Niña conditions (March-May 2022), with a potential transition to neutral conditions (56% likelihood) into summer (May-July 2022). Historically, the April 1st snow pack is often above normal when winter La Niña conditions exist in British Columbia, particularly for the South Coast and Southern Interior. La Niña conditions that persist into the spring can lead to late-season snow accumulation and delayed snowmelt, which increases the risk for freshet flooding.

Seasonal weather forecasts from late February by Environment and Climate Change Canada indicate an increased likelihood of colder than normal temperatures from March through May for the entire province. There is an increased likelihood of greater than normal precipitation in the Upper Fraser East and East Kootenay for March to May, whereas there is no climatological trend forecast for precipitation over the rest of the province. Seasonal precipitation forecast tend to have lower forecast skill in comparison to seasonal temperature forecasts.

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Seasonal volume runoff forecasts (see below) are near-normal (90-110%) for the Quesnel, Thompson, Bulkley and Skeena. Slightly above normal (110-120%) flows are forecast for the Upper Fraser and Cowichan River. Runoff in the Similkameen is forecast to be well above normal (>130%), likely a reflection of extremely high antecedent conditions caused by extreme rainfall last November. In 2021, an updated model was developed for Nicola Lake, Nicola River, Okanagan Lake and Kalamalka-Wood Lake (further details can be found in the February 1st 2021 Snow Bulletin). There is significant variability between the new and old seasonal volume forecasts for Nicola Lake, Nicola River, Okanagan Lake and Kalamalka-Wood Lake. Several predictor variables were outside the historic range for which the newer modeling was developed, resulting in increased uncertainty for the upcoming forecast. In addition, the newer model calculated inconclusive results for the Nicola River at Spences Bridge. Any interpretation of seasonal volume runoff forecasts must include this critical fact. Slightly below normal snow pack on Vancouver Island and the South Coast indicates an average year of spring runoff for other watersheds within the regions.

Spring Flood Risk (Freshet)

Flooding is a provincial risk every spring due to a combination of snowmelt and/or rainfall (also known as freshet). Every region is at risk for flooding, even if the snow pack is slightly below normal. The weather conditions during spring play a critical role in the rate at which the snow melts. For example, a gradual warming under dry conditions is ideal to lessen the flood risk. A lengthy cold period with high amounts of precipitation followed by a sudden extreme heat wave could lead to catastrophic conditions, especially if additional rain follows. Spring weather is impossible to predict with accuracy in advance, and so communities and residents vulnerable to flooding should prepare accordingly; information for [Be Prepared for Floods](#) is available from Emergency Management BC.

Typically, regions with above normal snow pack have a higher risk for flooding. As of March 1st, 2022, these areas include:

- The Upper Columbia measures 123% of normal, the highest index since 1996. Communities (e.g., Golden) in the Upper Columbia will be at risk for flooding through the freshet and may remain at risk into late June or even July due to significant high elevation snow pack.
- The North Thompson measures 124% of normal, which is the highest index since 1999, the 2nd highest since 1977.
- The Quesnel region (within the Middle Fraser) is 125% of normal and is the highest since 1999.
- The South Thompson is near normal at 102%. However, there are only four sites reporting across the entire basin that calculate the snow basin index. Since the South Thompson borders the North Thompson and Upper Columbia (which have significantly higher snow basin indices), it is possible that the snow pack is higher than the snow basin index suggests.
- The Upper Fraser East is high at 129% of normal. Although well above normal, this year's index is still slightly below recent years (like 2007, 2012 and 2014).



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- The Chilcotin Region is well above normal at 163% of normal (the highest index since 1996). There are only two measurements within this region; these measurements are made at lower elevation and represent typical shallower snow packs leading to potentially high or low percentages of normal from small snow water equivalent differences. The average percentile across sites is the 86th percentile, indicating significantly above normal but not necessarily record high conditions.
- The Liard River and Northwest are at 123% of normal.

In addition to the above, other regions contain a significant number of anomalously high snow pack observations, either as a % of normal measure or as described by percentiles. These include the Upper Fraser West, Skeena-Nass, Stikine, Northwest, West Kootenay and East Kootenay.

The combination of high snow pack in the Upper Fraser East, Quesnel and North Thompson indicates a heightened concern for flooding for Prince George, Kamloops, and the overall Fraser River. Based solely on the contributions to the Fraser River from the Upper Fraser East, Quesnel and North Thompson, this year ranks as the 8th highest snow pack since 1970 and 3rd highest in the last 30 years.

November 2021 Atmospheric River Floods

The unprecedented and catastrophic flooding that occurred in November 2021 has made many rivers more vulnerable to freshet high flows. Fortunately, the March 1st snow pack in the Nicola, Similkameen and Lower Fraser is not above normal. However, due to the significant erosion and possible changes in river channel morphology that occurred within many areas (including but not limited to the Coldwater River, Nicola River, Tulameen River, Coquihalla River and lower Fraser River), rivers may be at increased vulnerability to flooding at lower levels than previous freshet seasons. The freshet season differentiates from the fall flooding season as flows tend to be sustained for longer periods of time during snowmelt compared to shorter duration rainfall events.

The risk for flooding in the Sumas Prairie will be based on potential for flooding of the Nooksack River and stability of the dikes along the Nooksack River. Flooding of the Sumas Prairie from Canadian contributions could occur from flooding of the Fraser River if extreme water levels exceeded flood protection infrastructure, such as occurred in 1894 and 1948.

2021 Wildfire Season

The 2021 Wildfire season was very active in the province with many watersheds sustaining significant burns. Based on a study conducted by the RFC in Spring 2018 and briefly summarized in the April 1st, 2018 Snow Bulletin, disturbances such as fire affect the hydrologic response of streams, rivers and lakes relevant to potential flooding. Specifically,

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flows from snowmelt dominated watersheds impacted by fires tend to be greater and peak earlier as compared to undisturbed areas, even under normal weather conditions. Areas that experienced burns are at greater risk for higher peak flows.

Extreme Weather Events

In general, flooding usually occurs due to extreme weather. In 2021, there were two extreme weather events that resulted in catastrophe: the heat dome in late-June and atmospheric rivers in November. Alpine temperatures during the heat dome reached up to 38°C, triggered extraordinary snow melt rates (80-100 mm SWE / day) at high elevation automated snow weather stations with snow remaining. If such an extreme heat event occurred earlier in the freshet season when there is more snow to melt (May or early-June), it could lead to significant flooding at a provincial scale.

Atmospheric rivers tend to affect the province primarily between September through January. However, strong storms can occur as early as August for the North Coast and there are numerous examples of atmospheric rivers occurring on the South Coast into February and March. It is less likely that these events will occur in May or June, but not impossible.

Although not as extreme as the previous examples, the most likely cause for major flooding would be a period of persistent cool temperatures and wet weather into the late spring, followed by a sudden heat wave of at least five or more days. There is evidence that 1948 and 1894 floods on the Fraser River were caused by this scenario. Based on current snow stations that had measurements in 1948, the snow conditions for March 1st were considered average, showing the importance of spring weather to flooding. A secondary risky scenario is a widespread heavy rainfall event that occurs during the high flows from snowmelt.

Wrap-around low pressure, or cold low, systems pose an additional risk of primarily rain-driven flooding. The risk of these events occurring increases in June and typically extends into July. These systems can deliver extreme rainfall which wraps around the province and typically leads to upslope precipitation enhancement to eastern slope mountainous regions. These can be augmented or enhanced by snowmelt and high antecedent streamflow conditions. Flood events from this phenomena have occurred in the Peace Region in 2012 and 2016, Fernie (and Calgary/Alberta) in 2013, and in the Chilcotin in 2019.

Gaps in Snow Monitoring

Regions in the province that lack physical snow monitoring (manual or automated) include:

- Cache Creek and Bonaparte River. There were no March 1st measurements at 1C32 Deadman River or 1C42 Caverhill Lake New. The Bonaparte River watershed borders the Quesnel and North Thompson, so there are risks that the snow level is relatively high.



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- The Nazko and West Road River regions no longer has snow monitoring. This region experienced intense flooding in 2018 and sustained high flows in 2020.
- The Chilako River (just north of the West Road River).
- Salmon River near Prince George.

Remote sensing is supporting areal-based assessment of snow coverage in these regions; however, it is difficult to accurately determine seasonal flood risks in these areas due to the lack of on-the-ground measurements. These regions typically are the first rivers in the season to experience significant increases in flow from snowmelt due to their lower elevation.

La Niña Conditions

Under La Niña conditions, the snow pack can accumulate into late spring. Areas in the South Interior (including the Okanagan, Boundary and Kootenay) can receive significant additional precipitation in March and April which could push Snow Basin Indices above normal for April 1st or May 1st.

Typically, freshet (snowmelt) flood risk is limited on Vancouver Island and the South Coast as precipitation from Atmospheric Rivers in the Fall/Winter period overshadows the effect of snowmelt during spring.

Summary

By early March, nearly 80% of the annual B.C. snow pack has typically accumulated. Snow pack throughout the province ranges from 83 to 129% of normal. The provincial average for all snow measurements across the province is 105% of normal, and the Fraser River at Hope is 119%. This indicates a higher risk for snowmelt related flooding during the spring months (freshet). The combination of normal to above normal March 1st snow pack, La Niña conditions forecast to persist through spring, and seasonal weather forecasts that predict cooler conditions for the province means an elevated risk for freshet-related flooding. Snow pack is also only one factor related to freshet flood risk. Weather conditions from April through June determine the timing, magnitude and rate of snow melt, and heavy rainfall events can exacerbate the situation. Flooding is possible in years with normal or even below-normal, snow pack. Conversely, high snow pack does not typically lead to flooding without significant contributing weather during the snow melt season.

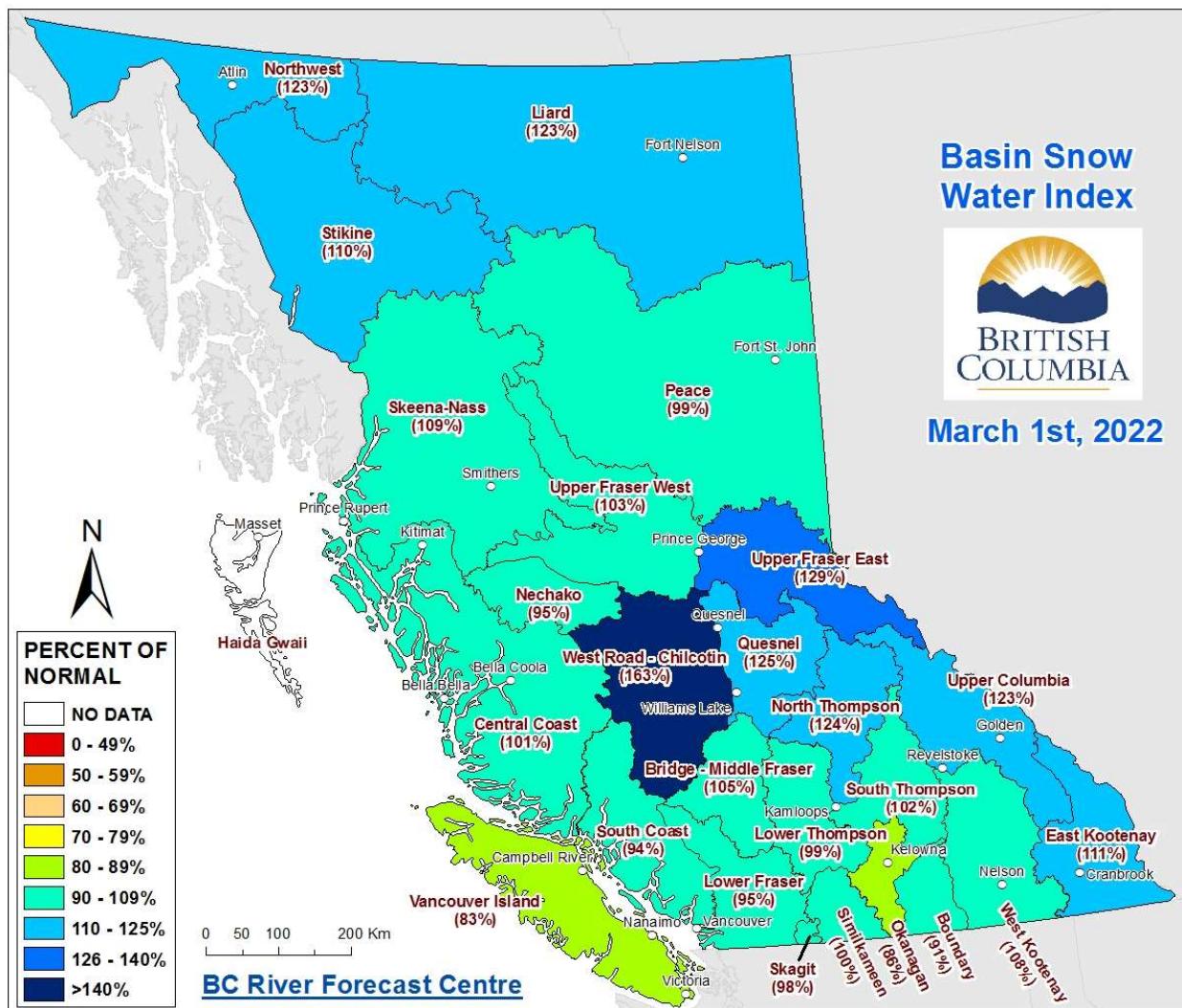
The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the April 1st, 2022 bulletin, which is scheduled for release on April 8th.

BC River Forecast Centre
March 9, 2022



Snow Survey and Water Supply Bulletin – March 1st, 2022

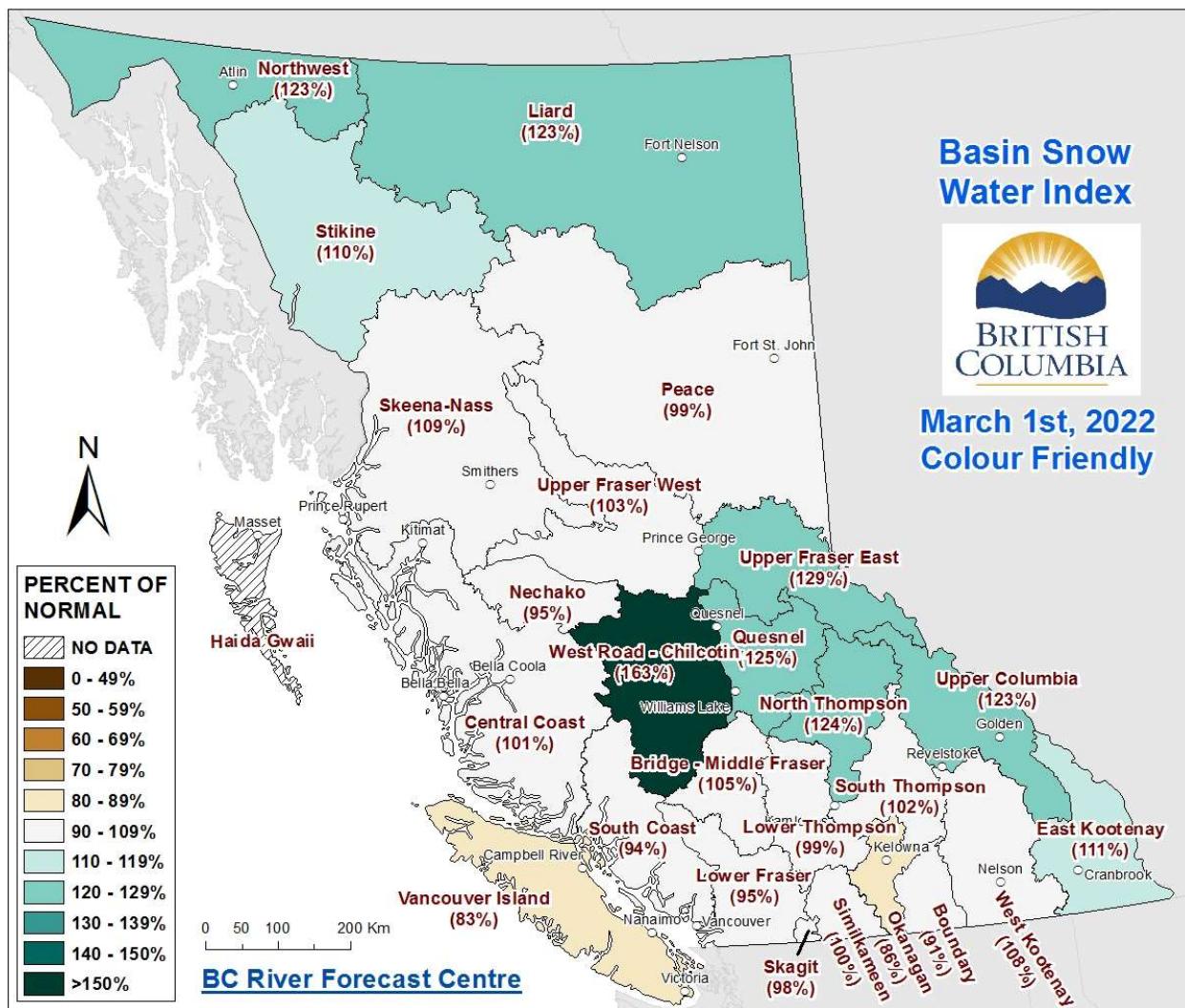
Figure 2: Basin Snow Water Index – March 1st, 2022

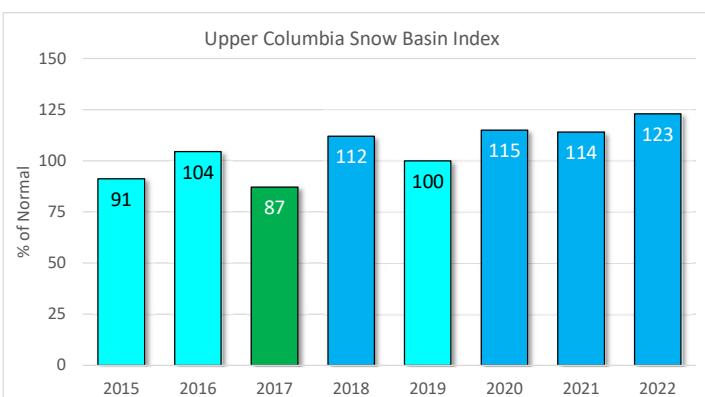
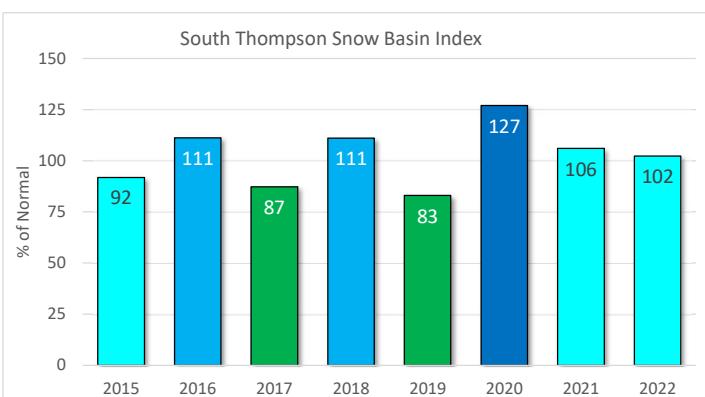
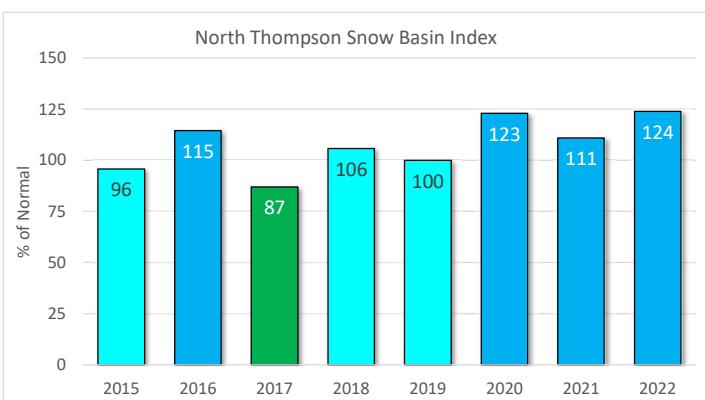
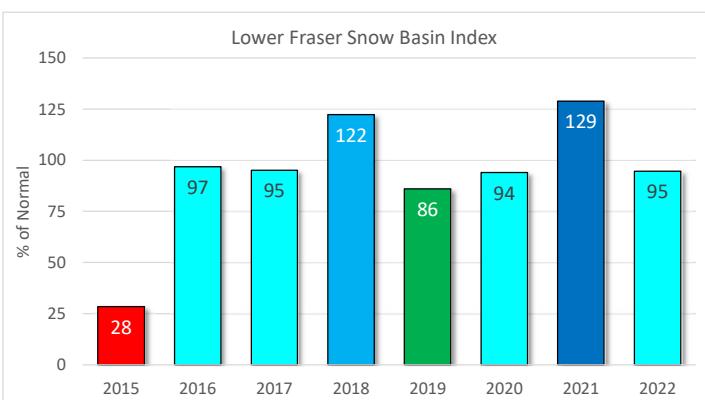
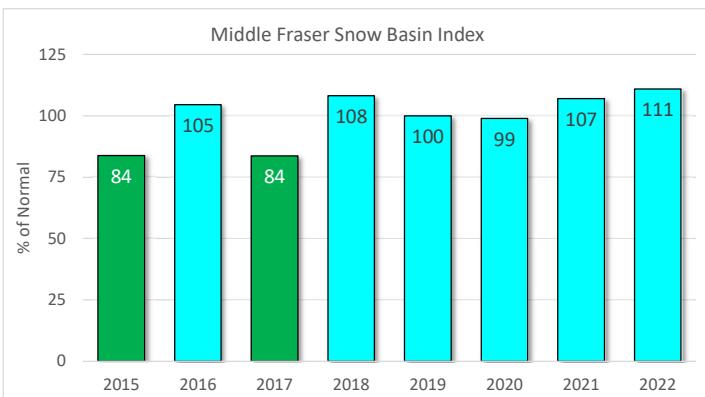
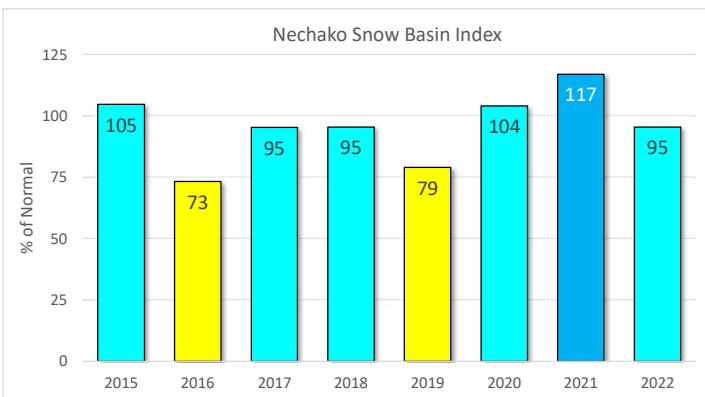
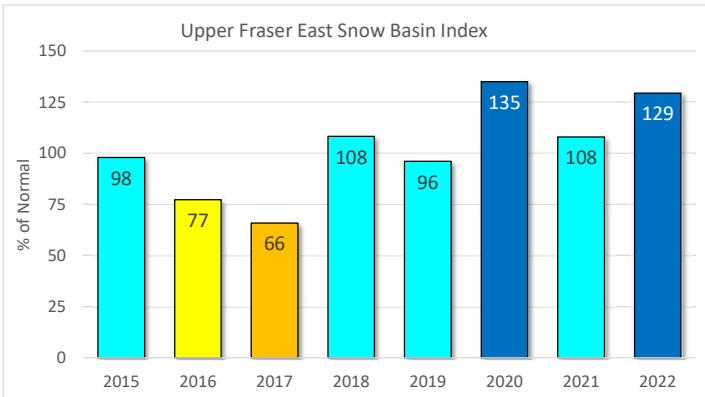
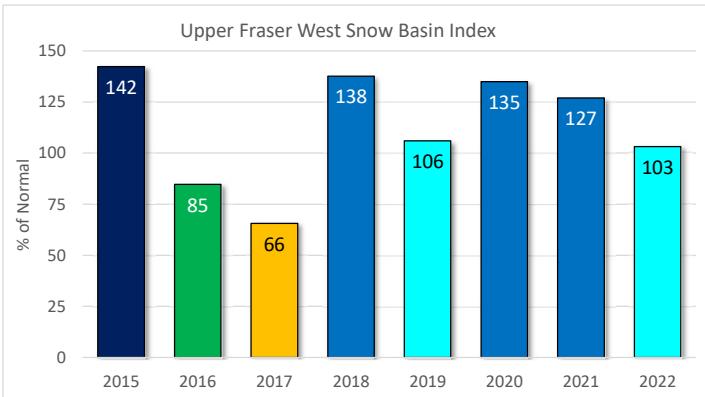




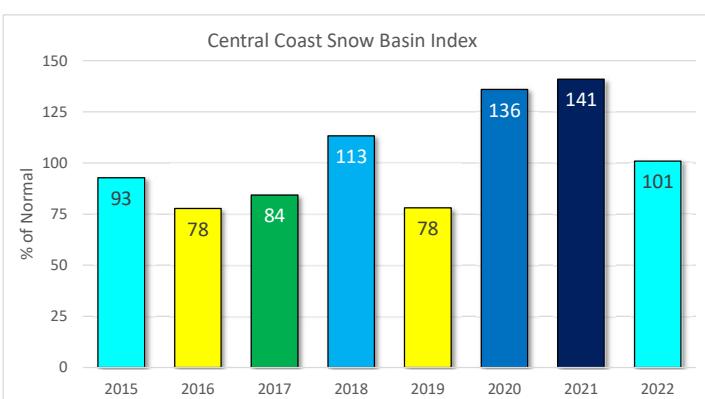
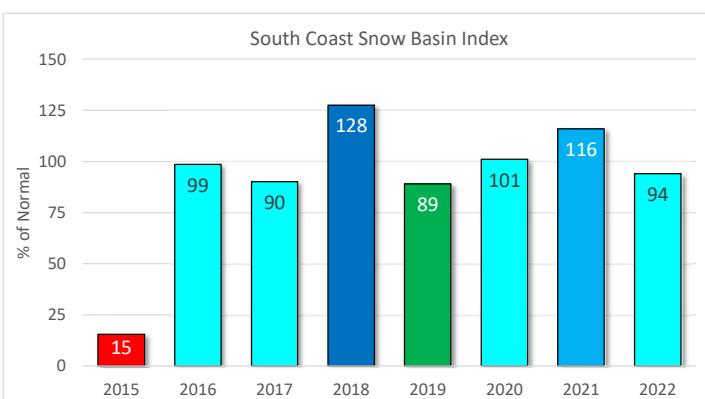
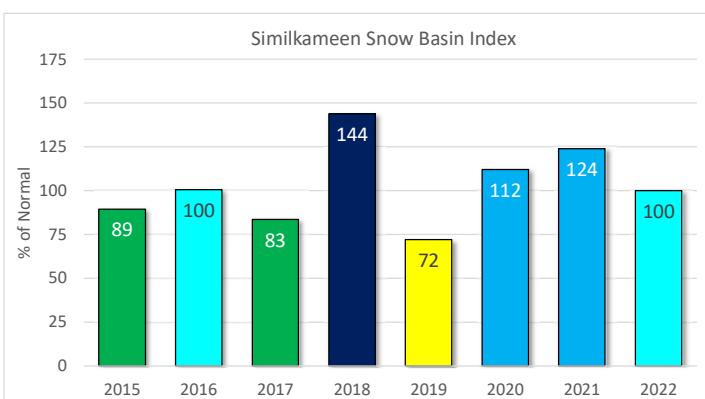
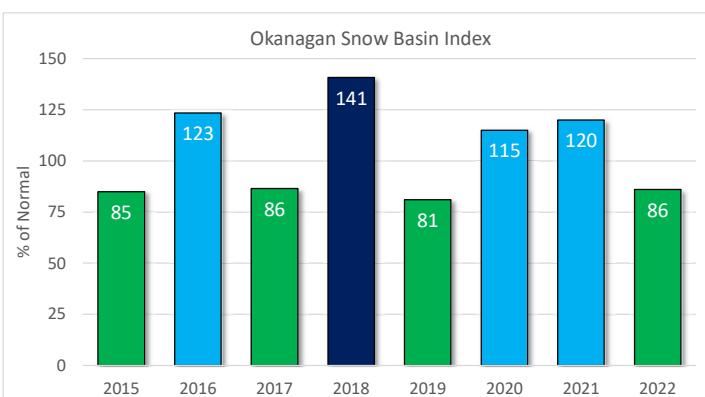
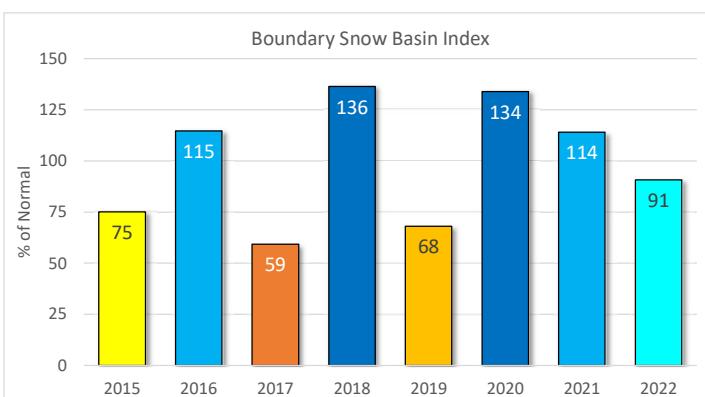
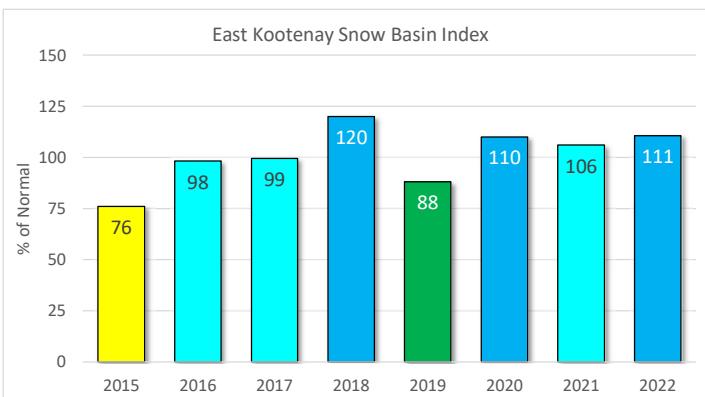
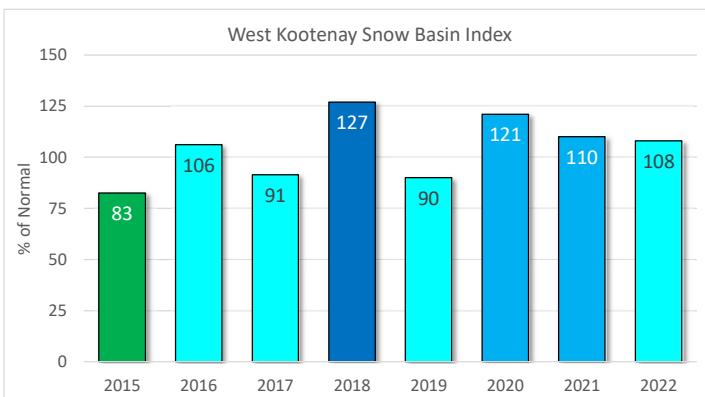
Snow Survey and Water Supply Bulletin – March 1st, 2022

Figure 3: Basin Snow Water Index – March 1st, 2022 – Colour Friendly

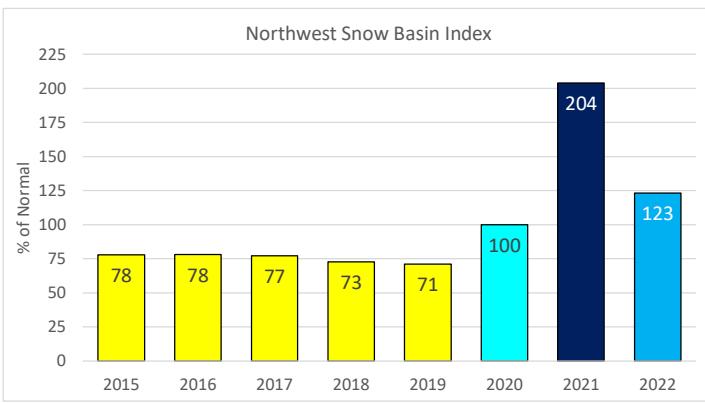
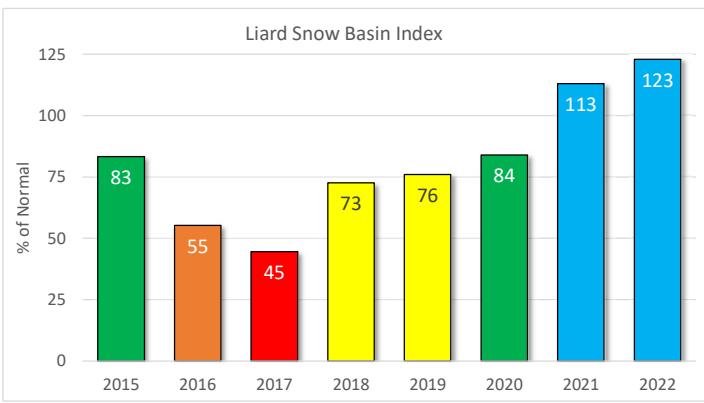
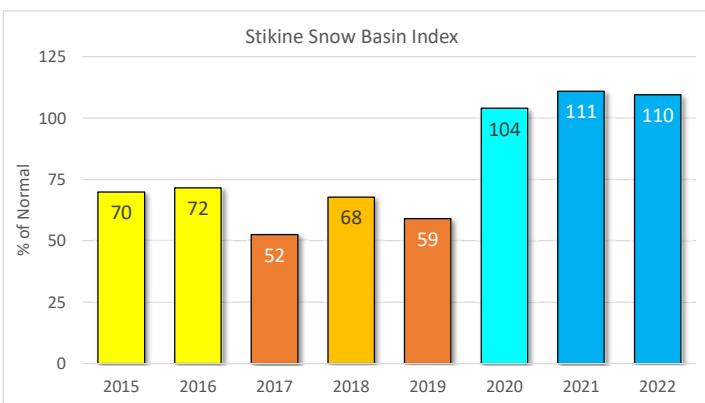
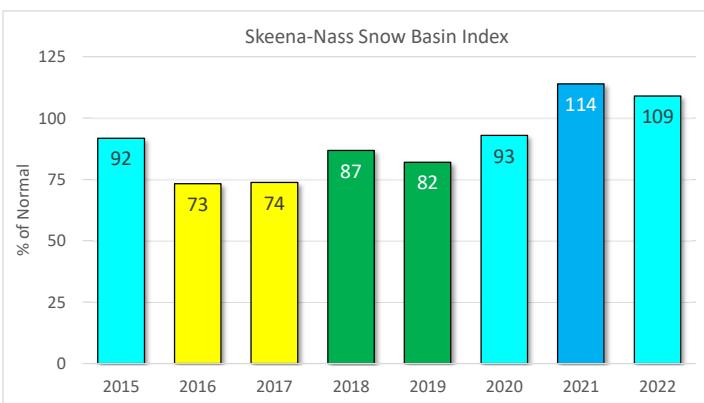
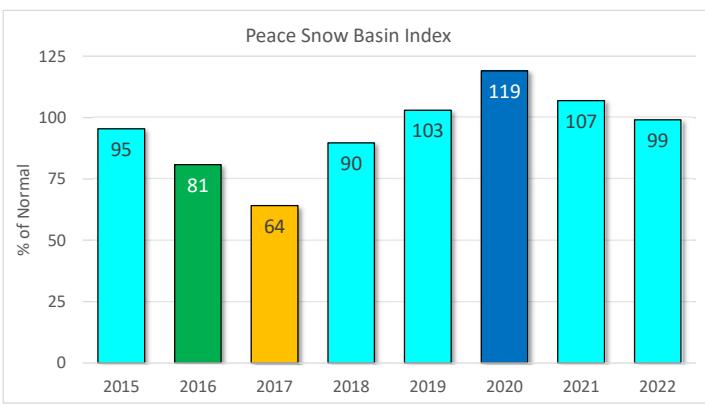
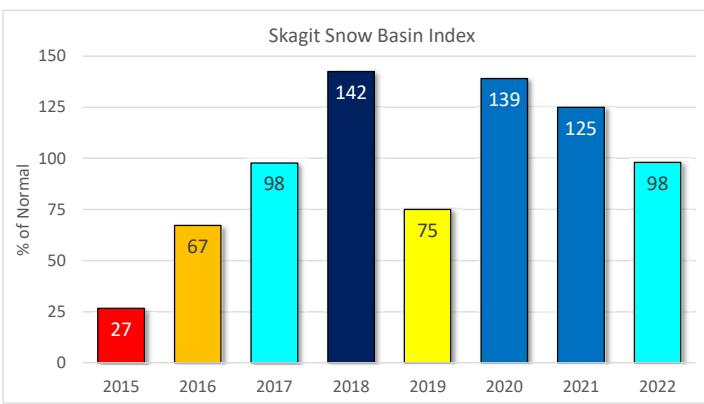




Snow Basin Index Graphs - March 1, 2022



Snow Basin Index Graphs - March 1, 2022



Ministry of Forests, Lands and Natural Resource Operations and Rural Development
River Forecast Centre
Volume Runoff Forecast March 2022

		Mar - Jun Runoff				Mar - Jul Runoff				Mar - Sep Runoff			
Location		Forecast (kdam ³)	Normal (1981-2010) (kdam3)	% of Normal	Std. Error (kdam ³)	Forecast (kdam ³)	Normal (1981-2010) (kdam3)	% of Normal	Std. Error (kdam ³)	Forecast (kdam ³)	Normal (1981-2010) (kdam3)	% of Normal	Std. Error (kdam ³)
Upper Fraser Basin	Fraser at McBride					4,264	3,786	113	331	5,997	5,252	114	390
	McGregor at Lower Canyon					4,832	4,087	118	490	5,963	5,132	116	639
	Fraser at Shelley					18,756	16,310	115	1,494	23,043	20,369	113	1,832
Middle Fraser Basin	Quesnel River at Quesnel					5,059	4,747	107	510	6,516	6,078	107	670
Thompson Basin	N. Thompson at McLure					9,928	9,190	108	536	12,388	11,359	109	826
	S. Thompson at Chase					6,136	6,111	100	566	7,766	7,678	101	832
	Thompson at Spences Bridge					16,478	15,775	104	1,174	20,903	19,755	106	1,814
Bulkley and Skeena	Bulkley at Quick					2,587	2,709	96	1,361	3,175	3,306	96	1,939
	Skeena at Usk					19,931	19,187	104	1,335	24,338	23,531	103	1,809
Nicola Lake		108	126	86	31	123	143	86	35				
*new model ¹		68	134	51	NA	95	157	60	NA	100	161	62	NA
Nicola River at Spences Bridge		578	523	110	82	659	591	111	103				
*new model ²		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Okanagan Lake		446	470	95	89	469	497	94	110				
*new model ²		529	499	106	101	561	526	107	116	534	504	106	122
Kalamalka-Wood Lake		23.5	31.1	76	12.3	23.9	32.5	73	14.9				
*new model ³		35.1	27.3	128	NA	39.2	26.2	146	NA	49.1	22.2	221	NA
Similkameen River	at Nighthawk	1,733	1,342	129	158					2,165	1,652	131	184
	at Hedley	1,389	1,045	133	134					1,649	1,233	134	151
Cowichan River	Cowichan Lake Inflows	479	400	120	70					531	436	122	74

¹ 1984-2019 Period of Record

² 1970-2019 Period of Record

³ 1975-2019 Period of Record

Note: 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.

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

Use at your own risk

March 1, 2022 Automated Snow Weather Station / Manual Snow Survey Data

UPPER FRASER EAST			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
1A01P	Yellowhead Lake	1860	2022-03-01					N/A	N/A	502	499	270	436	720	438	24	
1A02P	McBride Upper	1611	2022-03-01	164	536	33		134%	96	439	506	257	382	556	399	30	
1A03P	Barkerville	1520	2022-03-01	116	350	30		126%	81	299	385	155	287	479	278	44	
1A05P	Longworth Upper	1740	2022-03-01	269	1020	38		N/A	N/A	932	742	379	705	932	N/A	5	
1A06A	HANSARD	608	2022-03-03	58	196	34		115%	63	111	200	44	166	396	170	48	
1A10	PRINCE GEORGE A	689	2022-03-03	33	98	30		84%	29	114	154	0	130	296	117	59	
1A11	PACIFIC LAKE	755	2022-02-24	183	647	35		115%	66	648	721	277	536	866	562	58	
1A14P	Hedrick Lake	1100	2022-03-01	266	957	36		141%	88	685	620	366	648	1057	679	22	
1A15P	Knudsen Lake	1601	2022-03-01	265	1047	40		N/A	N/A	890	591	401	541	890	N/A	5	
1A17P	Revolution Creek	1690	2022-03-01	287	1035	36		149%	91	857	1029	339	692	1135	694	33	
1A19P	Dome Mountain	1774	2022-03-01	228	718	31		118%	73	726	780	190	636	908	608	16	
	Average			187	660	34		123%	73								

Basin Index Calculation	Average SWE	567
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Stations used in Basin Index:

Average Normal	438
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1A02P, 1A03P, 1A06A, 1A10, 1A11, 1A14P, 1A17P, 1A19P

Upper Fraser East Basin Index - March 1, 2022	129%
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UPPER FRASER WEST			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
1A12	KAZA LAKE	1250	2022-03-01	115	330	29		111%	72	N	N	162	295	478	297	54	
1A12P	Kaza Lake	1257	2022-03-01	124				N/A	N/A	341	340	200	279	341	N/A	6	
1A16	BURNS LAKE	800	2022-03-02	39	88	23		67%	14	124	160	0	120	250	132	51	
1A23	BIRD CREEK	1180	2022-03-03	68	174	26		120%	81	228	192	72	148	296	145	32	
	Average			87	197	26		99%	56								

Basin Index Calculation	Average SWE	197
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Stations used in Basin Index:

Average Normal	191
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Upper Fraser West Basin Index - March 1, 2022	103%
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NECHAKO			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
1B01	MOUNT WELLS	1490	2022-03-03	151	517	34		113%	76	551	464	244	438	954	458	69	
1B01P	Mount Wells	1490	2022-03-01		562			117%	71	595	544	246	479	735	481	28	
1B02	TAHTSA LAKE	1300	2022-03-02	252	896	36		87%	33	1120	945	571	985	1777	1032	70	
1B02P	Tahsta Lake	1300	2022-03-01		953			89%	29	1231	1043	661	1060	1722	1076	27	
1B05	SKINS LAKE	890	2022-03-03	29	88	30		85%	29	117	135	54	106	226	104	57	
1B06	MOUNT SWANNELL	1620	2022-03-03	83	222	27		86%	25	370	345	132	253	446	260	33	
1B07	NUTLI LAKE	1490	2022-03-03	131	476	36		105%	59	567	512	229	460	779	453	31	
1B08P	Mt. Pondosy	1400	2022-03-01		616			91%	44	755	738	351	656	987	674	26	
	Average			129	541	33		96%	46								

Basin Index Calculation	Average SWE	541
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Stations used in Basin Index:

Average Normal	567
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Nechako Basin Index - March 1, 2022	95%
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LOWER THOMPSON			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C01	BROOKMERE	980	2022-03-01	55	151	27	NS	94%	30	159	92	53	184	351	161	76
1C06	PAVILION	1230	2022-02-28	34	83	24		142%	71	65	58	0	65	168	58	63
1C09A	HIGHLAND VALLEY	1510	2022-03-02	43	108	25		123%	67	130	110	25	87	229	88	55
1C25	LAC LE JEUNE (UPPER)	1509	2022-02-28	51	126	25		99%	57	210	156	13	116	213	128	49
1C29	SHOVELNOSE MOUNTAIN	1450	2022-02-28	69	171	25		80%	21	226	167	100	225	398	214	40
1C29P	Shovelnose Mountain	1460	2022-03-01	68	180	26		N/A	N/A	233	205	167	205	233	N/A	3
1C32	DEADMAN RIVER	1430		N	N	N	N	N/A	N/A	250	120	44	110	250	114	37
1C42	CAVERHILL LAKE NEW	1400		N	N	N	N	N/A	N/A	276	329	60	210	329	203	17
			Average	53	134	25		111%	54							

Basin Index Calculation	Average SWE	128
	Average Normal	130
Lower Thompson Basin Index - March 1, 2022		

Stations used in Basin Index:
1C01, 1C06, 1C09A, 1C25, 1C29

NICOLA		
Basin Index Calculation	Average SWE	193
	Average Normal	218
Nicola Basin Index - March 1, 2022		

Stations used in Basin Index:
1C01, 1C09, 1C25, 1C29, 2F13, 2F23, 2F24

BRIDGE / LILLOOET			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C05P	McGillivray Pass	1718	2022-03-01		527			N/A	N/A	447	383	383	456	549	N/A	4
1C12P	Green Mountain	1780	2022-03-01		706			99%	49	582	484	311	710	1265	710	28
1C14	BRALORNE	1389	2022-03-03	52	148	28	NS	105%	42	157	103	0	158	363	141	58
1C14P	Bralorne	1382	2022-03-01	74	190	26		N/A	N/A	211	170	170	210	245	N/A	4
1C18P	Mission Ridge	1850	2022-03-01		606			130%	86	565	502	160	448	866	468	45
1C28	DUFFEY LAKE	1200	2022-02-25	117	379	32		86%	28	447	452	194	424	762	442	43
1C38	DOWNTON LAKE (UPPER)	1887	2022-03-03	238	842	35		114%	77	658	642	302	698	1250	736	25
1C38P	Downton Lake Upper	1829	2022-03-01		867			N/A	N/A	721	558	558	670	721	N/A	6
1C39	BRIDGE GLACIER (LOWER)	1390	2022-03-03	160	478	30		93%	40	404	420	146	518	954	512	26
1C40P	North Tyaughton	1969	2022-03-01		414			N/A	N/A	429	241	241	307	429	N/A	6
			Average	128	516	30		105%	54							

Basin Index Calculation	Average SWE	527
	Average Normal	501
Bridge/Lillooet Basin Index - March 1, 2022		

Stations used in Basin Index:
1C12P, 1C14, 1C18P, 1C28, 1C38, 1C39

CHILCOTIN			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C21	BIG CREEK	1140	2022-02-26	29	74	26		140%	73	89	36	0	48	112	53	49
1C22	PUNTZI MOUNTAIN	940	2022-02-28	32	110	34		182%	99	68	52	0	52	128	60	51
			Average	31	92	30		161%	86							
			Basin Index Calculation	Average SWE	92											
				Average Normal	57											
			Chilcotin Basin Index - March 1, 2022					163%								

Stations used in Basin Index:
1C21, 1C22

QUESNEL			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C17	MOUNT TIMOTHY	1660	2022-03-07	102	322	32		115%	66	268	229	141	282	468	280	59
1C20P	Boss Mountain Mine	1460	2022-03-01	179	568	32		116%	74	595	507	221	486	739	488	28
1C23	PENFOLD CREEK	1685		NS	NS	NS	NS	N/A	N/A	NS	NS	453	784	1132	814	40
1C33A	GRANITE MOUNTAIN	1150	2022-03-01	67	246	37		141%	100	185	182	112	184	211	174	16
1C41P	Yanks Peak East	1670	2022-03-01	222	905	41		130%	96	787	993	409	727	993	697	25
			Average	143	510	35		126%	84							

*Record High

Basin Index Calculation	Average SWE	510
	Average Normal	410

Stations used in Basin Index:

1C17, 1C20P, 1C33A, 1C41P

Quesnel Basin Index - March 1, 2022 125%

MIDDLE FRASER

Basin Index Calculation	Average SWE	354
	Average Normal	318

Stations used in Basin Index:

1C01, 1C06, 1C09A, 1C12P, 1C14, 1C17, 1C18P, 1C20P, 1C21, 1C22, 1C25, 1C28, 1C29, 1C33A, 1C38, 1C39, 1C41P

Middle River Basin Index - March 1, 2022 111%

LOWER FRASER

LOWER FRASER			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1D06P	Tenquille Lake	1680	2022-03-01	276	999	36		121%	79	883	804	488	864	1219	823	20
1D08	STAVE LAKE	1250	2022-02-24	256	1022	40		90%	24	1380	N	120	1235	2500	1136	52
1D08P	Lamont Creek Upper	1217	2022-03-01		1190			N/A	N/A	1471		1471		1471	N/A	1
1D09P	Wahleach Lake Upper	1480	2022-03-01		709			93%	46	982	743	251	738	1320	759	28
1D10	NAHATLATCH RIVER	1550	2022-02-24	247	955	39		89%	32	N	N	400	1114	2380	1078	47
1D16	DICKSON LAKE	1160	2022-02-24	209	794	38		72%	20	1538	N	22	1131	1814	1101	26
1D17P	Chilliwack River	1600	2022-03-01	272	1325	49		106%	56		1406	514	1272	2360	1254	28
1D18	DISAPPOINTMENT LAKE	1050	2022-02-25	294	1300	44		109%	46	1550	1192	300	1354	1732	1191	20
1D18P	Disappointment Lake	1050	2022-03-01	304				N/A	N/A		998	259	1239	1996	1174	13
1D19P	Spuzzum Creek	1180	2022-03-01	232	1020	44		83%	23	1603	1022	265	1256	2625	1235	23
			Average	261	1035	41		95%	41							

Basin Index Calculation	Average SWE	1016
	Average Normal	1072

Stations used in Basin Index:

1D06P, 1D08, 1D09P, 1D10, 1D16, 1D17P, 1D18, 1D19P

Lower Fraser Basin Index - March 1, 2022 95%

NORTH THOMPSON

NORTH THOMPSON			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1E01B	BLUE RIVER	670	2022-02-28	123	364	30		126%	92	218	359	179	277	411	289	38
1E02P	Mount Cook	1550	2022-03-01					N/A	N/A		1229	787	1046	1615	1073	17
1E03A	TROPHY MOUNTAIN	1860	2022-03-03	170	474	28		103%	61	532	602	216	440	778	460	47
1E07	ADAMS RIVER	1720	2022-02-28	196	692	35		118%	89	652	730	262	565	892	584	51
1E08P	Azure River	1652	2022-03-01	304	1161	38		125%	96	1008	563	969	1339	926	22	
1E10P	Kostal Lake	1770	2022-03-01	235	813	35		114%	86	655	617	481	714	1023	711	36
1E14P	Cook Creek	1280	2022-03-01	205	790	39		161%	100	665	680	308	493	686	491	12
			Average	206	716	34		125%	87							

*Record High

Basin Index Calculation	Average SWE	716
	Average Normal	577

Stations used in Basin Index:

1E01B, 1E03A, 1E07, 1E08P, 1E10P, 1E14P

North Thompson Basin Index - March 1, 2022 124%

SOUTH THOMPSON			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1F01A	ABERDEEN LAKE	1310	2022-03-01	50	138	28		95%	44	151	207	51	140	250	146	65
1F02	ANGLEMONT	1190	2022-03-01	110	303	28		93%	41	297	469	160	328	635	326	64
1F03P	Park Mountain	1890	2022-03-01	175	654	37		91%	35	769	879	393	698	1038	715	37
1F04P	Enderby	1950	2022-03-01	239	839	35		N/A	N/A	1023	1116	695	986	1116	N/A	5
1F06P	Celista Mountain	1500	2022-03-01	253	868	34		119%	94	816	863	545	738	908	731	16
			Average	165	560	32		99%	53							

Basin Index Calculation	Average SWE	491
	Average Normal	480
South Thompson Basin Index - March 1, 2022		

Stations used in Basin Index:

1F01A, 1F02, 1F03P, 1F06P

South Thompson Basin Index - March 1, 2022 102%

FRASER RIVER

Basin Index Calculation	Average SWE	553
	Average Normal	518
Fraser River Basin Index - March 1, 2022		

Stations used in Basin Index:

1A02P, 1A03P, 1A06A, 1A10, 1A11, 1A14P, 1A17P, 1A19P, 1A12, 1A16, 1A23, 1B01, 1B01P, 1B02, 1B02P, 1B05, 1B06, 1B07, 1B08P, 1C01, 1C06, 1C09A, 1C12P, 1C14, 1C17, 1C18P, 1C20P, 1C21, 1C22, 1C25, 1C28, 1C29, 1C33A, 1C38, 1C39, 1C41P, 1D06P, 1D08, 1D09P, 1D10, 1D16, 1D17P, 1D18, 1D19P, 1E01B, 1E03A, 1E07, 1E08P, 1E10P, 1E14P, 1F01A, 1F02, 1F03P, 1F06P

UPPER COLUMBIA			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2A02	GLACIER	1250	2022-03-05	300	884	29		150%	98	663	708	251	586	952	591	82
2A03A	FIELD	1285	2022-02-25	72	215	30		145%	96	163	184	53	155	248	148	82
2A06P	Mount Revelstoke	1850	2022-03-01		1125			116%	80	1064	1161	537	987	1494	971	27
2A07	KICKING HORSE	1650	2022-02-25	116	341	29		123%	69	315	340	140	305	462	278	75
2A11	BEAVERFOOT	1890	2022-02-26	87	246	28		144%	89	206	208	80	188	333	171	60
2A14	MOUNT ABBOT	2010	2022-03-03	341	1320	39		132%	91	1225	1094	508	997	1448	1001	62
2A16	GOLDSTREAM	1920	2022-02-25	338	1281	38		131%	95	1075	1154	553	947	1351	979	58
2A17	FIDELITY MOUNTAIN	1870	2022-03-02	372	1420	38		134%	94	1338	1405	534	995	1703	1058	59
2A18P	Keystone Creek	1840	2022-03-01		850			N/A	N/A	808	733	779	821	N/A	5	
2A19	VERMONT CREEK	1520	2022-02-26	127	454	36		126%	74	432	345	152	363	643	360	55
2A21P	Molson Creek	1935	2022-03-01		1008			115%	81	982	887	437	884	1215	875	40
2A23	BUSH RIVER	1920	2022-02-25	237	883	37		125%	80	842	813	281	687	1078	707	50
2A25	KIRBYVILLE LAKE	1750	2022-02-25	296	1115	38		111%	76	1049	1116	526	975	1476	1006	48
2A27	DOWNIE SLIDE (LOWER)	980	2022-02-25	197	704	36		112%	78	674	856	378	594	1018	629	38
2A29	DOWNIE SLIDE (UPPER)	1630	2022-02-25	316	1228	39		107%	69	1236	1188	614	1080	2120	1150	41
2A30P	Colpitti Creek	2131	2022-03-01		906			N/A	100	821	785	423	651	836	N/A	12
2A31P	Caribou Creek Upper	2201	2022-03-01		982			N/A	N/A	952	832	717	806	952	N/A	6
2A32P	Wildcat Creek	2122	2022-03-01		723			N/A	N/A	595	664	434	534	664	N/A	6
2A34P	Glacier NP Rogers Pass Lower	1182	2022-03-01	230	808	35		N/A	N/A							0
			Average	233	868	35		126%	85							

Basin Index Calculation	Average SWE	873
	Average Normal	709
Upper Columbia Basin Index - March 1, 2022		

Stations used in Basin Index:

2A02, 2A03A, 2A06P, 2A07, 2A11, 2A14, 2A16, 2A17, 2A19, 2A21P, 2A23, 2A25, 2A27, 2A29

*Record High

WEST KOOTENAY			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD														
2B02A	FARRON	1220	2022-03-04	80	238	30			87%	25	300	279	79	278	450	274	47
2B05	WHATSHAN (UPPER)	1525	2022-02-24	138	465	34			83%	21	593	767	285	564	918	560	59
2B06P	Barnes Creek	1620	2022-03-01		457				101%	62	547	642	227	439	690	451	29
2B07	KOCH CREEK	1860	2022-02-24	140	458	33			75%	12	645	712	269	605	996	609	55
2B08P	St. Leon Creek	1800	2022-03-01		1168				132%	94	1041	1246	423	879	1392	888	28
2B09	RECORD MOUNTAIN	1890	2022-03-02	152	468	31			79%	20	602	580	147	580	1136	594	45
2D02	FERGUSON	880	2022-02-27	165	575	35			113%	67	610	381	283	517	796	507	66
2D03	SANDON	1070	2022-03-01	113	301	27			93%	45	368	435	196	305	475	324	42
2D04	NELSON	930	2022-02-25	91	291	32			97%	31	309	313	118	336	558	301	82
2D05	GRAY CREEK (LOWER)	1550		NS	NS	NS	NS	NS	N/A	N/A	381	471	201	386	663	385	70
2D06	CHAR CREEK	1310	2022-03-04	129	454	35			102%	53	397	443	231	445	754	447	54
2D07A	DUNCAN LAKE NO. 2	630		N	N	N	N	N	N/A	N/A	N	215	52	140	322	149	28
2D07AP	Duncan Lake Dam 2	559	2022-03-01	60	255	43			N/A	N/A	6	201	6		201	N/A	2
2D08P	East Creek	2030	2022-03-01		1045				145%	93	848	893	312	717	1167	722	40
2D09	MOUNT TEMPLEMAN	1860	2022-02-24	280	1033	37			118%	80	N	N	490	864	1534	872	42
2D10	GRAY CREEK (UPPER)	1940		NS	NS	NS	NS	NS	N/A	N/A	628	711	343	612	955	615	49
2D10P	GRAY CREEK (UPPER)	1930	2022-03-01	209	643	31			N/A	N/A	632	N/A	632		632	N/A	1
2D14P	Redfish Creek	2104	2022-03-01	384	1247	33			119%	88	1191	1316	615	1082	1316	1047	20
2D17	Lost Ledge	2050		N	N	N	N	N	N/A	N/A	N/A	N/A				0	
2D18	Purcell	2060	2022-02-23	228	727	32			N/A	N/A	N/A	N/A				0	
			Average	167	614	33			103%	53							

Basin Index Calculation	Average SWE	631
	Average Normal	584
West Kootenay Basin Index - March 1, 2022	108%	

Stations used in Basin Index:
2B02A, 2B05, 2B06P, 2B07, 2B08P, 2B09, 2D02, 2D03, 2D04, 2D06, 2D08P, 2D09, 2D14P

EAST KOOTENAY			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD														
2C01	SINCLAIR PASS	1370	2022-02-28	55	117	21			109%	49	124	159	44	118	262	108	74
2C04	SULLIVAN MINE	1550	2022-03-01	81	254	31			109%	43	284	205	53	267	465	234	76
2C09Q	Morrissey Ridge	1860	2022-03-01		464				84%	27	358	548	240	548	1074	551	38
2C10P	Moyie Mountain	1930	2022-03-01	90	303	34			85%	36	326	401	149	328	653	358	41
2C11	KIMBERLY UPPER	2140	2022-02-24	114	358	31			107%	49	412	NS	152	360	696	335	43
2C12	KIMBERLY MIDDLE	1680	2022-02-24	70	214	31			106%	47	225	NS	97	217	386	202	42
2C14P	Floe Lake	2090	2022-03-01		780				136%	97	690	642	254	596	893	572	26
2C15	MOUNT ASSINIBOINE	2230	2022-02-26	166	579	35			135%	92	499	487	185	427	680	430	48
2C17	THUNDER CREEK	2010	2022-02-26	95	260	27			117%	69	264	239	91	236	378	223	50
			Average	96	370	30			110%	57							

Basin Index Calculation	Average SWE	370
	Average Normal	335
East Kootenay Basin Index - March 1, 2022	111%	

Stations used in Basin Index:
2C01, 2C04, 2C09Q, 2C10P, 2C11, 2C12, 2C14P, 2C15, 2C17

BOUNDARY			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD														
2E01	MONASHEE PASS	1370	2022-02-24	92	250	27			88%	18	337	411	149	293	442	286	62
2E02	CARMI	1250	2022-02-24	43	89	21			71%	16	118	N	47	133	274	126	58

2E03	BIG WHITE MOUNTAIN	1680	N	N	N	N	N/A	N/A	421	N	208	384	676	397	55
2E07P	Grano Creek	1860	2022-03-01	123	395	32	99%	56	501	518	198	387	634	398	23
		Average		86	245	27	86%	30							

Basin Index Calculation	Average SWE	245
	Average Normal	270
Boundary Basin Index - March 1, 2022		91%

Stations used in Basin Index:
2E01, 2E02, 2E07P

OKANAGAN			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2F01A	TROUT CREEK (West)	1430	2022-02-28	58	173	30		95%	36	228	217	109	196	271	182	11
2F01AP	Trout Creek West	1420	2022-03-01	59	275	47		N/A	N/A	266	241	156	241	266	N/A	3
2F02	SUMMERLAND RESERVOIR	1280	2022-02-24	74	176	24		87%	29	269	256	97	213	381	202	61
2F03	MCCULLOCH	1280	2022-02-22	53	121	23		77%	25	204	229	71	158	249	158	81
2F04	GRAYSTOKE LAKE	1840	2022-03-02	99	236	24		80%	29	394	348	128	303	605	296	36
2F05P	Mission Creek	1780	2022-03-01	128	305	24		75%	14	463	566	203	388	634	409	51
2F07	POSTILL LAKE	1370	2022-03-02	60	158	26		87%	32	183	250	98	183	274	181	72
2F08	GREYBACK RESERVOIR	1550	N	N	N	N	N	N/A	N/A	177	N	91	185	312	202	52
2F08P	Greyback Reservoir	1550	2022-03-01	71	196	28		N/A	N/A	190	265	158	190	298	N/A	5
2F09	WHITEROCKS MOUNTAIN	1830	2022-03-02	133	425	32		93%	37	614	N	180	450	809	455	64
2F10	Silver Star Mountain	1840	N	N	N	N	N	N/A	N/A	673	N	347	599	912	619	59
2F10P	Silver Star Mountain	1839	2022-03-01	172	593	34		N/A	N/A	678	773	445	641	773	N/A	6
2F11	ISINTOK LAKE	1680	2022-02-25	48	102	21		71%	15	152	186	53	144	358	143	57
2F12	MOUNT KOBAU	1810	2022-03-01	85	251	30		96%	47	352	247	61	259	488	262	55
2F13	ESPERON CR (UPPER)	1650	NS	NS	NS	NS	NS	N/A	N/A	390	N	157	334	635	321	52
2F14	ESPERON CR (MIDDLE)	1430	NS	NS	NS	NS	NS	N/A	N/A	352	N	132	294	513	273	28
2F18P	Brenda Mine	1460	2022-03-01		233			79%	20	324	281	186	285	435	296	26
2F19	OYAMA LAKE	1340	2022-03-01	62	118	19		81%	29	176	198	73	146	241	146	52
2F19P	OYAMA LAKE		2022-03-01	52	147	28		N/A	N/A	230	N/A	230		230	N/A	1
2F20	VASEUX CREEK	1400	2022-02-26	52	124	24		110%	55	124	140	52	117	284	112	50
2F23	MACDONALD LAKE	1740	2022-03-03	120	349	29		94%	50	486	343	170	349	583	370	45
2F24	ISLAHT LAKE	1480	2022-03-01	104	216	21		80%	26	272	218	161	271	497	270	40
2F25	POSTILL LAKE UPPER	1540	NS	NS	NS	NS	NS	N/A	N/A	222	248	112	213	274	190	11
		Average		84	233	27		86%	32							

Basin Index Calculation	Average SWE	213
	Average Normal	249
Okanagan Basin Index - March 1, 2022		86%

Stations used in Basin Index:
2F01A, 2F02, 2F03, 2F04, 2F05P, 2F07, 2F09, 2F11, 2F12, 2F18P, 2F19, 2F20, 2F23, 2F24

SIMILKAMEEN			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2G03P	Blackwall Peak	1940	2022-03-01	236	682	29		100%	56	790	711	229	652	1323	681	54
2G04	LOST HORSE MOUNTAIN	1920	2022-02-25	100	254	25		131%	85	270	288	92	185	508	194	59
2G05	MISSEZULA MOUNTAIN	1550	2022-02-25	64	151	24		84%	24	238	182	76	192	363	180	58
2G06	HAMILTON HILL	1490	2022-02-26	77	221	29		87%	20	328	260	102	281	676	254	59
		Average		119	327	27		101%	46							

Basin Index Calculation	Average SWE	327
	Average Normal	327
Similkameen Basin Index - March 1, 2022		100%

Stations used in Basin Index:
2G03P, 2G04, 2G05, 2G06

South Coast		March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3A01	GROUSE MOUNTAIN	1100	2022-02-25	230	980	43		98%	49	1230	1078	0	988	2320	999	71
3A02	POWELL RIVER (UPPER)	1040		NS	NS	NS	NS	N/A	N/A	NS	NS	868		868	868	1
3A05	POWELL RIVER (LOWER)	910		NS	NS	NS	NS	N/A	N/A	NS	NS	588		588	588	1
3A09	PALISADE LAKE	880	2022-02-25	219	1007	46		93%	46	1392	962	0	1124	3150	1083	66
3A09P	Palisade Lake	900	2022-03-01	203	923	45		N/A	N/A	1277	682	585	682	1277	N/A	3
3A10	DOG MOUNTAIN	1080	2022-02-25	205	906	44		97%	39	1210	980	0	986	2146	931	38
3A19	ORCHID LAKE	1190	2022-02-25	307	1305	43		93%	29	1575	1320	190	1486	2960	1408	45
3A20	CALLAGHAN CREEK	1040	2022-02-24	164	664	40		96%	34	784	686	40	728	1260	693	44
3A20P	Callaghan	1017	2022-03-01	201	574	29		N/A	N/A	719	710	710	719	839	N/A	3
3A22	Nostetuko River	1500	2022-03-01	119				N/A	N/A	506	448	86	468	878	479	32
3A24P	Mosley Creek Upper	1650	2022-03-01	91	296	33		115%	74	260	230	98	240	555	256	33
3A25P	Squamish River Upper	1340	2022-03-01		1141			86%	25	1267	1427	558	1342	2312	1322	30
3A26	CHAPMAN CREEK	1022	2022-02-23	261	1014	39		95%	44	1222	1180	662	1102	1412	1064	12
3A27	EDWARDS LAKE	1070	2022-02-23	183	670	37		94%	46	914	770	380	713	964	709	10
3A28P	Tetrahedron	1420	2022-03-01	340	1248	37		N/A	N/A	1466	1155	953	1171	1466	N/A	4
			Average	210	894	40		96%	43							

Basin Index Calculation	Average SWE	887
	Average Normal	941
South Coast Basin Index - March 1, 2022		94%

Stations used in Basin Index:

3A01, 3A09, 3A10, 3A19, 3A20, 3A24P, 3A25P, 3A26, 3A27

South Coast Basin Index - March 1, 2010

VANCOUVER ISLAND		March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	Depth (cm)	SWE (mm)	Density %	Code									
3B01	FORBIDDEN PLATEAU	1100	2022-02-24	234	1004	43		85%	30	1238	1214	101	1226	2730	1177	66
3B02A	MOUNT COKELY	1190	N	N	N	N	N	N/A	N/A	NS	N	14	664	1034	596	31
3B04	ELK RIVER	270	2022-02-24	51	209	41		343%	79	5	92	0	52	546	61	61
3B10	UPPER THELWOOD LAKE	990	2022-02-24	202	786	39		73%	22	1112	1014	0	1085	2440	1079	60
3B17P	Wolf River Upper	1490	2022-03-01		854			81%	18	934	920	204	1028	2085	1052	34
3B18	WOLF RIVER (MIDDLE)	990	2022-02-24	64	238	37		50%	10	436	462	0	462	1344	479	51
3B19	WOLF RIVER (LOWER)	640	2022-02-24	54	208	39		66%	26	252	352	0	324	1064	314	50
3B23P	Jump Creek	1160	2022-03-01	204	901	44		100%	50	1076	701	20	912	2206	897	26
3B24P	Heather Mountain Upper	1190	2022-03-01	199	939	47		N/A	N/A	1294	962	651	1084	1557	N/A	6
3B26P	Mount Arrowsmith	1465	2022-03-01	240	803	33		N/A	N/A	923	743	743	852	1123	N/A	4
			Average	156	660	40		114%	33							

Basin Index Calculation	Average SWE	600
	Average Normal	723
Vancouver Island Basin Index - March 1, 2022		83%

Stations used in Basin Index:

3B01, 3B04, 3B10, 3B17P, 3B18, 3B19, 3B23P

Vancouver Island Basin Index - March 1, 2010

March 1, 2022 Data

Basin Index Calculation	Average SWE	575
	Average Normal	569
Central Coast Basin Index - March 1, 2022		101%

Stations used in Basin Index:

3C07P, 3C08P

Central Coast Basin Index - March 1, 2022 101%

SKAGIT			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3D01C	SUMALLO RIVER WEST	790	2022-02-24	78	215	28		103%	50	224	308	0	214	442	208	30
3D02	LIGHTNING LAKE	1220	2022-02-27	75	232	31		89%	38	311	326	36	251	497	260	48
3D03A	KLESILKWA	1175	2022-02-24	77	219	28		103%	40	312	336	0	240	759	212	68
		Average		77	222	29		99%	43							

Basin Index Calculation	Average SWE	222
	Average Normal	227
Skagit Basin Index - March 1, 2022		98%

Stations used in Basin Index:
3D1C, 3D02, 3C03A

PEACE			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4A02P	Pine Pass	1400	2022-03-01	283	955	34		103%	57	1123	1162	606	917	1485	923	29
4A03P	Ware Upper	1565	2022-03-01	79	179	23		N/A	N/A	176	196	145	196	223	N/A	5
4A04P	Ware Lower	971	2022-03-01	67	167	25		N/A	N/A	166	182	91	182	196	N/A	5
4A05	GERMANSEN (UPPER)	1480	2022-03-01	92	260	28		86%	32	334	401	174	289	520	301	61
4A06	TUTIZZI LAKE	1045	2022-03-01	83	232	28		99%	51	278	268	102	232	386	234	58
4A07	LADY LAURIER LAKE	1440	2022-03-02	152	483	32		109%	71	501	428	255	418	662	443	54
4A09P	Pulpit Lake	1311	2022-03-01	102	375	37		103%	51	283	383	200	372	515	365	31
4A10	FREDRICKSON LAKE	1325	2022-03-01	80	187	23		88%	38	217	306	86	202	315	213	57
4A11	TRYGVE LAKE	1410	2022-03-01	113	312	28		100%	64	316	382	186	295	453	312	57
4A12	TSAYDAYCHI LAKE	1190	2022-02-26	108	333	31		94%	54	463	430	166	327	540	355	58
4A12P	Tsaydaychi Lake	1195	2022-03-01	108	282	26		N/A	N/A	419	N/A	419		419	N/A	1
4A13	PHILIP LAKE	1035	2022-02-24	75	218	29		88%	31	309	284	118	237	400	249	57
4A13P	Philip Lake	1028	2022-03-01		222			N/A	N/A	269	276	269		276	N/A	2
4A16	MORFEE MOUNTAIN	1430	2022-02-24	174	614	35		85%	31	819	878	312	699	1166	726	54
4A18	MOUNT SHEBA	1490	2022-02-24	232	840	36		111%	70	808	1008	394	720	1123	754	49
4A18P	MOUNT SHEBA	1484	2022-03-01	267	883	33		N/A	N/A	901	991	802	901	991	N/A	3
4A20P	Monkman Creek	1570	2022-03-01		443			N/A	N/A	310	371	310	371	390	N/A	3
4A21	MOUNT STEARNS	1505	2022-03-02	64	139	22		113%	70	89	124	40	122	227	123	47
4A25	FORT ST. JOHN A	690	2022-03-02	25	100	40		98%	57	63	90	38	90	191	102	47
4A27P	Kwadacha North	1554	2022-03-01		276			103%	58	248	312	158	266	405	269	31
4A30P	Aiken Lake	1050	2022-03-01	87	216	25		96%	45	226	167	117	221	363	224	34
4A31P	Crying Girl Prairie	1358	2022-03-01		172			N/A	N/A	188	192	124	199	220	N/A	6
4A33P	Muskwa-Kechika	1196	2022-03-01		111			N/A	N/A	102	62	33	83	102	N/A	6
4A34P	Dowling Creek	1456	2022-03-01					N/A	N/A	1026	1072	1026	1136	1288	N/A	4
4A36P	Parsnip Upper	790	2022-03-01	107	324	30		N/A	N/A	362	345	336	345	362	N/A	3
4A37P	McQue Terrace	1200	2022-03-01		113			N/A	N/A	81	113	81		113	N/A	2
		Average		121	337	30		98%	52							

Basin Index Calculation	Average SWE	369
	Average Normal	373
Peace Basin Index - March 1, 2022		99%

Stations used in Basin Index:
4A02P, 4A05, 4A06, 4A07, 4A09P, 4A10, 4A11, 4A12, 4A13, 4A16, 4A18, 4A21, 4A25, 4A27P, 4A30P

SKEENA-NASS			March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4B01	KIDPRICE LAKE	1370	2022-03-02	203	746	37		94%	51	1033	701	429	744	1320	791	70

4B02	JOHANSON LAKE	1420	2022-03-01	98	261	27		104%	64	266	331	148	239	368	252	57
4B03A	HUDSON BAY MTN.	1480	2022-03-02	156	482	31		109%	67	534	406	287	420	719	444	50
4B04	CHAPMAN LAKE	1460	2022-03-02	146	456	31		110%	73	455	370	266	386	691	415	56
4B06	TACHEK CREEK	1140	2022-03-03	83	192	23		96%	53	238	174	117	186	332	199	53
4B07	MCKENDRICK CREEK	1050	2022-03-02	92	224	24		89%	35	260	223	155	254	391	250	52
4B08	MOUNT CRONIN	1480	2022-03-02	145	468	32		95%	48	446	425	345	473	869	492	52
4B10	NINGUNSAW PASS	690		N	N	N	N	N/A	N/A	N	N	210	371	629	365	44
4B11A	BEAR PASS	460	2022-03-01	146	600	41		119%	65	782	N	87	539	824	503	34
4B13A	TERRACE AIRPORT	180	2022-03-01	26	94	36		69%	38	161	230	0	132	407	135	39
4B14	EQUITY MINE	1420		N	N	N	N	N/A	N/A	368	352	190	324	546	348	43
4B15	LU LAKE	1300		N	N	N	N	N/A	N/A	268	216	122	249	412	254	42
4B15P	Lu Lake	1300	2022-03-01	95	244	26		99%	52	299	253	120	240	402	246	24
4B16P	Shedin Creek	1480	2022-03-01	235	774	33		116%	74	616	622	393	675	957	665	25
4B17P	Tsai Creek	1360	2022-03-01	234	994	42		107%	71	950	840	587	876	1600	932	24
4B18P	Cedar-Kiteen	885	2022-03-01	218	880	40		157%	91	698	502	281	502	953	561	19
Average				144	493	33		105%	60							

Basin Index Calculation	Average SWE	493
	Average Normal	453
Skeena-Nass Basin Index - March 1, 2022		109%

Stations used in Basin Index:
4B01, 4B02, 4B03A, 4B04, 4B06, 4B07, 4B08, 4B11A, 4B13A, 4B15P, 4B16P, 4B17P, 4B18P

LIARD		March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4C01	SIKANNI LAKE	1385	2022-03-02	102	280	27		123%	82	219	238	106	214	335	227	56
4C01P	Sikanni Lake	1387	2022-03-01	96	230	24		N/A	N/A	226	255	114	226	283	N/A	5
4C02	SUMMIT LAKE	1280	2022-02-23	84	136	16		128%	80	128	73	0	99	190	106	51
4C03	DEASE LAKE	820	2022-03-02	73	118	16		101%	53	144	102	45	109	229	116	56
4C05	FORT NELSON AIRPORT	380	2022-03-02	81	122	15		146%	87	112	59	40	93	177	84	54
Average		87	177	20				125%	75							

Basin Index Calculation	Average SWE	164
	Average Normal	133
Liard Basin Index - March 1, 2022		123%

Stations used in Basin Index:
4C01, 4C02, 4C03, 4C05

STIKINE		March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4D02	ISKUT	1000	2022-03-02	57	142	25		152%	88	90	134	33	94	176	93	46
4D10P	Tumeka Creek	1220	2022-03-01		477			100%	47	493	519	262	488	789	479	24
4D11P	Kinaskan Lake	1020	2022-03-01	121	359	30		112%	71	405	367	148	283	557	321	26
Average		89	326	27				121%	68							

Basin Index Calculation	Average SWE	326
	Average Normal	298
Stikine Basin Index - March 1, 2022		110%

Stations used in Basin Index:

NORTHWEST		March 1, 2022 Data					Mar 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4E01	LOG CABIN	900	2022-02-23	135	419	31		119%	85	700	405	124	328	700	353	61
4E02B	ATLIN LAKE	730	2022-02-24	57	129	23		139%	77	207	54	54	88	207	93	16

Average	96	274	27	129%	81
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Basin Index Calculation	Average SWE	274
	Average Normal	223
Northwest Basin Index - March 1, 2022	123%	

Stations used in Basin Index:
4E01, 4E02B

BRITISH COLUMBIA

Basin Index Calculation	Average SWE	513
	Average Normal	490
British Columbia Basin Index - March 1, 2022	105%	

Stations used in Basin Index:
All stations with measurements in B.C.

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
N/A	Not available
NS	Not scheduled
SD	Snow Depth
SWE	Snow Water Equivalent
T	Trace Amount



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The April 1st snow survey is now complete. Data from 126 manual snow courses and 88 automated snow weather stations around the province (collected by the Ministry of Environment and Climate Change Strategy's Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada and the provincial Climate Related Monitoring Program have been used to form the basis of the following report¹.

Executive Summary

The April 1st 2022 snow pack throughout British Columbia is near normal. The average of all measurements across B.C. decreased to 99% in the past month (March 1st: 105%) primarily due to dry conditions at the start of the month and relatively warm temperatures in the final week melting lower elevation snow. The snow basin index for the Fraser River at Hope is slightly above normal at 108%, decreasing from 119% on March 1st. By early March, nearly 95% of the annual B.C. snow pack has typically accumulated. Snow pack throughout the province ranges from 74 to 134% of normal. The combination of near normal April 1st snow pack, La Niña conditions forecast to persist through spring, mountain snow accumulation in the first week of April, and seasonal weather forecasts that predict cooler conditions for the province means a slightly elevated risk for freshet-related flooding this spring. Snow pack is only one factor related to freshet flood risk. Weather conditions from April through June determine the timing, magnitude, and rate of snow melt, where heavy rainfall events can exacerbate snowmelt-driven flows.

Weather

March was relatively dry for the first two weeks throughout the province. Unsettled weather persisted over the second half of the month; however, no significantly strong storm systems impacted mountain snow pack. The north experienced generally warmer conditions (+1.0°C to +4.0°C), whereas southern regions of the province were near normal. Greater than normal precipitation occurred for the South Coast, southern Vancouver Island, the North Coast, and the northwestern regions of B.C. Slightly drier than normal March conditions occurred in the Bulkley-Lakes region. Relatively warm temperatures in the final week of March kicked off the snowmelt season, particularly in lower elevations in the South Interior like the Okanagan and Nicola watersheds.

A strong storm system on April 3-4 added significant snow pack particularly to mountains in the South Coast, Lower Fraser and Vancouver Island. A weak atmospheric river brought moderate precipitation to the North Coast April 6-7 and further added to the higher elevation snow. Fairly warm conditions occurred for the South Interior during this period.

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The upcoming weather forecast predicts light precipitation and generally cooler temperatures for the upcoming 7-days and possibly longer.

Snowpack

Snow basin indices for April 1st, 2022 range from a low of 74% of normal on Vancouver Island and the Okanagan to a high of 134% in the Northwest (Table 1 and Figure 2, 3). Generally, the province has normal snow pack for April 1st, with the average of all snow measurements across the province at 99%. This has decreased from 105% observed on March 1st. The Okanagan and Vancouver Island are below normal (70-79%) for April 1st. Slightly below normal snow packs (80-89%) were measured for the Nechako and Boundary. Normal snow packs (90-110%) were measured for the Upper Fraser West, Middle Fraser, Lower Fraser, South Thompson, West Kootenay, East Kootenay, Similkameen, South Coast, Central Coast, Skagit, Peace, Skeena-Nass, and Stikine. Slightly above normal snow packs (110-120%) exists in the Upper Fraser East, North Thompson, Upper Columbia, and Liard. The Northwest is well above normal (>130%).

The average of all snow measurements for the entire Fraser River basin (e.g., upstream of the Lower Mainland and inclusive of Upper Fraser West, Upper Fraser East, Nechako, Middle Fraser, Lower Fraser, North Thompson and South Thompson) is 102%, decreasing from 107% on March 1st. The River Forecast Centre calculates an additional Snow Basin Index for the Fraser River at Hope based on each basin's contribution to the total annual flow of the river. For example, the Upper Fraser East contributes approximately 30% of the total flow for the Fraser River at Hope, the North Thompson about 16%, the South Thompson about 11% and the Quesnel approximately 9%. The Fraser River at Hope Snow Basin Index is 108%, decreasing from March 1st (119%). There have been many years in the past two decades with higher values for April 1st values including 2021 (112%), 2020 (115%), 2018 (122%), 2014 (114%), 2012 (126%), 2011 (116%), and 2007 (131%) based on active stations and updated snow normals.

As the Middle Fraser encompasses a large and geographically diverse area, the River Forecast Centre has divided the region into sub-basins to analyze snow conditions and potential flood risks in localised areas. The Bridge region measures 96% of normal, the Quesnel area 116%, the Lower Thompson 94% and the Chilcotin sub-basin is at 72%. A Nicola Snow Basin Index, comprised of stations in the Lower Thompson that are within the Nicola watershed and Okanagan sites that border the Nicola, is calculated at 69% of normal. Please review the full summary data tables at the end of this report for further interpretation.

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Table 1 - BC Snow Basin Indices – April 1, 2022

Basin	% of Normal (Mar 1 st value)	Basin	% of Normal (Mar 1 st value)
Upper Fraser West	95 (103)	Okanagan	74 (86)
Upper Fraser East	117 (129)	Boundary	87 (91)
Nechako	88 (95)	Similkameen	94 (100)
Middle Fraser	103 (111)	South Coast	95 (94)
Lower Thompson*	83 (99)	Vancouver Island	74 (83)
Bridge*	96 (105)	Central Coast	93 (101)
Chilcotin*	72 (163)	Skagit	90 (98)
Quesnel*	116 (125)	Peace	94 (99)
Lower Fraser	91 (95)	Skeena-Nass	99 (109)
North Thompson	119 (124)	Stikine	105 (110)
South Thompson	101 (102)	Liard	112 (123)
Upper Columbia	115 (123)	Northwest	134 (123)
West Kootenay	101 (108)	Fraser (Entire basin)	102 (107)
East Kootenay	101 (111)	Fraser River at Hope	108 (119)
Nicola**	69 (89)	British Columbia	99 (105)

* sub-basin of Middle Fraser

** sub-basin of Lower Thompson – includes representative stations within Okanagan

There are two snow stations with period of record highs for April 1st; however, the stations have relatively short periods of record:

- 1E14P Cook Creek: 910 mm SWE (153% of normal) – period of record 13 years (NORTH THOMPSON)
- 2A30P Colpitti Creek: 1028 mm SWE – period of record 12 years (UPPER COLUMBIA)

There are two snow stations with period of record lows for April 1st:

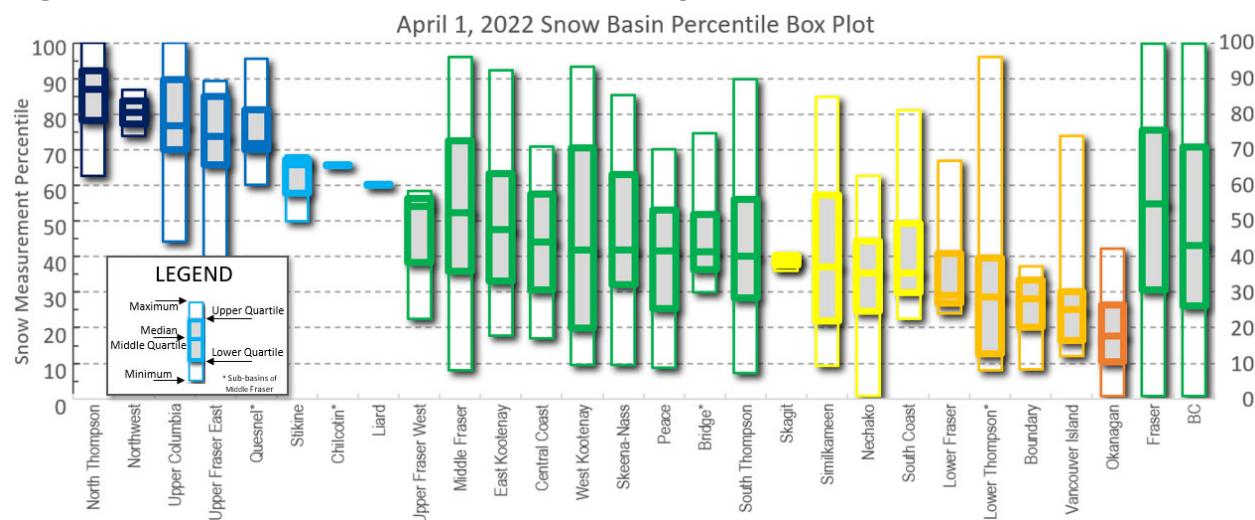
- 2F13 ESPERON CR (UPPER): 240 mm SWE (63% of normal) – period of record 52 years (OKANAGAN)

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- 2F14 ESPERON CR (MIDDLE): 156 mm SWE (48% of normal) – period of record 53 years (OKANAGAN)

The River Forecast Centre began including percentiles in addition to using percent of normal to analyze snow pack in the 2020 bulletin. Percentiles offer a more accurate interpretation of variance, especially in regions when the percent of normal can be extremely high or low. The region with the highest average percentile is the North Thompson (84th percentile); the region with lowest is the Okanagan (18th). Figure 1 (below) displays the percentile variance ordered from highest to lowest median via box plots (including sub-basins).

Figure 1. Snow Basin Percentile Box Plot – April 1st, 2022



Outlook

The Climate Prediction Center (CPC) shows that El Niño Southern Oscillation (ENSO) demonstrated La Niña conditions during the fall-winter of 2021-22. This is the second La Niña in a row, with La Niña present during the fall-winter of 2020-21. La Niña occurs when oceanic temperature anomalies along the equatorial Pacific Ocean region are below normal for an extended period. Historically, La Niña conditions create cooler temperatures for British Columbia and wetter weather in the South Coast and Vancouver Island during the winter months.

Forecasts from the CPC indicate a likelihood (53% chance) of continued La Niña conditions through summer (June-August 2022), with a potential transition to neutral conditions (40-50% likelihood) thereafter. Historically, the April 1st snow pack is often above normal when winter La Niña conditions exist in British Columbia, particularly for the South Coast and

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Southern Interior. La Niña conditions that persist into the spring can lead to late-season snow accumulation and delayed snowmelt, which increases the risk for freshet flooding.

Seasonal weather forecasts from late March by Environment and Climate Change Canada indicate an increased likelihood of colder than normal temperatures from April through June for coastal and northern regions of the province, along with pockets in the South Interior. There is an increased likelihood of lower than normal precipitation in the Peace and Northeast for April to June, whereas there is no climatological trend forecast for precipitation over the rest of the province. Seasonal precipitation forecasts tend to have lower forecast skill in comparison to seasonal temperature forecasts.

Seasonal volume runoff forecasts (see below) are near-normal (95-105%) for the Quesnel, South Thompson, and Skeena. Slightly above normal (105-120%) flows are forecast for the Upper Fraser, North Thompson and Thompson River. Runoff in the Similkameen River and Cowichan Lake is forecast to be well above normal (>120%). In 2021, an updated model was developed for Nicola Lake, Nicola River, Okanagan Lake and Kalamalka-Wood Lake (further details can be found in the February 1st 2021 Snow Bulletin). There is significant variability between the new and old seasonal volume forecasts for Nicola Lake, Nicola River, Okanagan Lake and Kalamalka-Wood Lake. Several predictor variables were outside the historic range for which the newer modeling was developed, resulting in increased uncertainty for the upcoming forecast. Any interpretation of seasonal volume runoff forecasts must include this critical fact. However, the well below normal snow basin indices for the regions suggest the lower forecast is more likely. Slightly below normal snow pack on Vancouver Island and the South Coast indicates an average year of spring runoff for other watersheds within the regions.

Spring Flood Risk (Freshet)

Flooding is a provincial risk every spring due to a combination of snowmelt and/or rainfall (also known as freshet). Every region is at risk for flooding, even if the snow pack is below normal. The weather conditions during spring play a critical role in the rate at which the snow melts. For example, a gradual warming under dry conditions is ideal to lessen the flood risk. A lengthy cold period with high amounts of precipitation followed by a sudden extreme heat wave could lead to catastrophic conditions, especially if additional rain follows. Spring weather is impossible to predict with accuracy in advance, and so communities and residents vulnerable to flooding should prepare accordingly; information for [Be Prepared for Floods](#) is available from Emergency Management BC.

Typically, regions with above normal snow pack have a higher risk for flooding. As of April 1st, 2022, these areas include:

- The Upper Columbia measures 115% of normal, the 4th highest in 30 years (1999: 128%, 2007: 121%, 2012: 128%). Communities (e.g., Golden) in the Upper Columbia have an increased risk for flooding through the freshet and may remain at risk into late June or even July due to significant high elevation snow pack.

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- The North Thompson measures 119% of normal, which is the highest index since 1999.
- The Quesnel region (within the Middle Fraser) is 116% of normal and is the 3rd highest since 1999 (2007: 117%, 2020: 121%).
- The South Thompson is near normal at 101%. However, there are only four sites reporting across the entire basin that calculate the snow basin index. Since the South Thompson borders the North Thompson and Upper Columbia (which have significantly higher snow basin indices), it is possible that the snow pack is slightly higher than the snow basin index suggests. Additionally, Shuswap Lake levels have been above average this year and were at historic highs over the winter due to the extreme rainfall from the atmospheric rivers in November 2021.
- The Upper Fraser East is high at 117% of normal. Although above normal, this year's index is still below recent higher snow years (like 2012, 2013, 2014, 2020, 2021).
- The Liard River and Northwest are at 112% and 134% of normal, respectively.
- The manual snow survey 1C32 Deadman River had yet to be sampled before the issuance of this report. The only other site representative of the Bonaparte River and areas around Cache Creek is 1C42 Caverhill Lake New which was measured at 134%.

In addition to the above, other regions contain a significant number of anomalously high snow pack observations, either as a % of normal measure or as described by percentiles. These include the Skeena-Nass, Stikine, Northwest, Similkameen, South Coast, West Kootenay and East Kootenay. Specific watersheds that have high snow pack will be at higher flood risk than the overall basin average may suggest.

The combination of high snow pack in the Upper Fraser East, Quesnel and North Thompson indicates a heightened concern for flooding for Prince George, Kamloops, and the overall Fraser River. Based solely on the contributions to the Fraser River from the Upper Fraser East, Quesnel and North Thompson, this year ranks as the 7th highest in the last 30 years.

November 2021 Atmospheric River Floods

The unprecedented and catastrophic flooding that occurred in November 2021 has made many rivers more vulnerable to freshet high flows. Fortunately, the April 1st snow pack in the Nicola, Similkameen and Lower Fraser is not above normal. However, due to the significant erosion and possible changes in river channel morphology that occurred within many areas (including but not limited to the Coldwater River, Nicola River, Tulameen River, Coquihalla River and lower Fraser River), rivers may be at increased vulnerability to flooding at lower levels than previous freshet seasons. Flows during the freshet season tend be sustained for longer periods of time during snowmelt, which is different from the fall flooding season that is driven by shorter duration, intense rainfall events.



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The risk for flooding in the Sumas Prairie will be based on potential for flooding of the Nooksack River and stability of the dikes along the Nooksack River. Flooding of the Sumas Prairie from Canadian contributions could occur from flooding of the Fraser River if extreme water levels exceeded flood protection infrastructure, such as occurred in 1894 and 1948.

2021 Wildfire Season

The 2021 Wildfire season was very active in the province with many watersheds sustaining significant burns. Disturbances such as fire affect the hydrologic response of streams, rivers, and lakes relevant to potential flooding, as summarized by a study conducted by the RFC in Spring 2018 (and briefly summarized in the April 1st, 2018 Snow Bulletin). Specifically, flows from snowmelt dominated watersheds impacted by fires tend to be greater and peak earlier as compared to undisturbed areas, even under normal weather conditions. Areas that recently experienced severe wildfire are at greater risk for higher peak flows (e.g., Upper and Lower Nicola, Guichon Creek, Deadman River).

Extreme Weather Events

In general, flooding usually occurs due to extreme weather. In 2021, there were two extreme weather events that resulted in severe impacts: the heat dome in late-June and atmospheric rivers in November. Alpine temperatures during the heat dome reached up to 38°C, triggered extraordinary snow melt rates (80-100 mm SWE/day) at high elevation automated snow weather stations that still had snow. If such an extreme heat event occurred earlier in the freshet season when there is more snow to melt (May or early-June), it could lead to significant flooding at a provincial scale.

Atmospheric rivers tend to affect the province primarily between September through January. However, strong storms can occur as early as August for the North Coast; there are numerous examples of atmospheric rivers occurring on the South Coast into February and March. It is less likely that these events will occur in May or June, but not impossible.

Although not as extreme as the previous examples, the most likely cause for major flooding would be a period of persistent cool temperatures and wet weather into the late spring, followed by a sudden heat wave lasting at least five days. There is evidence that the 1948 and 1894 floods on the Fraser River were caused by this scenario. The snow conditions for April 1st in 1948 were considered slightly above average (based on current snow stations that had measurements in 1948), showing the importance of spring weather to flooding. A secondary risky scenario is a widespread heavy rainfall event that occurs during the high flows from snowmelt.

Wrap-around low pressure, or cold low, systems pose an additional risk of primarily rain-driven flooding. The risk of these events occurring increases in June and typically extends into July. These systems can deliver extreme rainfall which wraps around the province and

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Snow Survey and Water Supply Bulletin – April 1st, 2022

typically leads to upslope precipitation enhancement within eastern slope mountainous regions. These can be augmented or enhanced by snowmelt and high antecedent streamflow conditions. Flood events from these phenomena have occurred in the Peace Region in 2012 and 2016, Fernie (and Calgary/Alberta) in 2013, and in the Chilcotin in 2019.

Summary

By early April, nearly 95% of the annual B.C. snow pack has typically accumulated. Snow pack throughout the province ranges from 74 to 134% of normal. The provincial average for all snow measurements across the province is 99% of normal, and the Fraser River at Hope is 108%. The combination of near normal April 1st snow pack, La Niña conditions forecast to persist through spring, recent snow accumulation during the first week of April, and seasonal weather forecasts that predict cooler conditions for the province means a slightly elevated risk for freshet-related flooding. Snow pack is only one factor related to freshet flood risk. Weather conditions from April through June determine the timing, magnitude, and rate of snow melt, and heavy rainfall events can exacerbate the situation. Flooding is possible in years with normal or even below-normal snow pack. Conversely, high snow pack does not typically lead to flooding without significant contributing weather during the snow melt season.

The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the May 1st, 2022 bulletin, which is scheduled for release on May 10th.

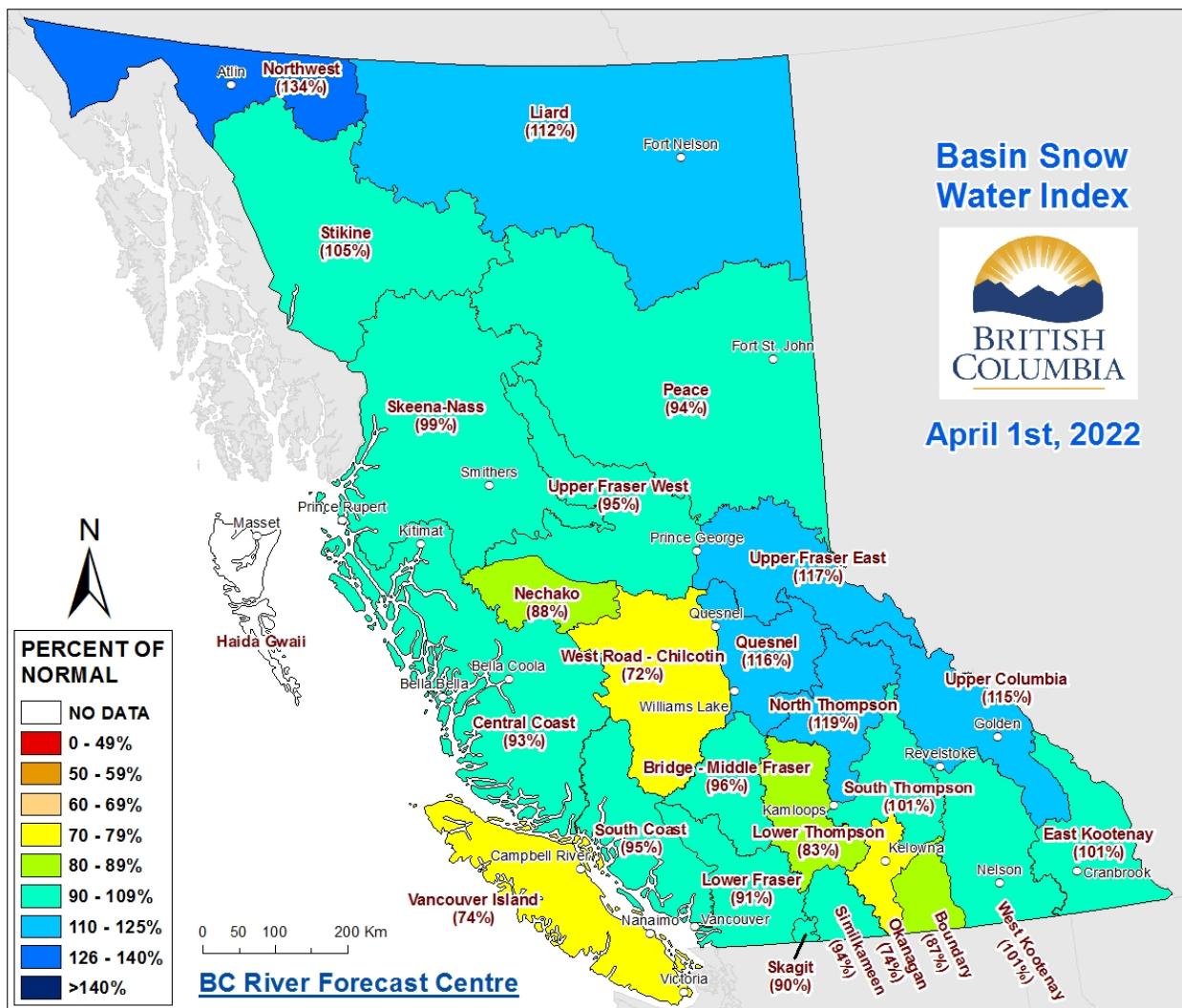
BC River Forecast Centre
April 8, 2022

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Figure 2: Basin Snow Water Index – April 1st, 2022

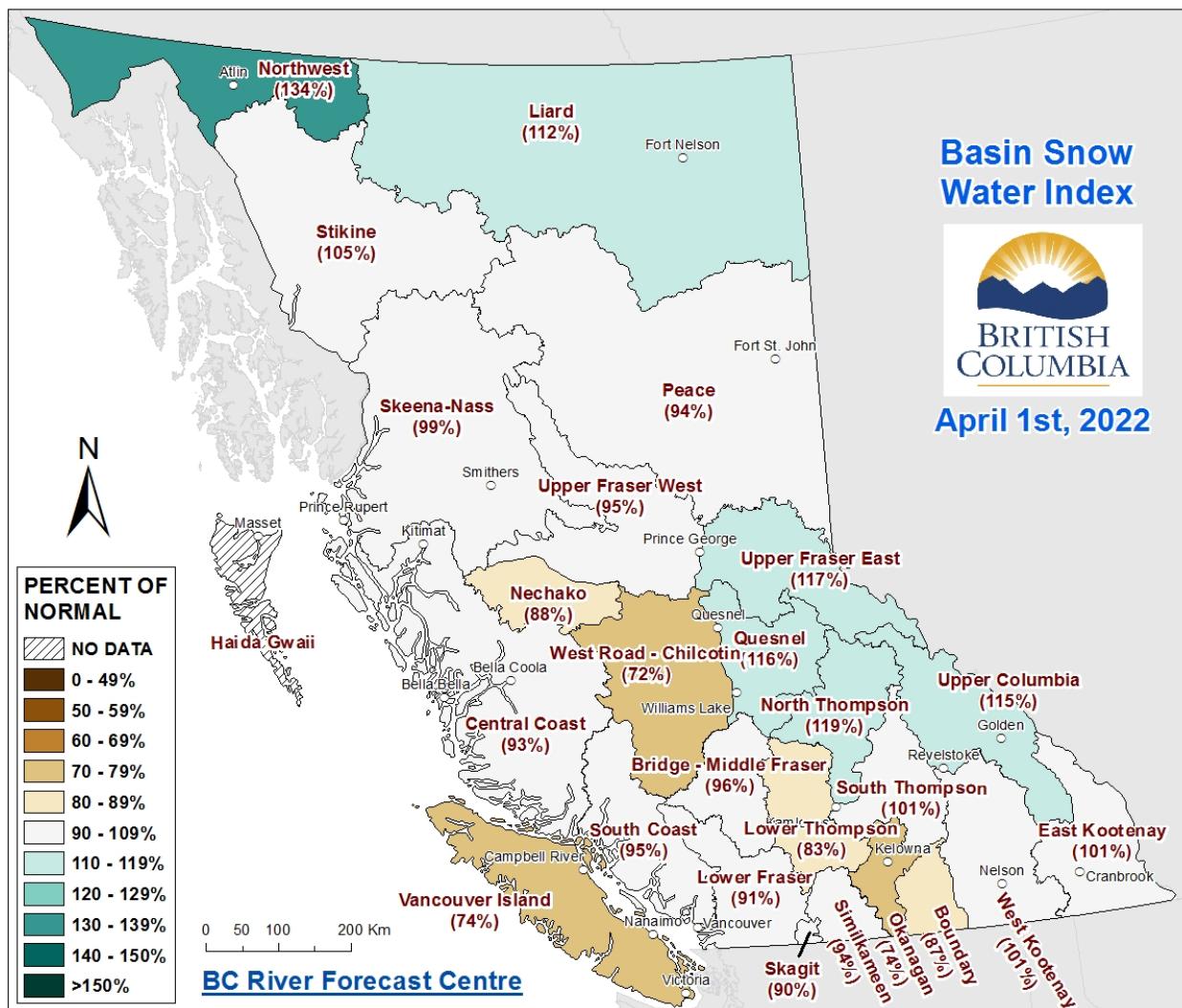


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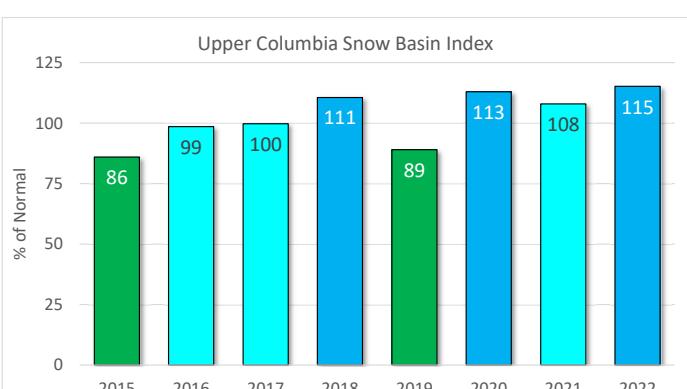
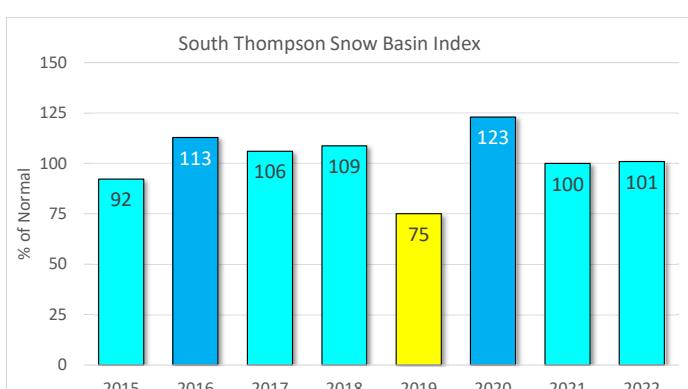
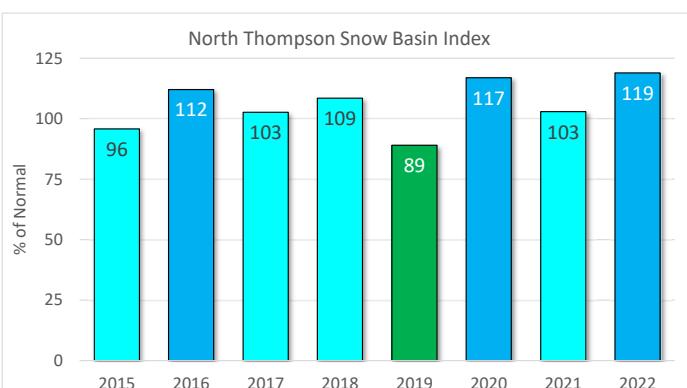
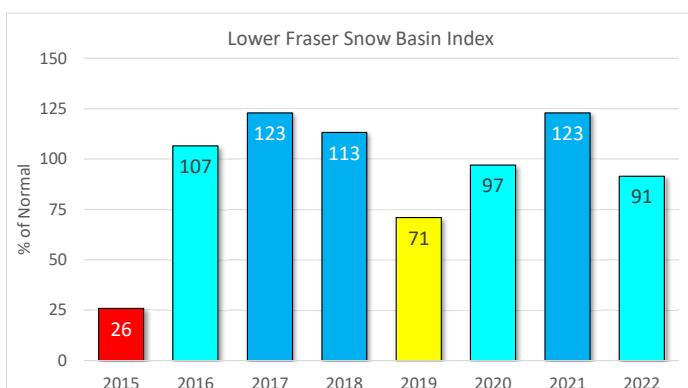
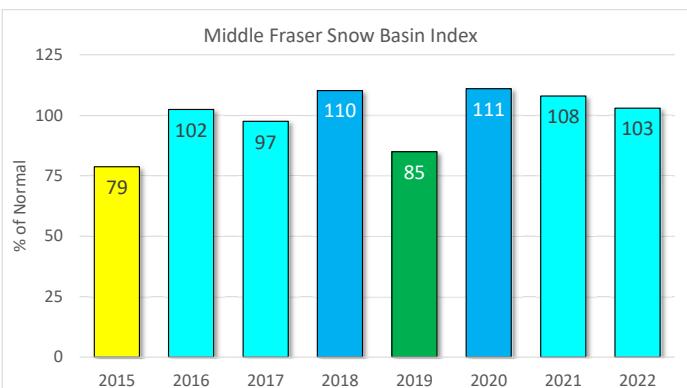
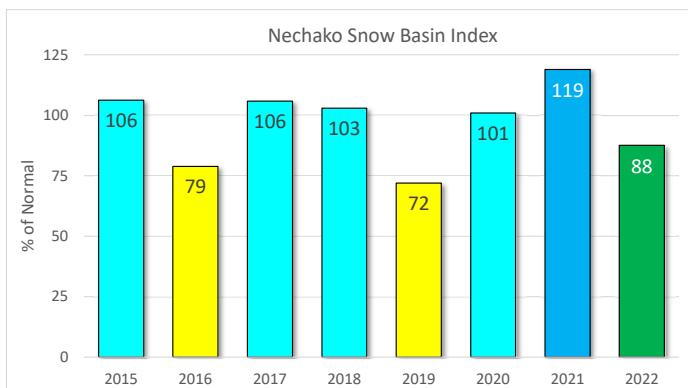
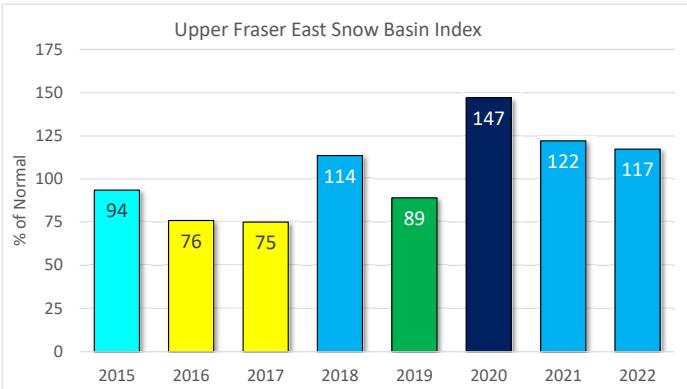
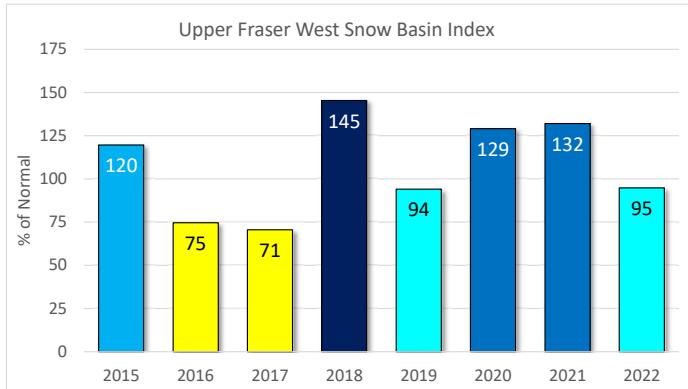


Snow Survey and Water Supply Bulletin – April 1st, 2022

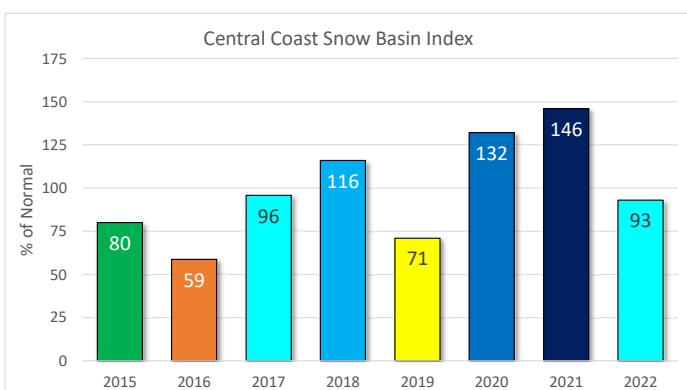
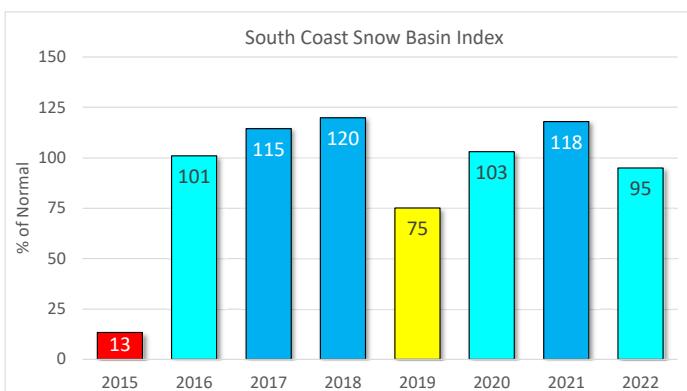
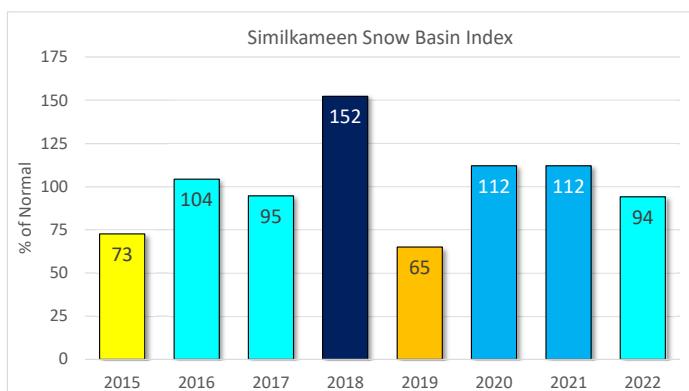
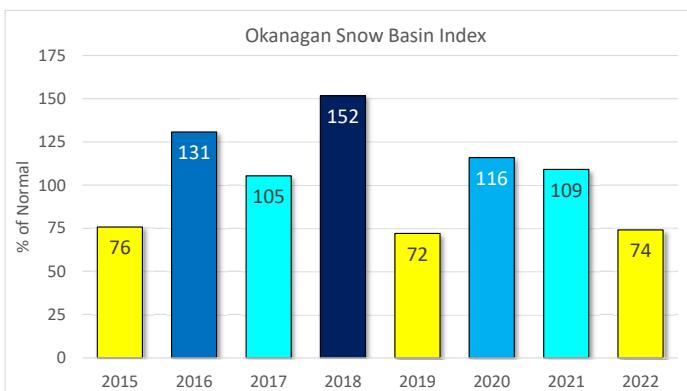
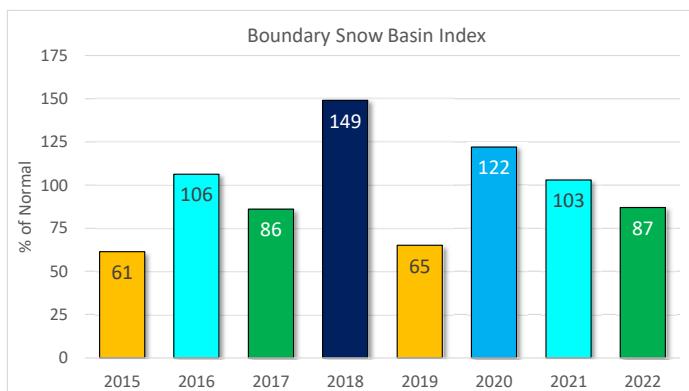
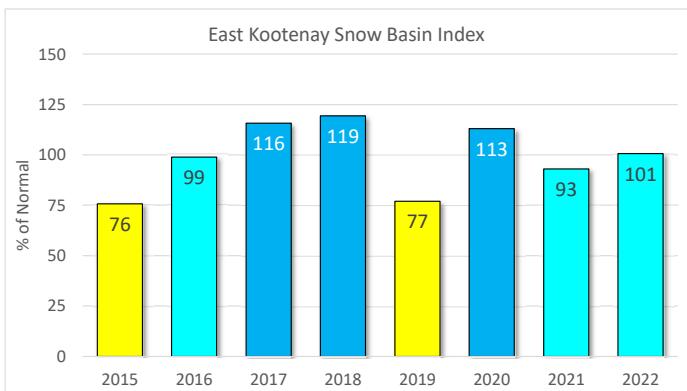
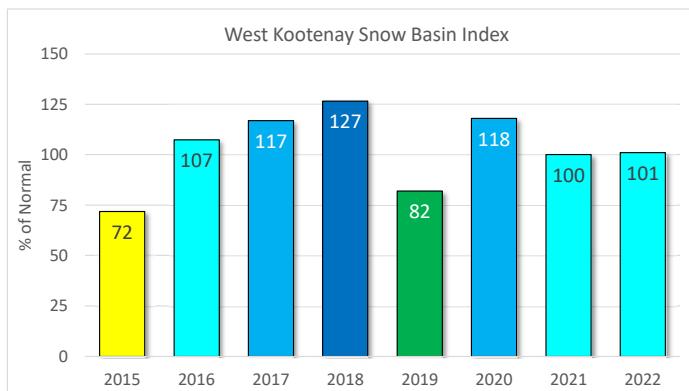
Figure 3: Basin Snow Water Index – April 1st, 2022 – Colour Friendly



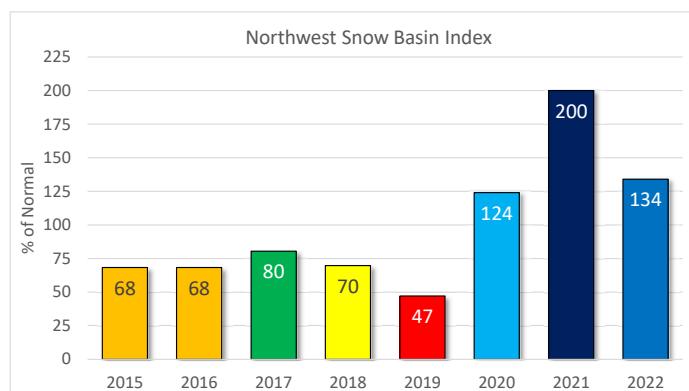
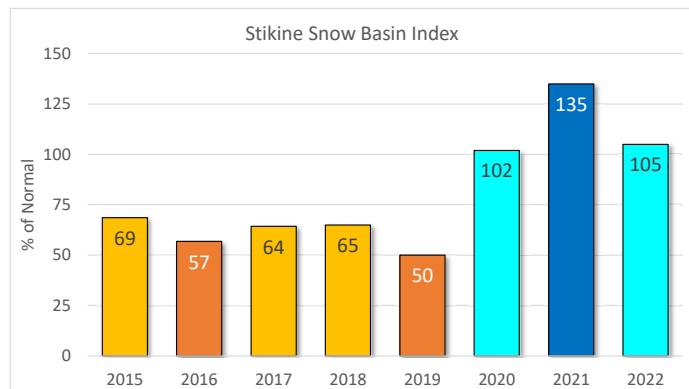
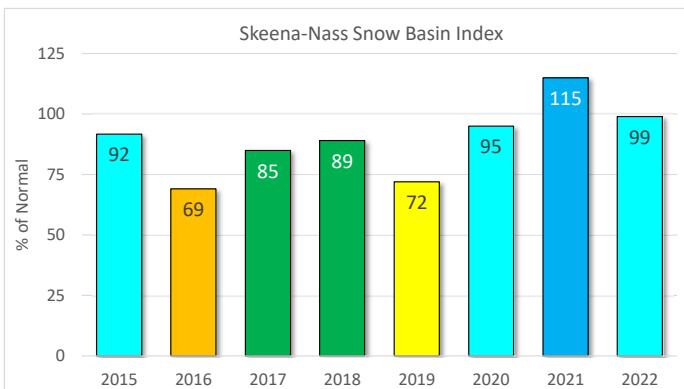
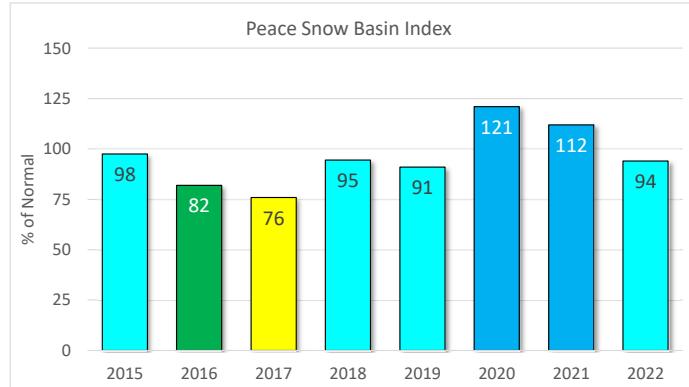
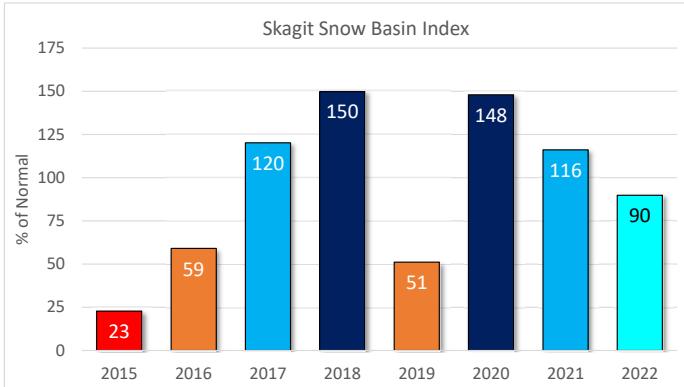
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Snow Basin Index Graphs - April 1, 2022



Snow Basin Index Graphs - April 1, 2022



Ministry of Forests, Lands and Natural Resource Operations and Rural Development
River Forecast Centre
Volume Runoff Forecast April 2022

		Apr - Jun Runoff				Apr - Jul Runoff				Apr - Sep Runoff						
Location		Forecast (kdam ³)	Normal (1981-2010) (kdam3)	% of Normal	Std. Error (kdam ³)	Forecast (kdam ³)	Normal (1981-2010) (kdam3)	% of Normal	Std. Error (kdam ³)	Forecast (kdam ³)	Normal (1981-2010) (kdam3)	% of Normal	Std. Error (kdam ³)			
Upper Fraser Basin	Fraser at McBride					3,963	3,699	107%	307	5,552	5,166	107%	381			
	McGregor at Lower Canyon					4,675	3,964	118%	428	5,828	5,010	116%	564			
	Fraser at Shelley					17,230	15,670	110%	1,179	21,564	19,730	109%	1,562			
Middle Fraser Basin	Quesnel River at Quesnel					4,726	4,541	104%	418	6,145	5,872	105%	568			
Thompson Basin	N. Thompson at McLure					9,893	8,916	111%	481	12,424	11,085	112%	753			
	S. Thompson at Chase					5,897	5,792	102%	448	7,540	7,359	102%	686			
	Thompson at Spences Bridge					16,347	15,114	108%	973	20,962	19,094	110%	1,560			
Bulkley and Skeena	Bulkley at Quick					2,319	2,625	88%	236	2,890	3,222	90%	272			
	Skeena at Usk					18,360	18,673	98%	1,173	22,663	23,017	98%	1,698			
Nicola Lake		125	121	104%	30	143	138	104%	35							
*new model ¹		127	130	98%	24	137	152	91%	28	101	153	66%	31			
Nicola River at Spences Bridge		491	486	101%	82	559	554	101%	101							
*new model ²		681	509	134%	77	728	557	131%	81	763	596	128%	87			
Okanagan Lake		342	440	78%	88	352	465	76%	108							
*new model ²		410	468	88%	86	440	494	89%	99	419	478	88%	110			
Kalamalka-Wood Lake		16.1	28.0	57%	11.3	15.2	29.4	52%	13.2							
*new model ³		30.6	25.7	119%	6.8	25.7	24.3	105%	7.9	27.6	21.0	132%	9.3			
Similkameen River	at Nighthawk	1,556	1,273	122%	128					1,965	1,583	124%	156			
	at Hedley	1,189	989	120%	96					1,439	1,177	122%	96			
Cowichan River	Cowichan Lake Inflows	310	248	125%	65					356	290	123%	84			

¹ 1984-2019 Period of Record

² 1970-2019 Period of Record

³ 1975-2019 Period of Record

Note: 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.

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

Use at your own risk

UPPER FRASER EAST		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A01P	Yellowhead Lake	1860	2022-04-01	187	627	34		116%	85	606	602	345	544	799	542	23
1A02P	McBride Upper	1611	2022-04-01	178	619	35		126%	89	593	608	297	476	694	492	30
1A03P	Barkerville	1520	2022-04-01	112	398	36		115%	74	376	487	139	353	524	345	43
1A05P	Longworth Upper	1740	2022-04-01	270	1130	42		N/A	N/A	1188	926	524	787	1188	N/A	5
1A06A	HANSARD	608	2022-04-01	32	122	38	NS	65%	16	N	222	72	192	442	189	22
1A10	PRINCE GEORGE A	689	2022-04-01	7	20	29		21%	13	32	160	0	116	313	97	59
1A11	PACIFIC LAKE	755	2022-03-28	187	740	40		116%	66	893	863	290	594	1060	636	59
1A14P	Hedrick Lake	1100	2022-04-01	266	966	36		119%	75	906	810	406	810	1287	812	22
1A15P	Knudsen Lake	1601	2022-04-01	256	1207	47		N/A	N/A	1180	732	442	580	1180	N/A	6
1A17P	Revolution Creek	1690	2022-04-01	297	1161	39		141%	86	1072	1282	449	818	1293	824	33
1A19P	Dome Mountain	1774	2022-04-01	245	833	34		112%	67	895	971	243	760	1069	744	16
			Average	185	711	37		103%	64							

Basin Index Calculation	Average SWE	610
	Average Normal	520
Upper Fraser East Basin Index - April 1, 2022		

Stations used in Basin Index:
1A01P, 1A02P, 1A03P, 1A06, 1A10, 1A11, 1A14P, 1A17P, 1A19P

Upper Fraser East Basin Index - April 1, 2022 117%

UPPER FRASER WEST		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A12	KAZA LAKE	1250	2022-03-27	117	349	30		100%	58	420	415	220	340	476	349	57
1A12P	Kaza Lake	1257	2022-04-01	126				N/A	N/A	412	393	269	310	412	N/A	6
1A16	BURNS LAKE	800	2022-04-01	25	80	32		68%	22	N	156	0	116	264	118	50
1A23	BIRD CREEK	1180	2022-03-31	51	162	32		103%	54	246	204	84	153	320	157	32
			Average	80	197	31		90%	45							

Basin Index Calculation	Average SWE	197
	Average Normal	208
Upper Fraser West Basin Index - April 1, 2022		

Stations used in Basin Index:
1A12, 1A16, 1A23

Upper Fraser West Basin Index - April 1, 2022 95%

NECHAKO		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1B01	MOUNT WELLS	1490	2022-03-31	143	490	34		97%	50	588	521	273	490	960	503	67
1B01P	Mount Wells	1490	2022-04-01		610			108%	63	672	637	347	546	872	566	29
1B02	TAHTSA LAKE	1300	2022-03-31	246	932	38		77%	19	1399	1084	775	1131	1972	1203	68
1B02P	Tahtsa Lake	1300	2022-04-01					N/A	N/A	1561	1176	860	1209	2234	1269	28
1B05	SKINS LAKE	890	2022-03-31	0	0		T	0%	0	83	76	0	101	233	89	58
1B06	MOUNT SWANNELL	1620	2022-03-31	84	256	30		88%	30	417	380	15	273	490	290	33
1B07	NUTLI LAKE	1490	2022-03-31	134	471	35		91%	36	628	556	301	506	834	518	31
1B08P	Mt. Pondoosy	1400	2022-04-01		719			90%	39	882	822	504	771	1145	800	26
			Average	121	497	34		79%	34							

Basin Index Calculation	Average SWE	497
	Average Normal	567
Nechako Basin Index - April 1, 2022		

Stations used in Basin Index:
1B01, 1B01P, 1B02, 1B05, 1B06, 1B07, 1B08P

Nechako Basin Index - April 1, 2022 88%

LOWER THOMPSON			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C01	Brookmere	980	2022-04-01	29	107	37	NS	66%	8	159	127	45	193	399	162	77
1C06	PAVILION	1230	2022-03-31	3	4	13		16%	38	60	30	0	37	147	25	60
1C09A	HIGHLAND VALLEY	1510	2022-03-30	18	84	47		84%	40	130	N	3	90	249	100	53
1C25	LAC LE JEUNE (UPPER)	1509	2022-03-31	48	83	17		61%	19	181	171	0	130	264	137	49
1C29	SHOVELNOSE MOUNTAIN	1450	2022-03-30	46	136	30		62%	11	260	228	16	238	442	220	43
1C29P	Shovelnose Mountain	1460	2022-04-01		152			N/A	N/A	258	248	162	248	258	N/A	3
1C32	DEADMAN RIVER	1430		N	N	N	N	N/A	N/A	150	140	11	109	196	109	37
1C42	CAVERHILL LAKE NEW	1400	2022-04-01	94	310	33		134%	96	267	340	160	240	340	232	17
			Average	42	128	28		71%	41							

Basin Index Calculation	Average SWE	121
	Average Normal	146
Lower Thompson Basin Index - April 1, 2022		83%

Stations used in Basin Index:
1C01, 1C06, 1C09A, 1C25, 1C29, 1C42

NICOLA	Basin Index Calculation	Average SWE	179
		Average Normal	259
	Nicola Basin Index - April 1, 2022		69%

Stations used in Basin Index:
1C01, 1C09A, 1C25, 1C29, 2F13, 2F18P, 2F23, 2F24

BRIDGE / LILLOOET			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C05P	McGillivray Pass	1718	2022-04-01		573			N/A	N/A	550	474	474	514	619	N/A	4
1C12P	Green Mountain	1780	2022-04-01		775			91%	44	694	570	466	847	1408	852	28
1C14P	Bralorne	1382	2022-04-01	50	146	29		N/A	N/A	230	183	170	206	270	N/A	4
1C18P	Mission Ridge	1850	2022-04-01		630			115%	75	682	543	158	528	1012	547	45
1C28	DUFFEY LAKE	1200	2022-04-01	123	471	38		94%	39	527	N	212	491	866	503	43
1C38	DOWNTON LAKE (UPPER)	1887		N	N	N	N	N/A	N/A	N	N	422	814	1416	857	21
1C38P	Downton Lake Upper	1829	2022-04-01		965			N/A	N/A	854	653	653	747	854	N/A	6
1C39	BRIDGE GLACIER (LOWER)	1390	2022-04-05	176	525	30		88%	30	N	N	240	606	1086	594	24
1C40P	North Tyughton	1969	2022-04-01		455			N/A	N/A	484	296	296	369	484	N/A	6
			Average	116	568	32		97%	47							

Basin Index Calculation	Average SWE	600
	Average Normal	624
Bridge/Lillooet Basin Index - April 1, 2022		96%

Stations used in Basin Index:
1C12P, 1C18P, 1C28, 1C39

CHILCOTIN			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C21	BIG CREEK	1140	2022-03-30	0	0	N/A	T	0%	N/A	16	14	0	0	119	18	51
1C22	PUNTZI MOUNTAIN	940	2022-03-27	8	30	38		125%	66	24	0	0	6	120	24	52
			Average	4	15	38		63%	66							

Basin Index Calculation	Average SWE	15
	Average Normal	21
Chilcotin Basin Index - April 1, 2022		72%

Stations used in Basin Index:
1C21, 1C22

QUESNEL		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C17	MOUNT TIMOTHY	1660	2022-04-02	92	338	37		109%	60	266	299	186	309	533	311	59
1C20P	Boss Mountain Mine	1460	2022-04-01	181	659	36		113%	72	683	578	326	585	866	582	28
1C23	PENFOLD CREEK	1685	2022-03-29	279	1121	40		115%	81	1051	N	641	1000	1285	973	42
1C33A	GRANITE MOUNTAIN	1150	2022-03-31	61	224	37		114%	70	192	243	93	194	274	196	16
1C41P	Yanks Peak East	1670	2022-04-01	225	1028	46		122%	96	942	1215	525	885	1215	841	25
		Average		168	674	39		115%	76							

Basin Index Calculation	Average SWE	674
	Average Normal	581
Quesnel Basin Index - April 1, 2022		116%

Stations used in Basin Index:

1C17, 1C20P, 1C23, 1C33A, 1C41P

MIDDLE FRASER

Basin Index Calculation	Average SWE	384
	Average Normal	372
Middle River Basin Index - April 1, 2022		103%

Stations used in Basin Index:

1C01, 1C06, 1C09A, 1C12P, 1C17, 1C18P, 1C20P, 1C21, 1C22, 1C23, 1C25, 1C28, 1C29, 1C33A, 1C39, 1C41P, 1C42

LOWER FRASER

LOWER FRASER		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1D06P	Tenquille Lake	1680	2022-04-01	274	1144	42		110%	67	1093	956	675	1031	1586	1037	21
1D08	STAVE LAKE	1250	2022-03-29	280	1183	42		83%	26	1775	1404	98	1597	2750	1422	51
1D08P	Lamont Creek Upper	1217	2022-04-01		1243			N/A	N/A	1886		1886		1886	N/A	1
1D09P	Wahleach Lake Upper	1480	2022-04-01		824			86%	28	1166	950	267	898	1642	954	29
1D10	NAHATLATCH RIVER	1550	N	N	N	N	N	N/A	N/A	1511	1179	468	1366	2410	1278	51
1D16	DICKSON LAKE	1160	2022-03-29	264	1210	46		82%	29	2016	1608	56	1556	2990	1475	27
1D17P	Chilliwack River	1600	2022-04-01	273	1534	56		101%	49	1683	666	1542	2418	1515	28	
1D18	DISAPPOINTMENT LAKE	1050	2022-03-29	338	1645	49		101%	33	1790	N	428	1782	2280	1629	18
1D18P	Disappointment Lake	1050	2022-04-01	327				N/A	N/A	1112	405	1465	2129	1419	13	
1D19P	Spuzzum Creek	1180	2022-04-01	240	1217	51		79%	24	1836	1393	166	1577	2752	1542	23
		Average		285	1250	48		92%	37							

Basin Index Calculation	Average SWE	1251
	Average Normal	1368
Lower Fraser Basin Index - April 1, 2022		91%

Stations used in Basin Index:

1D06P, 1D08, 1D09P, 1D16, 1D17P, 1D18, 1D19P

NORTH THOMPSON

NORTH THOMPSON		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1E01B	BLUE RIVER	670	2022-03-31	89	336	38		115%	73	184	378	154	282	425	291	39
1E02P	Mount Cook	1550	2022-04-01	348	1460	42		115%	84	1409	1453	1001	1207	1834	1275	18
1E03A	TROPHY MOUNTAIN	1860	2022-03-30	204	694	34		125%	94	600	674	332	552	888	555	47
1E07	ADAMS RIVER	1720	2022-03-31	197	728	37		104%	63	734	794	435	696	1069	702	52
1E08P	Azure River	1652	2022-04-01	313	1341	43		118%	90	1193	1252	716	1180	1538	1140	25
1E10P	Kostal Lake	1770	2022-04-01	213	936	44		111%	87	709	717	618	857	1169	844	36
1E14P	Cook Creek	1280	2022-04-01	175	910	52		153%	100	743	789	409	608	789	593	13
		Average		220	915	41		120%	84							

Basin Index Calculation	Average SWE	915
	Average Normal	771
North Thompson Basin Index - April 1, 2022		119%

Stations used in Basin Index:

1E01B, 1E02P, 1E03A, 1E07, 1E08P, 1E10P, 1E14P

*Record High

SOUTH THOMPSON		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1F01A	ABERDEEN LAKE	1310	2022-04-05	30	84	28		62%	7	156	229	6	142	259	135	80
1F02	ANGLEMONT	1190	2022-04-01	92	320	35		98%	35	288	477	142	338	561	326	63
1F03P	Park Mountain	1890	2022-04-01	215	822	38		95%	45	859	980	560	844	1208	869	37
1F04P	Enderby	1950	2022-04-01	262	1005	38		N/A	N/A	1132	1185	786	1132	1185	N/A	5
1F06P	Celista Mountain	1500	2022-04-01	250	1015	41		113%	90	929	986	724	888	1132	898	16
	Average			170	649	36		92%	44							

Basin Index Calculation	Average SWE	560
	Average Normal	557
South Thompson Basin Index - April 1, 2022	101%	

Stations used in Basin Index:

1F01A, 1F02, 1F03P, 1F06P

FRASER RIVER

Basin Index Calculation	Average SWE	620
	Average Normal	607
Fraser River Basin Index - April 1, 2022	102%	

Stations used in Basin Index:

1A01P, 1A02P, 1A03P, 1A06, 1A10, 1A11, 1A14P, 1A17P, 1A19P, 1A12, 1A16, 1A23, 1B01, 1B01P, 1B02, 1B05, 1B06, 1B07, 1B08P, 1C01, 1C06, 1C09A, 1C12P, 1C17, 1C18P, 1C20P, 1C21, 1C22, 1C23, 1C25, 1C28, 1C29, 1C33A, 1C39, 1C41P, 1C42, 1D06P, 1D08, 1D09P, 1D16, 1D17P, 1D18, 1D19P, 1E01B, 1E02P, 1E03A, 1E07, 1E08P, 1E10P, 1E14P, 1F01A, 1F02, 1F03P, 1F06P

UPPER COLUMBIA		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2A02	GLACIER	1250	2022-04-01	203	875	43		127%	89	801	880	371	665	1161	689	85
2A03A	FIELD	1285	2022-03-30	55	198	36		137%	84	150	197	8	136	252	144	82
2A06P	Mount Revelstoke	1850	2022-04-01		1295			108%	71	1279	1312	709	1222	1692	1199	27
2A07	KICKING HORSE	1650	2022-03-30	114	389	34		122%	72	321	429	185	340	589	320	73
2A11	BEAVERFOOT	1890	2022-03-31	84	238	28		116%	69	216	256	105	213	460	204	62
2A14	MOUNT ABBOT	2010	2022-03-26	362	1612	45		132%	91	1353	1232	698	1173	1849	1224	63
2A16	GOLDSTREAM	1920	2022-03-29	351	1425	41		121%	91	1191	1312	785	1125	1638	1173	58
2A17	FIDELITY MOUNTAIN	1870	2022-03-31	397	1670	42		133%	94	1620	1500	730	1204	1951	1257	59
2A18	KEYSTONE CREEK	1890	2022-03-29	209	780	37	NS	97%	44	835	797	485	826	1388	803	54
2A18P	Keystone Creek	1840	2022-04-01		981			N/A	N/A	992	952	772	979	1068	N/A	6
2A19	VERMONT CREEK	1520	2022-03-31	122	437	36		104%	55	441	413	190	429	843	419	56
2A21P	Molson Creek	1935	2022-04-01		1119			109%	82	1079	974	651	998	1553	1031	39
2A23	BUSH RIVER	1920	2022-03-31	247	968	39		118%	80	928	883	455	816	1331	818	53
2A25	KIRBYVILLE LAKE	1750	2022-03-29	318	1282	40		106%	66	1182	1330	701	1169	1816	1208	49
2A27	DOWNIE SLIDE (LOWER)	980	2022-03-29	184	726	39		104%	70	736	898	448	646	1062	697	43
2A29	DOWNIE SLIDE (UPPER)	1630	2022-03-29	365	1466	40		106%	74	1322	1412	858	1321	2360	1378	44
2A30P	Colpitti Creek	2131	2022-04-01		1028			N/A	100	932	925	552	782	957	N/A	12
2A31P	Caribou Creek Upper	2201	2022-04-01		1099			N/A	N/A	1122	1027	771	1031	1122	N/A	6
2A32P	Wildcat Creek	2122	2022-04-01		831			N/A	N/A	714	799	523	641	799	N/A	6
2A34P	Glacier NP Rogers Pass Lower	1182	2022-04-01	197	890	45		N/A	N/A						0	
	Average			229	965	39		116%	77							

Basin Index Calculation	Average SWE	965
	Average Normal	838
Upper Columbia Basin Index - April 1, 2022	115%	

Stations used in Basin Index:

2A02, 2A03A, 2A06P, 2A07, 2A11, 2A14, 2A16, 2A17, 2A18, 2A19, 2A21P, 2A23, 2A25, 2A27, 2A29

*Record High

WEST KOOTENAY			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow			% Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021	2020	Minimum	Median	Maximum	1991-2020	Years of Record	
			YYYY-MM-DD	Depth (cm)	SWE (mm)				SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	Normal SWE (mm)		
2B02A	FARRON	1220	2022-03-31	71	233	33	77%	11	292	321	127	307	480	302	49	
2B05	WHATSHAN (UPPER)	1525	2022-04-01	148	561	38	87%	23	623	749	350	634	964	644	63	
2B06P	Barnes Creek	1620	2022-04-01		546		98%	42	614	732	326	566	774	554	29	
2B07	KOCH CREEK	1860	2022-04-01	170	596	35	79%	16	679	750	397	749	1156	754	60	
2B08P	St. Leon Creek	1800	2022-04-01		1392		126%	92	1242	1457	585	1156	1557	1106	28	
2B09	RECORD MOUNTAIN	1890	2022-04-01	152	474	31	67%	10	660	704	315	689	1307	707	46	
2D02	FERGUSON	880	2022-03-28	161	670	42	117%	80	606	700	142	565	881	574	84	
2D03	SANDON	1070	2022-04-01	81	248	31	77%	19	334	454	71	325	585	321	75	
2D04	NELSON	930	2022-03-31	67	262	39	83%	21	234	278	5	356	622	315	84	
2D05	GRAY CREEK (LOWER)	1550	2022-03-29	123	451	37	98%	49	419	N	276	462	688	459	72	
2D06	CHAR CREEK	1310	2022-03-31	118	464	39	89%	25	408	516	241	524	940	524	55	
2D07A	DUNCAN LAKE NO. 2	630	N	N	N	N	N/A	N/A	N	N	0	110	223	92	26	
2D07AP	Duncan Lake Dam 2	559	2022-04-01	0	4		N/A	N/A	6	52	6		52	N/A	2	
2D08P	East Creek	2030	2022-04-01		1178		134%	93	991	1051	450	854	1252	880	41	
2D09	MOUNT TEMPLEMAN	1860	2022-03-31	294	1155	39	107%	74	1120	1097	688	1023	1608	1079	42	
2D10	GRAY CREEK (UPPER)	1940	2022-03-29	190	745	39	99%	57	713	N	492	726	1123	749	49	
2D10P	GRAY CREEK (UPPER)	1930	2022-04-01	207	736	36	N/A	N/A	716		716		716	N/A	1	
2D14P	Redfish Creek	2104	2022-04-01		1467		110%	67	1363	1530	807	1379	1756	1328	20	
2D17	Lost Ledge	2050	N	N	N	N	N/A	N/A						0		
2D18	Purcell	2060	2022-04-02	275	1097	40	N/A	N/A						0		
			Average	147	682	37	97%	45								

Basin Index Calculation	Average SWE	696
	Average Normal	686
West Kootenay Basin Index - April 1, 2022		

Stations used in Basin Index:
2B02A, 2B05, 2B06P, 2B07, 2B08P, 2B09, 2D02, 2D03, 2D04, 2D05, 2D06, 2D08P, 2D09, 2D10, 2D14P

EAST KOOTENAY			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow			% Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021	2020	Minimum	Median	Maximum	1991-2020	Years of Record	
			YYYY-MM-DD	Depth (cm)	SWE (mm)				SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	Normal SWE (mm)		
2C01	SINCLAIR PASS	1370	2022-03-31	39	107	27	95%	42	134	172	36	113	262	113	84	
2C04	SULLIVAN MINE	1550	2022-03-31	78	266	34	96%	35	266	245	134	316	538	278	76	
2C09Q	Morrissey Ridge	1860	2022-04-01		556		79%	18	420	659	363	689	1224	700	37	
2C10P	Moyie Mountain	1930	2022-04-01	80	346	43	77%	29	357	526	216	405	686	447	41	
2C11	KIMBERLY UPPER	2140	2022-03-30	134	445	33	105%	57	423	NS	197	423	798	423	45	
2C12	KIMBERLY MIDDLE	1680	2022-03-30	74	249	34	101%	53	217	NS	116	242	462	247	45	
2C14P	Floe Lake	2090	2022-04-01		885		124%	92	789	789	360	753	1009	713	27	
2C15	MOUNT ASSINIBOINE	2230	2022-03-31	182	624	34	117%	81	582	601	252	512	816	534	51	
2C17	THUNDER CREEK	2010	N	N	N	N	N/A	N/A	302	307	140	268	475	285	51	
			Average	98	435	34	99%	51								

Basin Index Calculation	Average SWE	435
	Average Normal	432
East Kootenay Basin Index - April 1, 2022		

Stations used in Basin Index:
2C01, 2C04, 2C09Q, 2C10P, 2C11, 2C12, 2C14P, 2C15

BOUNDARY			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow			% Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021	2020	Minimum	Median	Maximum	1991-2020	Years of Record	
			YYYY-MM-DD	Depth (cm)	SWE (mm)				SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	Normal SWE (mm)		
2E01	MONASHEE PASS	1370	2022-04-01	99	311	31	93%	37	361	437	188	337	517	334	72	
2E02	CARMI	1250	2022-04-04	18	55	31	51%	8	58	155	0	120	290	107	58	

2E03	BIG WHITE MOUNTAIN	1680	2022-03-29	125	414	33		86%	24	498	538	319	464	762	480	56
2E07P	Grano Creek	1860	2022-04-01	126	463	37		90%	32	560	618	248	524	773	514	24
		Average		92	311	33		80%	25							

Basin Index Calculation	Average SWE	311
	Average Normal	359
	Boundary Basin Index - April 1, 2022	87%

Stations used in Basin Index:

2E01, 2E02, 2E03, 2E07P

OKANAGAN		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2F01A	TROUT CREEK (West)	1430	2022-03-24	59	162	27	B	74%	18	201	250	124	211	336	219	12
2F01AP	Trout Creek West	1420	2022-04-01	35	244	70		N/A	N/A	261	284	157	264	284	N/A	4
2F02	SUMMERLAND RESERVOIR	1280	2022-03-30	56	182	33		84%	27	233	300	96	224	389	217	85
2F03	MCCULLOCH	1280	2022-03-25	46	138	30		96%	32	151	241	6	155	265	144	84
2F04	GRAYSTOKE LAKE	1840	2022-03-28	97	300	31		83%	26	498	532	196	354	828	362	47
2F05P	Mission Creek	1780	2022-04-01	148	364	25		72%	13	555	638	270	469	746	503	51
2F07	POSTILL LAKE	1370	2022-04-01	59	154	26		75%	8	223	272	90	212	348	205	71
2F08	GREYBACK RESERVOIR	1550	N	N	N	N	N	N/A	N/A	N	276	114	232	360	242	64
2F08P	Greyback Reservoir	1550	2022-04-01	64	193	30		N/A	N/A	191	284	148	257	284	N/A	5
2F09	WHITEROCKS MOUNTAIN	1830	2022-03-26	130	419	32		79%	18	N	589	318	539	1021	533	66
2F10	Silver Star Mountain	1840	2022-04-02	189	590	31		80%	18	732	N	414	728	1115	733	59
2F10P	Silver Star Mountain	1839	2022-04-01	200	725	36		N/A	18	753	844	623	753	844	N/A	5
2F11	ISINTOK LAKE	1680	2022-03-31	36	96	27		61%	11	171	217	66	162	424	157	57
2F12	MOUNT KOBAU	1810	2022-03-28	77	252	33		78%	28	373	285	105	299	602	322	56
2F13	ESPERON CR (UPPER)	1650	2022-03-30	75	240	32		63%	0	N	318	244	386	805	380	52
2F14	ESPERON CR (MIDDLE)	1430	2022-03-30	68	156	23		48%	0	N	272	196	334	607	323	53
2F18P	Brenda Mine	1460	2022-04-01		228			69%	10	329	305	190	313	504	333	26
2F19	OYAMA LAKE	1340	2022-03-31	52	100	19		61%	9	160	230	61	167	255	165	50
2F19P	OYAMA LAKE		2022-04-01	19	110	58		N/A	N/A	174		174		174	N/A	1
2F20	VASEUX CREEK	1400	2022-03-27	50	128	26		102%	42	158	160	40	142	239	125	49
2F23	MACDONALD LAKE	1740	2022-03-31	111	302	27		69%	10	423	343	257	416	677	436	42
2F24	ISLAHT LAKE	1480	2022-03-30	88	249	28		82%	26	368	394	145	297	501	304	39
2F25	POSTILL LAKE UPPER	1540	NS	NS	NS	NS	NS	N/A	N/A	256	280	38	231	281	213	9
		Average		83	254	32		75%	18							

Basin Index Calculation	Average SWE	239
	Average Normal	321
	Okanagan Basin Index - April 1, 2022	74%

Stations used in Basin Index:

2F01A, 2F02, 2F03, 2F04, 2F05P, 2F07, 2F09, 2F10, 2F11, 2F12, 2F13, 2F14, 2F18P, 2F19, 2F20, 2F23, 2F24

SIMILKAMEEN		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2G03P	Blackwall Peak	1940	2022-04-01	196	749	38		94%	48	856	814	404	760	1497	801	54
2G04	LOST HORSE MOUNTAIN	1920	2022-03-29	95	291	31		125%	85	285	347	138	223	533	233	58
2G05	MISSEZULA MOUNTAIN	1550	2022-03-29	57	169	30		86%	26	237	208	90	207	516	196	61
2G06	HAMILTON HILL	1490	2022-03-30	65	205	32		75%	9	302	285	83	302	851	273	61
		Average		103	354	33		95%	42							

Basin Index Calculation	Average SWE	354
	Average Normal	376
	Similkameen Basin Index - April 1, 2022	94%

Stations used in Basin Index:

2G03P, 2G04, 2G05, 2G06

SOUTH COAST		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	(cm)	(mm)	%	Code			2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	
3A01	GROUSE MOUNTAIN	1100	2022-03-30	293	1380	47		111%	66	1585	N	0	1176	2670	1241	85
3A02	POWELL RIVER (UPPER)	1040		N	N	N	N	N/A	N/A	1179	NS	15	1036	1813	933	56
3A05	POWELL RIVER (LOWER)	910		N	N	N	N	N/A	N/A	736	NS	8	756	1554	651	59
3A09	PALISADE LAKE	880	2022-03-31	259	1185	46		89%	30	1525	N	0	1420	3560	1329	72
3A09P	Palisade Lake	900	2022-04-01	203	939	46		N/A	N/A	1498	839	497	909	1498	N/A	4
3A10	DOG MOUNTAIN	1080	2022-04-01	261	1200	46		105%	49	1575	N	0	1224	2720	1144	75
3A19	ORCHID LAKE	1190	2022-03-31	368	1600	43		92%	39	2020	N	90	1846	3770	1741	47
3A20	CALLAGHAN CREEK	1040	2022-04-01	175	738	42		89%	35	900	N	24	873	1604	834	44
3A20P	Callaghan	1017	2022-04-01	182	689	38		N/A	N/A	856	803	803	856	883	N/A	3
3A22P	Nostetuko River	1500	2022-04-01	126				N/A	N/A	619	562	221	576	1074	583	31
3A24P	Mosley Creek Upper	1650	2022-04-01	107	344	32		121%	81	308	244	135	263	567	284	33
3A25P	Squamish River Upper	1340	2022-04-01		1326			85%	23	1589	1706	714	1596	2758	1566	29
3A26	CHAPMAN CREEK	1022	2022-03-31	308	1236	40		91%	27	1680	N	704	1580	1770	1359	13
3A27	EDWARDS LAKE	1070	2022-03-31	207	874	42		94%	31	1150	N	398	1094	1286	931	10
3A28P	Tetrahedron	1420	2022-04-01	369	1423	39		N/A	N/A	1839	N/A	999	1416	1839	N/A	3
			Average	238	1078	42		97%	42							

Basin Index Calculation	Average SWE Average Normal	109 115
	South Coast Basin Index - April 1, 2022	95%

Stations used in Basin Index:
3A01, 3A09, 3A10, 3A19, 3A20, 3A24P, 3A25P, 3A26, 3A27

VANCOUVER ISLAND			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)		Density % Code		SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD		(mm)	%	Code	(mm)			(mm)	(mm)	(mm)	(mm)	(mm)	Years of Record	
3B01	FORBIDDEN PLATEAU	1100	N	N	N	N	N	N/A	N/A	1675	1361	30	1550	3550	1466	67	
3B02A	MOUNT COKELY	1190	N	N	N	N	N	N/A	N/A	N	N	0	814	2100	845	34	
3B04	ELK RIVER	270	2022-03-29	8	33	41		125%	74	0	18	0	0	607	26	60	
3B10	UPPER THELWOOD LAKE	990	2022-03-29	273	1212	44		84%	26	1588	1332	0	1480	3200	1440	62	
3B17P	Wolf River Upper	1490	2022-04-01		963			75%	24	1173	1047	317	1226	2620	1290	34	
3B18	WOLF RIVER (MIDDLE)	990	2022-03-29	84	324	39		54%	12	618	522	0	590	1706	595	50	
3B19	WOLF RIVER (LOWER)	640	2022-03-29	34	142	42		41%	14	352	320	0	324	1198	346	49	
3B23P	Jump Creek	1160	2022-04-01	213	936	44		79%	32	1447	948	0	1220	3040	1190	26	
3B24P	Heather Mountain Upper	1190	2022-04-01	214	1130	53		N/A	N/A	1631	1187	818	1530	1745	N/A	6	
3B26P	Mount Arrowsmith	1465	2022-04-01	244	922	38		N/A	N/A	1260	954	840	1070	1260	N/A	4	
			Average		153	708	43		76%	30							

Basin Index Calculation	Average SWE Average Normal	602 815	Stations used in Basin Index: 3B04, 3B10, 3B17P, 3B18, 3B19, 3B23P
Vancouver Island Basin Index - April 1, 2022		74%	

Central Coast		April 1, 2022 Data				Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm) SWE (mm) Density % Code				SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD												
3C07	WEDEENE RIVER SOUTH	220	2022-03-30	46	201	44	49%	17	654	N	36	370	981	411	35
3C08P	Burnt Bridge Creek	1330	2022-04-01	213	942	44	115%	71	1137	1057	420	771	1388	816	23
			Average	130	572	44	82%	44							

Basin Index Calculation	Average SWE Average Normal	57% 61%
	Central Coast Basin Index - April 1, 2022	93%

Stations used in Basin Index:
3C07, 3C08P

SKAGIT			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth SWE Density % Code					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	(cm)	(mm)	%	Code									
3D01C	SUMALLO RIVER WEST	790	2022-03-29	40	150	38		75%	39	222	310	0	222	512	200	29
3D02	LIGHTNING LAKE	1220	2022-04-02	82	287	35		98%	41	314	354	60	312	622	293	74
3D03A	KLESILKWA	1175	2022-03-29	55	224	41		92%	36	317	372	0	307	792	244	73
	Average			59	220	38		88%	39							

Basin Index Calculation	Average SWE	220
	Average Normal	246
Skagit Basin Index - April 1, 2022		90%

Stations used in Basin Index:
3D01C, 3D02, 3D03A

PEACE			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth SWE Density % Code					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	(cm)	(mm)	%	Code									
4A02P	Pine Pass	1400	2022-04-01	301	1110	37		102%	53	1396	1355	841	1040	1554	1089	29
4A03	WARE (UPPER)	1575	2022-03-26	86	218	25	NS	86%	31	229	259	157	244	390	253	58
4A03P	Ware Upper	1565	2022-04-01	82	192	23		N/A	N/A	217	235	203	217	260	N/A	5
4A04P	Ware Lower	971	2022-04-01	63	183	29		N/A	N/A	204	227	153	204	235	N/A	5
4A05	GERMANSEN (UPPER)	1480	2022-03-27	96	276	29		77%	9	373	456	200	328	523	356	60
4A06	TUTIZZI LAKE	1045	2022-03-27	82	232	28		88%	38	300	309	166	255	406	264	59
4A07	LADY LAURIER LAKE	1440	2022-03-26	162	532	33		101%	70	651	501	342	489	854	524	58
4A09P	Pulpit Lake	1311	2022-04-01	104	420	40		99%	43	373	414	282	424	622	425	31
4A10	FREDRICKSON LAKE	1325	2022-03-27	82	211	26		86%	26	257	342	149	241	351	245	59
4A11	TRYGVE LAKE	1410	2022-03-26	122	371	30		101%	64	380	441	253	348	511	366	58
4A12	TSAYDAYCHI LAKE	1190	2022-03-27	116	361	31		87%	41	514	496	234	381	639	415	59
4A12P	Tsaydaychi Lake	1195	2022-04-01	112	332	30		N/A	N/A	522	522			522	N/A	1
4A13	PHILIP LAKE	1035	2022-03-27	71	224	32		80%	23	328	316	133	281	449	281	59
4A13P	Philip Lake	1028	2022-04-01		215			N/A	N/A	333	316	316		333	N/A	2
4A16	MORFEE MOUNTAIN	1430	2022-03-28	195	723	37		86%	23	930	1021	555	815	1158	843	52
4A18	MOUNT SHEBA	1490	2022-03-28	242	971	40		109%	66	1056	1178	495	822	1294	887	52
4A18P	MOUNT SHEBA	1484	2022-04-01	275	985	36		N/A	N/A	1102	1226	854	1102	1226	N/A	3
4A20P	Monkman Creek	1570	2022-04-01		458			N/A	N/A	446	518	411	445	518	N/A	3
4A21	MOUNT STEARNS	1505	2022-03-26	59	147	25		107%	55	128	131	59	138	239	138	47
4A25	FORT ST. JOHN A	690	2022-04-04	10	41	41		39%	13	N	N	0	103	226	105	43
4A27P	Kwadacha North	1554	2022-04-01		313			99%	43	340	361	227	329	446	316	31
4A30P	Aiken Lake	1050	2022-04-01	85	236	28		91%	44	295	191	127	252	371	259	34
4A31P	Crying Girl Prairie	1358	2022-04-01		192			N/A	N/A	256	276	166	265	314	N/A	6
4A33P	Muskwa-Kechika	1196	2022-04-01		121			N/A	N/A	130	79	52	117	130	N/A	5
4A34P	Dowling Creek	1456	2022-04-01		1369			N/A	N/A	1031	1349	818	1254	1471	N/A	5
4A36P	Parsnip Upper	790	2022-04-01	88	306	35		N/A	N/A	440	444	303	440	444	N/A	3
4A37P	McQue Terrace	1200	2022-04-01		132			N/A	N/A	126	147	126		147	N/A	2
	Average			122	403	32		90%	40							

Basin Index Calculation	Average SWE	399
	Average Normal	423
Peace Basin Index - April 1, 2022		94%

Stations used in Basin Index:
4A02P, 4A03, 4A05, 4A06, 4A07, 4A09P, 4A10, 4A11, 4A12P, 4A13, 4A16, 4A18, 4A21, 4A25, 4A27P, 4A30P

SKEENA-NASS			April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth SWE Density % Code					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	(cm)	(mm)	%	Code									
4B01	KIDPRICE LAKE	1370	2022-03-31	208	780	38		84%	27	1073	803	622	874	1781	926	68
4B02	JOHANSON LAKE	1420	2022-03-27	104	293	28		97%	57	317	362	173	281	417	301	59

4B03A	HUDSON BAY MTN.	1480	2022-03-30	148	536	36		108%	63	642	509	356	489	846	496	50
4B04	CHAPMAN LAKE	1460	2022-03-31	139	484	35		103%	67	528	N	315	440	762	470	56
4B06	TACHEK CREEK	1140	2022-04-01	76	208	27		90%	38	258	224	112	226	362	232	54
4B07	MCKENDRICK CREEK	1050	2022-03-31	76	251	33		90%	40	295	272	183	282	427	279	54
4B08	MOUNT CRONIN	1480	2022-03-31	141	497	35		88%	24	541	N	415	551	1097	566	52
4B10	NINGUNSAW PASS	690	NS	NS	NS	NS	N/A	N/A	N	NS	199	408	730	396	44	
4B11A	BEAR PASS	460	2022-03-29	142	550	39		93%	38	892	675	322	610	1013	589	35
4B13A	TERRACE AIRPORT	180	2022-03-30	0	0	N/A		0%	N/A	68	166	0	42	333	98	40
4B14	EQUITY MINE	1420	2022-03-31	112	334	30		83%	30	416	382	258	372	640	403	45
4B15	LU LAKE	1300	2022-03-31	83	216	26		72%	10	304	266	162	296	504	300	45
4B15P	Lu Lake	1300	2022-04-01	91	265	29		91%	44	327	279	150	281	488	290	24
4B16P	Shedin Creek	1480	2022-04-01	248	922	37		116%	70	823	778	466	785	1096	792	24
4B17P	Tsai Creek	1360	2022-04-01	268	1107	41		99%	62	1195	1009	802	1040	1834	1121	24
4B18P	Cedar-Kiteen	885	2022-04-01	203	1009	50		155%	86	998	603	350	600	1129	651	20
		Average		136	497	35		91%	47							

Basin Index Calculation	Average SWE	497
	Average Normal	501
Skeena-Nass Basin Index - April 1, 2022		99%

Stations used in Basin Index:

4B01, 4B02, 4B03A, 4B04, 4B06, 4B07, 4B08, 4B11A, 4B13A, 4B14, 4B15, 4B15P, 4B16P, 4B17P, 4B18P

LIARD		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
4C01	SIKANNI LAKE	1385	N	N	N	N	N/A	N/A	323	275	158	257	380	265	58	
4C01P	Sikanni Lake	1387	2022-04-01	106	268	25	N/A	N/A	327	N/A	171	248	327	N/A	4	
4C02	SUMMIT LAKE	1280	2022-03-30	77	113	15		112%	60	147	N	0	102	240	101	51
4C03	DEASE LAKE	820	N	N	N	N	N/A	N/A	207	142	0	126	259	119	55	
4C05	FORT NELSON AIRPORT	380	N	N	N	N	N/A	N/A	80	N	23	84	198	86	54	
		Average		92	191	20		112%	60							

Basin Index Calculation	Average SWE	113
	Average Normal	101
Liard Basin Index - April 1, 2022		112%

Stations used in Basin Index:

4C02

STIKINE		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
4D02	ISKUT	1000	2022-04-03	45	124	28		138%	66	199	135	0	105	199	90	46
4D10P	Tumeka Creek	1220	2022-04-01		527			97%	50	637	583	302	527	869	543	22
4D11P	Kinaskan Lake	1020	2022-04-01	125	409	33		109%	69	520	405	167	343	638	374	26
		Average		85	353	30		115%	61							

Basin Index Calculation	Average SWE	353
	Average Normal	336
Stikine Basin Index - April 1, 2022		105%

Stations used in Basin Index:

4D02, 4D10P, 4D11P

NORTHWEST		April 1, 2022 Data					Apr 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
4E01	LOG CABIN	900	2022-03-28	150	485	32		118%	87	786	504	213	365	786	411	62
4E02B	ATLIN LAKE	730	2022-03-29	53	136	26		133%	74	240	70	0	100	243	102	17
		Average		102	311	29		126%	80							

Basin Index Calculation	Average SWE	311
	Average Normal	233
Northwest Basin Index - April 1, 2022	134%	

Stations used in Basin Index:
4E01, 4E02B

BRITISH COLUMBIA

Basin Index Calculation	Average SWE	572
	Average Normal	579
British Columbia Basin Index - April 1, 2022	99%	

Stations used in Basin Index:
All stations with measurements in B.C.

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
N/A	Not available
NS	Not scheduled
SD	Snow Depth
SWE	Snow Water Equivalent
T	Trace Amount



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The May 1st snow survey is now complete. Data from 108 manual snow courses and 88 automated snow weather stations around the province (collected by the Ministry of Environment and Climate Change Strategy's Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada and the provincial Climate Related Monitoring Program have been used to form the basis of the following report¹.

Executive Summary

Flood risk has increased considerably due to colder April temperatures across the province and delayed snowmelt. Continued cool weather in May is increasing the risk for major flooding if a prolonged heat wave occurs later in the month or June.

The May 1st 2022 snow pack throughout British Columbia is above normal. The average of all snow measurements across B.C. increased to 113% over the past month (April 1st was 99%) primarily due to cooler temperatures across the province delaying snow melt. The snow basin index for the Fraser River at Hope is above normal at 123%, increasing from 108% on April 1st. Snow pack throughout the province ranges from 83 to 413% of normal. The combination of above normal snow pack, colder April and early May temperatures, delayed melt, and additional precipitation have significantly increased the risk of flooding this spring. Snow pack is only one factor related to freshet flood risk. Weather conditions from May through June determine the timing, magnitude, and rate of snow melt, where heavy rainfall events can exacerbate snowmelt-driven flows. An extreme heat wave – like the Heat Dome in late June 2021 – could lead to significant provincial flooding if it occurred between mid-May to mid-June.

Weather

April was colder than normal for British Columbia. Temperatures ranged from -4.5°C to -1.5°C below normal across the province. The coldest temperatures relative to normal occurred in the northern regions of the province. While not the record coldest April, several weather stations experienced their top five coldest conditions for the month. These include Campbell River, Penticton, Cranbrook, Williams Lake, Prince George, and Chetwynd. Penticton was the 4th coldest April with records dating back to 1907. Examples of recent years with colder than normal April temperatures are 2008 and 2011.

Precipitation varied considerably throughout B.C during April. Wetter than normal conditions occurred for Vancouver Island, the Skeena-Bulkley region and the Peace. Drier than normal weather was measured through the South Interior. The South Coast, Fraser Valley, Prince George and Williams Lake received near normal precipitation for the month. Nanaimo measured the highest total April precipitation of all-time with records dating back to 1892.

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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The combination of colder temperatures and above normal precipitation significantly increased the Vancouver Island snow pack compared to April 1.

In general, temperatures have remained seasonal to below seasonal as active weather patterns brought additional precipitation through the first week of May. The upcoming seven-day weather forecast continues to predict relatively cool and showery conditions. Currently, there are no signs of a period of extended significant heat in the short-term weather forecast.

Snowpack

Snow basin indices for May 1st, 2022 range from a low of 83% of normal in the Okanagan to a high of 413% in the Liard (Table 1 and Figure 2, 3). Generally, the province has above normal snow pack for May 1st, with the average of all snow measurements across the province at 113%. This has increased from 99% observed on April 1st. The Okanagan is the only basin slightly below normal (80-89%) for May 1st. Normal snow packs (90-110%) were measured for the Nchako, Lower Fraser, South Thompson, Boundary, Similkameen, Vancouver Island, Peace, and Skeena-Nass. Slightly above normal snow packs (110-120%) exists in the Middle Fraser, West Kootenay, East Kootenay, South Coast, Central Coast, and Stikine. The Upper Fraser East, North Thompson, and Upper Columbia are above normal (120-130%). Well above normal snow pack (>130%) was measured for Upper Fraser West, Skagit, Liard, and Northwest.

The average of all snow measurements for the entire Fraser River basin (e.g., upstream of the Lower Mainland and inclusive of Upper Fraser West, Upper Fraser East, Nchako, Middle Fraser, Lower Fraser, North Thompson and South Thompson) is 114%, increasing from 102% on April 1st. The River Forecast Centre calculates an additional Snow Basin Index for the Fraser River at Hope based on each basin's contribution to the total annual flow of the river. For example, the Upper Fraser East contributes approximately 30% of the total flow for the Fraser River at Hope, the North Thompson about 16%, the South Thompson about 11% and the Quesnel approximately 9%. The Fraser River at Hope Snow Basin Index is 123%, increasing from April 1st (108%). There have been five years in the past four decades with higher May 1st values including 2020 (133%), 2012 (129%), 2011 (134%), 2007 (133%), and 1999 (137%) based on active stations and updated snow normals.

As the Middle Fraser encompasses a large and geographically diverse area, the River Forecast Centre has divided the region into sub-basins to analyze snow conditions and potential flood risks in localised areas. The Bridge region measures 110% of normal, the Quesnel area 123%, the Lower Thompson 116% and the Chilcotin sub-basin is not available. A Nicola Snow Basin Index, comprised of stations in the Lower Thompson that are within the Nicola watershed and Okanagan sites that border the Nicola, is calculated at 79% of normal. Please review the full summary data tables at the end of this report for further

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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interpretation.

Table 1 - BC Snow Basin Indices – May 1, 2022

Basin	% of Normal (Apr 1 st value)	Basin	% of Normal (Apr 1 st value)
Upper Fraser West	140 (95)	Okanagan	83 (74)
Upper Fraser East	125 (117)	Boundary	100 (87)
Nechako	104 (88)	Similkameen	108 (94)
Middle Fraser	115 (103)	South Coast	115 (95)
Lower Thompson*	116 (83)	Vancouver Island	108 (74)
Bridge*	110 (96)	Central Coast	117 (93)
Chilcotin*	N/A (72)	Skagit	131 (90)
Quesnel*	123 (116)	Peace	108 (94)
Lower Fraser	103 (91)	Skeena-Nass	109 (99)
North Thompson	128 (119)	Stikine	110 (105)
South Thompson	107 (101)	Liard	413 (112)
Upper Columbia	121 (115)	Northwest	145 (134)
West Kootenay	113 (101)	Fraser (Entire basin)	114 (102)
East Kootenay	115 (101)	Fraser River at Hope	123 (108)
Nicola**	79 (69)	British Columbia	113 (99)

* sub-basin of Middle Fraser

** sub-basin of Lower Thompson – includes representative stations within Okanagan

There are two snow stations with period of record highs for May 1st; however, the stations have relatively short periods of record:

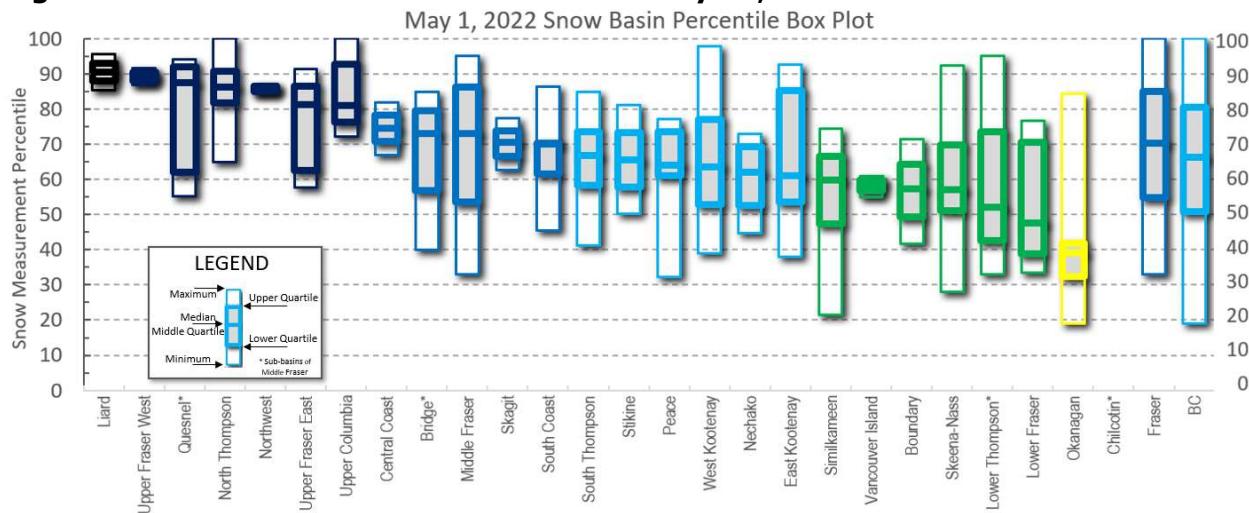
- 1E14P Cook Creek: 856 mm SWE (215% of normal) – period of record 13 years (NORTH THOMPSON)
- 2A30P Colpitti Creek: 1140 mm SWE – period of record 12 years (UPPER COLUMBIA)



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The River Forecast Centre began including percentiles in addition to using percent of normal to analyze snow pack in the 2020 bulletin. Percentiles offer a more accurate interpretation of variance, especially in regions when the percent of normal can be extremely high or low due to delayed snowmelt. The region with the highest average percentile is the Liard (90th percentile); the region with lowest is the Okanagan (40th). Figure 1 (below) displays the percentile variance ordered from highest to lowest median via box plots (including sub-basins).

Figure 1. Snow Basin Percentile Box Plot – May 1st, 2022



Outlook

La Niña conditions persisted through winter and early spring. According to the Climate Prediction Center there is a 59% chance of La Niña conditions continuing into summer (June-August 2022), with a 50-55% chance through the fall. Historically, La Niña conditions can lead to cooler April temperatures for British Columbia, resulting in delayed snowmelt and continued snow accumulation in the mountains.

During the spring snowmelt period (freshet), short and mid-range forecasts are more critical (and more accurate) compared to seasonal weather predictions. The colder than normal April weather across British Columbia has increased the risk for flooding throughout the province. Seasonal to below seasonal temperatures were measured for the start of May which has delayed the melt of the well-established snow pack. The major risks over the following two months are an extreme heat event or widespread heavy rainfall events. A combination of intense heat directly followed by heavy rain is a worst-case scenario.

Seasonal volume runoff forecasts (see below) are near-normal (90-110%) for the Fraser at McBride, Quesnel River at Quesnel, South Thompson at Chase, Thompson River at Spences Bridge, Bulkley River at Quick, Skeena River at Usk and Cowichan Lake. Above normal

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volume forecasts (>110%) are predicted for McGregor River at Lower Canyon, Fraser River at Shelley, North Thompson River at McLure, Nicola Lake, Nicola River at Spences Bridge and the Similkameen River. There is disagreement between the new and old seasonal volume forecasts for Okanagan Lake and Kalamalka-Wood Lake. The older version model forecasts below normal inflows, whereas the newer version forecasts above normal inflows. Several predictor variables were outside the historic range for which the newer modeling was developed, resulting in increased uncertainty for the upcoming forecast. Any interpretation of seasonal volume runoff forecasts must include this critical fact. Further details on the updated seasonal volume forecast model can be found in the February 1st 2021 Snow Bulletin. Normal to slightly above normal snow pack on Vancouver Island and the South Coast indicates an average year of spring runoff for other watersheds within the regions.

Spring Flood Risk (Freshet)

Flooding is a provincial risk every spring due to a combination of snowmelt and/or rainfall (also known as freshet). Every region is at risk for flooding, even if the snow pack is below normal. The weather conditions during spring play a critical role in the rate at which the snow melts. For example, a gradual warming under dry conditions is ideal to lessen the flood risk. A lengthy cold period with high amounts of precipitation followed by a sudden extreme heat wave could lead to catastrophic conditions, especially if additional rain follows. Spring weather is impossible to predict with accuracy in advance, and so communities and residents vulnerable to flooding should prepare accordingly; information to [Be Prepared for Floods](#) is available from Emergency Management BC.

Flood risk has increased considerably due to colder April temperatures across the province and delayed snowmelt. Continued cool weather in May is increasing the risk for major flooding if a prolonged heat wave occurs later in the month or June. Additional input from moderate to heavy rain has recently resulted in High Streamflow Advisories and Flood Watches being issued for rivers in the Thompson, Cariboo, Peace and Northeast.

Typically, regions with above normal snow pack have a higher risk for flooding. As of May 1st, 2022, these areas include:

- The Upper Columbia measures 121% of normal. Communities (e.g., Golden) in the Upper Columbia have an increased risk for flooding through the freshet and may remain at risk into late June or even July due to significant high elevation snow pack.
- The North Thompson measures 128% of normal, which is the highest index since 1999.
- The Quesnel region (within the Middle Fraser) is 123% of normal and is the 3rd highest since 1999 (2011: 125%, 2020: 128%).
- The South Thompson is slightly above normal at 107%. However, there are only four sites reporting across the entire basin that calculate the snow basin index. Since the South Thompson borders the North Thompson and Upper Columbia (which have significantly higher snow basin indices), it is possible that the snow pack is slightly

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higher than the snow basin index suggests. Additionally, Shuswap Lake levels were above average earlier this year and were at historic highs over the winter due to the extreme rainfall from the atmospheric rivers in November 2021.

- The Upper Fraser East is high at 125% of normal. Although above normal, this year's index is still below recent higher snow years (2007, 2012, 2014, 2020). This season was the first year that manual snow surveys at 1A05 Longworth Upper and 1A15 Knudsen Lake were discontinued. If the automated stations at these locations used the historic manual snow survey normal values, it results in 1A05P Longworth Upper at 141% of normal and 1A15P Knudsen Lake at 153%. This would increase the Snow Basin Index to 132% of normal.
- The Upper Fraser West is at 140% of normal and primarily high due to the delay of snowmelt.
- The West Kootenay (113%) and East Kootenay (115%) are slightly above normal; however, there are areas, especially in the northern sections that are well above normal.
- The Liard River is at 413% of normal. Obviously, this snow basin index is significantly high, but it's based on stations that usually have very little snow at this time of year. The stations measured were at the 90th percentile. So, although very high, it was not an all-time record for the region.
- The Northwest is 145% of normal and snowmelt has been delayed.

In addition to the above, other regions displayed a significant increase in snow basin index compared to April 1st due to delayed snowmelt. There are significant risks to many regions of the province if there is a strong heat wave or extreme precipitation over the upcoming two months.

The combination of high snow pack in the Upper Fraser East, Quesnel and North Thompson indicates a heightened concern for flooding for Prince George, Kamloops, and the overall Fraser River. Based solely on the contributions to the Fraser River from the Upper Fraser East, Quesnel and North Thompson, this year ranks as the 2nd highest in the last 45 years. There is a risk that an extreme heat wave in late May or early June could create peak flows reminiscent of 1948 or 1972 for the lower Fraser River.

November 2021 Atmospheric River Floods

The unprecedented and catastrophic flooding that occurred in November 2021 has made many rivers more vulnerable to freshet high flows. Fortunately, the May 1st snow pack in the Nicola, Similkameen and Lower Fraser is near normal. However, due to the significant erosion and possible changes in river channel morphology that occurred within many areas (including but not limited to the Coldwater River, Nicola River, Tulameen River, Coquihalla River and lower Fraser River), rivers may be at increased vulnerability to flooding at lower levels than previous freshet seasons. Flows during the freshet season tend to be sustained for

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longer periods of time during snowmelt, which is different from the fall flooding season that is driven by shorter duration, intense rainfall events.

The risk for flooding in the Sumas Prairie will be based on potential for flooding of the Nooksack River and stability of the dikes along the Nooksack River. Flooding of the Sumas Prairie from Canadian contributions could occur from flooding of the Fraser River if extreme water levels exceed flood protection infrastructure, such as occurred in 1894 and 1948.

2021 Wildfire Season

The 2021 Wildfire season was very active in the province with many watersheds sustaining significant burns. Disturbances such as fire affect the hydrologic response of streams, rivers, and lakes relevant to potential flooding, as summarized by a study conducted by the RFC in Spring 2018 (and briefly summarized in the April 1st, 2018 Snow Bulletin). Specifically, flows from snowmelt dominated watersheds impacted by fires tend to be greater and peak earlier as compared to undisturbed areas, even under normal weather conditions. Areas that recently experienced severe wildfire are at greater risk for higher peak flows (e.g., Upper and Lower Nicola, Guichon Creek, Deadman River). The Deadman River is currently under a High Streamflow Advisory from combined snowmelt and heavy rainfall occurring in the first week of May.

Extreme Weather Events

In general, flooding usually occurs due to extreme weather. In 2021, there were two extreme weather events that resulted in severe impacts: the heat dome in late-June and atmospheric rivers in November. Alpine temperatures during the heat dome reached up to 38°C, triggered extraordinary snow melt rates (80-100 mm SWE/day) at high elevation automated snow weather stations that had snow remaining. If such an extreme heat event occurred earlier in the freshet season when there is more snow to melt (May or early-June), it could lead to significant flooding at a provincial scale. Since spring 2022 has been generally cool throughout the province, an upcoming extreme heat wave like last year would cause significant widespread flooding.

Atmospheric rivers tend to affect the province primarily between September through January. However, strong storms can occur as early as August for the North Coast; there are numerous examples of atmospheric rivers occurring on the South Coast into February and March. It is less likely that these events will occur in May or June, but not impossible.

Although not as extreme as the previous examples, the most likely cause for major flooding would be a period of persistent cool temperatures and wet weather into the late spring, followed by a sudden heat wave lasting at least five days. There is evidence that the 1948 and 1894 floods on the Fraser River were caused by this scenario. The snow conditions for April 1st in 1948 were considered slightly above average (based on current snow stations that had measurements in 1948), showing the importance of spring weather to flooding. A

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secondary risky scenario is a widespread heavy rainfall event that occurs during the high flows from snowmelt. There are many similarities between the 2022 cool spring weather and the conditions preceding flooding in 1948.

Wrap-around low pressure, or cold low, systems pose an additional risk of primarily rain-driven flooding. The risk of these events occurring increases in June and typically extends into July. These systems can deliver extreme rainfall which wraps around the province and typically leads to upslope precipitation enhancement within eastern slope mountainous regions. These can be augmented or enhanced by snowmelt and high antecedent streamflow conditions. Flood events from these phenomena have occurred in the Peace Region in 2012 and 2016, Fernie (and Calgary/Alberta) in 2013, and in the Chilcotin in 2019.

Typically, 100% of the annual B.C. snow pack has accumulated by early-May, where the provincial snow pack normally peaks in mid-April. Lower elevation snow sites usually start to melt prior to May 1st, while high elevation snow stations can continue to accumulate snow in May (depending on weather conditions). Based on the automated snow weather stations (ASWS), snowmelt across the province has been delayed, especially compared to the last five freshet seasons.

The upcoming weather forecast continues to predict seasonal to below seasonal temperatures through the province, likely delaying the initiation of significant snowmelt into mid- or late-May.

Summary

Snow pack throughout the province ranges from 83 to 413% of normal. The provincial average for all snow measurements across the province is 113% of normal, and the Fraser River at Hope is 123%. The combination of above normal May 1st snow pack, cool weather through April and early May, continued snow accumulation, and short-term weather forecasts that predict cooler conditions for the province for another seven days, at least, considerably increases the risk for spring flooding. Snow pack is only one factor related to freshet flood risk. Weather conditions through May, June and July will determine the timing, magnitude, and rate of snow melt, and heavy rainfall events can exacerbate the situation. Flooding is possible in years with normal or even below-normal snow pack. The greatest risk is if a significant province-wide heat wave occurs for a lengthy period over the upcoming couple months.

The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the May 15th, 2022 bulletin, which is scheduled for release on May 20th.

BC River Forecast Centre
May 9, 2022

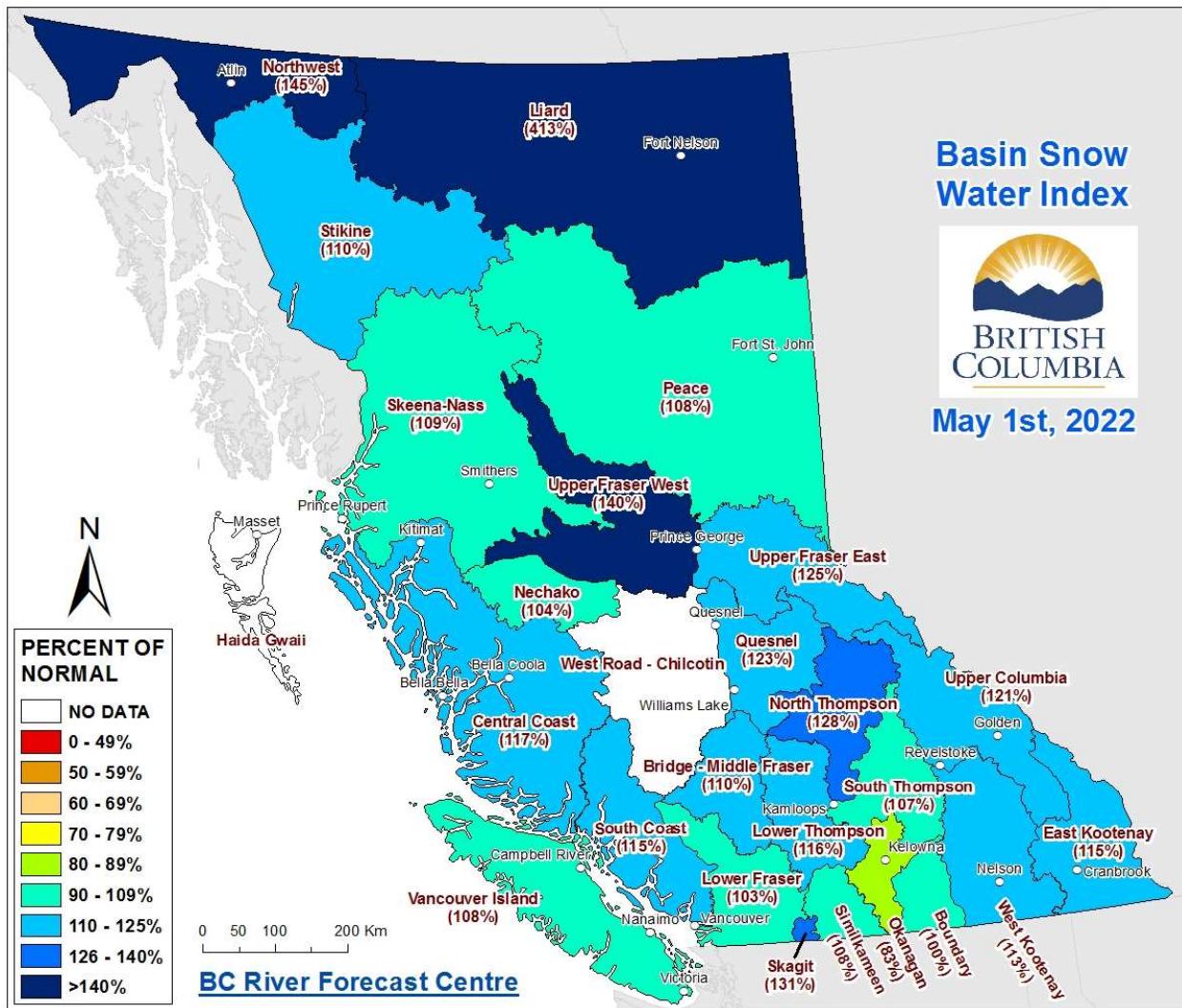
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RIVER FORECAST CENTRE

Snow Survey and Water Supply Bulletin – May 1st, 2022

Figure 2: Basin Snow Water Index – May 1st, 2022

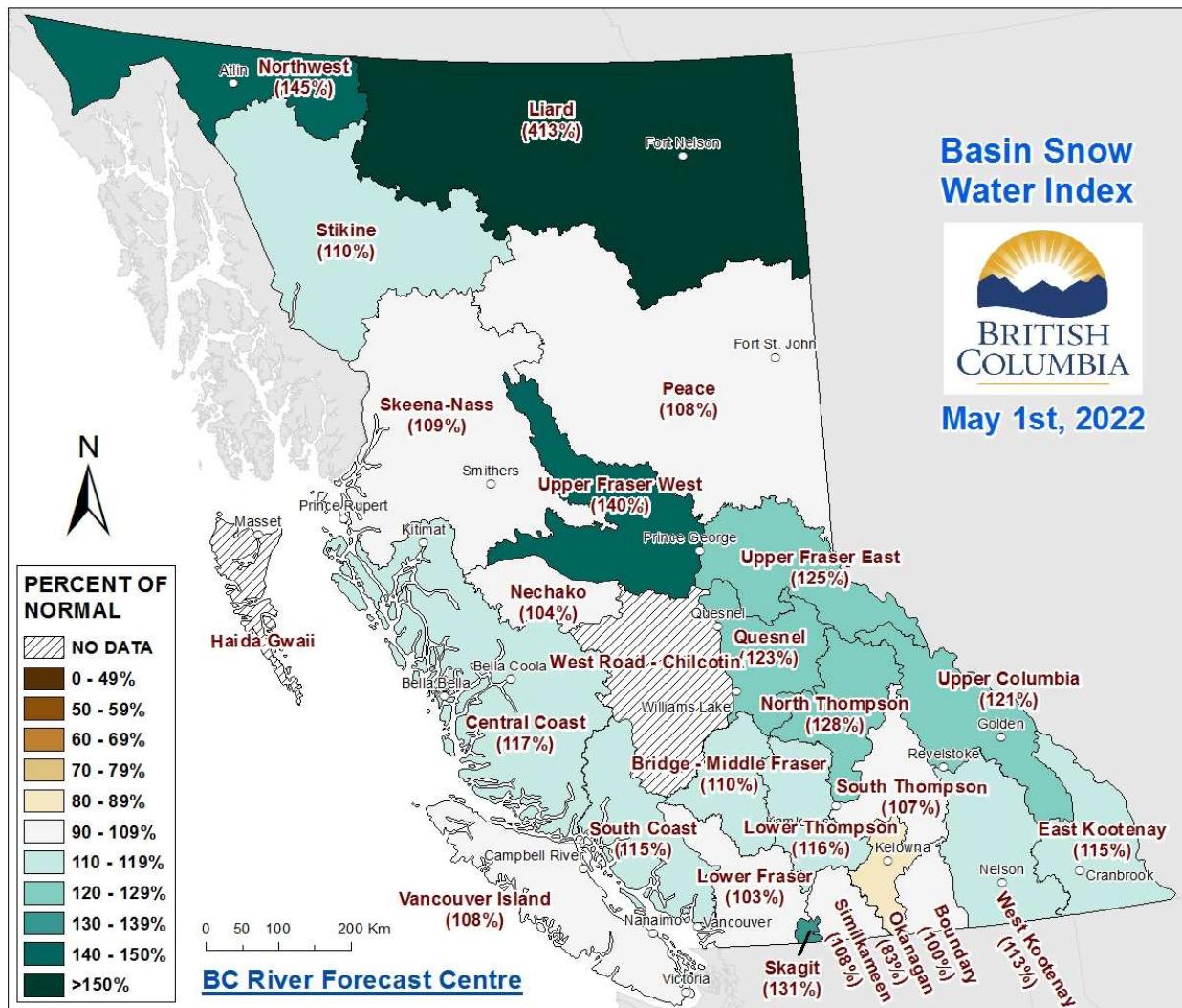


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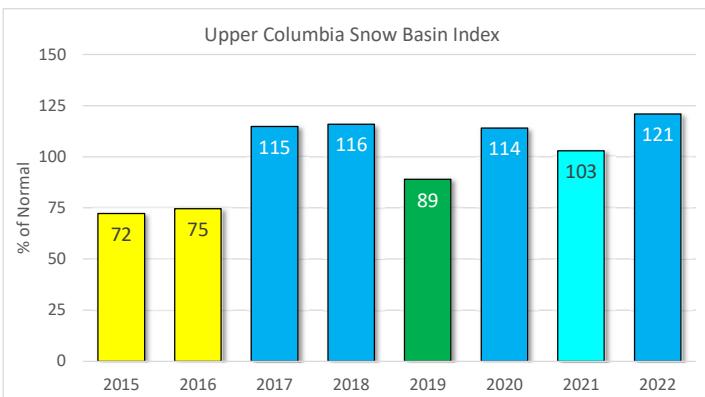
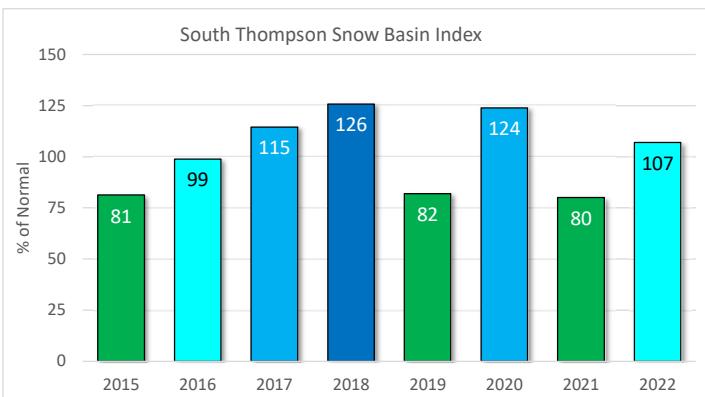
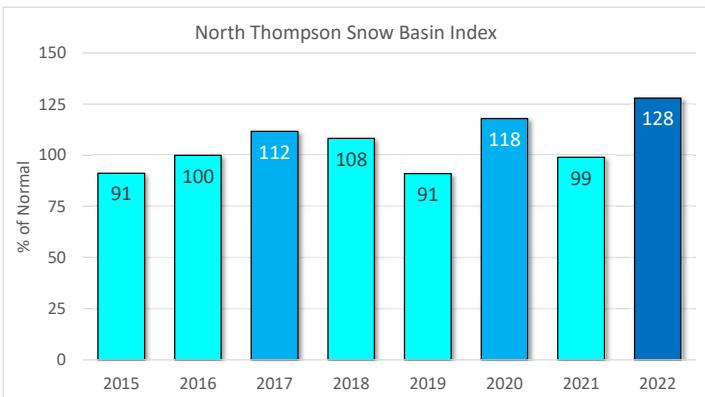
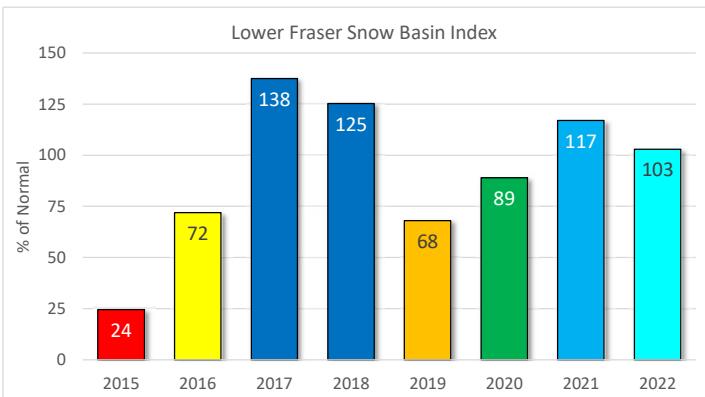
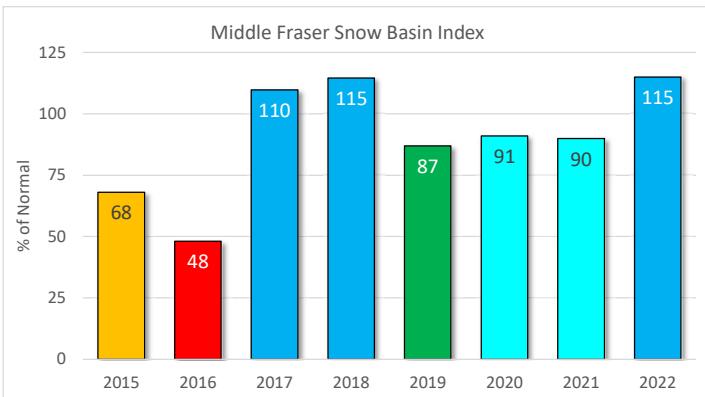
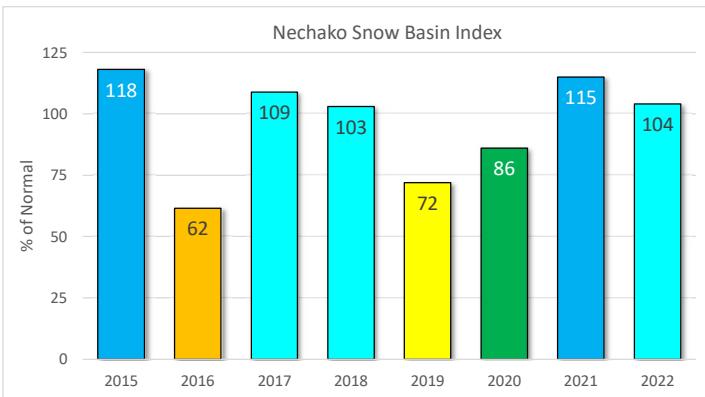
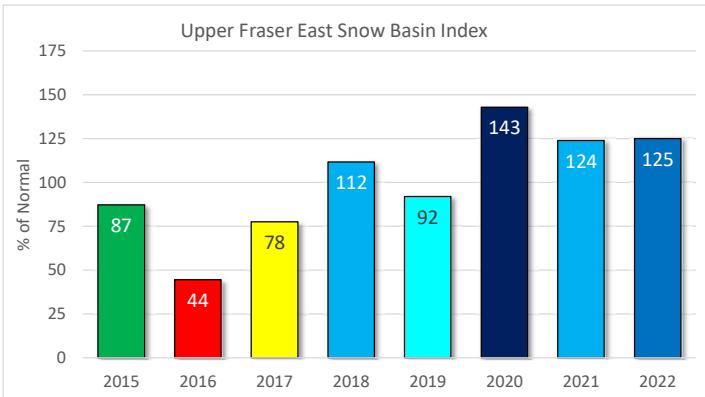
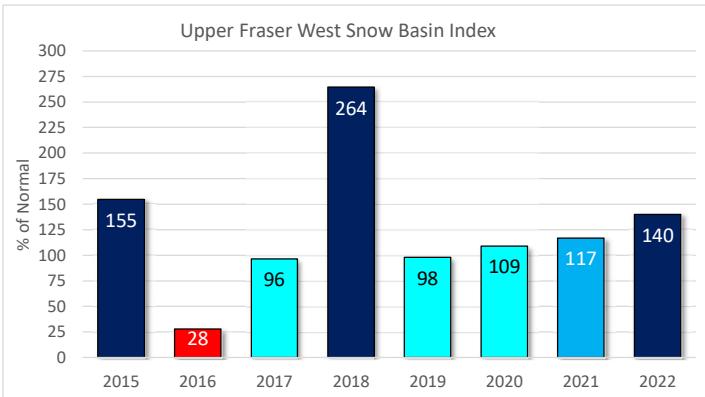


Snow Survey and Water Supply Bulletin – May 1st, 2022

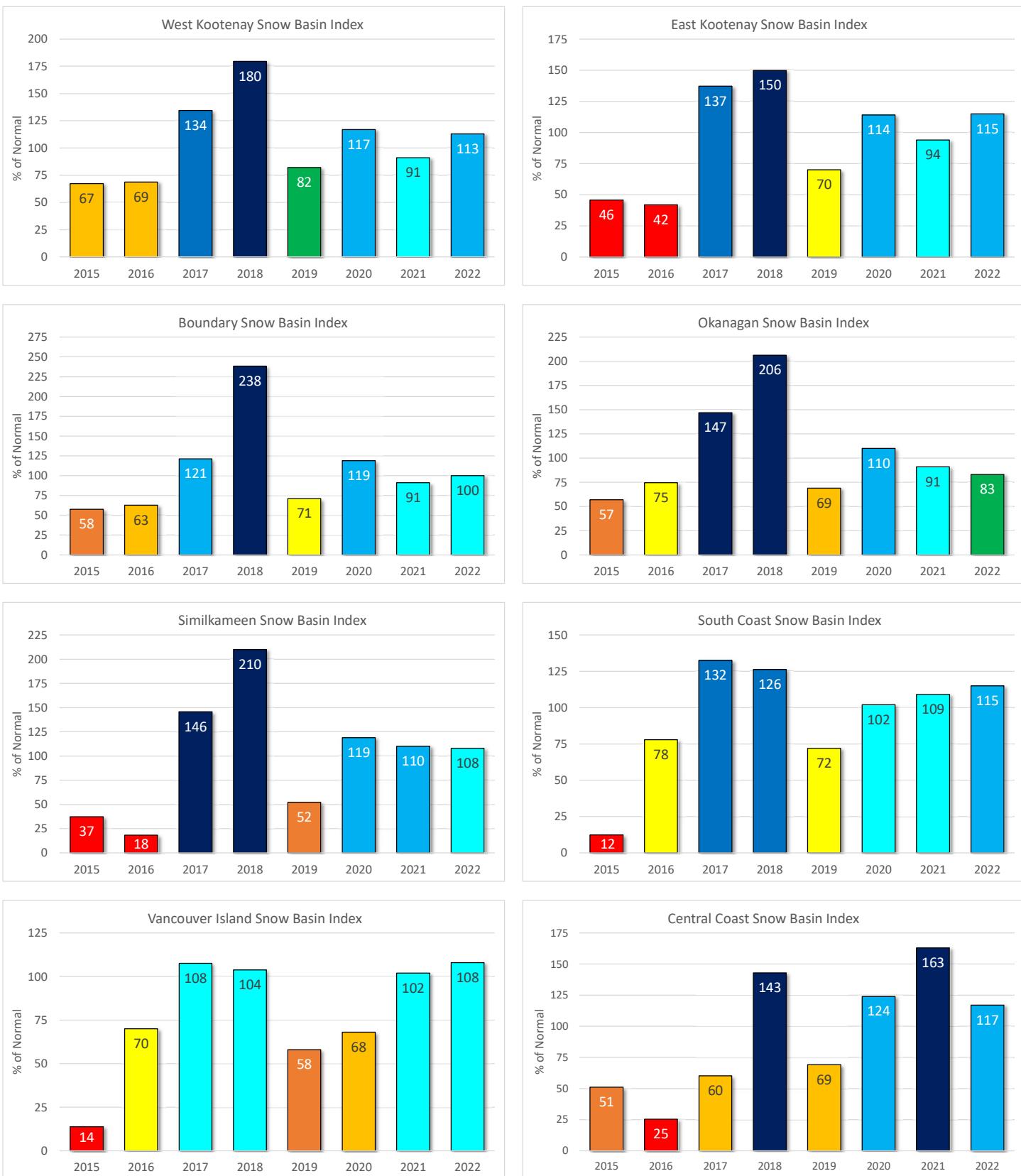
Figure 3: Basin Snow Water Index – May 1st, 2022 – Colour Friendly



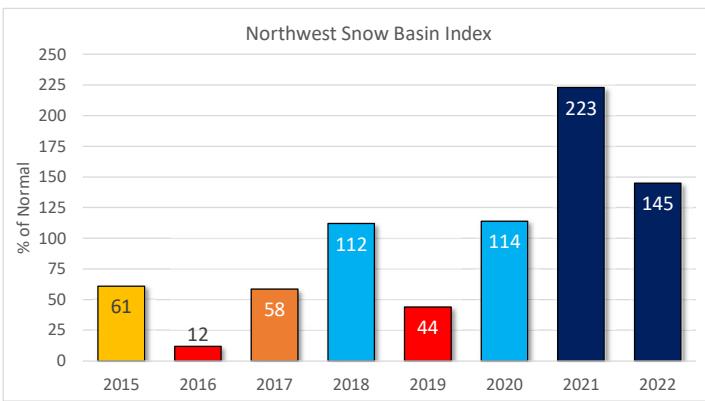
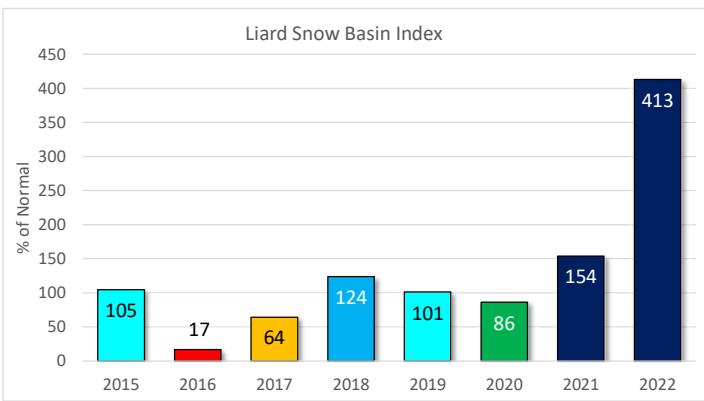
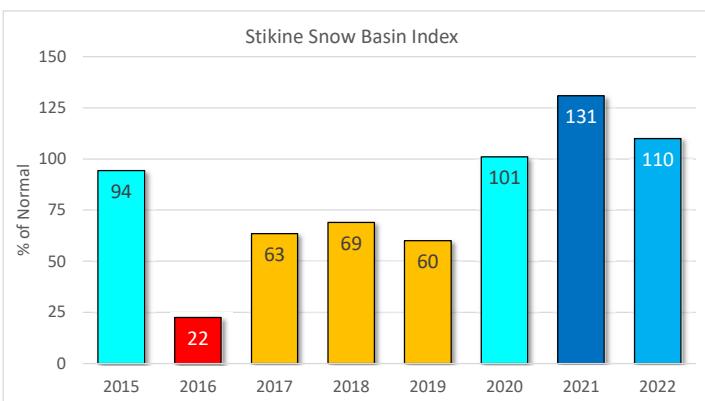
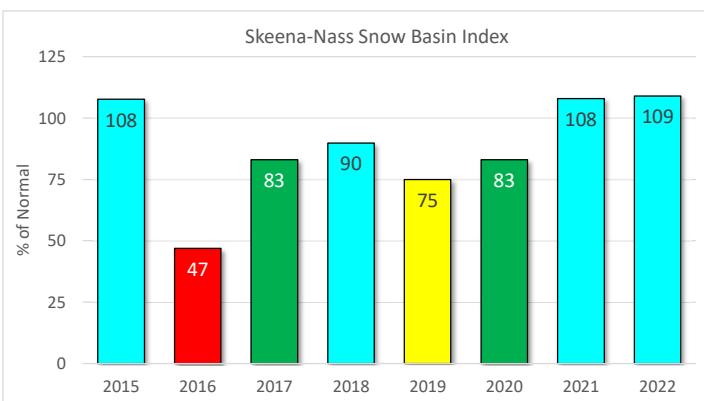
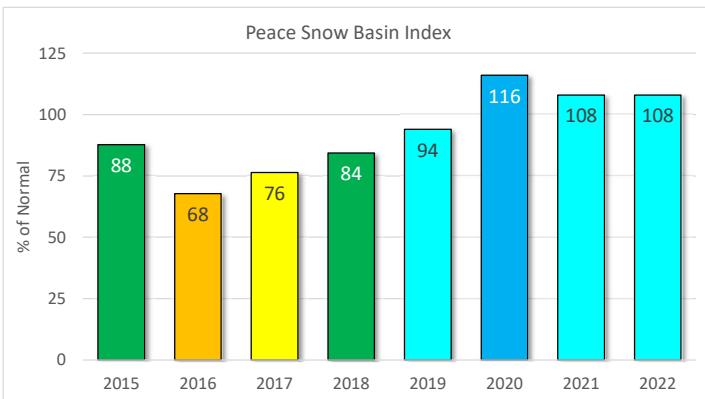
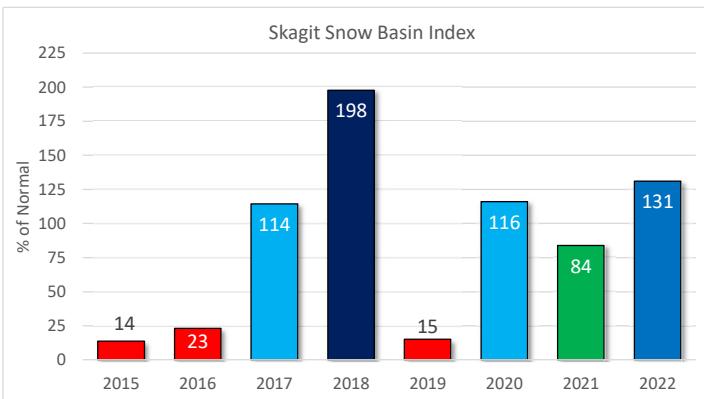
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Snow Basin Index Graphs - May 1, 2022



Snow Basin Index Graphs - May 1, 2022



UPPER FRASER EAST			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
1A01P	Yellowhead Lake	1860	2022-05-01	176	691	39		120%	84	618	625	383	585	833	574	23	
1A02P	McBride Upper	1611	2022-05-01	154	670	44		130%	90	631	613	203	497	754	516	30	
1A03P	Barkerville	1520	2022-05-01	108	430	40		138%	81	254	447	2	328	541	312	43	
1A05P	Longworth Upper	1740	2022-05-01	254	1258	50		N/A	N/A	1213	993	657	826	1213	N/A	5	
1A06A	HANSARD	608		NS	NS	NS	NS	N/A	N/A	NS	30	0	30	100	N/A	3	
1A10	PRINCE GEORGE A	689		NS	NS	NS	NS	N/A	N/A	NS	0	0	0	216	0	42	
1A11	PACIFIC LAKE	755	2022-05-02	140	626	45		122%	58	872	782	0	531	976	512	56	
1A14P	Hedrick Lake	1100	2022-05-01	255	910	36		111%	60	961	763	248	775	1268	817	22	
1A15P	Knudsen Lake	1601	2022-05-01	257	1383	54		N/A	N/A	1263	786	284	584	1263	N/A	6	
1A17P	Revolution Creek	1690	2022-05-01	280	1252	45		147%	91	1097	1378	480	845	1378	851	33	
1A19P	Dome Mountain	1774	2022-05-01	237	937	40		114%	65	1038	1042	314	836	1166	821	16	
	Average			207	906	43		126%	76								

Basin Index Calculation	Average SWE	788
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Stations used in Basin Index:

Average Normal	629
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1A01P, 1A02P, 1A03P, 1A11, 1A14P, 1A17P, 1A19P

Upper Fraser East Basin Index - May 1, 2022	125%
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UPPER FRASER WEST			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
1A12	KAZA LAKE	1250	2022-05-01	117	413	35		125%	87	359	352	166	340	481	331	54	
1A12P	Kaza Lake	1257	2022-05-01	125				N/A	N/A	366	358	192	330	366	N/A	6	
1A16	BURNS LAKE	800	2022-05-05	0	0	N/A		0%	N/A	N	N	0	0	148	35	42	
1A23	BIRD CREEK	1180	2022-04-29	53	180	34		315%	92	96	N	0	16	218	57	29	
	Average			74	198	35		147%	89								

Basin Index Calculation	Average SWE	198
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Stations used in Basin Index:

Average Normal	141
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Upper Fraser West Basin Index - May 1, 2022	140%
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NECHAKO			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
1B01	MOUNT WELLS	1490	2022-04-29	152	582	38		117%	73	550	N	201	518	958	496	64	
1B01P	Mount Wells	1490	2022-05-01		680			116%	71	682		305	558	917	585	29	
1B02	TAHTSA LAKE	1300	2022-04-29	270	1141	42		92%	45	1552	N	701	1184	2073	1242	67	
1B02P	Tahsta Lake	1300	2022-05-01					N/A	N/A	1601	1168	823	1280	2356	1329	28	
1B05	SKINS LAKE	890	2022-04-29	0	0			N/A	N/A	0	N	0	0	100	2	49	
1B06	MOUNT SWANNELL	1620	2022-04-29	95	299	31		108%	51	289	N	0	298	499	277	31	
1B07	NUTLI LAKE	1490	2022-04-29	142	545	38		110%	65	580	N	227	481	870	497	28	
1B08P	Mt. Pondosy	1400	2022-05-01		809			102%	59	744	687	490	736	1267	790	26	
	Average			N/A	579	N/A		108%	61								

Basin Index Calculation	Average SWE	676
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Stations used in Basin Index:

Average Normal	648
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Nechako Basin Index - May 1, 2022	104%
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LOWER THOMPSON			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
1C01	BROOKMERE	980	2022-04-29	12	52	43		79%	33	46	34	0	74	419	66	75	
1C06	PAVILION	1230	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	0	N/A	16
1C09A	HIGHLAND VALLEY	1510	2022-04-29	0	0	N/A		0%	N/A	0	0	0	0	181	26	54	
1C25	LAC LE JEUNE (UPPER)	1509	2022-04-28	38	130	34		295%	95	14	50	0	21	168	44	48	
1C29	SHOVELNOSE MOUNTAIN	1450	2022-04-29	23	70	30		85%	52	108	95	0	56	305	82	39	
1C29P	Shovelnose Mountain	1460	2022-05-01	20	47	24		N/A	N/A	7	40	0	7	40	N/A	3	
1C32	DEADMAN RIVER	1430	N	N	N	N	N	N/A	N/A	N	100	0	10	194	36	37	
1C42	CAVERHILL LAKE NEW	1400	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	172		172	N/A	1	
			Average	19	60	33		115%	60								

Basin Index Calculation	Average SWE	63
	Average Normal	54

Stations used in Basin Index:
1C01, 1C09P, 1C25, 1C29

Lower Thompson Basin Index - May 1, 2022 116%

NICOLA	Average SWE	118
	Average Normal	149

Stations used in Basin Index:
1C01, 1C09A, 1C25, 1C29, 2F18P, 2F23, 2F24

Nicola Basin Index - May 1, 2022 79%

BRIDGE / LILLOOET			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C05	MCGILLIVRAY PASS	1725	2022-05-01	145	565	39		103%	49	440	388	270	580	1118	549	69
1C05P	McGillivray Pass	1718	2022-05-01		630			N/A	N/A	459	374	374	434	618	N/A	4
1C12P	Green Mountain	1780	2022-05-01		959			110%	64	657	565	488	807	1369	875	28
1C14P	Bralorne	1382	2022-05-01	29	55	19		N/A	N/A	1	0	0	0	58	N/A	4
1C18P	Mission Ridge	1850	2022-05-01		663			129%	81	624	485	147	490	1029	513	45
1C28	DUFFEY LAKE	1200	2022-05-03	100	437	44		N/A	85	357	N	206	357	624	N/A	15
1C37	BRALORNE (UPPER)	1981	2022-04-29	200	760	38		110%	73	N	454	0	673	1092	691	24
1C38	DOWNTON LAKE (UPPER)	1887	2022-04-29	244	978	40		116%	79	560	678	450	846	1340	843	24
1C38P	Downton Lake Upper	1829	2022-05-01		1095			N/A	N/A	842	617	617	763	869	N/A	6
1C39	BRIDGE GLACIER (LOWER)	1390	2022-04-29	164	556	34		92%	40	476	416	244	595	1018	603	26
1C40P	North Tyaughton	1969	2022-05-01		528			N/A	N/A	447	299	217	378	447	N/A	6
			Average	147	657	36		110%	67							

Basin Index Calculation	Average SWE	747
	Average Normal	679

Stations used in Basin Index:
1C05, 1C12P, 1C18P, 1C37, 1C38, 1C39

Bridge/Lillooet Basin Index - May 1, 2022 110%

CHILCOTIN			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C21	BIG CREEK	1140	2022-04-29	0	0			N/A	N/A	0	0	0	0	48	N/A	10
1C22	PUNTZI MOUNTAIN	940	2022-04-29	0	0			N/A	N/A	0	0	0	0	0	N/A	14
			Average	N/A	N/A	N/A		N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A

Stations used in Basin Index:
N/A

Chilcotin Basin Index - May 1, 2022 N/A

QUESNEL			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C17	MOUNT TIMOTHY	1660	2022-05-05	63	310	49		117%	55	258	204	90	299	536	265	59
1C20P	Boss Mountain Mine	1460	2022-05-01	168	725	43		129%	88	538	506	259	545	821	562	28
1C23	PENFOLD CREEK	1685	2022-04-29	298	1141	38		107%	62	N	N	710	1080	1420	1068	44
1C33A	GRANITE MOUNTAIN	1150	2022-04-28	53	200	38		245%	92	64	129	0	65	221	82	16
1C41P	Yanks Peak East	1670	2022-05-01	220	1141	52		129%	94	954	1274	529	954	1274	886	25
			Average	160	703	44		145%	78							

Basin Index Calculation	Average SWE	703
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Stations used in Basin Index:

Average Normal	572
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Quesnel Basin Index - May 1, 2022	123%
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MIDDLE FRASER

Basin Index Calculation	Average SWE	550
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Stations used in Basin Index:

Average Normal	477
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Middle River Basin Index - May 1, 2022	115%
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LOWER FRASER			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1D06P	Tenquille Lake	1680	2022-05-01	293	1279			119%	77	1005	912	653	1005	1699	1074	21
1D08	STAVE LAKE	1250	2022-04-28	317	1380	44		93%	39	1712	1267	62	1606	3120	1485	55
1D08P	Lamont Creek Upper	1217	2022-05-01		1566			N/A	N/A	1757		1757		1757	N/A	1
1D09P	Wahleach Lake Upper	1480	2022-05-01		997			100%	54	1239	958	344	986	1757	999	29
1D10	NAHATLATCH RIVER	1550	2022-04-28	286	1260	44		93%	33	N	1142	468	1354	2720	1360	51
1D16	DICKSON LAKE	1160	2022-04-28	319	1450	45		97%	41	1928	1526	4	1520	3180	1500	29
1D17P	Chilliwack River	1600	2022-05-01	339	1855	55		117%	73		1737	675	1637	2445	1583	28
1D18	DISAPPOINTMENT LAKE	1050	2022-04-28	394	1945	49		120%	70	1870	N	648	1659	2660	1625	20
1D18P	Disappointment Lake	1050	2022-05-01	370				N/A	N/A		954	375	1486	2460	1433	12
1D19P	Spuzzum Creek	1180	2022-05-01	263	1408	54		90%	38	1728	1324	162	1660	2940	1567	23
			Average	323	1460	48		103%	53							

Basin Index Calculation	Average SWE	1447
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Stations used in Basin Index:

Average Normal	1399
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Lower Fraser Basin Index - May 1, 2022	103%
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NORTH THOMPSON			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1E01B	BLUE RIVER	670	2022-04-27	47	194	41		245%	87	42	240	0	7	265	79	37
1E02P	Mount Cook	1550	2022-05-01					N/A	N/A	1551	1511	1007	1362	2006	1400	18
1E03A	TROPHY MOUNTAIN	1860	2022-04-27	201	787	39		123%	92	640	714	417	616	960	640	44
1E07	ADAMS RIVER	1720	2022-04-28	203	810	40		108%	65	758	852	396	740	1173	748	50
1E08P	Azure River	1652	2022-05-01	300	1476	49		118%	86	1298	1328	776	1283	1635	1246	25
1E10P	Kostal Lake	1770	2022-05-01	235	1024	44		113%	81	708	747	641	909	1268	909	37
1E14P	Cook Creek	1280	2022-05-01	146	856	59		215%	100	378	650	101	416	650	398	13
			Average	189	858	45		154%	85							

Basin Index Calculation	Average SWE	858
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Stations used in Basin Index:

Average Normal	670
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North Thompson Basin Index - May 1, 2022	128%
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*Record High

SOUTH THOMPSON			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1F01A	ABERDEEN LAKE	1310	2022-04-27	14	47	34		154%	70	0	105	0	6	165	31	64
1F02	ANGLEMONT	1190	2022-04-29	63	262	42		148%	64	30	376	0	221	496	177	61
1F03P	Park Mountain	1890	2022-05-01	204	907	44		93%	41	812	1023	669	952	1340	973	37
1F04P	Enderby	1950	2022-05-01	265	1149	43		N/A	N/A	942	1360	942	1119	1360	N/A	5
1F06P	Celista Mountain	1500	2022-05-01	239	1113	47		112%	85	905	1029	799	1029	1173	996	15
			Average	157	696	42		127%	65							

Basin Index Calculation	Average SWE	582
	Average Normal	544
South Thompson Basin Index - May 1, 2022		

Stations used in Basin Index:
1F01A, 1F02, 1F03P, 1F06P

FRASER RIVER

Basin Index Calculation	Average SWE	772
	Average Normal	679
Fraser River Basin Index - May 1, 2022		

Stations used in Basin Index:
1A01P, 1A02P, 1A03P, 1A11, 1A14P, 1A17P, 1A19P, 1B01, 1B01P, 1B02, 1B06, 1B07, 1B08P, 1C01, 1C05, 1C09P, 1C12P, 1C17, 1C18P, 1C20P, 1C23, 1C25, 1C29, 1C33A, 1C37, 1C38, 1C39, 1C41P, 1D06P, 1D08, 1D09P, 1D10, 1D16, 1D17P, 1D18, 1D19P
1E01B, 1E03A, 1E07, 1E08P, 1E10P, 1E14P, 1F01A, 1F02, 1F03P, 1F06P

UPPER COLUMBIA			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2A02	GLACIER	1250	2022-04-29	187	922	49		141%	94	780	838	320	661	1247	653	76
2A03A	FIELD	1285	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	178	37	49
2A06P	Mount Revelstoke	1850	2022-05-01		1372			110%	73	1177	1323	874	1251	1668	1250	28
2A07	KICKING HORSE	1650	2022-04-27	112	389	35		125%	80	333	384	63	317	589	311	71
2A11	BEAVERFOOT	1890	2022-04-29	75	244	33		145%	77	150	235	0	199	495	168	61
2A14	MOUNT ABBOT	2010	2022-04-28	365	1600	44		116%	81	1510	1470	853	1347	1885	1379	61
2A16	GOLDSTREAM	1920	2022-04-29	356	1556	44		128%	96	1216	1408	784	1193	1781	1214	59
2A17	FIDELITY MOUNTAIN	1870	N	N	N	N	N	N/A	N/A	1620	1627	817	1299	1986	1360	59
2A18P	Keystone Creek	1840	2022-05-01		1088			N/A	N/A	882	1020	737	961	1288	N/A	6
2A19	VERMONT CREEK	1520	2022-04-30	110	458	42		137%	72	382	347	0	364	1026	335	56
2A21P	Molson Creek	1935	2022-05-01		1376			124%	93	1139	1053	742	1080	1677	1108	39
2A23	BUSH RIVER	1920	2022-04-29	241	1084	45		129%	87	950	979	492	856	1392	843	54
2A25	KIRBYVILLE LAKE	1750	2022-04-29	317	1423	45		112%	75	1202	1378	770	1196	1797	1275	49
2A27	DOWNIE SLIDE (LOWER)	980	2022-04-29	160	706	44		131%	82	624	732	0	540	910	539	43
2A29	DOWNIE SLIDE (UPPER)	1630	2022-04-29	350	1568	45		110%	76	1092	1454	802	1344	2242	1430	43
2A30P	Colpitti Creek	2131	2022-05-01		1140			N/A	100	1004	1045	452	767	1122	N/A	12
2A31P	Caribou Creek Upper	2201	2022-05-01		1216			N/A	N/A	1148	1094	796	1121	1214	N/A	6
2A32P	Wildcat Creek	2122	2022-05-01		902			N/A	N/A	746	844	440	719	844	N/A	6
2A34P	Glacier NP Rogers Pass Lower	1182	2022-05-01	146	796			N/A	N/A					N/A	0	
			Average	220	1049	42		126%	84							

Basin Index Calculation	Average SWE	1058
	Average Normal	875
Upper Columbia Basin Index - May 1, 2022		

Stations used in Basin Index:
2A02, 2A06P, 2A07, 2A11, 2A14, 2A16, 2A19, 2A21P, 2A23, 2A25, 2A27, 2A29

*Record High

WEST KOOTENAY			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2B02A	FARRON	1220	2022-04-25	58	226	39		121%	67	36	152	0	174	437	187	49
2B05	WHATSHAN (UPPER)	1525	2022-04-28	150	614	41		106%	63	545	723	255	566	983	579	60
2B06P	Barnes Creek	1620	2022-05-01		571			99%	52	435	654	345	559	821	575	29
2B07	KOCH CREEK	1860	2022-04-28	195	740	38		93%	41	662	816	391	784	1201	796	60
2B08P	St. Leon Creek	1800	2022-05-01		1549			134%	98	1213	1595	705	1175	1595	1152	28
2B09	RECORD MOUNTAIN	1890	2022-05-02	163	618	38		86%	39	498	582	157	689	1278	721	47
2D02	FERGUSON	880	N	N	N	N	N	N/A	N/A	515	622	160	426	773	456	73
2D03	SANDON	1070	2022-05-01	44	166	38		281%	76	25	199	0	48	399	59	67
2D04	NELSON	930	2022-04-27	33	141	43		108%	53	7	111	0	136	508	131	65
2D05	GRAY CREEK (LOWER)	1550	2022-04-25	126	482	38		105%	58	375	N	229	450	726	458	71
2D06	CHAR CREEK	1310	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	79	441	838	450	53
2D07A	DUNCAN LAKE NO. 2	630	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	42	N/A	4
2D07AP	Duncan Lake Dam 2	559	2022-05-01	0	0			N/A	N/A	0	0	0	0	0	N/A	2
2D08P	East Creek	2030	2022-05-01		1266			133%	93	1031	1055	483	938	1349	949	40
2D09	MOUNT TEMPLEMAN	1860	NS	NS	NS	NS	NS	N/A	N/A	1057	1143	731	1069	1679	1090	52
2D10	GRAY CREEK (UPPER)	1940	2022-04-25	206	821	40		103%	64	741	N	505	757	1300	794	50
2D10P	GRAY CREEK (UPPER)	1930	2022-05-01	203	790	39		N/A	N/A	741		741		741	N/A	1
2D14P	Redfish Creek	2104	2022-05-01		1677			115%	80	1376	1447	890	1469	2036	1455	20
2D17	LOST LEDGE	2050	2022-05-01	287	990	34		N/A	N/A						0	
2D18	PURCELL	2060	2022-05-02	258	1158	45		N/A	N/A						0	
			Average	144	738	39		124%	65							

Basin Index Calculation	Average SWE	739
	Average Normal	655
West Kootenay Basin Index - May 1, 2022		113%

Stations used in Basin Index:
2B02A, 2B05, 2B06P, 2B07, 2B08P, 2B09, 2D03, 2D04, 2D05, 2D08P, 2D10, 2D14P

EAST KOOTENAY			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2C01	SINCLAIR PASS	1370	2022-04-29	19	55	29		134%	61	83	88	0	41	246	41	75
2C04	SULLIVAN MINE	1550	2022-04-27	80	266	33		133%	57	252	178	0	254	518	200	76
2C09Q	Morrissey Ridge	1860	2022-05-01		591			85%	38	413	655	317	655	1332	692	37
2C10P	Moyie Mountain	1930	2022-05-01	72	358	50		101%	51	217	497	0	355	674	354	41
2C11	KIMBERLY UPPER	2140	NS	NS	NS	NS	NS	N/A	N/A	N	NS	188	453	935	454	44
2C12	KIMBERLY MIDDLE	1680	NS	NS	NS	NS	NS	N/A	N/A	N	NS	0	205	483	175	44
2C14P	Floe Lake	2090	2022-05-01		999			126%	93	860	872	481	860	1196	793	27
2C15	MOUNT ASSINIBOINE	2230	2022-04-30	191	761	40		130%	87	634	632	339	559	930	583	50
2C17	THUNDER CREEK	2010	2022-04-30	113	364	32		125%	83	312	N	163	295	556	291	49
			Average	95	485	37		119%	67							

Basin Index Calculation	Average SWE	485
	Average Normal	422
East Kootenay Basin Index - May 1, 2022		115%

Stations used in Basin Index:
2C01, 2C04, 2C09Q, 2C10P, 2C15, 2C17

BOUNDARY			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2E01	MONASHEE PASS	1370	2022-04-28	86	340	40		119%	71	239	386	67	290	505	285	62

2E02	CARMII	1250	2022-04-27	0	0		0%	N/A	0	0	0	0	173	15	58
2E03	BIG WHITE MOUNTAIN	1680	2022-04-27	135	440	33	95%	42	436	485	237	474	762	464	55
2E07P	Grano Creek	1860	2022-05-01	142	573	40	98%	57	548	664	295	560	878	583	24
	Average			91	338	37	78%	57							

Basin Index Calculation	Average SWE	338
	Average Normal	337
Boundary Basin Index - May 1, 2022	100%	

Stations used in Basin Index:
2E01, 2E02, 2E03, 2E07P

OKANAGAN			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2F01A	TROUT CREEK (West)	1430	2022-05-03	20	78	39		54%	35	64	81	20	118	298	143	12
2F01AP	Trout Creek West	1420	2022-05-01		100			N/A	N/A	1	81	0	41	240	N/A	4
2F02	SUMMERLAND RESERVOIR	1280	2022-04-29	21	80	38		101%	39	0	74	0	101	368	79	56
2F03	MCCULLOCH	1280	2022-04-28	3	9	30		67%	42	0	25	0	19	188	14	75
2F04	GRAYSTOKE LAKE	1840	2022-04-25	114	328	29		92%	39	432	512	120	386	940	356	47
2F05P	Mission Creek	1780	2022-05-01	147	467	32		87%	36	510	710	138	510	803	538	51
2F07	POSTILL LAKE	1370	2022-04-29	47	141	30		109%	45	92	157	0	155	282	129	69
2F08	GREYBACK RESERVOIR	1550	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	172	386	175	45
2F08P	Greyback Reservoir	1550	2022-05-01	22	79	36		N/A	N/A	0	139	0	52	269	N/A	5
2F09	WHITEROCKS MOUNTAIN	1830	2022-05-03	116	414	36		85%	33	522	N	175	502	1013	490	50
2F10	Silver Star Mountain	1840	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	371	760	1135	767	59
2F10P	Silver Star Mountain	1839	2022-05-01	187	796	43		N/A	N/A	702	883	702	796	883	N/A	6
2F11	ISINTOK LAKE	1680	2022-04-29	21	64	30		58%	29	90	144	0	125	437	110	56
2F12	MOUNT KOBAU	1810	2022-04-29	81	271	33		86%	42	301	220	53	299	597	316	56
2F13	ESPERON CR (UPPER)	1650	N	N	N	N	N	N/A	N/A	N	344	119	350	805	357	51
2F14	ESPERON CR (MIDDLE)	1430	N	N	N	N	N	N/A	N/A	N	244	0	274	551	287	34
2F18P	Brenda Mine	1460	2022-05-01		46			34%	31	22	54	0	116	344	134	26
2F19	OYAMA LAKE	1340	N	N	N	N	N	N/A	N/A	6	74	0	59	233	66	52
2F19P	OYAMA LAKE	1360	2022-05-01	0	0			N/A	N/A	0	0	0	0	0	N/A	1
2F20	VASEUX CREEK	1400	2022-04-27	31	108	35		295%	85	50	56	0	29	195	37	50
2F23	MACDONALD LAKE	1740	2022-05-05	97	330	34		73%	19	N	N	198	421	650	450	37
2F24	ISLAHT LAKE	1480	2022-04-27	85	197	23		81%	41	190	280	64	257	433	242	40
2F25	POSTILL LAKE UPPER	1540	N	N	N	N	N	N/A	N/A	N	N	0	36	250	N/A	4
	Average			66	206	33		94%	40							

Basin Index Calculation	Average SWE	195
	Average Normal	234
Okanagan Basin Index - May 1, 2022	83%	

Stations used in Basin Index:
2F01A, 2F02, 2F03, 2F04, 2F05P, 2F07, 2F09, 2F11, 2F12, 2F18P, 2F20, 2F23, 2F24

SIMILKAMEEN			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2G03P	Blackwall Peak	1940	2022-05-01	209	842	40		105%	64	837	838	376	754	1570	805	54
2G04	LOST HORSE MOUNTAIN	1920	2022-04-30	98	302	31		126%	75	313	370	10	242	554	239	58
2G05	MISSEZULA MOUNTAIN	1550	2022-04-30	38	144	38		137%	56	149	138	0	134	323	105	57
2G06	HAMILTON HILL	1490	2022-05-01	39	145	37		85%	22	156	177	0	223	838	171	62
	Average			96	358	37		113%	54							

Basin Index Calculation	Average SWE	358
	Average Normal	330
Similkameen Basin Index - May 1, 2022	108%	

Stations used in Basin Index:
2G03P, 2G04, 2G05, 2G06

South Coast		May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD													
3A01	GROUSE MOUNTAIN	1100	2022-04-26	338	1590	47		129%	70	1540	N	0	1201	2870	1236	71
3A02	POWELL RIVER (UPPER)	1040		NS	NS	NS	NS	N/A	N/A	NS	NS	533	813	1712	N/A	6
3A05	POWELL RIVER (LOWER)	910		NS	NS	NS	NS	N/A	N/A	NS	NS	183	399	585	N/A	4
3A09	PALISADE LAKE	880		N	N	N	N	N/A	N/A	1415	N	0	1415	3600	1194	67
3A09P	Palisade Lake	900	2022-05-01	223	914	41		N/A	N/A	947	473	316	486	947	N/A	4
3A10	DOG MOUNTAIN	1080	2022-04-25	276	1320	48		117%	59	1342	1185	0	1175	2760	1133	38
3A19	ORCHID LAKE	1190	2022-04-28	440	2120	48		115%	70	2015	N	100	1914	3845	1846	48
3A20	CALLAGHAN CREEK	1040	2022-04-28	198	876	44		122%	70	696	N	0	690	1568	720	43
3A20P	Callaghan	1017	2022-05-01	183.7	747	41		N/A	N/A	626	593	593	626	646	N/A	3
3A22P	Nostetuko River	1500	2022-05-01	127				N/A	N/A	544	544	202	535	1065	558	30
3A24P	Mosley Creek Upper	1650	2022-05-01	101	368	36		143%	86	193	231	16	237	533	258	33
3A25P	Squamish River Upper	1340	2022-05-01	368	1564	43		97%	46	1545	1642	695	1568	2911	1607	29
3A26	CHAPMAN CREEK	1022		NS	NS	NS	NS	N/A	N/A	1600	1106	756	1430	1873	1294	11
3A27	EDWARDS LAKE	1070		NS	NS	NS	NS	N/A	N/A	1030	570	400	806	1180	781	9
3A28P	Tetrahedron	1420	2022-05-01	440	1579	36		N/A	N/A	1278	1101	1278	1484	N/A	3	
			Average	270	1231	43		120%	67							

Basin Index Calculation	Average SWE	130E
	Average Normal	113E
South Coast Basin Index - May 1, 2022		115%

Stations used in Basin Index:
3A01, 3A10, 3A19, 3A20, 3A24P, 3A25P

VANCOUVER ISLAND		May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD	Depth (cm)	SWE (mm)	Density %	Code									
3B01	FORBIDDEN PLATEAU	1100	2022-05-04	342	1598	47		107%	55	1527	1140	0	1527	3500	1489	65
3B02A	MOUNT COKELY	1190	N	N	N	N	N	N/A	N/A	N	N	0	768	2062	777	35
3B04	ELK RIVER	270	N	N	N	N	N	N/A	N/A	0	0	0	0	0	0	38
3B10	UPPER THELWOOD LAKE	990	N	N	N	N	N	N/A	N/A	1532	1100	0	1492	3560	1411	60
3B17P	Wolf River Upper	1490	2022-05-01		1336			101%	61	1032	894	374	1175	2696	1316	33
3B18	WOLF RIVER (MIDDLE)	990	N	N	N	N	N	N/A	N/A	404	320	0	522	1652	527	51
3B19	WOLF RIVER (LOWER)	640	N	N	N	N	N	N/A	N/A	N	0	0	0	1118	145	51
3B23P	Jump Creek	1160	2022-05-01	305	1357	44		117%	59	1374	793	0	1090	3485	1163	26
3B24P	Heather Mountain Upper	1190	2022-05-01	307	1516	49		N/A	N/A	1479	1182	822	1364	1933	N/A	6
3B26P	Mount Arrowsmith	1465	2022-05-01	315	1177	37		N/A	N/A	1148	880	781	1014	1218	N/A	4
			Average	317	1397	44		109%	58							

Basin Index Calculation	Average SWE	1430
	Average Normal	1323
Vancouver Island Basin Index - May 1, 2022		108%

Stations used in Basin Index:
3B01, 3B17P, 3B23P

SKAGIT			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3D01C	SUMALLO RIVER WEST	790	2022-04-28	24	93	39		122%	63	37	107	0	0	371	76	28
3D02	LIGHTNING LAKE	1220	2022-05-01	78	267	34		116%	71	230	223	7	226	599	230	50
3D03A	KLESILKWA	1175	2022-04-28	49	189	39		166%	77	87	126	0	36	752	114	49
			Average	50	183	37		135%	70							

Basin Index Calculation	Average SWE	183
	Average Normal	140
Skagit Basin Index - May 1, 2022		131%

Stations used in Basin Index:
3D01C, 3D02, 3D03A

PEACE			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4A02P	Pine Pass	1400	2022-05-01	291	1197	41		103%	64	1299	1429	894	1103	1706	1159	29
4A03P	Ware Upper	1565	2022-05-01	96	250	26		N/A	N/A	219	210	210	219	251	N/A	5
4A04P	Ware Lower	971	2022-05-01	37	166	45		N/A	N/A	76	38	38	76	154	N/A	5
4A05	GERMANSEN (UPPER)	1480	2022-05-01	99	305	31		86%	33	342	407	181	343	597	356	60
4A06	TUTIZZI LAKE	1045	2022-05-01	52	181	35		119%	63	N	111	0	142	325	152	57
4A07	LADY LAURIER LAKE	1440	2022-04-25	169	620	37		113%	77	743	502	305	521	926	549	59
4A09P	Pulpit Lake	1311	2022-05-01	99	455	46		115%	75	363	407	182	384	637	396	31
4A10	FREDRICKSON LAKE	1325	2022-05-01	81	235	29		107%	50	245	310	87	234	358	220	58
4A11	TRYGVE LAKE	1410	2022-04-30	118	426	36		114%	77	341	429	220	368	599	372	58
4A12	TSAYDAYCHI LAKE	1190	2022-05-01	109	398	37		101%	61	460	428	168	381	700	395	59
4A12P	Tsaydaychi Lake	1195	2022-05-01	101	356	35		N/A	N/A	433	433	433	433	N/A	1	
4A13	PHILIP LAKE	1035	2022-05-02	44	147	33		78%	32	184	215	0	195	406	188	58
4A13P	Philip Lake	1028	2022-05-01		106			N/A	N/A	124	72	72	124	N/A	2	
4A16	MORFEE MOUNTAIN	1430	N	N	N	N	N	N/A	N/A	869	985	410	815	1181	824	51
4A18	MOUNT SHEBA	1490	2022-05-02	237	1042	44		111%	70	1121	1233	503	904	1371	942	53
4A18P	MOUNT SHEBA	1484	2022-05-01	275	1095	40		N/A	N/A	1203	1274	957	1203	1274	N/A	3
4A20P	Monkman Creek	1570	2022-05-01		521			N/A	N/A	463	564	467	467	564	N/A	3
4A21	MOUNT STEARNS	1505	2022-04-25	65	175	27		123%	74	124	156	0	140	271	142	48
4A25	FORT ST. JOHN A	690	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	56	0	27
4A27P	Kwadacha North	1554	2022-05-01		366			110%	64	342	344	259	343	476	331	30
4A30P	Aiken Lake	1050	2022-05-01	68	248	36		136%	72	219	151	16	170	315	182	34
4A31P	Crying Girl Prairie	1358	2022-05-01		223			N/A	N/A	227	155	0	201	310	N/A	6
4A33P	Muskwa-Kechika	1196	2022-05-01		100			N/A	N/A	69	0	0	30	101	N/A	5
4A34P	Dowling Creek	1456	2022-05-01		1489			N/A	N/A	1032	1334	160	1254	1425	N/A	5
4A36P	Parsnip Upper	790	2022-05-01	47	154	33		N/A	N/A	221	157	13	157	221	N/A	3
4A37P	McQue Terrace	1200	2022-05-01		81			N/A	N/A	0	0	0	0	0	N/A	2
			Average	117	431	36		109%	62							

Basin Index Calculation	Average SWE	446
	Average Normal	414
Peace Basin Index - May 1, 2022		108%

Stations used in Basin Index:
4A02P, 4A05, 4A06, 4A07, 4A09P, 4A10, 4A11, 4A12, 4A13, 4A18, 4A21, 4A27P, 4A30P

SKEENA-NASS			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4B01	KIDPRICE LAKE	1370	2022-04-30	215	936	44		101%	63	1079	N	551	885	1591	929	66

4B02	JOHANSON LAKE	1420	2022-05-01	108	344	32		117%	74	283	352	143	287	433	294	59
4B03A	HUDSON BAY MTN.	1480	2022-04-28	150	548	37		108%	57	554	442	272	510	795	505	50
4B04	CHAPMAN LAKE	1460	2022-04-28	144	517	36		106%	71	456	N	286	461	749	487	54
4B06	TACHEK CREEK	1140	N	N	N	N	N	N/A	N/A	154	72	55	163	363	184	51
4B07	MCKENDRICK CREEK	1050	2022-04-28	76	231	30		98%	48	235	182	72	234	453	236	54
4B08	MOUNT CRONIN	1480	2022-04-28	159	551	35		89%	28	512	N	422	595	1125	621	51
4B10	NINGUNSAW PASS	690	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	262	676	236	41
4B11A	BEAR PASS	460	2022-04-25	119	570	48		118%	67	774	390	0	508	860	483	25
4B13A	TERRACE AIRPORT	180	2022-04-26	0	0	N/A		0%	N/A	0	0	0	0	58	11	10
4B14	EQUITY MINE	1420	2022-05-02	115	376	33		95%	56	356	388	212	356	690	395	43
4B15	LU LAKE	1300	2022-05-02	79	238	30		86%	38	232	200	132	250	528	277	41
4B15P	Lu Lake	1300	2022-05-01	77	268	35		99%	51	220	214	67	255	514	270	24
4B16P	Shedin Creek	1480	2022-05-01	242	1022	42		119%	70	901	816	487	863	1226	861	24
4B17P	Tsai Creek	1360	2022-05-01	267	1236	46		98%	56	1322	1066	834	1162	2083	1267	24
4B18P	Cedar-Kiteen	885	2022-05-01	176	946	54		178%	92	820	390	11	498	1076	530	21
Average				138	556	39		101%	59							

Basin Index Calculation	Average SWE	556
	Average Normal	512
Skeena-Nass Basin Index - May 1, 2022		109%

Stations used in Basin Index:
4B01, 4B02, 4B03A, 4B04, 4B07, 4B08, 4B11A, 4B13A, 4B14, 4B15, 4B15P, 4B16P, 4B17P, 4B18P

LIARD			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4C01	SIKANNI LAKE	1385	N	N	N	N	N	N/A	N/A	347	273	88	265	404	252	58
4C01P	Sikanni Lake	1387	2022-05-01	99	290	29		N/A	N/A	359		159	253	359		4
4C02	SUMMIT LAKE	1280	2022-05-06	66	175	27		424%	96	105	N	0	0	200	41	52
4C03	DEASE LAKE	820	N	N	N	N	N	N/A	N/A	N	0	0	0	192	32	52
4C05	FORT NELSON AIRPORT	380	2022-05-05	13	25	19		352%	85	0	0	0	0	103	7	35
Average			59	163	25			388%	90							

Basin Index Calculation	Average SWE	100
	Average Normal	24
Liard Basin Index - May 1, 2022		413%

Stations used in Basin Index:
4C02, 4C05

STIKINE			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4D02	ISKUT	1000	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	146	0	24
4D10P	Tumeka Creek	1220	2022-05-01		514			98%	50	629	582	315	512	838	525	22
4D11P	Kinaskan Lake	1020	2022-05-01	108	416	39		129%	81	479	349	111	321	609	323	26
Average			108	465	39			113%	66							

Basin Index Calculation	Average SWE	465
	Average Normal	424
Stikine Basin Index - May 1, 2022		110%

Stations used in Basin Index:
4D10P, 4D11P

NORTHWEST			May 1, 2022 Data					May 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4E01	LOG CABIN	900	2022-04-25	129	481	37		128%	87	761	430	127	348	761	374	63
4E02B	ATLIN LAKE	730	2022-04-26	40	114	29		329%	84	153	0	0	18	153	35	15

Average	85	298	33	229%	86
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Basin Index Calculation	Average SWE Average Normal	298 205
Northwest Basin Index - May 1, 2022	145%	

Stations used in Basin Index:
4E01, 4E02B

BRITISH COLUMBIA

Basin Index Calculation	Average SWE Average Normal	658 583
British Columbia Basin Index - May 1, 2022	113%	

Stations used in Basin Index:
All stations with measurements in B.C.

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
N/A	Not available
NS	Not scheduled
SD	Snow Depth
SWE	Snow Water Equivalent
T	Trace Amount

Ministry of Forests, Lands and Natural Resource Operations and Rural Development
River Forecast Centre
Volume Runoff Forecast May 2022

		May - Jun Runoff				May - Jul Runoff				May - Sep Runoff			
Location		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					3,610	3,534	102%	297	5,153	5,000	103%	373
	McGregor at Lower Canyon					4,024	3,552	113%	376	5,150	4,598	112%	563
	Fraser at Shelley					15,690	13,672	115%	1,070	18,972	17,732	107%	1,657
Middle Fraser Basin	Quesnel River at Quesnel					4,385	4,117	106%	396	5,824	5,448	107%	574
Thompson Basin	N. Thompson at McLure					9,231	8,209	112%	425	11,759	10,379	113%	785
	S. Thompson at Chase					5,426	5,298	102%	403	7,073	6,865	103%	659
	Thompson at Spences Bridge					15,220	13,923	109%	825	19,807	17,903	111%	1,510
Bulkley and Skeena	Bulkley at Quick					2,436	2,383	102%	185	3,051	2,980	102%	220
	Skeena at Usk					18,104	17,317	105%	964	22,724	21,661	105%	1,463
Nicola Lake		133	105	128%	28	182	122	149%	33				
*new model ¹		119	107	111%	20	142	130	109%	22	163	124	131%	26
Nicola River at Spences Bridge		482	409	118%	76	568	476	119%	98				
*new model ²		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Okanagan Lake		286	349	82%	81	297	376	79%	103				
*new model ²		392	374	105%	68	475	405	117%	76	461	396	116%	90
Kalamalka-Wood Lake		16.2	19.0	85%	8.2	16.9	20.4	83%	10.7				
*new model ³		37.8	18.2	208%	N/A	52.4	15.7	334%	N/A	43.3	13.3	326%	N/A
Similkameen River	at Nighthawk	1,375	1,101	125%	152					1,802	1,411	128%	193
	at Hedley	945	827	114%	91					1,173	1,015	116%	105
Cowichan River	Cowichan Lake Inflows	137	130	106%	32					175	174	101%	50

¹ 1984-2019 Period of Record

² 1970-2019 Period of Record

³ 1975-2019 Period of Record

Note: 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.

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

Use at your own risk

Snow Survey and Water Supply Bulletin – May 15th, 2022

The May 15th snow survey is now complete. Data from 22 manual snow courses and 88 automated snow weather stations around the province (collected by the Ministry of Environment and Climate Change Strategy's Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada and the provincial Climate Related Monitoring Program have been used to form the basis of the following report¹.

Executive Summary

Flood risk continues to increase through much of the province primarily due to delayed snowmelt caused by persistent cooler spring temperatures. This delay has led to the highest provincial snow pack levels for May 15th since 2012. The greatest risk for potential major flooding is if a prolonged heat event occurs in late May or June.

The May 15th, 2022 snow pack throughout British Columbia is well above normal. The average of all snow measurements across B.C. increased to 128% over the past two weeks (May 1st was 113%) primarily due to cooler temperatures across the province continuing to delay snowmelt. Snow pack throughout the province ranges from 96 to 152% of normal. Most notably, the headwaters of the Fraser River have well above normal snow pack (Upper Fraser East: 137%, Quesnel: 149%, North Thompson: 142%) and highlight the risk for potentially high flows throughout the watershed. Other regions of the province with well above normal snow pack are the Upper Columbia, West Kootenay, East Kootenay, Central Coast, Skeena-Nass, and Stikine. Although snow pack is relatively high for Vancouver Island and the South Coast, flooding typically occurs in the fall or winter from heavy rainfall events rather than from snowmelt.

Snow pack is only one factor related to freshet flood risk. Weather conditions from May through July will determine the timing, magnitude, and rate of snowmelt, where heavy rainfall events can exacerbate snowmelt-driven flows. An extreme heat wave – like the Heat Dome in late June 2021 – could lead to significant provincial flooding if it occurred between late-May to mid-June.

Weather

The trend towards cooler than normal weather in April continued into the first two weeks of May. In general, temperatures were consistently below normal through the province, except for a short warm period early in the month (May 1st-4th) for the South Interior when daily maximum temperatures exceeded 20°C.

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.



Snow Survey and Water Supply Bulletin – May 15th, 2022

Unsettled weather has persisted with numerous storm systems affecting the province during the first half of the month. Freezing elevations were sufficiently low for additional mountain snow accumulation. Moderate to heavy rain on May 5th-6th in the Peace, Northeast and Interior resulted in high flows within lower elevation watersheds.

The upcoming Victoria Day long week (May 21st-23rd) is forecast to be the warmest period of the year for B.C. as a weak ridge of high pressure is expected to develop over the province. Although temperatures are forecast to increase, they are only rising to seasonal levels. The longer-range forecast into next week (May 24th-28th) currently predicts a return to cooler and potentially unsettled conditions. There is no sign of an extended heat event in the upcoming weather forecast.

Snowpack

Snow basin indices for May 15th, 2022 range from a low of 96% of normal in the Okanagan to a high of 152% in the Central Coast (Table 1 and Figure 2, 3). The province has well above normal snow pack for May 15th, with the average of all snow measurements across the province at 128%. This has increased from 113% on May 1st. The Okanagan is the only basin near normal (90-110%) for May 15th; this number is reflective of higher elevation conditions. Slightly above normal snow packs (110-120%) exists in the Lower Fraser, South Thompson, Similkameen, Boundary, and Peace. The Upper Columbia, West Kootenay and East Kootenay are above normal (120-130%). Well above normal snow pack (>130%) is present for Upper Fraser East, Nechako, Middle Fraser, North Thompson, South Coast, Vancouver Island, Central Coast, Skeena-Nass, and Stikine. Several regions do not have a snow basin index for May 15th as measurements were either not taken or were snow-free.

The average of all snow measurements for the entire Fraser River basin (e.g., upstream of the Lower Mainland and inclusive of Upper Fraser West, Upper Fraser East, Nechako, Middle Fraser, Lower Fraser, North Thompson and South Thompson) is 129%, increasing from 114% on May 1st.

As the Middle Fraser encompasses a large and geographically diverse area, the River Forecast Centre has divided the region into sub-basins to analyze snow conditions and potential flood risks in localised areas. The Bridge region measures 137% of normal, while the Quesnel area (and surrounding Cariboo Mountains) is 149%. The Lower Thompson and the Chilcotin sub-basins did not have measurements for May 15th, therefore an index is not available. Please review the full summary data tables at the end of this report for further interpretation.

Snow Survey and Water Supply Bulletin – May 15th, 2022

Table 1 - BC Snow Basin Indices – May 15, 2022

Basin	% of Normal (May 1 st value)	Basin	% of Normal (May 1 st value)
Upper Fraser West	N/A (140)	Okanagan	96 (83)
Upper Fraser East	137 (125)	Boundary	111 (100)
Nechako	132 (104)	Similkameen	114 (108)
Middle Fraser	143 (115)	South Coast	133 (115)
Lower Thompson*	N/A (116)	Vancouver Island	132 (108)
Bridge*	137 (110)	Central Coast	152 (117)
Chilcotin*	N/A (N/A)	Skagit	N/A (131)
Quesnel*	149 (123)	Peace	119 (108)
Lower Fraser	119 (103)	Skeena-Nass	137 (109)
North Thompson	142 (128)	Stikine	145 (110)
South Thompson	113 (107)	Liard	N/A (413)
Upper Columbia	123 (121)	Northwest	N/A (145)
West Kootenay	128 (113)	Fraser (Entire basin)	129 (114)
East Kootenay	124 (115)	British Columbia	128 (113)

* sub-basin of Middle Fraser

There are two snow stations with period of record highs for May 15th; however, the stations have relatively short periods of record:

- 1E14P Cook Creek: 676 mm SWE (350% of normal) – period of record 13 years (NORTH THOMPSON)
- 2A30P Colpitti Creek: 1172 mm SWE – period of record 12 years (UPPER COLUMBIA)

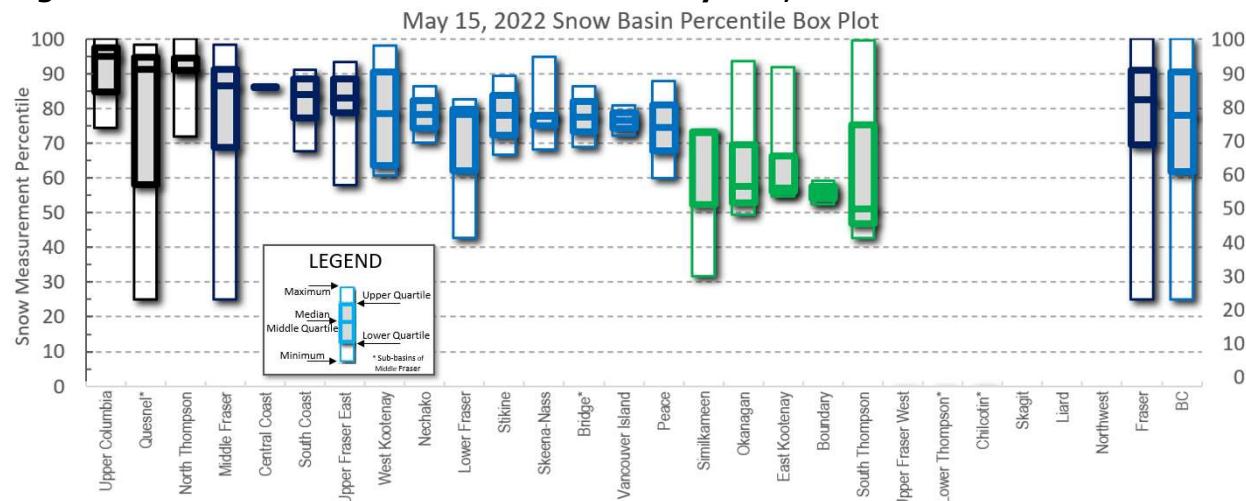
The River Forecast Centre began including percentiles in addition to using percent of normal to analyze snow pack in the 2020 bulletin. Percentiles offer a more accurate interpretation of variance, especially in regions when the percent of normal can be extremely high or low due to delayed snowmelt. The region with the highest average percentile is the North



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Thompson and Upper Columbia (90th percentile); the region with lowest is the Boundary (56th). Figure 1 (below) displays the percentile variance ordered from highest to lowest median via box plots (including sub-basins).

Figure 1. Snow Basin Percentile Box Plot – May 15th, 2022



Outlook

La Niña conditions persisted through winter and early spring. According to the Climate Prediction Center there is a 58% chance of La Niña conditions continuing into summer/fall (August–October 2022), with a 61% chance that La Niña conditions continue into fall and early winter. Historically, La Niña conditions can lead to cooler spring temperatures for British Columbia, resulting in delayed snowmelt and continued snow accumulation in the mountains. Indeed, 2022 has so far stayed true to this general trend.

During the spring snowmelt period (freshet), short and mid-range forecasts are more critical (and accurate) compared to seasonal weather predictions. The colder than normal April and early-May conditions across British Columbia has increased the risk for flooding throughout the province by delaying the melt of snow. The major risks over the following six to eight weeks are an extreme heat event or widespread heavy rainfall events. A combination of several days of intense heat directly followed by heavy rain is a worst-case scenario.

Spring Flood Risk (Freshet)

Flooding is a provincial risk every spring due to a combination of snowmelt and/or rainfall (also known as freshet). The weather conditions during spring play a critical role in the rate at which the snow melts. For example, a gradual warming under dry conditions is ideal to lessen flood risk. A lengthy cold period with high amounts of precipitation followed by a

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sudden extreme heat wave could lead to catastrophic conditions, especially if additional rain follows. Spring weather is impossible to predict with accuracy in advance, and so communities and residents vulnerable to spring and summer flooding should prepare accordingly; information to [Be Prepared for Floods](#) is available from Emergency Management BC.

Flood risk is increasing due to continued cooler than normal temperatures through May across the province and delayed snowmelt. Continued cool to seasonally average weather conditions forecast for the second half of May is increasing the risk for major flooding if a prolonged heat wave occurs in late-May or June.

Typically, regions with above normal snow pack have a higher risk for flooding. As of May 15th, 2022, these areas include:

- The Upper Columbia (123% of normal). Communities (e.g., Golden) in the Upper Columbia have an increased risk for flooding through the freshet and may remain at risk into late June or even July due to significant high elevation snow pack.
- The North Thompson (142% of normal).
- The Quesnel region (within the Middle Fraser; 149% of normal). Note that 1C17 Mount Timothy was not used for the snow basin index calculation as the measured density was abnormally low for this time of year and likely resulted from challenging sampling conditions.
- The South Thompson (slightly above normal at 113%). There are only three sites reporting across the entire basin that calculate the snow basin index. Since the South Thompson borders the North Thompson and Upper Columbia (which have significantly higher snow basin indices), it is possible that the snow pack is slightly higher than the snow basin index suggests.
- The Upper Fraser East (137% of normal). This season was the first year that manual snow surveys at 1A05 Longworth Upper and 1A15 Knudsen Lake were discontinued. If the automated stations at these locations used the historic manual snow survey normal values, it results in 1A05P Longworth Upper at 166% of normal and 1A15P Knudsen Lake at 217%. This would increase the Snow Basin Index to 153% of normal.
- The Upper Fraser West did not have any SWE measurements and therefore did not have a snow basin index. The automated snow weather station 1A12P Kaza Lake is still reporting snow depth and the May 15, 2022 measurement is the highest snow level since the station became active in 2016.
- The West Kootenay (128%) and East Kootenay (124%) are above normal. Stations in the northern sections of the Kootenays are well above normal and may reach record values for June 1st.
- The Northwest and Liard did not have measurements for May 15th but due to high May 1st snow basin indices are still at risk for flooding.



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- The Stikine (145%), the Central Coast (152%) and Skeena-Nass (137%) are all relatively high due to delayed melt and remain at risk for flooding.

In addition to the above regions at significant risk, snow basin indices in remaining regions across the province also increased compared to May 1st due to delayed snowmelt. There are significant risks to many regions of the province if there is a strong heat wave or extreme precipitation over the next six to eight weeks. Although snow pack is relatively high for Vancouver Island and the South Coast, flooding typically occurs in the fall or winter from heavy rainfall events rather than spring snowmelt.

The combination of high snow pack in the Upper Fraser East, Quesnel and North Thompson indicates a heightened concern for flooding for Prince George, Kamloops, and the overall Fraser River. This year ranks as the 2nd highest in the last 45 years based solely on contributions to the Fraser River from the Upper Fraser East, Quesnel and North Thompson (as of May 1st data). There is a risk that an extreme heat wave in late May or June could create peak flows reminiscent of 1948 or 1972 for the lower Fraser River.

The most likely cause for potential significant flooding would be a sudden switch from the persistent cooler spring temperatures to an intense heat wave lasting at least five days. There is evidence that the 1948 and 1894 floods on the Fraser River were caused by this scenario. The heat events during those historic floods occurred during the second half of May. A secondary high risk scenario is widespread heavy rainfall occurring when rivers are flowing at the highest levels from snowmelt. This scenario occurred in June 1972 and greatly impacted Kamloops, where water levels exceeded 1948.

Wrap-around low pressure, or cold low, systems pose an additional risk of primarily rain-driven flooding. The risk of these events occurring increases in June and typically extends into July. These systems wrap around the province from the east and can deliver extreme rainfall through upslope precipitation enhancement within eastern slope mountains. These can be augmented or enhanced by snowmelt and high antecedent streamflow conditions. Flood events from these phenomena have occurred in the Peace Region in 2012 and 2016, Fernie (and Calgary/Alberta) in 2013, and in the Chilcotin in 2019. The Peace and Northeast regions experienced a moderate version of this type of event in early May, resulting in High Streamflow Advisories and Flood Watches being issued.

In an average year, approximately 18% of the annual B.C. snow pack has melted by May 15th (according to data from automated snow weather stations). Due to the persistent cool temperatures delaying snowmelt and storm events contributing additional snow at higher elevations, it is estimated that only 2.6% of the total snow has melted so far this year.

The upcoming weather forecast continues to predict seasonal to below seasonal temperatures through the province, likely delaying the initiation of significant snowmelt into June.

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Summary

Snow pack throughout the province ranges from 96 to 152% of normal. The provincial average for all snow measurements across the province is 128% of normal, and the Fraser River is 129%. The combination of an above normal May 15th snow pack, cool weather through April and early May, continued snow accumulation, and short-term weather forecasts that predict seasonal to cool conditions for the province, continues to increase the risk for spring flooding. Snow pack is only one factor related to freshet flood risk. Weather conditions through May, June and July will determine the timing, magnitude, and rate of snowmelt, and heavy rainfall events can exacerbate the situation. The greatest risk is if a significant province-wide heat wave occurs for a lengthy period over the upcoming six to eight weeks.

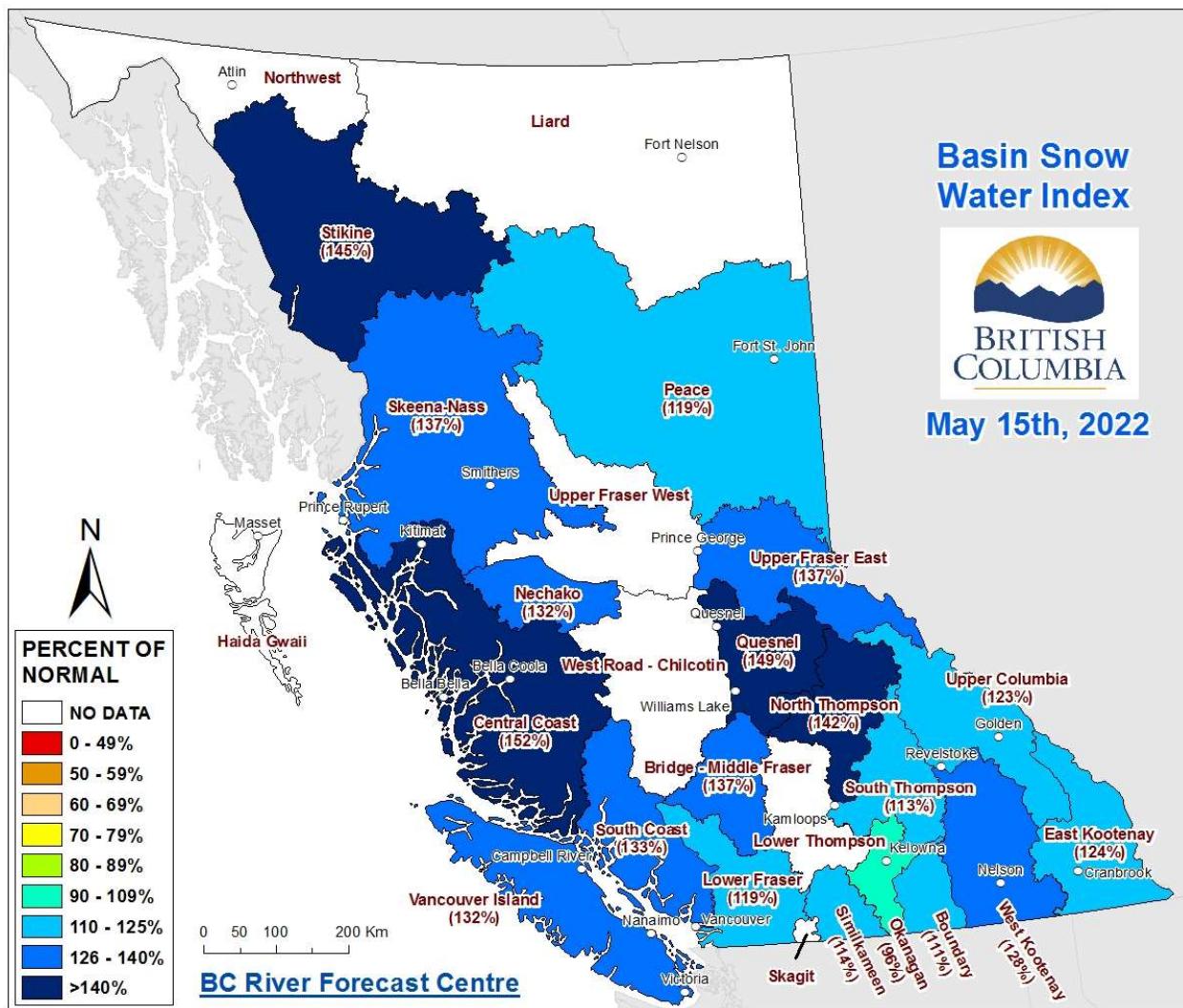
The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the June 1st, 2022 bulletin, which is scheduled for release on June 8th.

BC River Forecast Centre
May 19, 2022



Snow Survey and Water Supply Bulletin – May 15th, 2022

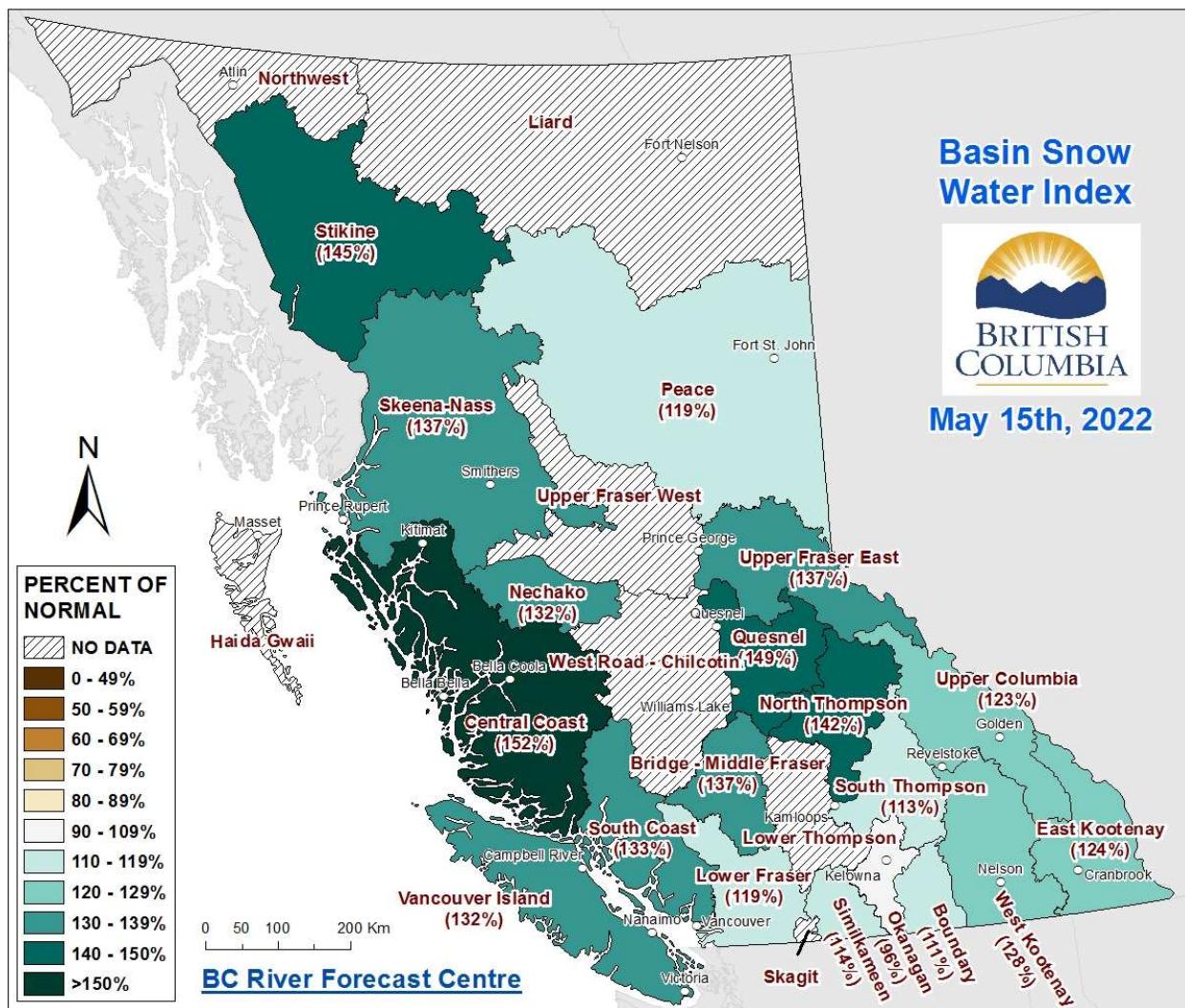
Figure 2: Basin Snow Water Index – May 15th, 2022

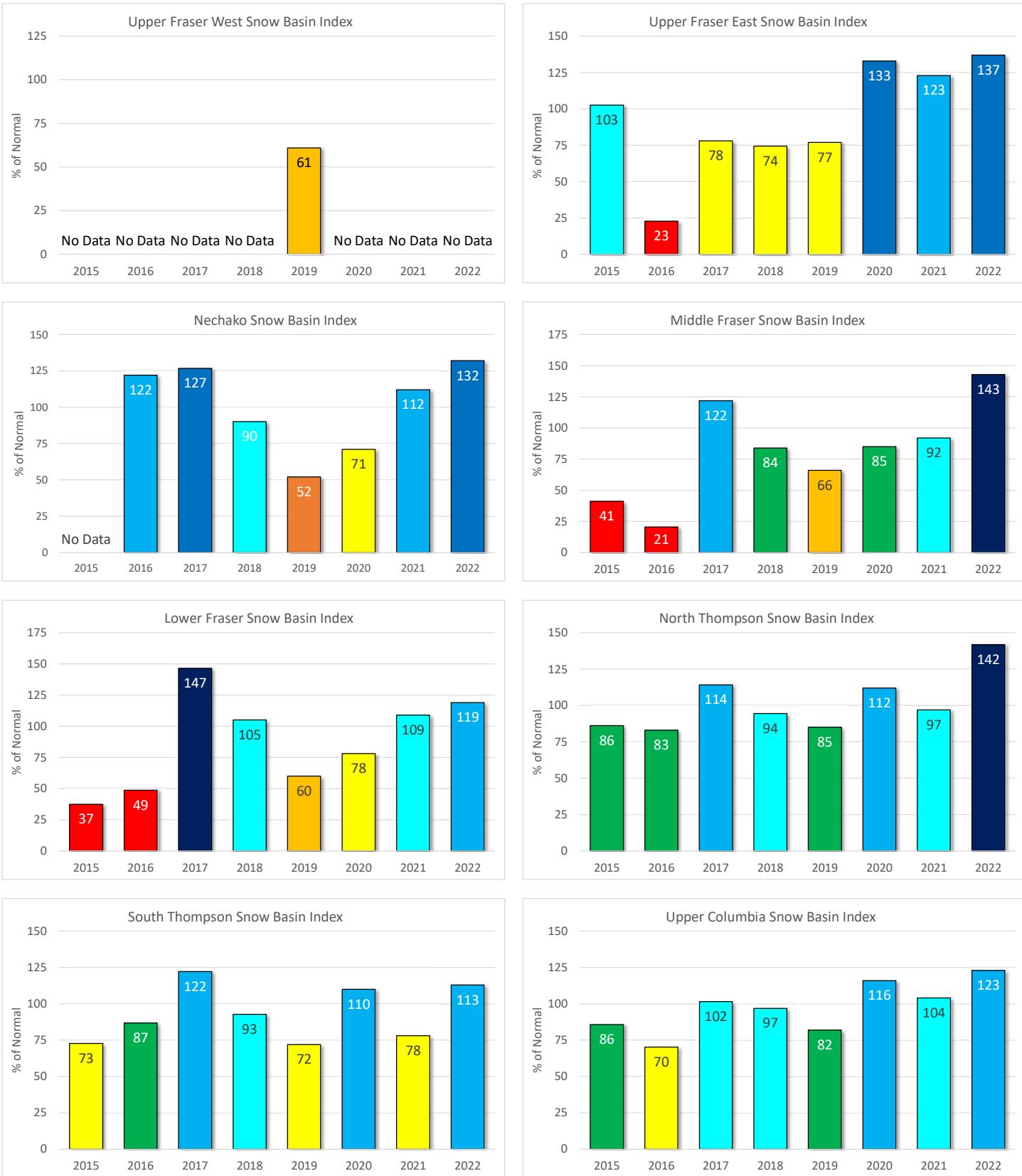


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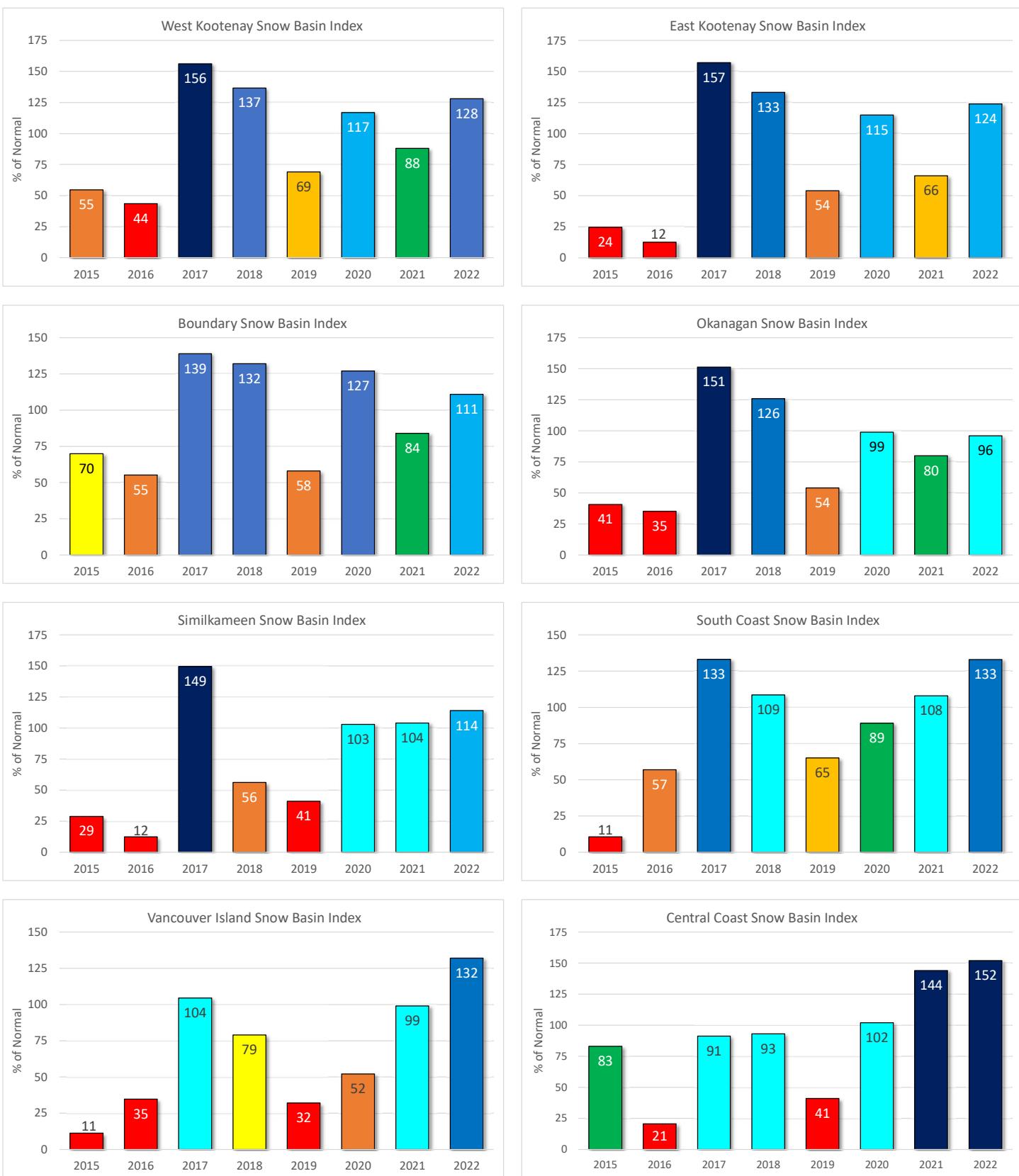
Snow Survey and Water Supply Bulletin – May 15th, 2022

Figure 3: Basin Snow Water Index – May 15th, 2022 – Colour Friendly

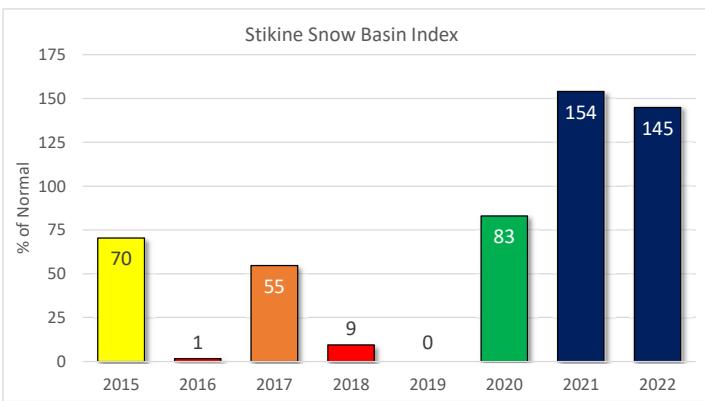
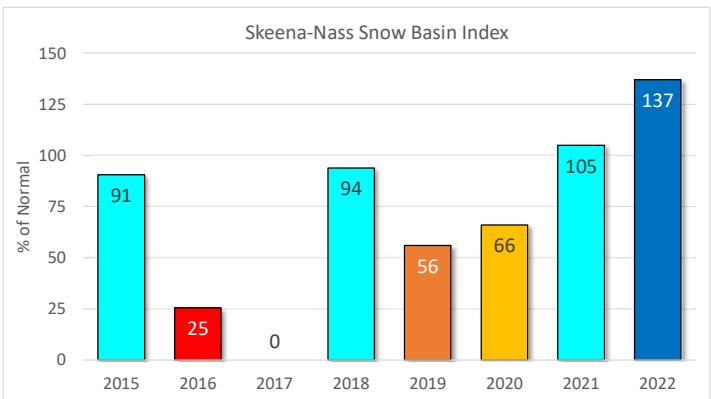
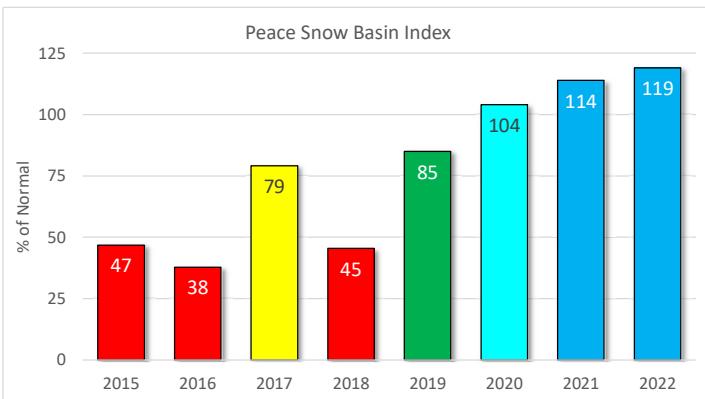




Snow Basin Index Graphs - May 15, 2022



Snow Basin Index Graphs - May 15, 2022



UPPER FRASER EAST			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record		
1A01P	Yellowhead Lake	1860	2022-05-15	155	667	43	126%	83	569	555	143	555	839	530	23		
1A02P	McBride Upper	1611	2022-05-15	129	588	46	144%	93	513	488	7	402	653	407	29		
1A03P	Barkerville	1520	2022-05-15	84	349	42	182%	83	99	230	0	203	503	192	43		
1A05P	Longworth Upper	1740	2022-05-15	283	1395	49	N/A	N/A	1243	1081	553	767	1243	N/A	5		
1A06A	HANSARD	608	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0		
1A10	PRINCE GEORGE A	689	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	76	N/A	22		
1A11	PACIFIC LAKE	755	NS	NS	NS	NS	N/A	N/A	NS	NS	0	387	728	353	36		
1A14P	Hedrick Lake	1100	2022-05-15	226	826	37	112%	58	937	614	118	676	1303	737	22		
1A15P	Knudsen Lake	1601	2022-05-15	256	1431	56	N/A	N/A	1153	665	173	455	1153	N/A	6		
1A17P	Revolution Creek	1690	2022-05-15	263	1236	47	162%	90	1013	1280	215	756	1300	764	33		
1A19P	Dome Mountain	1774	2022-05-15	236	1055	45	130%	78	1090	1064	363	849	1219	813	16		
			Average	204	943	45	143%	81									

Basin Index Calculation	Average SWE	787
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Stations used in Basin Index:

1A01P, 1A02P, 1A03P, 1A14P, 1A17P, 1A19P

Upper Fraser East Basin Index - May 15, 2022	137%
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UPPER FRASER WEST			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record			
1A12	KAZA LAKE	1250	NS	NS	NS	NS	N/A	N/A	NS	NS	212		212	N/A	1			
1A12P	Kaza Lake	1257	2022-05-15	109			N/A	N/A	245	187	0	152	245	N/A	6			
1A16	BURNS LAKE	800	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	17			
1A23	BIRD CREEK	1180	NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	N/A	1			
			Average	109	N/A	N/A			N/A	N/A								

Basin Index Calculation	Average SWE	N/A
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Stations used in Basin Index:

Upper Fraser West Basin Index - May 15, 2022	N/A
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NECHAKO			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record		
1B01	MOUNT WELLS	1490	NS	NS	NS	NS	N/A	N/A	NS	NS	164	396	869	N/A	3		
1B01P	Mount Wells	1490	2022-05-15		702		144%	86	572		152	450	957	489	29		
1B02	TAHTSA LAKE	1300	NS	NS	NS	NS	N/A	N/A	NS	NS	924		1687	N/A	2		
1B02P	Tahtsa Lake	1300	NS	NS	NS	NS	N/A	N/A	1505	927	662	1216	2356	1206	29		
1B05	SKINS LAKE	890	NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	N/A	2		
1B06	MOUNT SWANNELL	1620	NS	NS	NS	NS	N/A	N/A	NS	NS	0		331	N/A	2		
1B07	NUTLI LAKE	1490	NS	NS	NS	NS	N/A	N/A	NS	NS	197		197	N/A	1		
1B08P	Mt. Pondosy	1400	2022-05-15		769		123%	70	520	440	234	536	1200	627	26		
			Average	N/A	736	N/A	133%	78									

Basin Index Calculation	Average SWE	736
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Stations used in Basin Index:

Nechako Basin Index - May 15, 2022	132%
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LOWER THOMPSON			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C06	PAVILION	1230		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	6
1C09A	HIGHLAND VALLEY	1510		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	30	N/A	25
1C25	LAC LE JEUNE (UPPER)	1509		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	67	N/A	5
1C29	SHOVELNOSE MOUNTAIN	1450		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C29P	Shovelnose Mountain	1460	2022-05-15	0	0			N/A	N/A	0	0	0	0	0	N/A	3
1C32	DEADMAN RIVER	1430		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C42	CAVERHILL LAKE NEW	1400		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
			Average	0	0	N/A		N/A	N/A	NS	NS				N/A	0

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Lower Thompson Basin Index - May 15, 2022		N/A

Stations used in Basin Index:

N/A

BRIDGE / LILLOOET			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C05P	McGillivray Pass	1718	2022-05-15		592			N/A	N/A	300	175	148	231	300	N/A	4
1C12P	Green Mountain	1780	2022-05-15		921			121%	69	538	395	395	632	1369	759	28
1C14P	Bralorne	1382	2022-05-15	0	0			N/A	N/A	0	0	0	0	0	N/A	4
1C18P	Mission Ridge	1850	2022-05-15		577			171%	86	385	258	0	362	973	338	45
1C28	DUFFEY LAKE	1200		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C38	DOWNTON LAKE (UPPER)	1887		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C38P	Downton Lake Upper	1829	2022-05-15		1104			N/A	N/A	741	523	519	668	810	N/A	6
1C39	BRIDGE GLACIER (LOWER)	1390		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C40P	North Tyaughton	1969	2022-05-15		500			N/A	N/A	370	181	0	217	370	N/A	6
			Average	0	616	N/A		146%	78							

Basin Index Calculation	Average SWE	749
	Average Normal	549
Bridge/Lillooet Basin Index - May 15, 2022		137%

Stations used in Basin Index:

1C12P, 1C18P

CHILCOTIN			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C21	BIG CREEK	1140		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C22	PUNTZI MOUNTAIN	940		NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	N/A	2
			Average	N/A	N/A	N/A		N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Chilcotin Basin Index - May 15, 2022		N/A

Stations used in Basin Index:

N/A

QUESNEL			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1C17	MOUNT TIMOTHY	1660	2022-05-17	45	82	18	A	44%	25	NS	102	0	209	466	186	46
1C20P	Boss Mountain Mine	1460	2022-05-15	135	645	48		157%	91	359	247	147	386	746	412	28
1C23	PENFOLD CREEK	1685		NS	NS	NS	NS	N/A	N/A	NS	NS	585	1049	1400	1059	44

1C33A	GRANITE MOUNTAIN	1150	NS	NS	NS	NS	N/A	N/A	NS	NS	N/A	0	
1C41P	Yanks Peak East	1670	2022-05-15	210	1177	56	145%	98	861	1158	386	843	
			Average	130	635	41	115%	72			1188	814	25

Basin Index Calculation	Average SWE	911
	Average Normal	613
	Quesnel Basin Index - May 15, 2022	149%

Stations used in Basin Index:
1C20P, 1C41P

MIDDLE FRASER		
Basin Index Calculation	Average SWE	830
	Average Normal	581
	Middle River Basin Index - May 15, 2022	143%

Stations used in Basin Index:
1C12P, 1C18P, 1C20P, 1C41P

LOWER FRASER			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1D06P	Tenquille Lake	1680	2022-05-15	286	1307	46		137%	83	901	701	468	901	1686	953	21
1D08	STAVE LAKE	1250		NS	NS	NS	NS	N/A	N/A	NS	NS	2438		2438	N/A	1
1D08P	Lamont Creek Upper	1217	2022-05-15		1565			N/A	N/A	1554		1554		1554	N/A	1
1D09P	Wahleach Lake Upper	1480	2022-05-15		985			106%	62	1119	819	299	963	1793	933	28
1D10	NAHATLATCH RIVER	1550		NS	NS	NS	NS	N/A	N/A	NS	NS	1202	1348	2423	N/A	3
1D16	DICKSON LAKE	1160		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1D17P	Chilliwack River	1600	2022-05-15	321	1871	58		126%	80		1476	379	1600	2540	1480	28
1D18	DISAPPOINTMENT LAKE	1050	2022-05-13	385	1990	52		128%	78	1698	N	704	1705	2560	1550	16
1D18P	Disappointment Lake	1050	2022-05-15	361				N/A	N/A		759	76	1381	2370	1277	12
1D19P	Spuzzum Creek	1180	2022-05-15	248	1388	56		98%	43	1562	1057	0	1523	2900	1413	23
	Average		Average	320	1518	53		119%	69							

Basin Index Calculation	Average SWE	1508
	Average Normal	1266
	Lower Fraser Basin Index - May 15, 2022	119%

Stations used in Basin Index:
1D06P, 1D09P, 1D17P, 1D18, 1D19P

NORTH THOMPSON			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1E01B	BLUE RIVER	670	2022-05-16	4	12	30		N/A	91	NS	NS	0	0	78	N/A	10
1E02P	Mount Cook	1550	2022-05-15					N/A	N/A	1516	1509	863	1313	2069	1359	18
1E03A	TROPHY MOUNTAIN	1860	2022-05-13	247	858	35		134%	96	664	780	301	638	1114	641	39
1E07	ADAMS RIVER	1720	2022-05-12	196	824	42		116%	72	686	832	280	715	1158	710	50
1E08P	Azure River	1652	2022-05-15	284	1501	53		127%	91	1139	1215	739	1189	1684	1178	25
1E10P	Kostal Lake	1770	2022-05-15	235	1071	46		123%	91	689	759	568	845	1358	871	37
1E14P	Cook Creek	1280	2022-05-15	114	676	59		350%	100	112	323	0	243	401	193	13
	Average		Average	180	824	44		170%	90							

Basin Index Calculation	Average SWE	1027
	Average Normal	721
	North Thompson Basin Index - May 15, 2022	142%

Stations used in Basin Index:
1E03A, 1E07, 1E08P, 1E10P, 1E14P

SOUTH THOMPSON			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1F01A	ABERDEEN LAKE	1310		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	28	N/A	11
1F02	ANGLEMONT	1190	2022-05-16	19	85	45		84%	43	NS	NS	0	147	361	101	21

1F03P	Park Mountain	1890	2022-05-15	213	945	44	99%	51	706	1067	474	941	1341	951	37
1F04P	Enderby	1950	2022-05-15	278	1214	44	N/A	N/A	857	1315	857	1188	1315	N/A	5
1F06P	Celista Mountain	1500	2022-05-15	230	1152	50	131%	100	728	883	476	883	1155	877	15
			Average	185	849	46	105%	64							

Basin Index Calculation	Average SWE	727
	Average Normal	643
South Thompson Basin Index - May 15, 2022		113%

Stations used in Basin Index:

1F02, 1F03P, 1F06P

FRASER RIVER

Basin Index Calculation	Average SWE	967
	Average Normal	749
Fraser River Basin Index - May 15, 2022		129%

Stations used in Basin Index:

1A01P, 1A02P, 1A03P, 1A14P, 1A17P, 1A19P, 1B01P, 1B08P, 1C12P, 1C18P, 1C20P, 1C41P, 1D06P, 1D09P, 1D17P, 1D18, 1D19P
1E03A, 1E07, 1E08P, 1E10P, 1E14P, 1F02, 1F03P, 1F06P

UPPER COLUMBIA			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2A02	GLACIER	1250		NS	NS	NS	NS	N/A	N/A	NS	NS	114	493	1034	N/A	47
2A03A	FIELD	1285		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	3
2A06P	Mount Revelstoke	1850	2022-05-15		1332			111%	75	1245	1287	700	1184	1786	1200	28
2A07	KICKING HORSE	1650		NS	NS	NS	NS	N/A	N/A	NS	NS	0	229	521	N/A	47
2A11	BEAVERFOOT	1890		NS	NS	NS	NS	N/A	N/A	NS	NS	0	94	399	N/A	4
2A14	MOUNT ABBOT	2010		NS	NS	NS	NS	N/A	N/A	NS	NS	837	1314	1944	N/A	36
2A16	GOLDSTREAM	1920		NS	NS	NS	NS	N/A	N/A	NS	NS	1055		1055	N/A	1
2A17	FIDELITY MOUNTAIN	1870		NS	NS	NS	NS	N/A	N/A	NS	NS	837	1281	1950	N/A	33
2A18P	Keystone Creek	1840	2022-05-15		1024			N/A	N/A	785	954	548	785	1204	N/A	7
2A19	VERMONT CREEK	1520		NS	NS	NS	NS	N/A	N/A	NS	NS	225		813	N/A	2
2A21P	Molson Creek	1935	2022-05-15		1469			136%	95	1157	1198	602	1042	1707	1081	39
2A23	BUSH RIVER	1920		NS	NS	NS	NS	N/A	N/A	NS	NS	766		766	N/A	1
2A25	KIRBYVILLE LAKE	1750		NS	NS	NS	NS	N/A	N/A	NS	NS	1130		1257	N/A	2
2A27	DOWNIE SLIDE (LOWER)	980		NS	NS	NS	NS	N/A	N/A	NS	NS	0	216	522	N/A	8
2A29	DOWNIE SLIDE (UPPER)	1630		NS	NS	NS	NS	N/A	N/A	NS	NS	582	1245	1334	N/A	8
2A30P	Colpitti Creek	2131	2022-05-15		1172			N/A	100	899	1017	99	614	1023	N/A	12
2A31P	Caribou Creek Upper	2201	2022-05-15		1217			N/A	N/A	1087	1087	656	1033	1087	N/A	7
2A32P	Wildcat Creek	2122	2022-05-15		891			N/A	N/A	740	833	346	635	833	N/A	7
2A34P	Glacier NP Rogers Pass Lower	1182	2022-05-15	96	562	59		N/A	N/A						0	
			Average	96	1095	59		123%	90							

Basin Index Calculation	Average SWE	1401
	Average Normal	1140
Upper Columbia Basin Index - May 15, 2022		123%

Stations used in Basin Index:

2A06P, 2A21P

WEST KOOTENAY			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2B02A	FARRON	1220	2022-05-11	21	82	39		151%	70	N	36	0	32	222	54	41
2B05	WHATSHAN (UPPER)	1525		NS	NS	NS	NS	N/A	N/A	NS	NS	164	556	737	N/A	3
2B06P	Barnes Creek	1620	2022-05-15		542			122%	62	248	521	31	495	758	446	29
2B07	KOCH CREEK	1860		NS	NS	NS	NS	N/A	N/A	NS	NS	675		1148	N/A	2

2B08P	St. Leon Creek	1800	2022-05-15	1534		144%	98	1185	1499	639	1056	1572	1062	28
2B09	RECORD MOUNTAIN	1890	2022-05-16	161	628	39	106%	61	179	443	76	561	1367	594
2D02	FERGUSON	880		NS	NS	NS	N/A	N/A	NS	NS	20	234	640	N/A
2D03	SANDON	1070		NS	NS	NS	N/A	N/A	NS	NS	0	0	218	N/A
2D04	NELSON	930	2022-05-18	0	0		N/A	N/A	NS	NS	0	8	243	N/A
2D05	GRAY CREEK (LOWER)	1550		NS	NS	NS	N/A	N/A	NS	NS	0	408	709	N/A
2D06	CHAR CREEK	1310		NS	NS	NS	N/A	N/A	NS	NS	0	252	715	296
2D07A	DUNCAN LAKE NO. 2	630		NS	NS	NS	N/A	N/A	NS	NS			N/A	0
2D07AP	Duncan Lake Dam 2	559	2022-05-15	0	0		N/A	N/A	0	0	0	0	0	N/A
2D08P	East Creek	2030	2022-05-15		1168		130%	87	964	1113	461	914	1387	899
2D09	MOUNT TEMPLEMAN	1860		NS	NS	NS	N/A	N/A	NS	NS	978		978	N/A
2D10	GRAY CREEK (UPPER)	1940		NS	NS	NS	N/A	N/A	NS	NS	311	726	1194	N/A
2D10P	GRAY CREEK (UPPER)	1930	2022-05-15	214	824	39	N/A	N/A	578	578			578	N/A
2D14P	Redfish Creek	2104	2022-05-15		1760		124%	92	1326	1477	972	1364	2206	1422
2D17	Lost Ledge	2050		NS	NS	NS	N/A	N/A					N/A	0
2D18	Kootenay Joe	2060		NS	NS	NS	N/A	N/A					N/A	0
Average		79	726	39		129%	78							

Basin Index Calculation	Average SWE	952
	Average Normal	746
West Kootenay Basin Index - May 15, 2022		
128%		

Stations used in Basin Index:
2B02A, 2B06P, 2B08P, 2B09, 2D08P, 2D14P

EAST KOOTENAY		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2C01	SINCLAIR PASS	1370		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	107	N/A	22
2C04	SULLIVAN MINE	1550	2022-05-16	40	118	30		118%	57	0	0	0	99	457	100	69
2C09Q	Morrissey Ridge	1860	2022-05-15		541			106%	55	186	569	0	486	1114	510	37
2C10P	Moyle Mountain	1930	2022-05-15	54	269	50		129%	58	30	351	0	217	596	209	41
2C11	KIMBERLY UPPER	2140		NS	NS	NS	NS	N/A	N/A	NS	NS	570		570	N/A	1
2C12	KIMBERLY MIDDLE	1680		NS	NS	NS	NS	N/A	N/A	NS	NS	44		44	N/A	1
2C14P	Floe Lake	2090	2022-05-15		1030			136%	92	822	846	326	818	1084	757	27
2C15	MOUNT ASSINIBOINE	2230		NS	NS	NS	NS	N/A	N/A	NS	NS	534		534	N/A	1
2C17	THUNDER CREEK	2010		NS	NS	NS	NS	N/A	N/A	NS	NS	220		220	N/A	1
Average		47	490	40		122%	65									

Basin Index Calculation	Average SWE	490
	Average Normal	394
East Kootenay Basin Index - May 15, 2022		
124%		

Stations used in Basin Index:
2C04, 2C09Q, 2C10P, 2C14P

BOUNDARY		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2E01	MONASHEE PASS	1370		NS	NS	NS	NS	N/A	N/A	NS	NS	0	207	363	N/A	27
2E02	CARMI	1250		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	14
2E03	BIG WHITE MOUNTAIN	1680	2022-05-17	110	423	38		115%	53	290	403	0	411	732	369	55
2E07P	Grano Creek	1860	2022-05-15	144	595	41		109%	59	480	725	313	547	855	546	24
Average		127	509	40		112%	56									

Basin Index Calculation	Average SWE	509
	Average Normal	458
Boundary Basin Index - May 15, 2022		
111%		

Stations used in Basin Index:
2E03, 2E07P

OKANAGAN			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2F01A	TROUT CREEK (West)	1430	2022-05-15	7	28	40		63%	54	0	0	0	15	243	44	12
2F01AP	Trout Creek West	1420	2022-05-15	0	0			N/A	N/A	0	0	0	0	0	N/A	4
2F02	SUMMERLAND RESERVOIR	1280	2022-05-12	0	0			0%	N/A	0	0	0	0	218	8	53
2F03	MCCULLOCH	1280	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	102	N/A	37
2F04	GRAYSTOKE LAKE	1840	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	420	742	N/A	18
2F05P	Mission Creek	1780	2022-05-15	144	489	34		106%	62	380	676	0	418	855	462	51
2F07	POSTILL LAKE	1370	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	71	130	180	N/A	7
2F08	GREYBACK RESERVOIR	1550	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	60	323	72	45
2F08P	Greyback Reservoir	1550	2022-05-15	0	0			N/A	N/A	0	0	0	0	143	N/A	5
2F09	WHITEROCKS MOUNTAIN	1830	N	N	N	N	N	N/A	N/A	N	N	0	375	968	367	49
2F10	Silver Star Mountain	1840	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	100	685	1054	694	57
2F10P	Silver Star Mountain	1839	2022-05-15	184	886	48		N/A	N/A	679	817	679	788	823	5	
2F11	ISINTOK LAKE	1680	2022-05-12	0	0			0%	N/A	N	0	0	29	386	40	54
2F12	MOUNT KOBAU	1810	2022-05-14	69	240	35		97%	50	189	100	0	242	516	246	56
2F13	ESPERON CR (UPPER)	1650	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	66	310	625	276	13
2F14	ESPERON CR (MIDDLE)	1430	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	128	380	145	15
2F18P	Brenda Mine	1460	2022-05-15	0				0%	N/A	2	0	0	0	208	21	26
2F19	OYAMA LAKE	1340	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	97		97	N/A	1
2F19P	OYAMA LAKE	1360	2022-05-15	0	0			N/A	N/A	0		0		0	N/A	1
2F20	VASEUX CREEK	1400	2022-05-13	6	28	47		N/A	94	0	0	0	0	80	0	48
2F23	MACDONALD LAKE	1740	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	368	652	374	21
2F24	ISLAHT LAKE	1480	NS	NS	NS	NS	NS	N/A	N/A	83	50	0	115	352	127	11
2F25	POSTILL LAKE UPPER	1540	NS	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
			Average	41	152	41		44%	65							

Basin Index Calculation	Average SWE	112
	Average Normal	117
Okanagan Basin Index - May 15, 2022		

Stations used in Basin Index:
2F01A, 2F02, 2F05P, 2F11, 2F12, 2F18P, 2F20

SIMILKAMEEN			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2G03P	Blackwall Peak	1940	2022-05-15	189	829	44		121%	73	735	704	188	691	1481	686	54
2G04	LOST HORSE MOUNTAIN	1920	2022-05-17	80	279	35		166%	74	282	303	0	212	577	168	52
2G05	MISSEZULA MOUNTAIN	1550	2022-05-17	0	0			0%	N/A	0	0	0	0	218	35	58
2G06	HAMILTON HILL	1490	2022-05-16	2	6	30		7%	32	0	0	0	96	434	90	42
			Average	68	279	36		73%	59							

Basin Index Calculation	Average SWE	279
	Average Normal	245
Similkameen Basin Index - May 15, 2022		

Stations used in Basin Index:
2G03P, 2G04, 2G05, 2G06

SOUTH COAST			May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3A01	GROUSE MOUNTAIN	1100	NS	NS	NS	NS	NS	N/A	N/A	NS	1150	528	1300	1714	N/A	4
3A02	POWELL RIVER (UPPER)	1040	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	816		816	N/A	1

3A05	POWELL RIVER (LOWER)	910	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	378	378	N/A	1
3A09	PALISADE LAKE	880	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	336	1349	3600	N/A
3A09P	Palisade Lake	900	2022-05-15	198	797	40		N/A	N/A	440	209	0	154	440	N/A
3A10	DOG MOUNTAIN	1080	2022-05-12	276	1415	51		148%	81	1325	850	0	960	2920	955
3A19	ORCHID LAKE	1190	2022-05-13	462	2245	49		135%	88	1865	N	0	1667	3730	1662
3A20	CALLAGHAN CREEK	1040		NS	NS	NS	NS	N/A	N/A	NS	NS	55	336	1311	386
3A20P	Callaghan	1017	2022-05-15	140	627	45		N/A	N/A	436	298	290	298	436	N/A
3A22P	Nostetuko River	1500	2022-05-15	108				N/A	N/A	397	391	0	369	943	392
3A24P	Mosley Creek Upper	1650	2022-05-15	82	349	43		240%	91	6	25	0	100	454	145
3A25P	Squamish River Upper	1340	2022-05-15	357	1564	44		108%	68	1390	1430	474	1407	2980	1442
3A26	CHAPMAN CREEK	1022		NS	NS	NS	NS	N/A	N/A	NS	NS	1450		1450	N/A
3A27	EDWARDS LAKE	1070		NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0
3A28P	Tetrahedron	1420	2022-05-15	470	1645	35		N/A	N/A	1214	N	934	1214	1425	N/A
	Average			262	1235	44		158%	82						3

Basin Index Calculation	Average SWE	1393
	Average Normal	1051
South Coast Basin Index - May 15, 2022		
133%		

Stations used in Basin Index:
3A10, 3A19, 3A24P, 3A25P

VANCOUVER ISLAND		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3B01	FORBIDDEN PLATEAU	1100		NS	NS	NS	NS	N/A	N/A	NS	NS	345	1872	2631	N/A	27
3B02A	MOUNT COKEYL	1190		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3B04	ELK RIVER	270		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3B10	UPPER THELWOOD LAKE	990		NS	NS	NS	NS	N/A	N/A	NS	NS	1364	1742	2697	N/A	7
3B17P	Wolf River Upper	1490	2022-05-15		1415			121%	72	857	704	137	994	2719	1173	33
3B18	WOLF RIVER (MIDDLE)	990		NS	NS	NS	NS	N/A	N/A	NS	NS	0	447	1148	N/A	13
3B19	WOLF RIVER (LOWER)	640		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	549	N/A	12
3B23P	Jump Creek	1160	2022-05-15	296	1396	47		145%	81	1117	503	0	873	3500	960	26
3B24P	Heather Mountain Upper	1190	2022-05-15	313	1549	49		N/A	N/A	1353	1028	476	1191	1859	N/A	6
3B26P	Mount Arrowsmith	1465	2022-05-15	322	1224	38		N/A	N/A	968	642	449	804	968	N/A	4
	Average			310	1396	45		133%	77							

Basin Index Calculation	Average SWE	1406
	Average Normal	1066
Vancouver Island Basin Index - May 15, 2022		
132%		

Stations used in Basin Index:
3B17P, 3B23P

CENTRAL COAST		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3C07	WEDEENE RIVER SOUTH	220		NS	NS	NS	NS	N/A	N/A	NS	NS	232		232	N/A	1
3C08P	Burnt Bridge Creek	1330	2022-05-15	178	920	52		152%	86	871	649	130	548	1448	606	23
	Average			178	920	52		152%	86							

Basin Index Calculation	Average SWE	920
	Average Normal	606
Central Coast Basin Index - May 15, 2022		
152%		

Stations used in Basin Index:
3C08P

SKAGIT		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3D01C	SUMALLO RIVER WEST	790		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3D02	LIGHTNING LAKE	1220		NS	NS	NS	NS	N/A	N/A	NS	NS	544		544	N/A	1

3D03A	KLESIKWA	1175	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	490	N/A	3
		Average	N/A													

Basin Index Calculation	Average SWE Average Normal	N/A N/A
	Skagit Basin Index - May 15, 2022	N/A

Stations used in Basin Index:
N/A

PEACE		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4A02P	Pine Pass	1400	2022-05-15	284	1182	42		110%	70	1343	1200	740	1037	1664	1073	29
4A03P	Ware Upper	1565	2022-05-15	79	262	33		N/A	N/A	160	68	0	146	215	N/A	5
4A04P	Ware Lower	971	2022-05-15	0	0			N/A	N/A	0	0	0	0	0	N/A	5
4A05	GERMANSEN (UPPER)	1480	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	272	387	414	N/A	4
4A06	TUTIZZI LAKE	1045	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	1
4A07	LADY LAURIER LAKE	1440	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	420	420	420	N/A	1
4A09P	Pulpit Lake	1311	2022-05-15	73	364	50		145%	79	238	218	4	238	561	251	31
4A10	FREDRICKSON LAKE	1325	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	74	74	74	N/A	1
4A11	TRYGVE LAKE	1410	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	269	269	269	N/A	1
4A12	TSAYDAYCHI LAKE	1190	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	302	302	302	N/A	1
4A12P	Tsaydaychi Lake	1195	2022-05-15	82	322	39		N/A	N/A	284	284	284	284	284	N/A	1
4A13	PHILIP LAKE	1035	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	128	128	128	N/A	1
4A13P	Philip Lake	1028	2022-05-15	0	0			N/A	N/A	0	0	0	0	0	N/A	2
4A16	MORFEE MOUNTAIN	1430	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	343	588	950	N/A	8
4A18	MOUNT SHEBA	1490	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	340	737	1179	N/A	9
4A18P	MOUNT SHEBA	1484	2022-05-15	261	1182	45		N/A	N/A	1153	1216	903	1153	1216	N/A	3
4A20P	Monkman Creek	1570	2022-05-15		586			N/A	N/A	419	524	419	438	524	N/A	3
4A21	MOUNT STEARNS	1505	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	45	45	45	N/A	1
4A25	FORT ST. JOHN A	690	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	4
4A27P	Kwadacha North	1554	2022-05-15		333			107%	60	321	307	88	316	468	310	30
4A30P	Aiken Lake	1050	2022-05-15	25	131	52		263%	88	22	0	0	8	203	50	34
4A31P	Crying Girl Prairie	1358	2022-05-15		197			N/A	N/A	61	0	0	0	224	N/A	7
4A33P	Muskwa-Kechika	1196	2022-05-15		0			N/A	N/A	0	0	0	0	0	N/A	6
4A34P	Dowling Creek	1456	2022-05-15					N/A	N/A	1033	907	0	768	1457	N/A	4
4A36P	Parsnip Upper	790	2022-05-15	0	0			N/A	N/A	8	8	0	0	8	N/A	3
4A37P	McQue Terrace	1200	2022-05-15		0			N/A	N/A	0	0	0	0	0	N/A	2
	Average		89	326	44			156%	74							

Basin Index Calculation	Average SWE Average Normal	503 421
	Peace Basin Index - May 15, 2022	119%

Stations used in Basin Index:
4A02P, 4A09P, 4A27P, 4A30P

SKEENA-NASS		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4B01	KIDPRICE LAKE	1370	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	534	1278	N/A	2	
4B02	JOHANSON LAKE	1420	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	178	178	N/A	1	
4B03A	HUDSON BAY MTN.	1480	2022-05-16	137	554	40		138%	78	414	316	108	415	822	403	48
4B04	CHAPMAN LAKE	1460	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	238	467	689	N/A	8
4B06	TACHEK CREEK	1140	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	18	98	152	N/A	4
4B07	MCKENDRICK CREEK	1050	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	149	320	N/A	22
4B08	MOUNT CRONIN	1480	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	481	670	927	N/A	14
4B10	NINGUNSAW PASS	690	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	208	N/A	14

4B11A	BEAR PASS	460	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	80	304	488	N/A	8
4B13A	TERRACE AIRPORT	180	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	N/A	N/A	1
4B14	EQUITY MINE	1420	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	283	396	N/A	12
4B15	LU LAKE	1300	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	182	330	N/A	13
4B15P	Lu Lake	1300	2022-05-15	68	250	37		165%	75	21	10	0	101	495	151	24
4B16P	Shedin Creek	1480	2022-05-15	236	1073	45		131%	78	870	726	253	833	1264	819	24
4B17P	Tsai Creek	1360	2022-05-15	257	1325	52		108%	68	1227	949	666	1086	2146	1228	24
4B18P	Cedar-Kiteen	885	2022-05-15	149	819	55		245%	95	552	100	0	330	979	334	21
			Average	169	804	46		157%	79							

Basin Index Calculation	Average SWE	804
	Average Normal	587
Skeena-Nass Basin Index - May 15, 2022		137%

Stations used in Basin Index:
4B03A, 4B15P, 4B16P, 4B17P, 4B18P

LIARD		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4C01	SIKANNI LAKE	1385	NS	NS	NS	NS	N/A	N/A	NS	NS	130		130	N/A	1
4C01P	Sikanni Lake	1387	2022-05-15	76	241	32	N/A	N/A	243		0	109	243	N/A	4
4C02	SUMMIT LAKE	1280	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	160	N/A	7
4C03	DEASE LAKE	820	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	6
4C05	FORT NELSON AIRPORT	380	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	13
			Average	N/A	N/A	N/A	N/A								

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Liard Basin Index - May 15, 2022		N/A

Stations used in Basin Index:
N/A

STIKINE		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4D02	ISKUT	1000	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	15
4D10P	Tumeka Creek	1220	2022-05-15	475			119%	67	555	475	163	423	771	399	22
4D11P	Kinaskan Lake	1020	2022-05-15	99	365	37	202%	90	336	174	0	198	540	181	26
			Average	99	420	37	160%								

Basin Index Calculation	Average SWE	420
	Average Normal	290
Stikine Basin Index - May 15, 2022		145%

Stations used in Basin Index:
4D10P, 4D11P

NORTHWEST		May 15, 2022 Data					May 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4E01	LOG CABIN	900	NS	NS	NS	NS	N/A	N/A	NS	NS	0	267	420	232	22
4E02B	ATLIN LAKE	730	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
			Average	N/A	N/A	N/A	N/A								

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Northwest Basin Index - May 15, 2022		N/A

Stations used in Basin Index:
N/A

BRITISH COLUMBIA

Basin Index Calculation	Average SWE	802
	Average Normal	626
British Columbia Basin Index - May 15, 2022	128%	

Stations used in Basin Index:
All stations with measurements in B.C.

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
N/A	Not available
NS	Not scheduled
SD	Snow Depth
SWE	Snow Water Equivalent
T	Trace Amount



Snow Survey and Water Supply Bulletin – June 1st, 2022

The June 1st snow survey is now complete. Data from 26 manual snow courses and 84 automated snow weather stations around the province (collected by the Ministry of Environment and Climate Change Strategy's Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada and the provincial Climate Related Monitoring Program have been used to form the basis of the following report¹.

Executive Summary

The primary purpose of the Snow Survey and Water Supply Bulletins in June is to assess the progression of spring snowmelt as either seasonal, earlier than normal, or delayed.

Flood risk remains high due to the delayed melt of the mountain snow pack throughout the province. The June 1st, 2022 snow pack is well above normal, increasing to 165% of normal (the average of all snow measurements across B.C.) over the past two weeks (where May 15th was 128%). All regions of the province with snow measurements have snow basin indices greater than 140% of normal, indicating significant risk throughout the B.C. Interior from snowmelt related flooding.

Caution should be taken in interpreting the snow basin index values at this time of year as they compare to a normal value that is typically dropping quickly. It is not unusual to have very high values for June 1st or June 15th. The most recent examples of very high June 1st values were 2011 & 2012.

This year, six stations measured record high snow values for June 1st, including sites in the Upper Fraser East, Quesnel, North Thompson, South Thompson and Upper Columbia, highlighting areas that are still at increased risk for flooding.

By June 1st on average, approximately half of the accumulated snow pack typically melts (according to data from automated snow weather stations). Snow pack melt has been delayed by two to four weeks due to extended cooler weather in April and May, where only 19% of the snowpack at automated snow weather stations has melted by June 1st, 2022.

Snow pack is only one factor related to freshet flood risk. Weather conditions for June through July will determine the timing, magnitude, and rate of snowmelt, where heavy rainfall events can exacerbate snowmelt-driven flows.

Weather

Spring was cooler than normal across British Columbia. In April, temperatures ranged from -4.5°C to -1.5°C below normal across the province. The cool trend continued with temperatures ranging from -3.0°C to -0.5°C below normal for May. For example, the Prince

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Snow Survey and Water Supply Bulletin – June 1st, 2022

George Airport measured the 4th coldest April and the 4th coldest May on record (data beginning 1943).

Generally, B.C. measured near normal precipitation for May except for above normal precipitation on Vancouver Island and northern portions of the province. Fort St. John Airport measured the 2nd wettest May on record (data beginning 1942), and Prince George Airport recorded the 3rd wettest.

The warmest temperatures of the year occurred during the first few days of June. This weather was immediately following by unsettled conditions in the South Interior and Bulkley/Skeena region, which contributed moderate precipitation into observed river systems rises.

The upcoming weather forecast is predicting a return to cooler than seasonal temperatures and lingering unsettled conditions. June is commonly a month where upper low-pressure systems contribute significant precipitation, especially to the Interior. The unsettled pattern is expected to remain for the upcoming seven-days with no sign of an extended heat wave.

Snowpack

Snow basin indices for June 1st, 2022 range from a low of 144% of normal in the Lower Fraser to a high of 289% in the Stikine (Table 1 and Figures 2 + 3). The province has well above normal snow pack for June 1st, with the average of all snow measurements across the province at 165%. This has increased from 128% on May 15th. All regions of the province with snow measurements have well above normal snow basin indices (>140%). It is important to note the total snow depth is not increasing. Instead, this high anomaly happens in June during years of delayed snowmelt when current snow levels are compared to normal values that are small due to advanced snowmelt. The most recent years with very high snow relative to normal for June 1st are 2011 & 2012. Several regions do not have a snow basin index for June 1st as measurements were either not taken or were snow-free.

The average of all snow measurements for the entire Fraser River basin (e.g., upstream of the Lower Mainland and inclusive of Upper Fraser West, Upper Fraser East, Nechako, Middle Fraser, Lower Fraser, North Thompson and South Thompson) is 164%, increasing from 129% on May 15th.

As the Middle Fraser encompasses a large and geographically diverse area, the River Forecast Centre has divided the region into sub-basins to analyze snow conditions and potential flood risks in localised areas. The Bridge region measures 205% of normal, while the Quesnel area (and surrounding Cariboo Mountains) is 182%. The Lower Thompson and the Chilcotin sub-basins did not have measurements for June 1st, therefore an index is not available. Please review the full summary data tables at the end of this report for further interpretation.

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Snow Survey and Water Supply Bulletin – June 1st, 2022

Table 1 - BC Snow Basin Indices – June 1, 2022

Basin	% of Normal (May 15 th value)	Basin	% of Normal (May 15 th value)
Upper Fraser West	(N/A)	Okanagan	153 (96)
Upper Fraser East	185 (137)	Boundary	173 (111)
Nechako	160 (132)	Similkameen	165 (114)
Middle Fraser	188 (143)	South Coast	153 (133)
Lower Thompson*	N/A (N/A)	Vancouver Island	169 (132)
Bridge*	205 (137)	Central Coast	249 (152)
Chilcotin*	N/A (N/A)	Skagit	N/A (N/A)
Quesnel*	182 (149)	Peace	161 (119)
Lower Fraser	144 (119)	Skeena-Nass	160 (137)
North Thompson	175 (142)	Stikine	289 (145)
South Thompson	157 (113)	Liard	N/A (N/A)
Upper Columbia	165 (123)	Northwest	N/A (N/A)
West Kootenay	170 (128)	Fraser (Entire basin)	164 (129)
East Kootenay	166 (124)	British Columbia	165 (128)

* sub-basin of Middle Fraser

By June 1st, approximately half of the accumulated snow pack has melted on average (according to data from automated snow weather stations). Due to extended cooler weather in April and May, snow pack melt has been delayed by two to four weeks throughout the province. Snow pack across all automated snow weather stations has only melted approximately 19% on June 1st compared to peak snow accumulation (which occurred on April 28th).

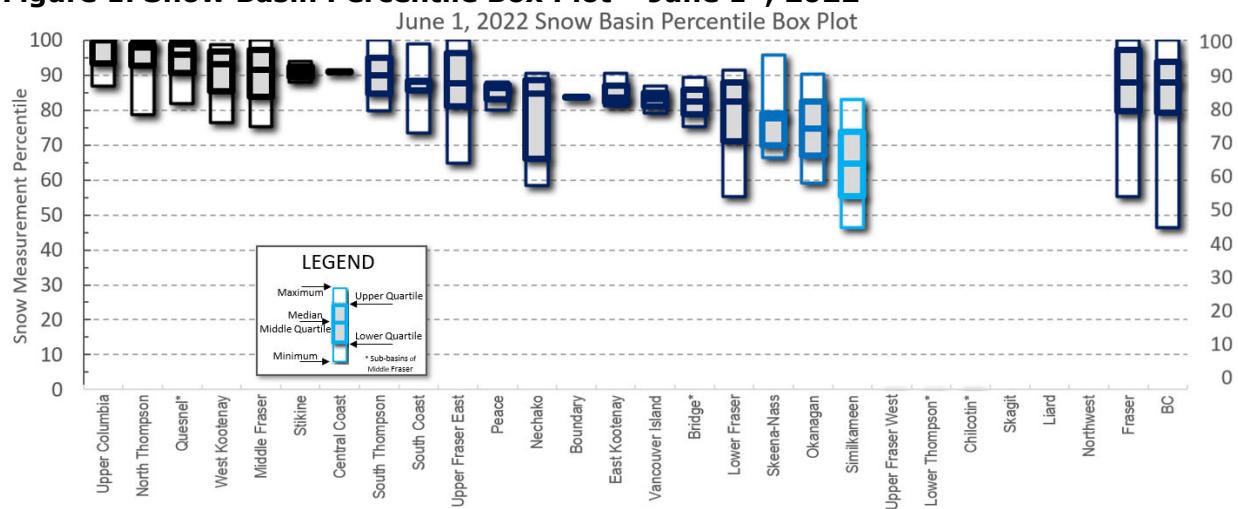
Snow Survey and Water Supply Bulletin – June 1st, 2022

There are six snow stations with period of record highs for June 1st:

- 1A17P Revolution Creek: 1127 mm SWE (217% of normal) – period of record 32 years (UPPER FRASER EAST)
- 1C41P Yanks Peak East: 1075 mm SWE (211% of normal) – period of record 25 years (QUESNEL / MIDDLE FRASER)
- 1E14P Cook Creek: 281 mm SWE (797% of normal) – period of record 13 years (NORTH THOMPSON)
- 1F06P Celista Mountain: 972 mm SWE (197% of normal) – period of record 15 years (SOUTH THOMPSON)
- 2A21P Molson Creek: 1614 mm SWE (193% of normal) – period of record 39 years (UPPER COLUMBIA)
- 2A30P Colpitti Creek: 1042 mm SWE – period of record 12 years (UPPER COLUMBIA)

The River Forecast Centre began including percentiles in addition to using percent of normal to analyze snow pack in the 2020 bulletin. Percentiles offer a more accurate interpretation of variance, especially in regions when the percent of normal can be extremely high due to delayed snowmelt, like this season. The region with the highest average percentile is the Upper Columbia (96th percentile); the region with lowest is the Similkameen (65th). Figure 1 (below) displays the percentile variance ordered from highest to lowest median via box plots (including sub-basins).

Figure 1. Snow Basin Percentile Box Plot – June 1st, 2022



Streamflow

Most rivers in British Columbia were flowing below normal for May due to delayed seasonal snowmelt from cooler April and May temperatures. Two strong storm systems caused relatively high flows in the Peace region during May.

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Snow Survey and Water Supply Bulletin – June 1st, 2022

A general warming pattern occurred during the first few days of June and initiated more significant melt in the mid and higher elevation snow pack. Rivers throughout the province have risen to normal to above normal levels as of June 8th. Moderate to heavy precipitation in the South Interior, Skeena-Nass and northern portions of the province have increased flows to higher levels for early June with several High Streamflow Advisories and Flood Watches issued during the first week of June. As of June 7th, the Liard River watershed was upgraded to a Flood Warning.

Visit the River Forecast Centre [Flood Warnings and Advisories](#) web page to view most up-to-date warnings and advisories.

Current flow conditions on Water Survey of Canada hydrometric gauges can be viewed at the [Map of Current Streamflow Conditions for All Real-time WSC Stations in BC](#).

Outlook

Based on the June 1st Snow Basin Indices, above normal snow pack exists for all regions of the province. This indicates a continued significant risk for high freshet flows, especially if adverse weather occurs.

Regions that remain at relatively high risk due to snow pack, but are not exclusive to, include the Upper Fraser, Cariboo Mountains, North Thompson, South Thompson, Lower Fraser, Upper Columbia, the Kootenays, Similkameen, and the northern regions of the province. Other Interior regions like the Okanagan, Nicola and Peace remain at risk to extreme rainfall events.

Typically, rivers on Vancouver Island and along coastal B.C. reach flood level flows from heavy rain events in the fall and winter. These areas are unlikely to experience flooding in June from snowmelt unless an extreme rainfall event occurs.

The upcoming weather forecast predicts seasonal to below seasonal temperatures through the province and continued unsettled conditions. The significant risk over the short-term is for potential heavy rain to fall on a melting snow pack.

Situational awareness is necessary to understand flood risk given current conditions; individuals are encouraged to stay in touch with the most recent hydrological model results through the [CLEVER Model](#) map.

The [WARNS Model](#) provides additional discharge and water level forecasts for the Fraser River and its major tributaries.

When the lower Fraser River reaches higher levels, the Province provides regular water-level forecasts for the lower Fraser River with the [10-Day Lower Fraser River Water Level Forecast](#).

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Snow Survey and Water Supply Bulletin – June 1st, 2022

Once a week (and possibly more frequently during times of high flood risk) the River Forecast Centre provides an update on the overall freshet conditions in the [Provincial Freshet Update Dashboard](#). It is typically updated late Thursday afternoon.

Summary

Snow pack throughout the province ranges from 144 to 289% of normal. The provincial average for all snow measurements across the province is 165% of normal, and the Fraser River is 164%. These large snow basin numbers reflect a delay in melt, and not continued accumulation of snow from peak levels. Flood risk remains high due to the delayed melt of the mountain snow pack throughout the province. Snow pack is only one factor related to freshet flood risk. Weather conditions through June and July will determine the timing, magnitude, and rate of snowmelt, and heavy rainfall events can exacerbate the situation.

The River Forecast Centre will continue to monitor snow pack conditions and will provide an updated seasonal flood risk forecast in the June 15th, 2022 bulletin, which is scheduled for release on June 17th.

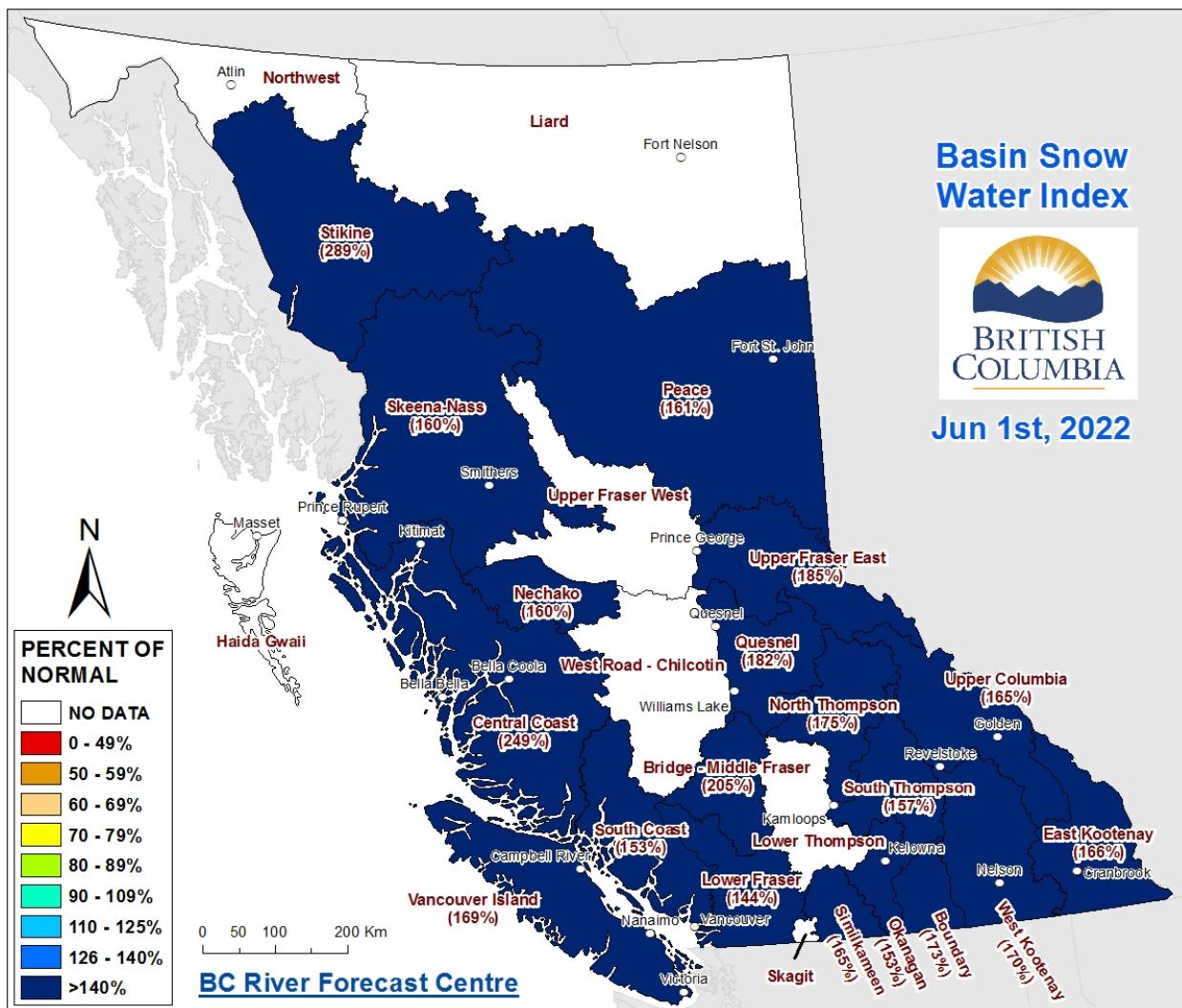
BC River Forecast Centre
June 8, 2022



RIVER FORECAST CENTRE

Snow Survey and Water Supply Bulletin – June 1st, 2022

Figure 2: Basin Snow Water Index – June 1st, 2022



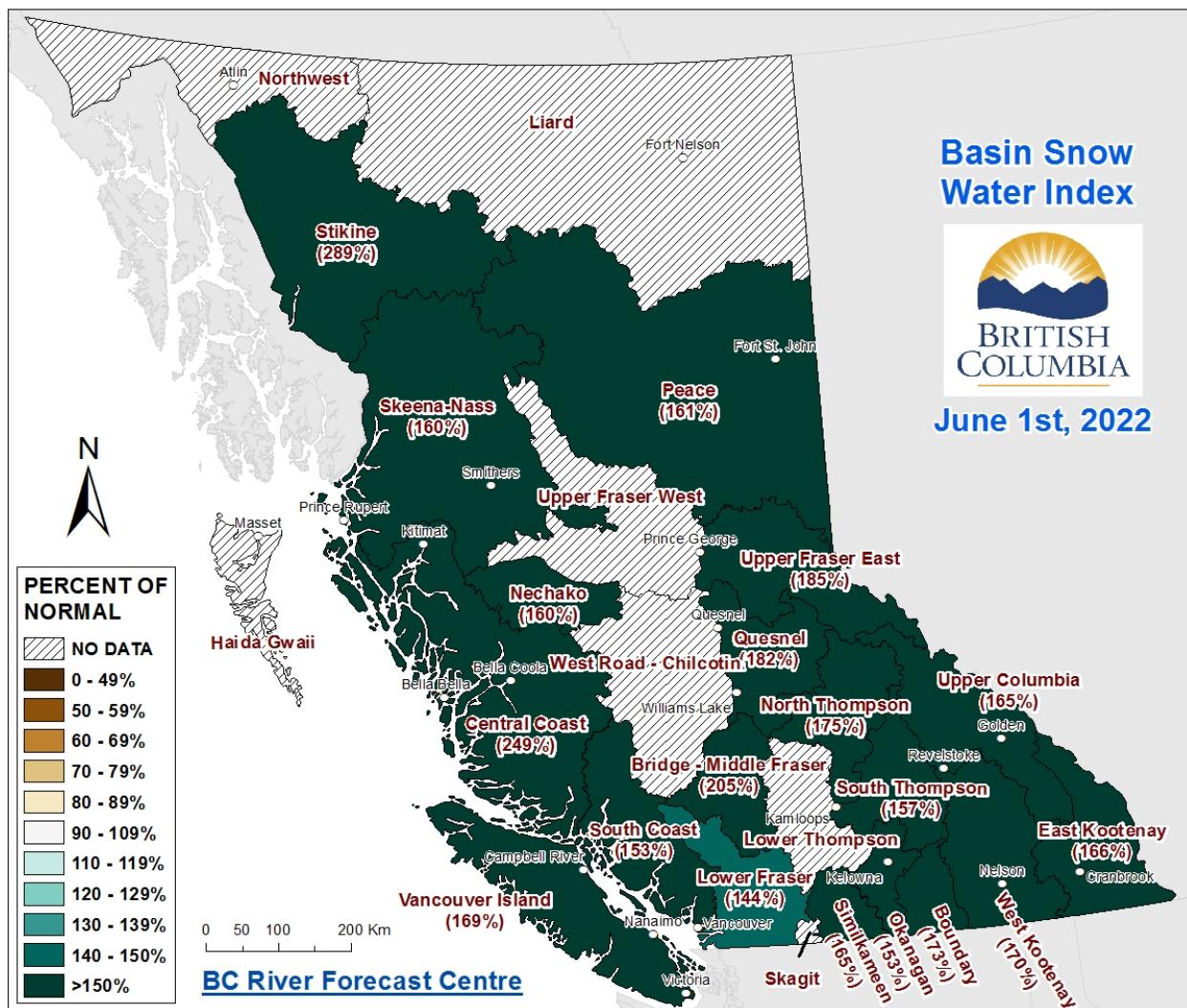
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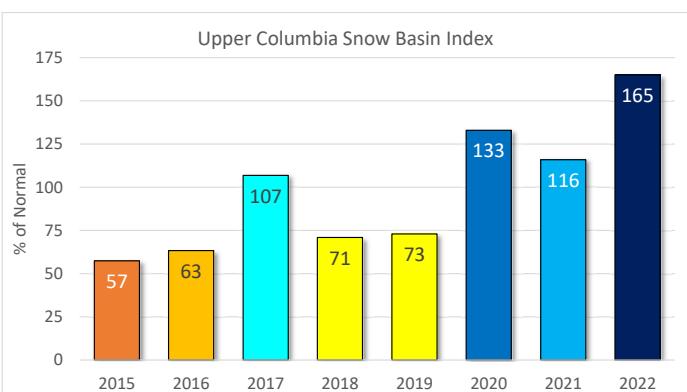
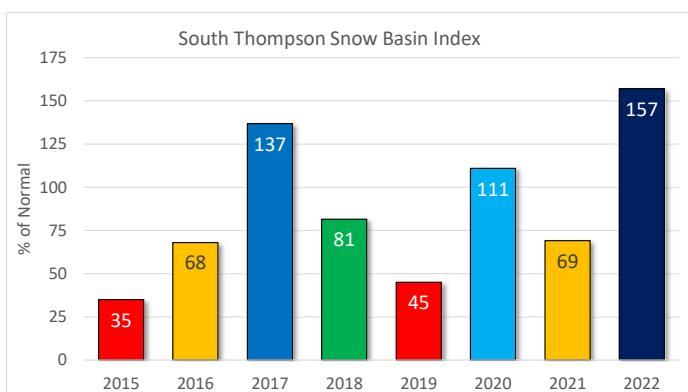
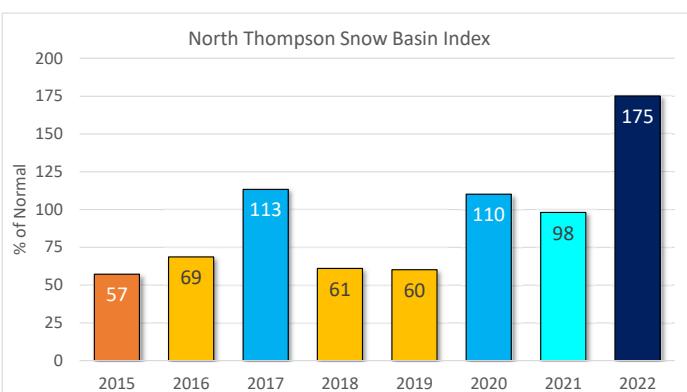
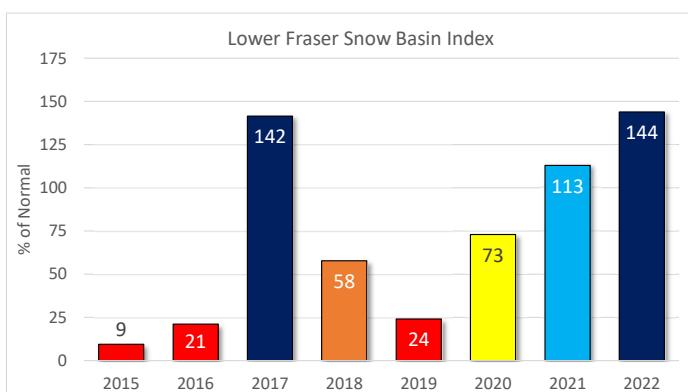
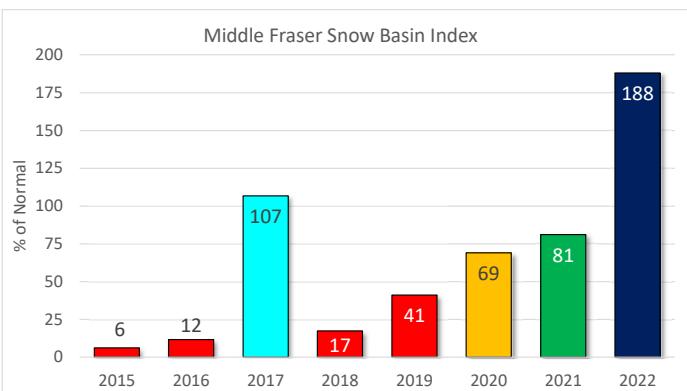
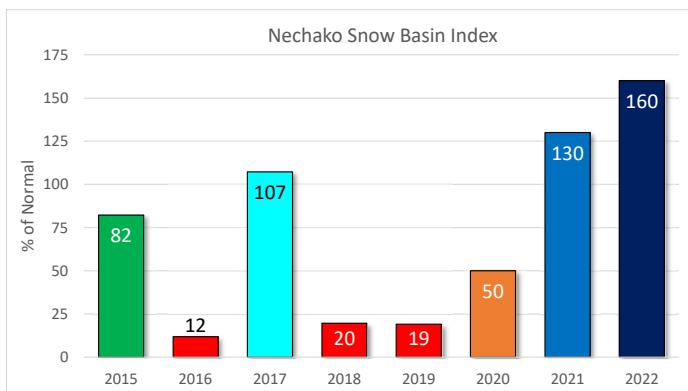
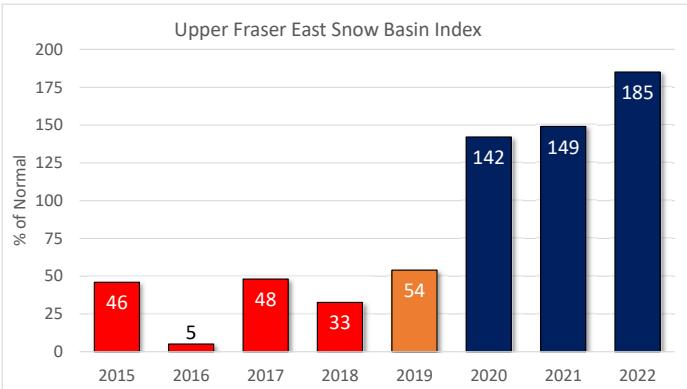
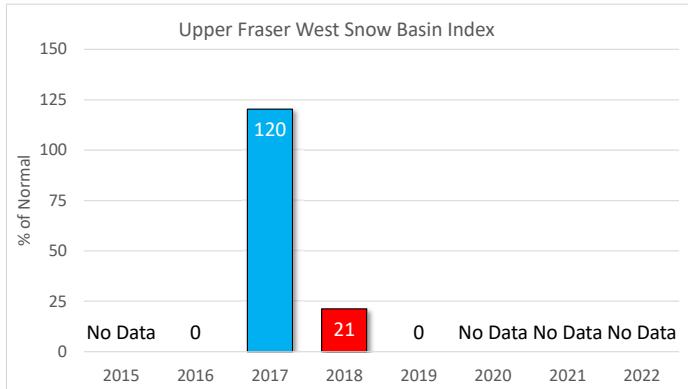
RIVER FORECAST CENTRE

Snow Survey and Water Supply Bulletin – June 1st, 2022

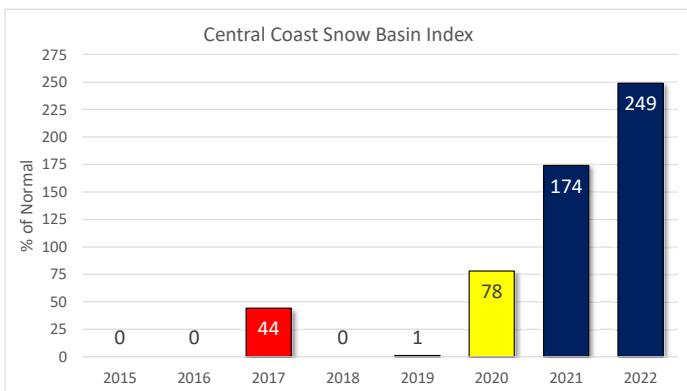
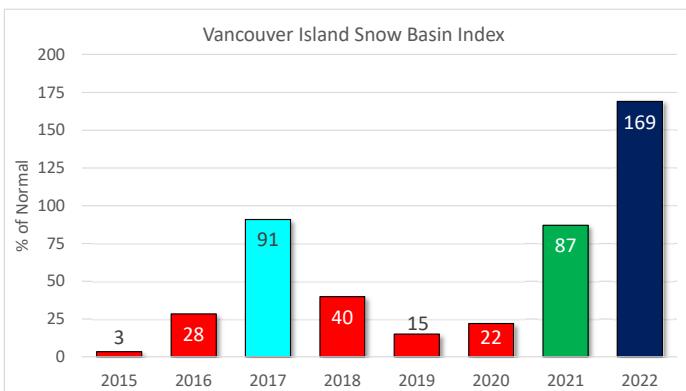
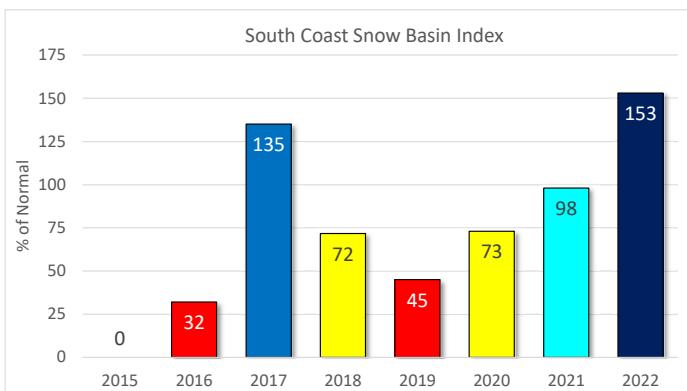
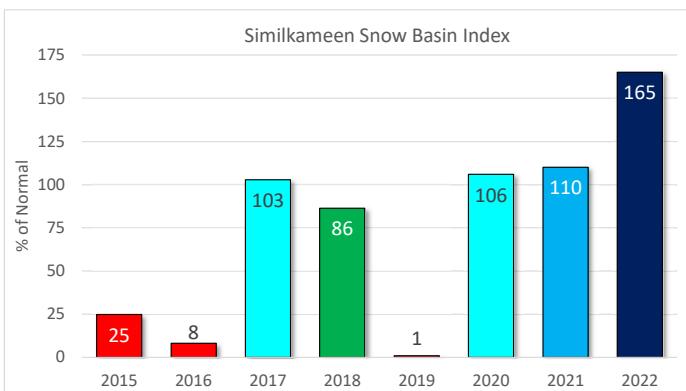
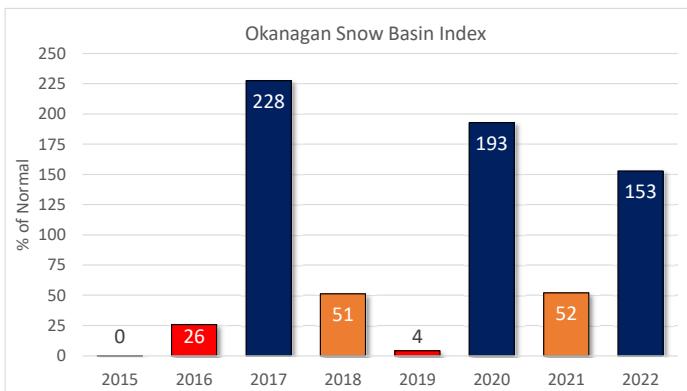
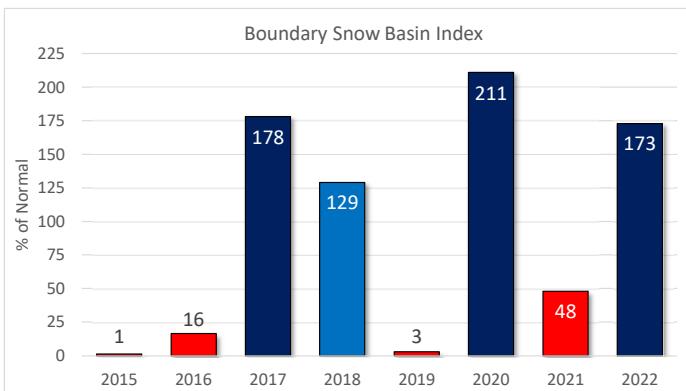
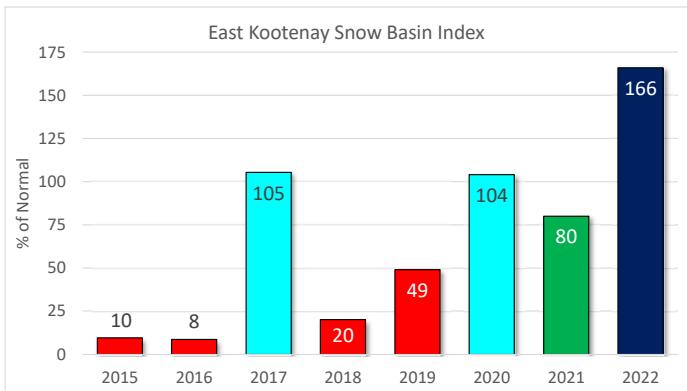
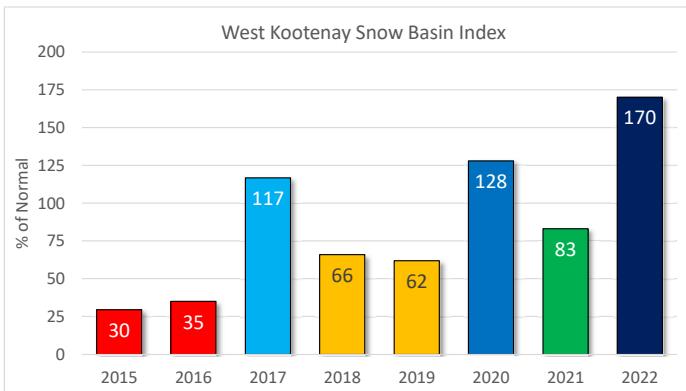
Figure 3: Basin Snow Water Index – June 1st, 2022 – Colour Friendly



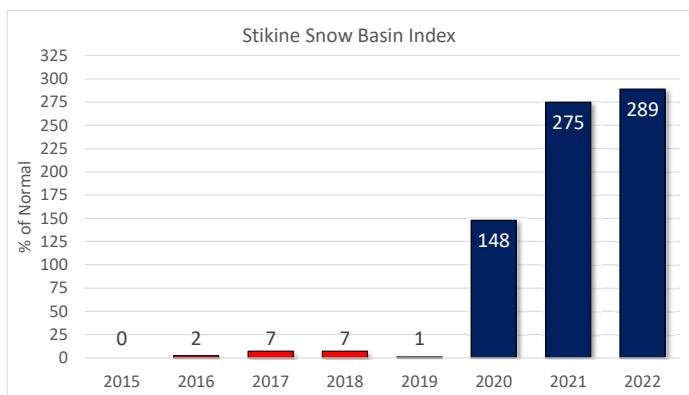
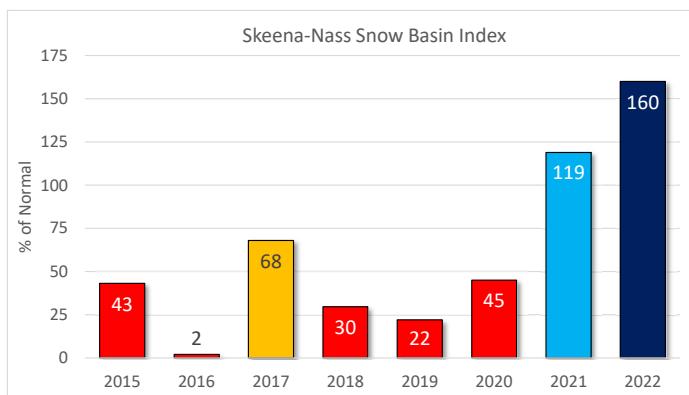
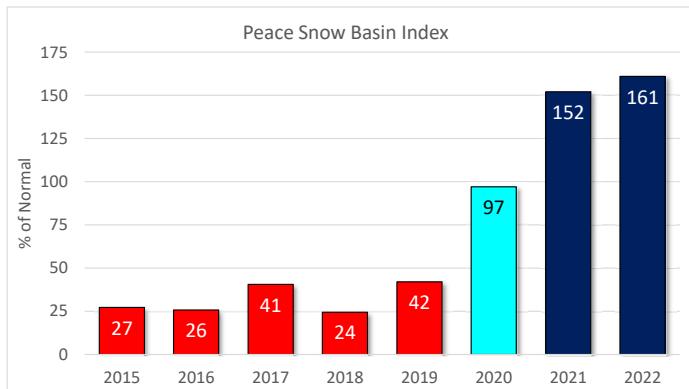
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Snow Basin Index Graphs - June 1, 2022



Snow Basin Index Graphs - June 1, 2022



June 1, 2022 Automated Snow Weather Station / Manual Snow Survey Data

UPPER FRASER EAST		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A01P	Yellowhead Lake	1860	2022-06-01	126	583	46		168%	83	429	306	0	361	843	346	22
1A02P	McBride Upper	1611	2022-06-01	75	342	46		244%	98	207	161	0	114	401	140	29
1A03P	Barkerville	1520	2022-06-01	17	94	55		321%	81	0	2	0	0	291	29	43
1A05P	Longworth Upper	1740	2022-06-01	232	1315	57		N/A	N/A	1145	760	149	425	1145	N/A	5
1A06A	HANSARD	608		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	1
1A10	PRINCE GEORGE A	689		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	3
1A11	PACIFIC LAKE	755		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	462	132	35
1A14P	Hedrick Lake	1100	2022-06-01	160	612	38		155%	65	653	350	0	348	1052	394	22
1A15P	Knudsen Lake	1601	2022-06-01	211	1305	62		N/A	N/A	811	492	9	253	811	N/A	6
1A17P	Revolution Creek	1690	2022-06-01	218	1127	52		217%	100	792	1002	0	448	1117	521	32
1A19P	Dome Mountain	1774	2022-06-01	207	1052	51		168%	93	922	874	283	600	1076	628	16
	Average			156	804	51		212%	86							

Basin Index Calculation	Average SWE	635
	Average Normal	343
Upper Fraser East Basin Index - June 1, 2022	185%	

Stations used in Basin Index:
1A01P, 1A02P, 1A03P, 1A14P, 1A17P, 1A19P

UPPER FRASER WEST		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A12	KAZA LAKE	1250		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	0
1A12P	Kaza Lake	1257	2022-06-01	51				N/A	N/A	0	0	0	0	0	N/A	6
1A16	BURNS LAKE	800		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	6
1A23	BIRD CREEK	1180	2022-06-01	0	0			N/A	N/A	0	N	0	0	0	0	24
	Average			26	0	N/A		N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Upper Fraser West Basin Index - June 1, 2022	N/A	

Stations used in Basin Index:
N/A

NECHAKO		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1B01	MOUNT WELLS	1490	2022-06-01	97	474	49		259%	88	242	N	0	208	529	183	43
1B01P	Mount Wells	1490	2022-06-01		566			258%	91	435	N	0	187	720	219	29
1B02	TAHTSA LAKE	1300	2022-06-01	199	967	49		107%	58	1305	N	309	923	1828	903	44
1B02P	Tahtsa Lake	1300	2022-06-01					N/A	N/A	1276	560	205	842	2158	883	29
1B05	SKINS LAKE	890	2022-06-01	0	0			N/A	N/A	0	N	0	0	0	0	26
1B06	MOUNT SWANNELL	1620	2022-06-01	67	263	39		255%	89	N	N	0	0	350	103	27
1B07	NUTLI LAKE	1490	2022-06-01	54	254	47		137%	61	0	N	0	88	618	186	28
1B08P	Mt. Pondo	1400	2022-06-01		494			167%	82	223	101	0	223	929	296	25
	Average			N/A	431	N/A		197%	78							

Basin Index Calculation	Average SWE	503
	Average Normal	315
Nechako Basin Index - June 1, 2022	160%	

Stations used in Basin Index:
1B01, 1B01P, 1B02, 1B06, 1B07, 1B08P

LOWER THOMPSON			June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
				(cm)	(mm)	%	Code									
1C06	PAVILION	1230		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C09A	HIGHLAND VALLEY	1510		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	8
1C25	LAC LE JEUNE (UPPER)	1509		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C29	SHOVELNOSE MOUNTAIN	1450		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C29P	Shovelnose Mountain	1460	2022-06-01	0	0			N/A	N/A	0	0	0	0	0	N/A	3
1C32	DEADMAN RIVER	1430		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C42	CAVERHILL LAKE NEW	1400		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
	Average			0	0	N/A		N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Lower Thompson Basin Index - June 1, 2022		N/A

Stations used in Basin Index:

N/A

BRIDGE / LILLOOET			June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
				(cm)	(mm)	%	Code									
1C05P	McGillivray Pass	1718	2022-06-01		414			N/A	N/A	0	0	0	0	0	N/A	4
1C12P	Green Mountain	1780	2022-06-01		771			163%	75	235	37	8	341	1186	472	28
1C14P	Bralorne	1382	2022-06-01	0	0			N/A	N/A	0	0	0	0	0	N/A	4
1C18P	Mission Ridge	1850	2022-06-01		411			389%	90	34	0	0	3	710	106	45
1C28	DUFFEY LAKE	1200		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C38	DOWNTON LAKE (UPPER)	1887		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C38P	Downton Lake Upper	1829	2022-06-01		1072			N/A	N/A	563	277	278	433	655	N/A	6
1C39	BRIDGE GLACIER (LOWER)	1390		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C40P	North Tyaughton	1969	2022-06-01		427			N/A	N/A	144	0	0	0	144	N/A	6
	Average			0	516	N/A		276%	82							

Basin Index Calculation	Average SWE	591
	Average Normal	289
Bridge/Lillooet Basin Index - June 1, 2022		205%

Stations used in Basin Index:

1C12P, 1C18P

CHILCOTIN			June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
				(cm)	(mm)	%	Code									
1C21	BIG CREEK	1140		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1C22	PUNTZI MOUNTAIN	940		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	2
	Average			N/A	N/A	N/A	N/A	N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Chilcotin Basin Index - June 1, 2022		N/A

Stations used in Basin Index:

N/A

QUESNEL			June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
				(cm)	(mm)	%	Code									
1C17	MOUNT TIMOTHY	1660	2022-06-01	24	110	46		275%	82	90	32	0	0	332	40	48
1C20P	Boss Mountain Mine	1460	2022-06-01	74	375	51		328%	94	8	6	0	66	401	114	28
1C23	PENFOLD CREEK	1685	2022-05-30	249	1236	50		142%	98	N	NS	353	844	1354	873	44
1C33A	GRANITE MOUNTAIN	1150		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0

1C41P	Yanks Peak East	1670	2022-06-01	161	1075	67	211%	100	638	809	56	525	979	510	25	Record High
		Average		127	699	53	239%	93								

Basin Index Calculation	Average SWE	699
	Average Normal	384
	Quesnel Basin Index - June 1, 2022	182%

Stations used in Basin Index:
1C17, 1C20P, 1C23, 1C41P

MIDDLE FRASER

Basin Index Calculation	Average SWE	663
	Average Normal	352
	Middle River Basin Index - June 1, 2022	188%

Stations used in Basin Index:
1C12P, 1C17, 1C18P, 1C20P, 1C23, 1C41P

LOWER FRASER

Station ID	Name	Elevation (masl)	June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
			YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1D06P	Tenquille Lake	1680	2022-06-01	245	1213	50		182%	92	654	388	122	548	1399	665	21
1D08	STAVE LAKE	1250		NS	NS	NS	NS	N/A	N/A	NS	NS	635	1718	3150	N/A	6
1D08P	Lamont Creek Upper	1217	2022-06-01		1307			N/A	N/A	1168		1168		1168	N/A	1
1D09P	Wahleach Lake Upper	1480	2022-06-01		913			136%	71	884	570	0	710	1525	669	28
1D10	NAHATLATCH RIVER	1550		NS	NS	NS	NS	N/A	N/A	NS	NS	706	1324	2690	N/A	9
1D16	DICKSON LAKE	1160		NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
1D17P	Chilliwack River	1600	2022-06-01	288	1734	60		147%	82		1161	0	1204	2208	1178	27
1D18	DISAPPOINTMENT LAKE	1050	2022-05-31	320	1695	53		145%	88	1232	N	320	1213	2300	1172	15
1D18P	Disappointment Lake	1050	2022-06-01	296				N/A	N/A		679	0	1027	2177	965	12
1D19P	Spuzzum Creek	1180	2022-06-01	214	1314	61		120%	55	1307	652	0	1248	2630	1096	23
	Average			273	1363	56		146%	78							

Basin Index Calculation	Average SWE	1374
	Average Normal	956
	Lower Fraser Basin Index - June 1, 2022	144%

Stations used in Basin Index:
1D06P, 1D09P, 1D17P, 1D18, 1D19P

NORTH THOMPSON

Station ID	Name	Elevation (masl)	June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
			YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1E01B	BLUE RIVER	670		NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	5
1E02P	Mount Cook	1550	2022-06-01					N/A	N/A	1198	1200	587	1097	2062	1100	18
1E03A	TROPHY MOUNTAIN	1860		NS	NS	NS	NS	N/A	N/A	NS	NS	935		935	N/A	1
1E07	ADAMS RIVER	1720	2022-06-01	151	728	48		138%	79	482	638	0	518	1155	527	52
1E08P	Azure River	1652	2022-06-01	226	1590	70		180%	98	911	918	407	892	1729	882	24
1E10P	Kostal Lake	1770	2022-06-01	199	1118	56		165%	97	567	688	155	640	1386	677	37
1E14P	Cook Creek	1280	2022-06-01	49	281	57		797%	100	0	105	0	0	195	35	13
	Average			156	929	58		320%	94							

Basin Index Calculation	Average SWE	929
	Average Normal	530
	North Thompson Basin Index - June 1, 2022	175%

Stations used in Basin Index:
1E07, 1E08P, 1E10P, 1E14P

SOUTH THOMPSON

Station ID	Name	Elevation (masl)	June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
			YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1F01A	ABERDEEN LAKE	1310		NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	N/A	1
1F02	ANGLEMONT	1190	2022-06-01	0	0			N/A	N/A	NS	NS	0	0	61	N/A	11
1F03P	Park Mountain	1890	2022-06-01	170	964	57		130%	80	484	869	208	710	1260	742	37
1F04P	Enderby	1950	2022-06-01	241	1215	50		N/A	N/A	613	1101	581	1017	1101	N/A	5

1F06P	Celista Mountain	1500	2022-06-01	172	972	57	197%	100	370	503	97	503	892	493	15	Record High
			Average	146	788	55	164%	90								

Basin Index Calculation	Average SWE	968
	Average Normal	617
South Thompson Basin Index - June 1, 2022		157%

Stations used in Basin Index:
1F03P, 1F06P

FRASER RIVER

Basin Index Calculation	Average SWE	804
	Average Normal	490
Fraser River Basin Index - June 1, 2022		164%

Stations used in Basin Index:
1A01P, 1A02P, 1A03P, 1A14P, 1A17P, 1A19P, 1B01, 1B01P, 1B02, 1B06, 1B07, 1B08P, 1C12P, 1C17, 1C18P, 1C20P, 1C23, 1C41P, 1D06P, 1D09P, 1D17P, 1D18, 1D19P, 1E07, 1E08P, 1E10P, 1E14P, 1F03P, 1F06P

UPPER COLUMBIA			June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
2A02	GLACIER	1250	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	282	737	N/A	46	
2A03A	FIELD	1285	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	N/A	2	
2A06P	Mount Revelstoke	1850	2022-06-01		1378			140%	87	966	1044	240	910	2109	981	28	
2A07	KICKING HORSE	1650	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	31	226	N/A	33	
2A11	BEAVERFOOT	1890	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	254		254	N/A	1	
2A14	MOUNT ABBOT	2010	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	471	1266	1951	N/A	36	
2A16	GOLDSTREAM	1920	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0	
2A17	FIDELITY MOUNTAIN	1870	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	439	1095	2045	N/A	35	
2A18P	Keystone Creek	1840	2022-06-01		835			N/A	N/A	600	708	391	480	914	N/A	7	
2A19	VERMONT CREEK	1520	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	505		505	N/A	1	
2A21P	Molson Creek	1935	2022-06-01		1614			193%	100	1149	987	98	872	1470	837	39	
2A23	BUSH RIVER	1920	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0	
2A25	KIRBYVILLE LAKE	1750	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	969		969	N/A	1	
2A27	DOWNIE SLIDE (LOWER)	980	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	443	N/A	9	
2A29	DOWNIE SLIDE (UPPER)	1630	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	984	1330	N/A	8	
2A30P	Colpitti Creek	2131	2022-06-01		1042			N/A	100	715	804	0	361	804	N/A	13	
2A31P	Caribou Creek Upper	2201	2022-06-01		1092			N/A	N/A	929	863	359	594	929	N/A	7	
2A32P	Wildcat Creek	2122	2022-06-01		833			N/A	N/A	581	727	172	413	727	N/A	7	
2A34P	Glacier NP Rogers Pass Lower	1182	2022-06-01	21	179	85		N/A	N/A						N/A	0	
			Average	21	996	85		167%	96								

Basin Index Calculation	Average SWE Average Normal	1496 909
Upper Columbia Basin Index - June 1, 2022		165%

Stations used in Basin Index:

WEST KOOTENAY

WEST KOOTENAY			June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)		Density %		SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD														
2B02A	FARRON	1220	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	34	N/A	17
2B05	WHATSHAN (UPPER)	1525	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	196	432	N/A	7
2B06P	Barnes Creek	1620	2022-06-01		367				235%	92	3	165	0	24	630	156	29
2B07	KOCH CREEK	1860	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	701		978	N/A	2
2B08P	St. Leon Creek	1800	2022-06-01		1489				183%	98	958	1428	225	822	1557	815	28
2B09	RECORD MOUNTAIN	1890	2022-05-27	148	610	41			177%	76	0	205	0	231	1073	345	44
2D02	FERGUSON	880	NS	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	18	400	N/A	16

2D03	SANDON	1070	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	N/A	2	
2D04	NELSON	930	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	8	N/A	17
2D05	GRAY CREEK (LOWER)	1550	2022-06-01	80	343	43	186%	76	N	NS	0	194	551	184	65
2D06	CHAR CREEK	1310	2022-05-30	62	307	50	279%	95	NS	NS	0	15	362	110	41
2D07A	DUNCAN LAKE NO. 2	630	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
2D07AP	Duncan Lake Dam 2	559	2022-06-01	0	0		N/A	N/A	0	0	0		0	N/A	2
2D08P	East Creek	2030	2022-06-01		1205		173%	96	757	806	111	723	1240	698	38
2D09	MOUNT TEMPLEMAN	1860	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
2D10	GRAY CREEK (UPPER)	1940	2022-06-01	177	798	45	154%	88	N	NS	0	542	1120	517	47
2D10P	GRAY CREEK (UPPER)	1930	2022-06-01	170	769	45	N/A	N/A	333	333		333	N/A	1	
2D14P	Redfish Creek	2104	2022-06-01		1781		145%	99	977	1515	741	1190	1804	1231	20
2D17	Lost Ledge	2050	NS	NS	NS	NS	N/A	N/A					0		
2D18	Kootenay Joe	2060	NS	NS	NS	NS	N/A	N/A					0		
	Average		106	767	45		191%	90							

Basin Index Calculation	Average SWE	863
	Average Normal	507
West Kootenay Basin Index - June 1, 2022	170%	

Stations used in Basin Index:
2B06P, 2B08P, 2B09, 2D05, 2D06, 2D08P, 2D10, 2D14P

EAST KOOTENAY		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2C01	SINCLAIR PASS	1370	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	203	N/A	14
2C04	SULLIVAN MINE	1550	2022-05-30	0	0		T	0%	N/A	0	0	0	0	137	8	39
2C09Q	Morrissey Ridge	1860	2022-06-01		313			173%	81	0	82	0	23	878	181	37
2C10P	Moyie Mountain	1930	2022-06-01	9	80	89		226%	84	5	0	0	0	475	35	42
2C11	KIMBERLY UPPER	2140	NS	NS	NS	NS	NS	N/A	N/A	NS				N/A	0	
2C12	KIMBERLY MIDDLE	1680	NS	NS	NS	NS	NS	N/A	N/A	NS				N/A	0	
2C14P	Floe Lake	2090	2022-06-01		905			162%	91	622	722	94	622	971	558	27
2C15	MOUNT ASSINIBOINE	2230	NS	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
2C17	THUNDER CREEK	2010	NS	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
	Average		5	325	89			140%	85							

Basin Index Calculation	Average SWE	325
	Average Normal	196
East Kootenay Basin Index - June 1, 2022	166%	

Stations used in Basin Index:
2C04, 2C09Q, 2C10P, 2C14P

BOUNDARY		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2E01	MONASHEE PASS	1370	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	8	221	N/A	26
2E02	CARMI	1250	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	4
2E03	BIG WHITE MOUNTAIN	1680	N	N	N	N	N	N/A	N/A	N	268	0	129	658	157	54
2E07P	Grano Creek	1860	2022-06-01	94	557	59		173%	84	153	655	0	329	769	322	24
	Average		94	557	59			173%	84							

Basin Index Calculation	Average SWE	557
	Average Normal	322
Boundary Basin Index - June 1, 2022	173%	

Stations used in Basin Index:
2E07P

OKANAGAN			June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)	Density % Code		SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD			%	Code			2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2F01A	TROUT CREEK (West)	1430	NS	NS	NS	NS	NS	N/A	N/A	NS	NS					N/A
2F01AP	Trout Creek West	1420	2022-06-01	0	0			N/A	N/A	0	0	0	0	0	0	N/A
2F02	SUMMERLAND RESERVOIR	1280	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	25	25	N/A
2F03	MCCULLOCH	1280	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	0	N/A
2F04	GRAYSTOKE LAKE	1840	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	214	584	N/A	1
2F05P	Mission Creek	1780	2022-06-01	111	433	39		179%	90	154	564	0	218	621	242	5
2F07	POSTILL LAKE	1370	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	0	N/A
2F08	GREYBACK RESERVOIR	1550	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	155	N/A	2
2F08P	Greyback Reservoir	1550	2022-06-01		0			N/A	N/A	0	0	0	0	0	0	N/A
2F09	WHITEROCKS MOUNTAIN	1830	NS	NS	NS	NS	NS	N/A	N/A	N	N	0	71	848	136	4
2F10	Silver Star Mountain	1840	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	447	980	485	5
2F10P	Silver Star Mountain	1839	2022-06-01	141	938	67		N/A	N/A	337	928	191	460	937	N/A	
2F11	ISINTOK LAKE	1680	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	211	7	2
2F12	MOUNT KOBAU	1810	2022-05-31	29	102	35		94%	59	0	0	0	40	488	108	5
2F13	ESPERON CR (UPPER)	1650	NS	NS	NS	NS	NS	N/A	N/A	N	NS	0	144	490	103	1
2F14	ESPERON CR (MIDDLE)	1430	NS	NS	NS	NS	NS	N/A	N/A	N	NS	0	0	127	22	1
2F18P	Brenda Mine	1460	2022-06-01		0			N/A	N/A	0	0	0	0	9	1	2
2F19	OYAMA LAKE	1340	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0		391	N/A	
2F19P	OYAMA LAKE	1360	2022-06-01		0			N/A	N/A	0		0		0	N/A	
2F20	VASEUX CREEK	1400	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	
2F23	MACDONALD LAKE	1740	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	131	428	N/A	1
2F24	ISLAHT LAKE	1480	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	
2F25	POSTILL LAKE UPPER	1540	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	
			Average		70	210	47	137%	75							

Basin Index Calculation	Average SWE Average Normal	268 175
Okanagan Basin Index - June 1, 2022		153%

Stations used in Basin Index:
2F05P, 2F12

SIMILKAMEEN		June 1, 2022 Data				June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth			SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
			YYYY-MM-DD	Depth (cm)	SWE (mm)			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
2G03P	Blackwall Peak	1940	2022-06-01	150	702	47		165%	83	469	427	0	419	1253	426
2G04	LOST HORSE MOUNTAIN	1920	2022-05-31	49	93	19		N/A	46	NS	NS	0	104	330	N/A
2G05	MISSEZULA MOUNTAIN	1550	2022-05-31	0	0			N/A	N/A	NS	NS	0	0	0	N/A
2G06	HAMILTON HILL	1490	2022-05-30	0	0			N/A	N/A	NS	NS	0	0	401	N/A
			Average	50	199	33		165%	65						

Basin Index Calculation	Average SWE Average Normal	702 426
	Similkameen Basin Index - June 1, 2022	165%

Stations used in Basin Index:

SOUTH COAST			June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	Snow Depth	SWE	Density	% Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
			(cm)	(mm)	%				(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	Years	
3A01	GROUSE MOUNTAIN	1100	NS	NS	NS	NS NS	N/A	N/A	NS	NS	1074		1074		N/A	
3A02	POWELL RIVER (UPPER)	1040	NS	NS	NS	NS NS	N/A	N/A	NS	NS					N/A	
3A05	POWELL RIVER (LOWER)	910	NS	NS	NS	NS NS	N/A	N/A	NS	NS					N/A	
3A09	PALISADE LAKE	880	NS	NS	NS	NS NS	N/A	N/A	NS	NS	350		350		N/A	
3A09P	Palisade Lake	900	2022-06-01	96	428	45	N/A	N/A	6	0	0	0	0	0	N/A	

3A10	DOG MOUNTAIN	1080	2022-05-30	215	1195	56	172%	86	955	465	0	637	2480	694	35
3A19	ORCHID LAKE	1190	2022-05-31	381	1970	52	146%	88	1380	N	0	1327	3648	1351	39
3A20	CALLAGHAN CREEK	1040	N	N	N	N	N/A	N/A	0	NS	0	80	1228	229	36
3A20P	Callaghan	1017	2022-06-01	55.2	323	59	N/A	N/A	15	26	15	26	95	N/A	3
3A22P	Nostetuko River	1500	2022-06-01	62	352	57	314%	88	14	0	0	5	677	112	30
3A24P	Mosley Creek Upper	1650	2022-06-01	49	220	45	806%	99	0	0	0	0	233	27	33
3A25P	Squamish River Upper	1340	2022-06-01	294	1308	44	116%	74	1083	1009	0	1105	2780	1123	28
3A26	CHAPMAN CREEK	1022	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
3A27	EDWARDS LAKE	1070	NS	NS	NS	NS	N/A	N/A	NS	NS			N/A	0	
3A28P	Tetrahedron	1420	2022-06-01	403	1410	35	N/A	N/A	954	1039	639	997	1171	N/A	4
Average		194	901	49	311%	87									

Basin Index Calculation	Average SWE	1009
	Average Normal	662
South Coast Basin Index - June 1, 2022		153%

Stations used in Basin Index:
3A10, 3A19, 3A22P, 3A24P, 3A25P

VANCOUVER ISLAND			June 1, 2022 Data				June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3B01	FORBIDDEN PLATEAU	1100	NS	NS	NS	NS	N/A	N/A	NS	NS	74	1427	2438	N/A	30
3B02A	MOUNT COKEYL	1190	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3B04	ELK RIVER	270	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3B10	UPPER THELWOOD LAKE	990	NS	NS	NS	NS	N/A	N/A	NS	NS	485	1636	2601	N/A	13
3B17P	Wolf River Upper	1490	2022-06-01	1274			146%	79	577	345	33	668	2790	874	33
3B18	WOLF RIVER (MIDDLE)	990	NS	NS	NS	NS	N/A	N/A	NS	NS	0	196	1016	N/A	15
3B19	WOLF RIVER (LOWER)	640	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	193	N/A	15
3B23P	Jump Creek	1160	2022-06-01	230	1156	50	204%	87	548	25	0	285	3142	566	26
3B24P	Heather Mountain Upper	1190	2022-06-01	250	1403	56	N/A	N/A	1040	573	0	768	1573	N/A	6
3B26P	Mount Arrowsmith	1465	2022-06-01	270	1120	41	N/A	N/A	665	193	0	348	665	N/A	4
Average		250	1238	49	175%	83									

Basin Index Calculation	Average SWE	1215
	Average Normal	720
Vancouver Island Basin Index - June 1, 2022		169%

Stations used in Basin Index:
3B17P, 3B23P

CENTRAL COAST			June 1, 2022 Data				June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3C07	WEDEENE RIVER SOUTH	220	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3C08P	Burnt Bridge Creek	1330	2022-06-01	120	657	55	249%	91	460	236	0	143	1121	264	23
Average		120	657	55	249%	91									

Basin Index Calculation	Average SWE	657
	Average Normal	264
Central Coast Basin Index - June 1, 2022		249%

Stations used in Basin Index:
3C08P

SKAGIT			June 1, 2022 Data				June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3D01C	SUMALLO RIVER WEST	790	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
3D02	LIGHTNING LAKE	1220	NS	NS	NS	NS	N/A	N/A	NS	NS	470		470	N/A	1
3D03A	KLESILKWA	1175	NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	N/A	1
Average		N/A	N/A	N/A	N/A	N/A	N/A	N/A							

Basin Index Calculation	Average SWE Average Normal	N/A N/A
	Skagit Basin Index - June 1, 2022	N/A

Stations used in Basin Index:

N/A

PEACE		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4A02P	Pine Pass	1400	2022-06-01	236	1136	48		151%	86	1154	868	168	726	1508	751	29
4A03P	Ware Upper	1565	2022-06-01	23	96	42		N/A	N/A	0	0	0	0	0	N/A	5
4A04P	Ware Lower	971	2022-06-01	0				N/A	N/A	0	0	0	0	0	N/A	5
4A05	GERMANSEN (UPPER)	1480	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	203		203	N/A	1
4A06	TUTIZZI LAKE	1045	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4A07	LADY LAURIER LAKE	1440	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	49		49	N/A	1
4A09P	Pulpit Lake	1311	2022-06-01	3	42	140		116%	88	16	0	0	0	219	36	31
4A10	FREDRICKSON LAKE	1325	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4A11	TRYGVE LAKE	1410	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4A12	TSAYDAYCHI LAKE	1190	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4A12P	Tsaydaychi Lake	1195	2022-06-01	23	103	45		N/A	N/A	3		3		3	N/A	1
4A13	PHILIP LAKE	1035	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4A13P	Philip Lake	1028						N/A	N/A	0	0	0		0	N/A	2
4A16	MORFEE MOUNTAIN	1430	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	275	853	N/A	12
4A18	MOUNT SHEBA	1490	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	209	644	1110	N/A	8
4A18P	MOUNT SHEBA	1484	2022-06-01	196	1091	56		N/A	N/A	1015	1010	903	1010	1015	N/A	3
4A20P	Monkman Creek	1570	2022-06-01		481			N/A	N/A	253	312	158	253	312	N/A	3
4A21	MOUNT STEARNS	1505	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	7		7	N/A	1
4A25	FORT ST. JOHN A	690	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	N/A	1
4A27P	Kwadacha North	1554	2022-06-01		295			228%	80	224	54	0	148	417	130	30
4A30P	Aiken Lake	1050	2022-06-01	0	0			0%	N/A	0	0	0	0	14	2	34
4A31P	Crying Girl Prairie	1358	2022-06-01		0			N/A	N/A	0	0	0	0	0	N/A	7
4A33P	Muskwa-Kechika	1196	2022-06-01		0			N/A	N/A	0	0	0	0	0	N/A	6
4A34P	Dowling Creek	1456	2022-06-01		1067			N/A	N/A	589					N/A	
4A36P	Parsnip Upper	790	2022-06-01	0	0			N/A	N/A	0	0	0	0	0	N/A	3
4A37P	McQue Terrace	1200	2022-06-01		0			N/A	N/A	0	0	0		0	N/A	2
			Average	60	332	66		124%	85							

Basin Index Calculation	Average SWE Average Normal	491 306
Peace Basin Index - June 1, 2022		161%

Stations used in Basin Index:

4A02P, 4A09P, 4A27P

SKEENA-NASS		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4B01	KIDPRICE LAKE	1370	2022-06-01	163	861	53		166%	78	743	NS	0	575	1359	520	45
4B02	JOHANSON LAKE	1420	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4B03A	HUDSON BAY MTN.	1480	2022-06-02	80	379	47		173%	66	295	40	0	260	729	219	49
4B04	CHAPMAN LAKE	1460	2022-06-02	77	344	45		N/A	N/A	NS	NS	285	546	594	N/A	7
4B06	TACHEK CREEK	1140	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4B07	MCKENDRICK CREEK	1050	2022-06-02	0	0			N/A	N/A	NS	NS	0	0	149	N/A	15
4B08	MOUNT CRONIN	1480	2022-06-02	115	488	42		N/A	N/A	NS	NS	610	726	927	N/A	9
4B10	NINGUNSAW PASS	690	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	3
4B11A	BEAR PASS	460	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	166	N/A	5
4B13A	TERRACE AIRPORT	180	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4B14	EQUITY MINE	1420	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	40	214	N/A	13

4B15	LU LAKE	1300	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	126	N/A	13
4B15P	Lu Lake	1300	2022-06-01	0	0		0%	N/A	0	0	0	0	158	25	24
4B16P	Shedin Creek	1480	2022-06-01	180	753	42	134%	70	615	339	4	481	1270	561	24
4B17P	Tsai Creek	1360	2022-06-01	205	1332	65	141%	79	1007	599	289	852	2132	947	24
4B18P	Cedar-Kiteen	885	2022-06-01	78	517	66	420%	96	179	0	0	10	622	123	21
			Average	100	519	51	172%	78							

Basin Index Calculation	Average SWE	640
	Average Normal	399
Skeena-Nass Basin Index - June 1, 2022	160%	

Stations used in Basin Index:
4B01, 4B03A, 4B15P, 4B16P, 4B17P, 4B18P

LIARD		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4C01	SIKANNI LAKE	1385	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	1
4C01P	Sikanni Lake	1387	2022-06-01	0				N/A	N/A	0		0	0	0	N/A	4
4C02	SUMMIT LAKE	1280	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4C03	DEASE LAKE	820	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0		0	N/A	10
4C05	FORT NELSON AIRPORT	380	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
		Average		N/A	N/A	N/A		N/A	N/A							

Basin Index Calculation	Average SWE	640
	Average Normal	399
Liard Basin Index - June 1, 2022	N/A	

Stations used in Basin Index:
N/A

STIKINE		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4D02	ISKUT	1000	NS	NS	NS	NS	NS	N/A	N/A	NS	NS	0	0	0	N/A	4
4D10P	Tumeke Creek	1220	2022-06-01		317			223%	88	364	271	0	162	510	142	22
4D11P	Kinaskan Lake	1020	2022-06-01	67	162	24		691%	94	91	0	0	0	248	23	26
		Average		67	240	24		457%	91							

Basin Index Calculation	Average SWE	240
	Average Normal	83
Stikine Basin Index - June 1, 2022	289%	

Stations used in Basin Index:
4D10P, 4D11P

NORTHWEST		June 1, 2022 Data					June 1, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4E01	LOG CABIN	900	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
4E02B	ATLIN LAKE	730	NS	NS	NS	NS	NS	N/A	N/A	NS	NS				N/A	0
		Average		N/A	N/A	N/A		N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Northwest Basin Index - June 1, 2022	N/A	

Stations used in Basin Index:
N/A

BRITISH COLUMBIA

Basin Index Calculation	Average SWE	773
	Average Normal	468
British Columbia Basin Index - June 1, 2022		165%

Stations used in Basin Index:
All stations with measurements in B.C.

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
N/A	Not available
NS	Not scheduled
SD	Snow Depth
SWE	Snow Water Equivalent
T	Trace Amount



Snow Survey and Water Supply Bulletin – June 15th, 2022

The June 15th snow survey is now complete. Data from nine manual snow courses and 88 automated snow weather stations around the province (collected by the Ministry of Environment and Climate Change Strategy's Snow Survey Program, BC Hydro and partners), and climate data from Environment and Climate Change Canada and the provincial Climate Related Monitoring Program have been used to form the basis of the following report¹.

Executive Summary

The primary purpose of the Snow Survey and Water Supply Bulletins in June is to assess the progression of spring snowmelt as either seasonal, earlier than normal, or delayed; this year has been delayed. Although June 15th is the final snow bulletin for 2022, the River Forecast Centre will continue to monitor snow conditions at the automated snow weather stations throughout the province.

Flood risk remains high due to delayed melt of the mountain snow pack throughout the province and continued unsettled weather conditions. The June 15th, 2022 snow pack is well above normal, increasing to 198% of normal (the average of all snow measurements across B.C.) over the past two weeks (where June 1st was 165%). All regions of the province with snow measurements have snow basin indices greater than 140% of normal, indicating continued risk throughout the Interior from snowmelt related flooding, especially in combination with heavy rain.

Caution should be taken in interpreting the snow basin index values at this time of year as they compare to a normal value that is typically dropping quickly. It is not unusual to have very high values for June 1st or June 15th. The most recent examples of very high June values were 2011 & 2012.

This year, five stations measured record high snow values for June 15th, including sites in the South Thompson, Upper Columbia, and West Kootenay.

Approximately three-quarters of the accumulated snow pack has typically melted by June 15th on average (according to data from automated snow weather stations). Snowmelt was delayed by two to four weeks due to extended cooler weather in April and May, where approximately half of the snow pack at automated snow weather stations melted by June 15th.

Snow pack is only one factor related to freshet flood risk. Weather conditions for June through July will determine the timing, magnitude, and rate of snowmelt, where heavy rainfall events can exacerbate snowmelt-driven flows. Due to the significant delay of snowmelt, the freshet flood risk may extend into late July for some regions.

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Snow Survey and Water Supply Bulletin – June 15th, 2022

Weather

The warmest temperatures of the year occurred during the first few days of June, initiating snowmelt at mid and higher elevations throughout the province. The largest temperature anomalies relative to normal occurred in northern regions of British Columbia. Warm weather was immediately following by unsettled conditions in the South Interior and Bulkley/Skeena region, which contributed additional precipitation into observed river systems.

A cold low-pressure system impacted the South Interior from January 13-14 and resulted in additional snow accumulation at snow stations in the Kootenays. Heavy precipitation totals (60-80 mm) were measured at high elevation stations in the Okanagan, South Thompson, Boundary and West Kootenay during the event.

The upcoming weather forecast is predicting continued unsettled conditions throughout the province. In the Interior, June is typically the wettest month of the year. There is no sign of an extended heat event in the near future.

Snowpack

Snow basin indices for June 15th, 2022 range from a low of 170% of normal in the Peace to a high of 1331% in the Stikine (Table 1 and Figures 1 + 2). The province has well above normal snow pack for June 15th, with the average of all snow measurements across the province at 198%, increasing from 165% on June 1st. All regions of the province with snow measurements have well above normal snow basin indices (>140%). It is important to note the total snow depth is not increasing. Instead, this high anomaly happens in June during years of delayed snowmelt when current snow levels are compared to normal values that are small due to more advanced snowmelt. The most recent years with very high snow relative to normal in June are 2011 & 2012. Several regions do not have a snow basin index for June 15th as measurements were either not taken or were snow-free.

The average of all snow measurements for the entire Fraser River basin (e.g., upstream of the Lower Mainland and inclusive of Upper Fraser West, Upper Fraser East, Nechako, Middle Fraser, Lower Fraser, North Thompson and South Thompson) is 198%, increasing from 164% on June 1st.

As the Middle Fraser encompasses a large and geographically diverse area, the River Forecast Centre has divided the region into sub-basins to analyze snow conditions and potential flood risks in localised areas. The Bridge region measures 203% of normal, while the Quesnel area (and surrounding Cariboo Mountains) is 311%. The Lower Thompson and the Chilcotin sub-basins did not have measurements for June 15th, therefore an index is not

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Snow Survey and Water Supply Bulletin – June 15th, 2022

available. Please review the full summary data tables at the end of this report for further interpretation.

Table 1 - BC Snow Basin Indices – June 15, 2022

Basin	% of Normal (June 1 st value)	Basin	% of Normal (June 1 st value)
Upper Fraser West	N/A (N/A)	Okanagan	243 (153)
Upper Fraser East	261 (185)	Boundary	181 (173)
Nechako	324 (160)	Similkameen	210 (165)
Middle Fraser	254 (188)	South Coast	182 (153)
Lower Thompson*	N/A (N/A)	Vancouver Island	186 (169)
Bridge*	203 (205)	Central Coast	294 (249)
Chilcotin*	N/A (N/A)	Skagit	N/A (N/A)
Quesnel*	311 (182)	Peace	170(161)
Lower Fraser	159 (144)	Skeena-Nass	177 (160)
North Thompson	232 (175)	Stikine	1331 (289)
South Thompson	186 (157)	Liard	N/A (N/A)
Upper Columbia	212 (165)	Northwest	N/A (N/A)
West Kootenay	215 (170)	Fraser (Entire basin)	198 (164)
East Kootenay	177 (166)	British Columbia	198 (165)

* sub-basin of Middle Fraser

By June 15th, approximately three-quarters of the accumulated snow pack has melted on average (according to data from automated snow weather stations). Due to extended cooler temperatures in April and May, snowmelt was delayed by two to four weeks throughout the province. Snow pack across all automated snow weather stations has melted by approximately 50% on June 15th compared to peak snow accumulation (which occurred on April 28th).



Snow Survey and Water Supply Bulletin – June 15th, 2022

There are five snow stations with period of record highs for June 15th:

- 1F06P Celista Mountain: 557 mm SWE (312% of normal) – period of record 15 years (SOUTH THOMPSON)
- 2A21P Molson Creek: 1394 mm SWE (267% of normal) – period of record 39 years (UPPER COLUMBIA)
- 2A30P Colpitti Creek: 758 mm SWE – period of record 13 years (UPPER COLUMBIA)
- 2B08P St. Leon Creek: 1354 mm SWE (268% of normal) – period of record 28 years (WEST KOOTENAY)
- 2D14P Redfish Creek: 1793 mm SWE (194% of normal) – period of record 20 years (WEST KOOTENAY)

Streamflow

A moderate warming pattern during the first few days of June initiated significant snow melt at mid and higher elevations. Weather patterns transitioned to ongoing unsettled conditions throughout the province, resulting in several significant precipitation events. Most rivers throughout the province have risen to normal to above normal levels as of June 15th. Rivers are currently extremely vulnerable to heavy rainfall events because flows are relatively high.

Visit the River Forecast Centre [Flood Warnings and Advisories](#) web page to view most up-to-date warnings and advisories.

Current flow conditions on Water Survey of Canada hydrometric gauges can be viewed at the [Map of Current Streamflow Conditions for All Real-time WSC Stations in BC](#).

Outlook

Based on the June 15th Snow Basin Indices, above normal snow pack exists for all regions of the province. This indicates a continued significant risk for high freshet flows, especially if adverse weather occurs. Due to the significant delay of snowmelt, the freshet flood risk may extend into late July for some regions and for the largest river systems such as the Fraser River.

Regions that remain at relatively high risk due to snow pack include (but are not exclusive to) the Upper Fraser, Cariboo Mountains, North Thompson, South Thompson, Lower Fraser, Upper Columbia, the Kootenays, and the northern regions of the province. Other Interior regions like the Okanagan, Similkameen, Nicola and Peace remain at risk to extreme rainfall events.

Typically, rivers on Vancouver Island and along coastal B.C. reach flood level flows from heavy rain events in the fall and winter. These areas are unlikely to experience flooding in June or July from snowmelt unless an extreme rainfall event occurs.

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Snow Survey and Water Supply Bulletin – June 15th, 2022

The upcoming weather forecast is predicting continued unsettled conditions throughout the province. The significant risk over the short-term is for potential heavy rain to fall on a melting snow pack.

Situational awareness is necessary to understand flood risk given current conditions; individuals are encouraged to stay in touch with the most recent hydrological model results through the [CLEVER Model](#) map.

The [WARNS Model](#) provides additional discharge and water level forecasts for the Fraser River and its major tributaries.

When the lower Fraser River reaches higher levels, the Province provides regular water-level forecasts for the lower Fraser River with the [10-Day Lower Fraser River Water Level Forecast](#).

Once a week (and possibly more frequently during times of high flood risk) the River Forecast Centre provides an update on the overall freshet conditions in the [Provincial Freshet Update Dashboard](#). It is typically updated late Thursday afternoon.

Summary

Snow pack throughout the province is well above normal. The provincial average for all snow measurements across the province is 198% of normal, and the Fraser River is 198%. These large snow basin numbers reflect a delay in melt, and not continued accumulation of snow from peak levels. Flood risk remains high due to the delayed melt of the mountain snow pack throughout the province. Snow pack is only one factor related to freshet flood risk. Weather conditions through June and July will determine the timing, magnitude, and rate of snowmelt, and heavy rainfall events can exacerbate the situation. The flood season is not over and may extend into late July for some regions.

This is the final snow bulletin for the 2022 season; the first snow bulletin of the 2023 season will be released in early January 2023. Thank you to our partners for their contributions to these bulletins.

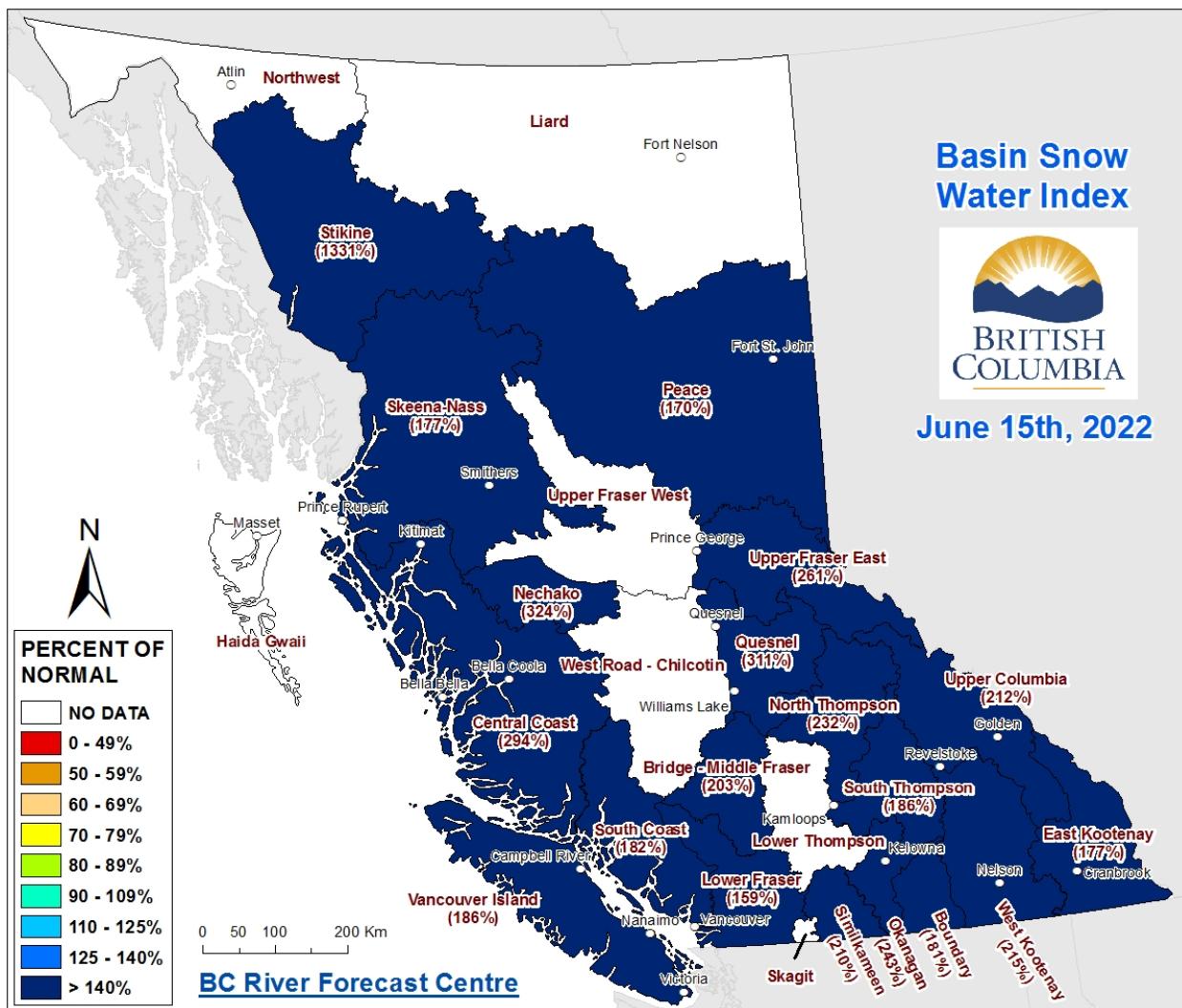
BC River Forecast Centre
June 16, 2022

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Snow Survey and Water Supply Bulletin – June 15th, 2022

Figure 1: Basin Snow Water Index – June 15th, 2022

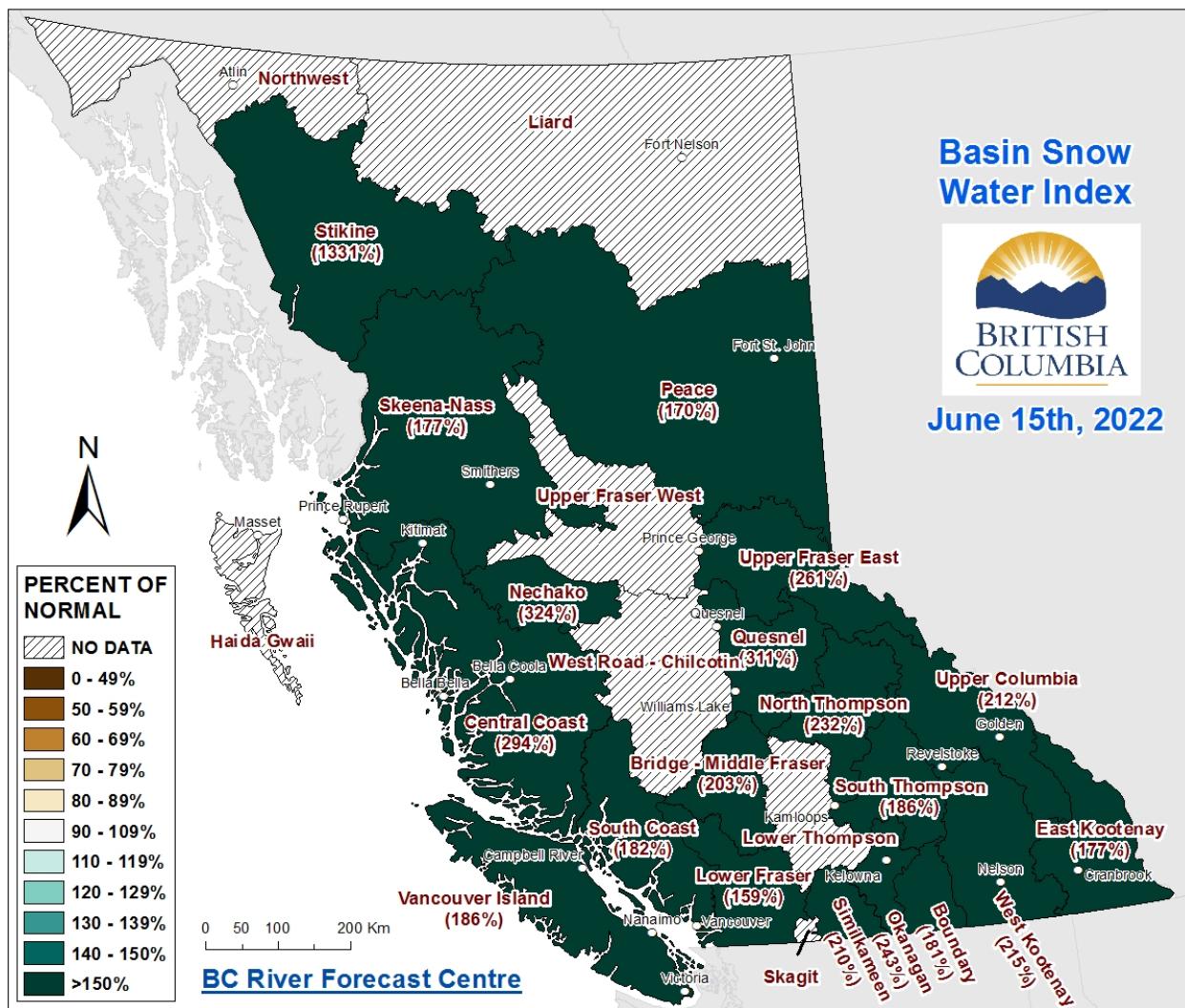


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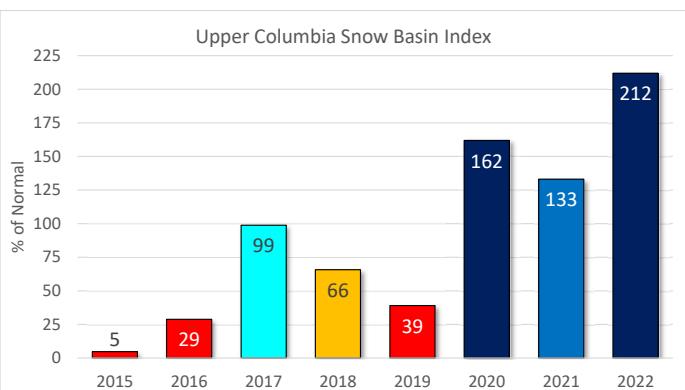
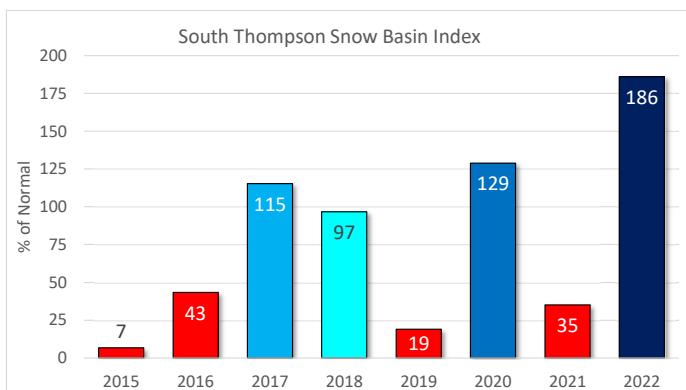
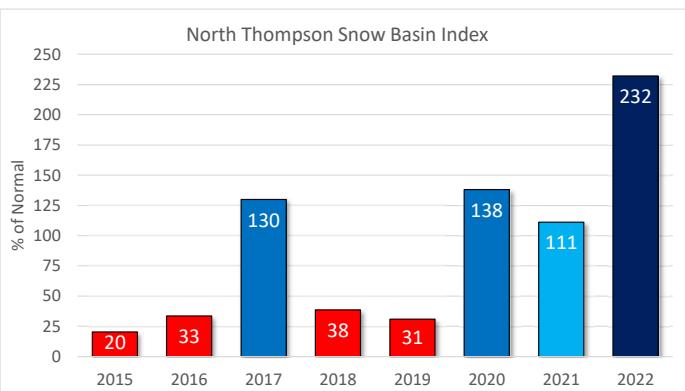
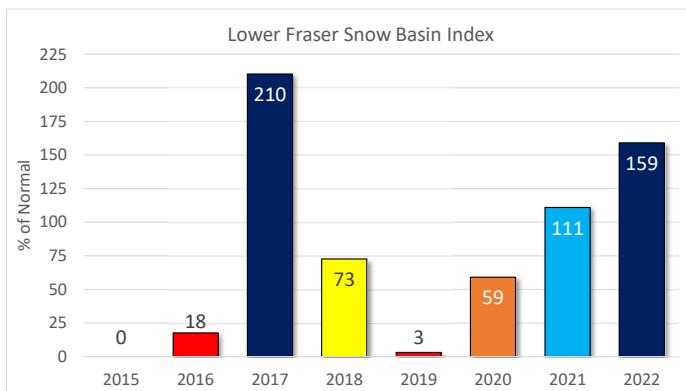
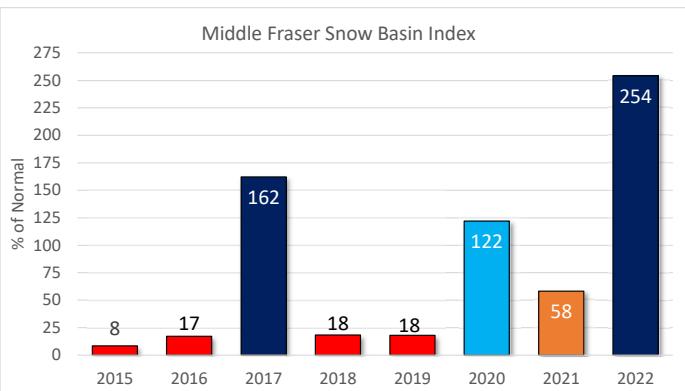
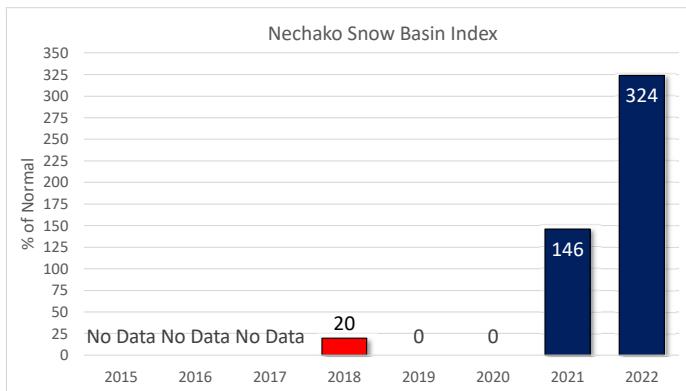
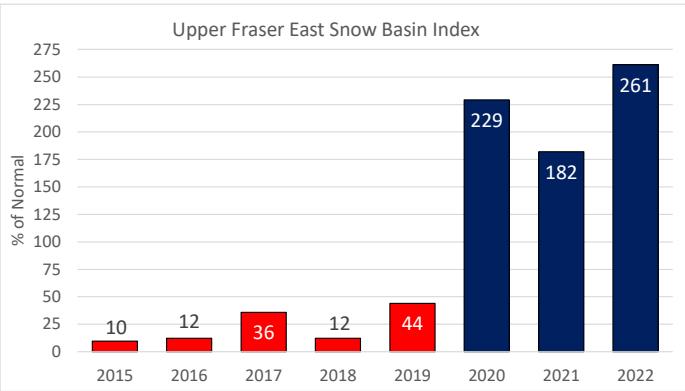
Snow Survey and Water Supply Bulletin – June 15th, 2022

Figure 2: Basin Snow Water Index – June 15th, 2022 – Colour Friendly

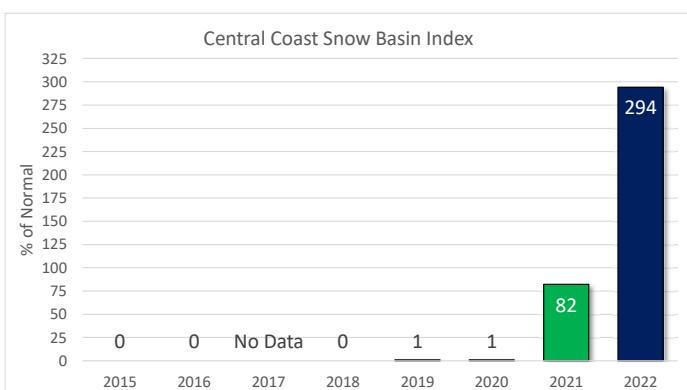
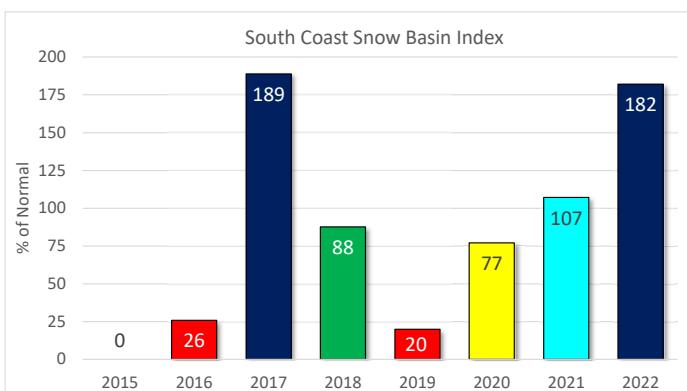
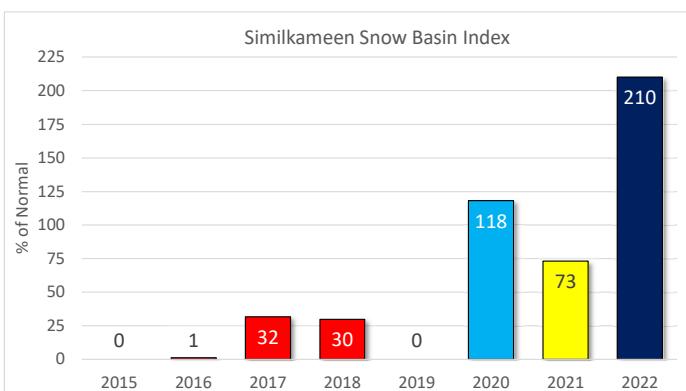
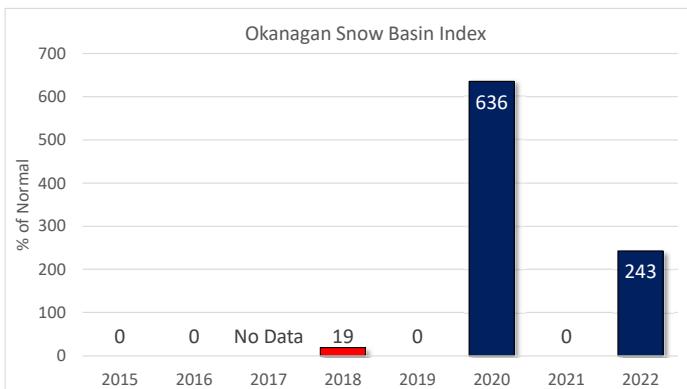
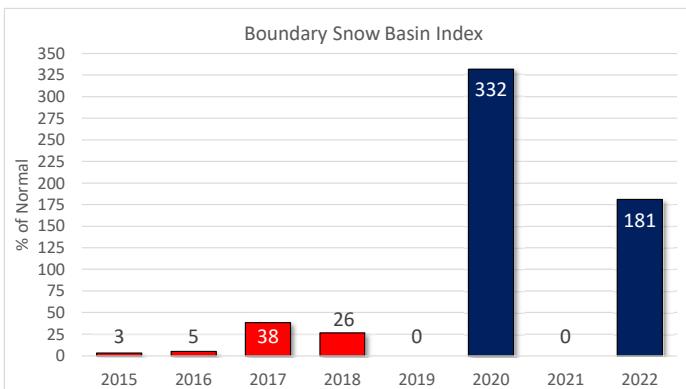
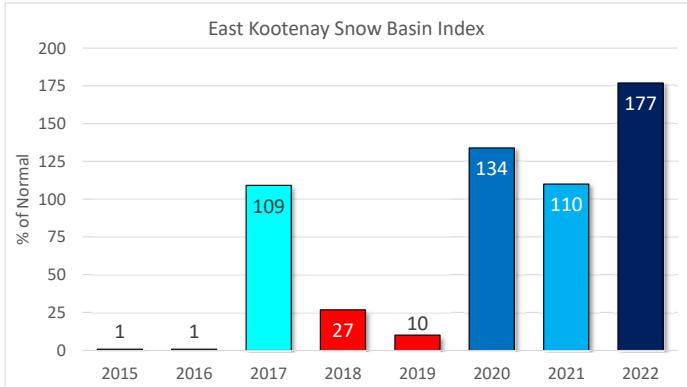
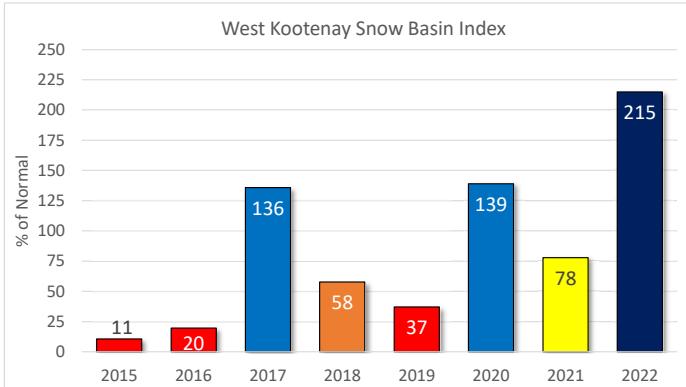


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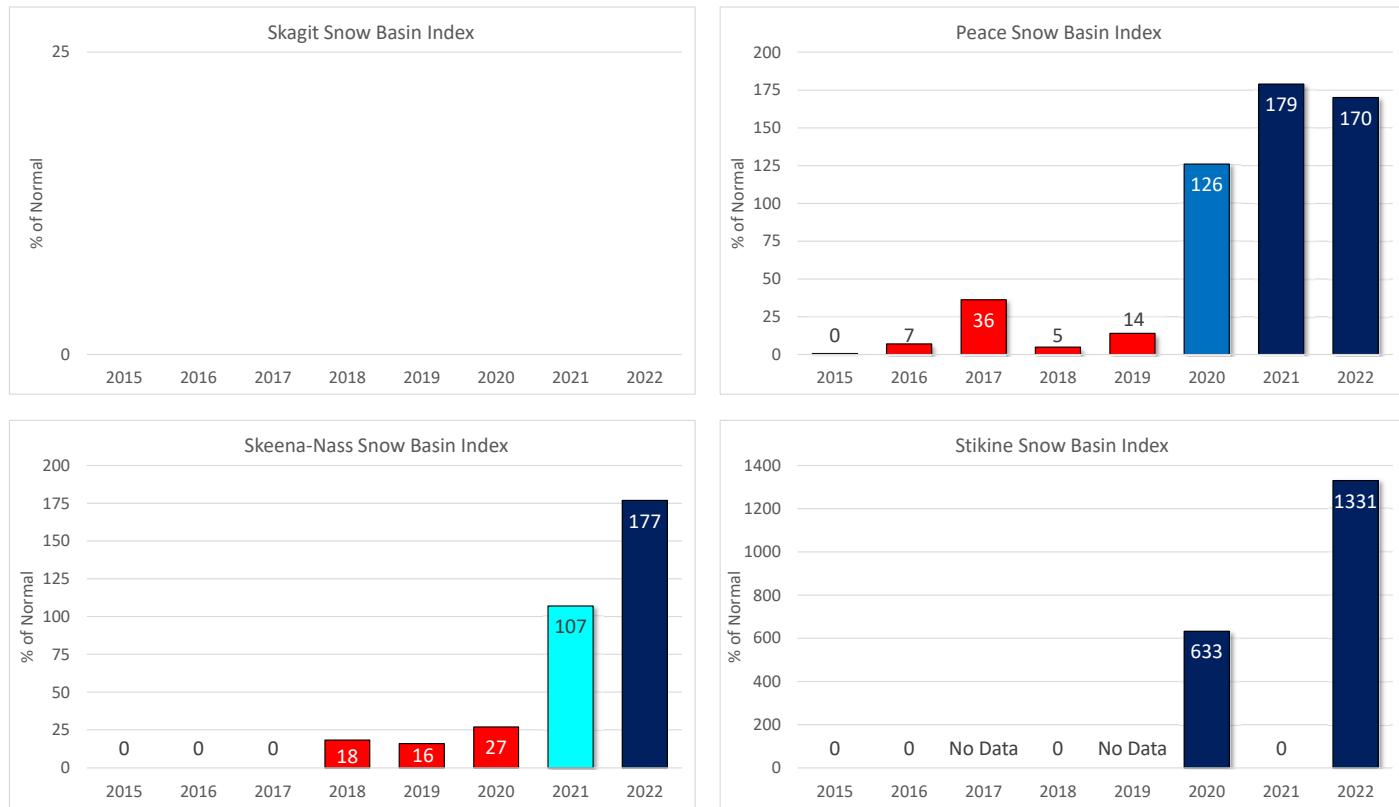
Snow Basin Index Graphs - June 15, 2022



Snow Basin Index Graphs - June 15, 2022



Snow Basin Index Graphs - June 15, 2022



June 15, 2022 Automated Snow Weather Station / Manual Snow Survey Data

UPPER FRASER EAST		June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A01P	Yellowhead Lake	1860	2022-06-15	61	325	53		251%	89	118	51	0	70	574	130	22
1A02P	McBride Upper	1611	2022-06-15		2			16%	N/A	0	0	0	0	159	13	29
1A03P	Barkerville	1520	2022-06-15	0	0			0%	N/A	1	1	0	0	37	0	42
1A05P	Longworth Upper	1740	2022-06-15	144	886	62		N/A	N/A	785	578	0	145	785	N/A	5
1A06A	HANSARD	608		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1A10	PRINCE GEORGE A	689		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1A11	PACIFIC LAKE	755		N	N	N	N	N/A	N/A	NS	NS	0	0	0	N/A	4
1A14P	Hedrick Lake	1100	2022-06-15	78	346	44		306%	89	267	186	0	9	625	113	22
1A15P	Knudsen Lake	1601	2022-06-15	126	880	70		N/A	N/A	384	346	0	99	384	N/A	6
1A17P	Revolution Creek	1690	2022-06-15	150	829	55		307%	97	541	815	0	149	901	270	32
1A19P	Dome Mountain	1774	2022-06-15	141	831	59		226%	98	701	701	0	363	901	368	16
			Average		100	512	57		184%	93						

Basin Index Calculation	Average SWE	467
	Average Normal	179
Upper Fraser East Basin Index - June 15, 2022	261%	

Stations used in Basin Index:
1A01P, 1A02P, 1A14P, 1A17P, 1A19P

UPPER FRASER WEST		June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1A12	KAZA LAKE	1250		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1A12P	Kaza Lake	1257	2022-06-15	0	0			N/A	N/A	0	0	0	0	0	N/A	6
1A16	BURNS LAKE	800		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1A23	BIRD CREEK	1180		N	N	N	N	N/A	N/A	NS	NS				N/A	0
			Average		0	0	N/A		N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Upper Fraser West Basin Index - June 15, 2022	N/A	

Stations used in Basin Index:
N/A

NECHAKO		June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1B01	MOUNT WELLS	1490		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1B01P	Mount Wells	1490	2022-06-15		279			649%	98	98	0	3	308	43	29	
1B02	TAHTSA LAKE	1300		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1B02P	Tahtsa Lake	1300	2022-06-15					N/A	N/A	885	0	479	1881	547	28	
1B05	SKINS LAKE	890		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1B06	MOUNT SWANNELL	1620		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1B07	NUTLI LAKE	1490		N	N	N	N	N/A	N/A	NS	NS				N/A	0
1B08P	Mt. Pondosy	1400	2022-06-15		130			156%	79	0	0	0	0	497	83	25
			Average		N/A	205	N/A		403%	88						

Basin Index Calculation	Average SWE	205
	Average Normal	63
Nechako Basin Index - June 15, 2022	324%	

Stations used in Basin Index:
1B01P, 1B08P

LOWER THOMPSON			June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021	2020	Minimum	Median	Maximum	1991-2020	Years of Record	
			YYYY-MM-DD	Depth (cm)	SWE (mm)	Density %	Code			SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	Normal SWE (mm)		
1C06	PAVILION	1230	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C09A	HIGHLAND VALLEY	1510	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C25	LAC LE JEUNE (UPPER)	1509	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C29	SHOVELNOSE MOUNTAIN	1450	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C29P	Shovelnose Mountain	1460	2022-06-15	0	0			N/A	N/A	0	0	0	0	0	0	N/A	3
1C32	DEADMAN RIVER	1430	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C42	CAVERHILL LAKE NEW	1400	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
			Average		0	0	N/A		N/A								

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Lower Thompson Basin Index - June 15, 2022		N/A

Stations used in Basin Index:

N/A

BRIDGE / LILLOOET			June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021	2020	Minimum	Median	Maximum	1991-2020	Years of Record	
			YYYY-MM-DD	Depth (cm)	SWE (mm)	Density %	Code			SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	Normal SWE (mm)		
1C05P	McGillivray Pass	1718	2022-06-15		45			N/A	N/A	0	0	0	0	0	0	N/A	4
1C12P	Green Mountain	1780	2022-06-15		425			181%	75	2	2	0	93	887	235	28	
1C14P	Bralorne	1382	2022-06-15	0	0			N/A	N/A	0	0	0	0	0	0	N/A	4
1C18P	Mission Ridge	1850	2022-06-15		76			623%	90	0	2	0	0	387	12	45	
1C28	DUFFEY LAKE	1200	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C38	DOWNTON LAKE (UPPER)	1887	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C38P	Downton Lake Upper	1829	2022-06-15		859			N/A	N/A	365	170	28	268	513	N/A	6	
1C39	BRIDGE GLACIER (LOWER)	1390	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C40P	North Tyaughton	1969	2022-06-15		205			N/A	N/A	3	0	0	0	3	N/A	6	
			Average		0	268	N/A		402%								

Basin Index Calculation	Average SWE	251
	Average Normal	123
Bridge/Lillooet Basin Index - June 15, 2022		203%

Stations used in Basin Index:

1C12P, 1C18P

CHILCOTIN			June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021	2020	Minimum	Median	Maximum	1991-2020	Years of Record	
			YYYY-MM-DD	Depth (cm)	SWE (mm)	Density %	Code			SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	Normal SWE (mm)		
1C21	BIG CREEK	1140	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
1C22	PUNTZI MOUNTAIN	940	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0
			Average		N/A	N/A	N/A		N/A								

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Chilcotin Basin Index - June 15, 2022		N/A

Stations used in Basin Index:

N/A

QUESNEL			June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow					SWE % of Normal (1991-2020)	Percentile of Historic Record	2021	2020	Minimum	Median	Maximum	1991-2020	Years of Record	
			YYYY-MM-DD	Depth (cm)	SWE (mm)	Density %	Code			SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	SWE (mm)	Normal SWE (mm)		
1C17	MOUNT TIMOTHY	1660	N	N	N	N	N	N/A	N/A	NS	NS	0	0	140	N/A	5	
1C20P	Boss Mountain Mine	1460	2022-06-15	0	0	N/A		0%	N/A	4	5	0	0	83	7	28	
1C23	PENFOLD CREEK	1685	N	N	N	N	N	N/A	N/A	NS	NS	631	671	952	N/A	5	
1C33A	GRANITE MOUNTAIN	1150	N	N	N	N	N	N/A	N/A	NS	NS					N/A	0

1C41P	Yanks Peak East	1670	2022-06-15	96	696	73	321%	100	267	582	0	162	698	217	25
		Average		48	348	73	161%	100							

Basin Index Calculation	Average SWE	348
	Average Normal	112
	Quesnel Basin Index - June 15, 2022	311%

Stations used in Basin Index:
1C20P, 1C41P

MIDDLE FRASER

Basin Index Calculation	Average SWE	299
	Average Normal	118
	Middle River Basin Index - June 15, 2022	254%

Stations used in Basin Index:
1C12P, 1C18P, 1C20P, 1C41P

LOWER FRASER

Station ID	Name	Elevation (masl)	June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
			YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
1D06P	Tenquille Lake	1680	2022-06-15	179	960	54	N	242%	92	410	183	0	334	1173	396	21	
1D08	STAVE LAKE	1250	N	N	N	N	N	N/A	N/A	NS	NS	2040		2040	N/A	1	
1D08P	Lamont Creek Upper	1217	2022-06-15		876			N/A	N/A	697		697		697	N/A	1	
1D09P	Wahleach Lake Upper	1480	2022-06-15		670			146%	71	557	333	0	367	1281	458	28	
1D10	NAHATLATCH RIVER	1550	N	N	N	N	N	N/A	N/A	NS	NS	697		2256	N/A	2	
1D16	DICKSON LAKE	1160	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0	
1D17P	Chilliwack River	1600	2022-06-15	217	1245	57		151%	82		990	0	790	2022	825	25	
1D18	DISAPPOINTMENT LAKE	1050	2022-06-14	226	1248	55		159%		810		0	648	1880	787	12	
1D18P	Disappointment Lake	1050	2022-06-15	219				N/A	N/A			178	0	548	1922	609	13
1D19P	Spuzzum Creek	1180	2022-06-15	144	1000	69		131%	62	888	270	0	763	2320	762	23	
	Average			197	1000	59		166%	77								

Basin Index Calculation	Average SWE	1025
	Average Normal	645
	Lower Fraser Basin Index - June 15, 2022	159%

Stations used in Basin Index:
1D06P, 1D09P, 1D18, 1D19P

NORTH THOMPSON

Station ID	Name	Elevation (masl)	June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
			YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1E01B	BLUE RIVER	670	N	N	N	N	N	N/A	N/A						N/A	0
1E02P	Mount Cook	1550	2022-06-15					N/A	N/A	935	931	206	758	1771	746	18
1E03A	TROPHY MOUNTAIN	1860	N	N	N	N	N	N/A	N/A	NS	NS	800		800	N/A	1
1E07	ADAMS RIVER	1720	N	N	N	N	N	N/A	N/A	NS	NS	0	233	1046	330	21
1E08P	Azure River	1652	2022-06-15	153	1106	72		228%	97	586	584	24	487	1500	485	24
1E10P	Kostal Lake	1770	2022-06-15	129	942	73		251%	98	267	518	0	355	1248	375	37
1E14P	Cook Creek	1280	2022-06-15	0	0			0%	N/A	2	89	0	0	161	22	13
	Average			94	683	73		160%	97							

Basin Index Calculation	Average SWE	683
	Average Normal	294
	North Thompson Basin Index - June 15, 2022	232%

Stations used in Basin Index:
1E08P, 1E10P, 1E14P

SOUTH THOMPSON

Station ID	Name	Elevation (masl)	June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
			YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
1F01A	ABERDEEN LAKE	1310	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0
1F02	ANGLEMONT	1190	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0
1F03P	Park Mountain	1890	2022-06-15	103	629	61		137%	70	188	627	0	352	1045	458	37
1F04P	Enderby	1950	2022-06-15	174	1007	58		N/A	N/A	55	584	55	584	867	N/A	5

1F06P	Celista Mountain	1500	2022-06-15	103	557	54	312%	100	33	194	0	143	545	179	15	Record High
		Average		127	731	58	225%	85								

Basin Index Calculation	Average SWE	593
	Average Normal	318
South Thompson Basin Index - June 15, 2022	186%	

Stations used in Basin Index:
1F03P, 1F06P

FRASER RIVER

Basin Index Calculation	Average SWE	574
	Average Normal	289
Fraser River Basin Index - June 15, 2022	198%	

Stations used in Basin Index:
1A01P, 1A02P, 1A14P, 1A17P, 1A19P, 1B01P, 1B08P, 1C12P, 1C18P, 1C20P, 1C41P, 1D06P, 1D09P, 1D18, 1D19P
1E08P, 1E10P, 1E14P, 1F03P, 1F06P

UPPER COLUMBIA			June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2A02	GLACIER	1250		N	N	N	N	N/A	N/A	NS	NS	0	47	462	N/A	24
2A03A	FIELD	1285		N	N	N	N	N/A	N/A	NS	NS				N/A	0
2A06P	Mount Revelstoke	1850	2022-06-15		1060			167%	87	698	800	0	614	1737	636	28
2A07	KICKING HORSE	1650		N	N	N	N	N/A	N/A	NS	NS	0	0	30	N/A	4
2A11	BEAVERFOOT	1890		N	N	N	N	N/A	N/A	NS	NS				N/A	0
2A14	MOUNT ABBOT	2010		N	N	N	N	N/A	N/A	NS	NS	0	1016	1979	N/A	14
2A16	GOLDSTREAM	1920		N	N	N	N	N/A	N/A	NS	NS				N/A	0
2A17	FIDELITY MOUNTAIN	1870		N	N	N	N	N/A	N/A	NS	NS	0	875	1603	N/A	25
2A18P	Keystone Creek	1840	2022-06-15		463			N/A	N/A	424	547	3	286	594	N/A	7
2A19	VERMONT CREEK	1520		N	N	N	N	N/A	N/A	NS	NS				N/A	0
2A21P	Molson Creek	1935	2022-06-15		1394			267%	100	836	763	0	563	1136	521	39
2A23	BUSH RIVER	1920		N	N	N	N	N/A	N/A	NS	NS				N/A	0
2A25	KIRBYVILLE LAKE	1750		N	N	N	N	N/A	N/A	NS	NS				N/A	0
2A27	DOWNIE SLIDE (LOWER)	980		N	N	N	N	N/A	N/A	NS	NS	0		0	N/A	1
2A29	DOWNIE SLIDE (UPPER)	1630		N	N	N	N	N/A	N/A	NS	NS	523		540	N/A	2
2A30P	Colpitti Creek	2131	2022-06-15		758			N/A	100	476	588	0	0	588	N/A	13
2A31P	Caribou Creek Upper	2201	2022-06-15		861			N/A	N/A	577	601	0	355	601	N/A	7
2A32P	Wildcat Creek	2122	2022-06-15		621			N/A	N/A	366	531	0	177	531	N/A	7
2A34P	Glacier NP Rogers Pass Lower	1182	2022-06-15		43			N/A	N/A							0
	Average		#DIV/0!	743	#DIV/0!			217%	96							

Basin Index Calculation	Average SWE	1227
	Average Normal	579
Upper Columbia Basin Index - June 15, 2022	212%	

Stations used in Basin Index:
2A06P, 2A21P

WEST KOOTENAY			June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data						
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2B02A	FARRON	1220		N	N	N	N	N/A	N/A	NS	NS				N/A	0
2B05	WHATSHAN (UPPER)	1525		N	N	N	N	N/A	N/A	NS	NS	18		18	N/A	1
2B06P	Barnes Creek	1620	2022-06-15	0	0	N/A		0%	N/A	3	1	0	0	210	15	29
2B07	KOCH CREEK	1860		N	N	N	N	N/A	N/A	NS	NS	630		630	N/A	1
2B08P	St. Leon Creek	1800	2022-06-15		1354			268%	100	611	988	0	478	1336	505	28
2B09	RECORD MOUNTAIN	1890	2022-06-16	45	222	49		204%	86	0	0	0	0	949	109	33
2D02	FERGUSON	880		N	N	N	N	N/A	N/A	NS	NS	0	0	61	N/A	3
	Average		#DIV/0!	743	#DIV/0!			217%	96							

Record High

2D03	SANDON	1070	N	N	N	N	N	N/A	N/A	NS	NS		N/A	0
2D04	NELSON	930	N	N	N	N	N	N/A	N/A	NS	NS		N/A	0
2D05	GRAY CREEK (LOWER)	1550	N	N	N	N	N	N/A	N/A	NS	NS	0	0	282
2D06	CHAR CREEK	1310	N	N	N	N	N	N/A	N/A	NS	NS	0	20	106
2D07A	DUNCAN LAKE NO. 2	630	N	N	N	N	N	N/A	N/A	NS	NS		N/A	0
2D07AP	Duncan Lake Dam 2	559	2022-06-15	0	0			N/A	N/A	6	0	0	6	N/A
2D08P	East Creek	2030	2022-06-15		930			208%	93	397	472	0	399	1135
2D09	MOUNT TEMPLEMAN	1860	N	N	N	N	N	N/A	N/A	NS	NS		N/A	0
2D10	GRAY CREEK (UPPER)	1940	N	N	N	N	N	N/A	N/A	NS	NS	0	144	825
2D10P	GRAY CREEK (UPPER)	1930	2022-06-15					N/A	N/A	0	0	0	0	N/A
2D14P	Redfish Creek	2104	2022-06-15		1793			194%	100	536	1232	292	874	1702
2D17	Lost Ledge	2050	N	N	N	N	N	N/A	N/A					0
2D18	Kootenay Joe	2060	N	N	N	N	N	N/A	N/A					0
	Average		15	717	49			175%	95					

Basin Index Calculation	Average SWE	860
	Average Normal	400
West Kootenay Basin Index - June 15, 2022		
		215%

Stations used in Basin Index:
2B06P, 2B08P, 2D08P, 2D14P

Record High

EAST KOOTENAY		June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2C01	SINCLAIR PASS	1370	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0
2C04	SULLIVAN MINE	1550	N	N	N	N	N	N/A	N/A	NS	NS	0		0	N/A	1
2C09Q	Morrissey Ridge	1860	2022-06-15		0			0%	N/A	0	0	0	0	454	40	37
2C10P	Moyie Mountain	1930	2022-06-15	3	18	60		450%	96	5	0	0	0	59	4	42
2C11	KIMBERLY UPPER	2140	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0
2C12	KIMBERLY MIDDLE	1680	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0
2C14P	Floe Lake	2090	2022-06-15		666			195%	88	375	494	0	375	821	341	27
2C15	MOUNT ASSINIBOINE	2230	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0
2C17	THUNDER CREEK	2010	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0
	Average		3	228	60			215%	92							

Basin Index Calculation	Average SWE	228
	Average Normal	129
East Kootenay Basin Index - June 15, 2022		
		177%

Stations used in Basin Index:
2C09Q, 2C10P, 2C14P

BOUNDARY		June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
2E01	MONASHEE PASS	1370	N	N	N	N	N	N/A	N/A	NS	NS				N/A	2
2E02	CARMI	1250	N	N	N	N	N	N/A	N/A	NS	NS				N/A	0
2E03	BIG WHITE MOUNTAIN	1680	N	N	N	N	N	N/A	N/A	NS	NS	0	0	356	35	21
2E07P	Grano Creek	1860	2022-06-15	40	173	43		181%	80	6	279	0	13	502	96	24
	Average		40	173	43			181%	80							

Basin Index Calculation	Average SWE	173
	Average Normal	96
Boundary Basin Index - June 15, 2022		
		181%

Stations used in Basin Index:
2E07P

OKANAGAN		June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	Snow Depth (cm)			SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD														
2F01A	TROUT CREEK (West)	1430	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2F01AP	Trout Creek West	1420	2022-06-15	0	0	N/A			N/A	N/A	1	9	0	1	9	N/A	
2F02	SUMMERLAND RESERVOIR	1280	N	N	N	N	N	N	N/A	N/A	NS	NS	0		0	N/A	
2F03	MCCULLOCH	1280	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2F04	GRAYSTOKE LAKE	1840	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2F05P	Mission Creek	1780	2022-06-15	69	210	30			246%	83	0	355	0	0	383	85	5
2F07	POSTILL LAKE	1370	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2F08	GREYBACK RESERVOIR	1550	N	N	N	N	N	N	N/A	N/A	NS	NS	0		0	N/A	
2F08P	Greyback Reservoir	1550	2022-06-15	0	4				N/A	N/A	1	0	0	0	0	N/A	
2F09	WHITEROCKS MOUNTAIN	1830	N	N	N	N	N	N	N/A	N/A	NS	NS	0	0	533	21	2
2F10	Silver Star Mountain	1840	N	N	N	N	N	N	N/A	N/A	NS	NS	0	109	747	210	3
2F10P	Silver Star Mountain	1839	2022-06-15	77	593	77			N/A	N/A	2	496	0	397	496	N/A	
2F11	ISINTOK LAKE	1680	N	N	N	N	N	N	N/A	N/A	NS	NS	0	0	0	N/A	
2F12	MOUNT KOBAU	1810	2022-06-12	0	0	N/A			N/A	N/A	NS	NS	0	10	301	N/A	
2F13	ESPERON CR (UPPER)	1650	N	N	N	N	N	N	N/A	N/A	NS	NS	104		104	N/A	
2F14	ESPERON CR (MIDDLE)	1430	N	N	N	N	N	N	N/A	N/A	NS	NS	0		0	N/A	
2F18P	Brenda Mine	1460	2022-06-15	0	0	N/A			0%	N/A	2	1	0	0	8	1	2
2F19	OYAMA LAKE	1340	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2F19P	OYAMA LAKE	1360	2022-06-15	0	0	N/A			N/A	N/A	0		0		0	N/A	
2F20	VASEUX CREEK	1400	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2F23	MACDONALD LAKE	1740	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2F24	ISLAHT LAKE	1480	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2F25	POSTILL LAKE UPPER	1540	N	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
			Average	21	115	54			123%	83							

Basin Index Calculation	Average SWE Average Normal	100 4%
Okanagan Basin Index - June 15, 2022		

Stations used in Basin Index:
2F05P, 2F18P

SIMILKAMEEN		June 15, 2022 Data				June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	Snow			SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record		
			Depth (cm)	SWE (mm)	Density %			(1991-2020)	N/A	N/A	NS	NS	0	72	1031	220
2G03P	Blackwall Peak	1940	2022-06-15	99	463	47		210%	83	161	257	0	72	1031	220	5
2G04	LOST HORSE MOUNTAIN	1920	N	N	N	N	N	N/A	N/A	NS	NS	0	0	178	N/A	1
2G05	MISSEZULA MOUNTAIN	1550	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
2G06	HAMILTON HILL	1490	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
			Average	99	463	47		210%	83							

Basin Index Calculation	Average SWE Average Normal	46% 22%
	Similkameen Basin Index - June 15, 2022	210%

Stations used in Basin Index:
2G03P

SOUTH COAST		June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	Snow Depth (cm)		SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
			YYYY-MM-DD													
3A01	GROUSE MOUNTAIN	1100	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
3A02	POWELL RIVER (UPPER)	1040	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
3A05	POWELL RIVER (LOWER)	910	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
3A09	PALISADE LAKE	880	N	N	N	N	N	N/A	N/A	NS	NS				N/A	
3A09P	Palisade Lake	900	2022-06-15	2	23	115		N/A	N/A	0	0	0	0	0	N/A	

3A10	DOG MOUNTAIN	1080	2022-06-14	126	708	56	161%	77	528	218	0	298	2088	439	34
3A19	ORCHID LAKE	1190	2022-06-14	286	1570	55	195%	89	952	N	0	880	1910	807	37
3A20	CALLAGHAN CREEK	1040	N	N	N	N	N/A	N/A	NS	NS	0	0	0	N/A	8
3A20P	Callaghan	1017	2022-06-15		27		N/A	N/A	9	23	9	12	88	N/A	3
3A22P	Nostetuko River	1500	2022-06-15		33		140%	87	3	2	0	0	273	24	31
3A24P	Mosley Creek Upper	1650	2022-06-15	0	0		N/A	N/A	0	0	0	0	2	0	33
3A25P	Squamish River Upper	1340	2022-06-15	214			N/A	N/A	698	707	0	703	2505	764	28
3A26	CHAPMAN CREEK	1022	N	N	N	N	N/A	N/A	NS	NS				N/A	0
3A27	EDWARDS LAKE	1070	N	N	N	N	N/A	N/A	NS	NS				N/A	0
3A28P	Tetrahedron	1420	2022-06-15	328	1442	44	N/A	N/A	812	868	357	840	1043	N/A	4
Average		159	543	68			165%	84							

Basin Index Calculation	Average SWE	770
	Average Normal	423
South Coast Basin Index - June 15, 2022		182%

Stations used in Basin Index:

3A10, 3A19, 3A22P

VANCOUVER ISLAND		June 15, 2022 Data				June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3B01	FORBIDDEN PLATEAU	1100		N	N	N	N	N/A	N/A	NS	NS	249	942	2149	N/A	10
3B02A	MOUNT COKEYL	1190		N	N	N	N	N/A	N/A	NS	NS				N/A	0
3B04	ELK RIVER	270		N	N	N	N	N/A	N/A	NS	NS				N/A	0
3B10	UPPER THELWOOD LAKE	990		N	N	N	N	N/A	N/A	NS	NS	551	1252	2413	N/A	4
3B17P	Wolf River Upper	1490	2022-06-15		946			166%	80	295	107	0	298	2400	571	33
3B18	WOLF RIVER (MIDDLE)	990		N	N	N	N	N/A	N/A	NS	NS				N/A	0
3B19	WOLF RIVER (LOWER)	640		N	N	N	N	N/A	N/A	NS	NS				N/A	0
3B23P	Jump Creek	1160	2022-06-15	142	674	47		224%	86	60	0	0	8	2700	300	26
3B24P	Heather Mountain Upper	1190	2022-06-15	180	1179	66		N/A	N/A	699	196	0	403	1296	N/A	6
3B26P	Mount Arrowsmith	1465	2022-06-15	202	858	42		N/A	N/A	365	4	0	153	365	N/A	4
Average		175	914	52				195%	83							

Basin Index Calculation	Average SWE	810
	Average Normal	436
Vancouver Island Basin Index - June 15, 2022		186%

Stations used in Basin Index:

3B17P, 3B23P

CENTRAL COAST		June 15, 2022 Data				June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3C07	WEDEENE RIVER SOUTH	220		N	N	N	N	N/A	N/A	NS	NS				N/A	0
3C08P	Burnt Bridge Creek	1330	2022-06-15	49	271	55		294%	90	76	1	0	0	720	92	23
Average		49	271	55				294%	90							

Basin Index Calculation	Average SWE	271
	Average Normal	92
Central Coast Basin Index - June 15, 2022		294%

Stations used in Basin Index:

3C08P

SKAGIT		June 15, 2022 Data				June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
3D01C	SUMALLO RIVER WEST	790		N	N	N	N	N/A	N/A	NS	NS				N/A	0
3D02	LIGHTNING LAKE	1220		N	N	N	N	N/A	N/A	NS	NS				N/A	0
3D03A	KLESILKWA	1175		N	N	N	N	N/A	N/A	NS	NS				N/A	0
Average		N/A	N/A	N/A				N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	

Stations used in Basin Index:

Average Normal

N/A

N/A

Skagit Basin Index - June 15, 2022

N/A

PEACE			June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
4A02P	Pine Pass	1400	2022-06-15	156	661	42		177%	82	669	434	0	322	1114	374	29	
4A03P	Ware Upper	1565	2022-06-15	0	0			N/A	N/A	0	0	0	0	0	N/A	5	
4A04P	Ware Lower	971	2022-06-15	0	0			N/A	N/A	1	0	0	0	1	N/A	5	
4A05	GERMANSEN (UPPER)	1480		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A06	TUTIZZI LAKE	1045		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A07	LADY LAURIER LAKE	1440		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A09P	Pulpit Lake	1311	2022-06-15	0	0			N/A	N/A	0	0	0	0	2	0	31	
4A10	FREDRICKSON LAKE	1325		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A11	TRYGVE LAKE	1410		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A12	TSAYDAYCHI LAKE	1190		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A12P	Tsaydaychi Lake	1195	2022-06-15	0	0			N/A	N/A	0	0	0	0	0	N/A	1	
4A13	PHILIP LAKE	1035		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A13P	Philip Lake	1028	2022-06-15					N/A	N/A	3	0	0	2	3	N/A	2	
4A16	MORFEE MOUNTAIN	1430		N	N	N	N	N/A	N/A	NS	NS	592		592	N/A	1	
4A18	MOUNT SHEBA	1490		N	N	N	N	N/A	N/A	NS	NS	922		922	N/A	1	
4A18P	MOUNT SHEBA	1484	2022-06-15	124	822	66		N/A	N/A	767	814	380	767	814	N/A	3	
4A20P	Monkman Creek	1570	2022-06-15		211			N/A	N/A	5	69	0	5	69	N/A	3	
4A21	MOUNT STEARNS	1505		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A25	FORT ST. JOHN A	690		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4A27P	Kwadacha North	1554	2022-06-15		0			0%	N/A	0	0	0	0	225	13	30	
4A30P	Aiken Lake	1050	2022-06-15	0	0			0%	N/A	0	0	0	0	14	2	34	
4A31P	Crying Girl Prairie	1358	2022-06-15		0			N/A	N/A	0	0	0	0	1	N/A	7	
4A33P	Muskwa-Kechika	1196	2022-06-15		0			N/A	N/A	0	0	0	0	0	N/A	6	
4A34P	Dowling Creek	1456	2022-06-15		224			N/A	N/A	47					N/A	0	
4A36P	Parsnip Upper	790	2022-06-15	0	0			N/A	N/A	5	0	0	0	5	N/A	3	
4A37P	McQue Terrace	1200	2022-06-15	0	0			N/A	N/A	0	0	0	0	0	N/A	2	
			Average	31	137	54		59%	82								

Basin Index Calculation	Average SWE 220
	Average Normal 130
Peace Basin Index - June 15, 2022	170%

Stations used in Basin Index:

4A02P, 4A27P, 4A30P

SKEENA-NASS			June 15, 2022 Data					June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data							
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record	
4B01	KIDPRICE LAKE	1370		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4B02	JOHANSON LAKE	1420		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4B03A	HUDSON BAY MTN.	1480	2022-06-14	25	125	50		139%		52	0	0	28	673	90	38	
4B04	CHAPMAN LAKE	1460	2022-06-14	23	90	39		N/A	N/A	NS	NS	0		0	N/A	1	
4B06	TACHEK CREEK	1140		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4B07	MCKENDRICK CREEK	1050	2022-06-14	0	0			N/A	N/A	NS	NS				N/A	0	
4B08	MOUNT CRONIN	1480	2022-06-14	70	315	45		N/A	N/A	NS	NS	376	681	742	N/A	5	
4B10	NINGUNSAW PASS	690		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4B11A	BEAR PASS	460		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4B13A	TERRACE AIRPORT	180		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4B14	EQUITY MINE	1420		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4B15	LU LAKE	1300		N	N	N	N	N/A	N/A	NS	NS				N/A	0	
4B15P	Lu Lake	1300	2022-06-15	0	0			0%	N/A	4	4	0	0	14	3	24	

4B16P	Shedin Creek	1480	2022-06-15	106	460	43	181%	76	244	11	0	114	905	254	24
4B17P	Tsai Creek	1360	2022-06-15	143	1012	71	186%	87	653	271	0	385	1778	545	24
4B18P	Cedar-Kiteen	885	2022-06-15		4		28%	60	0	5	0	0	125	14	21
	Average			52	251	50	107%	74							

Basin Index Calculation	Average SWE	320
	Average Normal	181
Skeena-Nass Basin Index - June 15, 2022		
		177%

Stations used in Basin Index:
4B03A, 4B15P, 4B16P, 4B17P, 4B18P

LIARD		June 15, 2022 Data				June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4C01	SIKANNI LAKE	1385		N	N	N	N	N/A	N/A	NS	NS				N/A	0
4C01P	Sikanni Lake	1387	2022-06-15	0	0			N/A	N/A	4		0	0	4	N/A	4
4C02	SUMMIT LAKE	1280		N	N	N	N	N/A	N/A	NS	NS				N/A	0
4C03	DEASE LAKE	820		N	N	N	N	N/A	N/A	NS	NS				N/A	0
4C05	FORT NELSON AIRPORT	380		N	N	N	N	N/A	N/A	NS	NS				N/A	0
	Average			N/A	N/A	N/A		N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Liard Basin Index - June 15, 2022		
		N/A

Stations used in Basin Index:
N/A

STIKINE		June 15, 2022 Data				June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4D02	ISKUT	1000		N	N	N	N	N/A	N/A	NS	NS				N/A	0
4D10P	Tumeka Creek	1220	2022-06-15		120			1595%	99	140	36	0	0	140	8	22
4D11P	Kinaskan Lake	1020	2022-06-15	0	0			0%	N/A	0	0	0	0	15	1	26
	Average			0	60	N/A		798%	99							

Basin Index Calculation	Average SWE	60
	Average Normal	5
Stikine Basin Index - June 15, 2022		
		1331%

Stations used in Basin Index:
4D10P, 4D11P

NORTHWEST		June 15, 2022 Data				June 15, 2022 Statistics		Historic Snow Water Equivalent (SWE) Data								
Station ID	Name	Elevation (masl)	YYYY-MM-DD	Snow Depth (cm)	SWE (mm)	Density %	Code	SWE % of Normal (1991-2020)	Percentile of Historic Record	2021 SWE (mm)	2020 SWE (mm)	Minimum SWE (mm)	Median SWE (mm)	Maximum SWE (mm)	1991-2020 Normal SWE (mm)	Years of Record
4E01	LOG CABIN	900		N	N	N	N	N/A	N/A	NS	NS				N/A	0
4E02B	ATLIN LAKE	730		N	N	N	N	N/A	N/A	NS	NS				N/A	0
	Average			N/A	N/A	N/A	N/A	N/A	N/A							

Basin Index Calculation	Average SWE	N/A
	Average Normal	N/A
Northwest Basin Index - June 15, 2022		
		N/A

Stations used in Basin Index:

BRITISH COLUMBIA

Basin Index Calculation	Average SWE	529
	Average Normal	266
British Columbia Basin Index - June 15, 2022		
		198%

Stations used in Basin Index:
All stations with measurements in B.C.

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
N/A	Not available
NS	Not scheduled
SD	Snow Depth
SWE	Snow Water Equivalent
T	Trace Amount