

**YUKON SNOW SURVEY
BULLETIN & WATER
SUPPLY FORECAST**
May 1, 2007

Prepared and issued by:
Water Resources Section
Environmental Programs Branch
Environment Yukon



PREFACE

The Yukon Snow Survey Bulletin and Water Supply Forecast is prepared and issued three times annually - after March 1, April 1 and May 1 - by Environment Yukon's Water Resources Section . The bulletin provides a summary of winter meteorological and streamflow conditions for Yukon, as well as current snow depth and snow water equivalent observations for 56 locations. This information is used to make projections of total volume runoff for the summer period, and an estimate of peak flow for the main river basins and sub-basins including the: upper and lower Yukon, Pelly, Stewart, Liard, Alsek, Porcupine and Peel Rivers. Information about the bulletin, snowpack conditions or streamflow projections can be obtained by contacting:

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NETWORK CHANGES for 2007

There have been no network changes in 2007.

This bulletin can now be accessed on the web at <http://www.environmentyukon.gov.yk.ca/epa/waterresources.html>

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Other agencies that contribute significantly to the Snow Survey Program by providing data, assistance and information for the bulletin are:

Atmospheric Environment Service, Whitehorse
Supervisor, Technical Programs

Officer in Charge, Water Survey of Canada, Whitehorse.

Agencies cooperating with Environment Yukon in the Snow Survey Program are:

Client Service and Inspections Branch, Yukon Department of Energy Mines and Resources

Information Management and Technology, Yukon Department of Environment

B.C. Ministry of Environment, Water Stewardship Division

USDA Natural Resources Conservation Service

Yukon Department of Highways and Public Works

Parks Canada

The Yukon Energy Corporation

YUKON TERRITORY SNOWPACK CONDITIONS AND RUNOFF PROJECTION

WEATHER

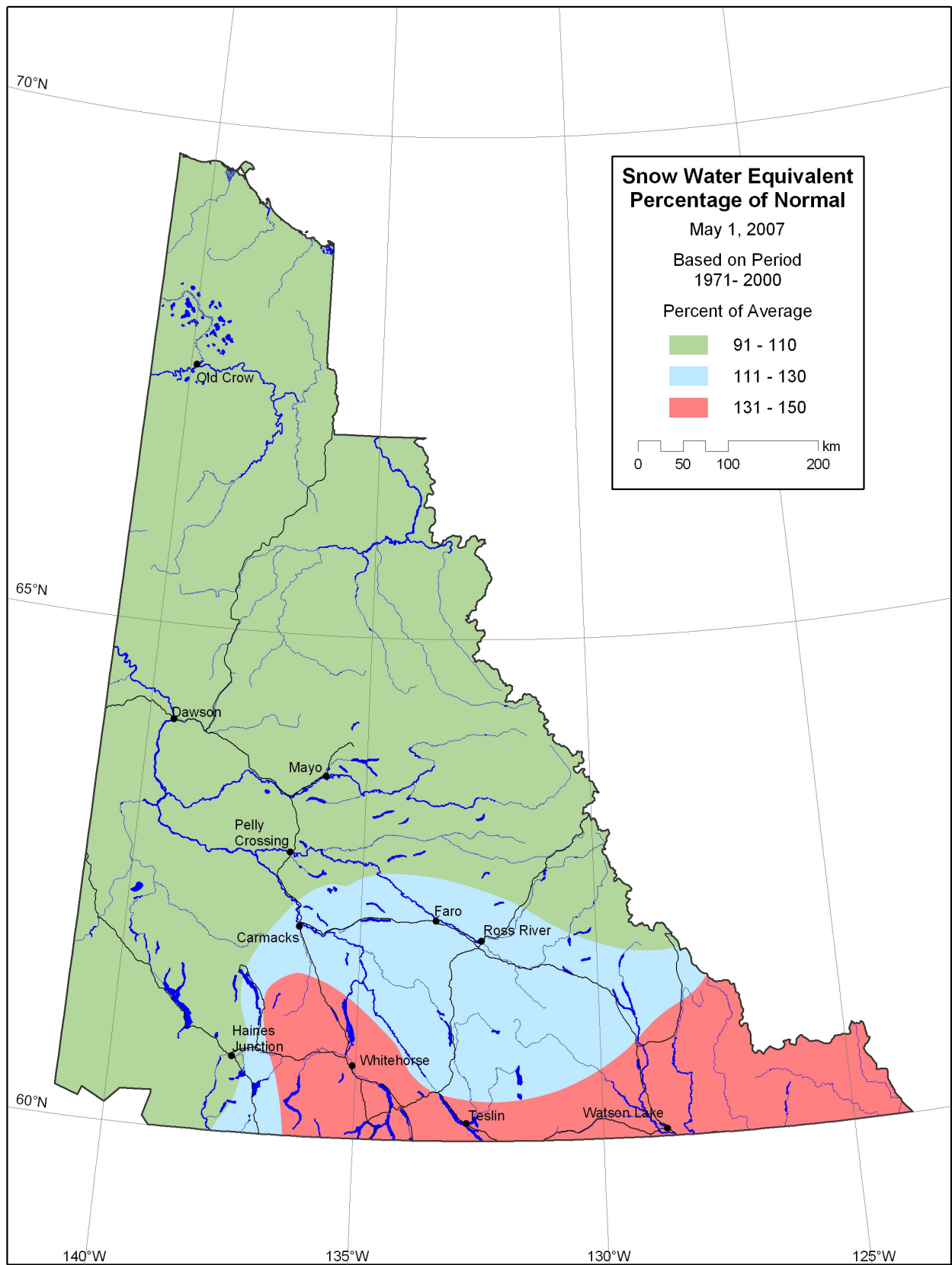
The month of April was generally dry and near normal for temperature. Only the western edge of Yukon received above normal precipitation. Whitehorse and Watson Lake which had both been so wet this winter were in the 50 percent of normal range for the month of April. Mayo and Dawson both received above normal precipitation for the month. Temperatures were close to normal except for the extreme southwest around Haines Junction which was colder than normal and the extreme northeast around Eagle Plains which was warmer than normal.

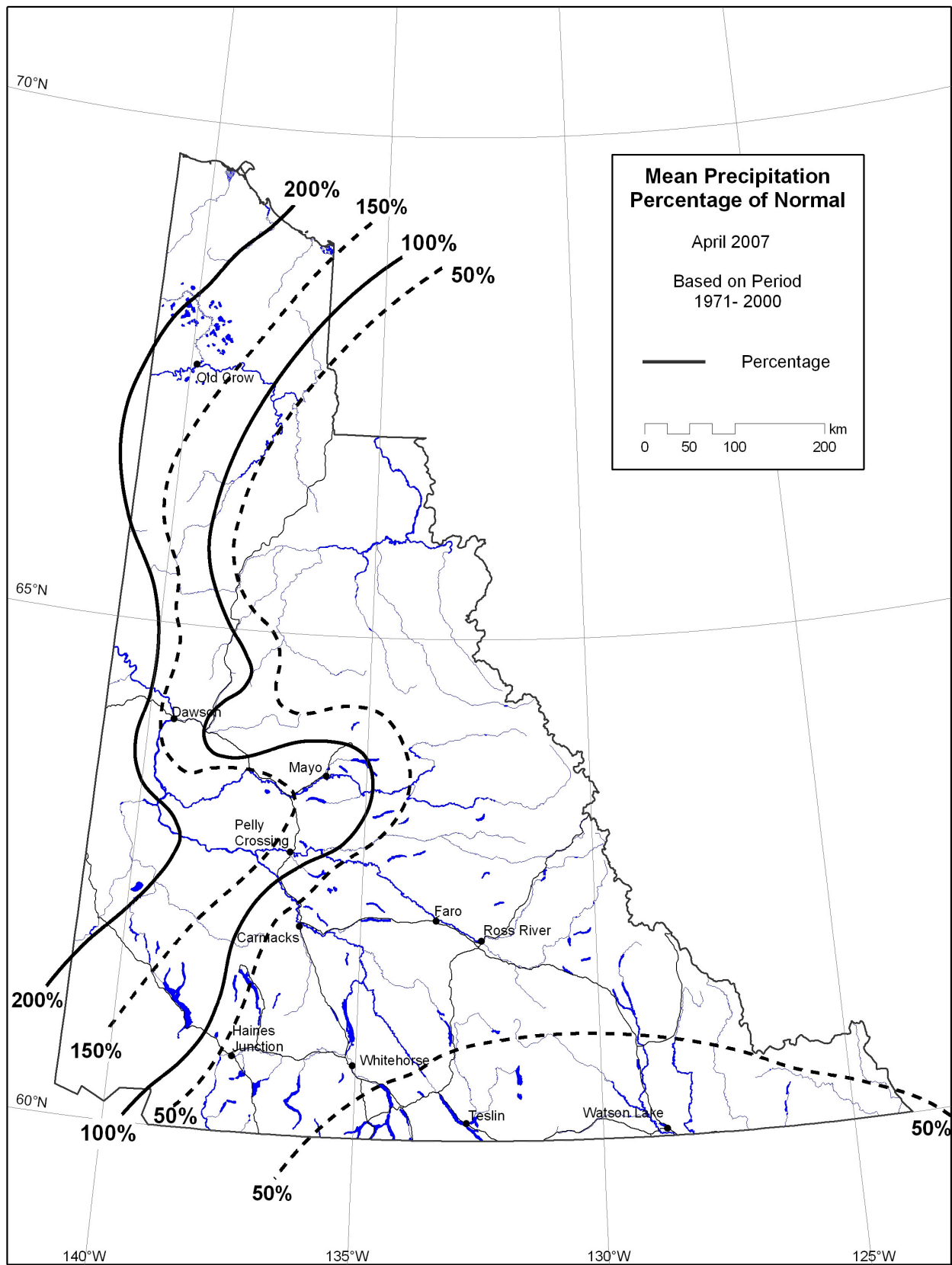
SNOWPACK

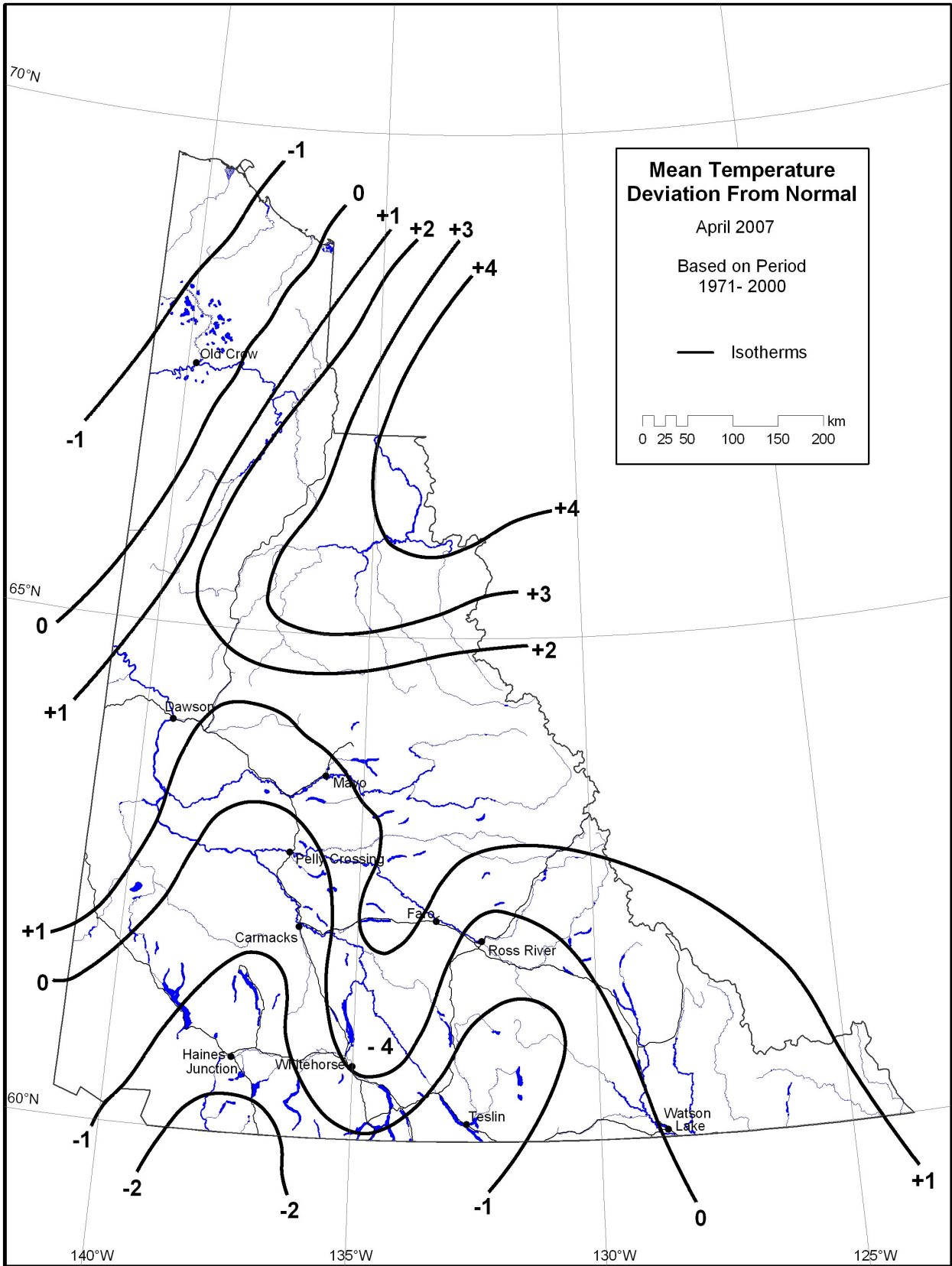
Snowpack is still well above normal in the south from Whitehorse to Watson Lake and near normal everywhere else. Many of the valley bottom stations were bare of snow by May 1st.

STREAMFLOW

Streamflow conditions within Yukon are normal for April. Streamflow during this period represents winter baseflow, which provides an indication of winter groundwater contributions. Breakup on the Yukon River at Dawson occurred on the afternoon of May 4th.





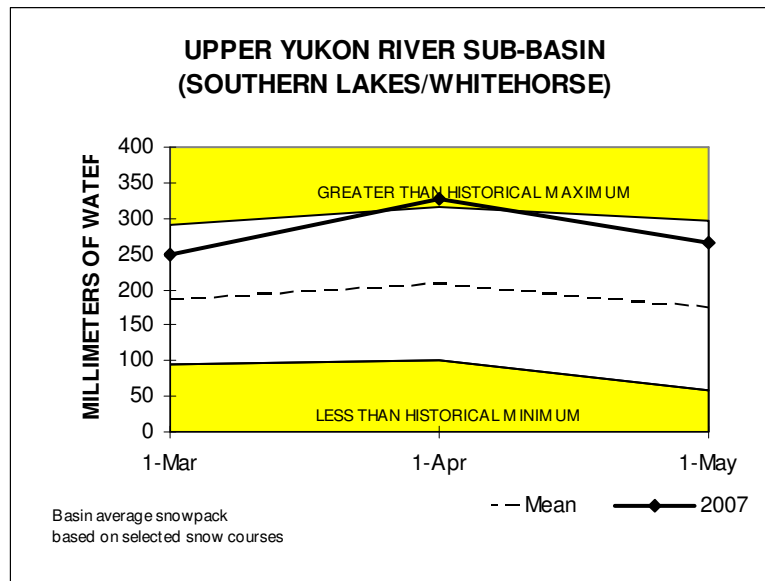


YUKON RIVER BASIN

Snowpack conditions in the Yukon River Basin for May 1st are still well above normal in the south, and close to normal in the rest of the basin.

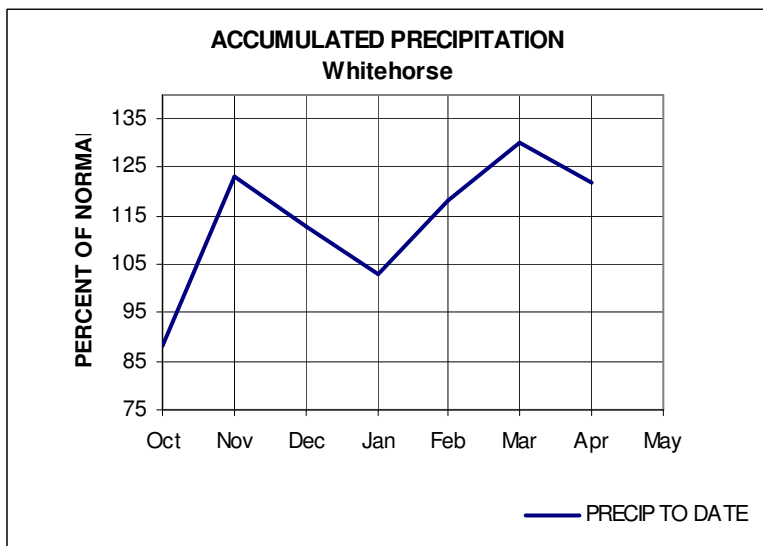
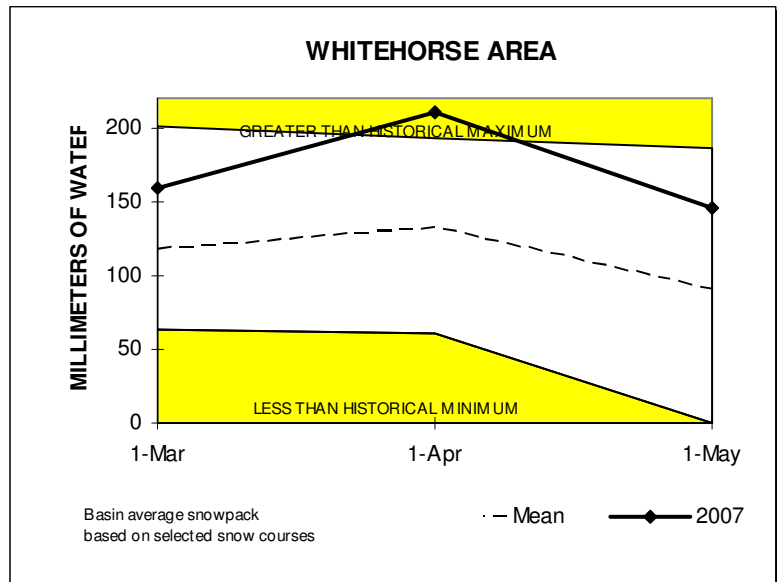
UPPER YUKON RIVER SUB-BASIN (SOUTHERN LAKES/WHITEHORSE)

Snowpack conditions in the Upper Yukon River watershed are well above normal. Values range from 363 percent of normal at Atlin a new record for May 1st to 127 percent of normal at Meadow Creek A basin wide average has been estimated to be 154 percent of normal.

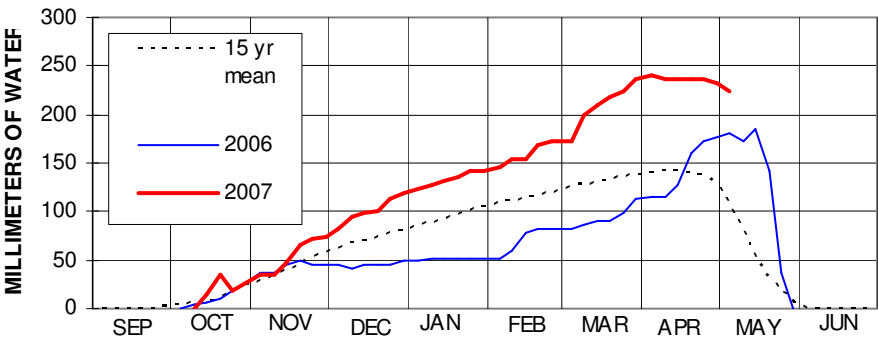


WHITEHORSE AREA

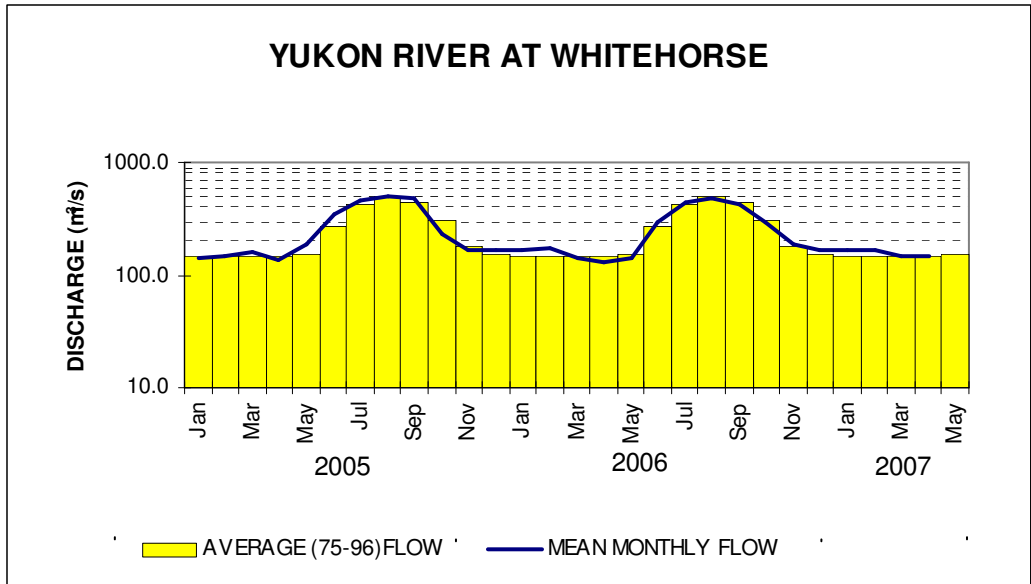
Snowpack conditions in the Whitehorse area are well above normal for May 1st but down from the record values of April 1st. Values range from 241 percent of normal at Whitehorse Airport to 143 percent of normal at Tagish. A basin wide average is estimated to be 146 percent of average.



**SNOW PILLOW STATION DATA
TAGISH, No: 09AA-SC1**

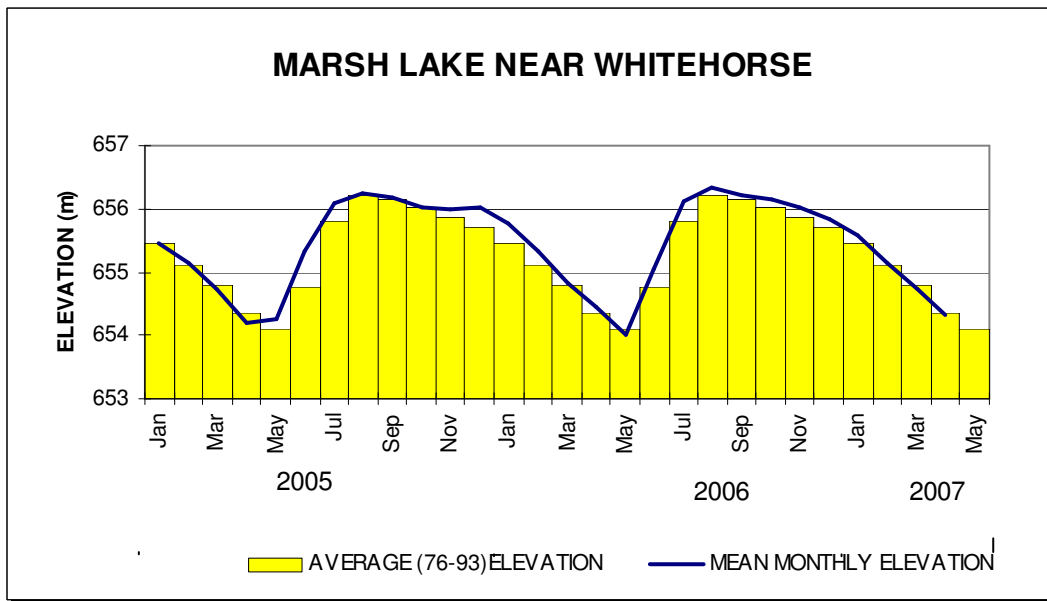


LAT 60° 17' LONG 134° 11'
ELEVATION 1080 metres
DRAINAGE YUKON BASIN



MARSH LAKE

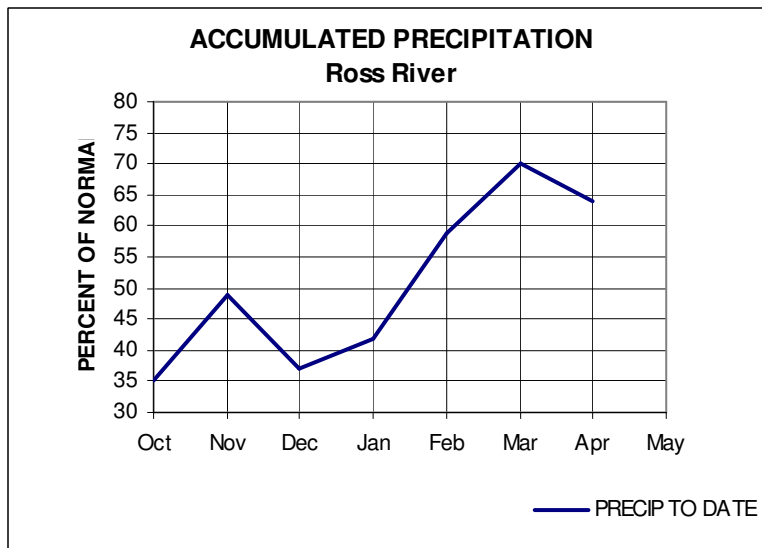
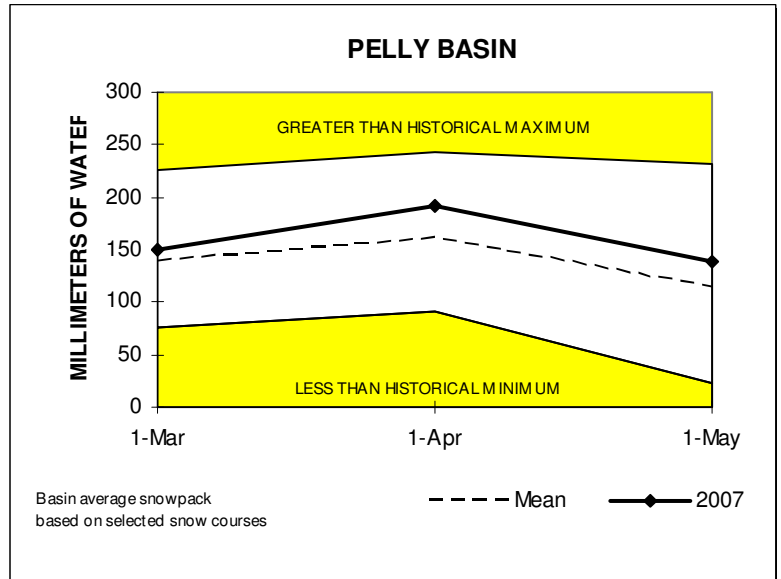
The elevation of Marsh Lake during April was 654.327 or 0.033M below normal. Yukon River at Whitehorse mean discharge during April was 102 percent of normal. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 120 percent and 120 percent of normal respectively.



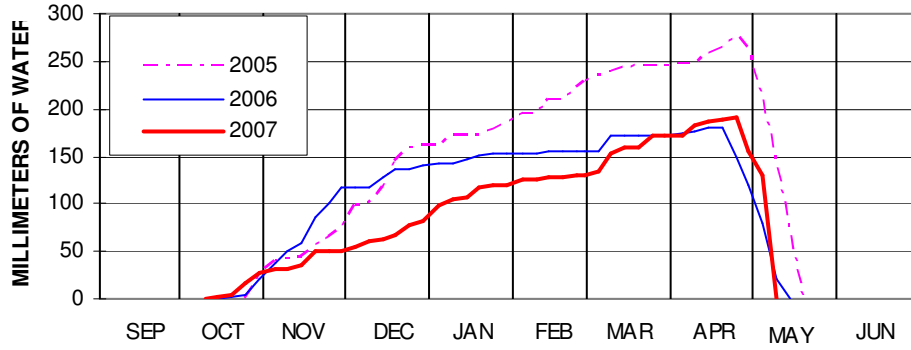
PELLY RIVER SUB-BASIN

Snowpack conditions in the Pelly River watershed are above normal. Values of snow water equivalent range from 165 percent of normal at Hoole River to 98 percent of normal at Twin Creeks. A basin wide average has been estimated to be 121 percent of normal.

Mean April streamflow for the watershed was 101 percent of normal as indicated by the Pelly River below Vangorda Creek. Given normal summer meteorological conditions, volume runoff and peak flows are expected to be 98 percent and 95 percent of normal respectively.

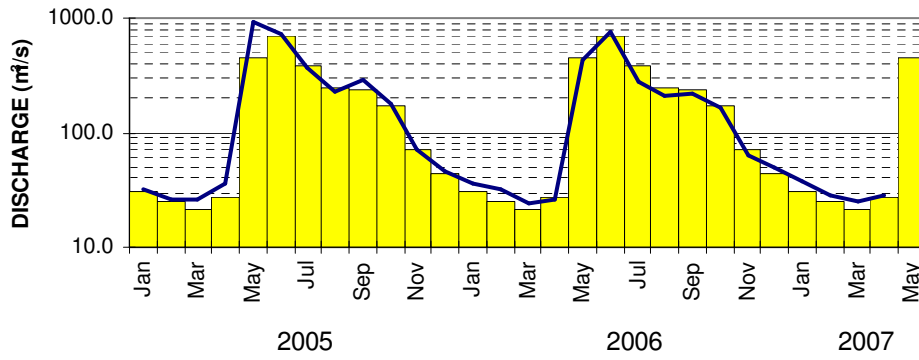


**SNOW PILLOW STATION DATA
MT SHELDON, No: 09BA-SC6**



LAT 62° 16' LONG 139° 12'
ELEVATION 900 metres
DRAINAGE PELLY BASIN

PELLY RIVER BELOW VANGORDA CREEK

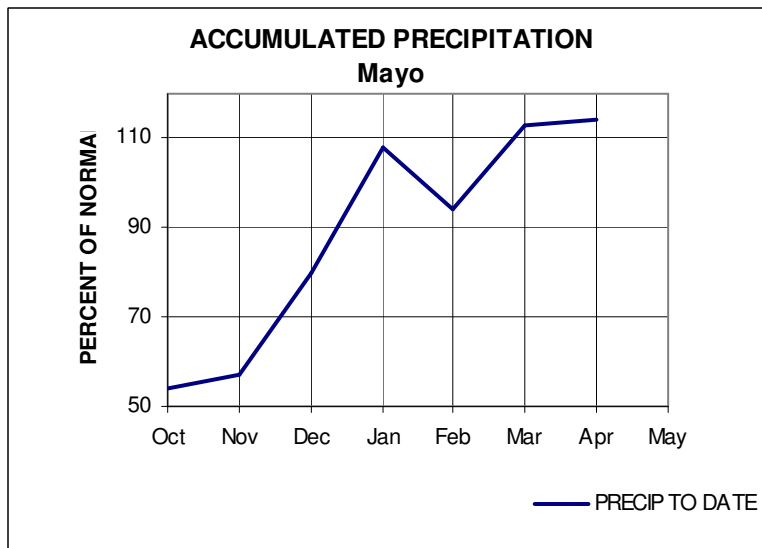
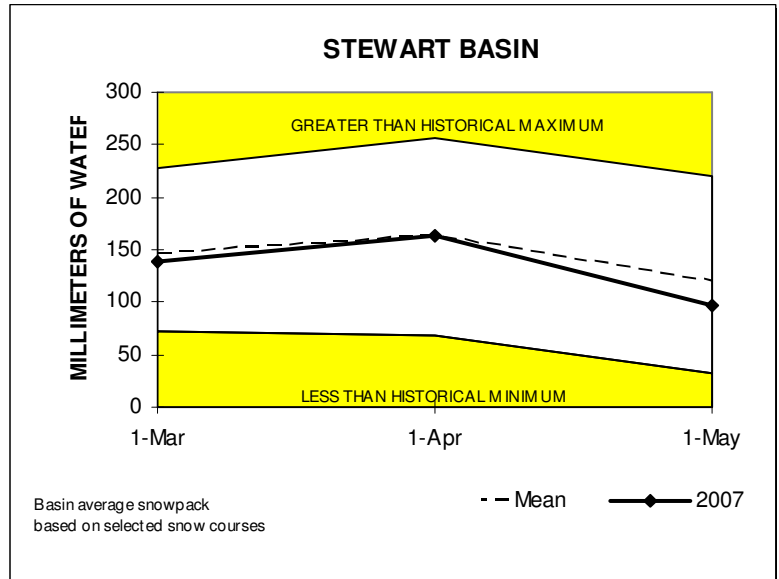


AVERAGE (72-96) FLOW MEAN MONTHLY FLOW

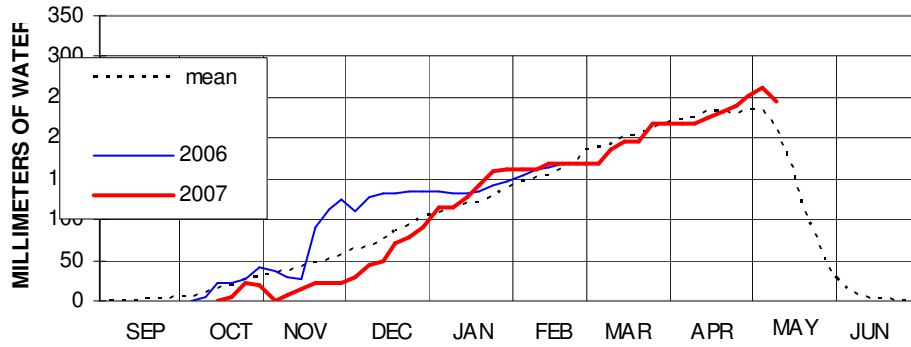
STEWART RIVER SUB-BASIN

Snowpack conditions in the Stewart River watershed are slightly below normal for May 1st. Values of snow water equivalent range from 104 percent of normal at Plata Airstrip to no snow at Mayo. A basin wide average has been estimated to be 80 percent of normal.

The Stewart River near the Mouth indicates April streamflow at 138 percent of average. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 95 percent and 98 percent of normal respectively.

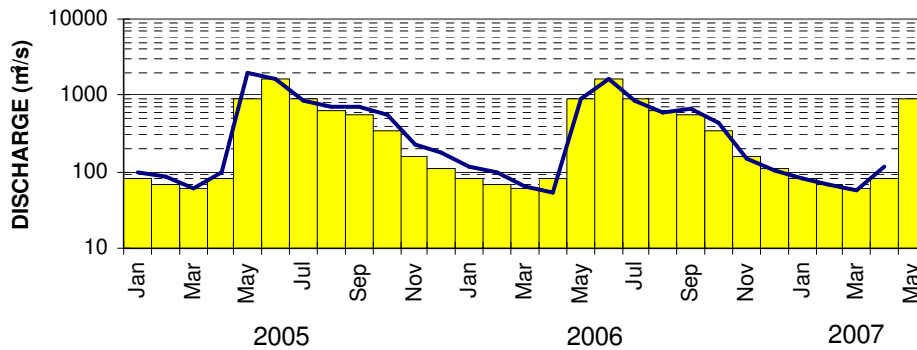


**SNOW PILLOW STATION DATA
WITHERS LAKE, No: 09DB-SC1**



LAT 63° 59' LONG 132° 18'
ELEVATION 975 metres
DRAINAGE STEWART BASIN

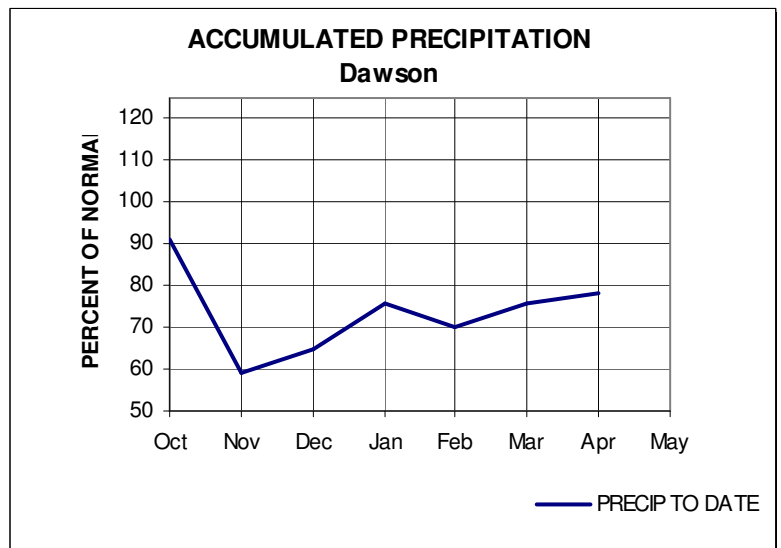
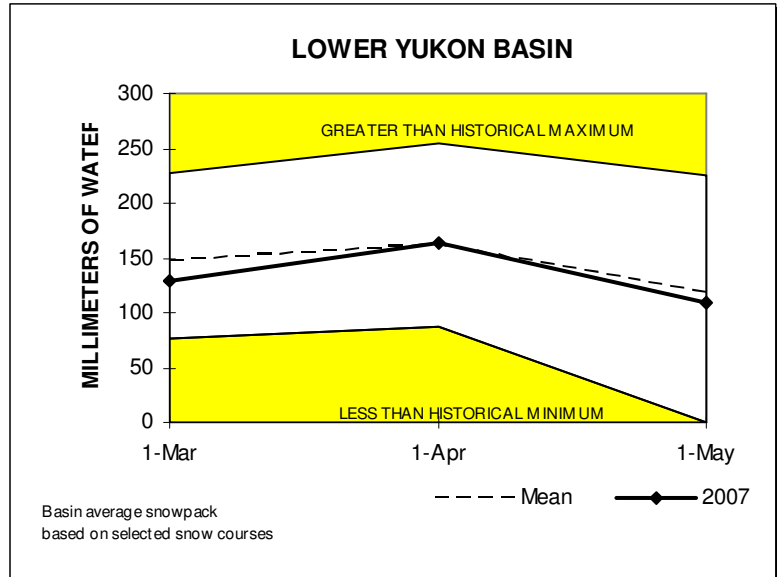
STEWART RIVER AT THE MOUTH



■ AVERAGE (64-98) FLOW — MEAN MONTHLY FLOW

LOWER YUKON RIVER BASIN (DAWSON AREA)

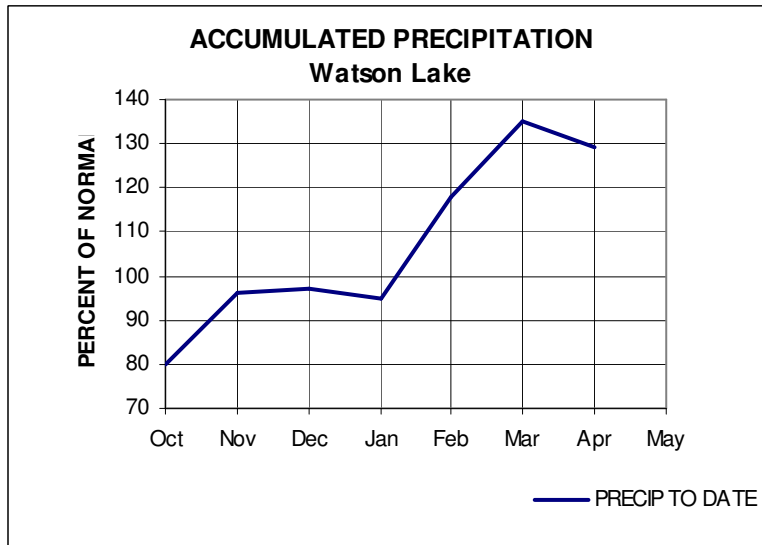
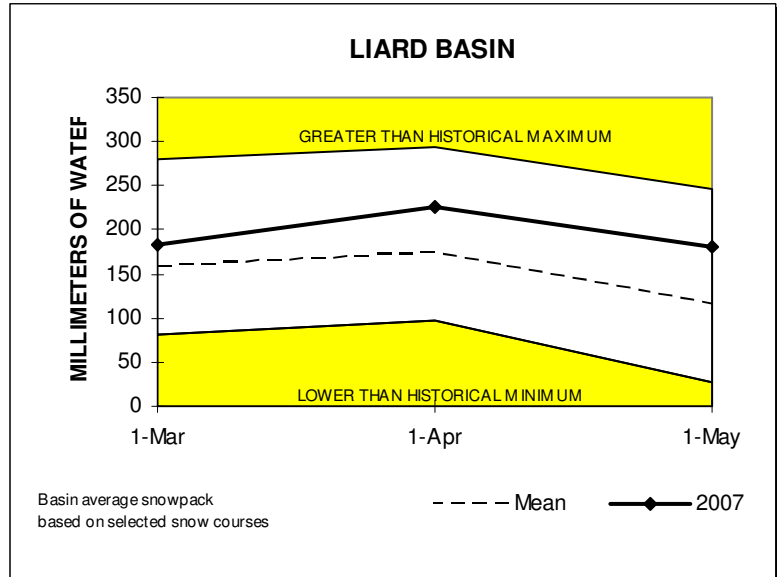
Snowpack conditions in the Dawson area are near normal for May 1st. Values of snow water equivalent range from 183 percent of normal at King Solomon Dome to no snow at Grizzly Creek. An area wide average has been estimated to be 92 percent of normal.



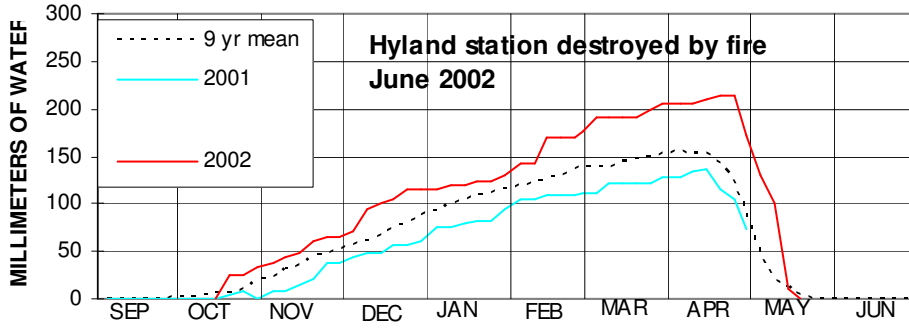
LIARD RIVER BASIN

Snowpack conditions within the Liard River watershed are well above normal. Values of snow water equivalent range from 390 percent of normal at Watson Lake Airport to 113 percent of normal at Tintina Airstrip. A basin wide average has been estimated to be 157 percent of normal.

Mean April streamflow for the Liard River upstream of Upper Liard was 108 percent of normal. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 128 percent and 130 percent of normal.

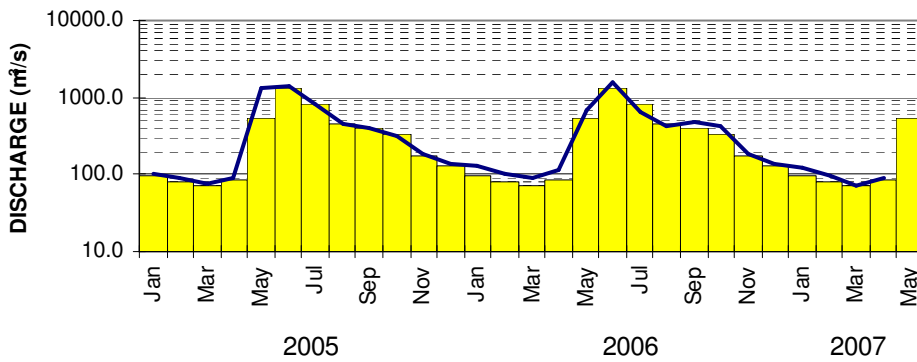


**SNOW PILLOW STATION DATA
HYLAND RIVER, No: 10AD-SC1**



LAT 61° 31' LONG 128° 16'
ELEVATION 855 metres
DRAINAGE LIARD BASIN

LIARD RIVER AT UPPER CROSSING

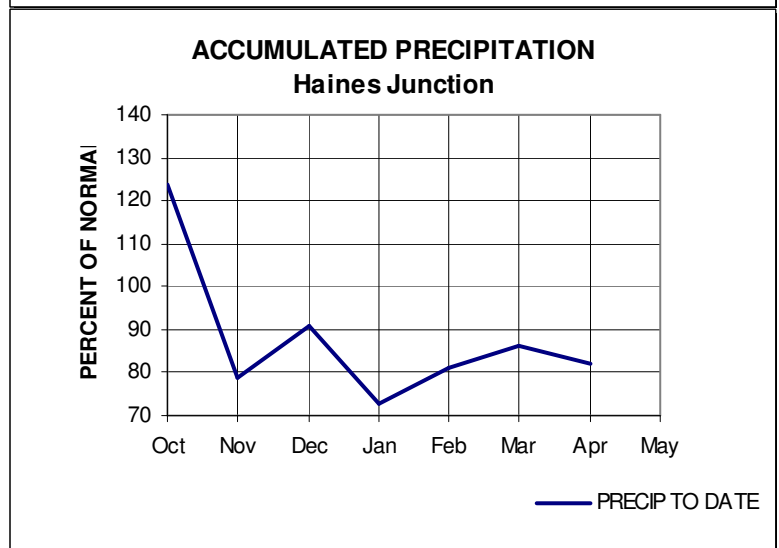
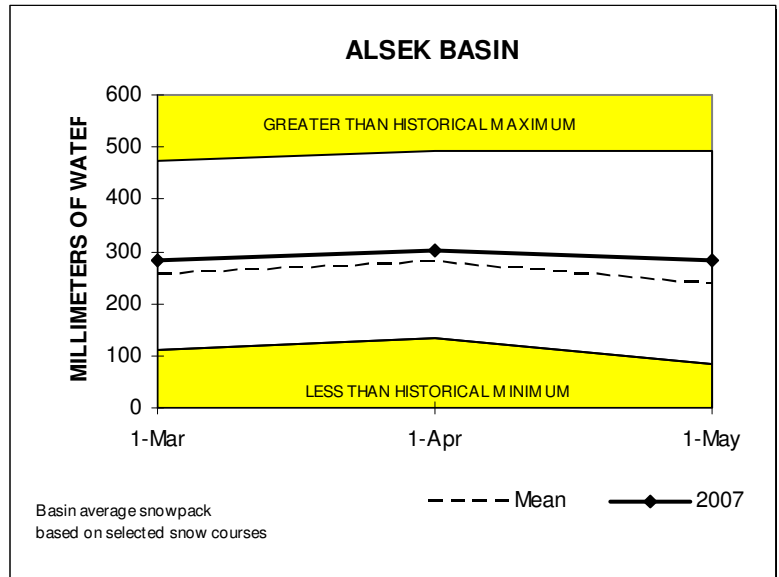


■ AVERAGE (60-96) FLOW — MEAN MONTHLY FLOW

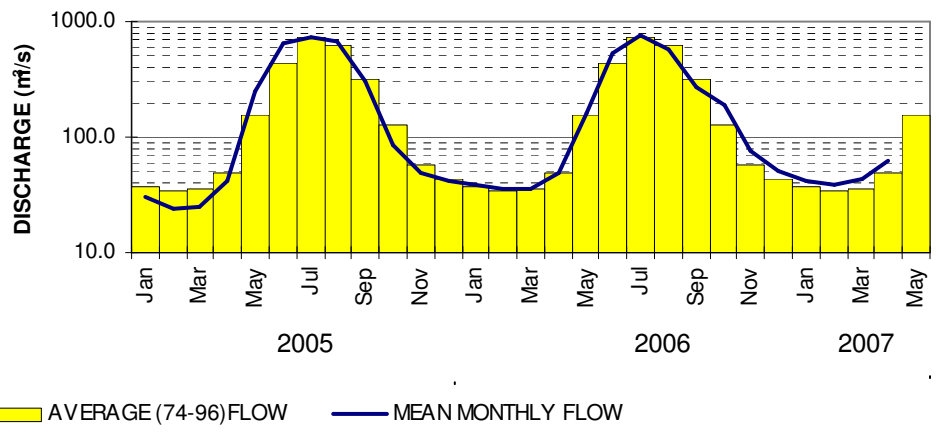
ALSEK RIVER BASIN

Snowpack conditions within the Alsek River watershed are above normal for May 1st. Values of snow water equivalent range from 748 percent of normal at Canyon Lake to 97 percent of normal at Clay Creek. A basin wide average has been estimated to be 119 percent of normal.

Mean monthly streamflow for April as indicated by the Alsek River above Bates River was 125 percent of normal. The Alsek River is primarily a glacial regime type, which is largely dependent on summer temperatures. Given normal summer meteorological conditions however, volume runoff and peak flows for the season are expected to be 105 and 100 percent of normal respectively.



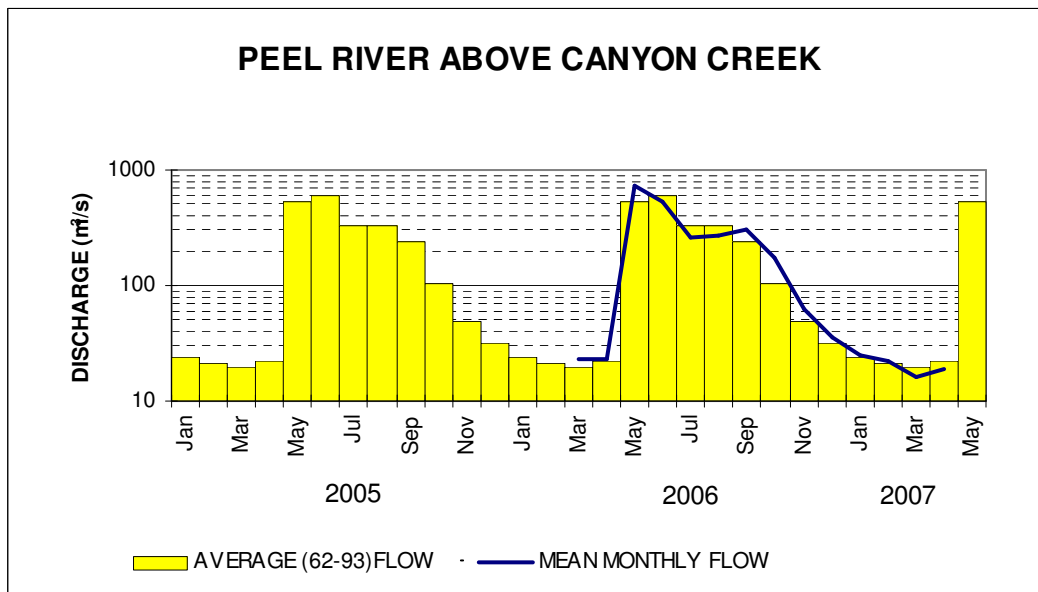
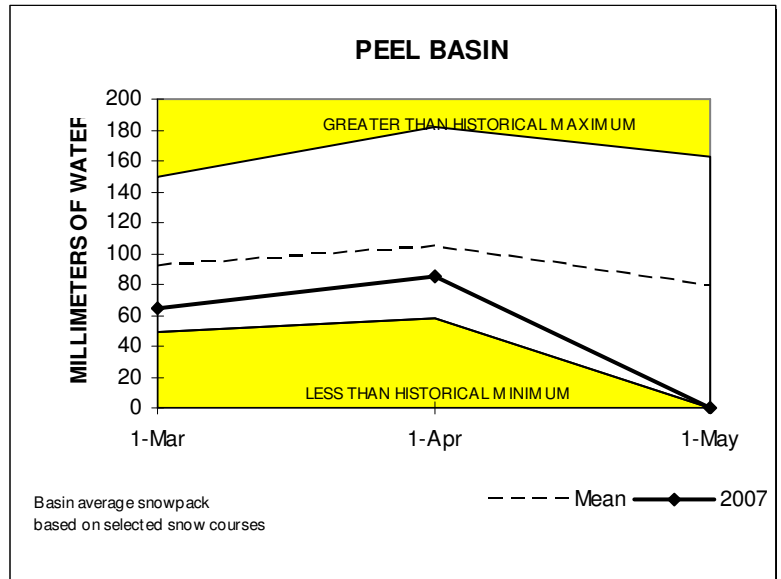
ALSEK RIVER ABOVE BATES RIVER



PEEL RIVER BASIN

Snowpack conditions in the Peel River watershed are below normal with no snow reported at our indicator snow courses.

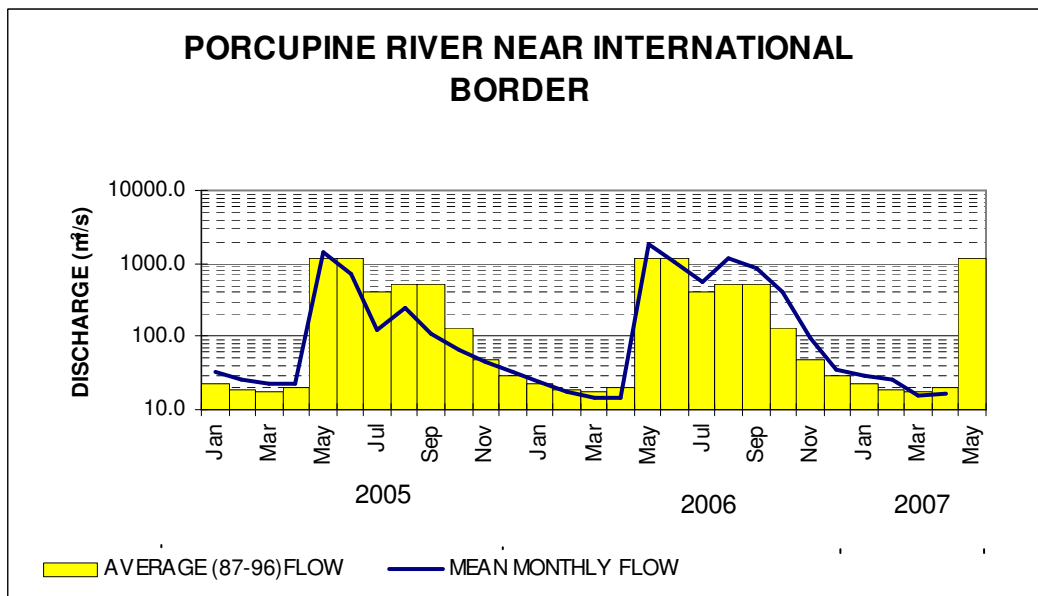
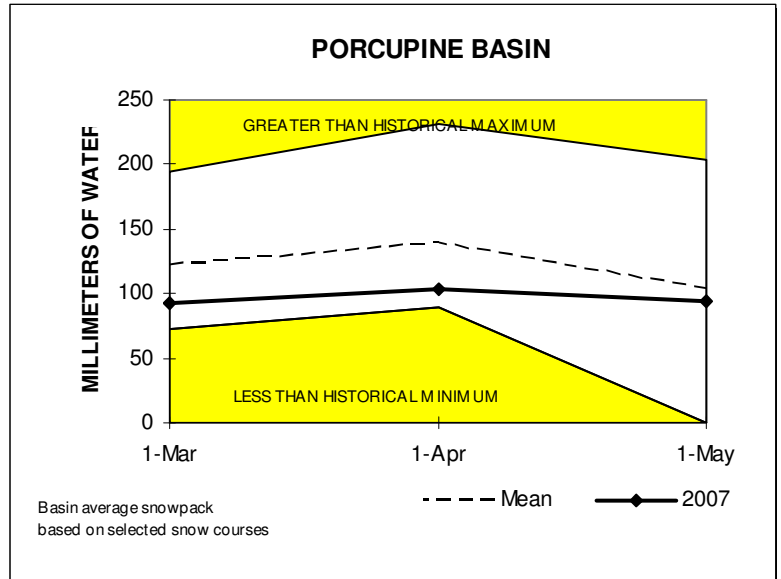
Mean monthly streamflow for April as indicated by the Peel River above Canyon Creek station was 84 percent of normal. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 91 and 85 percent of normal respectively.



PORCUPINE RIVER BASIN

Snowpack conditions in the Porcupine River watershed are slightly below normal with values of snow water equivalent ranging from 106 percent of normal at Old Crow to 58 percent of normal at Eagle River. A basin wide average has been estimated to be 88 percent of normal.

Mean April streamflow for the basin as indicated by the Porcupine River near the International Boundary is 83 percent of normal. Porcupine River volume and peak flow forecasts are not available at this time.



Drainage Basin and Snow Course

For Sample Date: 2007-05-01

Name	Number	Elev (m)	Date of Survey	This Year		Water Content		Yrs of Rec
				Snow Depth (cm)	Water Content (mm)	Last Year (mm)	Average (mm)	
Alsek River Basin								
Canyon Lake	08AA-SC01	1160	4/26/2007	34	187	83	25	30
Alder Creek	08AA-SC02	768	4/29/2007	35.8	110	133	80	26
Aishihik Lake	08AA-SC03	945	4/26/2007	34.4	171	52	32	13
Haines Junction Farm	08AA-SC4	610	4/24/2007	30.1	51 B	34	52	7
Clay Creek	08AB-SC02	670	4/28/2007	143.8	614	541	631	26
Summit	08AB-SC03	1000	4/24/2007	84	215 B	284	211	27
Profile Mountain	08AB-SC04	900	4/28/2007	90.2	282	247	262	19
Yukon River Basin								
Tagish	09AA-SC01	1080	4/26/2007	79.4	156	175	109	31
Montana Mountain	09AA-SC02	1020	4/27/2007	73.6	188	132	109	31
Log Cabin (B.C.)	09AA-SC03	884	4/26/2007	120.4	489	321	335	49
Atlin (B.C)	09AA-SC04	730	4/29/2007	53	156	0	43	40
Mt McIntyre B	09AB-SC01B	1097	4/27/2007	71	188	166	124	31
Whitehorse Airport	09AB-SC02	700	5/1/2007	17	53	39	22	40
Meadow Creek	09AD-SC01	1235	4/26/2007	109	341	239	269	31
Jordan Lake	09AD-SC02	930	4/26/2007	54.2	144	96	80	20
Morley Lake	09AE-SC01	824	4/25/2007	59	195	85	72	20
Mount Berdoe	09AH-SC01	1035	4/30/2007	0	0	89	58	31
Satasha Lake	09AH-SC03	1106	4/30/2007	0	0	64	29	19
Williams Creek	09AH-SC04	914	4/30/2007	20	50 E	61	43	12
Twin Creeks	09BA-SC02	900	4/25/2007	45.8	145	182	148	30
Hoole River	09BA-SC03	1036	4/26/2007	51.2	132	89	80	30
Burns Lake	09BA-SC04	1112	4/26/2007	60.8	186	209	211	21
Finlayson Airstrip	09BA-SC05	988	4/26/2007	16.2	46	53	40	20
Fuller Lake	09BB-SC03	1126	4/25/2007	67.2	213	140	206	21
Russell Lake	09BB-SC04	1060	4/25/2007	75.2	219	196	217	20
Rose Creek	09BC-SC01	1080	4/24/2007	0	0 B	47	19	13
Mount Nansen	09CA-SC01	1021	4/30/2007	0	0	0	15	30
MacIntosh	09CA-SC02	1160	4/30/2007	0	0	76	50	30
Burwash Airstrip	09CA-SC03	810	4/26/2007	8.8	20	0	6	30
Duke River	09CA-SC05	1310	No Surv			N.S.	72	18
Beaver Creek	09CB-SC01	655	4/25/2007	21.2	32	56	30	32
Chair Mountain	09CB-SC02	1067	No Surv			51	24	6
White River	09CB-SC03	823	No Surv			N.S.	0	2
Casino Creek	09CD-SC01	1065	4/30/2007	52.4	124	121	120	29
Pelly Farm	09CD-SC03	472	4/27/2007	23	60	19	14	21

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Drainage Basin and Snow Course

For Sample Date: 2007-05-01

Name	Number	Elev (m)	Date of Survey	This Year		Water Content		
				Snow Depth (cm)	Water Content (mm)	Last Year (mm)	Average (mm)	Yrs of Rec
Yukon River Basin								
Plata Airstrip	09DA-SC01	830	4/25/2007	42.2	154	174	148	28
Arrowhead Lake	09DA-SC02	1120	No Surv			N.S.	205	19
Withers Lake	09DB-SC01	975	4/25/2007	70.6	220	280	239	21
Rackla Lake	09DB-SC02	1040	4/25/2007	77	208	190	212	20
Mayo Airport A	09DC-SC01A	540	4/27/2007	0	0	0	14	37
Mayo Airport B	09DC-SC01B	540	4/27/2007	0	0	72	14	20
Edwards Lake	09DC-SC02	830	4/25/2007	56.2	167	138	156	20
Calumet	09DD-SC01	1310	4/27/2007	80	134	275 E	199	26
King Solomon Dome	09EA-SC01	1080	4/24/2007	59.6	181 B	197	102	32
Grizzly Creek	09EA-SC02	975	4/29/2007	0	0	208	137	32
Midnight Dome	09EB-SC01	855	4/27/2007	52	145	162	123	32
Porcupine River Basin								
Riff's Ridge	09FA-SC01	650	4/25/2007	0	0	212	120	20
Eagle Plains	09FB-SC01	710	4/25/2007	35.9	139	216	128	22
Eagle River	09FB-SC02	340	4/25/2007	26.6	60	164	103	22
Old Crow	09FD-SC01	299	4/27/2007	38	94	141 E	89	24
Liard River Basin								
Watson Lake Airport	10AA-SC01	685	4/25/2007	43.8	152	113	39	42
Tintina Airstrip	10AA-SC02	1067	4/26/2007	67.2	198	208	175	30
Pine Lake Airstrip	10AA-SC03	995	4/25/2007	79	250	161	185	31
Ford Lake	10AA-SC04	1110	4/26/2007	60.4	155	172	165	19
Frances River	10AB-SC01	730	4/25/2007	48	162	108	80	32
Hyland River	10AD-SC01	855	4/24/2007	38.4	141 B	116	97	31
Peel River Basin								
Blackstone River	10MA-SC01	920	4/25/2007	0	0	106	77	31
Ogilvie River	10MA-SC02	595	4/25/2007	0	0	131	82	30
Bonnet Plume Lake	10MB-SC01	1120	4/25/2007	67.6	172	191	205	21
Alaska Snow Courses								
Eaglecrest	08AK-SC01	305	4/30/2007	203	899	N.S.	365	23
Moore Creek Bridge	08AK-SC02	700	5/1/2007	155	691	338	477	15

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Code "E" - Estimate, Code "B" - Survey date is outside of valid sampling range

INDEX OF YUKON SNOW COURSES 2007

NAME	NUMBER	ELEVATION (m)	LATITUDE	LONGITUDE	AGENCY
YUKON RIVER BASIN					
Tagish	09AA-SC1	1080	60°17'	134°11'	2
Montana Mountain	09AA-SC2	1020	60°08'	134°44'	2
Log Cabin (B.C.)	09AA-SC3	884	59°46'	134°58'	2
Atlin (B.C.)	09AA-SC4	730	59°34'	133°42'	3
Mt. McIntyre (B)	09AB-SC1B	1097	60°39'	135°08'	1
Whitehorse Airport	09AB-SC2	700	60°42'	135°04'	1
Meadow Creek	09AD-SC1	1235	60°35'	133°05'	2
Jordan Lake	09AD-SC2	930	60°52'	132°50'	1
Morley Lake	09AE-SC1	824	60°00'	132°07'	2
Mount Berdoe	09AH-SC1	1035	62°02'	136°14'	2
Satasha Lake	09AH-SC3	1106	61°29'	136°16'	2
Williams Creek	09AH-SC4	914	60°21'	136°43'	2
Twin Creeks	09BA-SC2	900	62°37'	131°16'	1
Hoole River	09BA-SC3	1036	61°32'	131°36'	1
Burns Lake	09BA-SC4	1112	62°17'	129°57'	1
Finlayson Airstrip	09BA-SC5	988	61°42'	130°46'	1
Fuller Lake	09BB-SC3	1126	62°58'	130°46'	1
Russell Lake	09BB-SC4	1060	63°12'	133°29'	1
Mount Nansen	09CA-SC1	1021	62°02'	137°03'	2
MacIntosh	09CA-SC2	1160	61°43'	137°20'	2
Burwash Airstrip	09CA-SC3	810	61°23'	139°03'	2
Duke River	09CA-SC5	1310	61°15'	138°59'	6
Beaver Creek	09CB-SC1	655	62°25'	140°51'	2
Chair Mountain	09CB-SC2	1067	62°04'	140°48'	2
White River	09CB-SC3	823	61°55'	140°32'	2
Casino Creek	09CD-SC1	1065	62°44'	138°48'	2
Pelly Farm	09CD-SC3	472	62°50'	137°20'	8
Plata Airstrip	09DA-SC1	830	63°31'	132°03'	1
Arrowhead Lake	09DA-SC2	1120	63°42'	131°10'	1
Withers Lake	09DB-SC1	975	63°59'	132°18'	1
Rackla Lake	09DB-SC2	1040	64°17'	133°15'	1
Mayo Airport (A)	09DC-SC1A	540	63°38'	135°53'	2
Mayo Airport (B)	09DC-SC1B	540	63°38'	135°53'	2
Edwards Lake	09DC-SC2	830	63°42'	134°18'	1
Calumet	09DD-SC1	1310	63°55'	135°24'	2
King Solomon Dome	09EA-SC1	1080	63°52'	138°56'	2
Grizzly Creek	09EA-SC2	975	64°26'	138°16'	2
Boundary (Alaska)	09EC-SC2	1005	64°05'	141°27'	4
Midnight Dome	09EB-SC1	855	64°04'	139°24'	2

NAME	NUMBER	ELEVATION (m)	LATITUDE	LONGITUDE	AGENCY
LIARD RIVER BASIN					
Watson Lake Airport	10AA-SC1	685	60°07'	128°50'	2
Tintina Airstrip	10AA-SC2	1067	61°05'	131°15'	1
Pine Lake Airstrip	10AA-SC3	995	60°06'	130°56'	2
Ford Lake	10AA-SC4	1110	60°47'	131°28'	1
Frances River	10AB-SC1	730	60°35'	129°11'	2
Hyland River	10AD-SC1	855	61°31'	128°16'	2
ALSEK RIVER BASIN					
Canyon Lake	08AA-SC1	1160	61°07'	136°59'	7
Alder Creek	08AA-SC2	768	60°22'	137°06'	6
Aishihik Lake	08AA-SC3	945	61°12'	137°00'	7
Haines Junction Farm	08AA-SC4	610	60°45'	137°34'	2
Clay Creek	08AB-SC2	670	60°09'	137°56'	6
Summitt	08AB-SC3	1000	60°51'	137°47'	2
Profile Mountain	08AB-SC4	900	60°38'	137°56'	6
PEEL RIVER BASIN					
Blackstone River	10MA-SC1	920	64°57'	138°15'	2
Ogilvie River	10MA-SC2	595	65°21'	138°18'	2
Bonnet Plume Lake	10MB-SC1	1120	64°18'	132°00'	1
PORCUPINE RIVER BASIN					
Riff's Ridge	09FA-SC1	650	65°57'	137°22'	2
Eagle Plains	09FB-SC1	710	66°22'	136°44'	2
Eagle River	09FB-SC2	340	66°27'	136°43'	2
Old Crow	09FD-SC1	299	67°34'	139°51'	5
ALASKA SNOW COURSES					
Eaglecrest	34J03	305	58°17'	134°32'	4
Moore Creek Bridge	34K02	701	59°31'	135°15'	4

Numbers refer to Agencies cooperating in the Yukon Snow Surveys:

1. Department of Environment, Government of Yukon
2. Dept of Energy Mines and Resources Yukon
3. British Columbia Ministry of Environment
4. USDA Natural Resources Conservation Service
5. Yukon Transportation and Highways
6. Parks Canada
7. Yukon Energy Corp.
8. Private Contract