

**YUKON SNOW SURVEY
BULLETIN & WATER
SUPPLY FORECAST**
May 1, 2010

Prepared and issued by:
Water Resources 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 Branch. 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:

Richard Janowicz
Manager, Hydrology
(867) 667-3223
richard.janowicz@gov.yk.ca

NETWORK CHANGES for 2010

There have been no network changes in 2010. This bulletin can now be accessed on the web at http://environmentyukon.gov.yk.ca/monitoringenvironment/snow_survey.php

ISSN 1705-883X

It is recommended that reference to this report be made in the following form:

Yukon Snow Survey Bulletin and Water Supply Forecast
Water Resources Branch
Dept. of Environment
Government of Yukon
Box 2703, Whitehorse, Yukon Y1A 2C6

ACKNOWLEDGMENTS

The Yukon Snow Survey Bulletin and Water Supply Forecast is published three times annually, after March 1, April 1, and May 1, as part of the Yukon Snow Survey Program, by the Water Resources Branch, Department of Environment, Government of Yukon.

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

Meteorologist, Wildland Fire Management, Protective Services, Yukon Department of Community Services

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

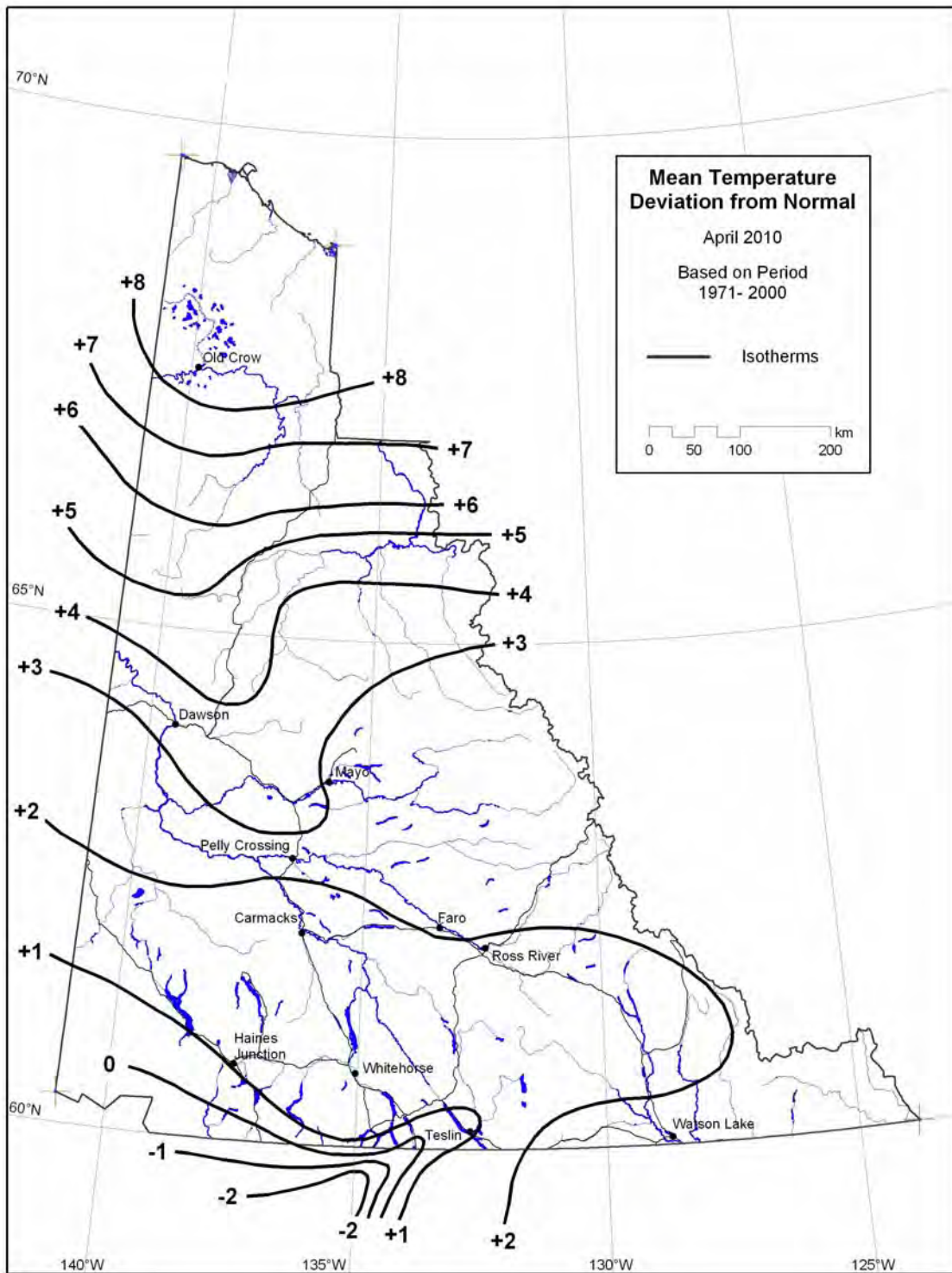
April temperatures throughout Yukon were generally well above normal with temperature deviations ranging from one degree in southwestern Yukon to eight degrees in northern Yukon. April precipitation was more variable with much of most of Yukon receiving amounts that were half of normal, while pockets in Teslin, Liard and Peel watersheds received greater than normal amounts.

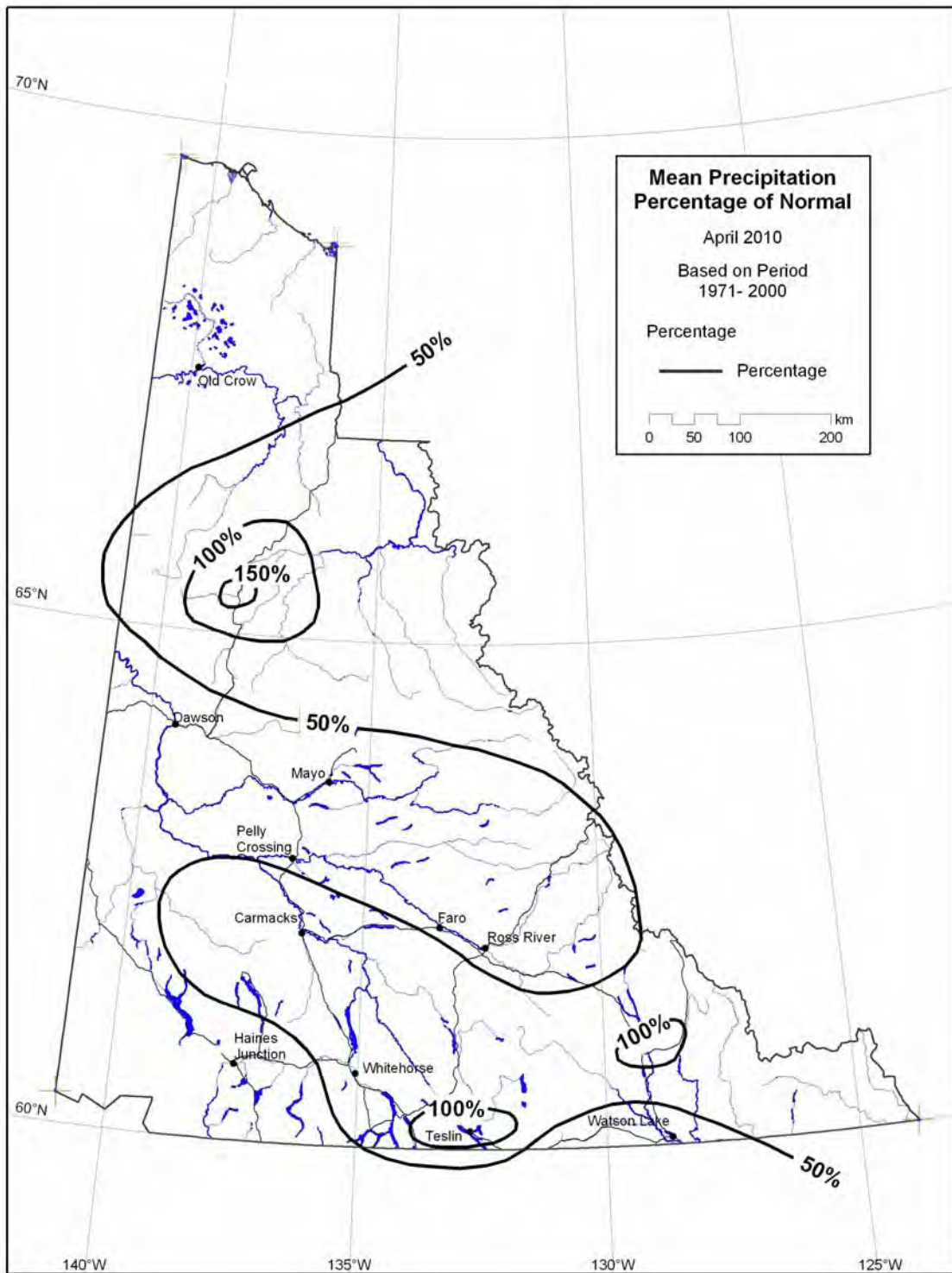
SNOWPACK

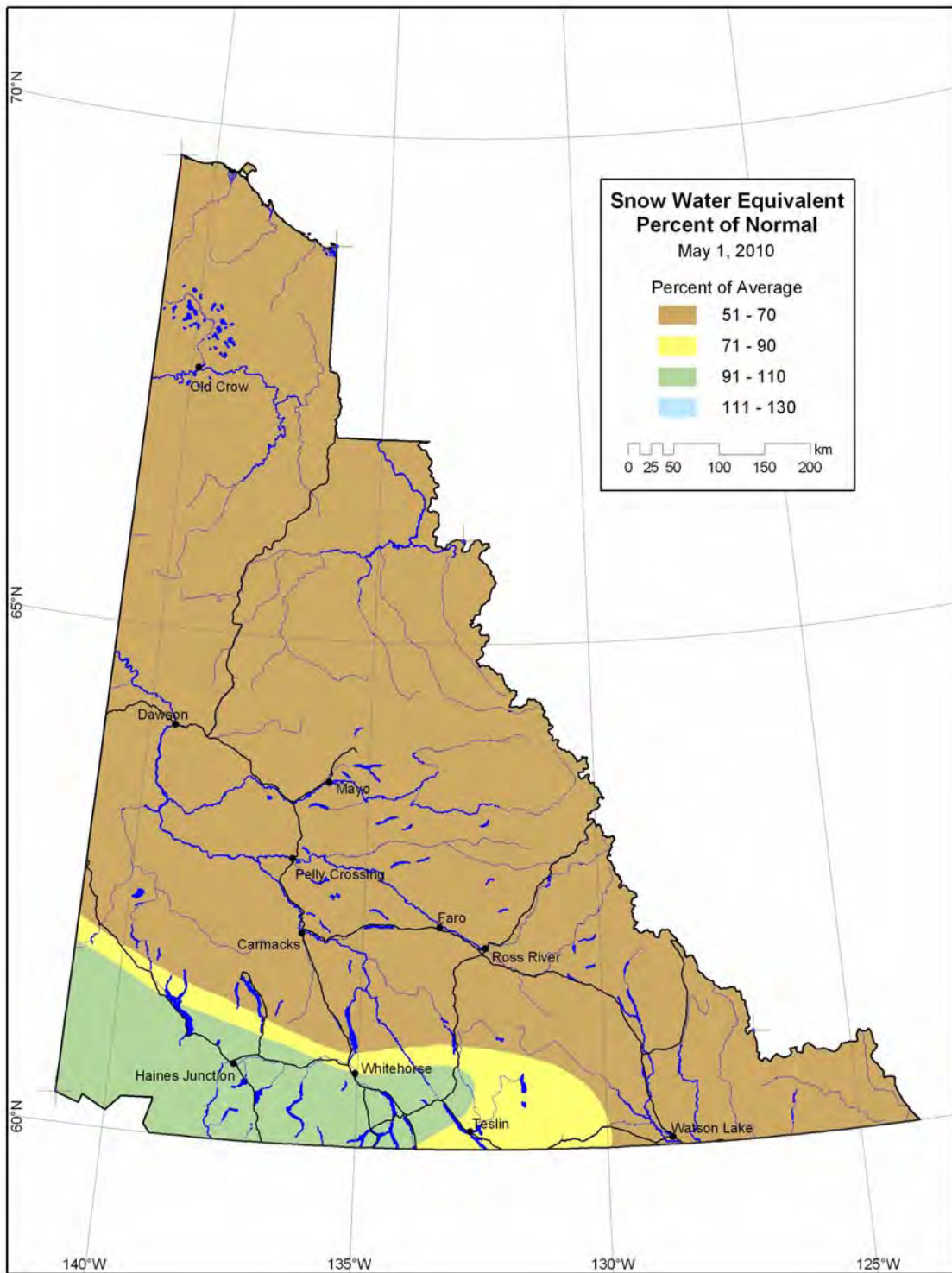
The May 1 Yukon snowpack is generally below normal with near normal snowpack observed in southwestern Yukon.

STREAMFLOW

May 1st Yukon streamflow conditions are generally below normal. Exceptions include northern regions which are normal and the Liard watershed which is above normal. Streamflow during this period represents winter baseflow, which provides an indication of winter groundwater contributions.





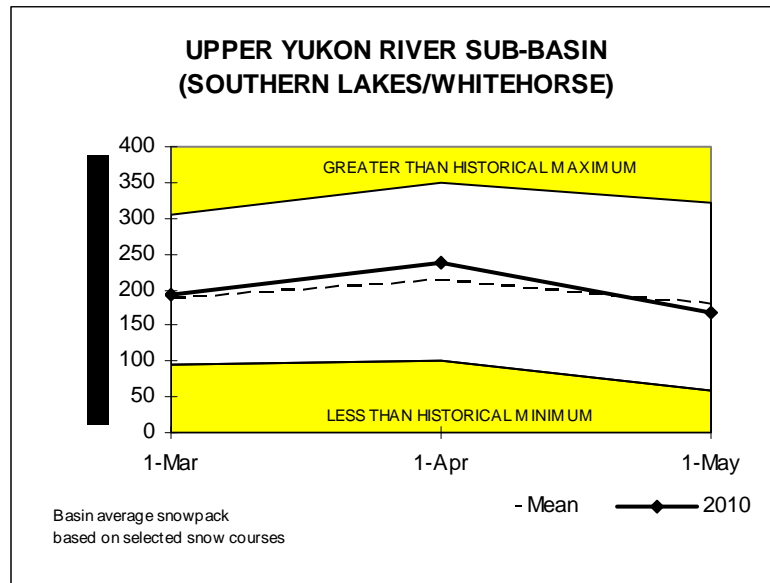


YUKON RIVER BASIN

Snowpack conditions in the Yukon River Basin are generally below normal. An exception is the upper Yukon basin which has a normal May 1 snowpack.

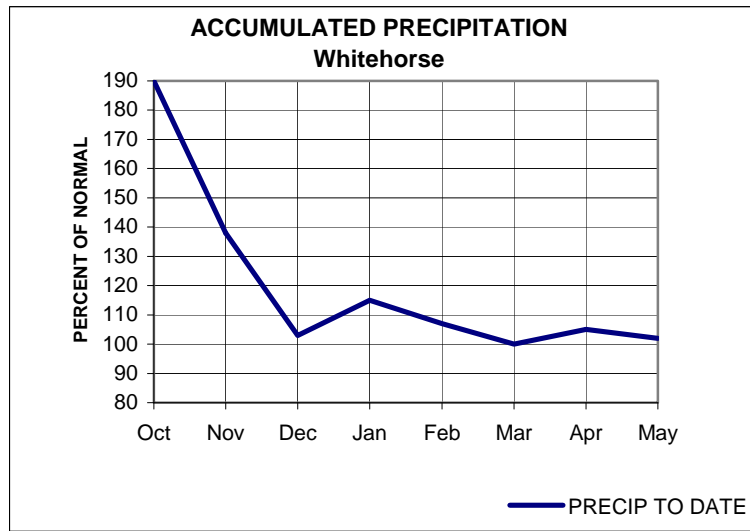
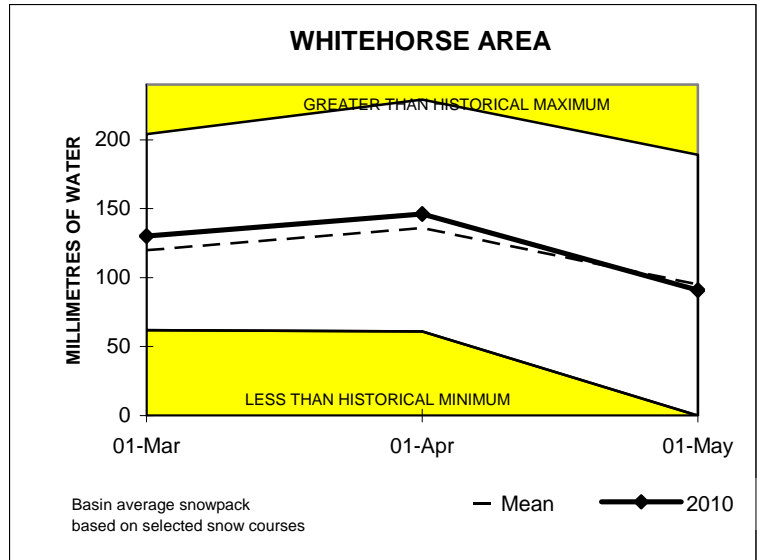
UPPER YUKON RIVER SUB-BASIN (SOUTHERN LAKES/WHITEHORSE)

Snowpack conditions in the Upper Yukon River watershed are near normal. Values range from 74 percent of normal at Montana Mountain to 108 percent of normal at Tagish. A basin wide average has been estimated to be 94 percent of normal.

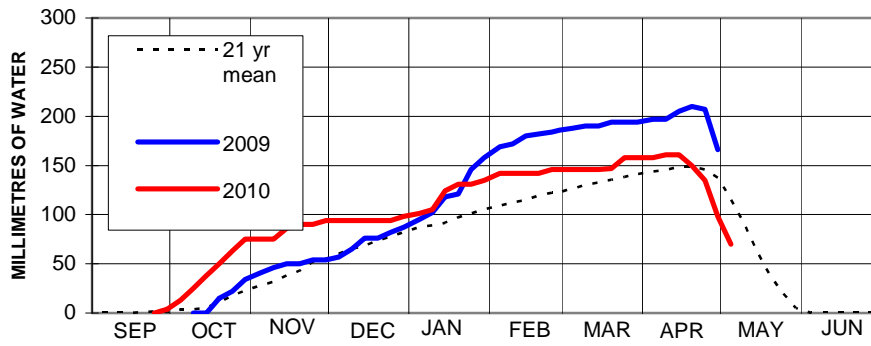


WHITEHORSE AREA

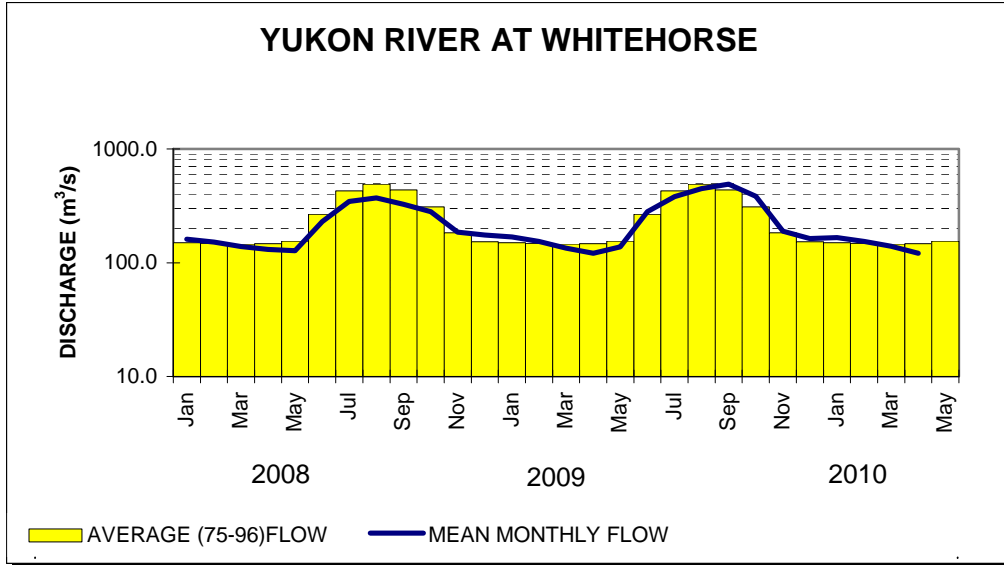
Snowpack conditions in the Whitehorse area are near normal for May 1st. Values range from 24 percent of normal at the Whitehorse Airport to 122 percent of normal at Mt McIntyre. A basin wide average is estimated to be 96 percent of normal.



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

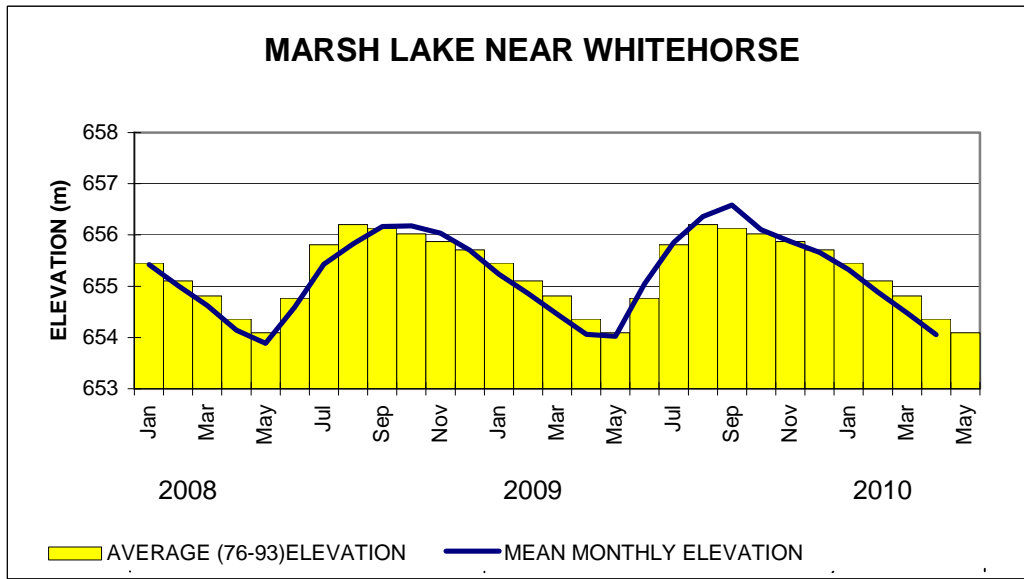


LAT 60° 17' LONG 134° 11'
ELEVATION 1080 metres
DRAINAGE YUKON BASIN



YUKON RIVER and MARSH LAKE

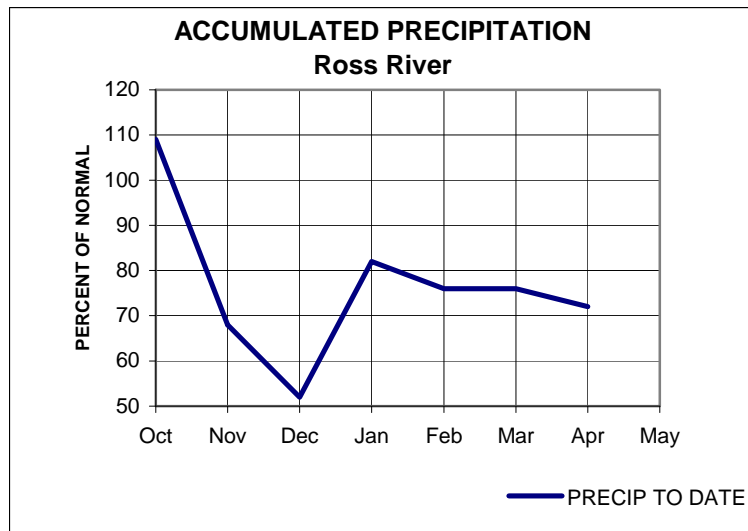
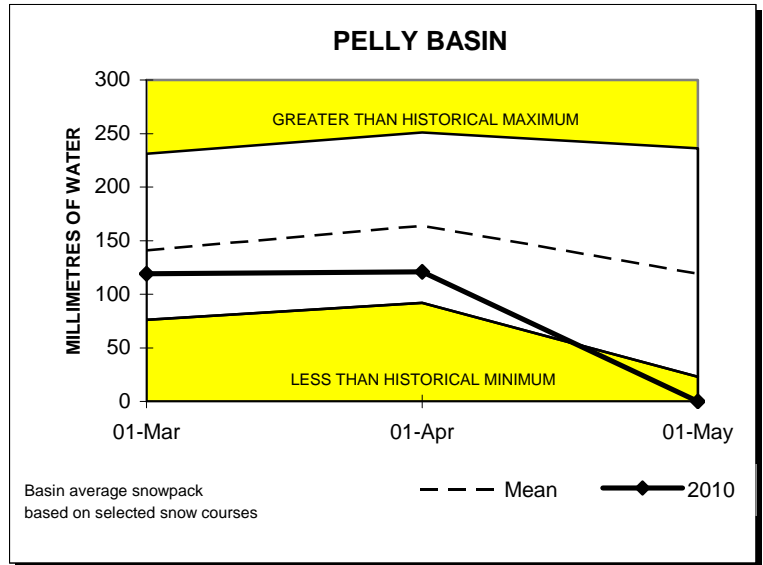
The elevation of Marsh Lake during April was 654.051 m or 0.268 m below normal. Yukon River at Whitehorse mean discharge during April was 116 percent of normal. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 95 percent and 95 percent of normal respectively.

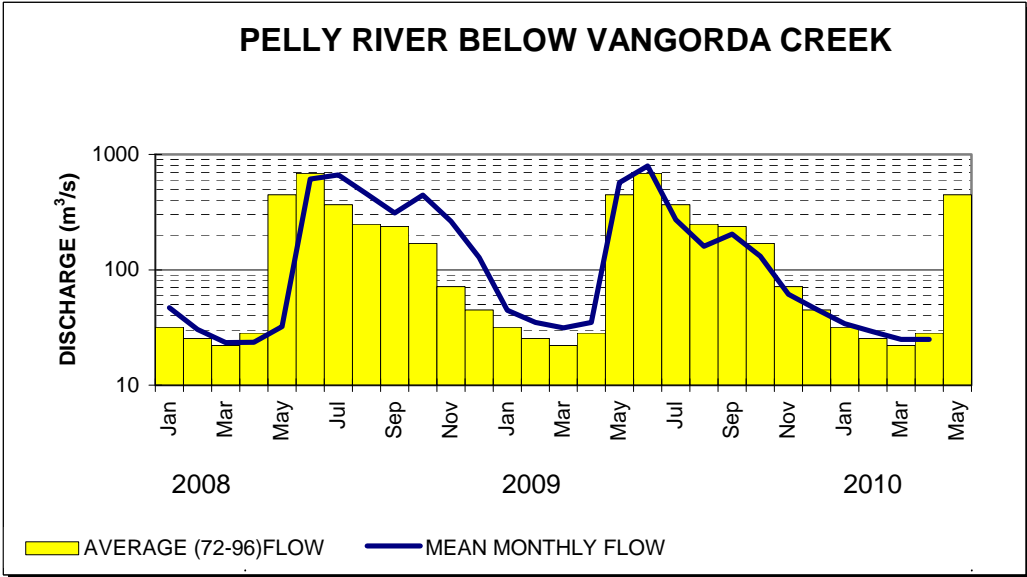
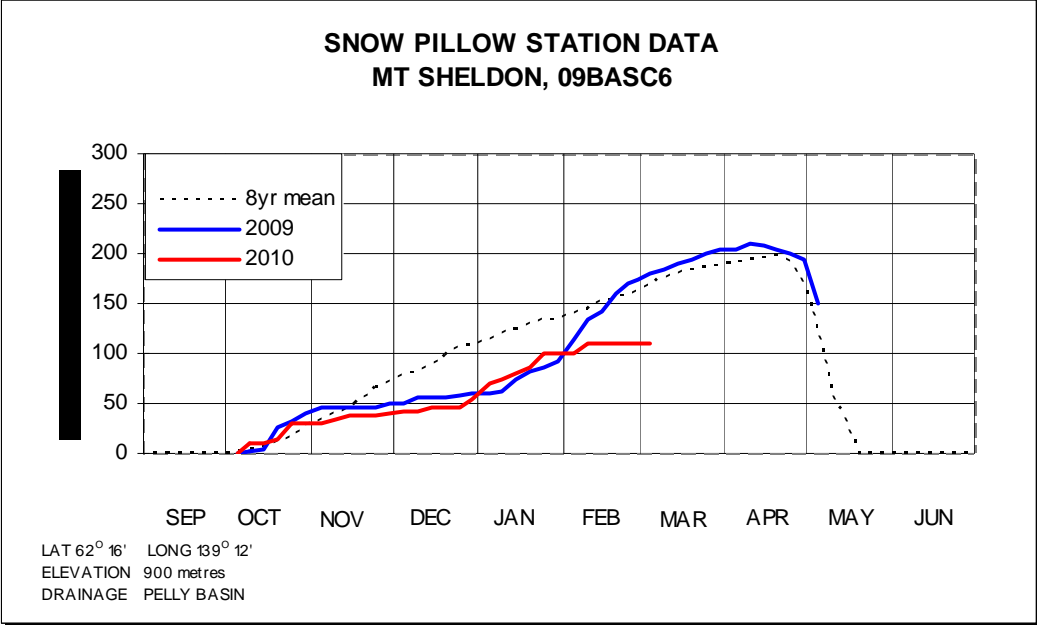


PELLY RIVER SUB-BASIN

Snowpack conditions in the Pelly River watershed are below normal. All representative snow courses were snow free on May 1.

Mean April streamflow for the watershed was 88 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 85 percent and 85 percent of normal respectively.

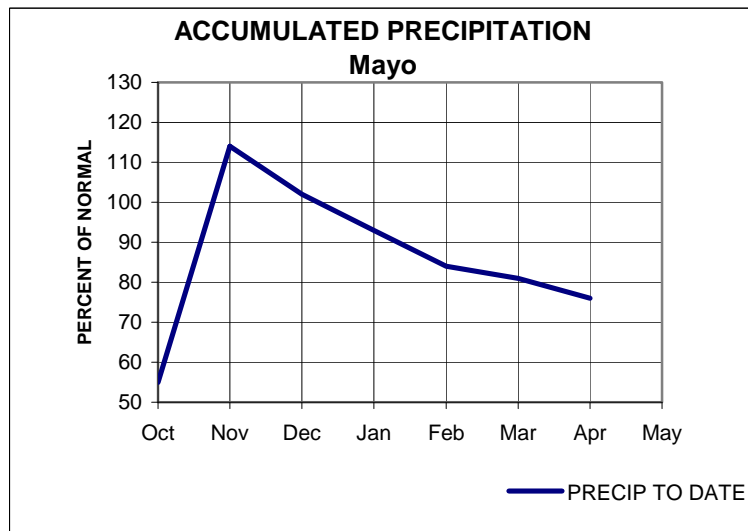
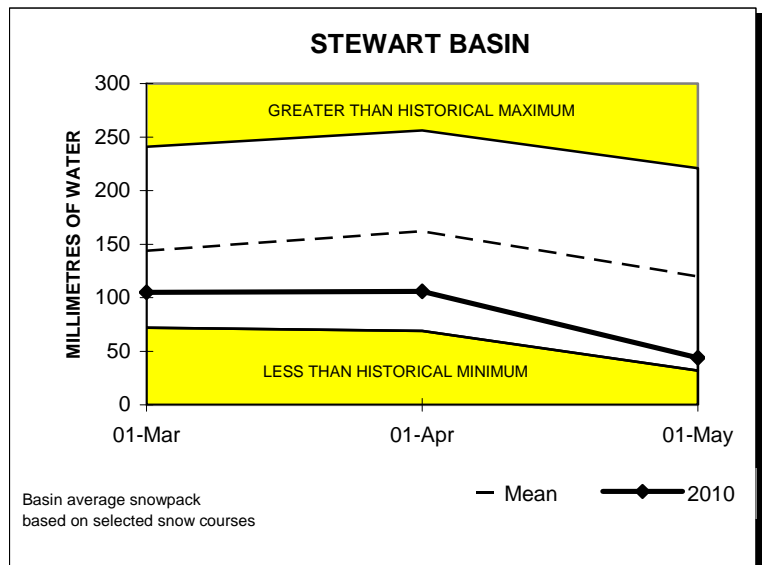


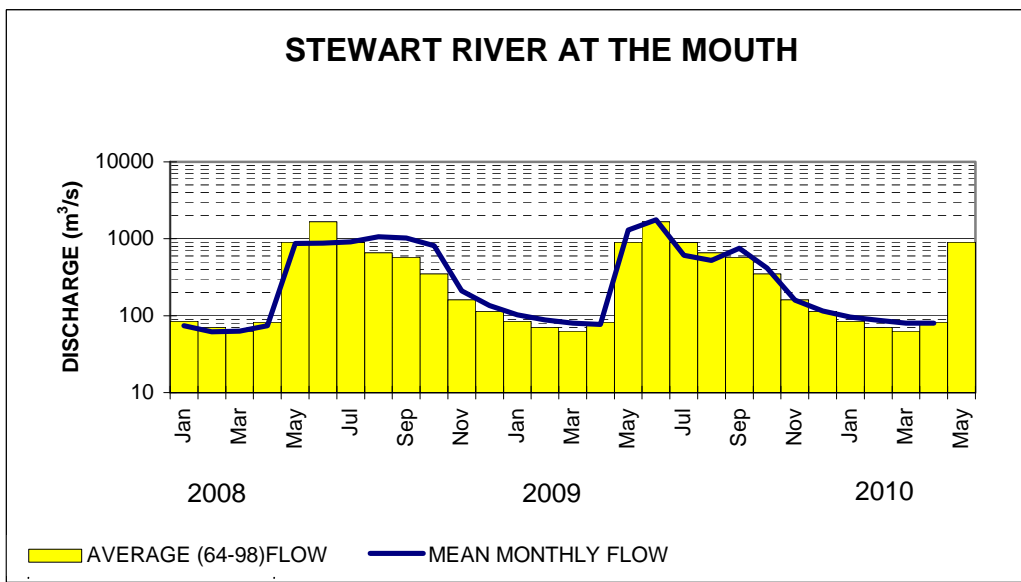
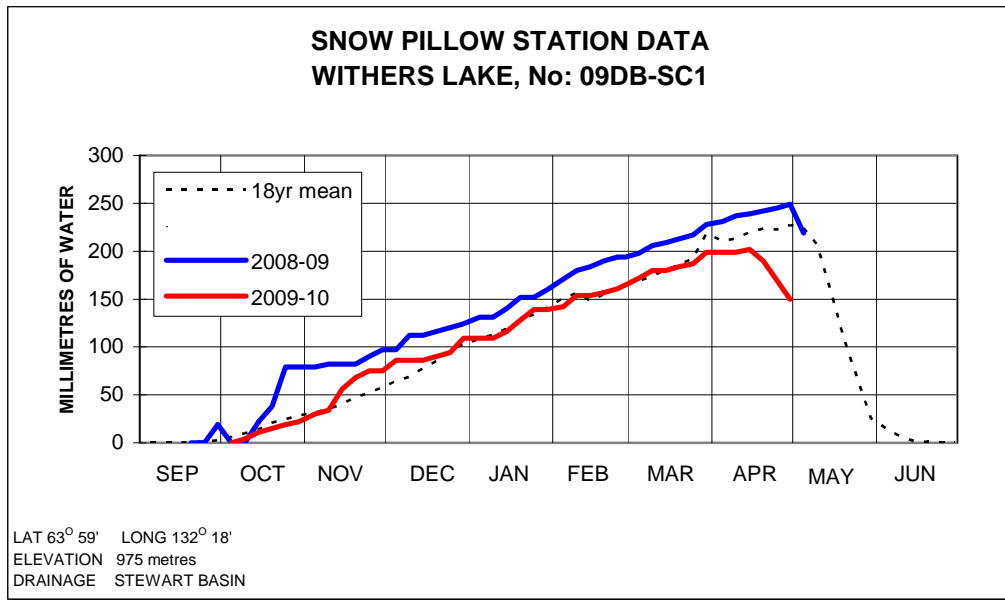


STEWART RIVER SUB-BASIN

Snowpack conditions in the Stewart River watershed are well below normal for May 1st. The snowpack varies from snow free conditions at Mayo Airport and Plata Airstrip to values of snow water equivalent of 68 percent of normal at Calumet. A basin wide average has been estimated to be 37 percent of normal.

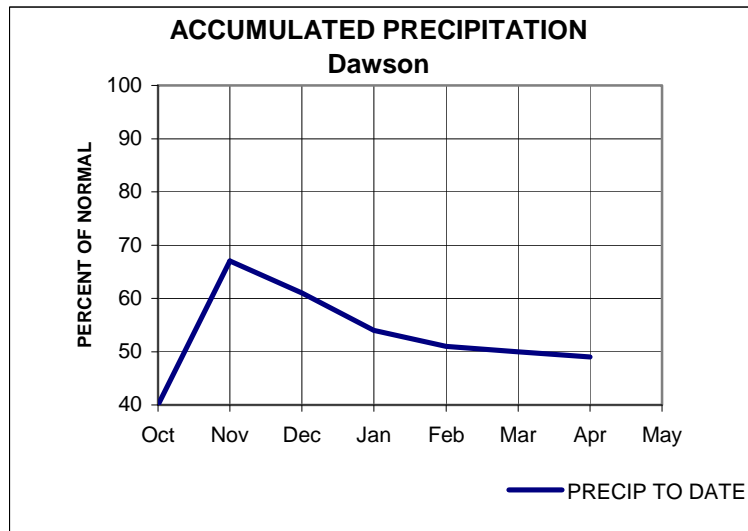
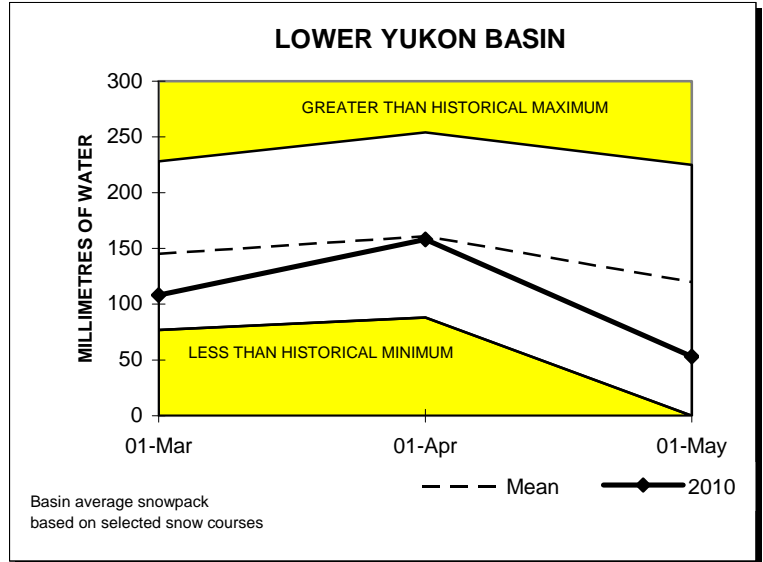
Mean April streamflow for the watershed was 97 percent of normal as indicated by the Stewart River at the Mouth. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 82 percent and 80 percent of normal respectively.





LOWER YUKON RIVER BASIN (DAWSON AREA)

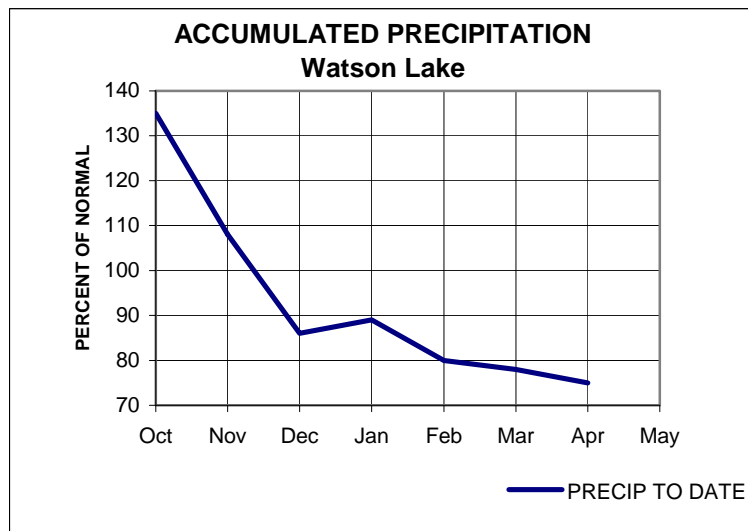
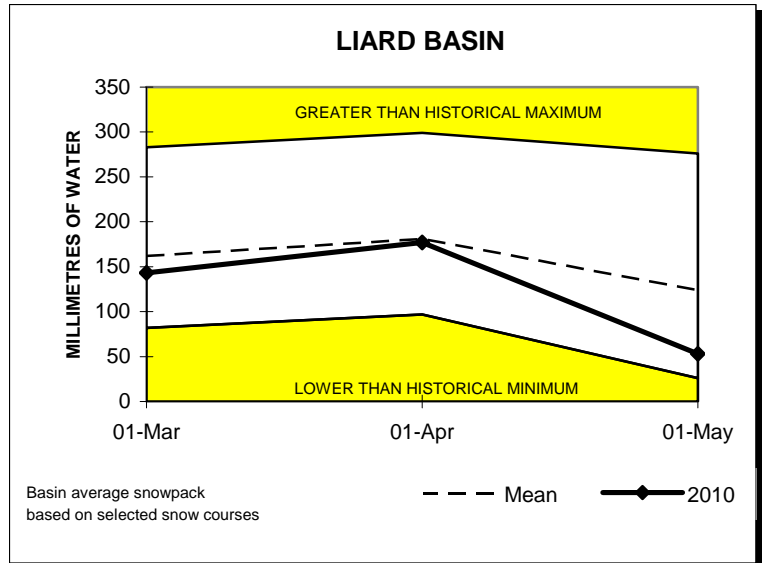
Snowpack conditions in the Dawson area are below normal for May 1st. The snowpack varies from snow free conditions at King Solomon Dome to values of snow water equivalent of 122 percent of normal at Grizzly Creek. An area wide average has been estimated to be 71 percent of normal.

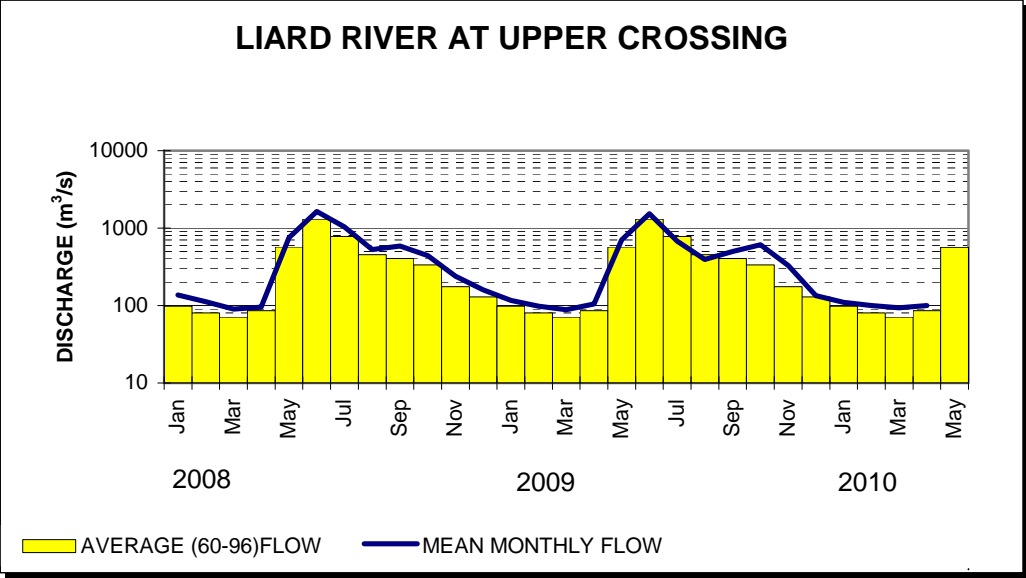


LIARD RIVER BASIN

Snowpack conditions within the Liard River watershed are well below normal. The snowpack varies from snow free conditions at Watson Lake Airport to values of snow water equivalent of 79 percent at Pine Lake Airstrip. A basin wide average has been estimated to be 43 percent of normal.

Mean April streamflow for the Liard River upstream of Upper Liard was 116 percent of normal. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 95 percent and 95 percent of normal.

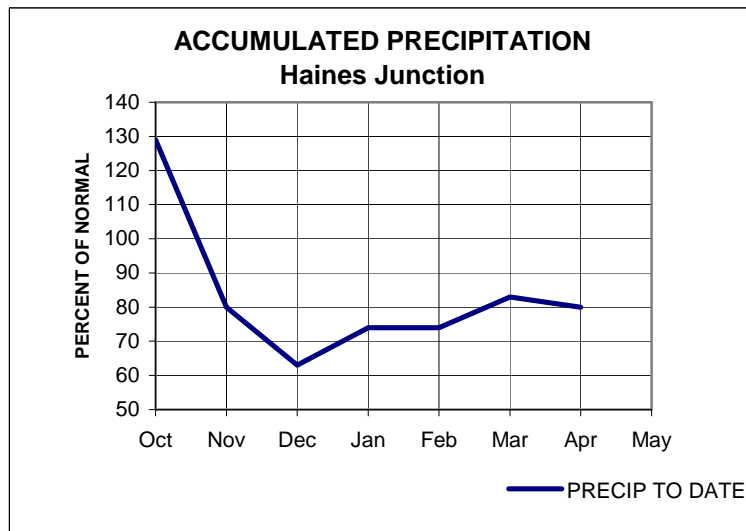
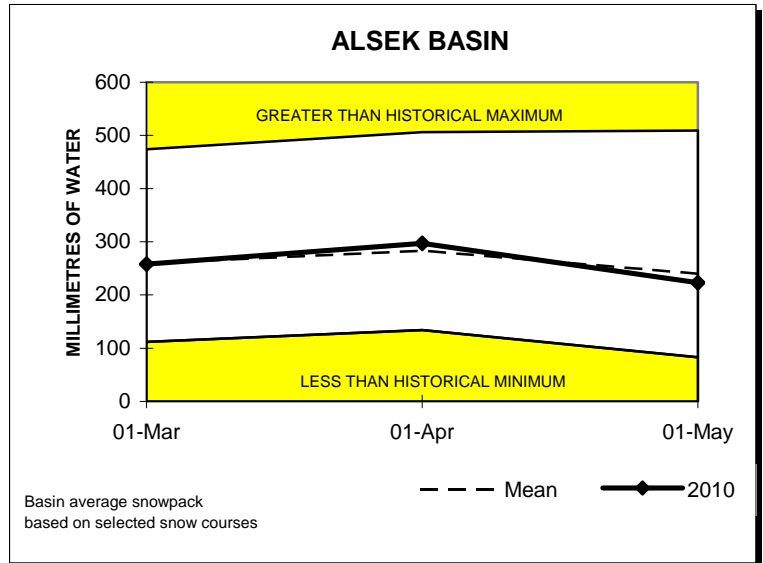


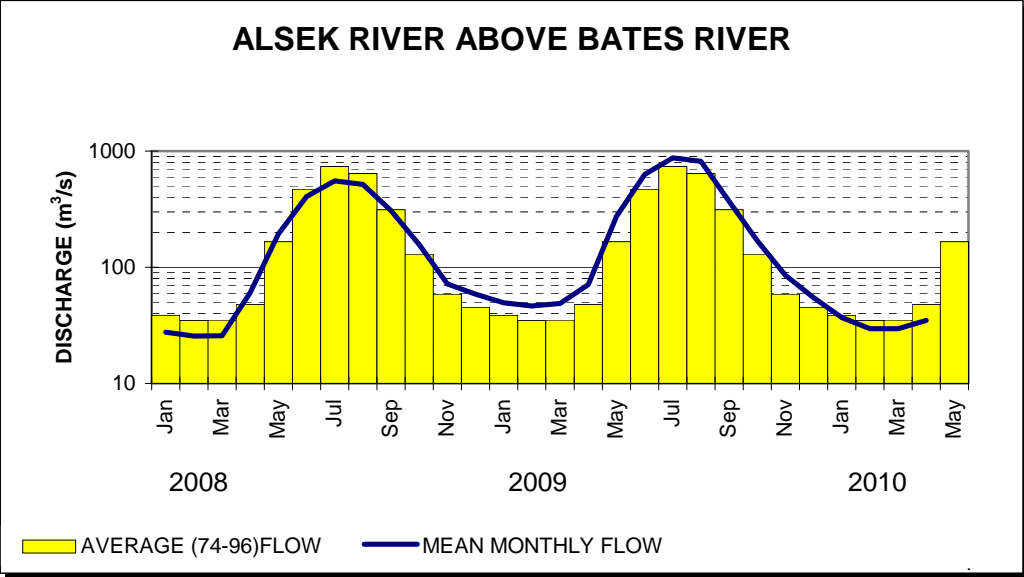


ALSEK RIVER BASIN

Snowpack conditions within the Alsek River watershed are slightly below normal for May 1st. The snowpack varies from snow free conditions at Alder Creek to values of snow water equivalent of 185 percent of normal at Canyon Lake. A basin wide average has been estimated to be 93 percent of normal.

Mean monthly streamflow for April as indicated by the Alsek River above Bates River was 73 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 110 percent of normal respectively.

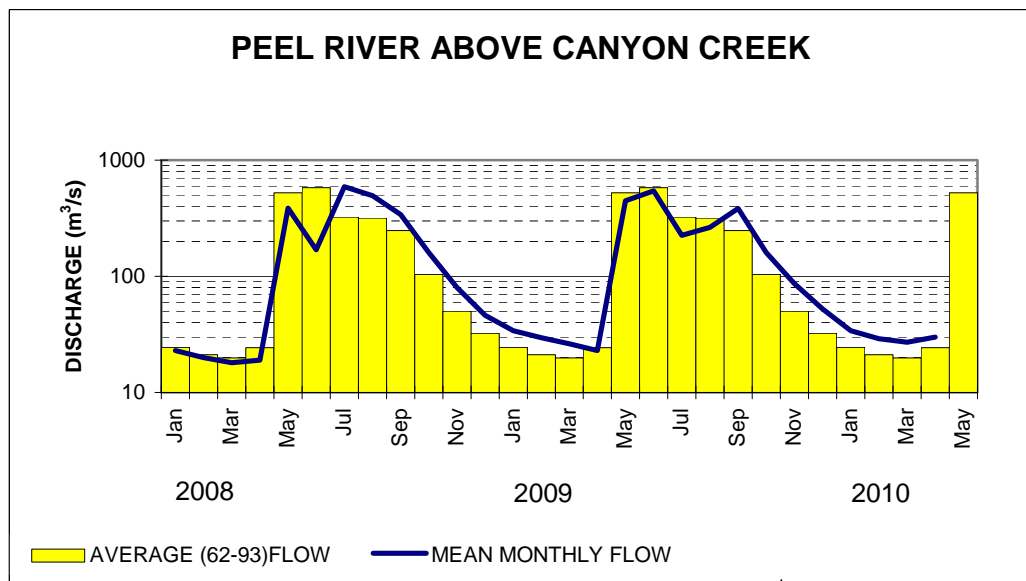
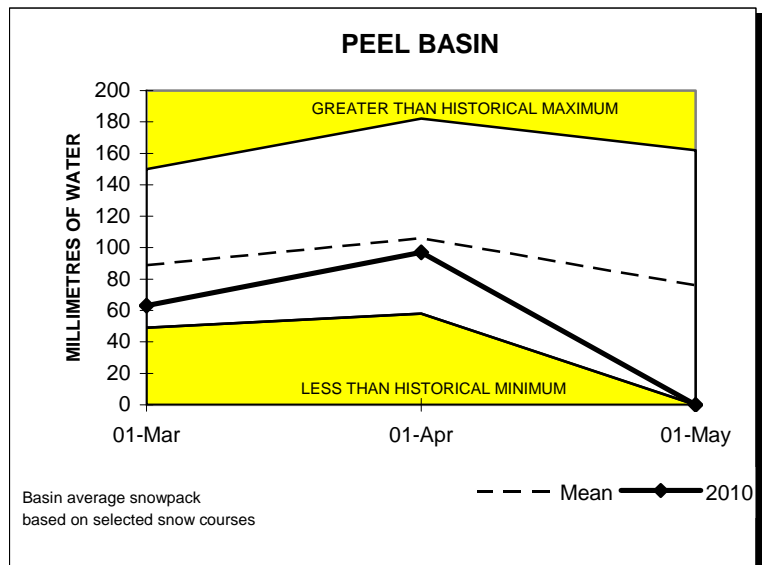




PEEL RIVER BASIN

Snowpack conditions in the Peel River watershed are below normal. All representative snow courses were snow free on May 1.

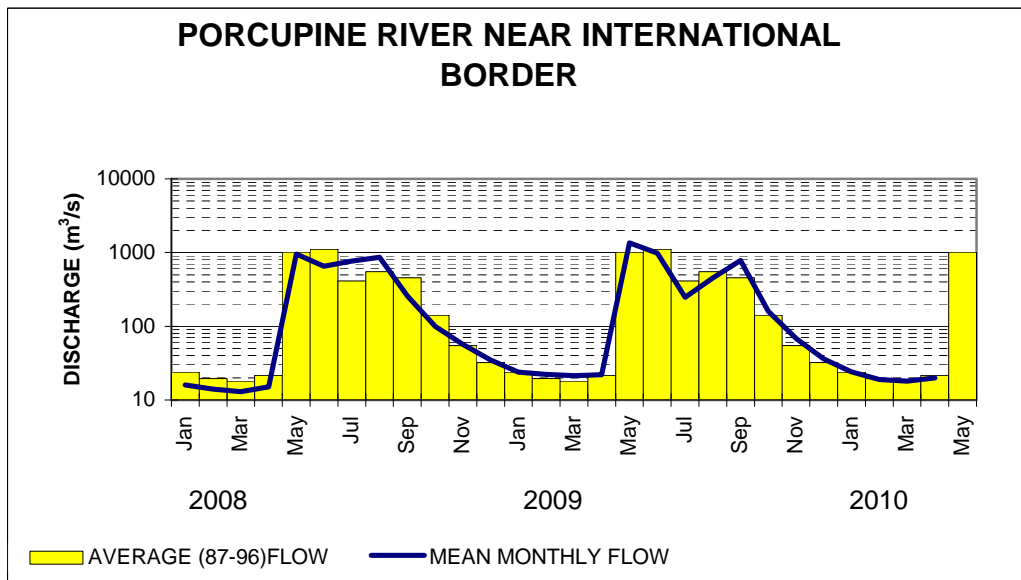
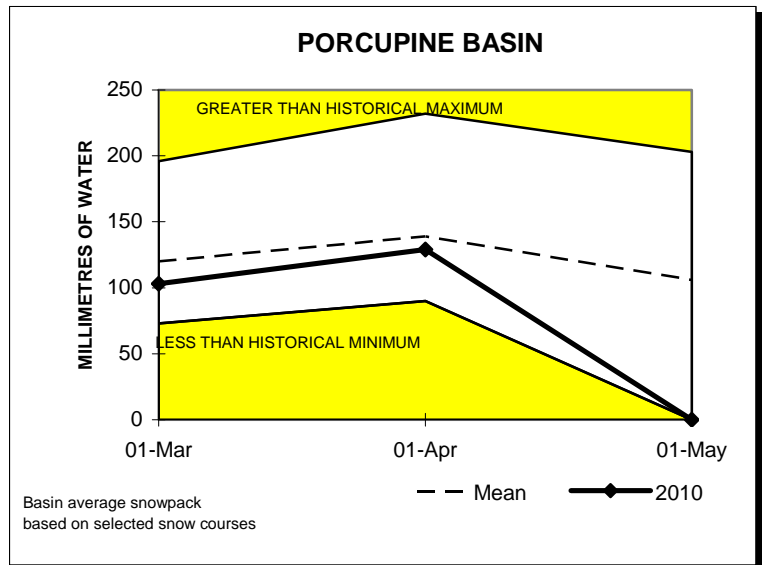
Mean monthly streamflow for April as indicated by the Peel River above Canyon Creek station was 123 percent of normal. Peel River volume and peak flow forecasts are not available at this time.



PORCUPINE RIVER BASIN

Snowpack conditions in the Pelly River watershed are below normal. All representative snow courses were snow free on May 1.

Mean April streamflow for the basin as indicated by the Porcupine River near the International Boundary is 92 percent of normal. Porcupine River volume and peak flow forecasts are not available at this time.



Drainage Basin and Snow Course

For Sample Date: 2010-05-01

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
Alsek River Basin								
Canyon Lake	08AA-SC01	1160	4/26/2010	24	63	129	34	33
Alder Creek	08AA-SC02	768	5/1/2010	0	0	270	85	29
Aishihik Lake	08AA-SC03	945	4/26/2010	3	9	119	46	16
Haines Junction Farm	08AA-SC4	610	4/27/2010	10	28	92	51	10
Clay Creek	08AB-SC02	670	4/29/2010	120	580	956	631	29
Summit	08AB-SC03	1000	4/27/2010	78	249	211	209	30
Profile Mountain	08AB-SC04	900	4/29/2010	86	244	346	261	22
Yukon River Basin								
Tagish	09AA-SC01	1080	4/26/2010	40	123	191	114	34
Montana Mountain	09AA-SC02	1020	4/27/2010	34	85	202	115	34
Log Cabin (B.C.)	09AA-SC03	884	4/27/2010	94	345	513	342	52
Atlin (B.C.)	09AA-SC04	730	4/28/2010	0	0	205	50	43
Mt McIntyre B	09AB-SC01B	1097	4/30/2010	50	156	167	128	34
Whitehorse Airport	09AB-SC02	700	4/30/2010	0	0	108	24	43
Meadow Creek	09AD-SC01	1235	4/28/2010	100	294	350	279	34
Jordan Lake	09AD-SC02	930	4/29/2010	11	23	200	91	23
Morley Lake	09AE-SC01	824	4/27/2010	15	44	226	87	23
Mount Berdoe	09AH-SC01	1035	4/26/2010	0	0	174	61	34
Satasha Lake	09AH-SC03	1106	4/26/2010	0	0	128	31	22
Williams Creek	09AH-SC04	914	4/26/2010	0	0	176	49	14
Twin Creeks	09BA-SC02	900	4/28/2010	0	0	216	150	33
Hoole River	09BA-SC03	1036	4/29/2010	0	0	212	88	33
Burns Lake	09BA-SC04	1112	4/29/2010	36	92	305	217	24
Finlayson Airstrip	09BA-SC05	988	4/29/2010	0	0	185	51	23
Fuller Lake	09BB-SC03	1126	4/28/2010	58	128	250	209	24
Russell Lake	09BB-SC04	1060	4/28/2010	32	93	293	221	23
Rose Creek	09BC-SC01	1080	4/26/2010	0	0	151	30	16
Mount Nansen	09CA-SC01	1021	4/26/2010	0	0	120	17	33
MacIntosh	09CA-SC02	1160	4/26/2010	0	0	158	50	33
Burwash Airstrip	09CA-SC03	810	4/28/2010	0	0	30	7	33
Duke River	09CA-SC05	1310	4/27/2010	28	69	148	72	20
Beaver Creek	09CB-SC01	655	4/28/2010	0	0	77	30	35
Chair Mountain	09CB-SC02	1067	4/28/2010	0	0	135	39	7
White River	09CB-SC03	823	No Surv			N.S.	0	2
Casino Creek	09CD-SC01	1065	4/26/2010	52	106	208	119	32
Pelly Farm	09CD-SC03	472	4/27/2010	0	0	50	18	24

Printed on 05 May 2010 from the Environment Yukon Snow Survey System
Code "E" - Estimate, Code "B" - Survey date is outside of valid sampling range

Page 1 of 2

Drainage Basin and Snow Course

For Sample Date: 2010-05-01

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)	
Yukon River Basin								
Plata Airstrip	09DA-SC01	830	4/28/2010	0	0	214	151	31
Arrowhead Lake	09DA-SC02	1120	4/28/2010	42	68	N.S.	205	19
Withers Lake	09DB-SC01	975	4/28/2010	52	146	264	237	24
Rackla Lake	09DB-SC02	1040	4/28/2010	64	124	221	209	23
Mayo Airport A	09DC-SC01A	540	4/26/2010	0	0	0	13	39
Mayo Airport B	09DC-SC01B	540	4/26/2010	0	0	0	13	22
Edwards Lake	09DC-SC02	830	4/28/2010	30	81	217	159	23
Calumet	09DD-SC01	1310	4/26/2010	57	133	235 E	196	29
King Solomon Dome	09EA-SC01	1080	4/26/2010	0	0	156	107	35
Grizzly Creek	09EA-SC02	975	4/30/2010	58	158	0	126	35
Midnight Dome	09EB-SC01	855	4/26/2010	39	98	182	126	35
Porcupine River Basin								
Riff's Ridge	09FA-SC01	650	4/30/2010	41	90	144	116	23
Eagle Plains	09FB-SC01	710	4/30/2010	0	0	145	131	25
Eagle River	09FB-SC02	340	4/30/2010	0	0	101	97	25
Old Crow	09FD-SC01	299	4/27/2010	0	0	98 B	90	27
Liard River Basin								
Watson Lake Airport	10AA-SC01	685	4/30/2010	0	0	207	47	45
Tintina Airstrip	10AA-SC02	1067	4/29/2010	31	75	340	183	33
Pine Lake Airstrip	10AA-SC03	995	4/27/2010	47	154	324	194	34
Ford Lake	10AA-SC04	1110	4/29/2010	36	95	316	174	22
Frances River	10AB-SC01	730	4/27/2010	7	16	261	90	35
Hyland River	10AD-SC01	855	4/27/2010	7	22	245	106	34
Peel River Basin								
Blackstone River	10MA-SC01	920	4/30/2010	0	0	122	74	34
Ogilvie River	10MA-SC02	595	4/30/2010	0	0	65	77	33
Bonnet Plume Lake	10MB-SC01	1120	4/28/2010	63	126	177	200	24
Alaska Snow Courses								
Eaglecrest	08AK-SC01	305	4/28/2010	97	348	782	424	26
Moore Creek Bridge	08AK-SC02	700	4/28/2010	135	546	640	505	18

INDEX OF YUKON SNOW COURSES 2009

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
Rose Creek	09BC-SC01	1080	62°20'	133°23'	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