

**YUKON SNOW SURVEY
BULLETIN & WATER
SUPPLY FORECAST**
May 1, 2012

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:

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NETWORK CHANGES for 2012

As of May 2010, snow surveys are no longer conducted at Clay Creek, Profile Mountain, Duke River or Arrowhead Lake. This bulletin can now be accessed on the web at:

http://environmentyukon.gov.yk.ca/monitoringenvironment/snow_survey.php

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

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Yukon Snow Survey May 2012

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

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

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

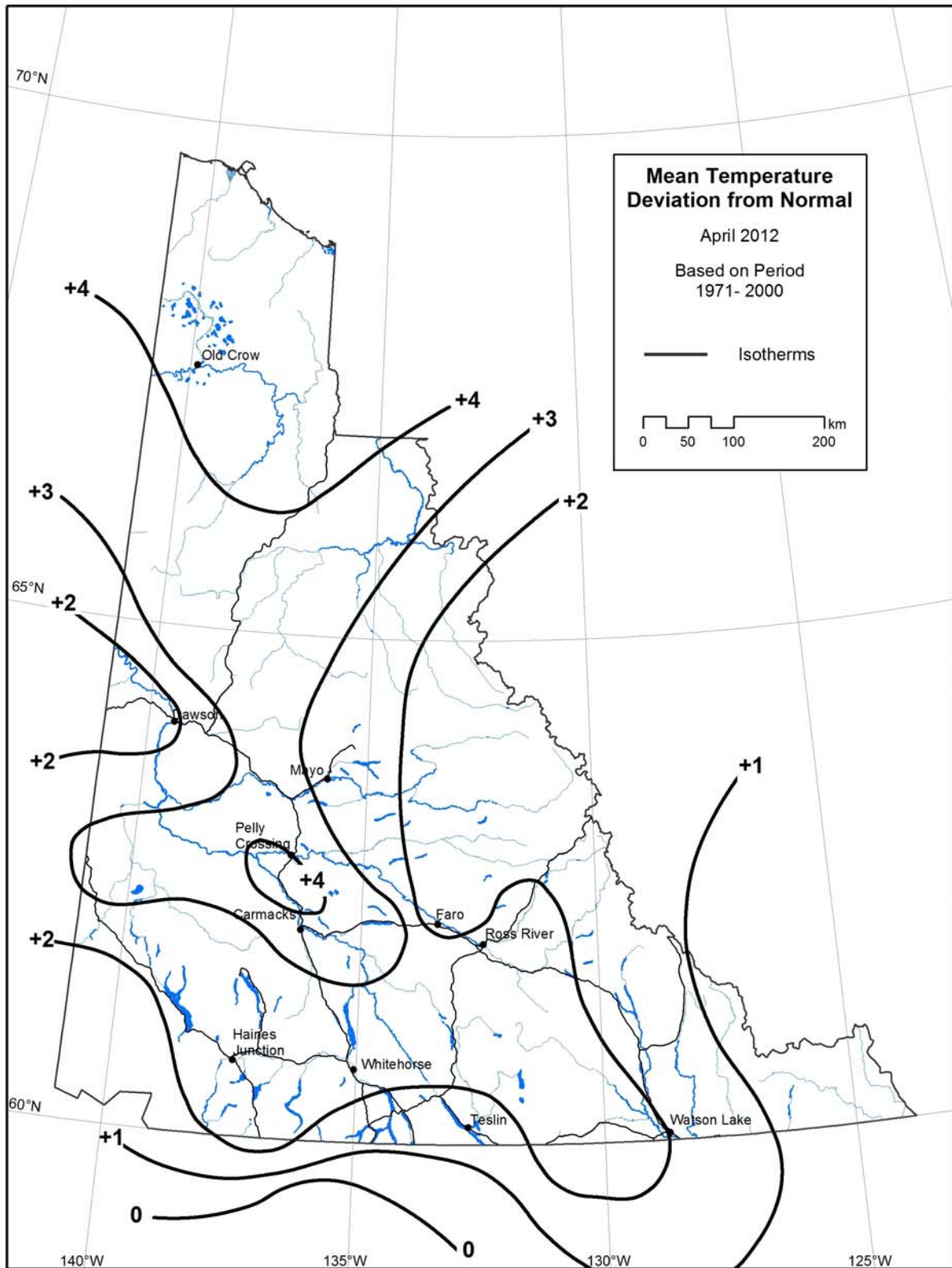
April temperatures throughout Yukon were above normal. Temperature deviations ranged from one degree above normal in southeastern Yukon to four degrees above normal in central and northern Yukon. April precipitation was variable with below normal values in southeastern and northern regions, and above normal values in south central regions including the Whitehorse and Dawson areas.

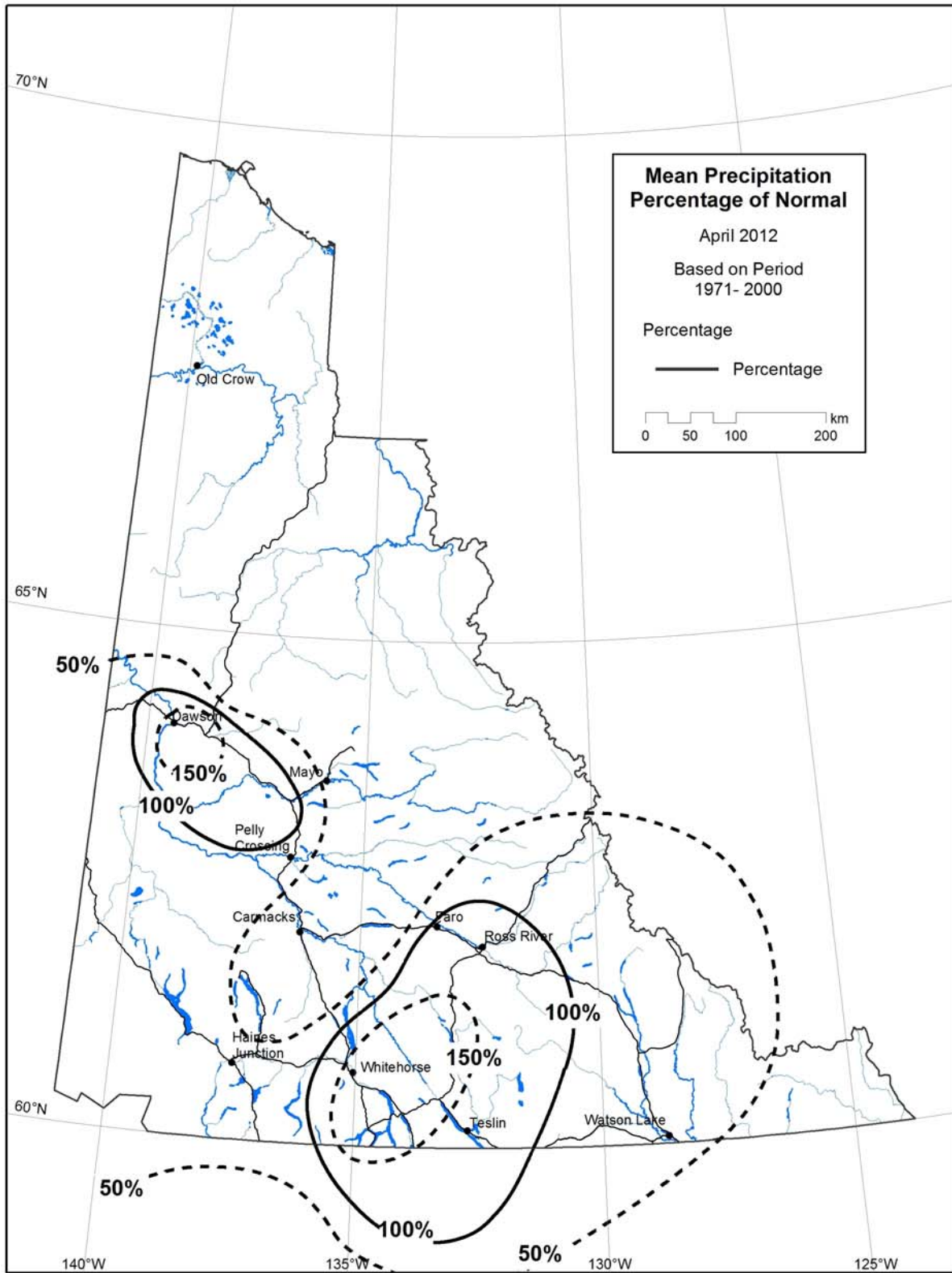
SNOWPACK

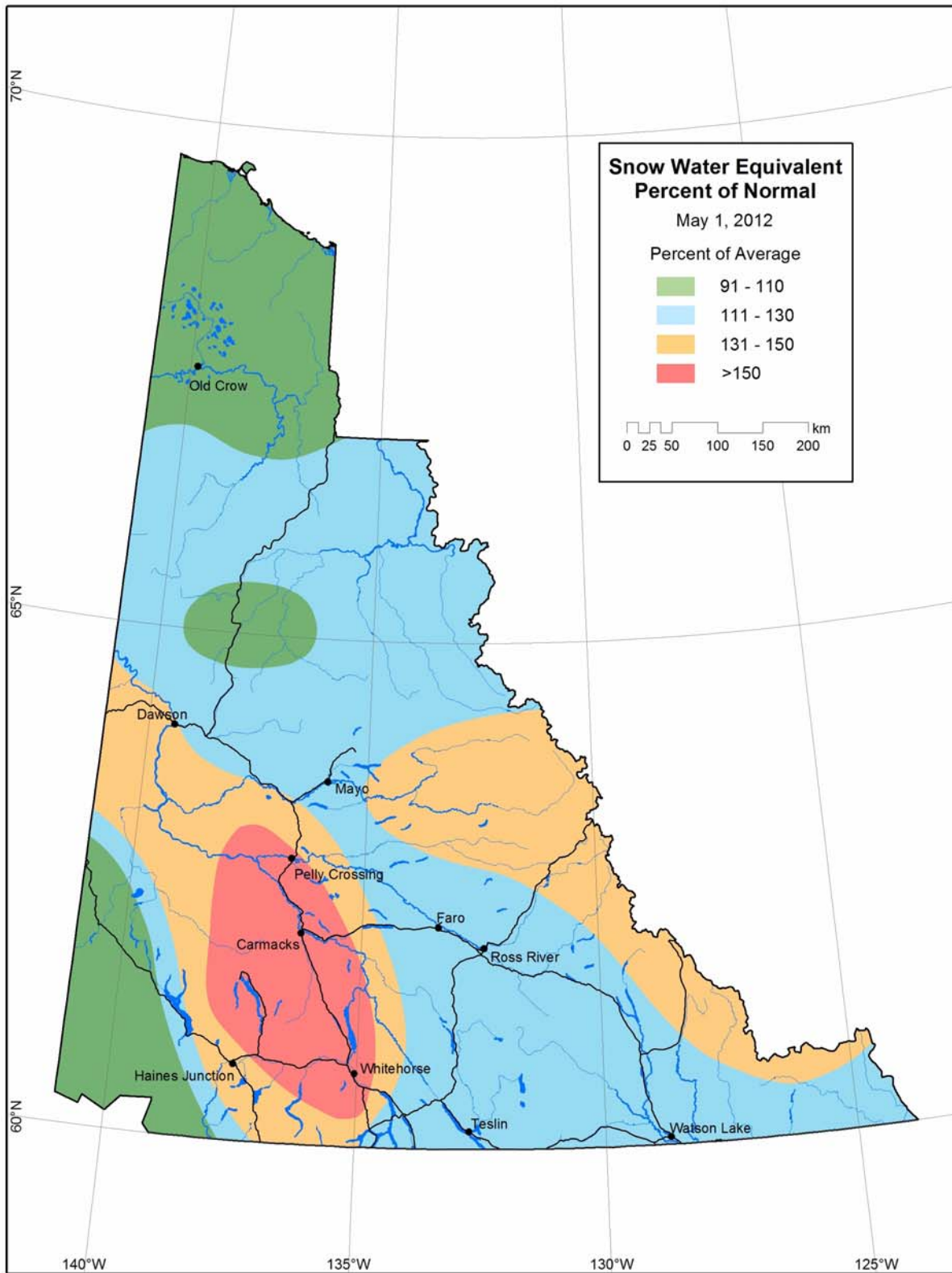
The May 1st Yukon snowpack is generally well above normal throughout much of the Territory with the exception of southwestern and northern regions which are normal.

STREAMFLOW

Streamflow conditions within Yukon are generally above normal throughout most of Yukon with the exception of the Yukon Southern Lakes which are below normal for May 1st. Streamflow during this period represents winter baseflow, which provides an indication of winter groundwater contributions.





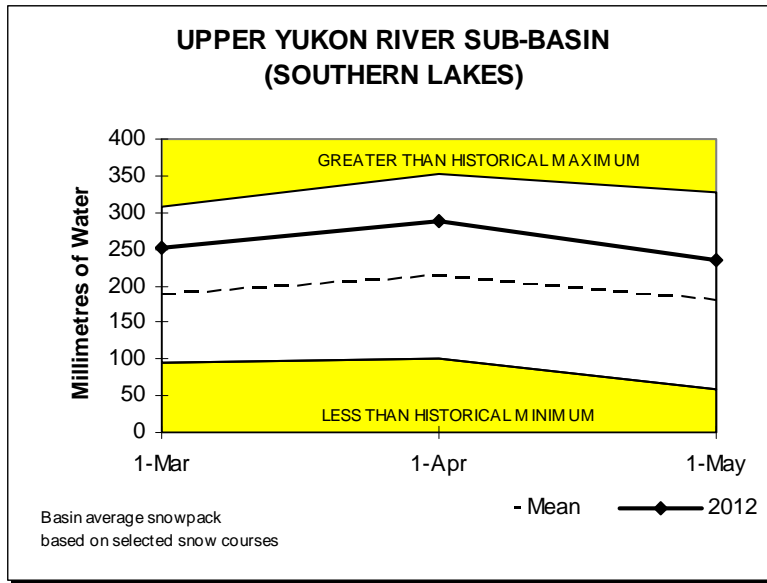


YUKON RIVER BASIN

Snowpack conditions in the Yukon River Basin are generally well above normal.

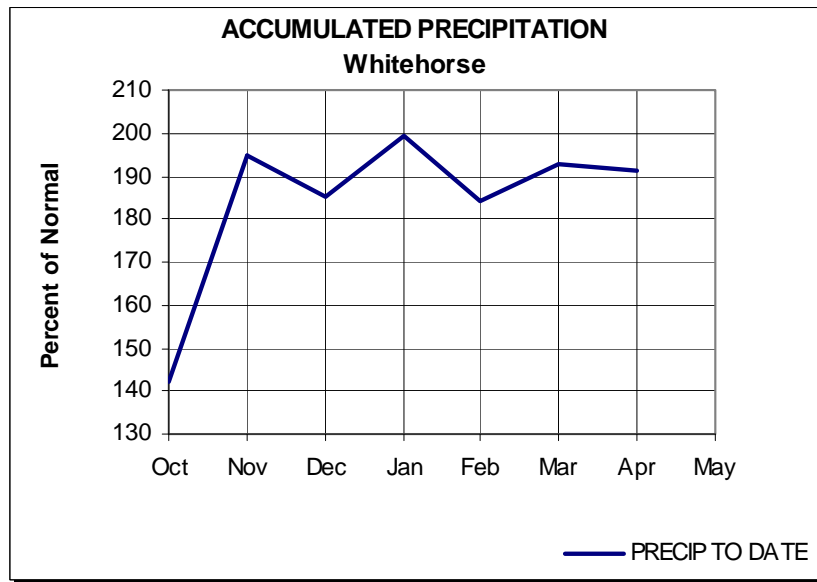
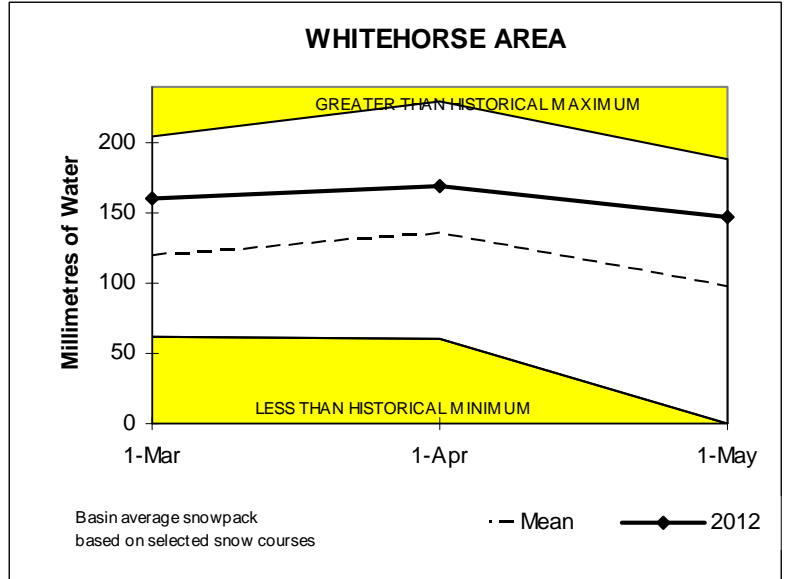
UPPER YUKON RIVER SUB-BASIN (SOUTHERN LAKES)

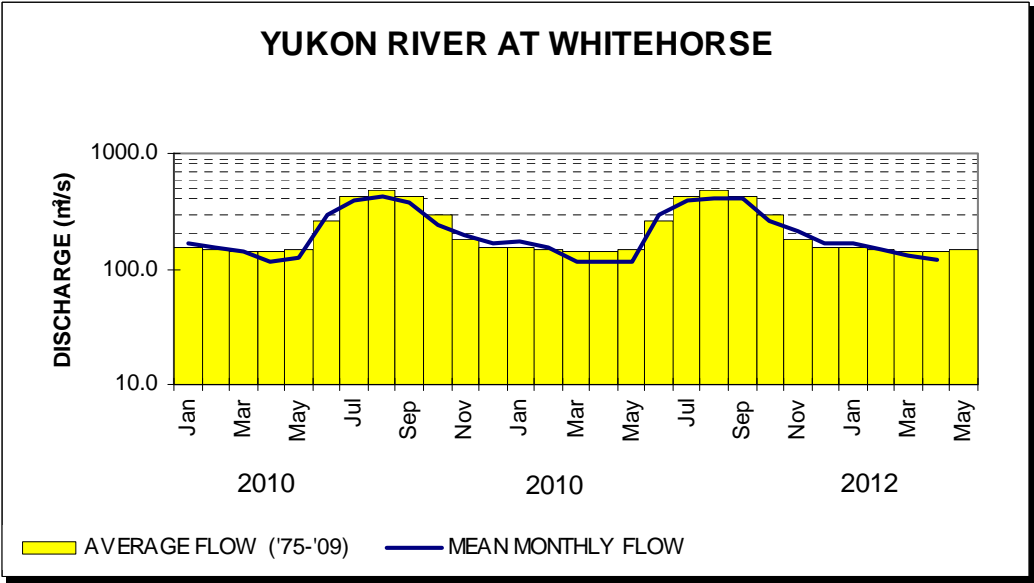
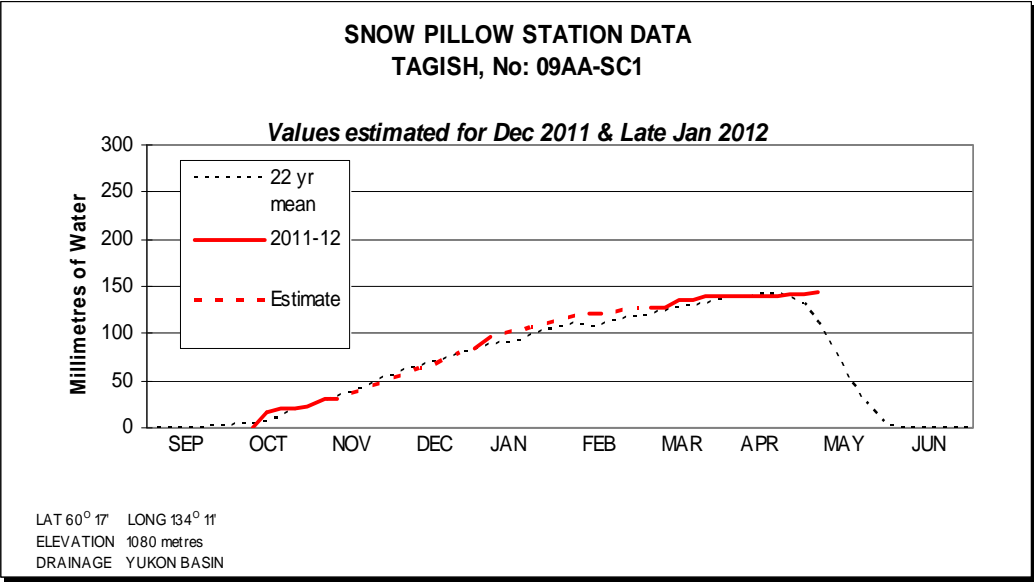
Snowpack conditions in the Upper Yukon River watershed are above normal. Values range from no snow at Atlin to 166 percent of normal at Log cabin. A basin-wide average has been estimated to be 131 percent of normal.



WHITEHORSE AREA

Snowpack conditions in the Whitehorse area are well above normal for May 1st. Values range from 127 percent of normal at the Whitehorse Airport to 220 percent of normal at Mt McIntyre. An area-wide average is estimated to be 189 percent of normal.

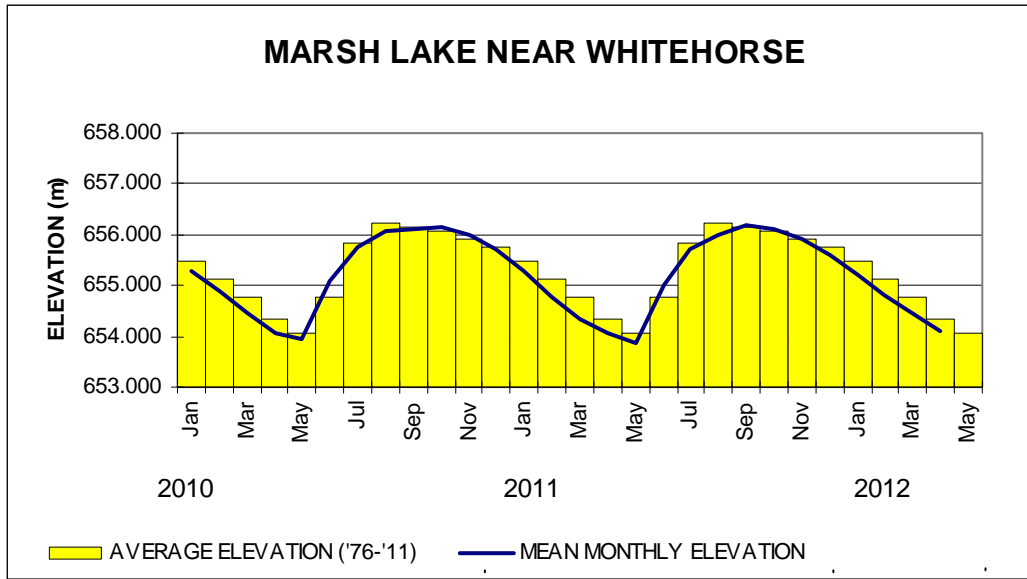




YUKON RIVER and MARSH LAKE

Yukon Snow Survey May 2012

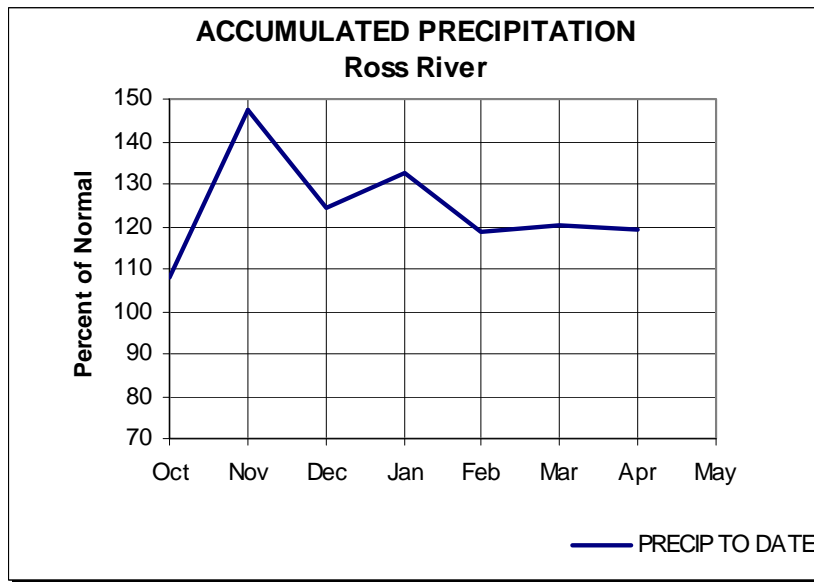
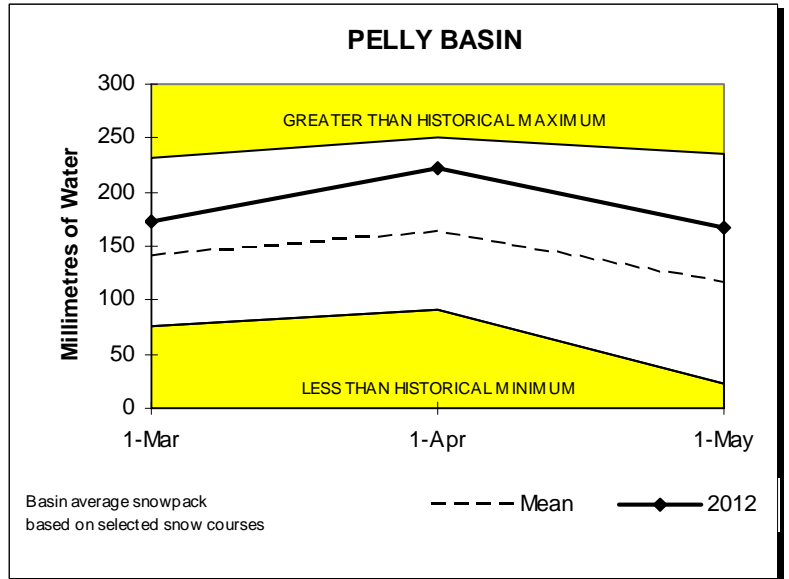
The elevation of Marsh Lake during April was 654.324 m or 0.237 m below normal. During March, the mean discharge of the Yukon River at Whitehorse was 64 percent of normal. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 125 percent and 130 percent of normal, respectively.

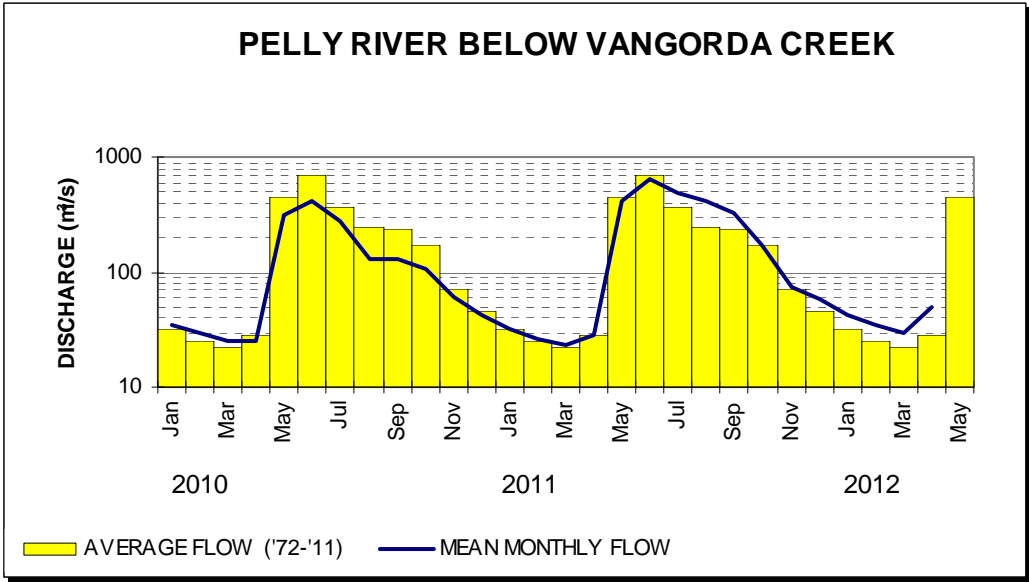
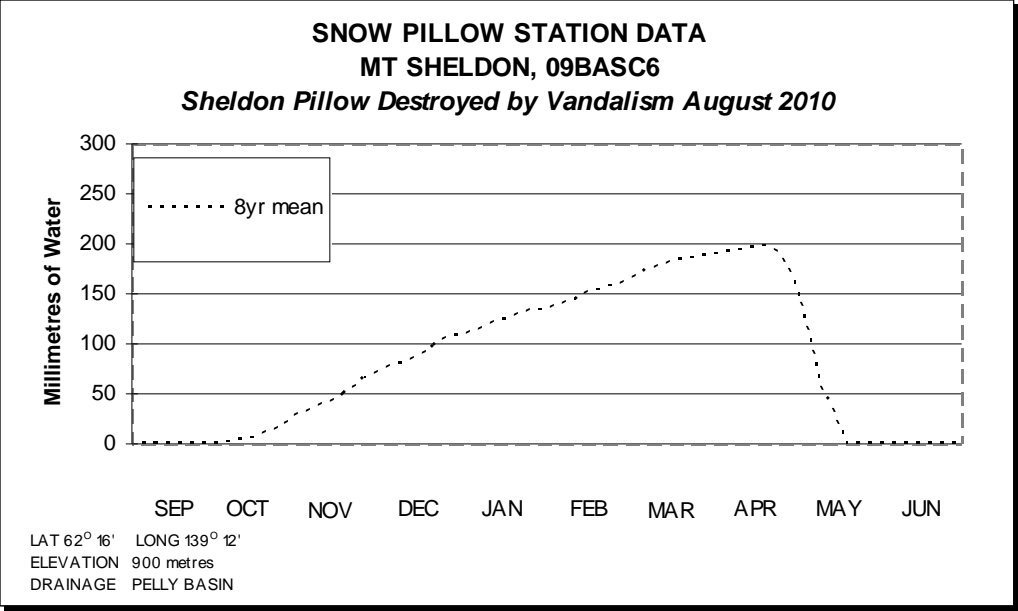


PELLY RIVER SUB-BASIN

Snowpack conditions in the Pelly River watershed are well above normal. Values of snow water equivalent range from 144 percent of normal at Twin Creeks to 145 percent of normal at Hoole River. A basin-wide average has been estimated to be 145 percent of normal.

Mean April streamflow for the watershed was 179 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 125 percent and 130 percent of normal, respectively.

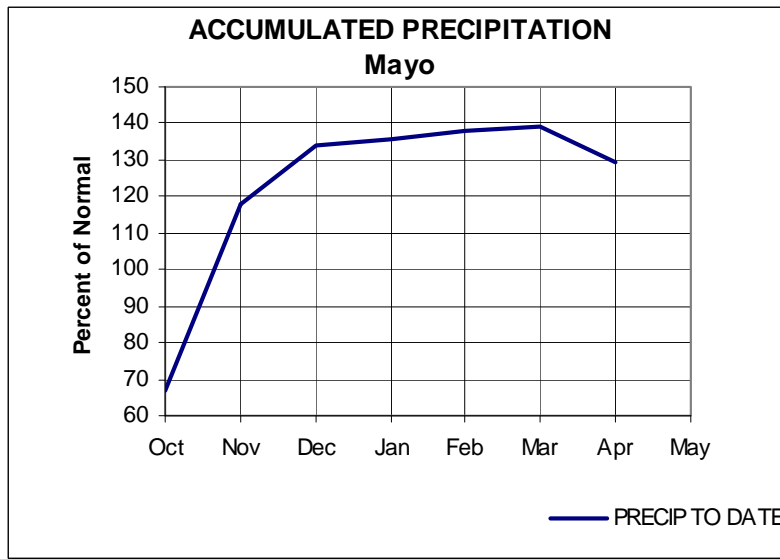
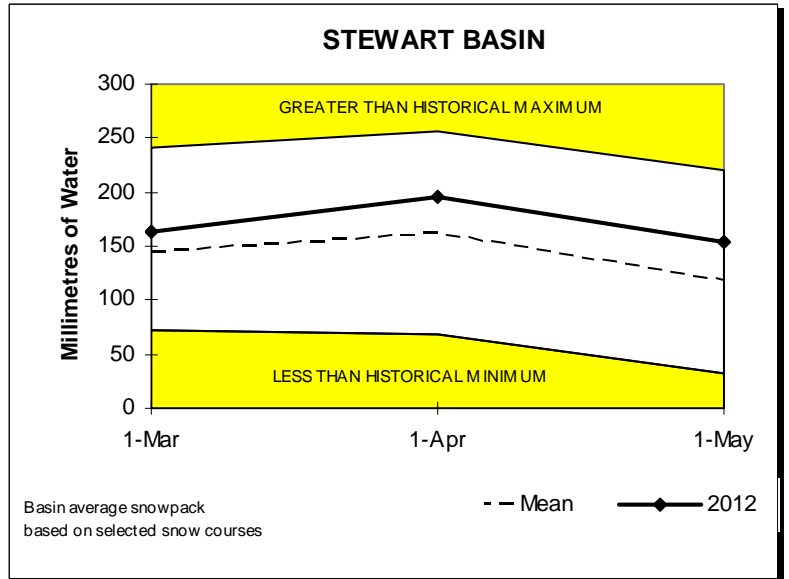


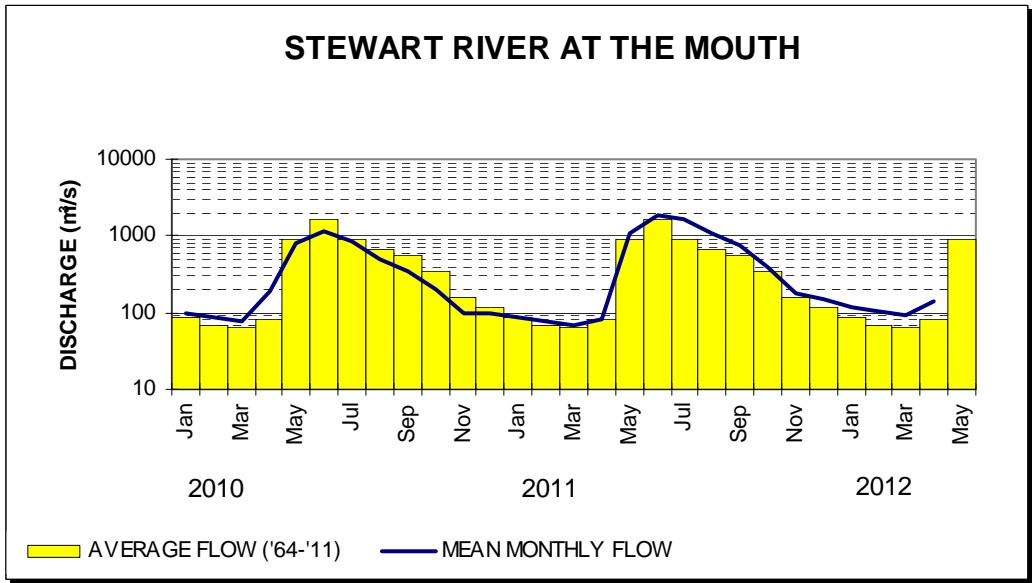
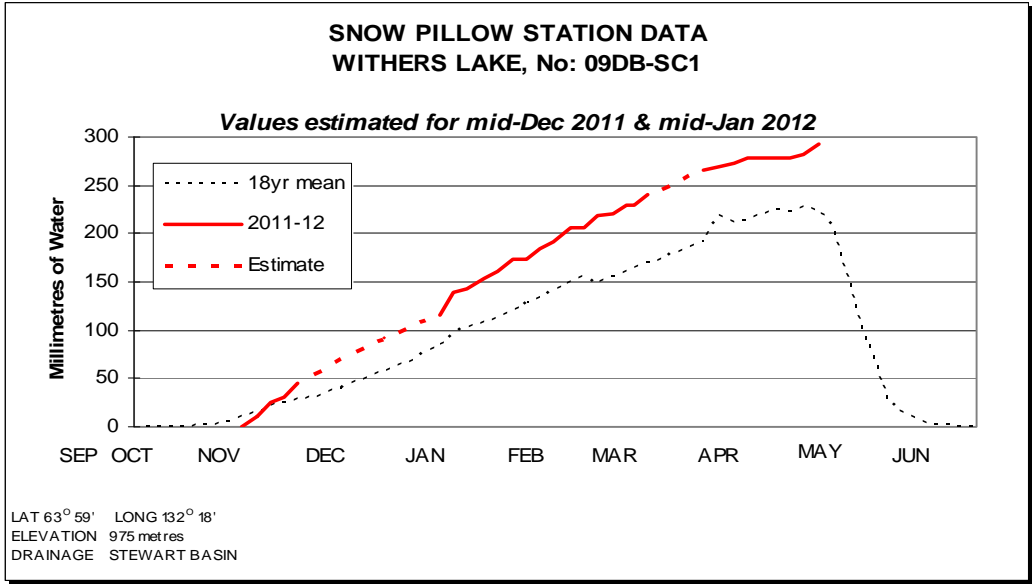


STEWART RIVER SUB-BASIN

Snowpack conditions in the Stewart River watershed are above normal for May 1st. Values of snow water equivalent range from no snow at the Mayo Airport to 153 percent of normal at Plata Airstrip. A basin-wide average has been estimated to be 131 percent of normal.

Mean April streamflow for the watershed was 176 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 120 percent and 125 percent of normal, respectively.

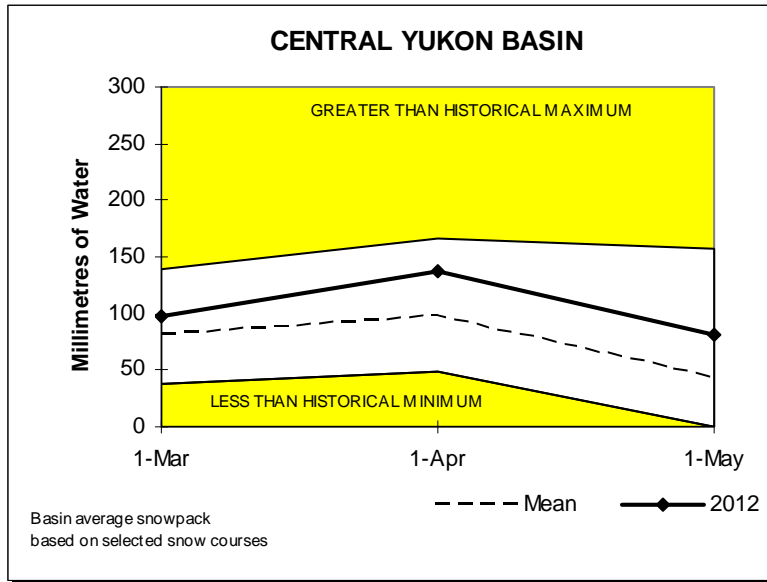




CENTRAL YUKON RIVER BASIN (CARMACKS AREA)

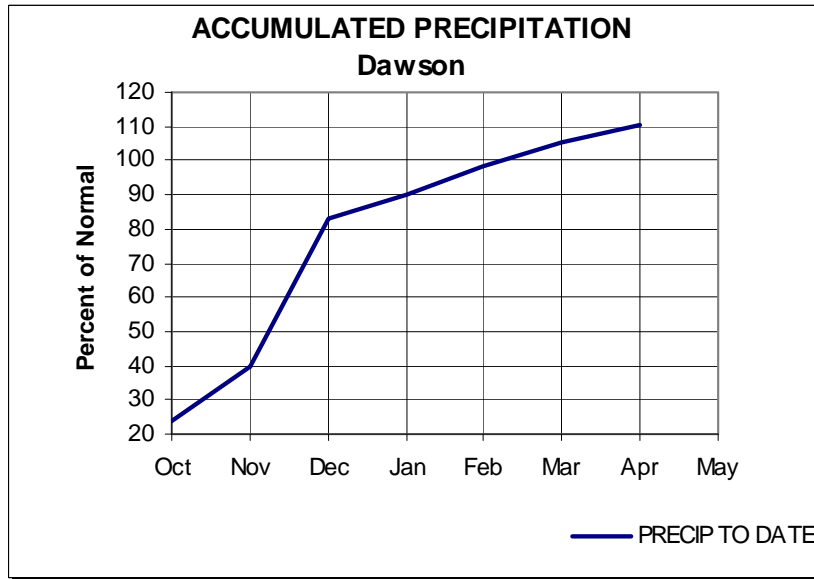
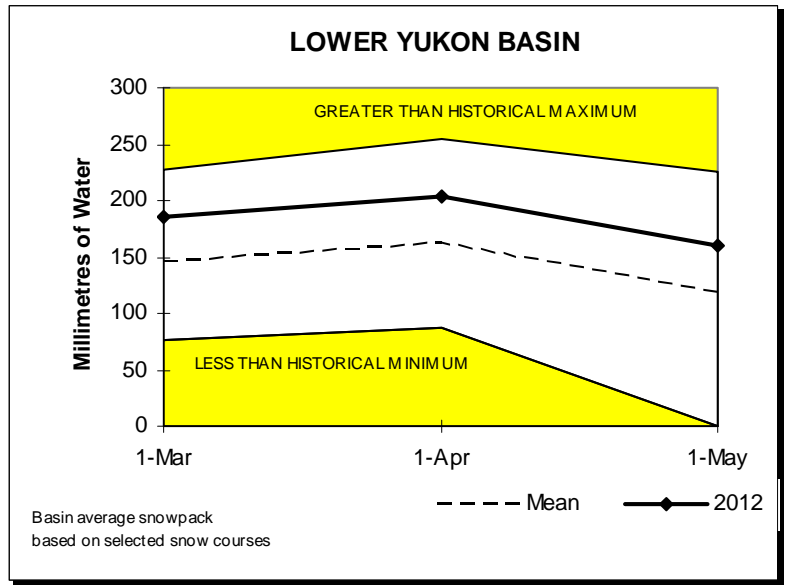
Snowpack conditions in the Carmacks area are well above normal for May 1st. Values of snow water equivalent range from no snow at Mount Nansen to

279 percent of normal at Williams Creek. An area-wide average has been estimated to be 190 percent of normal.



LOWER YUKON RIVER BASIN (DAWSON AREA)

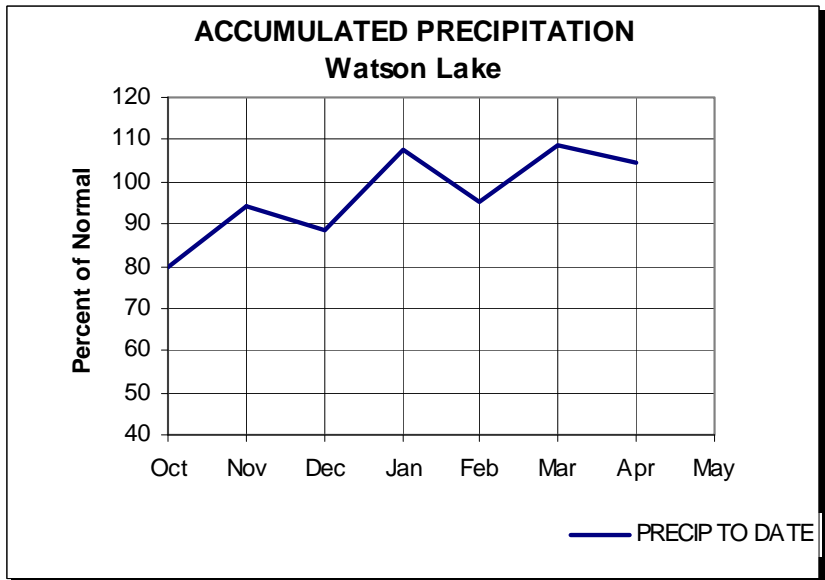
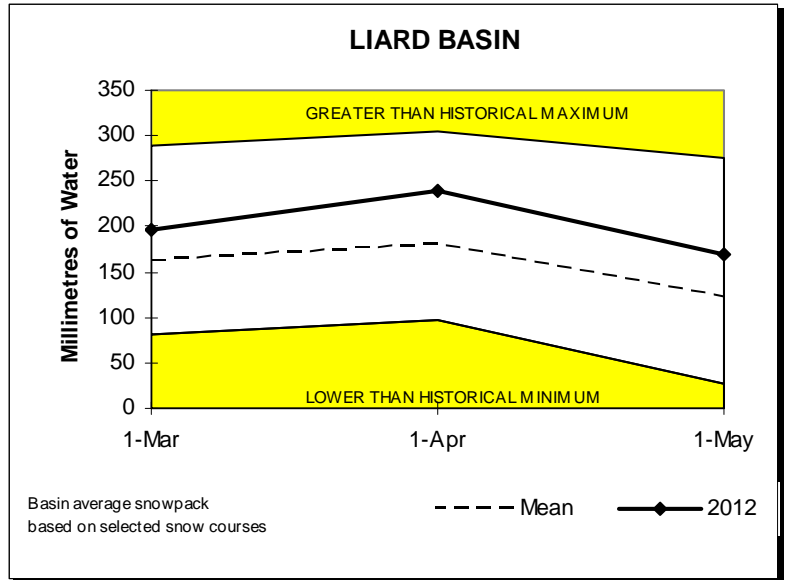
Snowpack conditions in the Dawson area are above normal for May 1st. Values of snow water equivalent range from no snow at Grizzly Creek to 148 percent of normal at Midnight Dome. An area-wide average has been estimated to be 134 percent of normal.



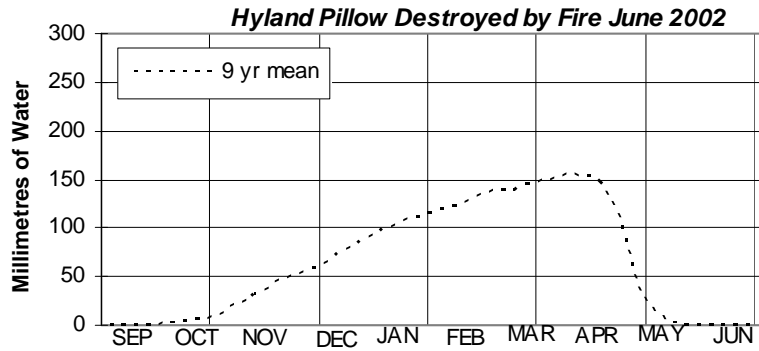
LIARD RIVER BASIN

Snowpack conditions within the Liard River watershed are above normal. Values of snow water equivalent range from 83 percent of normal at Frances Lake to 227 percent of normal at Hyland River. A basin-wide average has been estimated to be 139 percent of normal.

Mean April streamflow for the Liard River upstream of Upper Liard was 135 percent of normal. Given normal summer meteorological conditions, volume runoff and peak flows for the season are expected to be 125 percent and 130 percent of normal, respectively.

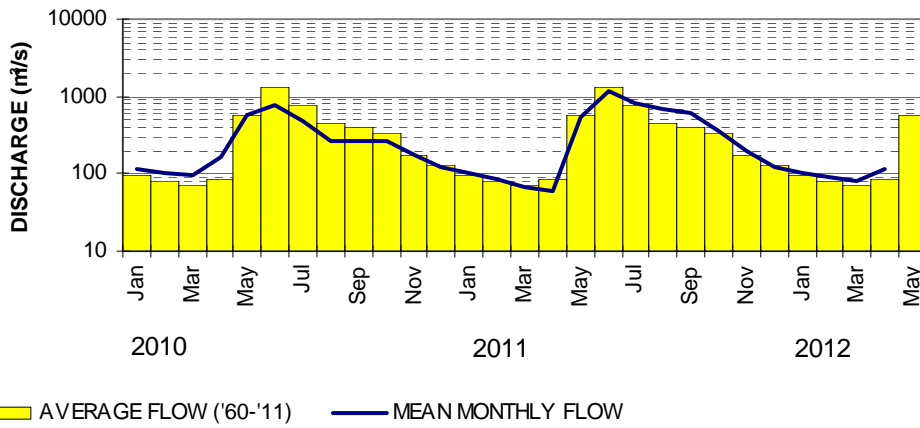


**SNOW PILLOW STATION DATA
HYLAND RIVER, No: 10AD-SC1**



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

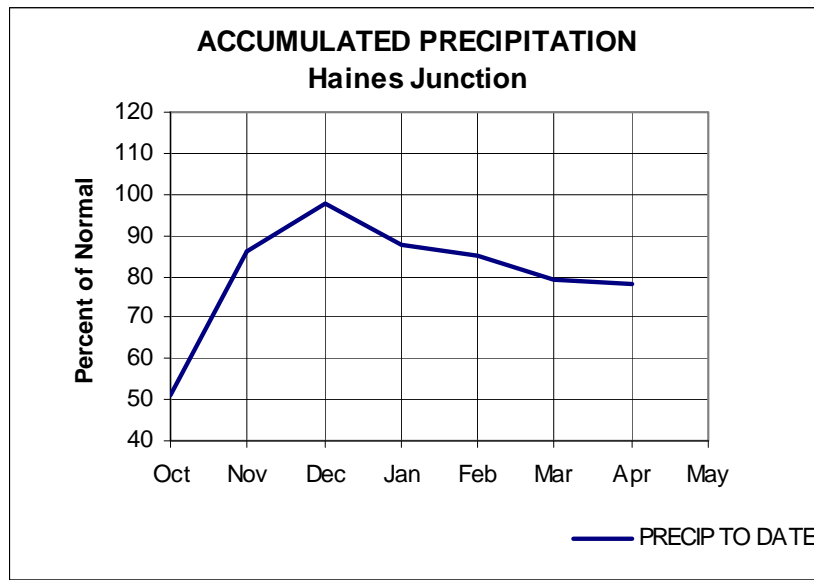
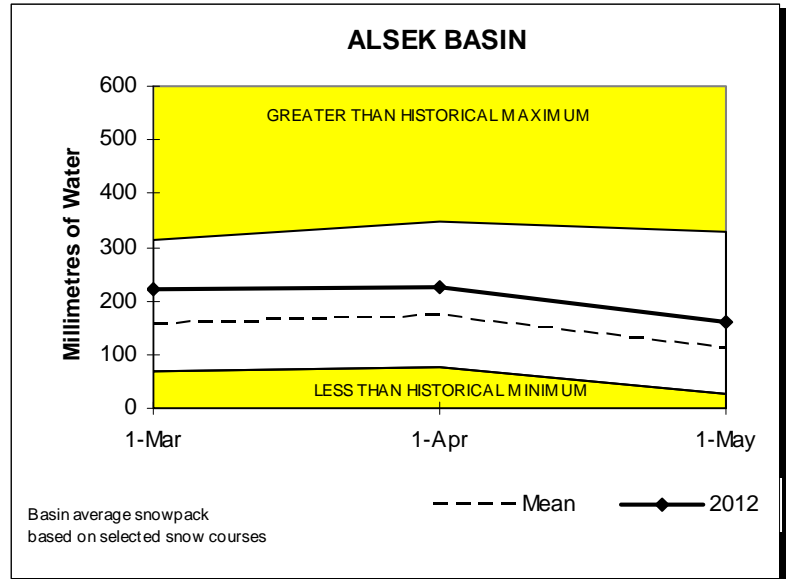
LIARD RIVER AT UPPER CROSSING

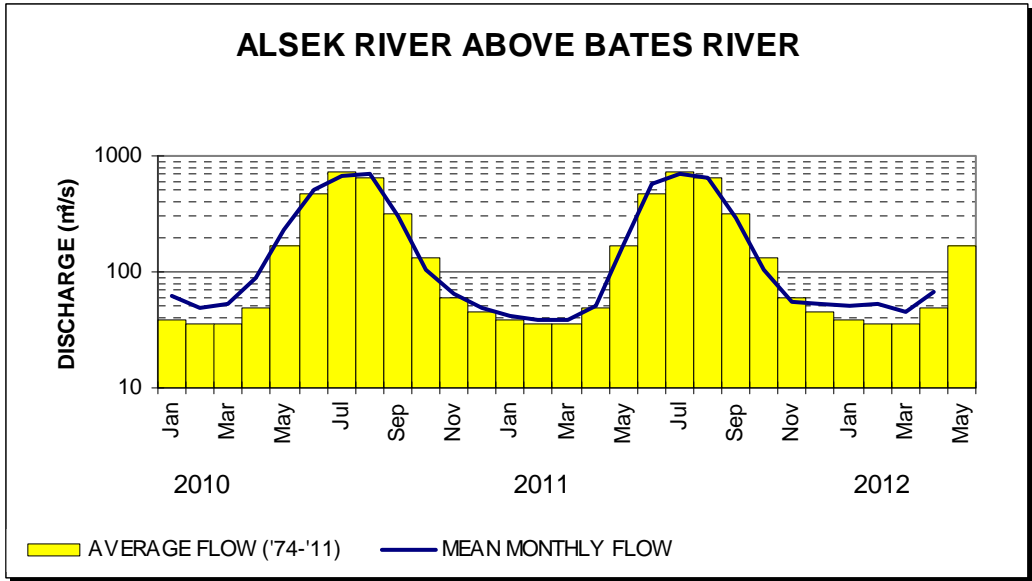


ALSEK RIVER BASIN

Snowpack conditions within the Alsek River watershed are above normal for May 1st. Values of snow water equivalent range from 151 percent of normal at Alder Creek to 174 percent of normal at Canyon Lake. A basin-wide average has been estimated to be 147 percent of normal.

Mean monthly streamflow for April as indicated by the Alsek River above Bates River was 142 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 125 and 125 percent of normal, respectively.

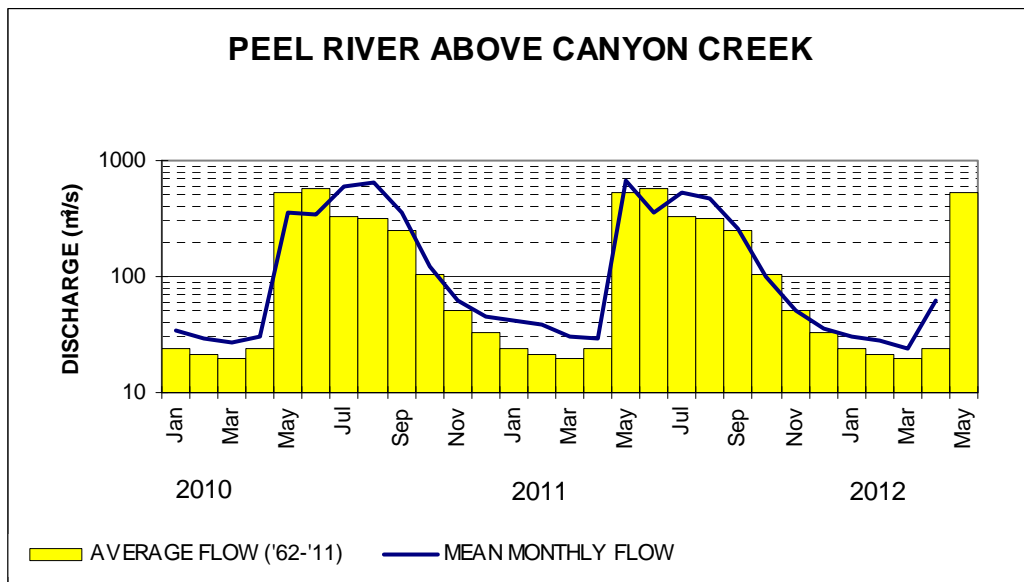
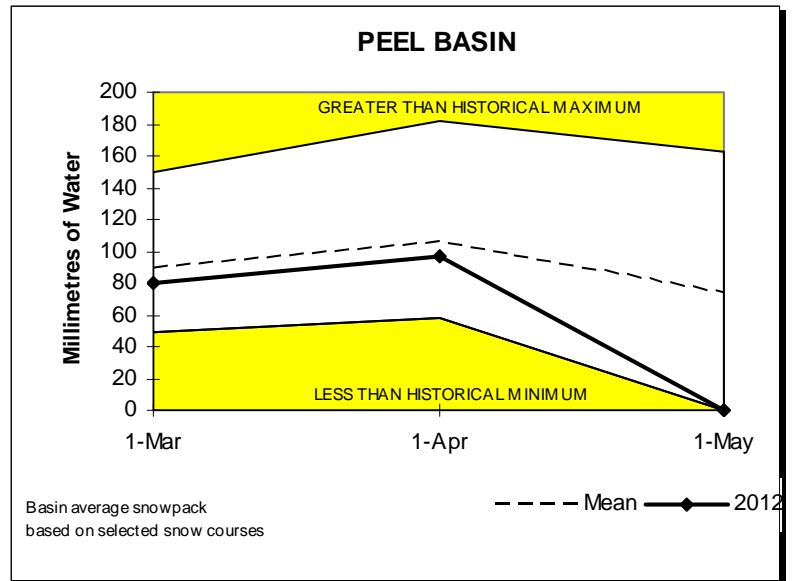




PEEL RIVER BASIN

Snowpack conditions in the Peel River watershed are below normal with no snow at the indicator snow courses. A basin-wide average has been estimated to be 91 percent of normal.

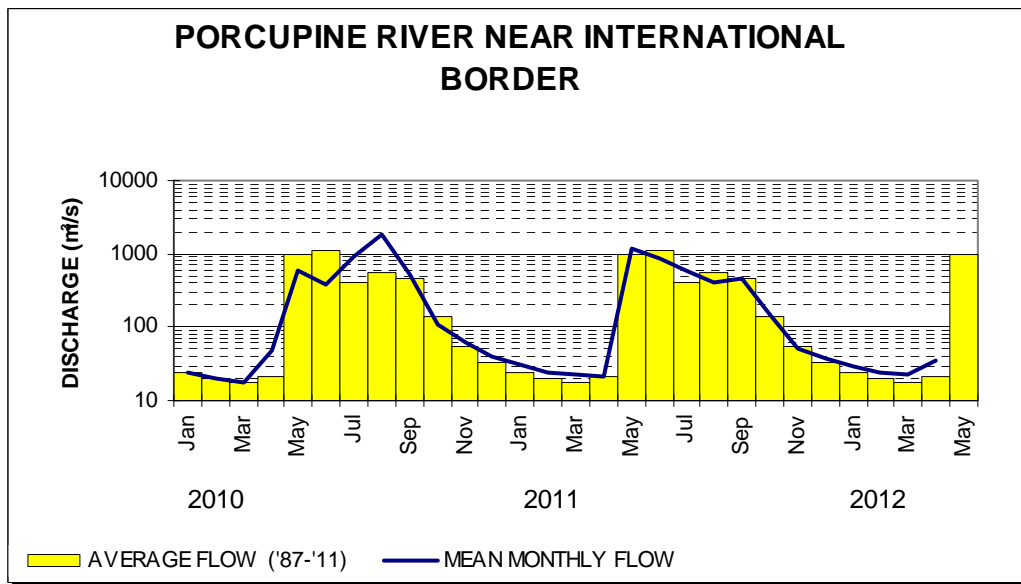
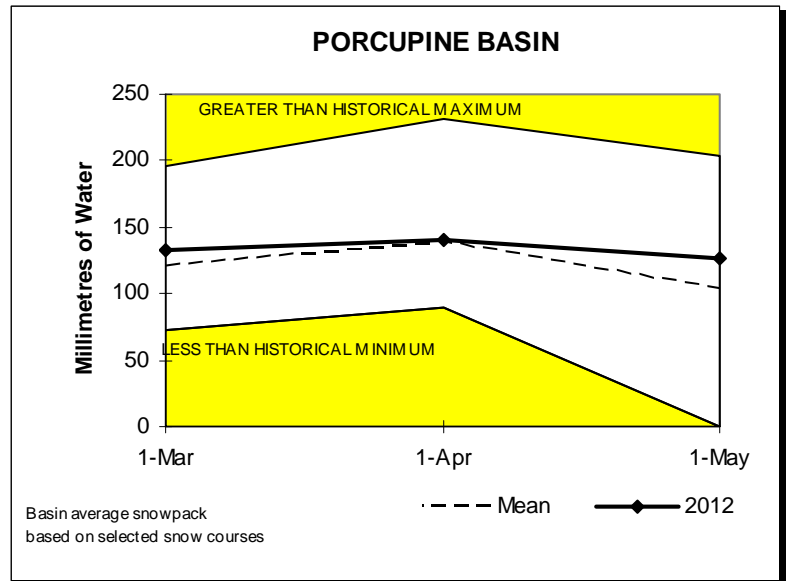
Mean monthly streamflow for April as indicated by the Peel River above Canyon Creek station was 258 percent of normal. Peel River volume and peak flow forecasts are not available at this time.



PORCUPINE RIVER BASIN

Snowpack conditions in the Porcupine River watershed are above normal with values of snow water equivalent ranging from 107 percent of normal at Old Crow to 140 percent of normal at Eagle River. A basin-wide average has been estimated to be 122 percent of normal.

Mean April streamflow for the basin as indicated by the Porcupine River near the International Boundary is 159 percent of normal. Porcupine River volume and peak flow forecasts are not available at this time.



Drainage Basin and Snow Course

For Sample Date: 2012-05-01

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	4/30/2012	25	66	160	38	35
Alder Creek	08AA-SC02	768	5/1/2012	36	124	84	82	31
Aishihik Lake	08AA-SC03	945	4/30/2012	16	32	135	49	18
Haines Junction Farm	08AA-SC04	610	4/25/2012	25	76	87	52	12
Summit	08AB-SC03	1000	4/26/2012	82	294	222	210	32
Profile Mountain	08AB-SC04	900	No Surv			N.S.	261	23
Yukon River Basin								
Tagish	09AA-SC01	1080	4/25/2012	46	126	198	117	36
Montana Mountain	09AA-SC02	1020	4/25/2012	62	151	190	116	36
Log Cabin (B.C.)	09AA-SC03	884	4/25/2012	126	571	386	343	54
Atlin (B.C)	09AA-SC04	730	5/1/2012	0	0	0	47	45
Mt McIntyre B	09AB-SC01B	1097	4/27/2012	78	214	220	131	36
Whitehorse Airport	09AB-SC02	700	4/27/2012	30	95	40	24	45
Meadow Creek	09AD-SC01	1235	4/25/2012	114	330	179	277	36
Jordan Lake	09AD-SC02	930	4/29/2012	52	122	65	87	25
Morley Lake	09AE-SC01	824	4/29/2012	38	48	84	85	25
Mount Berdoe	09AH-SC01	1035	4/25/2012	45	132	168	62	36
Satasha Lake	09AH-SC03	1106	No Surv			0	29	24
Williams Creek	09AH-SC04	914	No Surv			0	43	16
Twin Creeks	09BA-SC02	900	4/26/2012	63	208	82	144	35
Hoole River	09BA-SC03	1036	4/28/2012	53	126	140	87	35
Burns Lake	09BA-SC04	1112	4/28/2012	102	288	225	213	26
Finlayson Airstrip	09BA-SC05	988	4/28/2012	23	53	99	51	25
Fuller Lake	09BB-SC03	1126	4/28/2012	88	248	211	206	26
Russell Lake	09BB-SC04	1060	4/26/2012	99	314	282	218	25
Rose Creek	09BC-SC01	1080	4/25/2012	31	80	90	32	18
Mount Nansen	09CA-SC01	1021	4/25/2012	0	0	118	20	35
MacIntosh	09CA-SC02	1160	No Surv			0	47	35
Burwash Airstrip	09CA-SC03	810	4/26/2012	0	0	52	8	35
Duke River	09CA-SC05	1310	No Surv			N.S.	72	21
Burwash Uplands	09CA-SC06	1080	No Surv			N.S.	8	4
Beaver Creek	09CB-SC01	655	4/26/2012	11	26	59	30	37
Chair Mountain	09CB-SC02	1067	4/26/2012	0	0	108	43	9
White River	09CB-SC03	823	No Surv			N.S.	0	2
Casino Creek	09CD-SC01	1065	4/25/2012	65	160	182	121	34
Pelly Farm	09CD-SC03	472	4/27/2012	13	34	46	18	26

Printed on 07 May 2012 from the Environment Yukon Snow Survey System
Code "E" - Estimate, Code "B" - Survey date is outside of valid sampling range

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Drainage Basin and Snow Course

For Sample Date: 2012-05-01

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	4/26/2012	66	225	167	147	33
Arrowhead Lake	09DA-SC02	1120	No Surv			N.S.	198	20
Withers Lake	09DB-SC01	975	4/26/2012	96	311	274	235	26
Rackla Lake	09DB-SC02	1040	4/26/2012	91	248	222	206	25
Mayo Airport A	09DC-SC01A	540	4/25/2012	0	0	0	13	41
Mayo Airport B	09DC-SC01B	540	4/25/2012	0	0	0	12	24
Edwards Lake	09DC-SC02	830	4/26/2012	85	231	163	156	25
Calumet	09DD-SC01	1310	4/25/2012	92	236	148	193	31
King Solomon Dome	09EA-SC01	1080	4/27/2012	46	131	140	105	37
Grizzly Creek	09EA-SC02	975	5/1/2012	0	0	105	126	37
Midnight Dome	09EB-SC01	855	4/27/2012	63	188	174	127	37
Porcupine River Basin								
Riff's Ridge	09FA-SC01	650	5/1/2012	57	147	165	117	25
Eagle Plains	09FB-SC01	710	5/1/2012	61	151	168	127	27
Eagle River	09FB-SC02	340	5/1/2012	58	133	139	95	27
Old Crow	09FD-SC01	299	4/25/2012	51	93	N.S.	87	28
Liard River Basin								
Watson Lake Airport	10AA-SC01	685	4/27/2012	20	48	64	46	47
Tintina Airstrip	10AA-SC02	1067	4/27/2012	77	232	151	179	35
Pine Lake Airstrip	10AA-SC03	995	4/26/2012	78	258	160	192	36
Ford Lake	10AA-SC04	1110	4/27/2012	79	195	147	169	24
Frances River	10AB-SC01	730	4/27/2012	32	72	64	87	37
Hyland River	10AD-SC01	855	4/26/2012	55	238	160	105	36
Peel River Basin								
Blackstone River	10MA-SC01	920	5/1/2012	0	0	111	73	36
Ogilvie River	10MA-SC02	595	5/1/2012	0	0	100	75	35
Bonnet Plume Lake	10MB-SC01	1120	4/26/2012	83	221	190	197	26
Alaska Snow Courses								
Eaglecrest	08AK-SC01	305	5/1/2012	216	945	559	426	28
Moore Creek Bridge	08AK-SC02	700	4/30/2012	99	406	452	505	20

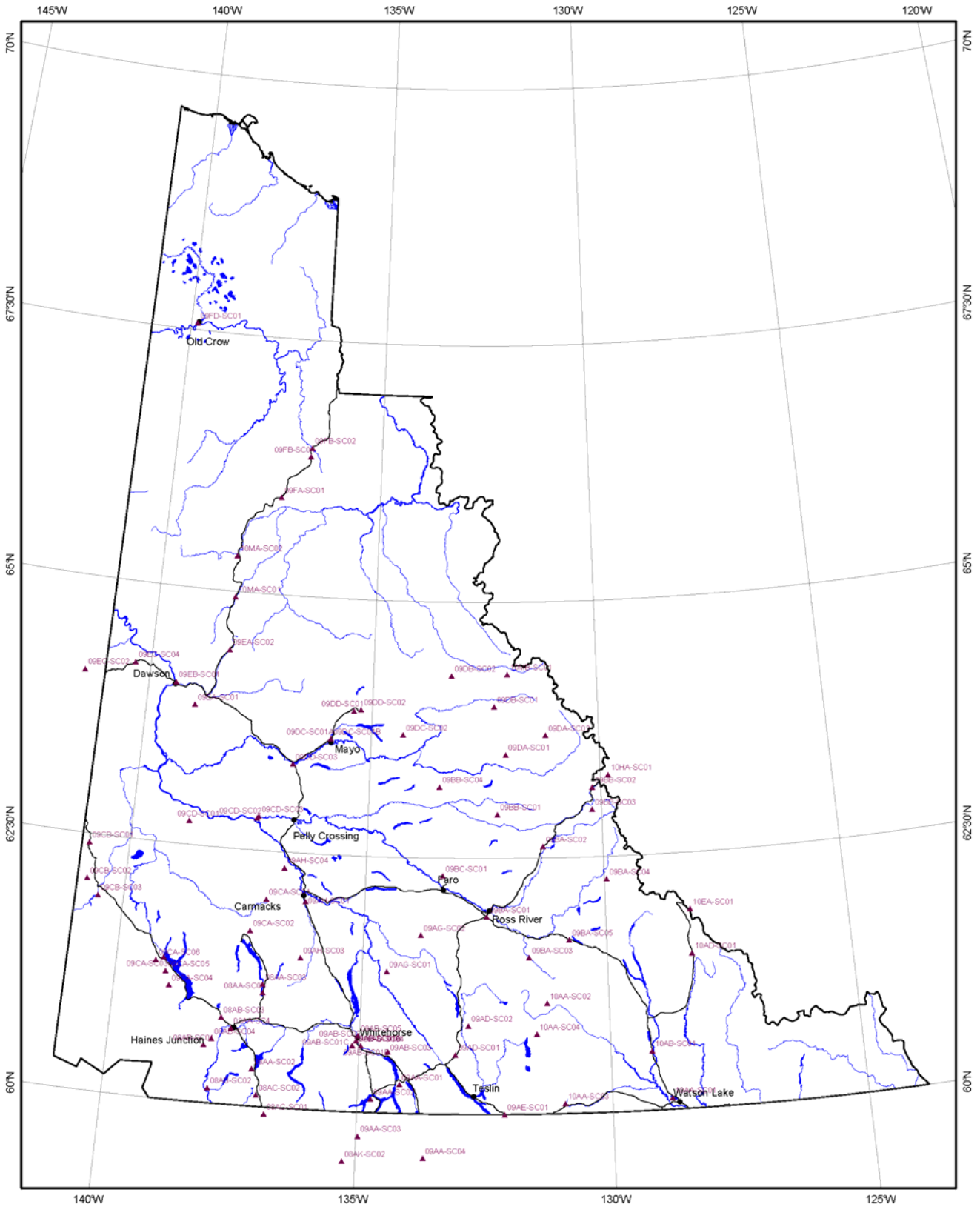
INDEX OF YUKON SNOW COURSES

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



Location of Water Resource Snow Courses

Yukon Snow Survey May 2012