USDA United States Department of Agriculture

Natural Resources Conservation Service

Alaska Basin Outlook Report MAY 1, 2002

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- Forest Service
  - Chugach National Forest
  - Institute of Northern Forestry
  - Tongass National Forest

Department of Commerce
- NOAA, National Weather Service
- Climate Monitoring and Diagnostics Laboratory

Department of Defense
- U.S. Army Corps of Engineers
- U.S. Army Cold Regions Research and Engineers Laboratory

Department of Interior
- Bureau of Land Management
- Geological Survey
- Fish and Wildlife Service
- National Park Service

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Alaska Department of Natural Resources
- Division of Parks
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Fairbanks North Star Borough School District
The Lake and Peninsula School District

Canada

Department of Indian and Northern Affairs, Yukon Territory
Ministry of the Environment, British Columbia

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map

GENERAL OVERVIEW

Snowpack

The snowpack across the state generally went up one or two ranges in percents of normal. The combinations of snow at higher elevations and colder than normal temperatures were the contributing factors. The Koyukuk/ Western Interior region went from 90–110 percent to 130-150 percent of normal. The Norton Sound region received significant snow with the SNOTEL site at Rocky Point going from 15 inches of snow depth April 1st to 27 inches of snow depth May 1st. The only region with less than normal snowpack that remained the same was the Lower Tanana Valley where the precipitation at the end of the month came as rain and generally melted off most of the snow. In the South Central region the Denali State Park received much greater than normal snow with the Blueberry Hill snow course receiving 4.8 inches of water content, normal is 1.4 inches. The Southeast region from Petersburg to Ketchikan remains well above the 150 percent of normal range with the snow courses in Petersburg at 198 percent of normal.

Precipitation

Regions north and west of the Alaska Range received much greater than normal precipitation with the Fairbanks gauge receiving 3.0 inches of snow and rain; normal is 0.4. The McGrath Weather Service observer reported 1.98 inches; normal is 0.82 inches. This greater than normal trend continued north of the Brooks Range with Barrow receiving 0.6 inches; normal is 0.3 inches. In South Central, the Susitna Valley High precipitation gauge received 1.4 inches; normal is 0.6 inches. The Anchorage area south through the Kenai Peninsula received normal to less than normal precipitation with most areas bordering the Gulf of Alaska to Southeast receiving much less than normal precipitation. Seward had 0.81 inches, 21 percent of normal, Juneau 0.47, 17 percent of normal.

Temperature

The only regions above normal for temperatures were north of the Brooks Range such as Barrow (+4.5 deg F) and the west coast from King Salmon (+1.8 deg F) to Bethel (+3.6 deg F) to Kotzebue (+1.9 deg F). The Interior Regions from Tanana (-2.2 deg F) to Eagle (-4.4 deg F) and south throughout Southcentral and Southeast were below normal for the month. In the Yukon Territories, Whitehorse was having the coldest April since 1942 until the last day, April 30th on which a record high was set. This resulted in having the 5th coldest April on record in Whitehorse, Yukon Territories.

STREAMFLOW

Streamflow of snowmelt runoff are as follows:

Forecast Point	Most Probable %	Forecast Period
Yukon River at Eagle	104	May-Jul

Yukon River at Stevens Village	103	May-Jul
Tanana River at Fairbanks	107	May-Jul
Tanana River at Nenana	103	May-Jul
Little Chena River nr Fairbanks	111	May-Jul
Chena River nr Two Rivers	118	May-Jul
Salcha nr Salchaket	138	May-Jul
Sagvanirktok River nr Pump Station 3	85	May-Jul
Kuparuk River nr Deadhorse	84	May-Jul
Kuskokwim River at Crooked Creek	96	May-Jul
Gulkana River at Sourdough	80	May-Jul
Little Susitna River nr Palmer	83	May-Jul
Talkeetna River nr Talkeetna	80	May-Jul
Ship Creek nr Anchorage	98	May-Jul
Kenai River at Cooper Landing	107	May-Jul

Snowmelt Runoff Index (SRI)

For streams that no longer have stream gagging stations.

Forecast Point	Index
Koyukuk River at Hughes	+0.3
Birch Creek below South Fork	-0.4
Susitna River nr Gold Creek	-0.4
Chulitna River nr Talkeetna	-1.9
Deshka River at mouth near Willow	-0.2
Montana Creek at Parks Highway	+0.3
Willow Creek nr Willow	-0.1
Campbell Creek nr Spenard	-0.5
Indian Creek at Indian	-2.3
Bird Creek at Bird Creek	-2.5
Sixmile Creek nr Hope	+0.7
Resurrection Creek nr Hope	+0.1
Anchor River nr Anchor Point	+0.4
Deep Creek nr Ninilchik	+0.8
Ninilchik River nr Ninilchik	+1.0
Skagway River at Skagway	+1.5

Index Key:

-2 to -3 = much below average snowmelt runoff
-1 to -2 = below average snowmelt runoff
-1 to +1 = average snowmelt runoff
+1 to +2 = above average snowmelt runoff
+2 to +3 = much above average snowmelt runoff

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:

Rick McClure
Data Collection Office Supervisor
510 L Street, Suite 270
Anchorage, AK 99501-1949
(907) 271-2424

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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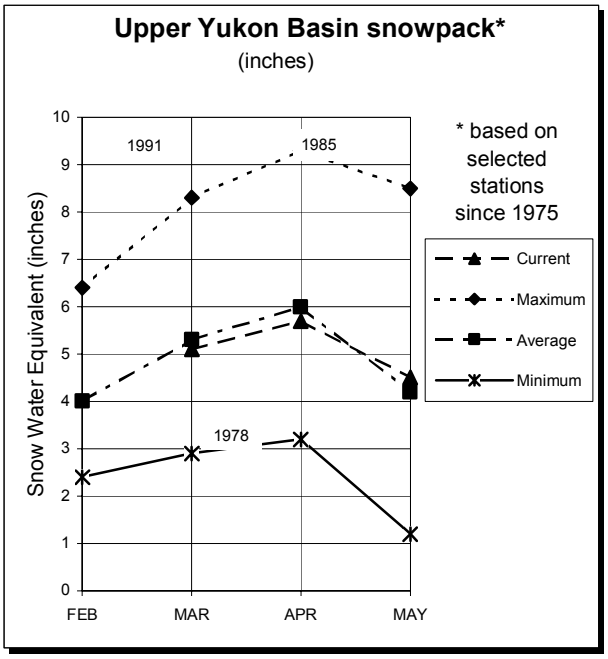
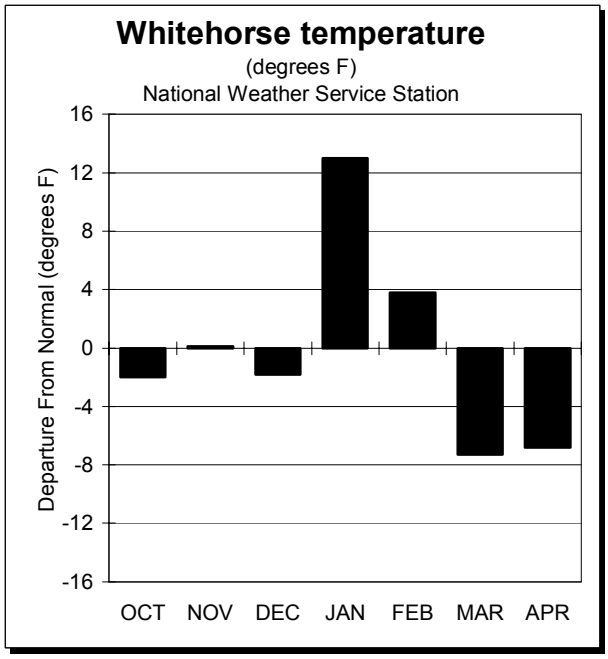
Upper Yukon Basin

May 1, 2002





SNOWCOVER:

The White River Basin is 197 percent of normal, up from 103 percent last month. A result of cooler than normal temperatures and the lower elevations snow courses retaining their snow. The area above Whitehorse/ Tetlin went up 6 percent to 115 percent.
The projected volume flow for the Yukon River at Eagle for the May through July time period is 34,085,000 acre-feet, 104 percent of normal.

For more information contact the Natural Resources Conservation Service office in Anchorage: (907) 271-2424.

Upper Yukon Basin

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Arrowhead Lake	3680	4/25/02	24	5.3	33	7.5	29	7.9
Atlin	2400	2/05/02	0	0	0	0.0	7	2.0
Beaver Creek	2150	4/25/02	18	4.2	8	2.5	4	1.1
Burns Lake	3650	4/26/02	33	8.3	31	9.4	25	8.3
Burwash Airstrip	2660	4/25/02	9	1.7	0	0.0	1	0.2
Calumet	4300	5/01/02	23	4.6	43	10.5	33	7.8
Casino Creek	3500	4/29/02	19	4.6	28	5.8	20	4.6
Chair Mountain	3500	4/26/02	12	3.5	--	---	--	---
Duke River	4800	4/29/02	16	2.6	21	4.5	15	3.1
Edwards Lake	2720	4/25/02	21	4.5	30	8.1	22	6.0
Finlayson Airstrip	3240	4/26/02	19	4.8	9	2.5	9	2.6
Fuller Lake	3700	4/25/02	27	5.8	28	7.2	28	8.1
Grizzly Creek	4000	4/30/02	13	3.3	27	7.0	21	5.2
Hoole River	3560	4/26/02	20	4.5	9	2.2	11	3.0
Jordan Lake	3050	4/26/02	20	4.8	16	3.7	11	2.9
King Solomon Dome	3550	5/01/02	12	3.0	29	8.2	14	3.8
Log Cabin (B.C.)	2880	5/03/02	45	15.8	42	15.2	38	14.2
Mayo Airport	1620	5/01/02	0	0.0	11	3.9	2	0.6
MacIntosh	3800	4/29/02	13	3.1	7	1.6	8	1.9
Meadow Creek	4050	4/26/02	44	11.8	39	10.0	37	10.6
Midnight Dome	2800	5/01/02	12	3.0	26	6.8	19	4.7
Montana Mountain	3340	4/29/02	21	6.3	13	3.5	16	4.2
Morley Lake	2700	4/30/02	12	3.9	11	3.4	9	2.7
Mount Nansen	3250	4/29/02	7	1.8	0	0.0	2	0.2
Mt. Berdoe	3390	4/29/02	13	3.4	13	2.1	10	2.4
Mt. McIntyre B	3700	4/30/02	14	2.9	17	4.7	19	4.8
Pelly Farm	1550	4/25/02	8	2.2	0	0.0	1	0.3
Plata Airstrip	2500	4/25/02	19	5.2	19	5.9	18	5.5
Rackla Lake	3410	4/25/02	25	5.2	38	9.4	31	8.5
Russell Lake	3480	4/25/02	30	5.7	35	9.2	25	7.4
Satasha Lake	3620	4/29/02	12	3.1	7	1.7	6	1.9
Tagish	3540	4/29/02	19	5.9	13	3.4	15	4.2
Twin Creeks	2950	4/25/02	24	6.6	18	6.1	20	5.7
White River	2500	No Survey	--	---	--	---	--	---
Whitehorse Airport	2300	4/30/02	7	2.1	3	0.7	4	1.0
Williams Creek	2800	4/29/02	5	1.2	11	2.8	9	1.9
Withers Lake	3200	4/25/02	26	6.4	43	11.8	30	9.1

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Yukon River At Eagle	May- Jul	32900	34085	104	118	90

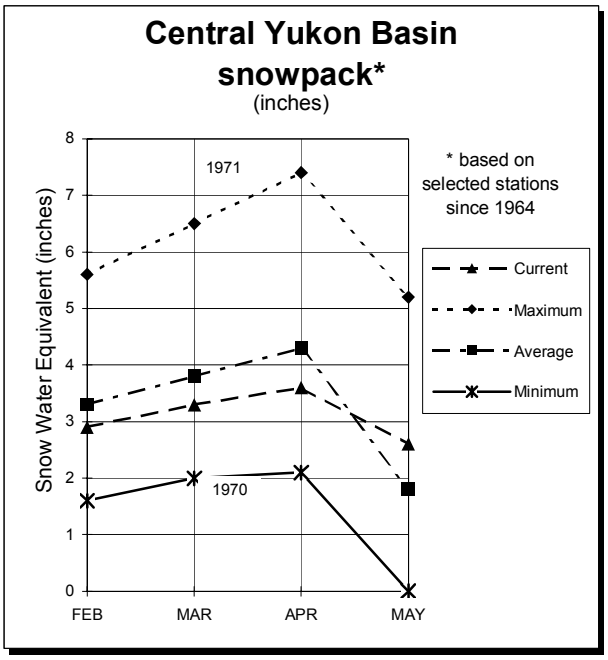
* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

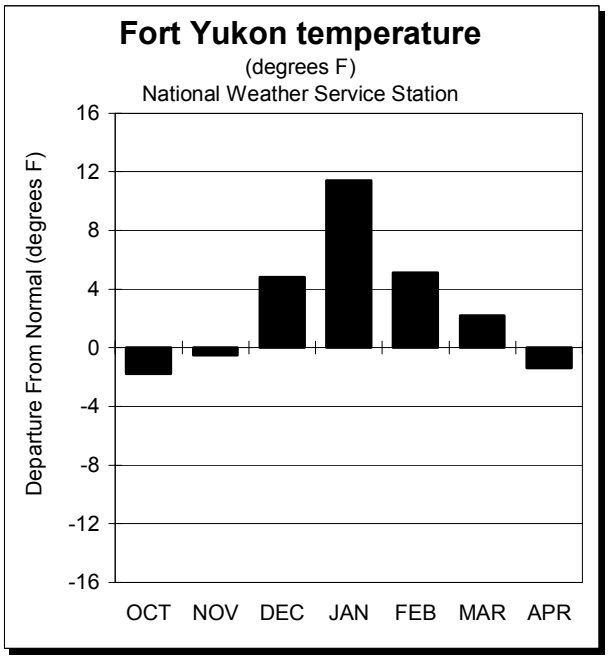
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Above Whitehorse/ Tetlin	9	120	115
Dawson	3	42	68
Stewart/ Pelly	14	79	86
White River	5	156	197

Central Yukon Basin

May 1, 2002





SNOWCOVER:

Very little snow was available to measure at the Mission Creek automated site where it is estimated the 4 inches of snow depth has 0.6 inches of water content. This site is normally snow free.
To the west, near the Dalton Highway, the Hess Creek snow course has 5.3 inches of snow water content, 1 inch more than last month and 212 percent of normal.
The Thirty-Mile snow course has 7.5 inches of water content, 0.9 inches more than last month and 112 percent of normal.
The Snowmelt Runoff Index for Birch Creek below South Fork is now –0.4 in the average zone up from –3.0 much below average last month.

For more information contact the Natural Resources Conservation Service office in Fairbanks: (907) 479-3159.

Central Yukon Basin

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Coal Creek	1000	5/02/02	5	1.0	New	---	--	---
Eagle Plains	2570	4/30/02	24	4.4	31	7.8	20	4.8
Eagle River	1200	4/30/02	18	3.9	28	6.7	17	4.0
Hess Creek	1000	4/28/02	23	5.3	27	5.8	9	2.5
Mission Creek	900	5/02/02	4	0.6	7	2.3	2	0.5
Old Crow	840	4/30/02	23	3.5	32	7.6	14	3.3
Riff's Ridge	2130	4/30/02	17	3.4	30	8.1	19	4.6
Seven Mile	600	4/28/02	23	4.7	28	5.8	12	3.1
Thirty Mile	1350	4/28/02	37	7.5	43	9.4	26	6.7

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Yukon River At Stevens Village	May- Jul	46800	48000	103	119	86

* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1st

PRECIPITATION GAUGE	ELEVATION	DATE	THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Atigun Pass**	4800	5/01/02	7.2	6.3	7.0	103
Chandalar Shelf**	3300	No Report	--	5.8	6.0	97
Eagle Summit	3650	5/01/02	6.1	4.7	6.6	92
Fort Yukon	430	5/01/02	4.0	3.9	---	---
Mission Creek	900	5/02/02	5.8	7.5	5.8	100

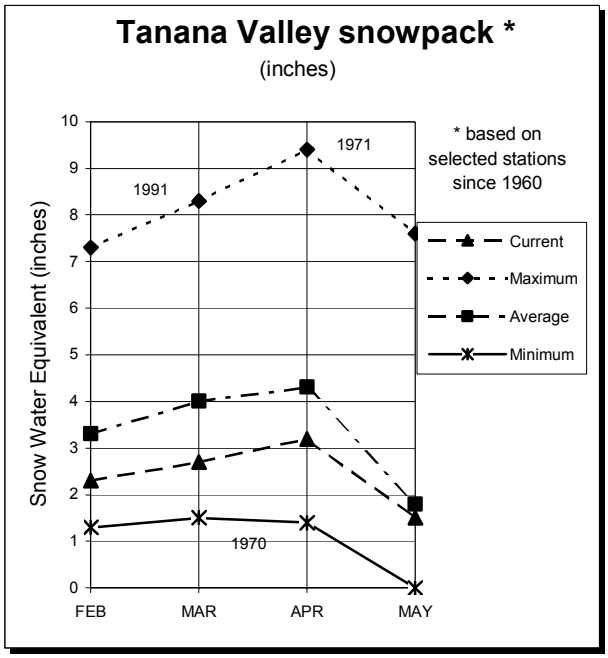
**Wyoming Gauge

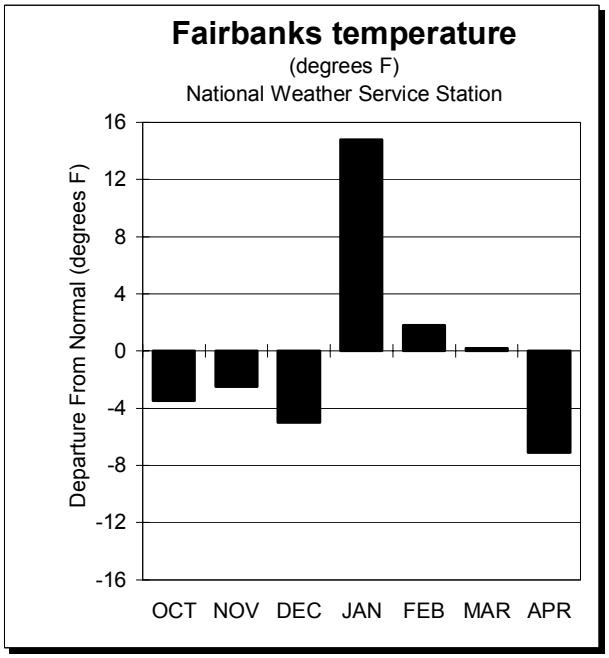
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Forty Mile	1	26	120
Porcupine (Canada)	4	50	91
Yukon Flats	1	81	152

Tanana Basin

May 1, 2002





SNOWCOVER:

The Tanana Valley from the Village of Tanana to Fairbanks to the Upper Chena snow course received 2 inches or more precipitation for the month of April with the most of it as snow at higher elevations. The Upper Chena snow course went up 2.9 inches of water content bringing it to near normal. The normal precipitation for April at Fairbanks is 0.4 inches, 3 inches was received at the Fairbanks automated snow course site. The Upper Tanana region remains well above normal with the Tok snow course having 3 inches of water content, normal is 0.9 inches.
The volume flow forecasts for the Salcha River, Little Chena and the Chena Rivers has swung drastically from below normal last month to above normal this month with this large increase of snow water content. See the forecast points for specific numbers.

For more information contact the Natural Resources Conservation Service office in Fairbanks: (907)479-3159, or Delta Junction: (907) 895-4241.

Tanana Basin

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Bonanza Creek	1150	5/02/02	7	0.7	0	0.0	11	2.8
Caribou Creek	1250	4/30/02	8	2.0	--	---	23	5.0
Caribou Mine	1150	No Report	--	---	0	0.0	10	2.9
Caribou Snow Pillow	900	4/30/02	6	1.4	0	0.0	6	1.7
Cleary Summit	2230	4/30/02	22	4.8	22	5.2	22	5.9
Colorado Creek	700	4/30/02	11	3.4	0	0.0	9	2.3
Fairbanks Field Off	450	5/02/02	3	0.3	0	0.0	3	0.8
Faith Creek	1900	4/30/02	17	3.5	15	3.7	11	2.7
Fielding Lake	3000	4/29/02	22	6.3	34	12.0	39	12.0
Fort Greely	1500	4/29/02	10	3.4	0	0.0	3	0.9
French Creek	1800	4/26/02	31	6.4	17	4.5	14	4.1
Gerstle River	1200	4/30/02	7	1.7	0	0.0	6	1.5
Granite Creek	1240	Estimate	0	0.0	0	0.0	3	1.8
Jatahmund Lake	2180	4/29/02	9	2.0	21	4.1	--	---
Kantishna	1550	5/02/02	6	0.6	25	6.1	--	---
Lake Minchumina	730	5/02/02	1	0.3	5	1.0	5	1.3
Little Chena Bottom	1460	4/30/02	11	2.6	10	2.2	9	3.0
Little Chena Ridge	2000	4/30/02	23	4.8	15	3.8	16	4.5
Mentasta Pass	2430	4/30/02	17	4.4	13	3.1	16	4.8
Monument Creek	1850	No Survey	--	---	8	1.9	14	3.5
Mt. Ryan	2800	4/30/02	24	5.4	24	5.0	24	6.3
Munson Ridge	3100	4/30/02	33	7.4	28	5.9	36	9.7
Paradise Hill	2200	4/30/02	7	1.9	4	1.2	--	---
Rock Creek Bottom	2250	4/30/02	19	4.0	4	1.2	--	---
Rock Creek Ridge	2600	4/30/02	21	4.6	2	0.4	--	---
Shaw Creek Flats	980	4/26/02	10	2.7	0	0.0	3	0.8
Teuchet Creek	1640	4/30/02	14	3.1	11	2.3	8	2.1
Tok Junction	1650	4/30/02	10	3.0	0	0.0	3	0.9
Upper Chena	3000	4/30/02	26	6.6	30	7.1	25	7.5
Upper Chena Pillow	2850	4/30/02	27	7.8	25	6.4	22	6.9

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Tanana River at Fairbanks	May- Jul	6680	7150	107	120	94
Little Chena River nr Fairbanks	May- Jul	72	80	111	146	76
Chena River nr Two Rivers	May- Jul	255	300	118	147	88
Salcha River nr Salchaket	May- Jul	595	820	138	167	109
Tanana River at Nenana	May– Jul	8470	8680	103	118	87

* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1st

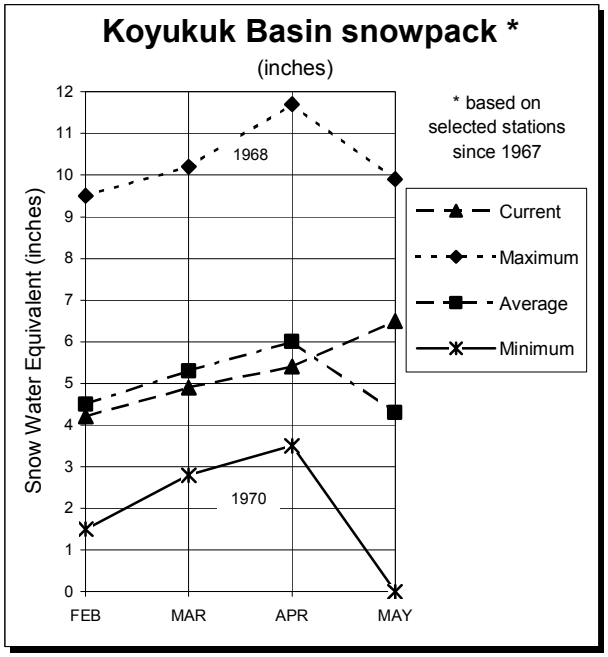
PRECIPITATION GAUGE	ELEVATION	DATE	THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Fairbanks Field Off.	450	5/02/02	5.4	3.9	5.1	106
Granite Creek	1240	4/25/02	5.8	3.1	3.4	170
Monument Creek	1850	5/01/02	7.7	3.9	7.3	105
Mt. Ryan	2800	4/30/02	7.4	5.1	7.8	95
Munson Ridge	3100	4/30/02	8.4	6.4	10.2	82
Rhoads Creek	1240	4/25/02	4.0	2.4	2.6	154

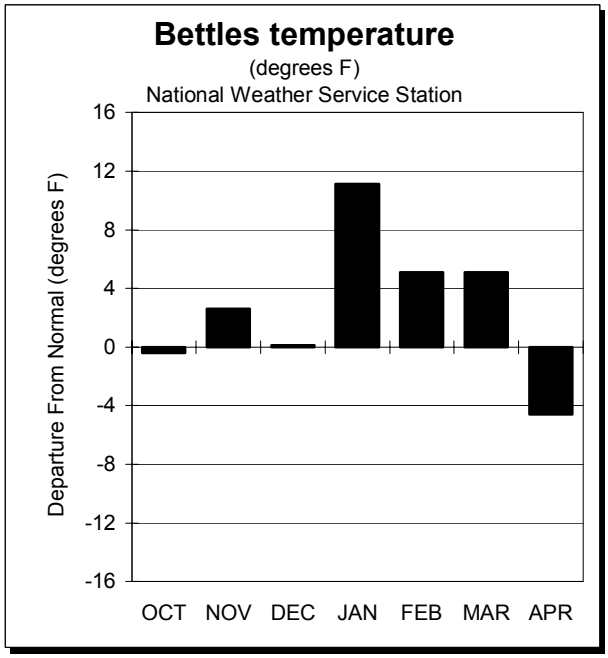
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Chatanika	2	93	97
Chena Basin	7	124	106
Lower Tanana Valley	6	236	95
Mid Tanana Valley (Delta Jct)	4	118	93
Upper Tanana Valley (Tok)	2	290	410

Western Interior Basins

May 1, 2002





SNOWCOVER:

Koyukuk
The snow course water contents increased significantly from a month ago. The Bonanza Forks snow course went up 0.7 of an inch and is now 158 percent of normal, Coldfoot is 137 percent of normal, Disaster Creek is 215 percent of normal, and Table Mountain is 119 percent of normal.

Kuskokwim
The Lake Minchumina snow course lost most of it's snow with 0.3 inches remaining, 23 percent of normal. It appears most of the precipitation in this basin came as rain at the end of the month. The McGrath snow course has 2.8 inches of snow water content measured on the 7th of May, which is right at normal. The water content was 1 to 2 inches higher the first of the month.

Lower Yukon
No Report from the snow courses in the Innoko Wildlife Refuge. Up to 2 inches of the precipitation was probably received over much of the basin.

For more information, contact the Natural Resources Conservation Service office in Anchorage: (907) 271-2424.

Koyukuk / Upper Kuskokwim / Lower Yukon

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
KOYUKUK								
Bettles Field	640	No Survey	--	---	--	---	13	3.4
Bonanza Forks	900	4/28/02	26	6.5	25	5.4	16	4.1
Coldfoot	1040	4/28/02	33	7.3	24	5.3	21	5.3
Disaster Creek	1550	4/28/02	25	5.6	20	3.6	11	2.6
Kaldoyeit	580	5/03/02	26	6.5	10	2.5	--	---
Kanuti Chalatna	550	5/03/02	16	4.7	26	6.0	--	---
Kanuti Kilolitna	550	5/03/02	8	2.5	20	4.6	--	---
Minnkokut	580	5/03/02	26	6.7	29	7.0	--	---
Nolitna	560	5/03/02	16	4.7	28	6.4	--	---
Table Mountain	2200	4/28/02	27	5.1	24	4.8	19	4.3
Taiholman	540	5/03/02	0	0.0	0	0.0	--	---
KUSKOKWIM								
Lake Minchumina	730	5/02/02	1	0.3	5	1.0	5	1.3
McGrath	340	5/07/02	9	2.8	18	6.3	9	2.8
Purkeypile Mine	2030	5/02/02	16	3.3	25	6.0	10	2.5
LOWER YUKON								
Grouch Creek	220	No Report	--	---	15	4.2	--	---
Holikachuk	100	No Report	--	---	21	7.4	--	---
Horsefly Creek	180	No Report	--	---	0	0.0	--	---
Innoko Inn	200	No Report	--	---	--	---	--	---
Menotl Creek	380	No Report	--	---	39	14.0	--	---
Middle Innoko	150	No Report	--	---	21	7.7	--	---
Upper Innoko	180	No Report	--	---	0	0.0	--	---
Wapoo Hills	220	No Report	--	---	21	7.0	--	---
Yankee Slough	100	No Report	--	---	39	12.0	--	---
Yetna River	120	No Report	--	---	12	4.3	--	---

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Kuskokwim River at Crooked Creek	May- Jul	9550	9170	96	127	65

* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1st

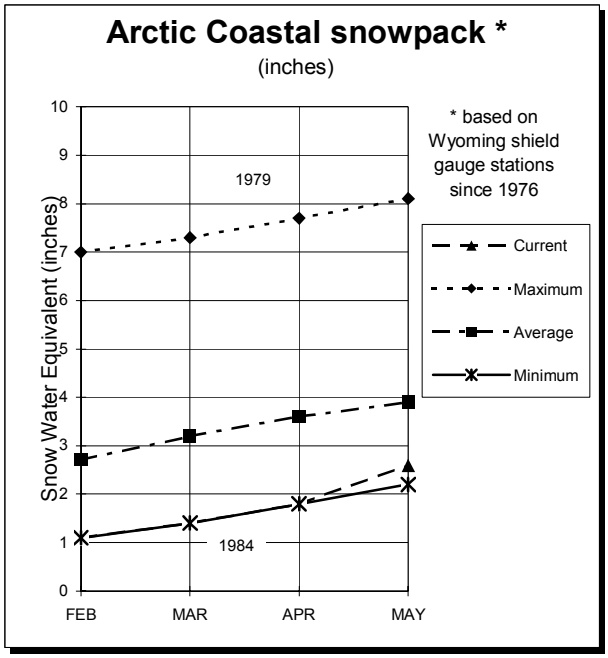
PRECIPITATION GAUGE	ELEVATION	DATE	THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Bettles Field	640	No Report	---	---	7.6	--
Coldfoot	1040	4/28/02	7.8	6.2	7.4	105
Gobblers Knob	2030	4/30/02	9.8	5.2	7.4	104

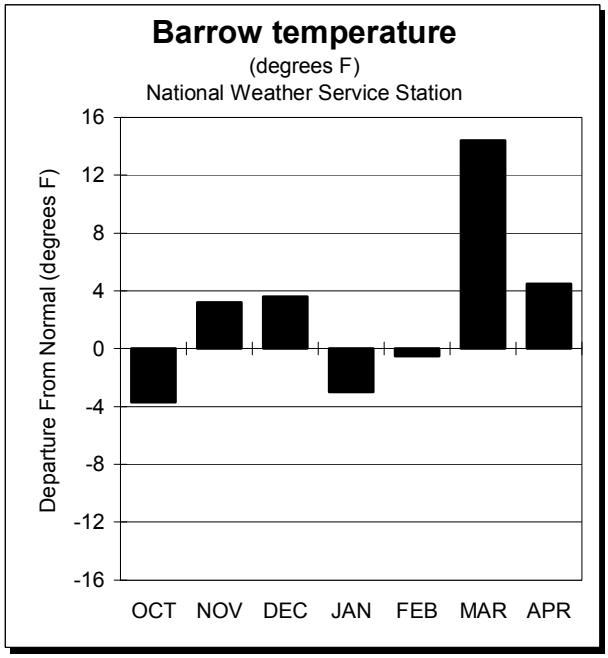
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Koyukuk	7	106	136
Upper Kuskokwim	2	92	133

Arctic and Kotzebue Sound

May 1, 2002





SNOWCOVER:

Arctic
The Atigun Pass precipitation gauge received 2.2 inches of snow water content raising it to 103 percent of normal since October 1st, the beginning of the water year. Imnaviat Creek received 0.6 of an inch of precipitation moving to 91 percent of normal.

Kotzebue
No Report from the Red Dog Mine.

For more information, contact the Natural Resources Conservation Service office in Anchorage: (907) 271-2424.

Arctic and Kotzebue Sound

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1st

PRECIPITATION GAUGE	ELEVATION	DATE	THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
ARCTIC						
Atigun Camp	3400	No Report	--	2.2	5.5	40
Atigun Pass	4800	5/01/02	7.2	6.3	7.0	103
Barrow	25	5/06/02	2.2	2.6	3.3	67
Imnaviat Creek	3050	5/01/02	3.1	3.0	3.4	91
Prudhoe Bay	30	No Report	---	---	4.1	--
KOTZEBUE SOUND						
Red Dog	950	No Report	--	4.3	7.0	61

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Kuparuk River nr Deadhorse	May- Jul	795	670	84	116	53
Sagvanirtok River nr Pump Station 3	May- Jul	685	585	85	105	66

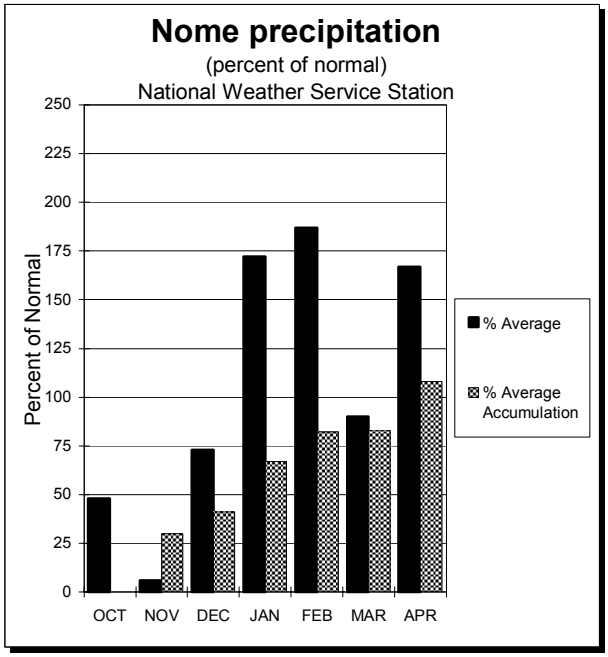
* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

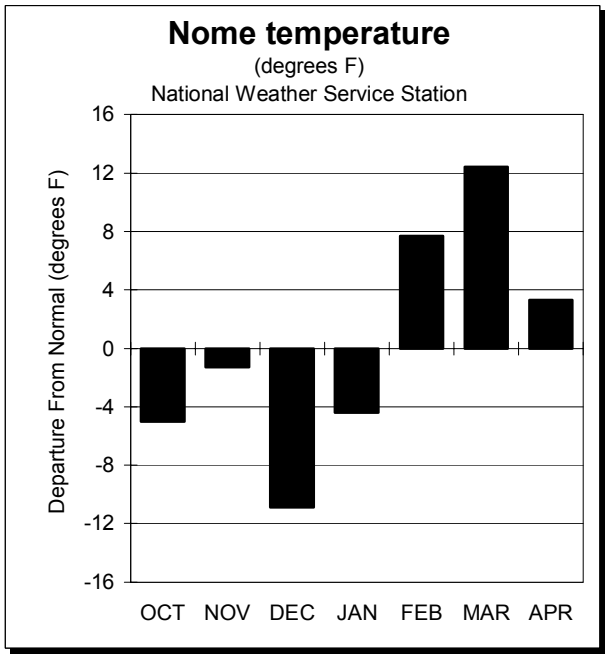
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Arctic Coast	1	84	79
Dalton Highway	2	81	53

Norton Sound / Southwest / Delta and Bristol Bay

May 1, 2002





SNOWCOVER:

Norton Sound
The Rocky Point SNOTEL site south of White Mountain has 27 inches of snow under the sensor as of May 1st, up from 15 inches the 1st of April.

Southwest Delta/Bristol Bay

No report from the Port Alsworth area.

For more information contact the Natural Resources Conservation Service office in Bethel: (907) 543-7155.

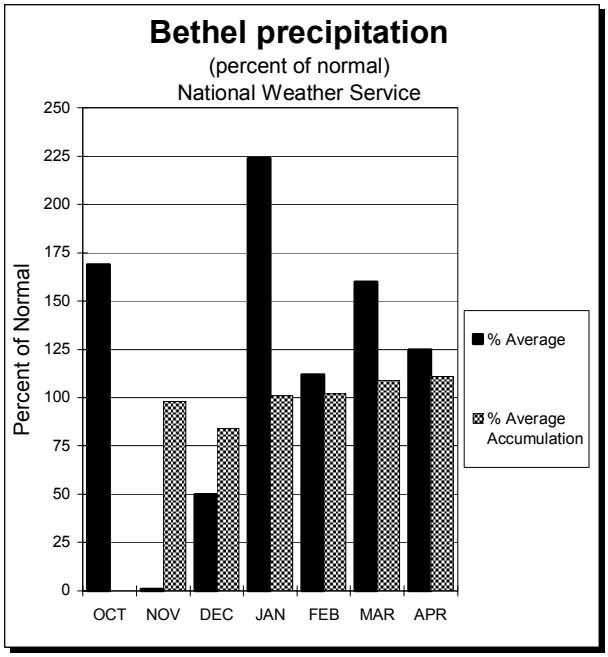
Norton Sound / Southwest Delta / Bristol Bay

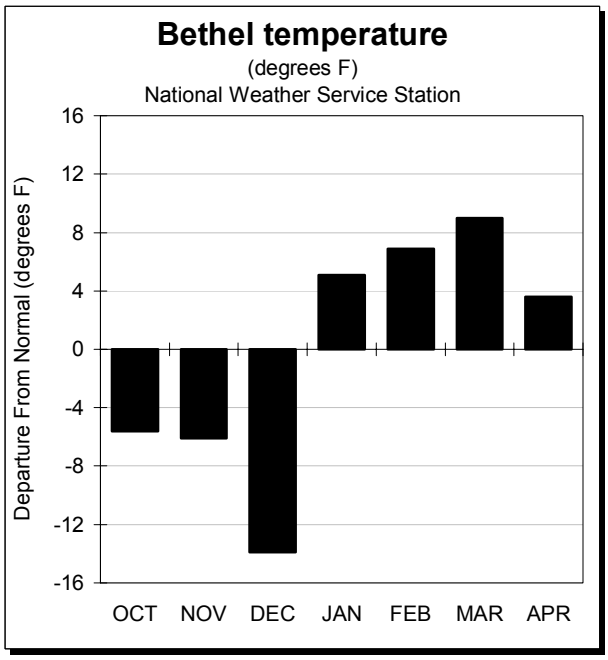
SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
BRISTOL BAY								
Brooks Camp	150	No Report	--	---	0	0.0	---	---
Fishtrap Lake	1800	No Survey	--	---	---	---	---	---
Port Alsworth	270	No Report	--	---	0	0.0	---	---
Three Forks	900	No Report	--	---	0	0.0	---	--
Upper Twin Lakes	2000	No Survey	--	---	---	--	---	--

INCHES ACCUMULATED SINCE OCTOBER 1st

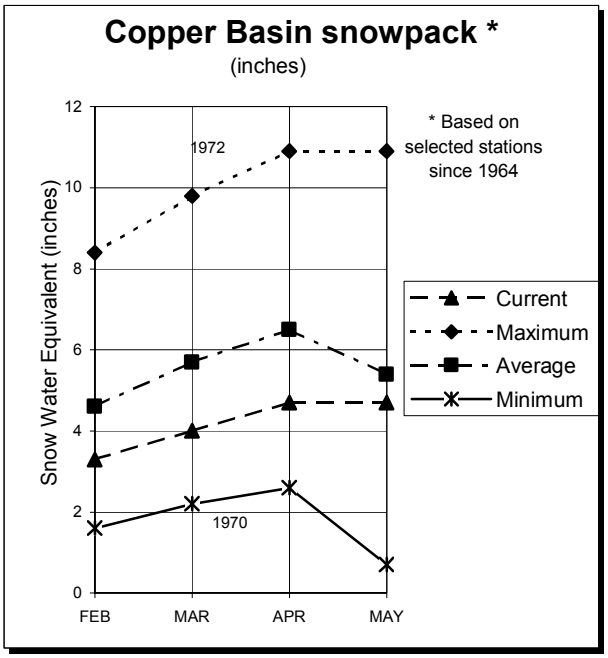
PRECIPITATION GAUGE	ELEVATION	DATE	THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Pargon Creek	100	4/30/02	6.1	5.9	--	--

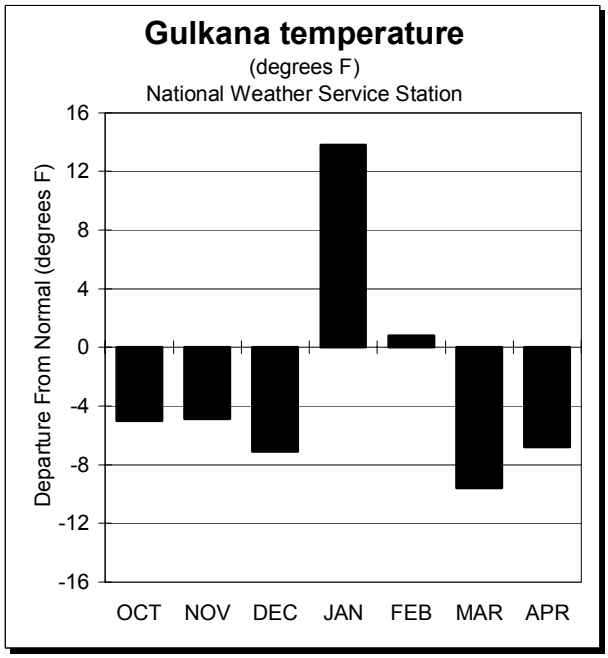




Copper Basin

May 1, 2002





SNOWCOVER:

Water content for the snow courses remained essentially unchanged from last month with the depths decreasing a few inches in preparation for melt. The basin's percent of average went up above normal from below with the exception of the Alaska Range, which remains 64 percent of normal. The basin floor is 123 percent and the Talkeetna Mountains are 128 percent of normal, both up from the 80 percent range.

For more information contact the Natural Resources Conservation Service office in Delta Junction: (907) 895-4241 or Anchorage: (907) 271-2424.

Copper Basin

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Chisana	3320	3/30/02	13	2.2	23	4.9	--	---
Chistochina	2170	4/30/02	5	1.7	0	0.0	4	1.2
Chokosna	1550	4/04/02	18	2.8	14	4.7	--	---
Haggard Creek	2540	4/29/02	12	4.1	13	3.1	18	5.2
Kenny Lake School	1300	No Report	--	---	0	0.0	3	0.9
Lake Louise	2400	4/26/02	20	3.9	12	2.9	12	2.9
Little Nelchina	2650	4/26/02	21	4.6	20	6.1	--	---
Lost Creek	3030	4/05/02	18	3.9	16	3.1	--	---
May Creek	1610	4/01/02	23	4.0	31	8.6	--	---
Mentasta Pass	2430	4/30/02	17	4.4	13	3.1	16	4.8
Paxson	2650	4/29/02	14	4.4	26	7.1	22	6.9
Tazlina	1220	No Report	--	---	0	0.0	--	---
Tolsona Creek	2000	4/26/02	17	4.2	6	1.8	5	2.1
Tsina River	1650	No Report	--	---	49	17.5	41	14.6
Worthington Glacier	2100	No Report	--	---	82	32.6	61	24.6

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Gulkana River at Sourdough	May- Jul	445	355	80	106	53

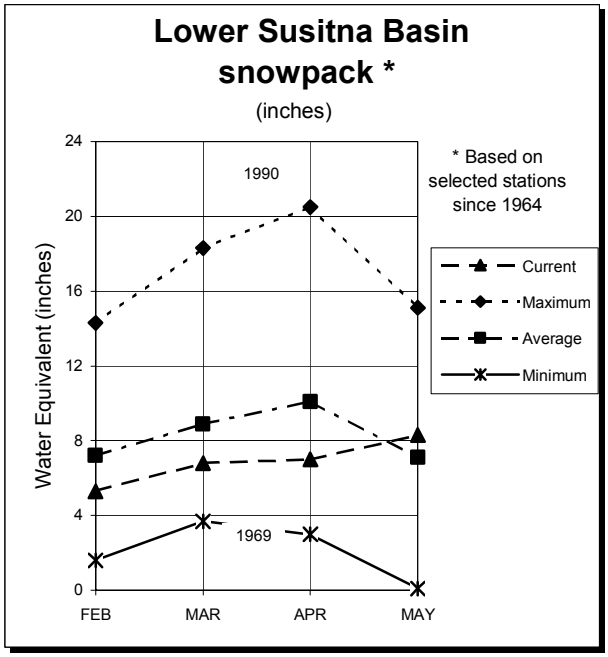
* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

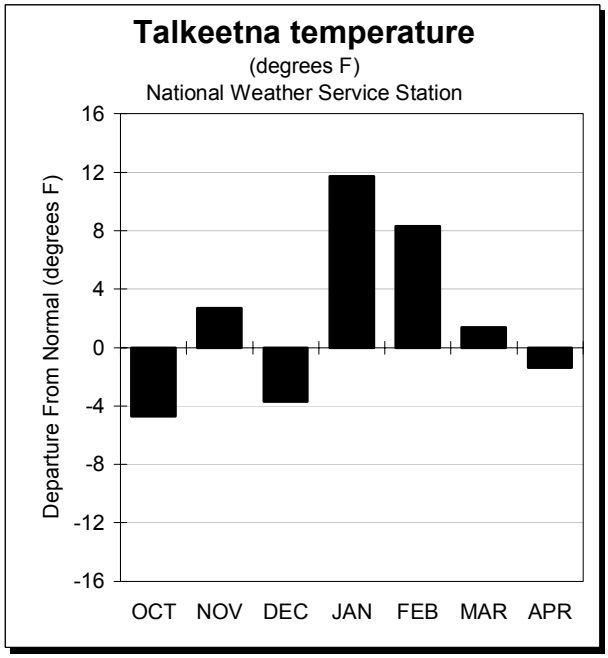
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Alaska Range	3	68	64
Basin Floor	5	133	123
Talkeetna Mountains	1	68	128

Matanuska - Susitna Basins

May 1, 2002





SNOWCOVER:
Denali State Park along the Parks Highway received in excess of 4.0 inches of snow water content, as indicated by the Denali View snow course which received 4.5 inches bringing this region from less than 50 percent of normal to 89 percent.
The Hatcher Pass site near the Independence Mine Lodge received 40 plus inches of snow the 18th of April. This area is now 85 percent of normal, up from 66 percent.

For more information, contact the Natural Resources Conservation office in Wasilla: (907)373-6492.

Matanuska - Susitna Basins

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Archangel Road	2300	5/02/02	39	12.1	--	---	37	14.9
Blueberry Hill	1200	4/29/02	42	12.2	51	19.0	43	17.4
Chelatna Lake	1650	5/01/02	30	9.5	34	11.0	33	10.9
Denali View	700	4/29/02	34	10.8	45	15.5	30	12.3
Dutch Hills	3100	5/01/02	62	19.5	86	31.3	74	28.7
E. Fork Chulitna	1800	4/29/02	42	10.6	56	19.4	44	15.7
Fishhook Basin	3300	4/27/02	67	17.8	69	18.5	61	22.1
Independence Mine	3550	4/27/02	76	19.8	77	25.2	65	27.1
Lake Louise	2400	4/26/02	20	3.9	12	2.9	12	2.9
Little Susitna	1700	5/02/02	35	10.9	--	---	22	9.2
Moose Creek Ranch	450	4/26/02	14	4.8	New	---	--	---
Moraine Eklutna	2100	4/26/02	37	10.1	--	---	--	---
Nugget Bench	2010	5/01/02	37	11.0	53	17.0	46	15.3
Ramsdyke Creek	2220	5/01/02	54	18.0	70	25.2	57	21.9
Sheep Mountain	2900	4/26/02	21	5.0	21	7.4	14	3.9
Susitna Valley High	375	4/29/02	20	6.4	20	5.7	14	5.7
Talkeetna	350	4/29/02	22	6.4	21	6.5	16	5.4
Tokositna Valley	850	5/01/02	55	17.0	58	21.5	43	17.0
Willow Airstrip	200	4/29/02	17	5.3	8	1.8	13	4.1

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Little Susitna River nr Palmer	May- Jul	84	70	83	100	67
Talkeetna River nr Talkeetna	May- Jul	1589	1600	101	116	86

* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1st

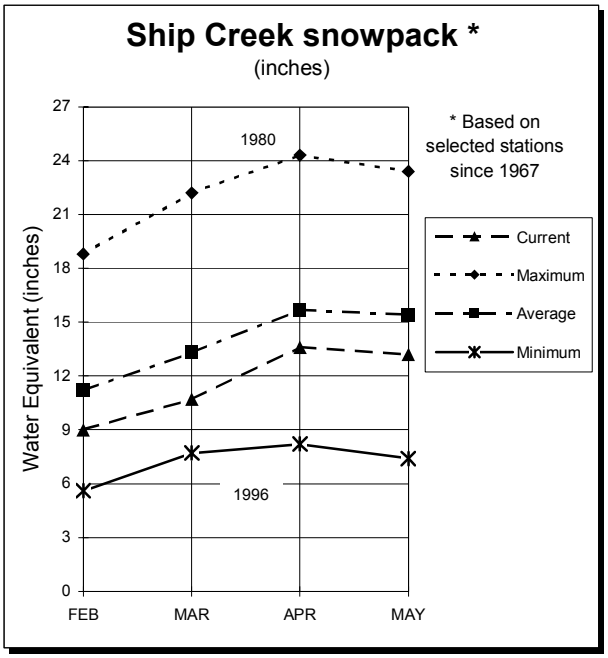
PRECIPITATION GAUGE	ELEVATION	DATE	THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Independence Mine	3550	4/27/02	17.2	---	29.1	--
Susitna Valley High	375	4/29/02	7.6	11.9	13.4	57

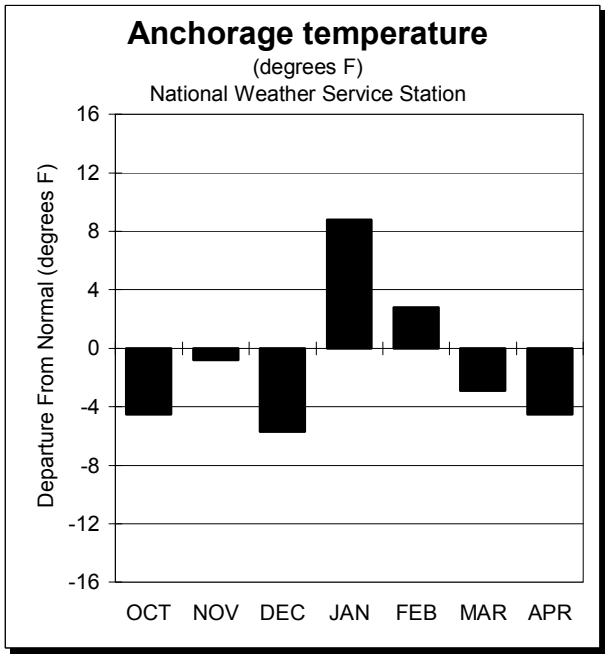
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Lower Susitna	2	141	123
Matanuska/ Little Susitna	5	92	85
Peter Hills	4	69	79
Upper Susitna	1	134	134

Northern Cook Inlet

May 1, 2002





SNOWCOVER:

South Fork Campbell Creek snow course remained much above normal, with the snow melting slower due to the colder than normal temperatures.
The predicted volume flow forecast for the May through July period for Ship Creek is 57,000 acre-ft, 98 percent of average. The Snowmelt Runoff Index for Campbell Creek near Spenard is –0.5, which is in the average range of –1 to +1.

For more information contact the Natural Resources Conservation Services office in Anchorage: (907) 271-6093 or Wasilla: (907) 373-6492.

Northern Cook Inlet

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Anchorage Hillside	2080	5/02/02	31	9.5	24	8.2	29	9.9
Indian Pass	2080	Estimate	60	19.6	90	35.2	72	26.5
Kincaid Park	250	5/01/02	0	0.0	0	0.0	10	10.0
Point Mackenzie	200	5/03/02	0	0.0	0	0.0	3	0.8
Portage Valley	50	4/29/02	34	14.1	2	0.3	19	9.2
South Campbell Creek	1200	5/02/02	20	6.8	3	0.3	13	4.3

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Ship Creek nr Anchorage	May- Jul	57	56	98	112	85

* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

PRECIPITATION DATA

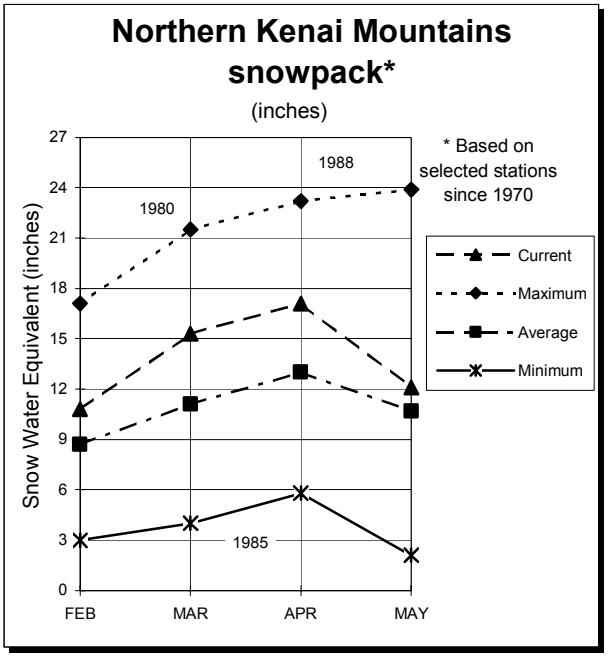
PRECIPITATION GAUGE	ELEVATION	DATE	INCHES ACCUMULATED SINCE OCTOBER 1st THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Indian Pass	2350	5/01/02	24.6	38.4	26.2	94
Point Mackenzie	200	5/03/02	6.0	7.3	8.8	68

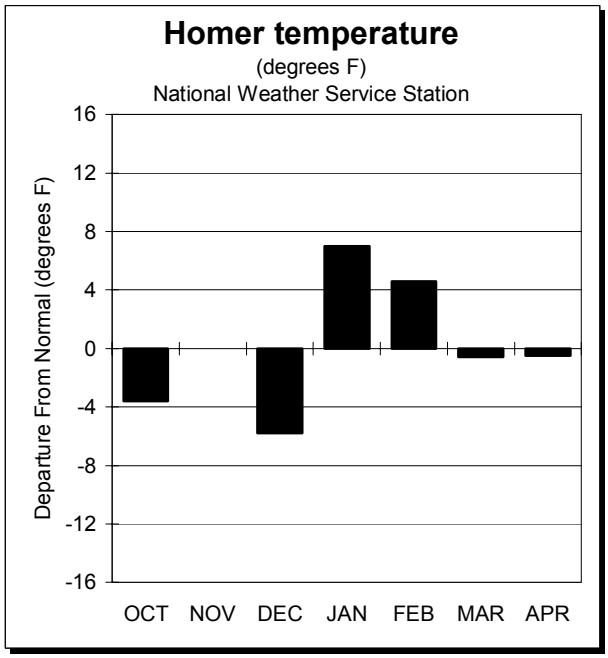
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Campbell Creek Headwaters	2	192	115
Ship Creek	2	72	86
Turnagain Arm	2	89	138

Kenai Peninsula

May 1, 2002





SNOWCOVER:

The Kenai Peninsula snowpack remained similar to last month with some melt taking place. The region's Bradley Lake, Ninilchik Dome and Northern Kenai Mountains are all in the 120 percent range, down from last month due to very little snowfall. The Kenai River volume flow forecast is 107 percent of normal for the May through July time period.
Last year the river volume flow from April through July was 134 percent of normal. The Kenai River 2001 hydrograph had four distinct peaks through the summer/ fall: Snowmelt Peak- June 29th, Glacier Peak- July 23rd, Rainfall Peak- August 31st and Glacier Dammed Lake release Peak- September 23rd.

For more information, contact the Natural Resources Conservation Service office in Homer: (907) 235-8177.

Kenai Peninsula

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Bertha Creek	950	5/07/02	51	20.1	71	28.5	49	18.2
Bridge Creek	1300	5/03/02	36	13.8	49	17.2	37	12.3
Cooper Lake	1200	5/01/02	48	16.8	52	19.3	34	12.3
Demonstration Forest	780	5/03/02	6	2.1	2	0.8	21	7.4
Grouse Creek Divide	700	5/01/02	47	17.5	47	21.0	44	16.6
Jean Lake	620	5/01/02	0	0.0	0	0.0	2	0.5
Kenai Moose Pens	300	4/30/02	11	3.5	0	0.0	1	0.3
Kenai Summit	1390	5/07/02	30	11.4	49	21.7	30	11.4
McNeil Canyon	1320	5/01/02	28	10.7	40	15.9	21	7.8
Moose Pass	700	5/07/02	12	4.6	8	4.3	7	2.5
Nanwalek Village	500	No Report	--	---	21	7.8	--	---
Nuka Glacier	1250	5/02/02	110	52.8	153	81.3	93	42.4
Port Graham	300	No Report	--	---	0	0.0	--	---
Snug Harbor Road	500	5/01/02	11	3.3	0	0.0	12	2.5
Summit Creek	1400	5/07/02	28	10.2	38	13.9	14	6.7
Turnagain Pass	1880	5/01/02	115	51.0	159	68.5	95	40.1

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Kenai River at Cooper Landing	May- Jul	890	950	107	121	92

* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

PRECIPITATION DATA

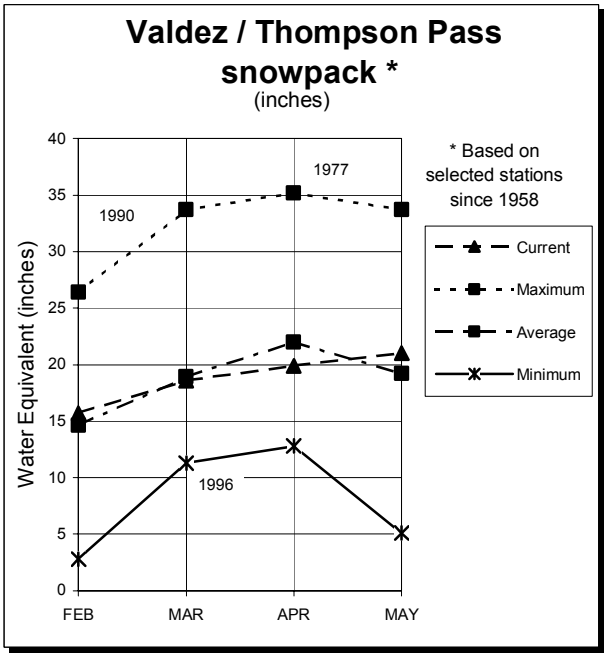
PRECIPITATION GAUGE	ELEVATION	DATE	INCHES ACCUMULATED SINCE OCTOBER 1st THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Cooper Lake	1200	5/01/02	23.7	36.7	25.1	94
Grandview	1100	5/01/02	42.1	72.2	43.1	98
Grouse Creek Divide	700	5/01/02	37.5	66.9	39.9	94
Kenai Moose Pens	300	4/30/02	7.3	9.7	9.2	79
McNeil Canyon	1320	5/01/02	18.4	25.2	17.2	107
Middle Fork Bradley	2300	No Report	---	50.3	39.0	135
Nuka Glacier	1250	No Report	---	83.3	60.6	136
Summit Creek	1400	5/01/02	17.4	22.6	17.7	98
Turnagain Pass	1880	5/01/02	44.7	73.7	45.8	98

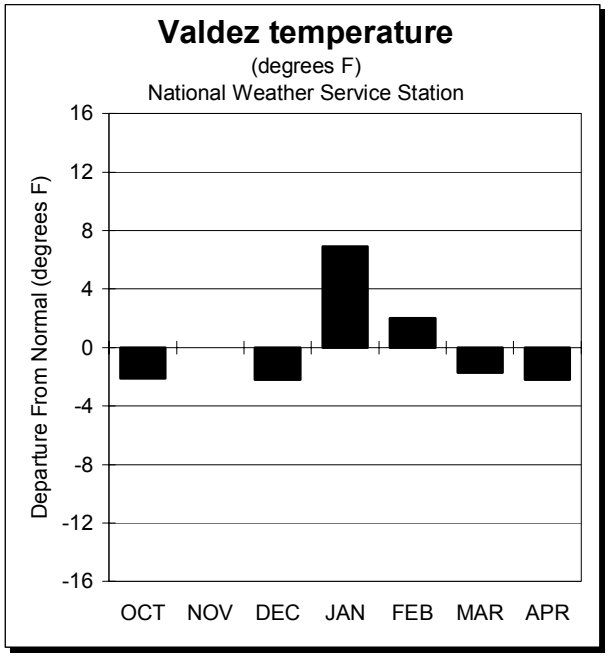
WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Bradley Lake	1	65	125
Ninilchik Dome	2	74	122
Northern Kenai Mountains	7	73	124

Western Gulf

May 1, 2002





SNOWCOVER:

The Sugarloaf Mountain snow course above the Soloman Gulch Hydroelectric power plant has 29.2 inches of snow water content, 106 percent of normal. The precipitation gauge next to the snow course has caught 37.2 inches since October 1st, 79 percent of normal.

For more information, contact the Natural Resources Conservation Service office in Delta Junction: (907) 895-4241.

Western Gulf

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Exit Glacier	400	5/05/02	38	14.6	43	17.3	--	----
Grouse Creek Divide	700	5/01/02	47	17.5	47	21.0	44	16.6
Lowe River	600	No Report	--	---	34	12.8	30	12.0
Nuka Glacier	1250	5/01/02	110	52.8	153	81.3	93	42.4
Sugarloaf Mountain	530	4/29/02	74	29.2	92	35.6	67	27.6
Valdez	50	No Report	--	---	48	17.6	33	12.6
Worthington Glacier	2100	No Report	--	---	82	32.6	61	24.6

PRECIPITATION DATA

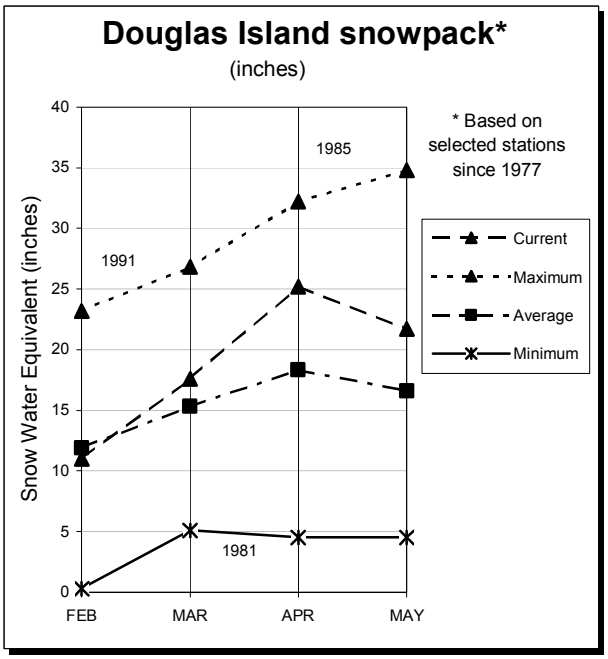
INCHES ACCUMULATED SINCE OCTOBER 1st

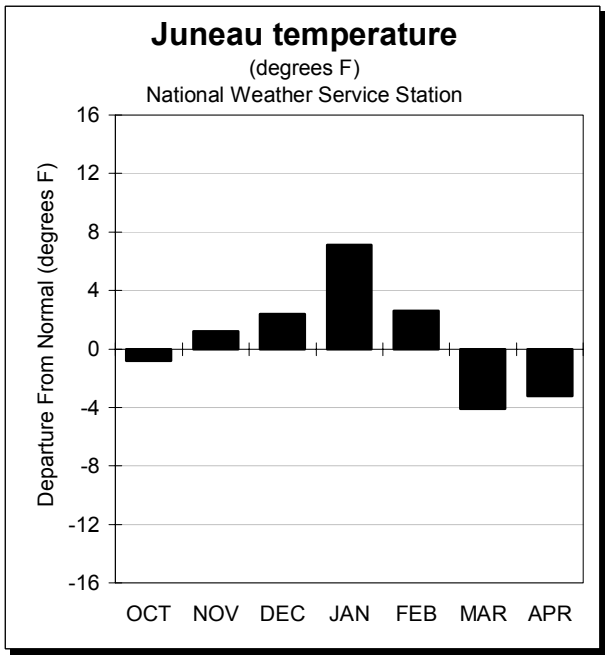
PRECIPITATION GAUGE	ELEVATION	DATE	THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Nuka Glacier	1250	No Report	--	---	61.1	136
Solomon Gulch	36	4/30/02	36.8	55.9	44.5	83
Sugarloaf Mountain	530	4/29/02	37.2	62.3	47.4	79

WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Lowe River (Valdez)	1	82	106

Southeast
May 1, 2002





SNOWCOVER:

Precipitation was minimal throughout the region, however with cooler than normal temperatures the snow pack remained high. Douglas Island across from Juneau is 130 percent of normal and the Petersburg snow courses near the reservoir are 198 percent of normal.

For more information contact the Anchorage Natural Resources Conservation Service office in Anchorage: (907) 271-2424.

Southeast

SNOWPACK DATA

SNOWCOURSE	ELEVATION	DATE	THIS YEAR SNOW DEPTH	THIS YEAR WATER CONTENT	LAST YEAR SNOW DEPTH	LAST YEAR WATER CONTENT	1971-2000 AVE. SNOW DEPTH	1971-2000 AVE. WATER CONTENT
Cropley Lake	1650	4/29/02	104	36.6	70	27.3	73	32.8
Eagle Crest	1000	4/29/02	59	28.4	35	12.9	37	15.7
Fish Creek	500	4/29/02	0	0.0	0	0.0	3	1.3
Long Lake	1020	4/30/02	103	45.6	56	23.6	--	----
Moore Creek Bridge	2250	4/29/02	59	22.8	53	22.4	--	----
Petersburg Reservoir	550	4/29/02	25	10.0	0	0.0	6	2.3
Petersburg Ridge	1650	4/30/02	91	37.9	65	25.8	51	22.1
Speel River	280	4/28/02	68	31.2	33	12.6	59	26.1

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	30- YR AVERAGE (1000AF)	50 PERCENTILE	% OF AVERAGE	MAX *	MIN **
Gold Creek nr Juneau	May- Jul	31	34	110	120	100

* Max is 90 percentile of subsequent precipitation events
** Min is 10 percentile of subsequent precipitation events

PRECIPITATION DATA

INCHES ACCUMULATED SINCE OCTOBER 1st

PRECIPITATION GAUGE	ELEVATION	DATE	THIS YEAR	LAST YEAR	71- 2000 AVE	% OF AVERAGE
Long Lake	820	4/30/02	92.1	103.7	--	--
Snettisham	110	4/30/02	107.8	109.5	116.2	93
Swan Lake	50	4/30/02	95.7	105.5	86.6	110

WATERSHED SNOWPACK ANALYSIS

REGION / RIVER BASIN	# COURSES AVERAGED	THIS YEAR AS LAST YEAR	PERCENT OF AVERAGE
Douglas Island	3	162	130
Petersburg	2	186	198
Snettisham	1	193	---

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Alaska
Basin Outlook Report

Natural Resources Conservation Service
Anchorage, AK