



Checking Mountain Soil Moisture Under the Snow, an important factor in snowmelt runoff.

Federal-State Cooperative  
Snow Surveys and Water Supply Forecasts  
for  
**UTAH**

SOIL CONSERVATION SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE  
AND

STATE ENGINEER OF UTAH  
UTAH AGRICULTURAL EXPERIMENT STATION  
IN COOPERATION WITH

U. S. Forest Service  
U. S. Geological Survey

U. S. National Park Service  
State and Local Irrigation Organizations

AS OF  
JAN. 1, 1956

FEDERAL-STATE COOPERATIVE  
SNOW SURVEYS and WATER SUPPLY FORECASTS  
for  
U T A H

JANUARY 1, 1956

Report Prepared  
by  
Gregory L. Pearson - Hydraulic Engineer

Soil Conservation Service  
State Engineer of Utah  
and  
Utah Agricultural Experiment Station

Issued  
by  
J. A. Libby  
State Conservationist  
Soil Conservation Service  
222 South West Temple  
Salt Lake City, Utah

Joseph M. Tracy  
State Engineer  
State of Utah  
Salt Lake City, Utah

R. H. Walker  
Director  
Utah Agricultural Exp. Station  
Logan, Utah  
(Mimeograph Series No. 419)

# WATER CONTENT OF SNOW Compared to Average for Record Period UTAH & BEAR RIVER WATERSHEDS

January 1, 1956

### LEGEND

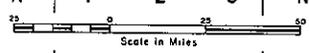
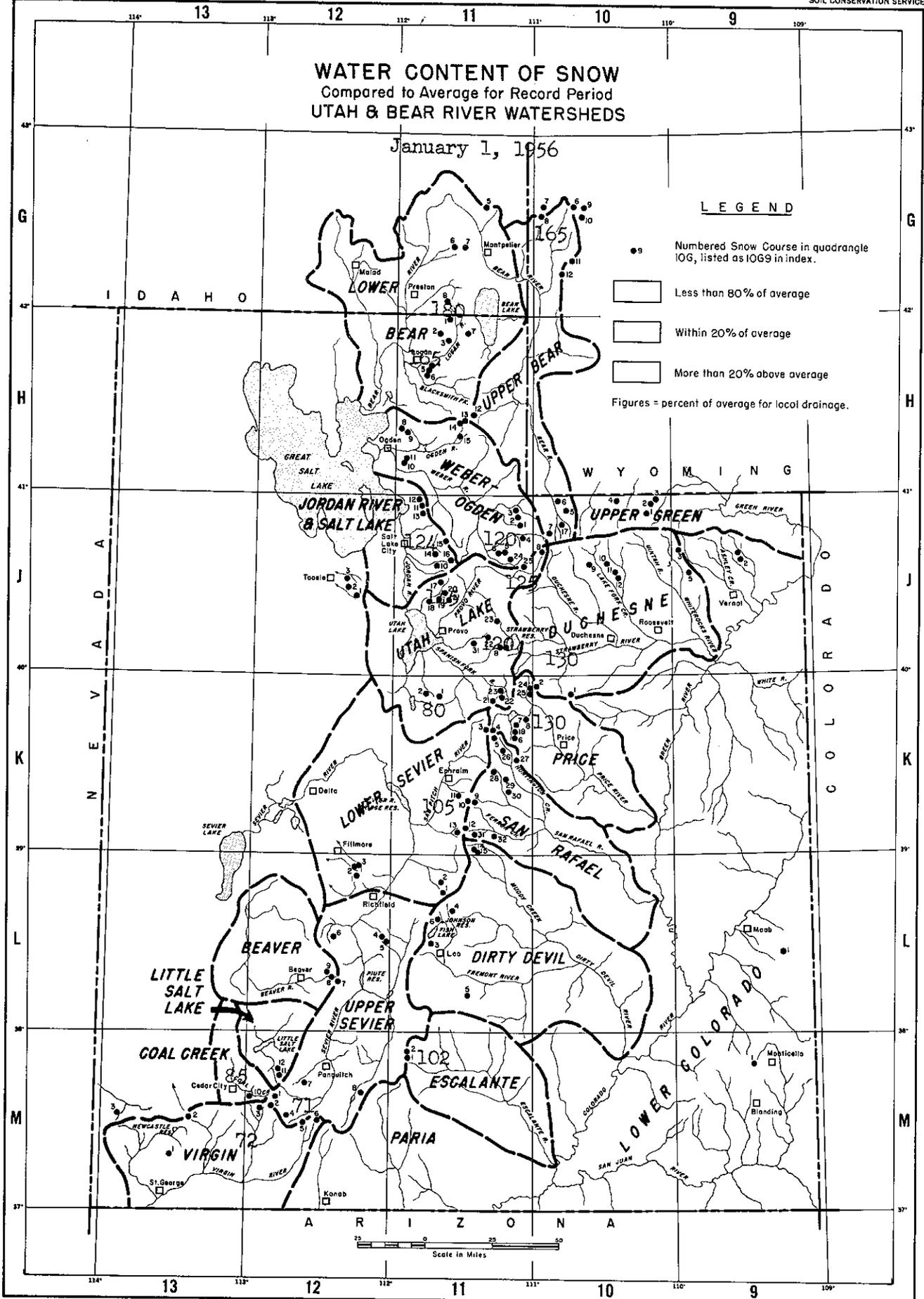
●● Numbered Snow Course in quadrangle 10G, listed as IOG9 in index.

□ Less than 80% of average

□ Within 20% of average

□ More than 20% above average

Figures = percent of average for local drainage.



SALT LAKE CITY, UTAH

M-579

## WATER SUPPLY OUTLOOK

for UTAH

January 1, 1956

\* \* \* \* \*

\* The water stored in the snow pack as measured about the\*  
 \*first of January varied from record to near record highs in\*  
 \*northern Utah, about average in the center of the State, to\*  
 \*poor in the southern part. Soil moisture is average or\*  
 \*above in the north, below average in central and southern\*  
 \*areas. Storage in reservoirs from Utah Lake and northward\*  
 \*is 92% of last year, 99% of average, and 41% of capacity.\*  
 \*South of here it is 62% of last year, 32% of average and\*  
 \*14% of capacity. \*

\* \* \* \* \*

## GENERAL OUTLOOK

From the Utah Lake area and northward the watersheds of Utah and the Bear River drainage of Utah, Idaho and Wyoming have an excellent water supply outlook for next summer. The central part of the state has near average prospects, while for the fourth straight year, Southern Utah has a poor outlook.

An inspection of the comparative snow data sheet on Page-3 will show that, although below average runoff is the present prospect for the Sevier and Virgin rivers and Coal Creek at Cedar City, the snow pack on January 1 was from 150 to 230 percent greater than it was at the same time last year. Reservoir storage in Otter Creek and Piute reservoirs on the Sevier River is about the same as last year, but their combined storage is still only 42 percent of average for January 1, and 18 percent of capacity. Sevier Bridge reservoir has approximately 33,000 acre feet less than a year ago, 25 percent of average and 13 percent of capacity.

On these southern watersheds the ground underneath the snowpack is again deficient in soil moisture, as it has been for the past several years. This means that a greater than average amount of the snow will be used to prime the soil before runoff can take place. This factor, combined with the below-average snow pack and very low reservoir storage, makes the present outlook for Southern Utah very poor.

The warm weather and rains which fell in Northern Utah during December have increased the water content of the snow to the point that key snow courses, such as the Mt. Logan and Spring Hollow (upper) on the Logan River, Silver Lake on Big Cottonwood Creek near Salt Lake, Timpinogas Divide on the American Fork River and Daniels-Strawberry Summit at the head of Daniels Canyon southeast of Heber City, now have a water content which is near, or exceeds, previous records for January 1. Measurements on these courses have been kept from 20 to 31 years.

If snowfall and temperature conditions are average for the next three months, the April 1 snowpack will be among the highest five or six of the last 31 years of record. Should snowfall be 130 percent of average, or more, previous records will be equalled or exceeded.

When the snowpack accumulation started in the fall, the soils were dry because of deficient October rains and lack of snow melt during a very cold November. This deficit has largely been overcome as a result of the rains in December, which were observed to fall at elevations as high as 9,000 feet.

At several snow courses, at elevations of 7500 to 8200 feet, where rain gauges are operated in conjunction with the snow courses, the precipitation catch for the month was from 3 to  $3\frac{1}{2}$  inches more water than the increase in the snow pack. This extra water went thru, or melted from the snow, wetting the soils with the result that snow surveyors uniformly reported the soils underlying the snow to be very wet.

As a result of the rains in Northern Utah and the high temperatures throughout the State, the snow density is now at approximately that normally found on April 1. Because of these high densities, if temperatures should continue as much above average as they have been, for any extended time, excessive winter runoff would occur; with the result that less water would remain to come during the normal runoff season. This could produce a situation on some of the lower elevation watersheds which had a great deal of their snow removed during the warm December rains--which rains caused heavy runoff--where water shortages could be experienced next summer.

Most years about 35 to 40 percent of the total snowpack to be expected has accumulated by the first of January. This leaves the major portion yet to come, so that the water supply prospects may change considerably, either up or down, as the rest of the winter's snow accumulates.

## COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of January 1, 1956

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1956 Snow Water Expressed As Percent Of		
			1955	1954	& 1938-52 Ave.
<u>GREAT BASIN</u>					
Logan River	5	2-31	213	204	165*
Weber River	6	1-20	187	132	120*
Salt Lake Area	6	2-20	218	139	124*
Provo River and Utah Lake	8	2-24	233	170	127*
San Pitch River	2	4-15	156	90	105*
Sevier River (south of Richfield)	4	1-17	149	--	79*
Coal Creek (at Cedar City)	2	1-2	232	170	85*
<u>COLORADO RIVER BASIN</u>					
Duchesne - Strawberry Rivers	5	3-24	280	198	130*
Price River	4	3-16	368	230	150*
Escalante River	2	5-17	112	130	102*
Virgin River	4	1-3	180	--	72*

\* Several of the snow courses used in calculating these averages have only been measured for a few years on January 1, but have up to 31 years of record on April 1. The percent of average January 1 water content on these courses was calculated based on the percent of the April 1st water content of the snow that usually accumulates by January 1 on courses having such records, and that are similarly located as to elevation and exposure.

## STATUS OF UTAH RESERVOIR STORAGE - JANUARY 1, 1955

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET			
			1956	1955	1954	15-Yr. Avg. 1938-52
<u>GREAT BASIN</u>						
<u>Bear River</u>	Bear Lake	1421.0	612.9	694.2	861.4	709.8
<u>Little Bear</u>	Hyrum	15.3	11.4	7.7	9.8	8.8
<u>Ogden</u>	Pine View	43.6	10.3	4.9	0.7	9.3
<u>Weber</u>	East Canyon	28.7	7.7	2.7	11.8	15.0
	Echo	73.9	24.9	8.9	25.2	23.5
<u>Provo</u>	Deer Creek	144.7	82.1	65.8	91.0	67.3**
<u>Spanish Fork</u>	Strawberry*	270.0	120.9	145.1	189.0	71.3
<u>Utah Lake</u>	Utah Lake**	1149.0	421.9	479.5	687.0	396.9
<u>Sevier River</u>	Otter Creek	52.5	8.4	9.0	15.6	28.1
	Piute	74.0	14.1	16.6	21.6	24.9
	Sevier Bridge	236.0	29.7	63.1	118.2	120.2
<u>Beaver River</u>	Rocky Ford	23.3	5.5	5.5	7.9	13.1
<u>COLORADO RIVER DRAINAGE</u>						
<u>Lake Fork</u>	Moon Lake	35.8	6.1	7.7	8.6	13.2
<u>Price River</u>	Scofield	65.8	4.4	7.7	30.4	11.7**

\* Figures for the Strawberry Reservoir obtained from the reports of the Spanish Fork River Commissioner. All other data contained in this table supplied by U.S.G.S.

\*\* Average is for less than 15-years of record in the 1938-52 period.

x Active capacity taken at 3.1 feet above compromise point.

## UTAH SNOW SURVEYS - ABOUT JANUARY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						
			1956			Past Record			
			Date of Survey	Snow Depth (In.)	Water Content: (In.)	Water Content (In.) :1955	1954	Average	Previous Yrs. of Record
<b>GREAT BASIN DRAINAGE</b>									
<u>BEAR RIVER above</u>									
<u>Harer, Idaho</u>									
Salt River Summit*	10G8	7900	1/4	37	10.1	3.1	5.7	--**	7
CCC Camp*	10G7	7500	1/4	27	7.2	3.0	4.7	4.6**	18
<u>BEAR RIVER below</u>									
<u>Harer, Idaho</u>									
Garden City Summit	11H7	7900	1/4	33	13.0	5.4	5.8	--**	5
Franklin Basin R.S.	11G8	8200	1/3	56	19.3	--	8.7	--**	2
Klondike Narrows	11H1	7400	1/3	41	12.6	5.2	6.5	--	2
Tony Grove R.S.	11H3	6250	1/4	15	4.7	3.8	4.2	--**	4
Mt. Logan	11H6	9000	12/31	59	18.9	9.4	8.7	11.4	31
Spring Hollow (upper)	11H5	8000	12/31	52	16.7	7.3	7.6	10.0	31
Spring Hollow (lower)	11H4	7000	12/31	23	7.0	5.1	5.1	5.6	30
<u>OGDEN RIVER</u>									
Ben Lomond (lower)	11H9	6000	1/6	6	1.3	--	--	--	0
Mt. Ogden	11H10	8600	1/6	37	15.9	9.6	6.3	--	2
Snow Basin	11H11	6500	1/6	15	5.4	5.5	3.8	--	2
<u>WEBER RIVER</u>									
Smith & Morehouse	11J4	7600	12/29	17	4.6	3.5	4.5	--	2
Beaver Creek R.S.	11J24	7500	12/28	11	3.3	2.7	3.0	--	2
Chalk Creek #2	11J2	8200	12/28	29	7.9	--	6.9	--	1
Chalk Creek #3	11J3	7500	12/28	9	1.5	--	--	--	0
Silver Lake*	11J16	8725	1/1	56	20.8	7.0	8.5	11.1**	20
Parley's Canyon Summit	11J15	7500	12/30	24	8.2	4.4	6.3	--	2
Lamb's Canyon*	11J14	6600	2/2	22	5.6	2.8	6.0	--**	7
<u>PROVO RIVER and</u>									
<u>UTAH LAKE</u>									
Soapstone R.S.	11J25	7800	12/28	23	6.0	3.1	4.5	--**	3
Daniels-Strawberry Summit	11J23	8000	12/29	27	8.1	2.4	3.5	5.0**	24
Strawberry Divide	11J8	8000	12/29	31	11.0	5.1	5.0	9.8**	16
East Portal	11J7	7560	12/30	13	4.7	1.8	2.1	5.3**	17
Payson R.S.	11K1	8050	1/3	18	5.8	3.1	7.4	--**	3
Rock Bridge	11K2	6750	1/3	11	3.2	1.7	5.3	--	2
Timpanogas Divide	11J21	8200	1/1	53	19.0	6.9	7.5	10.7	20
Camp Altamont	11J20	7300	1/1	24	8.7	4.3	5.3	7.4	20
South Fork R.S.	11J19	6100	1/1	0	0.0	3.2	3.7	4.8**	14
Timpanogas Cave Camp	11J18	5500	1/1	0	0.0	2.0	1.4	3.0**	11

\* Adjacent drainage.

\*\* Less than 15 year average. No value shown when less than 8 years in the period.

## UTAH SNOW SURVEYS - ABOUT JANUARY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous Yrs. of Record
				Snow Depth (In.)	Water Content (In.)	1955	1954	Average	
GREAT BASIN DRAINAGE									
<u>JORDAN RIVER and GREAT SALT LAKE</u>									
Silver Lake	11J16	8720	1/1	56	20.8	7.0	8.5	11.1**	20
Mill D. South Fork	11J10	7400	1/4	28	8.6	5.5	7.6	--	2
Lamb's Canyon	11J14	6600	2/2	22	5.6	2.8	6.0	--**	7
Farley's Canyon Summit*	11J15	7500	12/30	24	8.2	4.4	6.3	--	2
Farmington Canyon (upper)	11J11	8000	12/30	34	12.4	4.8	9.3	--	2
Farmington Canyon (lower)	11J12	6950	12/30	23	8.1	3.8	6.8	--**	4
<u>SEVIER RIVER above Richfield</u>									
Midway Valley	12M2	9400	1/5	30	9.4	3.9	--	--	1
Duck Creek R.S.	12M4	8560	1/3	17	5.4	3.0	1.0	--	3
Harris Flat R.S.	12M5	7700	1/3	4	1.4	1.9	0.1	--	3
Long Valley Junction*	12M6	7500	1/3	0	0.0	0.5	0.0	--	2
Bryce Canyon	12M8	8000	12/31	1	0.6	2.7	--	--	1
Widtsoe-Escalante Summit	11M1	9500	1/3	11	3.2	3.2	2.2	3.0**	17
Widtsoe-Escalante #2	11M2	9500	1/3	15	4.1	3.3	3.5	--**	5
<u>SEVIER RIVER below Richfield (including SAN PITCH RIVER)</u>									
G.B.R.C. Meadows	11K10	10000	12/30	34	10.5	6.5	12.1	--**	4
G.B.R.C. Headquarters	11K11	8700	12/30	22	6.1	4.1	6.6	--**	15
<u>COAL CREEK</u>									
Midway Valley*	12M2	9400	1/5	30	9.4	3.9	--	--	1
Webster Flat*	12M3	9200	1/5	17	5.6	2.5	3.3	--	2
Urie Flat	12M10	8450	1/5	0	0.0	0.9	--	--	1
COLORADO RIVER DRAINAGE									
<u>DUCHESNE RIVER</u>									
Soapstone R.S.*	11J25	7800	12/28	23	6.0	3.1	4.5	--**	3
Daniels-Strawberry Summit*	11J23	8000	12/29	27	8.1	2.4	3.5	5.0**	24
Strawberry Divide*	11J8	8000	12/29	31	11.0	5.1	5.0	9.8**	16
East Portal*	11J7	7560	12/30	13	4.7	1.8	2.1	5.3**	17
Indian Canyon	10K1	9100	1/6	23	6.7	1.7	3.7	4.7**	16

\*Adjacent drainage.

\*\* Less than 15 year average. No value shown when less than 8 years in the period.

UTAH SNOW SURVEYS - ABOUT JANUARY 1, 1956

7.

DRAINAGE BASIN and SNOW COURSE	No. of State	Elev.	Date of Survey	SNOW COVER MEASUREMENTS					
				1956		Past		Record	
				Snow Depth (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)	1938-52 Avg.	Previous Yrs. of Record
COLOPADO RIVER DRAINAGE									
<u>PRICE RIVER</u>									
Mud Creek	11K6	8250	1/3	29	11.2	2.8	3.9	--	3
Staley Ranch	11K7	7600	1/3	10	3.3	1.0	T	--**	10
Dry Valley Divide	11K8	7800	1/3	22	7.0	2.0	T	--**	10
White River #3	11K25	7400	1/3	14	5.0	--	--	--	0
Indian Canyon*	10K1	9100	1/6	23	6.7	1.7	3.7	4.7**	16
<u>SAN PAFANEL RIVER</u>									
Switchback	11K26	8600	1/3	26	8.2	--	--	--	0
Stuart R.S.	11K27	7950	1/3	17	5.2	--	--	--	0
<u>ESCALANTE RIVER</u>									
Widtsoe-Escalante Summit	11M1	9500	1/3	11	3.2	3.2	2.2	3.0**	17
Widtsoe-Escalante #2*	11M2	9500	1/3	15	4.1	3.3	3.5	--**	5
<u>VIRGIN RIVER</u>									
Long Valley Junction	12M6	7500	1/3	0	0.0	0.5	0.0	--	2
Harris Flat R.S.*	12M5	7700	1/3	4	1.4	1.9	0.1	--	3
Duck Creek R.S.*	12M4	8560	1/3	17	5.4	3.0	1.0	--	3
Midway Valley*	12M2	9400	1/5	30	9.4	3.9	--	--	1
Webster Flat	12M3	9200	1/5	17	5.6	2.5	3.3	--	2

\* Adjacent drainage.

\*\* Less than 15 year average. No value shown when less than 8 years in the period.

AGENCIES COOPERATING IN UTAH SNOW SURVEYS

U. S. Government Agencies

U. S. Department of Agriculture  
Soil Conservation Service  
Forest Service

U. S. Department of Commerce  
Weather Bureau

U. S. Department of the Interior  
Geological Survey  
National Park Service

State of Utah

Utah Agricultural Experiment Station  
Utah State Engineer  
Little Bear River Commissioner  
Price River Commissioner  
Provo River Commissioner  
Sevier River Commissioner  
Spanish Fork River Commissioner  
Weber River Commissioner

Municipalities or Quasi-Municipalities

Salt Lake City Corporation

Organized Public Agencies

Beaver River Water-Users Association  
Board of Canal Presidents - Jordan River  
Emery Canal and Reservoir Company  
Moon Lake Water-Users Association  
Ogden River Water-Users Association  
Strawberry Water-Users Association  
Sevier River Water-Users Association  
Provo River Water-Users Association

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by  
Gregory L. Pearson - Hydraulic Engineer  
Soil Conservation Service

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by  
J. A. Libby  
State Conservationist  
Soil Conservation Service  
222 South West Temple  
Salt Lake City, Utah

Joseph M. Tracy  
State Engineer  
State of Utah  
Salt Lake City, Utah

R. H. Walker  
Director  
Utah Agricultural Exp. Station  
Logan, Utah  
(Mineograph Series No. 420)

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## WATER SUPPLY OUTLOOK

for UTAH

FEBRUARY 1, 1956

\*\*\*\*\*  
 \* The northern half of Utah has prospects of an excellent \*  
 \* water supply for next summer, the southern part has a fair \*  
 \* outlook for natural flow water users, fair to poor for \*  
 \* users depending on natural flow plus carryover reservoir \*  
 \* storage. Damage from peak flows on some of the streams of \*  
 \* the Uintah Basin, Bear, Weber-Ogden and Provo rivers is \*  
 \* probable. Storage in reservoirs from Utah Lake and north- \*  
 \* ward is 97% of last year, 106% of average, and 46% of cap- \*  
 \* acity. South of here it is 71% of last year, 38% of aver- \*  
 \* age and 20% of capacity. \*  
 \* \*\*\*\*\*

## GENERAL OUTLOOK

Increases in the snow pack of up to 200 percent of average for January throughout the state has considerably brightened the outlook for runoff in southern Utah, while in northern Utah the runoff potential has increased to the point that some areas, such as the south fork of the Ogden River, may experience runoff which will be within 10 to 15 percent of that of 1952. The Logan River has prospects of slightly exceeding its 1952 runoff.

The result of the heavy January snowfall on the main Sevier River has increased runoff prospects so that now the April through September runoff at Hatch is forecast at 95 percent of the 1938-52 15-year average and 87 percent near Kingston. However, the total water supply outlook is not as good as this would indicate, since storage in Otter Creek and Fiute reservoirs is only 46 percent of average, while storage in Sevier Bridge reservoir is only 30 percent. Runoff on the Beaver River is forecast at 106 percent, while on Coal Creek at Cedar City it is 93 percent.

In central Utah, tributaries of the San Pitch River have runoff prospects of 5 to 15 percent more than usual. The Price River below Scofield reservoir is expected to flow at 120 percent, Huntington Creek at 125 percent. In the Uintah Basin forecast runoff varies from average on Ashley Creek at the eastern end of the Basin, 116 percent on the Strawberry River at the western end, to 130 percent on the Lakefork River near the center.

In the northern part of the state from about the Provo area on northward, the high elevation snow pack now equals (in several cases exceeds) the amounts which are normally measured on April 1. If average snow fall is experienced for the next two months, the April 1 measurements this year on many of these courses will show a water content within 10 percent of what they had in 1952. In a few cases such as at the Silver Lake course (elevation 8725) at Brighton on Big Cottonwood Creek near Salt Lake, the water content may actually exceed the 1952 measurements. This does not necessarily mean that these streams will have peak runoff as high as in 1952. The amount of water stored in the snow on the part of each watershed which produces the major portion of the runoff, largely controls the magnitude of the runoff peak. Most Utah streams produce the major portion of their runoff from intermediate areas.

Throughout a large part of the state, snowfall has been greater at higher elevations than at intermediate and low elevations. Warm temperatures and rains during December and January resulted in abnormal snow melt with accompanying above average runoff. As a result, the low and intermediate elevation snow pack is considerably less than in 1952. Examples of this near Salt Lake are the Mill D. South Fork snow course in Big Cottonwood Canyon and the Lamb's Canyon course.

If there is an average increase in the snowpack for the next two months, the April first measurement on Mill D. (elevation 7400) will show about 23.0 inches of water, compared to the 1952 reading of 34.4 inches and to the average of 20.6 inches. At Lamb's Canyon (elevation 6600) it will be about 18.0 inches of water, compared to the 1952 value of 29.6 inches and the average of 15.9 inches.

This means the prospect of the excessive streamflow of 1952 which occurred during the very warm period of late April and early May when the low and intermediate elevation snow pack melted is not imminent this year. The major damage from 1952 floods came during this period.

The streams which have their major water producing areas at high elevations could easily have greater peak flows than in 1952, depending principally upon temperature conditions during the time of the peak runoff next spring. During 1952, peaks from the high elevations were not as great as would normally have been expected because cooler temperatures set in during the time they peaked, slowing up melting of the snow and lowering resultant runoff rates.

The seasonal runoff prospects for these northern streams varies from 107 percent for the Spanish Fork at Thistle to 149 percent on the South Fork of the Ogden River near Huntsville.

## UTAH STREAMFLOW FORECASTS - FEBRUARY 1, 1956

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature from now thru the spring runoff period will be near average. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

Basin, Stream and Station	Seasonal Streamflow in Thousands of Acre Feet							15 - Yr. Average 1938-52
	Forecast Runoff 1956	% 15-Yr. Avg.	Fore- cast Period	Measured Runoff				
				1954	1953	1952		
GREAT BASIN								
<u>Bear River System</u>								
Little Bear River Near Paradise, Utah	55	125	Apr.-Sept.	20.7	34	77	44	
Logan River near Logan, Utah (1)	175	132	Apr.-Sept.	86	121	169	133	
Blacksmith Fork nr. Hyrum, Utah (2)	82	137	Apr.-Sept.	39	50	109	60	
<u>Weber-Ogden Rivers</u>								
Weber River near Oakley, Utah	160	125	Apr.-Sept.	82	117	192	128	
Weber River near Coalville, Utah (3)	180	130	Apr.-Sept.	67	112	258	138	
Chalk Creek at Coalville, Utah	55	130	Apr.-Sept.	13.2	28.1	85	42	
East Canyon Creek near Morgan, Utah (4)	41	140	Apr.-Sept.	6.6	22.9	67	29.2	
South Fork Ogden River near Huntsville, Utah	97	149	Apr.-Sept.	36	60	112	65	

- (1) Includes U.P. & L. Co. tailrace and Logan, Hyde Park and Smithfield Canal.
- (2) Above Utah Power and Light Company's dam.
- (3) Includes diversion by Weber-Provo canal.
- (4) Observed flow plus change in storage in East Canyon reservoir.

UTAH STREAMFLOW FORECASTS - FEBRUARY 1, 1956

Basin, Stream and Station	Seasonal Streamflow in Thousands of Acre Feet						15 - Yr. Average 1938-52
	Forecast	%	Fore-	Measured			
	Runoff 1956	15-Yr. Avg.	cast Period	1954	1953	1952	
<u>PROVO RIVER and</u>							
<u>UTAH LAKE</u>							
Spanish Fork at Thistle, Utah	48	107	Apr.-Sept.	20.5	29.7	146	45
Provo River at Vivian Park, Utah (5)	192	116	Apr.-Sept.	98	125	353	166
American Fork near American Fork, Utah	48	133	Apr.-Sept.	22.0	32	56	36
<u>JORDAN RIVER and</u>							
<u>SALT LAKE</u>							
Big Cottonwood near Salt Lake City, Utah	46	115	Apr.-Sept.	25.8	42	60	40
<u>SEVIER RIVER</u>							
Sevier River at Hatch, Utah	55	95	Apr.-Sept.	42	23.4	101	58(6)
Sevier River near Kingston, Utah	40	87	Apr.-Sept.	14.9	8.1	85	46
<u>BEAVER RIVER</u>							
Beaver River near Beaver, Utah	36	106	Apr.-Sept.	17.4	14.8	57	34
<u>COAL CREEK</u>							
Coal Creek near Cedar City, Utah	19	93	Apr.-Sept.	14.9	8.1	36	20.4
COLORADO RIVER BASIN							
<u>UPPER GREEN RIVER</u>							
Ashley Creek near Vernal, Utah	65	100	Apr.-Sept.	44	44	90	65

(5) Observed flow plus flow at South Fork Provo River at Vivian Park plus change in storage in Deer Creek Reservoir minus diversion by Weber-Provo Canal minus diversion thru Duchesne Tunnel plus diversion thru Salt Lake Aqueduct.

(6) Average runoff for 15 years, 1940-1954.

## UTAH STREAMFLOW FORECASTS - FEBRUARY 1, 1956

5.

Basin, Stream and Station	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast	%	Fore-	Measured Runoff			15-Yr.
	Runoff	15-Yr.	cast	1954	1953	1952	Average
	1956	Avg.	Period				1938-52
<u>DUCHESNE RIVER</u>							
Duchesne River near Tabiona, Utah (7)	150	123	Apr.-Sept.	66	97	211	122
Strawberry River at Duchesne, Utah	95	116	Apr.-Sept.	35	47	262	82
Lakefork River below Moon Lake, Utah (8)	103	130	Apr.-Sept.	48	62	102	79(8)
Uinta River near Neola, Utah	130	117	Apr.-Sept.	72	75	157	111
Whiterocks River near Whiterocks, Utah	90	125	Apr.-Sept.	45	50	117	72
<u>PRICE RIVER</u>							
Price River near Scofield, Utah (9)	52	121	Apr.-Sept.	14.1	33	110	43
Price River near Heiner, Utah (9)	96	125	Apr.-Sept.	26.3	47	231	77
<u>SAN PAFUEL RIVER</u>							
Huntington Creek near Huntington, Utah	65	105	Apr.-Sept.	32	57	140	62

- (7) Observed flow plus diversion through Duchesne Tunnel.  
 (8) Observed flow plus change in storage in Moon Lake Reservoir. Average runoff for 13 years, 1942-1954.  
 (9) Observed flow plus change in storage in Scofield Reservoir.

## STATUS OF UTAH RESERVOIR STORAGE - FEBRUARY 1, 1956\*

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET			
			1956	1955	1954	15-Yr. Avg. 1938 - 52
GREAT BASIN						
<u>Bear River</u>	Bear Lake	1421.0	663.1	704.7	868.9	706.0
<u>Little Bear</u>	Hyrum	15.3	10.7	10.2	10.4	10.2**
<u>Ordan</u>	Pine View	43.6	20.9	4.7	1.6	7.2
<u>Weber</u>	East Canyon	28.7	10.0	3.6	13.2	16.0
	Echo	73.9	33.3	14.3	30.1	22.9
<u>Provo</u>	Deer Creek	144.7	86.1	66.5	87.0	65.5**
<u>Spanish Fork</u>	Strawberry	283.0	147.9	170.2	214.8	97.1
<u>Utah Lake</u>	Utah Lake <sup>x</sup>	1149.0	486.1	529.5	734.6	447.8
<u>Sevier River</u>	Otter Creek	52.5	12.1	12.4	19.9	31.1
	Piute	74.0	22.1	24.0	30.8	43.2
	Sevier Bridge	236.0	40.4	73.5	133.1	136.4
<u>Beaver River</u>	Rocky Ford	23.3	7.3	7.0	9.8	14.8
COLORADO RIVER DRAINAGE						
<u>Lake Fork</u>	Moon Lake	35.8	7.7 <sup>xx</sup>	9.2	10.3	15.1
<u>Price River</u>	Scofield	65.8	5.9	9.0	32.0	13.1**

\* All data contained in this table supplied by U. S. Geological Survey.

\*\* Average is for less than 15-years of record in the 1938-52 period.

<sup>x</sup> Active capacity taken at 3.1 feet above compromise point.

<sup>xx</sup> Value partly estimated.

## COMPARATIVE SNOW DATA

7.

Summary of Snow Survey Data by Tributary Watersheds as of February 1, 1956

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1956 Snow Water Expressed as Percent of		
			1955	1954	& 1938-52 Ave.
<u>GREAT BASIN</u>					
Logan River	6	2-31	215	145	153*
Blacksmith Fork	6	1-31	206	140	151*
Ogden River, South Fork	2	1-3	211	155	165*
Weber River above Echo Dam	5	2-21	186	159	137*
East Canyon Creek	3	5-21	166	174	135*
Salt Lake Area	6	3-21	147	165	125*
American Fork River	2	21	126	111	120
Provo River above Vivian Park	3	5-25	223	138	136*
Strawberry Reservoir Valley	3	20-25	180	156	127
Mt. Nebo Area	1	2	137	106	95
Sevier River above Panguitch	2	1-12	125	139	107*
East Fork Sevier River	2	5-18	82	142	100*
San Pitch River	4	5-17	168	151	128*
Beaver River	3	5-6	--	169	136*
Coal Creek-Cedar City	2	1-4	120	113	104*
<u>COLORADO RIVER BASIN</u>					
Duchesne-Strawberry Rivers	5	5-25	198	155	136*
Lakefork River	2	3-5	181	195	196*
Whiterocks River	2	3	208	147	188*
Price River	6	5-20	201	176	138*
Huntington Creek	2	5	172	175	131*
Escalante River	2	5-18	82	142	100*
Virgin River	3	1-12	120	126	106*

\* Several of the snow courses used in calculating these averages have only been measured for a few years on February 1, but have up to 31 years of record on April 1. The percent of average February 1 water content on these courses was calculated based on the percent of the April 1st water content of the snow that usually accumulates by February 1 on courses having such records and that are similarly located as to elevation and exposure.

## UTAH SNOW SURVEYS - ABOUT FEBRUARY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						
			1956		Past Record			Previous 1938-52 Yrs. of Record	
			Date of Survey (In.)	Snow Depth (In.)	Water Content: (In.)	1955	1954		Average

## GREAT BASIN DRAINAGE

BEAR RIVER above  
Harer, Idaho

Salt River Summit*	10G8	7900	1/30	59	14.8	5.2	10.5	--XX	7
CCC Camp*	10G7	7500	1/30	46	10.5	5.0	7.9	7.6	20

BEAR RIVER below  
Harer, Idaho

Garden City Summit	11H7	7900	1/31	58	16.5	7.6	12.3	--XX	9
Strawberry Mink Divide <sup>X</sup>	11G10	6800	2/2	60	18.2	--	--	--	
Strawberry Creek <sup>X</sup>	11G9	5800	2/2	37	9.7	--	--	--	
Christiansen Ranch <sup>X</sup>	11G11	5600	2/2	29	6.4	--	--	--	
Willow Flat <sup>X</sup>	11G4	6100	2/1	48	13.0	--	--	--	
Cub River R.S. <sup>X</sup>	11G12	5400	2/1	27	7.1	--	--	--	
Franklin Basin R.S.	11G8	8200	2/1	78	26.0	11.1	16.1	--	2
Klondike Narrows	11H1	7400	2/1	62	19.0	8.1	11.7	--	2
Tony Grove R.S.	11H3	6250	1/31	31	7.5	5.6	8.1	--XX	7
Mt. Logan	11H6	9000	2/3	79	27.3	11.4	18.3	17.8	31
Spring Hollow (upper)	11H5	8000	2/3	74	23.3	10.9	15.2	15.3	31
Spring Hollow (lower)	11H4	7000	2/3	41	11.3	7.6	10.3	9.1	31
Monte Cristo R.S.	11H12	8960	2/3	79	27.4	--	--	--	1
Dry Bread Pond*	11H13	8230	58	2/3	17.5	8.3	11.3	--	3
Beaver Creek-Skunk Cr.*	11H14	7150	2/3	36	9.9	5.8	8.9	--	3
Oxford Mountain <sup>X</sup>	12G3	6800	2/3	28	7.4	--	--	--	
Dry Creek Flat <sup>X</sup>	12G4	6350	2/3	21	5.2	--	--	--	

OGDEN RIVER

Monte Cristo R.S.*	11H12	8960	2/3	79	27.4	--	--	--	1
Dry Bread Pond	11H13	8230	2/3	58	17.5	8.3	11.3	--	3
Beaver Creek-Skunk Cr.	11H14	7150	2/3	36	9.9	5.8	8.9	--	3
Sagebrush Flat	11H15	6300	2/3	13	3.8	4.1	4.3	--	3
Ben Lomond (lower)	11H9	6000	2/1	29	8.5	--	--	--	
Mt. Ogden	11H10	8600	1/31	82	30.0	16.5	11.0	--XX	4
Snow Basin	11H11	6500	1/31	42	11.1	7.9	9.3	--	2

WEBER RIVER

Smith & Morehouse	11J4	7600	2/1	37	9.8	5.8	5.9	--	2
Beaver Creek R.S.	11J24	7500	2/1	25	6.5	3.3	5.0	--XX	5
Chalk Creek #2	11J2	8200	1/31	48	12.9	6.7	9.8	--	2
Chalk Creek #3	11J3	7500	1/31	24	5.3	3.3	4.7	--	2
Silver Lake*	11J16	8725	2/2	70	29.0	12.4	12.0	15.4	21
Parley's Canyon Summit	11J15	7500	2/1	43	12.9	10.0	9.2	--XX	5
Lamb's Canyon*	11J14	6600	2/1	38	11.6	8.5	8.2	--XX	10

\*Adjacent drainage.

<sup>X</sup>Location of these courses given at end of this section.<sup>XX</sup>Less than 15 year average. No value shown when less than 8 years in the period

UTAH SNOW SURVEYS - ABOUT FEBRUARY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	Date of Survey	SNOW COVER MEASUREMENTS					
				1956		Past		Record	
				Snow Depth (In.)	Water Content: (In.)	Water Content: (In.)	Water Content: (In.)	1938-52 Yrs. of Average	Previous Record
<u>PROVO RIVER and UTAH LAKE</u>									
Soapstone R.S.	11J25	7800	2/1	43	11.3	4.2	7.0	---xx	5
Daniels-Strawberry Summit	11J23	8000	2/2	48	13.4	7.0	9.7	9.6	25
Strawberry Divide	11J8	8000	1/30	60	18.3	10.2	10.0	13.8	20
East Portal	11J7	7560	1/30	31	9.0	5.4	6.2	8.5	20
Payson R.S.	11K1	8050	2/4	37	11.4	8.3	10.8	---	2
Rock Bridge	11K2	6750	2/4	26	7.2	5.7	6.9	---	2
Timpanogas Divide	11J21	8200	2/2	66	24.3	15.6	18.8	17.4	21
Camp Altamont	11J20	7300	2/2	32	11.5	11.9	12.4	12.2	21
South Fork R.S.	11J19	6100	2/2	6.5	2.4	6.5	4.9	6.4 <sup>xx</sup>	18
Timpanogas Cave Camp	11J18	5500	2/2	0.0	0.0	3.6	1.7	4.9 <sup>xx</sup>	13
<u>JORDAN RIVER and GREAT SALT LAKE</u>									
Silver Lake	11J16	8720	2/2	70	29.0	12.4	12.0	15.4	21
Mill D. South Fork	11J10	7400	2/2	46	14.8	11.8	9.2	---	3
Lamb's Canyon	11J14	6600	2/1	38	11.6	8.5	8.2	---xx	10
Parleys Canyon Summit*	11J15	7500	2/1	43	12.9	10.0	9.2	---xx	5
Farmington Canyon (upper)	11J11	8000	1/31	72	21.0	13.9	---	---xx	3
Farmington Canyon (lower)	11J12	6950	1/30	51	13.7	12.6	9.7	---xx	5
Middle Canyon	12J3	7000	2/2	26	7.5	7.9	9.4	---	2
<u>SEVIER RIVER above Richfield</u>									
Midway Valley	12M2	9400	1/31	60	16.5	12.8	---	---	1
Duck Creek R.S.	12M4	8560	2/3	38	11.4	9.4	8.2	10.2 <sup>xx</sup>	12
Harris Flat R.S.	12M5	7700	2/3	11	2.7	8.1	6.2	---xx	10
Long Valley Junction*	12M6	7500	2/3	4.6	1.0	5.3	---	---xx	4
Panguitch Lake	12M7	8200	2/2	8.0	1.8	4.0	2.6	---xx	3
Bryce Canyon	12M8	8000	2/2	6.8	1.2	5.0	1.2	---xx	7
Widtsoe-Escalante Summit	11M1	9500	2/1	21	5.6	7.4	3.6	5.8 <sup>xx</sup>	18
Widtsoe-Escalante #2	11M2	9500	2/1	28	6.4	7.2	5.0	---xx	5
Big Flat*	12L7	10000	1/30	61	17.0	---	11.1	---xx	5
Huntington-Horseshoe*	11K5	9800	1/30	55	18.5	12.0	11.0	---xx	5
Gooseberry Reservoir*	11K4	8700	1/30	52	16.8	8.9	9.3	---xx	5
G.B.R.C. Meadows	11K10	10000	2/1	61	19.1	10.9	15.0	---xx	5
G.B.R.C. Headquarters	11K11	8700	2/1	42	11.5	7.5	8.9	9.5 <sup>xx</sup>	17

\*Adjacent drainage.

xLocation of these courses given at end of this section.

xxLess than 15 year average. No value shown when less than 8 years in the period.

## UTAH SNOW SURVEYS - ABOUT FEBRUARY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	Date of Survey	SNOW COVER MEASUREMENTS					
				1956	: P a s t R e c o r d				Previous 1938-52 Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	1955	1954	Average	
<u>BEAVER RIVER</u>									
Big Flat	12L7	10000	1/30	61	17.0	--	11.1	--XX	5
Otter Lake	12L8	9300	1/30	53	14.4	--	8.6	--XX	5
Merchants Valley	12L9	8200	1/30	38	9.7	9.1	5.2	--XX	6
<u>COAL CREEK</u>									
Midway Valley*	12M2	9400	1/31	60	16.5	12.8	--	--	1
Webster Flat*	12M3	9200	1/31	42	11.5	10.5	10.2	--XX	4
Urie Flat	12M10	8450	1/31	17	3.6	5.9	--	--	1
COLORADO RIVER DRAINAGE									
<u>DUCHESNE RIVER</u>									
Soapstone R.S.*	11J25	7800	2/1	43	11.3	4.2	7.0	--XX	5
Daniels-Strawberry Summit*	11J23	8000	2/2	48	13.5	7.0	9.7	9.6	25
Strawberry Divide*	11J8	8000	1/30	60	18.3	10.2	10.0	13.8	20
East Portal*	11J7	7560	1/30	31	9.0	5.4	6.2	8.5	20
Indian Canyon	10K1	9100	2/2	38	11.0	6.0	7.4	7.1 <sup>XX</sup>	20
Lakefork Mountain	10J10	10500	1/31	54	13.5	7.4	6.8	--XX	5
Lakefork Mountain #2	10J11	8900	1/31	44	10.5	5.8	5.5	--	3
Lakefork Mountain #3	10J12	8100	1/31	33	6.7	5.0	5.0	--	3
Paradise Park	9J3	10500	2/1	55	14.8	6.5	9.5	--XX	3
Mosby Mountain (lower)	9J5	9500	2/1	45	11.3	6.0	8.2	--XX	3
<u>PRICE RIVER</u>									
Huntington-Horseshoe	11K5	9800	1/30	55	18.5	12.0	11.0	--XX	5
Gooseberry Reservoir	11K4	8700	1/30	52	16.8	8.9	9.3	--XX	5
Mud Creek	11K6	8250	1/31	49	15.1	5.4	7.5	--XX	6
Staley Ranch	11K7	7600	1/31	19	5.2	3.1	3.2	5.9 <sup>XX</sup>	14
Dry Valley Divide	11K8	7800	1/31	36	10.3	4.4	5.3	7.6 <sup>XX</sup>	14
White River #1	10K2	8600	2/2	46	14.0	--	--	--	
White River #2	11K24	7600	2/2	32	8.7	--	--	--	
White River #3	11K25	7400	1/31	25	7.2	--	--	--	
Indian Canyon*	10K1	9100	2/2	38	11.0	6.0	7.4	7.1 <sup>XX</sup>	20
Mud Creek #2	11K33	8300	1/31	42	11.2	--	--	--	

\*Adjacent drainage.

<sup>X</sup>Location of these courses given at end of this section.<sup>XX</sup>Less than 15 year average. No value shown when less than 8 years in the period.

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous 1938-52 Yrs. of Average Record
				Snow Depth (In.)	Water Content (In.)	Water Content (In.)	1955	1954	
<u>SAN RAFAEL RIVER</u>									
Huntington-Horseshoe	11K5	9800	1/30	55	18.5	12.0	11.0	--xx	5
Gooseberry Reservoir	11K4	8700	1/30	52	16.8	8.9	9.3	--xx	5
Switchback	11K26	8600	2/1	46	13.1	7.1	--	--	1
Stuart R.S.	11K27	7950	2/1	29	8.2	3.5	--	--	1
<u>ESCALANTE RIVER</u>									
Widtsoe-Escalante Summit	11M1	9500	2/1	21	5.6	7.4	3.6	5.8 <sup>xx</sup>	18
Widtsoe-Escalante #2	11M2	9500	2/1	28	6.4	7.2	5.0	--xx	5
<u>VIRGIN RIVER</u>									
Long Valley Junction	12M6	7500	2/3	4.6	1.0	5.3	--	--xx	4
Harris Flat R.S.*	12M5	7700	2/3	11	2.7	8.1	6.2	--xx	10
Duck Creek R.S.*	12M4	8560	2/3	38	11.4	9.4	8.2	10.2 <sup>xx</sup>	12
Midway Valley*	12M2	9400	1/31	60	16.5	12.8	--	--	1
Webster Flat	12M3	9200	1/31	42	11.5	10.5	10.2	--xx	4

\*Adjacent drainage.

\*Location of these courses given at end of this section.

xxLess than 15 year average. No value shown when less than 8 years in the period.

\*\*\*\*\*

INDEX OF NEW SNOW COURSE LOCATIONS

Drainage Basin and Snow Course Name	Snow Course Number	Sec- tion	Town- ship	Range	Elev.
GREAT BASIN DRAINAGE					
<u>BEAR RIVER below</u>					
<u>Harer, Idaho</u>					
Strawberry Mink Divide, Idaho	11G10	14	13S	41E	6800
Strawberry Creek, Idaho	11G9	9	13S	41E	5800
Christiansen Ranch, Idaho	11G11	27	13S	41E	5600
Willow Flat	11G4	2	15S	41E	6100
Cub River R.S.	11G12	5	15S	41E	5400
Oxford Mountain	12G3	32	13S	37E	6800
Dry Creek Flat	12G4	31	13S	37E	6350

AGENCIES COOPERATING IN UTAH SNOW SURVEYS

U. S. Government Agencies

U. S. Department of Agriculture  
Soil Conservation Service  
Forest Service

U. S. Department of Commerce  
Weather Bureau

U. S. Department of the Interior  
Geological Survey  
National Park Service

State of Utah

Utah Agricultural Experiment Station  
Utah State Engineer  
Little Bear River Commissioner  
Price River Commissioner  
Provo River Commissioner  
Sevier River Commissioner  
Spanish Fork River Commissioner  
Weber River Commissioner

Municipalities or Quasi-Municipalities

Salt Lake City Corporation

Organized Public Agencies

Beaver River Water-Users Association  
Board of Canal Presidents - Jordan River  
Emery Canal and Reservoir Company  
Moon Lake Water-Users Association  
Ogden River Water-Users Association  
Strawberry Water-Users Association  
Sevier River Water-Users Association  
Provo River Water-Users Association



Checking Mountain Soil Moisture Under the Snow, an important factor in snowmelt runoff.

Federal-State Cooperative  
Snow Surveys and Water Supply Forecasts  
for  
**UTAH**

SOIL CONSERVATION SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE  
AND

STATE ENGINEER OF UTAH  
UTAH AGRICULTURAL EXPERIMENT STATION  
IN COOPERATION WITH

U. S. Forest Service  
U. S. Geological Survey

U. S. National Park Service  
State and Local Irrigation Organizations

AS OF  
MAR. 1, 1956

FEDERAL-STATE COOPERATIVE  
SNOW SURVEYS and WATER SUPPLY FORECASTS  
for  
U T A H

MARCH 1, 1956

Report Prepared  
by  
Gregory L. Pearson - Hydraulic Engineer  
Soil Conservation Service

Issued  
by  
J. A. Libby  
State Conservationist  
Soil Conservation Service  
222 South West Temple  
Salt Lake City, Utah

Joseph M. Tracy  
State Engineer  
State of Utah  
Salt Lake City, Utah

Dr. D. W. Thorne, Director  
Utah Agricultural Exp. Station  
Logan, Utah  
Mimeograph Series No. 421)

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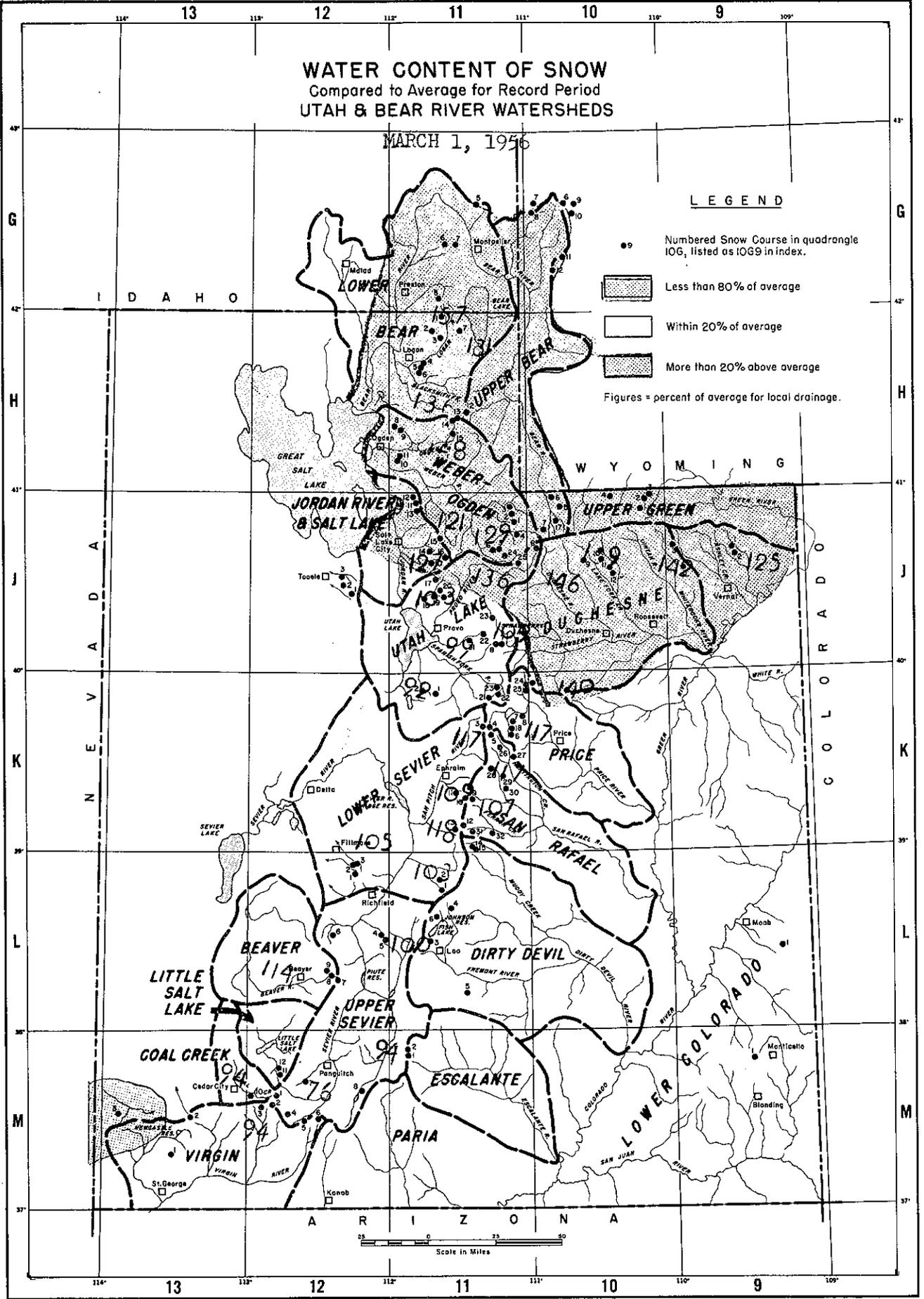
# WATER CONTENT OF SNOW Compared to Average for Record Period UTAH & BEAR RIVER WATERSHEDS

MARCH 1, 1956

### LEGEND

- Numbered Snow Course in quadrangle 10G, listed as 10G9 in index.
-  Less than 80% of average
-  Within 20% of average
-  More than 20% above average

Figures = percent of average for local drainage.



Scale in Miles

## WATER SUPPLY OUTLOOK

for UTAH

MARCH 1, 1956

\*\*\*\*\*  
 \* Despite a dry February which has lowered forecasts \*  
 \* for next summer's streamflow, most northern streams are \*  
 \* expected to produce average or better runoff. Central \*  
 \* and southern Utah streams have prospects of average to \*  
 \* 22% less than average flow, except the Sevier River near \*  
 \* Kingston where only 54% of average runoff is expected. \*  
 \* Damage from peak flows on some streams of Cache and \*  
 \* Ogden Valleys and of higher elevation watersheds of the \*  
 \* Weber River and Uintah Basin streams is still possible. \*  
 \* Reservoirs on the Sevier, Beaver, Price and Lake Fork \*  
 \* rivers now have carry-over storage water which is 27% \*  
 \* of capacity and 42% of average, while on the Bear, \*  
 \* Ogden, Weber, Provo, Spanish Fork and Utah Lake drain- \*  
 \* ages they hold 48% of capacity and are 5% above average. \*  
 \* \*\*\*\*\*

## GENERAL OUTLOOK

The upper Provo and Logan-Cub river watersheds were the only places where a greater than average increase in the snowpack was measured for February, with a fourth to a third above normal being recorded. Elsewhere, the snowpack increases varied from as low as one-tenth to three-fourths of an average amount on the watersheds of the Uintah Basin; 30 to 60 percent on the Sevier, Virgin and Beaver rivers; and 50 percent to near average on other watersheds.

The area which has greatest cause for concern as to its next summer's water supply is the southwestern part of the state. With the combined storage in Otter Creek and Piute reservoirs being 51 percent of average and forecast flow on the main Sevier River near Kingston set at 54 percent, another year of short water supply is in prospect. However, the outlook is for better supplies than in 1955; since if precipitation is average for the balance of the season, this year's runoff will be about three times the amount measured then. The forecast is for 25,000 acre feet as compared to the measured runoff of 7,500 acre feet in 1955. Storage in the above reservoirs is three percent less than last year.

On the upper Sevier River the forecast flow at Hatch is for 51,000 acre feet which is 12 percent less than average. The reason for the low forecast at Kingston as compared to runoff at Hatch is because the higher elevation snow cover varies from eight percent less than average to three percent above, while the lower snow cover is from 45 to 50 percent of average. The shortage of the low snow results in the lower forecast at Kingston because of the much larger area of low elevation watershed which contributes runoff to it.

Snow cover on the watersheds above Otter Creek reservoir as indicated by the Widtsoe-Escalante Summit and the Fish Lake snow courses is within five percent of average. On the Box Creek snow course west of Koosharem, snow cover is about one-third more than last year. The soils on these watersheds are dry and will absorb more than the average amount of snow water before runoff will begin. If precipitation is average during the balance of the season, these watersheds should yield two to three times as much as they did last year. In making comparison of this year's snow cover with a year ago and the runoff which was realized then, it should be remembered that last year's spring and summer months were very dry, reducing runoff below what would normally be realized.

The outlook for the Enterprise area is poor; since there now is no snow on the Rattlesnake Springs snow course near the head of the drainage above Enterprise reservoir. Storage in the reservoir is also reported to be low. Coal Creek near Cedar City and Parowan Creek have an outlook for runoff 75 to 80 percent of average.

To the north of here on the Beaver River, runoff is expected to be only six percent less than average. In central Utah the streams of the San Pitch, Price and Spanish Fork rivers and Huntington and Cottonwood creeks, are forecast to yield runoff from average to 10 percent less than average.

In the Uintah Basin the streams from the Strawberry River eastward to the Whiterocks River can expect runoff from five to 25 percent above average. On Ashley Creek near Vernal it is down 15 percent below average.

The Weber, Provo and upper Bear rivers, and streams near Salt Lake have an expectant runoff of 15 to 30 percent above average.

Some of these streams, along with the Ogden, Blacksmith Fork and Logan rivers, could easily have damage resulting from runoff peaks next spring. The South Fork of the Ogden River near Huntsville is expected to flow at 146 percent of the past 15 year average and within 15 percent of its 1952 flow. The Logan River is forecast at 137 percent of average, which is 12 percent above what was produced on this stream in 1952.

Throughout a large part of the state, the snowpack is much greater at higher elevations than at intermediate and low elevations. Examples of this follow: On the Logan River the Franklin Basin snow course (elev. 8200) has 157 percent of average, the Tony Grove R.S. (elev. 6250) 100 percent, Trial Lake (elev. 9800) near the head of the Weber, Provo and Duchesne rivers has 168 percent, while the Smith and Morehouse course (elev. 7600) has 112 percent. In southern Utah the Cedar Breaks course (elev. 10390) has 103 percent while Panguitch Lake (elev. 8200) was measured at 50 percent.

The heavy high elevation snowpack in the northern areas means that late season water supplies should hold up much better than average.

## UTAH STREAMFLOW FORECASTS - MARCH 1, 1956

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1956	% 15-Yr. Avg.	Fore- cast Period	Measured Runoff			15- Yr. Average 1938-52
				1955	1954	1953	
GREAT BASIN							
<u>BEAR RIVER SYSTEM</u>							
Bear River near Evanston, Wyo.	180	127	Apr.-Sept.	74	55	113	142
Bear River near Randolph, Utah	150	129	Apr.-Sept.	26.4	15.3	67	116 (1)
Smith's Fork near Border, Wyo.	134	118	Apr.-Sept.	78	89	99	114 (2)
Bear River at Harer, Idaho	340	121	Apr.-Sept.	116	100	184	281
Little Bear River near Paradise, Utah	55	125	Apr.-Sept.	40	20.7	34	44
Logan River near Logan, Utah (3)	182	137	Apr.-Sept.	99	86	121	133
Blacksmith Fork near Hyrum, Utah (4)	81	135	Apr.-Sept.	46	39	50	60
<u>WEBER-OGDEN RIVERS</u>							
Weber River near Oakley, Utah	151	118	Apr.-Sept.	98	82	117	128
Weber River near Coalville, Utah (5)	170	123	Apr.-Sept.	97	67	112	138
Chalk Creek at Coalville, Utah	51	121	Apr.-Sept.	18.6	13.2	28.1	42

- (1) Average runoff for 12 years, 1944-'55.
- (2) Average runoff for 13 years, 1943-'56.
- (3) Includes U.P. & L. Co. tailrace and Logan, Hyde Park and Smithfield Canal.
- (4) Above Utah Power and Light Company's dam.
- (5) Includes diversion by Weber-Provo canal.

## UTAH STREAMFLOW FORECASTS - MARCH 1, 1956

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						15 - Yr. Average 1938-52
	Forecast Runoff 1956	% 15-Yr. Avg.	Fore- cast Period	Measured Runoff			
				1955	1954	1953	
<u>WEBER-OGDEN RIVERS - Continued</u>							
East Canyon Creek near Morgan, Utah (6)	38	130	Apr.-Sept.	14.1	6.6	22.9	29.2
South Fork Ogden River near Huntsville, Utah	95	146	Apr.-Sept.	48	36	60	65
<u>PROVO RIVER &amp; UTAH LAKE</u>							
Spanish Fork at Thistle, Utah	40	89	Apr.-Sept.		20.5	29.7	45
Hobble Creek near Springville, Utah	23	92	Apr.-Sept.	10.3	8.6	17.1	25 (7)
Provo River at Vivian Park, Utah (8)	200	120	Apr.-Sept.	109	98	125	166
American Fork near American Fork, Utah	37	103	Apr.-Sept.	26.4	22.0	32	36
<u>JORDAN RIVER &amp; SALT LAKE</u>							
Big Cottonwood near Salt Lake City, Utah	44	111	Apr.-Sept.	34	25.1	42	40
Parley's Creek near Salt Lake City, Utah	18	118	Apr.-Sept.	7.5	4.4	16.1	15.2
<u>SEVIER RIVER</u>							
Sevier River at Hatch, Utah	51	88	Apr.-Sept.	24	42	23.4	58 (9)
Sevier River near Kingston, Utah	25	54	Apr.-Sept.	7.5	14.9	8.1	46
<u>BEAVER RIVER</u>							
Beaver River near Beaver, Utah	32	94	Apr.-Sept.	16.4	17.4	14.8	34

(6) Observed flow plus change in storage in East Canyon reservoir.

(7) For ten years 1946-'55.

(8) Observed flow plus flow at South Fork Provo River at Vivian Park plus change in storage in Deer Creek Reservoir minus diversion by Weber-Provo Canal minus diversion thru Duchesne Tunnel plus diversion thru Salt Lake Aqueduct.

(9) Average runoff for 15 years, 1940-'54.

## UTAH STREAMFLOW FORECASTS - MARCH 1, 1956

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast	%	Fore-	Measured Runoff			15 - Yr.
	Runoff	15-Yr.	cast	1955	1954	1953	Average
	1956	Avg.	Period				1938-52
<u>COAL CREEK</u>							
Coal Creek near Cedar City, Utah	16	78	Apr.-Sept.	14.9	8.1	20.4	
COLORADO RIVER BASIN							
<u>UPPER GREEN RIVER</u>							
Ashley Creek near Vernal, Utah	55	85	Apr.-Sept.	40	44	44	65
<u>DUCHESNE RIVER</u>							
Duchesne River near Tabiona, Utah (10)	150	123	Apr.-Sept.	89	66	97	122
Rock Creek near Mountain Home, Utah	128	117	Apr.-Sept.	80	68	91	109
Strawberry River at Duchesne, Utah	85	104	Apr.-Sept.	49	35	47	82
Lakefork River below Moon Lake, Utah (11)	98	127	Apr.-Sept.	58	48	62	77 (11)
Uinta River near Neola, Utah	123	111	Apr.-Sept.	71	72	75	111
Whiterocks River near Whiterocks, Utah	80	111	Apr.-Sept.	47	45	50	72
<u>PRICE RIVER</u>							
Price River near Scofield, Utah (12)	44	102	Apr.-Sept.	26.6	14.1	33	43
Price River near Heiner, Utah (12)	75	97	Apr.-Sept.	45	26.3	47	77
<u>SAN RAFAEL RIVER</u>							
Huntington Creek near Huntington, Utah	58	94	Apr.-Sept.	36	32	57	62
Cottonwood Creek near Orangeville, Utah	60	91	Apr.-Sept.	35	32	51	66

(10) Observed flow plus diversion through Duchesne tunnel.

(11) Observed flow plus change in storage in Moon Lake reservoir--Average runoff for 14 years, 1942-'55.

(12) Observed flow plus change in storage in Scofield reservoir.

## STATUS OF UTAH RESERVOIR STORAGE - MARCH 1, 1956 (1)

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET			
			1956	1955	1954	15-Yr. Avg. 1938-52
GREAT BASIN						
<u>Bear River</u>	Bear Lake	1421.0	673.0	728.6	892.0	714.3
<u>Little Bear</u>	Hyrum	15.3	10.6	10.3	10.6	10.5(2)
<u>Ogden</u>	Pine View	43.6	18.2	3.4	5.9	6.8
<u>Weber</u>	East Canyon	28.7	11.6	4.9	14.4	16.8
	Echo	73.9	31.3	18.8	30.5	25.0
<u>Provo</u>	Deer Creek	144.7	83.9	69.6	91.2	73.9(3)
<u>Spanish Fork</u>	Strawberry	283.0	149.9	173.1	216.3	99.4
<u>Utah Lake</u>	Utah Lake (4)	1149.0	535.4	575.1	767.2	498.2
<u>Sevier River</u>	Otter Creek	52.5	15.3	16.0	25.1	35.3
	Piute	74.0	28.8	29.5	38.9	51.5
	Sevier Bridge	236.0	50.6	85.5	149.8	152.6
<u>Beaver River</u>	Rocky Ford	23.3	8.3	8.7	12.6	16.6
COLORADO RIVER DRAINAGE						
<u>Lake Fork</u>	Moon Lake	35.8	9.6	10.7	11.9	16.6
<u>Price River</u>	Scofield	65.8	6.9	10.2	32.7	14.2(5)

- (1) All data contained in this table supplied by U.S. Geological Survey.  
(2) Average for 1939-'53.  
(3) Average for 1942-'55.  
(4) Active capacity taken at 3.1 feet above compromise point.  
(5) Average for 1943-'52.

## COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of March 1, 1956

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1956 Snow Water Expressed as Percent of		
			1955	1954	& 1938-52 Ave.
<u>GREAT BASIN</u>					
Smith's Fork Bear River (Wyo.)	3	5-20	197	153	135*
Strawberry-Mink Creeks (Idaho)	2	1	176	--	--
Cub River (Idaho)	1	5	234	182	157*
Logan River	4	2-30	181	155	150*
Blacksmith Fork, Little Bear	5	4-30	164	152	136*
Maled River (Idaho)	2	1	87	--	--
Ogden River, South Fork	2	4-8	181	161	148*
Weber River above Echo Dam	8	4-21	150	161	129*
East Canyon Creek	3	8-21	148	164	121
Farmington Area	2	5	124	164	--
Salt Lake Area	4	3-21	121	163	121*
Tooele Area	1	2	82	94	--
American Fork River	3	1-21	100	104	103*
Provo River above Vivian Park	6	9-25	170	171	136
Strawberry Reservoir	3	20-25	138	162	109
Hobble Creek	1	3	116	149	93*
Payson Creek	1	8	89	122	92*
Sevier River South of Richfield	10	2-19	86	112	85*
Salina Creek	2	3-5	82	132	103*
Mt. Pleasant Area	1	5	75	143	104*
Ephraim Area	2	6-18	112	138	109*
Mayfield Area	2	4	102	167	118*
Chalk Creek-Fillmore	3	2	64	132	105*
Beaver River	3	7-9	118	167	114*
Coal Creek-Cedar City	3	2-10	101	110	94*

COLORADO RIVER BASIN

Duchesne-Strawberry Rivers above Duchesne	5	9-25	176	162	133
Lakefork River	1	5	149	160	159*
Whiterocks-Uintah Rivers	2	5-6	147	117	142*
Ashley Creek	4	5-7	144	114	134*
Price River	3	11-15	129	160	117*
San Rafael River	2	4-11	126	143	112*
Escalante River	2	6-19	88	301	94*
Virgin River	4	2-12	103	118	94*

\* Several of the snow courses used in calculating these averages have only been measured for a few years on March 1, but have up to 31 years of record on April 1. The percent of average March 1 water content on these courses was calculated based on the percent of the April 1st water content of the snow that usually accumulates by March 1 on courses having such records and that are similarly located as to elevation and exposure.

## UTAH SNOW SURVEYS - ABOUT MARCH 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1938-52 Average	1955 1954	
GREAT BASIN									
<u>BFAR RIVER above</u>									
<u>Harer, Idaho</u>									
Trial Lake*	10J8	9800	2/28	98	35.3	11.9	18.4	---**	10
Monte Cristo R.S.	11H12	8960	No Survey			16.8	17.9	---**	7
Poison Meadows*	10G6	8500	No Report			16.4	25.3	---**	8
Snyder Basin R.S.*	10G9	8040	No Report			--	--	--	0
Piney LaBarge*	10G10	8820	No Report			--	--	--	0
Big Park	10G11	8700	3/4	76	25.1	13.3	15.2	---**	5
Kelly R.S.	10G12	8200	3/4	71	22.3	--	--	---**	1
Salt River Summit*	10G8	7900	2/27	66	18.2	7.9	11.8	---**	8
CCC Camp*	10G7	7500	2/27	51	13.2	7.6	9.5	9.8	20
<u>BFAR RIVER below</u>									
<u>Harer, Idaho</u>									
Garden City Summit	11H7	7900	2/28	67	21.0	13.7	15.0	---**	9
Strawberry Mink Divide <sup>x</sup>	11G10	6800	2/28	75	23.5	12.0	--	--	1
Strawberry Creek <sup>x</sup>	11G9	5800	2/28	47	13.5	8.6	--	--	1
Christiansen Ranch <sup>x</sup>	11G11	5600	3/1	36	8.9	7.9	--	--	1
Willow Flat <sup>x</sup>	11G4	6100	No Report			11.9	--	--	1
Cub River R.S. <sup>x</sup>	11G12	5400	3/2	33	8.9	9.1	--	--	1
Franklin Basin R.S.	11G8	8200	3/2	94	33.7	14.4	18.5	---**	5
Klondike Narrows	11H1	7400	3/2	71	23.4	11.4	13.7	--	2
Tony Grove R.S.	11H3	6250	2/28	42	10.5	10.4	8.8	---**	7
Mt. Logan	11H6	9000	No Survey			16.6	20.4	23.7	31
Spring Hollow (upper)	11H5	8000	No Survey			14.7	18.7	20.0	31
Spring Hollow (lower)	11H4	7000	2/27	52	15.0	11.4	11.7	12.7**	30
Monte Cristo R.S.	11H12	8960	No Survey			16.8	17.9	---**	7
Dry Bread Pond*	11H13	8230	2/27	69	21.6	11.8	12.9	---**	8
Beaver Creek- Skunk Creek*	11H14	7150	2/27	42	13.4	8.0	10.0	---**	4
Oxford Mountain <sup>x</sup>	12G3	6800	3/2	35	9.6	8.0	--	--	1
Dry Creek Flat <sup>x</sup>	12G4	6350	3/2	28	8.3	9.9	--	--	1
<u>OGDEN RIVER</u>									
Monte Cristo R.S.*	11H12	8960	No Survey			16.8	17.9	---**	7
Dry Bread Pond	11H13	8230	2/27	69	21.6	11.8	12.9	---**	8
Beaver Creek- Skunk Creek	11H14	7150	2/27	42	13.4	8.0	10.0	---**	4
Sagebrush Flat	11H15	6300	2/27	23	5.5	7.3	2.3	--	3
Ben Lomond (lower)	11H9	6000	3/1	38	11.6	--	--	--	0
Mt. Ogden	11H10	8600	2/29	81	32.7	22.6	15.2	---**	6
Snow Basin	11H11	6500	2/29	46	14.2	12.9	10.5	--	2

\*Adjacent drainage.

<sup>x</sup>Location of these courses given at end of this section.

\*\*Less than 15 year average. No value shown when less than 8 yrs. in period.

## UTAH SNOW SURVEYS - ABOUT MARCH 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS							
			1956		: Past Record			Previous 1938-52 Yrs. of Average Record		
			Date of Survey	Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1955		1954	
<u>WEBER RIVER</u>										
Trial Lake*	10J8	9800	2/28	98	35.3	11.9	18.4	---	**	10
Smith & Morehouse	11J4	7600	2/29	46	12.6	10.2	7.9	---	**	5
Redden Mine (upper)	11J5	9000	No Report			12.8	11.9	---	**	5
Redden Mine (lower)	11J6	8500	No Report			11.9	10.9	---	**	5
Beaver Creek R.S.	11J24	7500	2/28	32	9.0	6.6	5.3	---	**	7
Chalk Creek #1	11J1	9100	No Survey			13.8	---	---	**	4
Chalk Creek #2	11J2	8200	3/1	53	14.8	9.3	11.3	---	**	5
Chalk Creek #3	11J3	7500	3/1	28	7.3	6.6	5.2	---	**	4
Silver Lake*	11J16	8725	3/1	77	28.1	21.8	15.7	20.7		21
Parley's Canyon Summit	11J15	7500	2/27	57	16.6	14.1	10.5	---	**	8
Lamb's Canyon*	11J14	6600	3/1	50	15.6	12.4	10.0	13.5**		15
<u>PROVO RIVER and UTAH LAKE</u>										
Trial Lake	10J8	9800	2/28	98	35.3	11.9	18.4	---	**	10
Soapstone R.S.	11J25	7800	2/28	51	14.8	8.0	8.3	---	**	9
Daniels-Strawberry Summit	11J23	8000	2/27	58	17.0	11.8	11.4	13.6		25
Strawberry Divide	11J8	8000	2/25	64	21.6	15.1	11.4	18.1**		20
East Portal	11J7	7560	2/25	34	9.7	7.6	6.5	11.6**		21
Hobble Creek Summit	11J22	7300	2/23	41	12.1	10.4	8.1	---	**	3
Packard Canyon	11J31	6400	2/23	32	9.7	8.3	---	---		1
Clear Creek Ridge #1	11K21	9200	2/24	59	17.1	---	---	---		0
Clear Creek Ridge #2	11K22	8000	2/24	49	12.5	11.8	---	---		1
Clear Creek Ridge #3	11K23	6600	2/24	28	7.4	6.6	---	---		1
Payson R.S.	11K1	8050	2/27	54	15.2	17.1	12.4	---	**	8
Rock Bridge	11K2	6750	2/27	42	9.6	12.7	7.8	---		2
Dutchman R.S.	11J17	7500	2/25	58	18.7	17.6	---	---		1
Timpanogas Divide	11J21	8200	2/25	75	27.0	23.1	23.4	23.2		21
Camp Altamont	11J20	7300	2/25	42	13.4	17.6	14.2	16.6		21
South Fork R.S.	11J19	6100	2/26	13	3.6	9.2	5.0	7.9**		18
Timpanogas Cave Camp	11J18	5500	2/26	6.7	2.1	6.3	0.0	5.1**		14
<u>JORDAN RIVER and GREAT SALT LAKE</u>										
Silver Lake	11J16	8720	3/1	77	28.1	21.8	15.7	20.7		21
Mill D. South Fork	11J10	7400	3/1	61	20.2	18.2	12.7	---		3
Lamb's Canyon	11J14	6600	3/1	50	15.6	12.4	10.0	13.5**		15
Parley's Canyon Summit*	11J15	7500	2/27	57	16.6	14.1	10.5	---	**	8

\*Adjacent drainage.

\*\*Less than 15 year average. No value shown when less than 8 years in period.

## UTAH SNOW SURVEYS - ABOUT MARCH 1, 1956

10,

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous 1938-52 Yrs. of Average Record
				Snow Depth (In.)	Water Content: (In.)	Water Content: (In.)	1955	1954	
<u>JORDAN RIVER and GREAT SALT LAKE (Continued)</u>									
Farmington Canyon (upper)	11J11	8000	2/29	78	26.3	18.4	14.6	---**	5
Farmington Canyon (lower)	11J12	6950	2/28	61	18.2	17.4	12.3	---**	5
Rocky Basin- Settlement Canyon	12J1	8900	No Report			--	--	--	0
Bevan's Cabin	12J2	6450	No Report			--	8.0	--	1
Middle Canyon	12J3	7000	2/28	36	9.6	11.7	10.2	--	2
<u>SEVIER RIVER above Richfield</u>									
Cedar Breaks	12M1	10390	2/29	63	20.6	--	17.4	---**	10
Midway Valley	12M2	9400	2/29	63	20.6	19.4	18.9	--	2
Duck Creek R.S.	12M4	8560	2/27	43	13.3	12.5	9.5	---**	12
Harris Flat R.S.	12M5	7700	2/27	15	4.5	9.8	5.9	---**	13
Long Valley Junction*	12M6	7500	2/27	0	0	5.0	4.4	---**	7
Panguitch Lake	12M7	8200	2/28	11.6	2.5	4.9	3.0	---**	4
Bryce Canyon	12M8	8000	3/1	6.5	1.6	3.0	2.3	---**	9
Widtsoe-Escalante Summit	11M1	9500	2/28	23	7.0	7.8	1.5	7.9**	19
Widtsoe-Escalante #2	11M2	9500	2/28	29	7.1	8.2	5.2	---**	6
Fish Lake*	11L3	8700	2/23	26	6.4	--	--	---**	1
Box Creek	12L4	9800	2/24	44	11.9	--	--	--	0
Squaw Springs	12L5	9300	2/24	25	6.4	--	--	--	0
Big Flat*	12L7	10000	2/26	65	18.2	16.3	13.1	---**	7
Kimberly Mine (upper)	12L6	8900	2/29	43	11.3	12.5	11.8	12.5**	11
<u>SEVIER RIVER below Richfield (including San Pitch River)</u>									
Farnsworth Lake	11L1	9900	3/1	50	14.4	16.2	11.8	---**	3
Gooseberry R.S.	11L2	8400	3/1	32	8.6	11.4	6.0	---**	5
Huntington-Horseshoe*	11K5	9800	No Report			17.8	13.5	---**	6
Gooseberry Reservoir*	11K4	8700	2/27	59	18.7	14.2	12.2	---**	11
G.B.R.C. Meadows	11K10	10000	2/29	73	22.4	18.5	15.7	---**	6
G.B.R.C. Headquarters	11K11	8700	2/29	51	14.0	13.5	10.5	---**	18
Middle Fork <sup>X</sup>	11K34	9600	3/2	65	19.8	--	--	--	0
Thistle Flat <sup>X</sup>	11K35	8500	3/2	47	14.3	--	--	--	0
Mt. Baldy R.S.	11K12	9500	3/3	66	21.7	18.8	14.5	---**	4
Beaver Dams	11K13	8000	3/3	38	11.2	12.5	6.1	---**	4
Pine Creek	12L1	8700	2/23	35	11.1	17.2	9.6	--	2
Pine Creek-Chalk Cr.	12L2	8500	2/23	33	10.5	16.4	6.6	--	2
Bear Canyon	12L3	7200	2/21	23	7.2	11.1	5.9	--	2

\*Adjacent drainage.

<sup>X</sup>Location of these courses given at end of this section.

\*\*Less than 15 year average. No value shown when less than 8 years in period.

## UTAH SNOW SURVEYS - ABOUT MARCH 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COURSE MEASUREMENTS						
			Date of Survey	1956		Past		Record 1938-52 Yrs. of Average Record	
				Snow Depth (In.)	Water Content: (In.)	Water	Content (In.)		
<u>BEAVER RIVER</u>									
Big Flat	12L7	10000	2/26	65	18.2	16.3	13.1	---**	7
Otter Lake	12L8	9300	2/26	58	15.3	12.8	11.1	---**	8
Merchant's Valley	12L9	8200	2/26	38	12.3	10.1	5.5	---**	9
<u>PARCWAN CREEK</u>									
Yankee Reservoir	12M11	8700	No Report			--	--	---**	2
Ed Ward Flat	12M12	8300	2/28	25	5.8	--	--	---**	2
<u>COAL CREEK</u>									
Cedar Breaks*	12M1	10390	2/29	63	20.6	--	17.4	---**	10
Midway Valley*	12M2	9400	2/29	63	20.6	19.4	18.9	---**	2
Webster Flat*	12M3	9200	2/29	46	13.7	14.4	13.2	---**	6
Urie Flat	12M10	8450	3/1	19	5.0	8.3	--	--	1
<u>ENTERPRISE to NEW HARMONY</u>									
Long Flat	13M2	8200	2/27	12.7	2.8	6.1	--	--	1
Rattlesnake Springs	13M3	6500	2/24	0	0	6.7	--	--	1
COLORADO RIVER DRAINAGE									
<u>UPPER GREEN RIVER in Utah</u>									
King's Cabin (upper)	9J1	8800	2/28	44	11.7	8.3	10.6	---**	7
King's Cabin (lower)	9J2	8600	2/28	39	9.6	6.7	8.6	---**	7
<u>DUCHESNE RIVER</u>									
Trial Lake*	10J8	9800	2/28	98	35.3	11.9	18.4	---**	10
Soapstone R.S.*	11J25	7800	2/28	51	14.8	8.0	8.3	---**	9
Daniels-Strawberry Summit*	11J23	8000	2/27	58	17.0	11.8	11.4	13.6	25
Strawberry Divide*	11J8	8000	2/25	64	21.6	15.1	11.4	18.1**	20
East Portal*	11J7	7560	2/25	34	9.7	7.6	6.5	11.6**	21
Indian Canyon	10K1	9100	3/1	38	12.3	9.9	8.8	9.0**	18
Lakefork Mountain	10J10	10500	2/29	49	14.9	10.0	9.3	---**	5
Lakefork Mountain #2	10J11	8900	2/29	40	12.0	7.8	7.2	--	3
Lakefork Mountain #3	10J12	8100	2/29	32	8.4	7.1	6.0	--	3
Paradise Park	9J3	10500	2/27	56	15.9	9.7	12.4	---**	5
Mosby Mountain (lower)	9J5	9500	2/27	46	11.6	8.9	10.9	---**	6

\*Adjacent drainage.

\*\*Less than 15 year average. No value shown when less than 8 years in period.

## UTAH SNOW SURVEYS - ABOUT MARCH 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS							
			1956		Past		Record			
			Date of Survey	Snow Depth (In.)	Water Content: (In.)	Water Content: (In.)	1938-52 Yrs. of Average	Previous Record		
<u>PRICE RIVER</u>										
Huntington-Horseshoe	11K5	9800	No Report		17.8	13.5	---	**	6	
Gooseberry Reservoir	11K4	8700	2/27	59	18.7	14.2	12.2	---	**	11
Mud Creek #1	11K6	8250	2/28	67	22.4	10.2	8.9	---	**	6
Mud Creek #2	11K33	8300	2/28	51	14.0	9.2	---	---	---	1
Staley Ranch	11K7	7600	2/28	26	8.0	7.0	3.8	7.2**	---	15
Dry Valley Divide	11K8	7800	2/28	40	12.3	8.7	7.3	10.0**	---	15
White River #1	10K2	8600	3/1	51	16.6	---	---	---	---	0
White River #2	11K24	7600	3/1	36	10.4	---	---	---	---	0
White River #3	11K25	7400	2/28	32	9.7	7.6	---	---	---	1
Indian Canyon*	10K1	9100	3/1	38	12.3	9.9	8.8	9.0**	---	18
<u>SAN RAFAEL RIVER</u>										
Huntington-Horseshoe	11K5	9800	No Report		17.8	13.5	---	**	---	6
Gooseberry Reservoir*	11K4	8700	2/27	59	18.7	14.2	12.2	---	**	11
Switchback	11K26	8600	3/2	52	17.4	12.7	---	---	---	1
Stuart R.S.	11K27	7950	3/2	33	9.8	6.6	---	---	---	1
Red Pine Ridge	11K28	9400	3/2	56	16.8	9.3	---	---	---	1
Wilberg Ranch	11K30	7800	3/2	16	3.4	2.2	---	---	---	1
Seeley Creek R.S. #2	11K9	10000	2/29	46	13.7	11.3	10.3	---	**	4
Wrigley Creek	11K32	9000	3/4	39	10.8	---	---	---	---	0
<u>MUDDY RIVER</u>										
Black Fork	11K14	9200	3/3	46	12.8	---	---	---	---	0
Dill's Camp	11K15	9200	3/3	45	13.1	---	---	---	---	0
Mt. Baldy R.S.*	11K12	9500	3/3	66	21.7	18.8	14.5	---	**	4
<u>FREMONT RIVER</u>										
Farnsworth Lake*	11L1	9900	3/1	50	14.4	16.2	11.8	---	**	3
Fish Lake	11L3	8700	2/23	26	6.4	---	---	---	**	1
Johnson Valley	11L6	8850	2/23	25	7.1	---	---	---	---	0
Black's Flat-U.M. Creek	11L4	9250	2/23	35	9.6	---	---	---	---	0
<u>ESCALANTE RIVER</u>										
Widtsoe-Escalante Summit	11M1	9500	2/28	23	7.0	7.8	1.5	7.9**	---	19
Widtsoe-Escalante #2*	11M2	9500	2/28	29	7.1	8.2	5.2	---	**	6

\*Adjacent drainage.

\*\*Less than 15 year average. No value shown when less than 8 years in period.

## UTAH SNOW SURVEYS - ABOUT MARCH 1, 1956

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous 1938-52 Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1955	1954	
<u>VIRGIN RIVER</u>									
Long Valley Junction	12M6	7500	2/27	0	0	5.0	4.4	--**	7
Harris Flat R.S.*	12M5	7700	2/27	15	4.5	9.8	5.9	--**	13
Duck Creek R.S.*	12M4	8560	2/27	43	13.3	12.5	9.5	--**	12
Midway Valley*	12M2	9400	2/29	63	20.6	19.4	18.9	--	2
Cedar Breaks*	12M1	10390	2/29	63	20.6	--	17.4	--**	10
Webster Flat	12M3	9200	2/29	46	13.7	14.4	13.2	--**	6

LOWER COLORADO RIVER  
(Southeastern Utah)

LaSal Mountain	9L1	8800	No Report		9.0	5.5	--**	4
----------------	-----	------	-----------	--	-----	-----	------	---

\*Adjacent drainage.

\*\*Less than 15 year average. No value shown when less than 8 years in period.

## INDEX OF NEW SNOW COURSE LOCATIONS

Drainage Basin and Snow Course Name	Snow Course Number	Sec- tion	Town- ship	Range	Elev.
GREAT BASIN					
<u>BEAR RIVER below</u>					
<u>Harer, Idaho</u>					
Strawberry-Mink Divide, Idaho	11G10	14	13S	41E	6800
Strawberry Creek, Idaho	11G9	9	13S	41E	5800
Christiansen Ranch, Idaho	11G11	27	13S	41E	5600
Willow Flat	11G4	2	15S	41E	6100
Cub River R.S.	11G12	5	15S	41E	5400
Oxford Mountain	12G3	32	13S	37E	6800
Dry Creek Flat	12G4	31	13S	37E	6350

SEVIER RIVER below RICHFIELD  
(including San Fitch River)

Middle Fork	11K34	16	18S	4E	9600
Thistle Flat	11K35	24	18S	3E	8500

## COLORADO RIVER DRAINAGE

PRICE RIVER

Grassy Trail Creek - Left Fork	10K3	2	14S	13E	7970
Spatafore Canyon	10K4	5	14S	14E	8150
Corral	10K5	32	13S	14E	8200

UTAH SNOW SURVEYS - DELAYED REPORTS RECEIVED  
SINCE LAST BULLETIN  
(FEBRUARY 1, 1956)

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS-1956		
			Date of Survey	Snow Depth (In.)	Water Content (in.)
GREAT BASIN					
<u>PROVO RIVER and</u>					
<u>UTAH LAKE</u>					
Clear Creek Ridge #1	11K21	9200	2/6/56	48	15.3
Clear Creek Ridge #2	11K22	8000	2/6/56	38	8.9
Clear Creek Ridge #3	11K23	6600	2/6/56	22	6.4
<u>SEVIER RIVER below Richfield</u>					
<u>(Including San Pitch River)</u>					
Middle Fork <sup>x</sup>	11K34	9600	2/7/56	55	16.1
Thistle Flat <sup>x</sup>	11K35	8500	2/7/56	41	11.2
COLORADO RIVER DRAINAGE					
<u>PRICE RIVER</u>					
Grassy Trail Creek- Left Fork <sup>x</sup>	10K3	7970	2/9/56	24	6.5
Spatafore Canyon <sup>x</sup>	10K4	8150	2/9/56	24	6.7
Corral <sup>x</sup>	10K5	8200	2/9/56	25	6.4
<u>SAN RAFAEL RIVER</u>					
Red Pine Ridge	11K28	9400	2/6/56	47	13.4
Wilberg Ranch	11K30	7800	2/6/56	13.5	3.2
Wrigley Creek	11K32	9000	2/8/56	35	8.7
<u>MUDDY RIVER</u>					
Black Fork	11K14	9200	2/7/56	37	9.8
Dill's Camp	11K15	9200	2/7/56	41	10.1

<sup>x</sup>Location of these courses given at end of this section.

AGENCIES COOPERATING IN UTAH SNOW SURVEYS

15.

U. S. Government Agencies

U. S. Department of Agriculture  
Soil Conservation Service  
Forest Service

U. S. Department of Commerce  
Weather Bureau

U. S. Department of the Interior  
Geological Survey  
National Park Service

State of Utah

Utah Agricultural Experiment Station  
Utah State Engineer  
Little Bear River Commissioner  
Price River Commissioner  
Provo River Commissioner  
Sevier River Commissioner  
Spanish Fork River Commissioner  
Weber River Commissioner

Municipalities or Quasi-Municipalities

Salt Lake City Corporation

Organized Public Agencies

Beaver River Water-Users Association  
Board of Canal Presidents - Jordan River  
Emery Canal and Reservoir Company  
Moon Lake Water-Users Association  
Ogden River Water-Users Association  
Strawberry Water-Users Association  
Sevier River Water-Users Association  
Provo River Water-Users Association

Private Agencies

Kaiser Steel Corporation



Checking Mountain Soil Moisture Under the Snow, an important factor in snowmelt runoff.

Federal-State Cooperative  
Snow Surveys and Water Supply Forecasts  
for  
**UTAH**

SOIL CONSERVATION SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE  
AND

STATE ENGINEER OF UTAH  
UTAH AGRICULTURAL EXPERIMENT STATION  
IN COOPERATION WITH

U. S. Forest Service  
U. S. Geological Survey

U. S. National Park Service  
State and Local Irrigation Organizations

AS OF  
APR. 1, 1956

FEDERAL-STATE COOPERATIVE  
SNOW SURVEYS and WATER SUPPLY FORECASTS  
for  
U T A H

APRIL 1, 1956

Report Prepared  
by  
Gregory L. Pearson - Hydraulic Engineer  
Soil Conservation Service

Issued  
by  
J. A. Libby  
State Conservationist  
Soil Conservation Service  
222 South West Temple  
Salt Lake City 1, Ut.

Joseph M. Tracy  
State Engineer  
State of Utah  
Salt Lake City, Utah

Dr. D. W. Thorne, Director  
Utah Agricultural Exp. Station  
Logan, Utah  
(Mimeograph Series No. 422)

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### Definition of Terms on Map Following

Good - Runoff prospects normal or better, with sufficient flow for all demands of current season, and in the case of holdover reservoirs, for replacements of evaporation and other natural reservoir losses.

Fair - Subnormal runoff prospects, with some deficiency in meeting demands of current season when holdover storage is not available. If holdover storage available, adequate supply for current demands assured by some depletion of holdover storage.

Poor - Greatly subnormal runoff prospects with considerable deficiency of water for demands in current season when holdover storage not available. If holdover storage available, runoff prospects are considered poor if very heavy depletions of holdover storage are necessary to meet current demands.

# FORECAST WATER SUPPLY

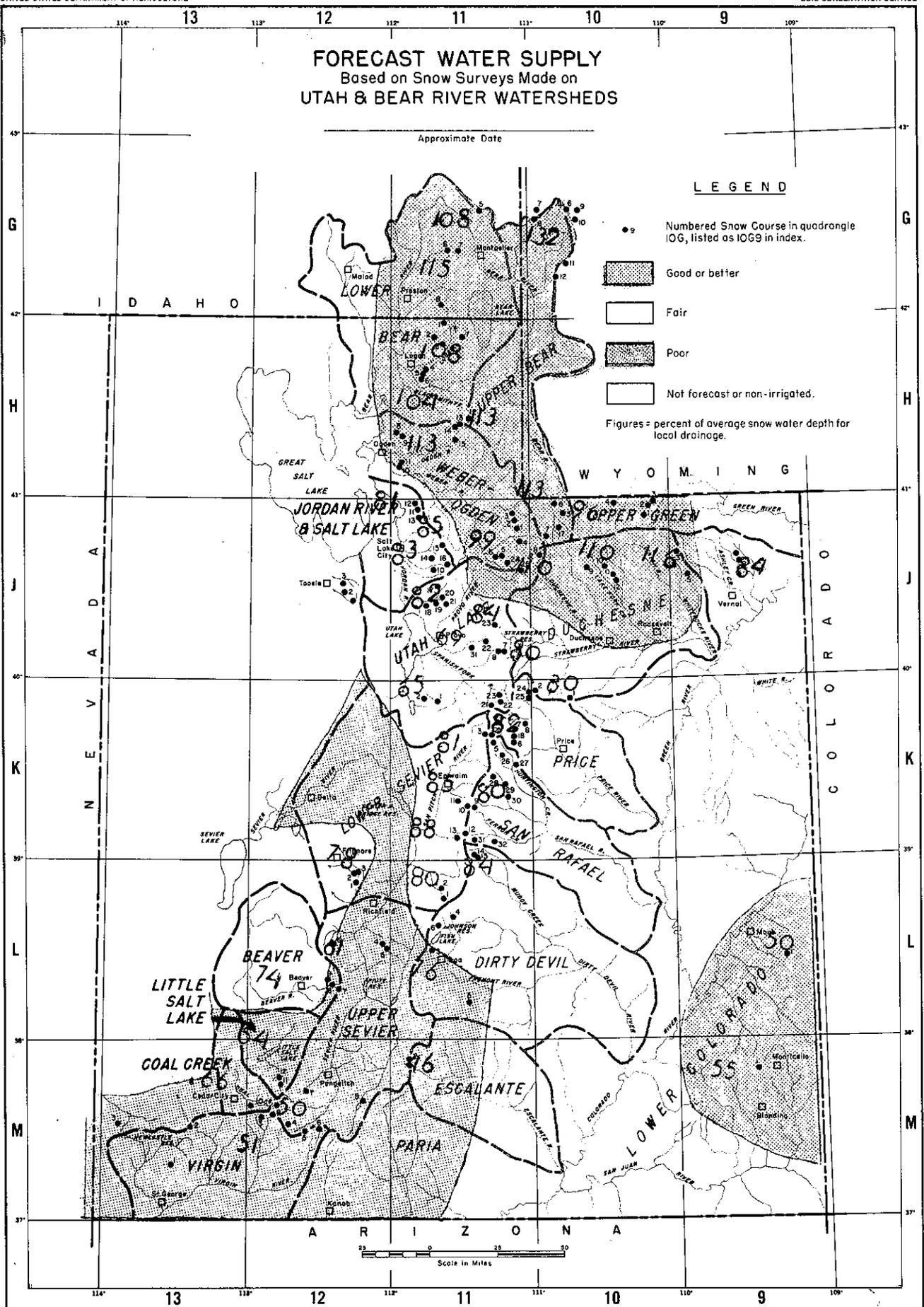
Based on Snow Surveys Made on  
UTAH & BEAR RIVER WATERSHEDS

Approximate Date

### LEGEND

- Numbered Snow Course in quadrangle 10G, listed as 10G9 in index.
-  Good or better
-  Fair
-  Poor
-  Not forecast or non-irrigated.

Figures = percent of average snow water depth for local drainage.



Scale in Miles

WATER SUPPLY OUTLOOK

for UTAH

APRIL 1, 1956

\*\*\*\*\*  
 \* Most of the northern half of the state has a good water\*  
 \* supply outlook for this summer. In the central and southern\*  
 \* half, it varies from fair to poor. The most critical out-\*  
 \* look is for users served by the Sevier and Virgin rivers and\*  
 \* the smaller streams originating in the same area. Soils are\*  
 \* much wetter than average. Reservoir storage for 14 major\*  
 \* reservoirs is 48 percent of capacity compared to an average\*  
 \* of 51 percent. \*  
 \*\*\*\*\*

GENERAL OUTLOOK

A second month of very dry weather has again lowered forecasts for the coming six months' streamflow. Despite this, because of the heavy snowpack which was built up early in the winter, the water users living in the northern half of the state and along the tributaries of the Bear River in Idaho and Wyoming have mostly good, some fair, water supplies in prospect. The dry weather, coupled with very warm temperatures which have caused early snowmelt and some runoff, has reduced the danger of damage from high peak flows during the spring runoff period.

The dry month has developed a critical situation for people living along the Sevier river, since the anticipated streamflow during the April-September period is 20 percent of average, only slightly more than was realized last year. Combined storage in Otter Creek, Piute and Sevier Bridge reservoirs is one-third less than last year, 40 percent of average and 30 percent of capacity. The water outlook is also very poor on the Virgin, Paria and Escalante rivers, on the smaller streams near Cedar City, Parowan and Enterprise and in southeastern Utah in the Moab-Monticello-Blanding area.

The streams in central Utah, in both the Great Basin and Colorado river drainages from the Hobbie Creek-Strawberry Valley area southward to Salina Creek and the headwaters of the Fremont river, and in the Fillmore to Beaver river areas have a fair water supply in prospect. In these areas below average runoff is expected, with some deficiency in meeting the demands of the current season when holdover storage is not available. On the streams where holdover storage is available, an adequate supply should be realized by some depletion of holdover storage.

Although the areas with a fair outlook can expect to experience some deficiency, the lack of water should not become critical unless the dry weather of February and March should continue on thru the spring months.

Only a few snow courses had more snow water this month than was measured on them a month ago. Instead, surveys showed that on most courses from 1.5 to 7.0 inches of water had melted from the snowpack and gone into the ground. This has caused streams to start rising earlier than usual due to streamflow being contributed from areas at the lower elevations. The snowmelt has taken place even up to and above 10,000 ft. elevation. In northern Utah, where the heavy rains of last December fell, the addition of the March snowmelt water has left the soils very wet.

Throughout most of the state, soils are wetter than they have been for the last several years. This means that a smaller proportion than usual of the existing water of the snowpack will be required to complete priming of the soils before the main runoff begins.

Water users in those areas of the State which now have fair water supply prospects will find if the spring months are dry, their water outlook will change to poor. Therefore, these users, as well as those in the areas which already have a poor outlook, should make plans now to institute good water management practices.

A discussion of the snow cover and water supply outlook for the various river basins follows. Runoff forecasts in acre feet are given on pages 3 to 5, reservoir storage data on page 6.

#### Bear River:

All streams draining into the Bear River have a good outlook for water during the coming summer, except on the Malad river where outlook is fair.

On the main Bear River and most of its tributaries the April-September streamflow is expected to vary from 13 to 21 percent above the 1938-52 average. On streams such as the Little Bear River near Paradise, which produce most of their runoff from intermediate to low elevation areas, runoff is expected to be near average. On these watersheds the December rains and heavy snowmelt during March have reduced the snowpack to less than average, causing more than the usual amount of winter runoff. This has left a smaller proportion of the total runoff for the water year to come during the spring and summer months.

Even though the water in the snow is less than average, when combined with the wet soils, an average runoff is expected.

The forecasts for the Little Bear River are made using snow courses in the general area. So that a better picture can be obtained in the future, two snow courses were established this winter on its drainage. One is located near the head of the South Fork, the other at the junction of the West and South Forks.

Most of the water which comes down Cub river and Mink creek originates from springs fed by high elevation snow cover. Since the high snows on these streams are from 15 to 22 percent above normal, a good water supply is expected even though the lower snows are below average.

### Weber-Ogden Rivers

Here, as elsewhere in the state, a very heavy toll has been taken of the low and intermediate snows by excessive snowmelt during March. One outstanding example is the Chalk Creek No. 3 snow course, where approximately seven inches of water has melted and gone into the ground during the month. At an elevation of 9800 ft., the Trial Lake snow course on the Provo river, near the headwaters of the Weber river, had 1.7 inches less water than a month ago. This amount plus 0.8 inches of snow water which fell and was caught in the rain gauge at Trial Lake, makes a total of 2.50 inches of water which has left the snowpack during the month. The snow water at Smith & Morehouse is 77 percent of average; at Trial Lake, 121 percent. The combination of high, intermediate and low elevation snow, combined with soil moisture conditions, indicates a runoff during the next six months for the Weber at Oakley of 136,000 acre feet, or 106 percent of average. Near Coalville it is forecast at 101 percent. Chalk Creek at Coalville is forecast at 119 percent of average.

On East Canyon creek the April-September runoff is forecast at 22,000 acre feet which is 75 percent of average. Outlook here, however, is not as bad as this might indicate; since inflow to the East Canyon reservoir during March has been roughly two and one-half times the average amount, as a result of early snowmelt. Unless a very dry spring develops, the reservoir should very easily fill and spill.

In spite of the dry month which materially reduced the damaging potential which existed earlier on the South Fork of the Ogden river, runoff is still expected to be 123 percent of average and is high enough that even though the spring months should be as dry as any of the last 25 years, a near average runoff should still be realized.

### Provo River and Utah Lake

Considerable variation in snow cover exists over the watersheds in the Provo river and Utah lake area, varying from a high of 21 percent above average to about two-thirds of average on Hobbie Creek, Spanish Fork river and the Payson mountain. As elsewhere in northern Utah, the soils on these drainages are very wet. This means that runoff will be greater than straight snowpack figures would indicate. However, a greater than average amount of the total year's runoff has occurred during the winter months leaving less to come this summer. Anticipated streamflow from the Hobbie Creek, Spanish Fork and Payson mountain areas is expected to be about 65 to 70 percent of average. On the Spanish Fork, runoff this year should be about the same as last year, while on Hobbie Creek it should be better than half as much again as occurred in 1955.

The heavier snowpack on the Provo river indicates that its runoff at Vivian Park will be only four percent less than average, and on the American Fork river the forecast is set at 14 percent less than average.

The snowpack in the Strawberry valley is 80 percent of normal, but due to the very wet soils, inflow should be near average. Storage in Strawberry reservoir still shows the effects of heavy runoff in 1952 with nearly 50 percent more than the 15-year average, (1933-52). The carry-over storage in Deer creek is 81,600 acre feet, as compared to the average of 70,600. Utah Lake storage is five percent above its average.

#### Jordan River and Great Salt Lake

On these watersheds the high elevation snowpack is about average and drops to 30 percent less than average at the intermediate and lower elevations. Soils here are very wet. Big and Little Cottonwood creeks and Parley's creek all can expect a runoff about 15 percent less than normal. Snow cover on the watersheds in the Farmington area varies from about 65 to 90 percent of average. Streamflow should be within 15 or 20 percent of average.

#### Sevier, Virgin and other Southwestern Utah rivers and creeks

As mentioned earlier in this report, the outlook is very poor on the main Sevier river, with only one-fifth of average streamflow being expected near Kingston and slightly less than half average flow at Hatch. At both gauging stations this year's runoff is expected to be 15 to 20 percent more than last year. On the Monroe mountains snow water at Box creek is about the same as last year. However, the soils are wetter this year than they were a year ago and if average conditions prevail during the spring instead of being very dry as they were last year, a better runoff should be realized in this area. Runoff of Coal and Parowan creeks, the Virgin, Escalante, and Paria rivers, should all be about 50 percent of average. Outlook for the Enterprize area is very poor, since there was no snow cover on the Rattlesnake Springs snow course a month ago and there is still none this month. In the Fillmore area, snow cover on Chalk creek and Pine creek drainages is about 20 percent less than average. On the Beaver river snow cover is 26 percent less than average, with forecast runoff set at 25,000 acre feet during the April-September period. While this is 73 percent of average it is one-half as much again as was measured here in 1955. Since the reservoir storage on the first of April this year was nearly as much as last year, the outlook is considerably better. However, if the spring months should be dry, the Fillmore and Beaver river areas would find themselves faced with a very poor water supply. Now, the outlook is fair.

#### Uintah Basin

Prospective streamflow varies considerably over the Uintah Basin, being better on the higher elevation watersheds to the north and poorer at either end of the Basin on Ashley creek and the Strawberry river. Ashley creek is forecast at 47,000 acre feet for the April-September runoff period, which is 72 percent of average and compares with measured runoff in 1955 of 40,000 acre feet. At the western end of the Basin the Strawberry river at Duchesne can expect about the same runoff as they had last year, or 61 percent of average.

The remaining streams from the Duchesne river near Tabiona eastward to the Whiterocks river, vary from 5 percent less than average to 10 percent above. The low snows melted very rapidly during the latter part of March, with three and four inches of water leaving the snowpack. High elevation snow cover stayed about the same as it was a month ago.

The rain gauge at the high elevation courses show a decreasing precipitation during the month from the west to the east. At the Trial Lake course on the Provo river near the head of the Duchesne river, the precipitation was 0.8 inches; Lake Fork mountain, 0.5 inches; Paradise Park, 0.3 inches; and King's cabin (upper) course on Brush creek, there was 0.15 inches.

To aid in better defining the water supplies to be expected from the streams of the Basin, a new snow course has been established at Jackson Park, near the head of the West Fork of Dry Gulch Creek, at an elevation of 11,300 ft. Several tentative sites for snow courses have been selected on Currant Creek, with final locations to be determined when ground conditions can be determined this summer. A tentative site chosen last year, for a course on Rock Creek near Davies Ranch has been confirmed and measurements will now be continued each year.

#### San Pitch, Price, San Rafael, Muddy and Fremont Rivers

Runoff from the tributaries of the San Pitch river and from Salina creek will be below average but not enough below average to constitute any major cause for concern at this time. It should be within 15 to 20 percent of average unless a very dry spring develops which would further reduce the water outlook. Much the same situation exists on the streams which drain to the east from these same mountains. Runoff into Scofield reservoir, Huntington creek and Cottonwood creek is expected to be within 25 to 30 percent of average. This year's runoff at these stations should be about one-third more than last year. The outlook is similar on the Muddy river and Ferron creek.

The Price river near Heiner is forecast at 44,000 acre-feet which is essentially the same as that measured in 1955. Although below average runoff is in prospect for these streams, with some deficiencies expected in meeting current demands during the season, it should not become critical unless below average precipitation is the rule in the mountains during the spring months.

#### Southeastern Utah

Approximately one-third of the snow water which was in the snowpack on the courses on the LaSal and Blue mountains at the time of the March 1 snow surveys has already melted, leaving a snow cover which is approximately one-half of average for the first of April. Continued warm dry weather during the spring months would intensify the water shortage in these areas to the point that it could be quite serious in the latter part of the summer.

## UTAH STREAMFLOW FORECASTS - APRIL 1, 1956

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1956	% 15-Yr. Avg.	Fore- cast Period	Measured Runoff			15-Yr. Average 1938-52
				1955	1954	1953	
GREAT BASIN							
<u>BEAR RIVER SYSTEM</u>							
Bear River near Evanston, Wyo.	170	120	Apr.-Sept.	74	55	113	142
Bear River near Randolph, Utah	140	121	Apr.-Sept.	26.4	15.3	67	116 (1)
Smith's Fork near Border, Wyo.	130	114	Apr.-Sept.	78	89	99	114 (2)
Bear River at Harer, Idaho	335	119	Apr.-Sept.	116	100	184	281
Little Bear River near Paradise, Utah	44	100	Apr.-Sept.	40	20.7	34	44
Logan River near Logan, Utah (3)	150	113	Apr.-Sept.	99	86	121	133
Blacksmith Fork near Hyrum, Utah (4)	70	117	Apr.-Sept.	46	39	50	60
<u>WEBER-OGDEN RIVERS</u>							
Weber River near Oakley, Utah	136	106	Apr.-Sept.	98	82	117	128
Weber River near Coalville, Utah (5)	140	101	Apr.-Sept.	97	67	112	138
Chalk Creek at Coalville, Utah	50	119	Apr.-Sept.	18.6	13.2	28.1	42

- (1) Average runoff for 12 years, 1944-1955.
- (2) Average runoff for 13 years, 1943-1956.
- (3) Includes U.P. & L. Co. tailrace and Logan, Hyde Park and Smithfield Canal.
- (4) Above Utah Power and Light Company's dam.
- (5) Includes diversion by Weber-Provo canal.

## UTAH STREAMFLOW FORECASTS - APRIL 1, 1956

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						15 - Yr. Average 1938-52
	Forecast	%	Fore-	Measured Runoff			
	Runoff 1956	15-Yr. Avg.	cast Period	1955	1954	1953	
<u>WEBER-OGDEN RIVERS - Continued</u>							
East Canyon Creek near Morgan, Utah (6)	22	75	Apr.-Sept.	14.1	6.6	22.9	29.2
South Fork Ogden River near Huntsville, Utah	80	123	Apr.-Sept.	48	36	60	65
<u>PROVO RIVER &amp; UTAH LAKE</u>							
Spanish Fork at Thistle, Utah	30	67	Apr.-Sept.	30	20.5	29.7	45
Hobble Creek near Springville, Utah	16	64	Apr.-Sept.	10.3	8.6	17.1	25 (7)
Provo River at Vivian Park, Utah (8)	160	96	Apr.-Sept.	109	98	125	166
American Fork near American Fork, Utah	31	86	Apr.-Sept.	26.4	22.0	32	36
<u>JORDAN RIVER &amp; SALT LAKE</u>							
Little Cottonwood Creek near Salt Lake City, Utah	35	87	Apr.-Sept.	34	29.3	42	40.4
Big Cottonwood near Salt Lake City, Utah	34	85	Apr.-Sept.	34	25.1	42	40
Parley's Creek near Salt Lake City, Utah	13	85	Apr.-Sept.	7.5	4.4	16.1	15.2
<u>SEVIER RIVER</u>							
Sevier River at Hatch, Utah	27	47	Apr.-Sept.	24	42	23.4	58 (9)
Sevier River near Kingston, Utah	9	20	Apr.-Sept.	7.5	14.9	8.1	46
<u>BEAVER RIVER</u>							
Beaver River near Beaver, Utah	25	73	Apr.-Sept.	16.4	17.4	14.8	34

(6) Observed flow plus change in storage in East Canyon reservoir.

(7) For ten years 1946-1955.

(8) Observed flow plus flow at South Fork Provo River at Vivian Park plus change in storage in Deer Creek Reservoir minus diversion by Weber-Provo Canal minus diversion thru Duchesne Tunnel plus diversion thru Salt Lake Aqueduct.

(9) Average runoff for 15 years, 1940-1954.

## UTAH STREAMFLOW FORECASTS - APRIL 1, 1956

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						15-Yr. Average 1938-52
	Forecast Runoff 1956	% 15-Yr. Avg.	Fore- cast Period	Measured Runoff			
				1955	1954	1953	
<u>COAL CREEK</u>							
Coal Creek near Cedar City, Utah	11	54	Apr.-Sept.	14.9	8.1		20.4
<u>COLORADO RIVER BASIN</u>							
<u>UPPER GREEN RIVER</u>							
Ashley Creek near Vernal, Utah	47	72	Apr.-Sept.	40	44	44	65
<u>DUCHESNE RIVER</u>							
Duchesne River near Tabiona, Utah (10)	122	100	Apr.-Sept.	89	66	97	122
Rock Creek near Mountain Home, Utah	114	105	Apr.-Sept.	80	68	91	109
Strawberry River at Duchesne, Utah	50	61	Apr.-Sept.	49	35	47	82
Lakefork River below Moon Lake, Utah (11)	85	110	Apr.-Sept.	58	48	62	77 (11)
Uinta River near Neola, Utah	105	95	Apr.-Sept.	71	72	75	111
Whiterocks River near Whiterocks, Utah	70	97	Apr.-Sept.	47	45	50	72
<u>PRICE RIVER</u>							
Price River near Scofield, Utah (12)	32	74	Apr.-Sept.	26.6	14.1	33	43
Price River near Heiner, Utah (12)	44	57	Apr.-Sept.	45	26.3	47	77
<u>SAN RAFAEL RIVER</u>							
Huntington Creek near Huntington, Utah	47	76	Apr.-Sept.	36	32	57	62
Cottonwood Creek near Orangeville, Utah	45	70	Apr.-Sept.	35	32	51	64

(10) Observed flow plus diversion through Duchesne tunnel.

(11) Observed flow plus change in storage in Moon Lake reservoir--Average runoff for 14 years, 1942-1955.

(12) Observed flow plus change in storage in Scofield reservoir.

STATUS OF UTAH RESERVOIR STORAGE - APRIL 1, 1956 (1)

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET			
			1956	1955	1954	15-Yr. Avg. 1938 - 52
GREAT BASIN						
<u>Bear River</u>	Bear Lake	1421.0	724.0	753.3	925.5	750.5
<u>Little Bear</u>	Hyrum	15.3	11.5	12.2	13.8	11.4 (2)
<u>Ogden</u>	Pine View	43.6	4.3	4.6	10.1	10.7
<u>Weber</u>	East Canyon	28.7	15.5	6.3	16.6	18.4
	Echo	73.9	36.8	27.2	36.6	33.7
<u>Provo</u>	Deer Creek	144.7	81.6	78.9	98.3	70.6 (3)
<u>Spanish Fork</u>	Strawberry	283.0	152.6	175.9	220.2	102.6
<u>Utah Lake</u>	Utah Lake	1149.0(4)	576.0	630.3	786.0	547.9
<u>Sevier River</u>	Otter Creek	52.5	19.2	22.4	29.3	40.4
	Piute	74.0	21.7	38.2	47.4	61.7
	Sevier Bridge	236.0	66.8	103.6	164.7	169.1
<u>Beaver River</u>	Rocky Ford	23.3	9.3	10.8	13.5	18.3
COLORADO RIVER DRAINAGE						
<u>Lake Fork</u>	Moon Lake	35.8	11.3	11.9	13.4	18.3
<u>Price River</u>	Scofield	65.8	8.7	11.5	34.8	14.2

- (1) All data contained in this table supplied by U. S. Geological Survey.
- (2) Average for 1939-53.
- (3) Average for 1941-55.
- (4) Active capacity taken at 3.1 feet above compromise point.

## COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of April 1, 1956

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1956 Snow Water Expressed as Percent of		
			1955	1954 & 1938-52 Avg.	
<u>GREAT BASIN</u>					
Bear River South of Evanston	3	21-25	120	117	113
Smith's Fork Bear River (Wyo.)	5	8-19	159	113	132
Emigration Creek (Idaho)	1	20	150	127	115
Strawberry-Mink Creeks (Idaho)	2	1	99	—	—
Cub River (Idaho)	1	32	134	136	122
Logan River	6	25-32	114	118	108
Blacksmith Fork-Little Bear	7	4-32	109	115	104
Malad River (Idaho)	2	1	57	—	—
Ogden River, South Fork	2	18-23	109	140	113
Weber River above Echo Dam	9	5-27	108	118	98
East Canyon Creek	3	21-25	88	104	85
Farmington Area	3	5-20	101	124	81
Salt Lake Area	4	21-25	84	103	83
American Fork River	2	21-25	81	96	82
Provo River above Vivian Park	7	21-26	97	107	91
Strawberry Reservoir	3	22-26	90	100	80
Hobble Creek	1	20	84	91	69
Payson Creek	1	13	70	95	65
Sevier River South of Richfield	9	19-26	73	70	51
Salina Creek	2	5-26	78	112	80
Mt. Pleasant Area	3	26-28	107	109	81
Ephraim Area	2	26	100	94	85
Mayfield Area	2	5	93	114	88
Chalk Creek-Fillmore	1	7	64	101	78
Beaver River	3	20-25	90	84	74
Parowan Creek	3	12-21	68	74	54
Coal Creek-Cedar City	2	21-29	84	62	66
<u>COLORADO RIVER BASIN</u>					
Duchesne-Strawberry Rivers above Duchesne	5	22-26	97	104	88
Lakefork River	2	12-25	111	128	110
Whiterocks-Uintah Rivers	1	24	119	99	116
Ashley Creek	3	24-26	107	84	95
Price River	5	21-28	98	102	82
San Rafael	3	26-28	110	103	80
Muddy River	2	8-9	87	117	84
Fremont River	4	2-25	89	111	76
Escalante River	2	6-24	55	84	46
Virgin River	5	19-29	71	62	51
Southeastern Utah (near Moab)	1	25	58	78	50
Southeastern Utah (near Monticello)	1	26	60	68	55

## UTAH SNOW SURVEYS - ABOUT APRIL 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past record			Previous Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1938-52 Average	1954	

## GREAT BASIN DRAINAGE

BEAR RIVER above  
Harer, Idaho

Trial Lake*	10J8	9800	3/30	78	33.6	25.3	23.9	27.7	25
Hayden Fork	10J7	9300	3/29	52	20.8	17.6	--	--**	4
Stillwater Camp	10J17	8550	3/29	33	13.1	11.3	--	--	1
Head of Bear River	10J5	8600	3/29	28	9.4	8.3	8.3	9.3	21
Goodman Ranch	10J6	7900	3/26	11	4.0	7.3	5.6	5.6**	18
Monte Cristo R.S.	11H12	8960	4/2	73	31.6	26.9	22.3	26.3	23
Poison Meadows*	10G6	8500	4/4	111	47.0	22.5	33.5	--**	8
Snyder Basin R.S.*	10G9	8040	4/3	53	19.4	12.2	18.4	13.9	19
Piney LaBarge*	10G10	8820	4/3	63	26.2	16.4	22.9	18.6	19
Big Park	10G11	8700	Delayed data			16.6	23.7	--**	5
Kelly R.S.	10G12	8200	Delayed data			15.3	20.4	--**	5
Salt River Summit*	10C8	7900	4/2	50	18.5	12.1	16.3	--**	8
CCC Camp*	10G7	7500	4/2	39	12.1	10.8	12.9	11.2	20

BEAR RIVER below  
Harer, Idaho

Garden City Summit	11H7	7900	3/30	53	20.7	14.6	19.5	20.0	25
Emigrant Summit	11G6	7700	3/27	67	28.0	18.6	22.1	24.3	20
Emigration Canyon (mouth)	11G7	6500	3/26	28	9.0	8.7	9.3	--	3
Slug Creek Divide	11G5	7300	3/29	47	17.2	11.8	14.7	15.3	19
Strawberry Mink Divide <sup>X</sup>	11G10	6800	3/30	50	22.0	19.7	--	--	1
Strawberry Creek <sup>X</sup>	11G9	5800	3/30	27	10.6	12.3	--	--	1
Christiansen Panch <sup>X</sup>	11G11	5600	4/2	18	5.0	10.1	--	--	1
Willow Flat <sup>X</sup>	11G4	6100	3/30	33	13.5	15.8	--	--	1
Cub River R.S. <sup>X</sup>	11G12	5400	3/30	9	4.5	10.8	--	--	1
Franklin Basin R.S.	11G8	8200	4/2	77	31.8	23.8	23.3	26.9	32
Klondike Narrows	11H1	7400	4/2	52	21.4	18.8	15.4	--	2
Tony Grove R.S.	11H3	6250	3/30	20	8.4	11.2	7.5	9.6**	30
Mt. Logan	11H6	9000	4/2	81	34.8	27.6	27.9	29.6	32
Spring Hollow (upper)	11H5	8000	4/2	80	31.5	23.3	24.1	26.1	32
Spring Hollow (lower)	11H4	7000	4/2	32	11.8	15.8	15.0	14.1	32
Monte Cristo R.S.	11H12	8960	4/2	73	31.6	26.9	22.3	26.3	23
Dry Pread Pond*	11H13	8230	4/2	49	20.3	20.1	14.7	19.2	18
Beaver Creek- Skunk Creek*	11H14	7150	4/2	23	9.5	14.6	11.2	--**	4
So. Fork-Little Bear	11H25	6850	4/3	22	7.4			New Course	
West Fork Junction <sup>X</sup>	11H26	6100	4/3	12	3.1			New Course	
Oxford Mountain <sup>X</sup>	12G3	6800	3/29	16	6.6	9.1	--	--	1
Dry Creek Flat <sup>X</sup>	12G4	6350	3/29	9	3.9	9.4	--	--	1

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 years in period.

<sup>X</sup>Location of these courses given at end of this section.

## UTAH SNOW SURVEYS - ABOUT APRIL 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.) 1938-52 Average	1955	1954	
<u>OGDEN RIVER</u>									
Monte Cristo R.S.*	11H12	8960	4/2	73	31.6	26.9	22.3	26.3	23
Dry Bread Pond	11H13	8230	4/2	49	20.3	20.1	14.7	19.2	18
Beaver Creek-									
Skunk Creek	11H14	7150	4/2	23	9.5	14.6	11.2	---**	4
Sagebrush Flat	11H15	6300	4/2	0	0.0	4.2	0.8	---	3
Ben Lomond Peak	11H8	8000	3/29	75	32.9	27.5	28.3	---**	5
Ben Lomond (lower)	11H9	6000	3/29	26	9.8	16.6	14.4	---	2
Mt. Ogden	11H10	8600	3/30	62	27.8	21.0	24.0	---**	8
Snow Basin	11H11	6500	3/30	24	9.8	14.8	14.2	---**	7
<u>WEFER RIVER</u>									
Trial Lake*	10J8	9800	3/30	78	33.6	25.3	23.9	27.7	25
Smith & Morehouse	11J4	7600	3/31	27	10.9	11.6	10.2	14.2	27
Redden Mine (upper)	11J5	9000	4/2	52	21.8	20.8	16.6	21.9	26
Redden Mine (lower)	11J6	8500	4/2	52	20.7	19.4	16.2	20.9	26
Beaver Creek R.S.	11J24	7500	3/29	14	5.8	9.1	7.3	8.8**	24
Chalk Creek #1	11J1	9100	Delayed Data			22.0	23.6	---**	5
Chalk Creek #2	11J2	8200	Delayed Data			14.1	15.2	---**	5
Chalk Creek #3	11J3	7500	4/4	Patchy		8.5	6.3	---**	4
Silver Lake*	11J16	8725	4/1	63	27.9	27.9	25.8	27.3	25
Parley's Canyon Summit	11J15	7500	3/30	38	15.4	16.2	13.3	19.0	22
Lamb's Canyon*	11J14	6600	4/3	34	11.2	15.9	12.8	15.7	21
<u>PROVO RIVER and UTAH LAKE</u>									
Trial Lake	10J8	9800	3/30	78	33.6	25.3	23.9	27.7	25
Soapstone R.S.	11J25	7800	3/29	34	13.0	11.2	10.6	13.1	25
Daniels-Strawberry Summit	11J23	8000	3/28	40	13.2	15.5	14.1	15.8	26
Strawberry Divide	11J8	8000	3/30	51	19.9	18.0	16.6	21.7	22
East Portal	11J7	7560	3/30	23	8.3	11.1	9.7	13.2	22
Hobble Creek Summit	11J22	7300	3/28	24	9.9	11.8	10.9	14.3	20
Peckard Canyon	11J31	6400	3/28	18	6.2	7.8	---	---	1
Clear Creek Ridge #1	11K21	9200	3/24	46	16.8	20.5	---	---	1
Clear Creek Ridge #2	11K22	8000	3/24	38	12.4	13.7	---	---	1
Clear Creek Ridge #3	11K23	6600	3/24	13	5.2	5.8	---	---	1
Payson R.S.	11K1	8050	3/26	35	13.4	19.1	14.1	20.5**	13
Pock Bridge	11K2	6750	3/26	19	6.6	15.2	8.7	---	3
Dutchman R.S.	11J17	7500	4/2	41	14.6	19.8	15.3	20.2	25
Timpanogas Divide	11J21	8200	3/27	60	24.5	27.8	25.6	26.7	21
Camp Altamont	11J20	7300	3/27	25	10.0	18.5	15.9	18.4	21
South Fork R.S.	11J19	6100	3/27	0	0.0	7.2	3.3	4.9	21
Timpanogas Cave Camp	11J18	5500	3/27	0	0.0	4.0	1.2	2.1	21

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 yrs. in period.

## UTAH SNOW SURVEYS - ABOUT APRIL 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						
			1956		Past Record			Previous Yrs. of Record	
			Date of Survey	Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1938-52 Average		
<u>JORDAN RIVER and GREAT SALT LAKE</u>									
Silver Lake	11J16	8720	4/1	63	27.9	27.9	25.8	27.3	25
Mill D. South Fork	11J10	7400	4/2	45	16.2	22.8	16.2	20.4	21
Lamb's Canyon	11J14	6600	4/3	34	11.2	15.9	12.8	15.7	21
Parley's Canyon Summit*	11J15	7500	3/30	38	15.4	16.2	13.3	19.0	22
Farmington Canyon (upper)	11J11	8000	3/30	66	27.1	23.4	20.4	--**	5
Farmington Canyon (lower)	11J12	6950	3/31	40	16.0	21.5	17.9	--**	5
Barnard Creek	11J13	8000	3/29	57	24.7	21.6	16.6	27.3	20
Rocky Basin-Settlement Canyon	12J1	8900	Delayed Data			29.9	17.2	--	2
Bevan's Cabin	12J2	6450	Delayed Data			13.4	--	--	1
Middle Canyon	12J3	7000	4/3	27	8.3	13.3	15.0	--	2
<u>SEVIER RIVER above Richfield</u>									
Cedar Breaks	12M1	10390	3/30	49	19.2	20.4	25.6	25.0	21
Midway Valley	12M2	9400	3/30	53	20.0	19.4	28.8	--	2
Duck Creek R.S.	12M4	8560	3/26	25	9.6	11.5	17.1	17.4	21
Harris Flat R.S.	12M5	7700	3/26	0	0.0	8.5	10.8	9.4	25
Long Valley Junction*	12M6	7500	3/26	0	0.0	0.0	3.9	5.5**	19
Panguitch Lake	12M7	8200	3/26	0	0.0	3.0	4.7	6.8	26
Bryce Canyon	12M8	8000	3/31	0	0.0	3.5	3.4	5.5	20
Widtsoe-Escalante Summit	11M1	9500	3/28	10	3.6	7.4	4.0	9.3	24
Widtsoe-Escalante #2	11M2	9500	3/28	20	6.1	10.0	7.9	--**	6
Fish Lake*	11L3	8700	3/26	23	6.4	8.4	8.0	8.4	25
Box Creek	12L4	9800	3/28	36	10.0	10.4	8.9	--	2
Squaw Springs	12L5	9300	3/28	16	5.3	6.1	5.2	--	2
Big Flat*	12L7	10000	3/27	47	16.5	17.6	20.6	20.8	20
Kimberly Mine (upper)	12L6	8900	3/24	37	11.2	14.6	16.5	18.3	21
<u>SEVIER RIVER below Richfield (including SAN FITCH RIVER)</u>									
Farnsworth Lake	11L1	9900	4/2	58	16.1	18.4	15.0	--**	5
Gooseberry R.S.	11L2	8400	4/2	31	8.3	12.4	7.1	11.6	26
Huntington-Horseshoe*	11K5	9800	3/31	50	19.2	18.2	19.2	26.3	26
Gooseberry Reservoir*	11K4	8700	3/31	45	17.7	15.9	14.7	20.8	28
Mammoth R.S.- Cottonwood Creek	11K3	8800	3/31	46	18.7	17.7	17.4	21.9	27

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 yrs. in period.

## UTAH SNOW SURVEYS - ABOUT APRIL 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1938-52 Average	1954	
<u>SEVIER RIVER below Richfield</u> (including SAN PITCH RIVER) -Continued									
G.B.R.C. Meadows	11K10	10000	3/30	62	24.0	22.1	24.0	26.2	26
G.B.R.C. Headquarters	11K11	8700	3/30	37	13.7	15.0	15.7	17.5	26
Middle Fork <sup>x</sup>	11K34	9600	4/3	78	21.8	--	--	--	0
Thistle Flat <sup>x</sup>	11K35	8500	4/3	51	13.8	--	--	--	0
Mt. Baldy R.S.	11K12	9500	3/29	60	22.1	21.5	20.6	--**	5
Beaver Dams	11K13	8000	3/29	27	10.2	12.3	8.4	--**	5
Pine Creek	12L1	8700	3/21	32	12.3	19.1	12.2	--**	7
Pine Creek-Chalk Cr.	12L2	8500	3/21	40	15.5	16.3	12.5	13.1**	25
Bear Canyon	12L3	7200	3/22	19	5.4	11.4	9.1	--	2
<u>BEAVER RIVER</u>									
Big Flat	12L7	10000	3/27	47	16.5	17.6	20.6	20.8	20
Otter Lake	12L8	9300	3/27	39	13.5	13.5	16.7	17.5	20
Merchant's Valley	12L9	8200	3/26	26	8.1	10.8	8.8	12.1	25
<u>PARCWAN CREEK</u>									
Yankee Reservoir	12M11	8700	3/29	19	7.3	10.0	7.6	13.2**	12
Ed Ward Flat	12M12	8300	3/29	7	2.9	7.9	5.6	9.3**	12
<u>COAL CREEK</u>									
Cedar Breaks*	12M1	10390	3/30	49	19.2	20.4	25.6	25.0	21
Midway Valley*	12M2	9400	3/30	53	20.0	19.4	28.8	--	2
Webster Flat*	12M3	9200	3/30	28	10.8	14.7	21.4	19.8	29
Urie Flat	12M10	8450	3/28	0	0.0	6.2	8.5	--	2
<u>ENTERPRISE to NEW HARMONY</u>									
Long Flat	13M2	8200	No Report			7.8	--	--	1
Rattlesnake Springs	13M3	6500	3/27	0	0.0	6.4	--	--	1
<u>COLORADO RIVER DRAINAGE</u>									
<u>UPPER GREEN RIVER in Utah</u>									
Hewinta R.S.	10J4	9500	3/29	33	9.5	8.3	--	9.9**	22
Hole-in-the-Rock	10J1	9150	3/27	16	4.4	6.1	6.2	6.4	25
Middle Beaver Creek	10J2	8550	3/27	14	4.5	5.4	5.3	--	2
Hole-in-the-Rock R.S.	10J3	8300	3/27	0	0.0	3.2	0.5	--	2
King's Cabin (upper)	9J1	8800	3/28	31	10.0	10.4	13.5	11.4	26
King's Cabin (lower)	9J2	8600	3/28	28	8.3	7.9	10.7	10.4	26

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 yrs. in period.

<sup>x</sup>Location of these courses given at end of this section.

## UTAH SNOW SURVEYS - ABOUT APRIL 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	Water Content: (In.)	Percent (In.)	Average 1928-52	
<u>DUGFESNE RIVER</u>									
Trial Lake*	10J8	9800	3/30	78	33.6	25.3	23.9	27.7	25
Soapstone R.S.*	11J25	7800	3/29	34	13.0	11.2	10.6	13.1	25
Daniels-Strawberry Summit*	11J23	8000	3/28	40	13.2	15.5	14.1	15.8	26
Strawberry Divide*	11J8	8000	3/30	51	19.9	18.0	16.6	21.7	22
East Portal*	11J7	7560	3/30	23	8.3	11.1	9.7	13.2	22
Indian Canyon	10K1	9100	3/30	26	9.1	11.0	11.2	11.4	26
Rock Creek	10J18	7900	3/23	21	6.6	7.8	--	--	1
Brown Duck Lake	10J9	10300	3/29	57	21.5	--	16.1	20.6**	12
Jackson Park	10J19	11300	3/22	53	17.5	--	--	--	0
Lakefork Mountain	10J10	10500	3/27	44	15.0	13.8	12.4	13.0	25
Lakefork Mountain #2	10J11	8900	3/27	25	7.9	11.2	8.9	--	3
Lakefork Mountain #3	10J12	8100	3/27	23	5.3	10.2	7.6	--	3
Paradise Park	9J3	10500	3/26	48	15.9	13.4	16.0	13.7**	24
Mosby Mountain (lower)	9J5	9500	No Survey			11.7	13.1	12.4	26
<u>PRICE RIVER</u>									
Huntington-Horseshoe	11K5	9800	3/31	50	19.2	18.2	19.2	26.3	26
Gooseberry Reservoir	11K4	8700	3/31	45	17.7	15.9	14.7	20.8	28
Mammoth R.S.- Cottonwood Creek*	11K3	8800	3/31	46	18.7	17.7	17.4	21.9	27
Mud Creek	11K6	8250	3/29	44	17.5	13.7	14.3	--**	7
Mud Creek #2	11K33	8300	3/29	29	10.7	11.2	--	--	1
Staley Ranch	11K7	7600	3/29	1/	--	5.7	0.0	6.6**	20
Dry Valley Divide	11K8	7800	3/29	25	9.5	11.3	9.5	10.8	21
White River #1	10K2	8600	3/30	38	15.1	14.0	--	--	1
White River #2	11K24	7600	3/30	18	7.2	--	--	--	0
White River #3	11K25	7400	3/30	13	5.6	9.6	--	--	1
Indian Canyon*	10K1	9100	3/30	26	9.1	11.0	11.2	11.4	26
<u>JAN LAFAE RIVER</u>									
Huntington-Horseshoe	11K5	9800	3/31	50	19.2	18.2	19.2	26.3	26
Gooseberry Reservoir* <sup>1</sup>	11K4	8700	3/31	46	18.7	15.9	14.7	20.8	28
Switchback	11K26	8600	3/29	42	16.4	14.8	--	--	1
Stuart R.S.	11K27	7950	3/29	18	6.8	7.7	--	--	1
Red Pine Ridge	11K28	9400	4/4	43	16.1	13.8	--	--	1
Wilberg Ranch	11K30	7800	4/4	0	0.0	0.0	--	--	1
Seeley Creek R.S.#2	11K9	10000	3/30	36	12.8	11.3	14.3	16.8	26
Buck Flat	11K31	9400	Delayed Data			--	--	--	0
Wrigley Creek	11K32	9000	Delayed Data			--	--	--	1
Rush Pond	11K38	9800	Delayed Data			15.4	--	--	1

\*Adjacent Drainage.

\*\*Less than 15-year average. No value shown when less than 8 yrs. in period.

\*Location of these courses given at end of this section.

1/ 6" snow, 2" ice at ground. Surveyors unable to sample.

UTAH SNOW SURVEYS - ABOUT APRIL 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS							
			Date of Survey	1956		1955		1954		Previous Year, or Average Record
				Snow Depth (In.)	Water Content (In.)	Snow Depth (In.)	Water Content (In.)	Snow Depth (In.)	Water Content (In.)	
<u>MUDPIE RIVER</u>										
Black Fork	11K14	9200	4/5	38	12.5	14.4	11.4	--**	9	
Dill's Camp	11K15	9200	4/5	35	11.5	---	9.3	--**	8	
Mt. Baldy R.S.*	11K12	9500	3/29	60	22.1	21.5	20.6	--**	5	
<u>FREMONT RIVER</u>										
Farnsworth Lake*	11L1	9900	4/2	58	16.1	18.4	15.0	--**	5	
Fish Lake	11L3	8700	3/26	23	6.4	8.4	8.0	8.4	25	
Johnson Valley	11L6	8850	3/26	21	6.0	6.2	---	---	1	
Black's Flat- U. M. Creek	11L4	9250	3/26	32	9.7	9.5	6.3	---	2	
Donkey Reservoir	11L5	9800	3/27	19	5.3	5.8	5.1	---	2	
<u>ESCALANTE RIVER</u>										
Widtsoe-Escalante Summit	11M1	9500	3/28	10	3.6	7.4	4.0	9.3	24	
Widtsoe-Escalante#2*	11M2	9500	3/28	20	6.1	10.0	7.9	--**	6	
<u>VIRGIN RIVER</u>										
Long Valley Junction	12M6	7500	3/26	0	0.0	0.0	3.9	5.5**	19	
Harris Flat R.S.*	12M5	7700	3/26	0	0.0	8.5	10.8	9.4	25	
Duck Creek R.S.*	12M4	8500	3/26	25	9.6	11.5	17.1	17.4	21	
Midway Valley*	12M2	9400	3/30	53	20.0	19.4	28.8	---	2	
Cedar Breaks*	12M1	10390	3/30	49	19.2	20.4	25.6	25.0	21	
Webster Flat	12M3	9200	3/30	28	10.8	14.7	21.4	19.8	29	
<u>LOWER COLORADO RIVER</u> (Southeastern Utah)										
LaSal Mountain	9L1	8800	4/2	18	5.8	10.0	7.4	11.5	25	
Buckboard Flat	9M1	9000	4/2	26	8.4	14.0	12.4	15.3	26	

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 years in period.

## INDEX OF NEW SNOW COURSE LOCATIONS

DRAINAGE BASIN and SNOW COURSE NAME	Snow Course Number	Sec- tion	Town- ship	Range	Elev.
GREAT BASIN DRAINAGE					
<u>BEAR RIVER below</u>					
<u>Harer, Idaho</u>					
Strawberry-Mink Divide, Idaho	11G10	14	13S	41E	6800
Strawberry Creek, Idaho	11G9	9	13S	41E	5800
Christiansen Ranch, Idaho	11G11	27	13S	41E	5600
Willow Flat	11G4	2	15S	41E	6100
Cub River R.S.	11G12	5	15S	41E	5400
South Fork-Little Bear	11H25	22	8N	1E	6850
West Fork Junction	11H26	15	8N	1E	6100
Oxford Mountain	12G3	32	13S	37E	6800
Dry Creek Flat	12G4	31	13S	37E	6350
<u>SFVIER RIVER below Richfield</u>					
<u>(including SAN PITCH RIVER)</u>					
Middle Fork	11K34	16	18S	4E	9600
Thistle Flat	11K35	24	18S	3E	8500
COLORADO RIVER DRAINAGE					
<u>DUCHESNE RIVER</u>					
Rock Creek	10J18	21	2N	7W	7900
Jackson Park	10J19	23	3N	4W	11300
<u>PRICE RIVER</u>					
Grassy Trail Creek - Left Fork	10K3	2	14S	13E	7970
Spatafore Canyon	10K4	5	14S	14E	8150
Corral	10K5	32	13S	14E	8200
<u>SAN RAFAEL RIVER</u>					
Buck Flat	11K31	23	19S	4E	9400
Rush Pond	11K38	24	19S	4E	9800

UTAH SNOW SURVEYS - DELAYED REPORTS RECEIVED  
SINCE LAST BULLETIN  
(MARCH 1, 1956)

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS - 1956		
			Date of Survey	Snow Depth (In.)	Water Content (In.)
GREAT BASIN					
<u>BEAR RIVER below</u>					
<u>Harer, Idaho</u>					
Willow Flat	11G4	6100	3/7	55	17.6
South Fork-Little Bear	11H25	6850	3/13	36	11.8
West Fork Junction	11H26	6100	3/13	28	8.5
<u>WEBER RIVER</u>					
Redden Mine (upper)	11J5	9000	3/8	63	23.5
Redden Mine (lower)	11J6	8500	3/8	61	21.2
<u>SEVIER RIVER below Richfield</u>					
<u>(including SAN FITCH RIVER)</u>					
Huntington-Horseshoe	11K5	9800	3/10	52	19.1
COLORADO RIVER DRAINAGE					
<u>PRICE RIVER</u>					
Huntington-Horseshoe	11K5	9800	3/10	52	19.1
Grassy Trail Creek-					
Left Fork	10Ks	7970	3/9	21	6.4
Spatafore Canyon	10K4	8150	3/9	22	6.7
Corral	10K5	8200	3/9	20	6.2
<u>LOWER COLORADO RIVER</u>					
<u>(Southeastern Utah)</u>					
LaSal Mountain	9L1	8800	3/6	29	8.8
Buckboard Flat	9M1	9000	3/8	37	11.8

U. S. Government Agencies

U. S. Department of Agriculture  
Soil Conservation Service  
Forest Service

U. S. Department of Commerce  
Weather Bureau

U. S. Department of the Interior  
Geological Survey  
National Park Service

State of Utah

Utah Agricultural Experiment Station  
Utah State Engineer  
Little Bear River Commissioner  
Price River Commissioner  
Provo River Commissioner  
Sevier River Commissioner  
Spanish Fork River Commissioner  
Weber River Commissioner

Municipalities or Quasi-Municipalities

Salt Lake City Corporation

Organized Public Agencies

Beaver River Water-Users Association  
Board of Canal Presidents - Jordan River  
Emery Canal and Reservoir Company  
Moon Lake Water-Users Association  
Ogden River Water-Users Association  
Strawberry Water-Users Association  
Sevier River Water-Users Association  
Provo River Water-Users Association

Private Agencies

Kaiser Steel Corporation



Checking Mountain Soil Moisture Under the Snow, an important factor in snowmelt runoff.

Federal-State Cooperative  
Snow Surveys and Water Supply Forecasts  
for  
**UTAH**

SOIL CONSERVATION SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE  
AND

STATE ENGINEER OF UTAH  
UTAH AGRICULTURAL EXPERIMENT STATION  
IN COOPERATION WITH

U. S. Forest Service  
U. S. Geological Survey

U. S. National Park Service  
State and Local Irrigation Organizations

AS OF  
MAY 1, 1956

FEDERAL-STATE COOPERATIVE  
SNOW SURVEYS and WATER SUPPLY FORECASTS  
for  
U T A H

MAY 1, 1956

Report Prepared  
by  
Gregory L. Pearson - Hydraulic Engineer  
Soil Conservation Service

Issued  
by  
J. A. Libby  
State Conservationist  
Soil Conservation Service  
222 South West Temple  
Salt Lake City 1, Utah

Joseph M. Tracy  
State Engineer  
State of Utah  
Salt Lake City, Utah

Dr. D. W. Thorne, Director  
Utah Agricultural Exp. Station  
Logan, Utah  
(Mimeograph Series No. 423)

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### Definition of Terms on Map Following

Good - Runoff prospects normal or better, with sufficient flow for all demands of current season, and in the case of holdover reservoirs, for replacements of evaporation and other natural reservoir losses.

Fair - Subnormal runoff prospects, with some deficiency in meeting demands of current season when holdover storage is not available. If holdover storage available, adequate supply for current demands assured by some depletion of holdover storage.

Poor - Greatly subnormal runoff prospects with considerable deficiency of water for demands in current season when holdover storage not available. If holdover storage available, runoff prospects are considered poor if very heavy depletions of holdover storage are necessary to meet current demands.

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Definition of Terms on Map Following

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Poor - Greatly subnormal runoff prospects with considerable deficiency of water for demands in current season when holdover storage not available. If holdover storage available, runoff prospects are considered poor if very heavy depletions of holdover storage are necessary to meet current demands.

# FORECAST WATER SUPPLY

Based on Snow Surveys Made on  
UTAH & BEAR RIVER WATERSHEDS

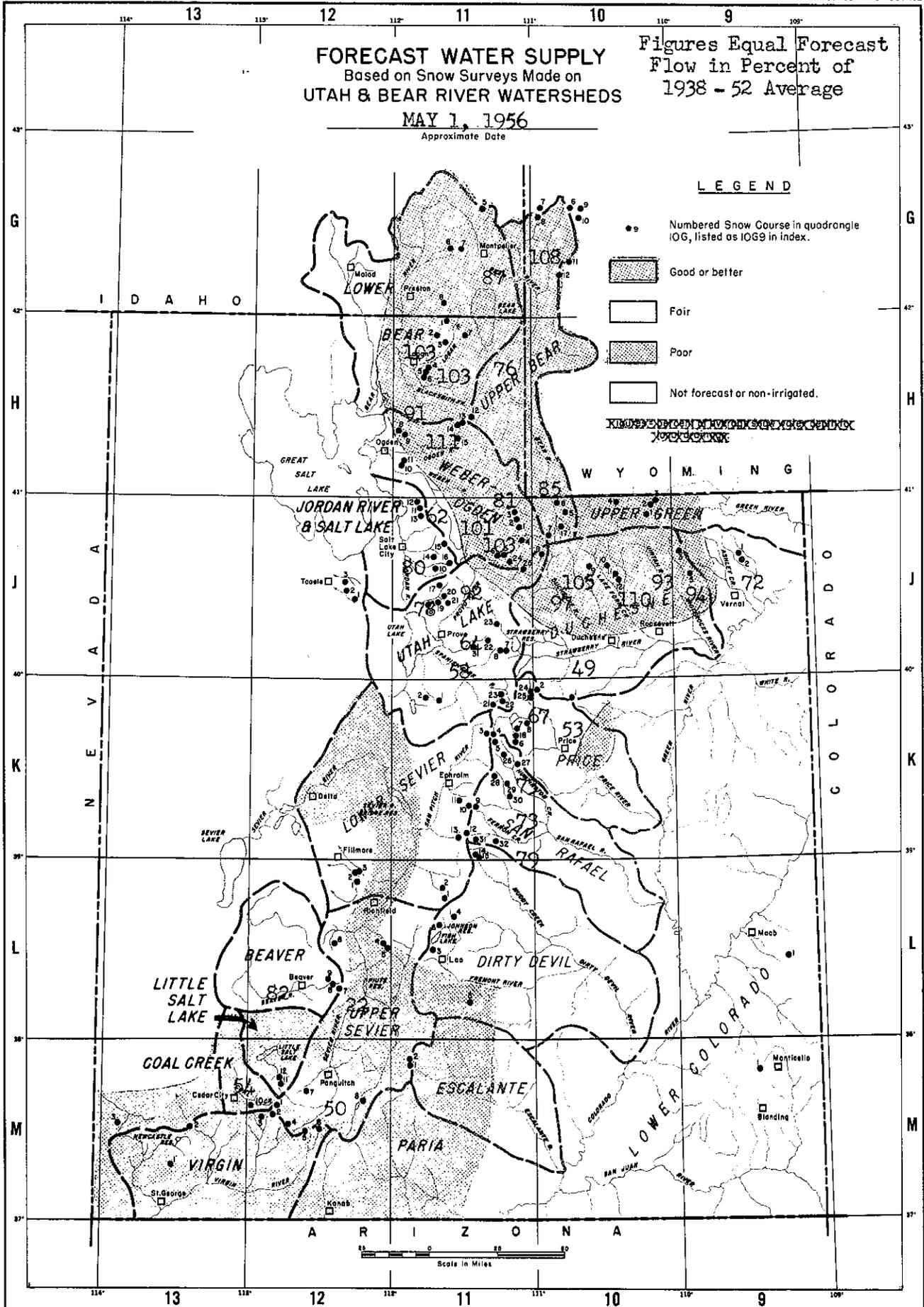
Figures Equal Forecast  
Flow in Percent of  
1938 - 52 Average

MAY 1, 1956

Approximate Date

### LEGEND

- Numbered Snow Course in quadrangle 10G, listed as 10G9 in index.
-  Good or better
-  Fair
-  Poor
-  Not forecast or non-irrigated.



Scale in Miles

WATER SUPPLY OUTLOOK  
for  
U T A H

MAY 1, 1956

The storm pattern on the watersheds of southern Utah during April brought an end to the long, dry spell existing during February and March. Measurements of snowpack and rainfall made in the mountains—where the water originates—show that from the mountains in the vicinity of Ephraim southward to the headwaters of the Sevier and Virgin rivers, precipitation has varied from near average to about 20 percent above average.

Instead of having to again lower forecasts of streamflow for the irrigation season (April thru September) as happened the last two months, prospective runoff is now about the same as last month, or has been increased by up to 10 percent. On the Sevier, Virgin, Paria and Escalante rivers, while streamflow is expected to be from two to five percent above that forecast last month, the outlook is still for critical water shortages to be experienced. On the Beaver River the forecast is up 10 percent, with 28,000 acre feet expected to flow past the gauging station near Beaver. This is 82 percent of average and nearly twice the amount measured last year.

Water users served by the Beaver River, the streams near Fillmore and from the Salina to Mt. Pleasant and Emery to Price areas, can look forward to a fair water supply. While some deficiencies in meeting the demands of the season will be experienced, particularly where inadequate holdover reservoir storage is available, there is no prospect of any really critical shortages developing. However, water supplies for the Sunnyside-Dragerton area are very poor. Here, the snowpack on Grassy Trail Creek has disappeared, with very little increase in streamflow.

On northern watersheds, snow and rainfall for the month was much poorer than in the south, with some rather large variations being measured in relatively short distances. Here, precipitation varied from about one-fourth to near average. Forecasts are down as much as 45 percent from last month, with the largest decreases being noted on the Bear River from Evanston, Wyoming to Harer, Idaho, Chalk Creek near Coalville and the Strawberry River at Duchesne. On most northern streams, however, forecasts have been lowered only five to 10 percent. In spite of the dry month, the water supply outlook is still fair to good.

From the Utah Lake drainage to Cache Valley, prospects vary from about 60 percent of average on the Spanish Fork River, Hobble, Parley's and East Canyon creeks to 111 percent on the South Fork of the Ogden River near Huntsville.

At the east end of the Uintah Basin, Ashley Creek near Vernal is forecast at 72 percent and at the west end the Strawberry River at Duchesne 49 percent. The streams between them should flow at 93 to 110 percent of average.

Detailed forecasts are given on pages 2-4 of this report.

## UTAH STREAMFLOW FORECASTS - MAY 1, 1956

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast	%	Fore-	Measured Runoff			15-Yr.
	Runoff	15-Yr.	cast	1955	1954	1953	Average
	1956	Avg.	Period				1938-52
GREAT BASIN							
<u>BEAR RIVER SYSTEM</u>							
Bear River near Evanston, Wyo.	120	85	Apr.-Sept.	74	55	113	142
Bear River near Randolph, Utah	88	76	Apr.-Sept.	26.4	15.3	67	116 (1)
Smith's Fork near Border, Wyo.	123	108	Apr.-Sept.	78	89	99	114 (2)
Bear River at Harer, Idaho	245	87	Apr.-Sept.	116	100	184	281
Little Bear River near Paradise, Utah	40	91	Apr.-Sept.	40	20.7	34	44
Logan River near Logan, Utah (3)	137	103	Apr.-Sept.	99	86	121	133
Blacksmith Fork near Hyrum, Utah (4)	62	103	Apr.-Sept.	46	39	50	60
<u>WEBER-OGDEN RIVERS</u>							
Weber River near Oakley, Utah	132	103	Apr.-Sept.	98	82	117	128
Weber River near Coalville, Utah (5)	139	101	Apr.-Sept.	97	67	112	138
Chalk Creek at Coalville, Utah	34	81	Apr.-Sept.	18.6	13.2	28.1	42

- (1) Average runoff for 12 years, 1944-1955.
- (2) Average runoff for 13 years, 1943-1956.
- (3) Includes U.P. & L. Co. tailrace and Logan, Hyde Park & Smithfield Canal.
- (4) Above Utah Power and Light Company's dam.
- (5) Includes diversion by Weber-Provo canal.

## UTAH STREAMFLOW FORECASTS - MAY 1, 1956

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						15-Yr. Average 1938-52
	Forecast	%	Fore-	Measured Runoff			
	Runoff	15-Yr.	cast	1955	1954		
1956	Avg.	Period					
<u>WEBER-OGDEN RIVERS - Continued</u>							
East Canyon Creek near Morgan, Utah (6)	18	62	Apr.-Sept.	14.1	6.6	22.9	29.2
South Fork Ogden River near Huntsville, Utah	72	111	Apr.-Sept.	48	36	60	65
<u>PROVO RIVER &amp; UTAH LAKE</u>							
Spanish Fork at Thistle, Utah	26	58	Apr.-Sept.	30	20.5	29.7	45
Hobble Creek near Springville, Utah	16	64	Apr.-Sept.	10.3	8.6	17.1	25 (7)
Provo River at Vivian Park, Utah (8)	152	92	Apr.-Sept.	109	98	125	166
American Fork near American Fork, Utah	28	78	Apr.-Sept.	26.4	22.0	32	36
<u>JORDAN RIVER &amp; SALT LAKE</u>							
Little Cottonwood Creek near Salt Lake City, Utah	34	85	Apr.-Sept.	34	29.3	42	40
Big Cottonwood near Salt Lake City, Utah	32	80	Apr.-Sept.	34	25.1	42	40
Parley's Creek near Salt Lake City, Utah	10	66	Apr.-Sept.	7.5	4.4	16.1	15.2
<u>SEVIER RIVER</u>							
Sevier River at Hatch, Utah	29	50	Apr.-Sept.	24	42	23.4	58 (9)
Sevier River near Kingston, Utah	10	22	Apr.-Sept.	7.5	14.9	8.1	46
<u>BEAVER RIVER</u>							
Beaver River near Beaver, Utah	28	82	Apr.-Sept.	16.4	17.4	14.8	34

(6) Observed flow plus change in storage in East Canyon reservoir.

(7) For ten years 1946-1955.

(8) Observed flow plus flow at South Fork Provo River at Vivian Park, plus change in storage in Deer Creek reservoir, minus diversion by Weber-Provo canal, minus diversion thru Duchesne tunnel, plus diversion thru Salt Lake aqueduct.

(9) Average runoff for 15 years, 1940-1954.

UTAH STREAMFLOW FORECASTS - MAY 1, 1956

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1956	% 15-Yr. Avg.	Fore- cast Period	Measured Runoff			15-Yr. Average 1938-52
				1955	1954	1953	
<u>COAL CREEK</u>							
Coal Creek near Cedar City, Utah	11	54	Apr.-Sept.	14.9	8.1	20.4	
<u>COLORADO RIVER BASIN</u>							
<u>UPPER GREEN RIVER</u>							
Ashley Creek near Vernal, Utah	47	72	Apr.-Sept.	40	44	44	65
<u>DUCHESNE RIVER</u>							
Duchesne River near Tabiona, Utah (10)	118	97	Apr.-Sept.	89	66	97	122
Rock Creek near Mountain Home, Utah	114	105	Apr.-Sept.	80	68	91	109
Strawberry River at Duchesne, Utah	40	49	Apr.-Sept.	49	35	47	82
Lakefork River below Moon Lake, Utah (11)	85	110	Apr.-Sept.	58	48	62	77 (11)
Uinta River near Neola, Utah	103	93	Apr.-Sept.	71	72	75	111
Whiterocks River near Whiterocks, Utah	68	94	Apr.-Sept.	47	45	50	72
<u>PRICE RIVER</u>							
Price River near Scofield, Utah (12)	29	67	Apr.-Sept.	26.6	14.1	33	43
Price River near Heiner, Utah (12)	41	53	Apr.-Sept.	45	26.3	47	77
<u>SAN RAFAEL RIVER</u>							
Huntington Creek near Huntington, Utah	45	73	Apr.-Sept.	36	32	57	62
Cottonwood Creek near Orangeville, Utah	47	73	Apr.-Sept.	35	32	51	64
Ferron Creek near Ferron, Utah	33	79	Apr.-Sept.	25.6	23.9	35	42 (13)

(10) Observed flow plus diversion through Duchesne tunnel.  
 (11) Observed flow plus change in storage in Moon Lake reservoir. Average runoff for 14 years, 1942-1955.  
 (12) Observed flow plus change in storage in Scofield reservoir.  
 (13) Average runoff for 8 years, 1948-1955.

STATUS OF UTAH RESERVOIR STORAGE - MAY 1, 1956<sup>(1)</sup>

5.

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET			
			1956	1955	1954	15-Yr. Ave. 1938 - 52
GREAT BASIN						
<u>Bear River</u>	Bear Lake	1421.0	822.3	790.8	959.0	825.0
<u>Little Bear</u>	Hyrum	15.3	15.6	15.3	15.3	14.6 (2)
<u>Ogden</u>	Pine View	43.6	32.9	19.4	30.8	32.1
<u>Weber</u>	East Canyon	28.7	20.2	11.6	19.3	24.7
	Echo	73.9	53.9	41.3	49.0	54.7
<u>Provo</u>	Deer Creek	144.7	93.7	90.1	108.2	86.3 (3)
<u>Spanish Fork</u>	Strawberry	283.0	169.9	182.8	230.7	115.5
<u>Utah Lake</u>	Utah Lake	1149.0(4)	581.2	649.1	766.3	587.0
<u>Sevier River</u>	Otter Creek	52.5	20.6	25.3	33.0	46.2
	Piute	74.0	13.6	36.1	39.0	63.3
	Sevier Bridge	236.0	70.6	108.0	155.6	173.8
<u>Beaver River</u>	Rocky Ford	23.3	9.1	10.1	11.9	18.6
COLORADO RIVER DRAINAGE						
<u>Lake Fork</u>	Moon Lake	35.8	12.0	13.5	13.9	17.4
<u>Price River</u>	Scofield	65.8	14.2	14.8	37.1	21.8

- (1) All data contained in this table supplied by U.S. Geological Survey.  
 (2) Average for 1939-1953.  
 (3) Average for 1941-1955.  
 (4) Active capacity taken at 3.1 feet above compromise point.

## UTAH SNOW SURVEYS - ABOUT MAY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1955	1954	

## GREAT BASIN DRAINAGE

BEAR RIVER above  
Harer, Idaho

Trial Lake*	10J8	9800	4/26	80	37.5	27.0	21.8	---	**	8
Hayden Fork	10J7	9300	4/30	41	17.0	14.0	--	--	--	2
Stillwater Camp	10J17	8550	4/30	9	4.0		Patchy	--	--	1
Head of Bear River	10J5	8600	4/30	4	1.5	0.0	--	--	--	1
Goodman Ranch	10J6	7900	4/30	0	0.0	0.0	--	--	--	1
Monte Cristo R.S.	11H12	8960	4/27	50	24.5	28.8	18.3	---	**	5
Snyder Basin R.S.*	10G9	8040	4/30	27	11.9	2.9	7.0	8.5		20
Piney LaBarge*	10G10	8820	4/30	39	18.6	6.6	7.9	14.0		20
Big Park	10G11	8700	5/3	52	23.3	18.3	19.4	---	**	4
Kelly R.S.	10G12	8200	5/3	39	18.0	--	--	--	--	0
Salt River Summit*	10G8	7900	4/30	16	6.9	9.9	8.1	--	--	2
CCC Camp*	10G7	7500	4/30	0	0.0	7.5	2.7	---	**	6

BEAR RIVER below  
Harer, Idaho

Garden City Summit	11H7	7900	4/27	25	10.1	13.7	9.3	---	**	4
Strawberry Mink Divide <sup>x</sup>	11G10	6800	4/27	12	6.1	--	--	--	--	0
Strawberry Creek <sup>x</sup>	11G9	5800	4/27	0	0.0	--	--	--	--	0
Christiansen Ranch <sup>x</sup>	11G11	5600	4/27	0	0.0	--	--	--	--	0
Willow Flat <sup>x</sup>	11G4	6100	4/30	0	0.0	--	--	--	--	0
Cub River R.S. <sup>x</sup>	11G12	5400	4/30	0	0.0	--	--	--	--	0
Klondike Narrows	11H1	7400	4/26	20	9.8	15.6	--	--	--	1
Tony Grove R.S.	11H3	6250	4/27	0	0.0	0.0	--	--	--	1
Mt. Logan	11H6	9000	4/26	61	28.6	31.3	23.0	26.4	**	29
Spring Hollow (upper)	11H5	8000	4/26	61	24.6	28.6	21.6	23.3	**	29
Monte Cristo R.S.	11H12	8960	4/27	50	24.5	28.8	18.3	---	**	5
Dry Bread Pond*	11H13	8230	4/27	19	8.0	19.5	6.0	---	**	5
Beaver Creek-										
Skunk Creek*	11H14	7150	4/27	0	0.0	8.4	0.0	---	**	4
Oxford Mountain <sup>x</sup>	12G3	6800	5/1	0	0.0	2.6	--	--	--	1
Dry Creek Flat <sup>x</sup>	12G4	6350	5/1	0	0.0	0.0	--	--	--	1

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 years in period.

<sup>x</sup>Location of these courses given at end of this section.

## UTAH SNOW SURVEYS - ABOUT MAY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS							
			Date of Survey	1956	: Past Record			Previous Yrs. of Record		
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1938-52 Average		1955	1954
<u>OGDEN RIVER</u>										
Monte Cristo R.S.*	11H12	8960	4/27	50	24.5	28.8	18.3	---	**	5
Dry Bread Pond	11H13	8230	4/27	19	8.0	19.5	6.0	---	**	5
Beaver Creek-										
Skunk Creek	11H14	7150	4/27	0	0.0	8.4	0.0	---	**	4
Ben Lomond Peak	11H8	8000	4/26	41	21.6	31.0	13.1	---	**	5
Ben Lomond (lower)	11H9	6000	4/26	0	0.0	6.6	0.0	---		2
Mt. Ogden	11H10	8600	4/25	40	20.8	24.8	13.3	---	**	5
Snow Basin	11H11	6500	4/25	0	0.0	8.3	0.0	---		2
<u>WEBER RIVER</u>										
Trial Lake*	10J8	9800	4/26	80	37.5	27.0	21.8	---	**	8
Smith & Morehouse	11J4	7600	4/30	0	0.0	4.6	0.0	---	**	5
Redden Mine (upper)	11J5	9000	4/26	32	14.8	21.6	2.9	---	**	5
Redden Mine (lower)	11J6	8500	4/26	32	14.7	17.6	0.0	---	**	5
Beaver Creek R.S.	11J24	7500	4/26	0	0.0	0.0	0.0	---	**	5
Chalk Creek #1	11J1	9100	4/27	58	26.4	19.4	17.3	---	**	5
Chalk Creek #2	11J2	8200	4/27	19	7.8	8.5	6.1	---	**	5
Chalk Creek #3	11J3	7500	4/27	0	0.0	0.0	0.0	---	**	4
Silver Lake*	11J16	8725	4/30	52	28.1	22.9	14.3	---	**	5
Parley's Canyon Summit	11J15	7500	5/1	7	3.1	11.9	0.0	---	**	5
Lamb's Canyon*	11J14	6600	4/30	0	0.0	10.6	0.0	---	**	5
<u>PROVO RIVER and UTAH LAKE</u>										
Trial Lake	10J8	9800	4/26	80	37.5	27.0	21.8	---	**	8
Soapstone R.S.	11J25	7800	4/26		Patchy	6.7	0.0	---	**	6
Daniel's-Strawberry Summit	11J23	8000	4/30	0	0.0	8.3	0.0	---	**	4
Hobble Creek Summit	11J22	7300	4/25	0	0.0	4.7	--	---		1
Packard Canyon	11J31	6400	4/25	0	0.0	0.0	--	---		1
Clear Creek Ridge #1	11K21	9200	4/25	31	13.8	16.0	--	---		1
Clear Creek Ridge #2	11K22	8000	4/25	12	4.7	10.9	--	---		1
Clear Creek Ridge #3	11K23	6600	4/25	0	0.0	0.0	--	---		1
Payson R.S.	11K1	8050	4/24	12	4.8	17.0	0.6	---		2
Rock Bridge	11K2	6750	4/24	0	0.0	9.2	0.0	---		2
Dutchman R.S.	11J17	7500	4/25		Patchy	13.2	--	---		1
Timpanogas Divide	11J21	8200	4/25	35	17.8	21.6	14.8	19.5		16
Camp Altamont	11J20	7300	4/25	0	0.0	10.2	--	---	**	3
South Fork R.S.	11J19	6100	4/25	0	0.0	--	--	---		0

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 years in period.

## UTAH SNOW SURVEYS - ABOUT MAY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS							
			Date of Survey	1956		Past Record			Previous Yrs. of Record	
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1938-52 Average	1954		
<u>JORDAN RIVER and GREAT SALT LAKE</u>										
Silver Lake	11J16	8720	4/30	52	28.1	22.9	14.3	---	**	5
Mill D. South Fork	11J10	7400	4/30	Patchy		18.7	0.0	---	**	4
Lamb's Canyon	11J14	6600	4/30	0	0.0	10.6	0.0	---	**	5
Parleys Canyon Summit	*11J15	7500	5/1	7	3.1	11.9	0.0	---	**	5
Farmington Canyon (upper)	11J11	8000	5/1	47	20.9	26.6	17.3	---	**	5
Farmington Canyon (lower)	11J12	6950	5/1	8	3.4	19.1	2.5	---	**	5
Rocky Basin- Settlement Canyon	12J1	8900	4/27	38	15.8	24.3	11.5	---		2
Bevan's Cabin	12J2	6450	4/27	0	0.0	0.0	---	---		1
Middle Canyon	12J3	7000	4/26	0	0.0	10.3	0.0	---		2
<u>SEVIER RIVER above Richfield, Utah</u>										
Cedar Breaks	12M1	10390	4/30	43	17.3	12.9	18.5	---	**	4
Midway Valley	12M2	9400	4/30	42	17.4	14.2	20.6	---		2
Duck Creek R.S.	12M4	8560	4/26	0	0.0	2.0	1.6	---	**	5
Harris Flat R.S.	12M5	7700	4/26	0	0.0	0.0	0.0	---		4
Widtsoe-Escalante Summit	11M1	9500	4/26	0	0.0	1.5	0.0	---		3
Widtsoe-Escalante #2	11M2	9500	4/26	9	2.9	5.8	0.0	---		3
Fish Lake*	11L3	8700	4/23	Patchy		---	---	---		0
Box Creek	12L4	9800	4/24	25	9.4	---	---	---		0
Squaw Springs	12L5	9300	4/24	0	0.0	---	---	---		0
Big Flat*	12L7	10000	4/23	55	21.0	15.9	15.5	---	**	4
<u>SEVIER RIVER below Richfield (including SAN PITCH RIVER)</u>										
Farnsworth Lake	11L1	9900	4/25	45	16.7	19.2	9.8	---		3
Gooseberry R.S.	11L2	8400	4/25	Patchy		8.5	0.0	---		3
Huntington-Horseshoe*	11K5	9800	4/27	42	17.6	20.4	14.5	---		5
Gooseberry Reservoir*	11K4	8700	4/27	28	12.5	14.6	5.1	---		8
G.B.R.C. Meadows	11K10	10000	4/30	60	24.4	24.2	19.3	---	**	4
G.B.R.C. Headquarters	11K11	8700	4/30	26	9.9	11.6	2.3	---	**	4
Mt. Baldy R.S.	11K12	9500	4/26	52	21.6	20.8	13.7	---		3
Beaver Dams	11K13	8000	4/26	0	0.0	7.0	0.0	---		3

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 years in period.

## UTAH SNOW SURVEYS - ABOUT MAY 1, 1956

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1956		Past Record			Previous Yrs. of Record
				Snow Depth (In.)	Water Content: (In.)	Water Content (In.)	1938-52 Average	1955 1954	
<u>BEAVER RIVER</u>									
Big Flat	12L7	10000	4/23	55	21.0	15.9	15.5	---**	4
Otter Lake	12L8	9300	4/23	38	15.1	10.9	10.4	---**	4
Merchant's Valley	12L9	8200	4/23	0	0.0	3.1	0.0	---**	4
<u>PAPOWAN CREEK</u>									
Yankee Reservoir	12M11	8700	4/24	10	4.7	3.8	---	---	1
Ed Ward Flat	12M12	8300	4/24	0	0.0	0.0	---	---	1
<u>COAL CREEK</u>									
Cedar Breaks*	12M1	10390	4/30	43.0	17.3	12.9	18.5	---**	4
Midway Valley*	12M2	9400	4/30	42	17.4	14.2	20.6	---	2
Webster Flat*	12M3	9200	4/30	8	3.3	7.0	7.0	---**	4
Urie Flat	12M10	8450	4/30	0	0.0	0.0	---	---	1
<u>COLORADO RIVER DRAINAGE</u>									
<u>UPPER GREEN RIVER</u> <u>in Utah</u>									
Kings Cabin (upper)	9J1	8800	4/26	18	6.6	4.1	3.1	---**	4
Kings Cabin (lower)	9J2	8600	4/26	10	3.5	1.0	1.3	---**	4
<u>DUCHESNE RIVER</u>									
Trial Lake*	10J8	9800	4/26	80	37.5	27.0	21.8	---**	8
Soapstone R.S.*	11J25	7800	4/26	Patchy		6.7	0.0	---**	6
Daniels-Strawberry Summit*	11J23	8000	4/30	0	0.0	8.3	0.0	---**	4
Indian Canyon	10K1	9100	4/30	14	5.3	---	---	---**	1
Rock Creek	10J18	7900	4/24	0	0.0	---	---	---	0
Lakefork Mountain	10J10	10500	4/28	40	13.1	11.8	8.8	---**	4
Lakefork Mountain #2	10J11	8900	4/28	0	0.0	3.8	0.0	---	2
Lakefork Mountain #3	10J12	8100	4/28	0	0.0	0.0	0.0	---	2
Jackson Park	10J19	11300	4/25	49	17.2	---	---	---	0
Paradise Park	9J3	10500	4/27	39	14.2	10.0	12.5	---	2
Mosby Mountain (lower)	9J5	9500	4/27	30	10.5	9.0	8.9	---	2

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 years in period.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	Date of Survey	SNOW COVER MEASUREMENTS					Previous 1938-52 Yrs. of Average Record
				1956		: Past Record			
				Snow Depth (In.)	Water Content: (In.)	Water Content: (In.)	1955	1954	
<u>PRICE RIVER</u>									
Huntington-Horseshoe	11K5	9800	4/27	42	17.6	20.4	14.5	--	5
Gooseberry Reservoir	11K4	8700	4/27	28	12.5	14.6	5.1	--	8
Mud Creek	11K6	8250	4/27	0	0.0	--	--	--	0
White River #1	10K2	8600	4/27	21	9.4	--	--	--	0
White River #2	11K24	7600	4/27	0	0.0	--	--	--	0
White River #3	11K25	7400	4/27	0	0.0	--	--	--	0
Indian Canyon*	10K1	9100	4/30	14	5.3	--	--	--	1
<u>SAN RAFAEL RIVER</u>									
Huntington-Horseshoe	11K5	9800	4/27	42	17.6	20.4	14.5	--	5
Gooseberry Reservoir*	11K4	8700	4/27	28	12.5	14.6	5.1	--	8
Switchback	11K26	8600	4/27	19	8.1	11.6	--	--	1
Stuart R.S.	11K27	7950	4/27	0	0.0	0.0	--	--	1
Red Pine Ridge	11K28	9400	5/1	18	7.2	11.8	--	--	1
Seeley Creek R.S. #2	11K9	10000	4/30	34	12.1	8.3	6.6	---**	3
Buck Flat	11K31	9400	5/2	32	12.6	--	--	--	0
Rush Pond	11K38	9800	5/2	22	8.7	--	--	--	0
Wrigley Creek	11K32	9000	5/2	0	0.0	3.2	--	--	1
<u>MUDDY RIVER</u>									
Mt. Baldy R.S.*	11K12	9500	4/26	52	21.6	20.8	13.7	--	3
<u>FREMONT RIVER</u>									
Farnsworth Lake*	11L1	9900	4/25	45	16.7	19.2	9.8	--	3
Fish Lake	11L3	8700	4/23		Patchy	--	--	--	0
Johnson Valley	11L6	8850	4/23		Patchy	--	--	--	0
Black's Flat- U.M. Creek	11L4	9250	4/23	19	7.1	--	--	--	0
<u>ESCALANTE RIVER</u>									
Widtsoe-Escalante Summit	11M1	9500	4/26	0	0.0	1.5	0.0	--	3
Widtsoe-Escalante #2*	11M2	9500	4/26	9	2.9	5.8	0.0	--	3
<u>VIRGIN RIVER</u>									
Harris Flat R.S.*	12M5	7700	4/26	0	0.0	0.0	0.0	--	4
Duck Creek R.S.*	12M4	8560	4/26	0	0.0	2.0	1.6	---**	5
Midway Valley*	12M2	9400	4/30	42	17.4	14.2	20.6	--	2
Cedar Breaks*	12M1	10390	4/30	43	17.3	12.9	18.5	---**	4
Webster Flat	12M3	9200	4/30	8	3.3	7.0	7.0	---**	4

\*Adjacent drainage.

\*\*Less than 15-year average. No value shown when less than 8 years in period.

APRIL PRECIPITATION DATA  
(Measured at or near snow courses)<sup>(1)</sup>

DRAINAGE BASIN and RAINGAGE LOCATION	April Precipitation from Date of April 1 Snow Survey to Approximately May 1						
	Date of	Precip-	Past Record				Ave. for re-
Elev.	1956	1956	1955	1954	Record	cord	Period

GREAT BASIN DRAINAGE

Bear River above  
Harer, Idaho

Trial Lake*	9800	4/26	2.50	3.05	1.50	4	2.56
-------------	------	------	------	------	------	---	------

Bear River below  
Harer, Idaho

Willow Flat	6100	4/30	1.80	--	--	0	--
Klondike Narrows	7400	4/26	2.15	3.70	--	1	3.70
Dry Bread Pond	8230	4/27	0.60	2.20	2.70	3	2.68

Ogden River

Dry Bread Pond	8230	4/27	0.60	2.20	2.70	3	2.68
Sagebrush Flat	6300	4/30	1.30	--	--	0	--
Ben Lomond (lower)	6000	4/30	1.60	4.50	--	1	4.50

Weber River

Trial Lake*	9800	4/26	2.50	3.05	1.50	4	2.56
Smith & Morehouse	7600	4/30	1.80	2.90	--	1	2.90
Chalk Creek #2	8200	4/27	1.20	2.45	1.05	3	2.20
Silver Lake (Brighton) (2)*	8725	4/30	3.92	3.29	2.29	25**	3.80
Parley's Canyon Summit	7500	4/30	2.80	4.40	--	3	4.77
Mt. Dell Dam (2)*	5500	4/30	1.80	2.59	2.50	21**	2.69

Provo River and  
Utah Lake

Trial Lake	9800	4/26	2.50	3.05	1.50	4	2.56
Soapstone R.S.	7800	4/30	2.00	2.50	--	1	2.50
Daniels-Strawberry Summit	8000	4/30	2.10	1.45	--	1	1.45
East Portal (3)	7560	No Report	--	--	1.25	8	2.10
Hobble Creek Summit	7300	4/30	2.70	0.70	--	1	0.70
Clear Creek Ridge #2	8000	4/25	1.20	--	--	0	--
Payson Ranger Station	8050	4/24	2.80	2.60	--	1	2.60
Timpanogas Divide (3)	8200	5/1	3.05	2.48	2.65	17	3.65
Dutchman R.S.	7500	5/1	2.90	--	--	0	--

- (1) Precipitation from non-recording raingages located on or near snow courses and measured monthly, except that supplied by U.S. Weather Bureau, which was measured daily, as noted.
- (2) Data measured daily & supplied by U.S. Weather Bureau. Mt. Dell Dam data figured from date of Lamb's Canyon snow survey.
- (3) Data measured monthly, supplied by U.S. Weather Bureau.
- \*Adjacent Drainage.                      \*\*Period of Snow Surveys.

APRIL PRECIPITATION DATA  
(Measured at or near snow courses) (1)

DRAINAGE BASIN and DRAINAGE LOCATION	April Precipitation from Date of April 1 Snow Survey to Approximately May 1							
	Date of	Precip-	Past Record					Ave. for re-
Elev.	1956	1956	1955	1954	Record	cord Period		

GREAT BASIN DRAINAGE

Jordan River and  
Great Salt Lake

Silver Lake (Brighton) (2)	8725	4/30	3.92	3.29	2.29	25**	3.80
Mt. Dell Dam (2)	5500	4/30	1.80	2.59	2.50	21**	2.69
Parley's Canyon Summit	7500	4/30	2.80	4.40	--	3	4.77
Farmington Rice (3)	7000	5/1	3.32	5.88	2.20	16	4.89
Farmington Flats (3)	7500	5/1	2.96	5.70	3.07	3	5.26

Sevier River above  
Richfield

Webster Flat*	9200	4/30	2.70	1.40	1.10	4	2.15
Duck Creek R.S.	8560	4/30	1.70	1.00	1.00	3	1.47
Widtsoe-Escalante #2	9500	4/26	1.90	--	--	0	--
Box Creek	9800	4/30	2.00	--	--	0	--

Sevier River below Richfield  
(including San Pitch River)

Farnsworth Lake	9900	4/25	2.00	--	--	0	--
Gooseberry Reservoir	8700	4/27	1.80	2.10	1.60	2	1.85
G.B.R.C. Meadows (3)	10000	4/30	3.91	3.49	1.59	20	3.51
G.B.R.C. Headquarters (3)	8700	4/30	4.00	3.67	1.26	25**	3.35
G.B.R.C. Oaks (3)	7655	4/30	2.95	2.17	0.95	30	1.96
Beaver Dams	8000	4/26	1.60	--	--	0	--

Coal Creek

Webster Flat	9200	4/30	2.70	1.40	1.10	4	2.15
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- (1) Precipitation from non-recording raingages located on or near snow courses and measured monthly, except that supplied by U.S. Weather Bureau, which was measured daily, as noted.
  - (2) Data measured daily and supplied by U.S. Weather Bureau. Mt. Dell Dam data figured from date of Lamb's Canyon snow survey.
  - (3) Data supplied by U.S. Forest Service.
- \*Adjacent Drainage.

APRIL PRECIPITATION DATA  
(Measured at or near snow courses)(1)

DRAINAGE BASIN and RAINGAGE LOCATION	April Precipitation from Date of April 1 Snow Survey to Approximately May 1							
	Elev.	Date of	Precip- itation	Past Record			Years	Ave. for re- cord Period
	: 1956	: 1956	: 1955	: 1954	: Record	: Record	: Record	: Record

COLORADO RIVER DRAINAGE

Upper Green River

King's Cabin (upper)	8800	4/26	1.35	1.75	1.80	4	1.74
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Duchesne River

Trial Lake*	9800	4/26	2.50	3.05	1.50	4	2.56
Soapstone R., S.*	7800	4/30	2.00	2.50	--	1	2.50
Daniels-Strawberry Summit*	8000	4/30	2.10	1.45	--	1	1.45
East Portal*	7560	No Report	--	1.25	--	8	2.10
Rock Creek	7900	4/24	1.65	--	--	0	--
Moon Lake	8150	4/30	1.60	0.10	0.94	20	1.27
Lakefork Mountain	10500	4/28	2.50	0.20	1.20	2	0.70
Paradise Park	10500	4/27	1.50	1.00	--	1	1.00

Price River

Gooseberry Reservoir	8700	4/27	1.80	2.10	1.60	2	1.85
Clear Creek (2)	8300	4/30	1.40	0.92	--	19	1.91

San Rafael

Gooseberry Reservoir*	8700	4/27	1.80	2.10	1.60	2	1.85
Stuart Ranger Station(4)	7950	4/27	0.65	0.50	--	1	0.50
Red Pine Ridge	9400	5/1	2.20	4.75	--	1	4.75
G.B.R.C. Meadows* (3)	10000	4/30	3.91	3.49	1.59	20	3.51
Buck Flat	9400	5/2	1.90	--	--	0	--

Fremont River

Farnsworth Lake	9900	4/25	2.00	--	--	0	--
Black's Flat- U. M. Creek	9250	4/23	1.10	--	--	0	--

- (1) Precipitation from non-recording raingages located on or near snow courses and measured monthly, except that supplied by U.S. Weather Bureau, which was measured daily as noted.
- (2) Data measured daily and supplied by U.S. Weather Bureau. Mt. Dell Dam data figured from date of Lamb's Canyon snow survey.
- (3) Data supplied by U.S. Forest Service.
- (4) Precipitation between 4/4 and 4/27. Storms between 3/29 and 4/4 were missed.  
\*Adjacent Drainage.

APRIL PRECIPITATION DATA  
 (Measured at or near snow courses)(1)

DRAINAGE BASIN and RAINGAGE LOCATION	Flev.	Date of Reading :	Precip- itation :	1956	1955	1954	Years Record :	Ave. for re- cord Period

COLORADO RIVER DRAINAGE

Escalante River

Widtsoe-Escalante #2	9500	4/26	1.90	--	--	0	--
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Virgin River

Duck Creek R.S.	8560	4/30	1.70	1.00	1.00	3	1.47
Webster Flat	9200	4/30	2.70	1.40	1.10	4	2.15

(1) Precipitation from non-recording raingages located on or near snow courses and measured monthly, except that supplied by U.S. Weather Bureau, which was measured daily, as noted.



AGENCIES COOPERATING IN UTAH SNOW SURVEYS

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U. S. Government Agencies

U. S. Department of Agriculture  
Soil Conservation Service  
Forest Service

U. S. Department of Commerce  
Weather Bureau

U. S. Department of the Interior  
Geological Survey  
National Park Service

State of Utah

Utah Agricultural Experiment Station  
Utah State Engineer  
Little Bear River Commissioner  
Price River Commissioner  
Provo River Commissioner  
Sevier River Commissioner  
Spanish Fork River Commissioner  
Weber River Commissioner

Municipalities or Quasi-Municipalities

Salt Lake City Corporation

Organized Public Agencies

Beaver River Water-Users Association  
Board of Canal Presidents - Jordan River  
Emery Canal and Reservoir Company  
Moon Lake Water-Users Association  
Ogden River Water-Users Association  
Strawberry Water-Users Association  
Sevier River Water-Users Association  
Provo River Water-Users Association

Private Agencies

Kaiser Steel Corporation