



*"Western Treasure -- Deep, Wet Snow"*

FEDERAL-STATE COOPERATIVE  
SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for  
**UTAH**

APRIL 1, 1948

by

Division of Irrigation, Soil Conservation Service  
United States Department of Agriculture

and

**Utah Agricultural Experiment Station**

in cooperation with

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

U. S. National Park Service  
State Engineer of Utah

State and Local Irrigation Organizations

FEDERAL-STATE COOPERATIVE  
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FOR

UTAH

Report Prepared

by

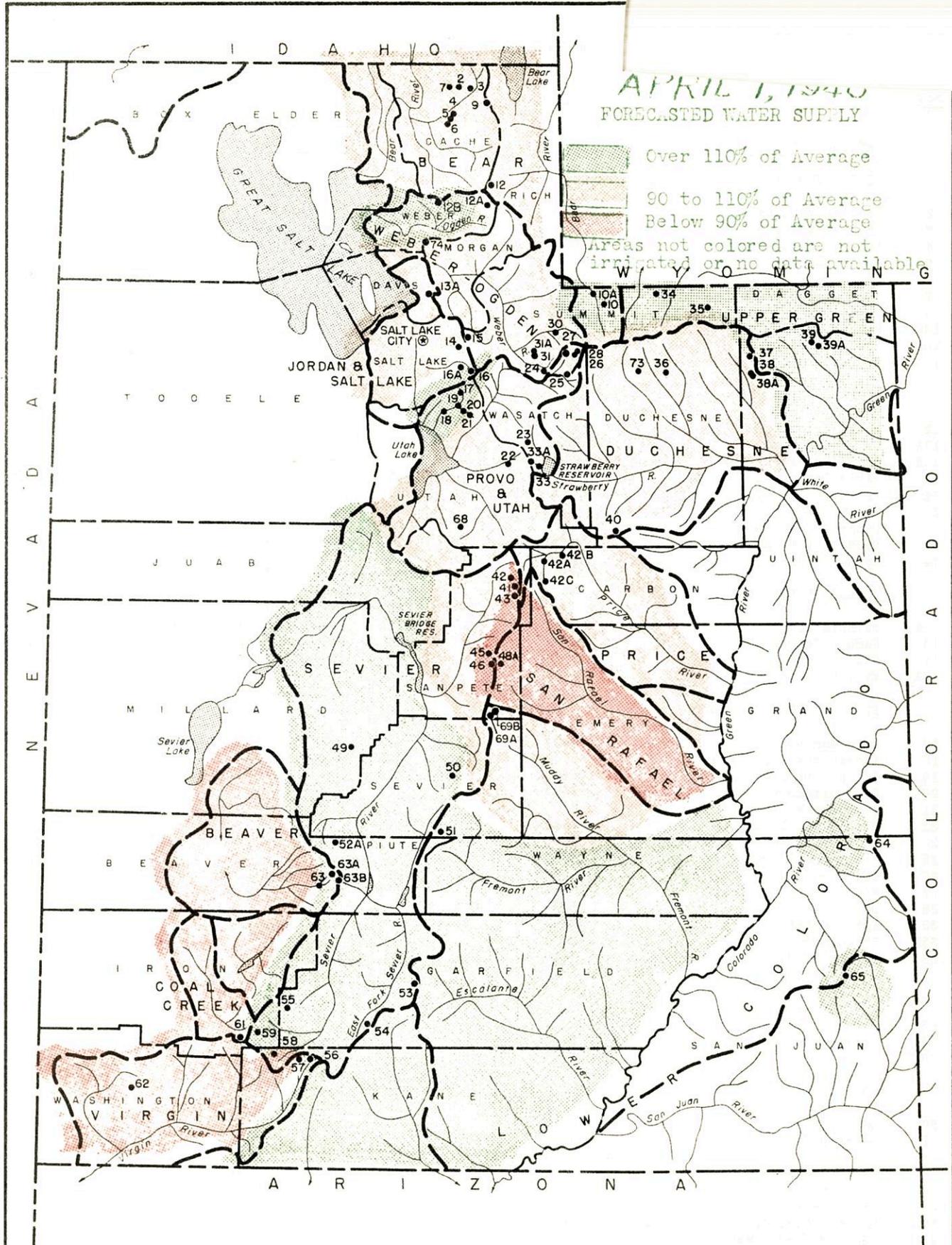
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Division of Irrigation  
U. S. Soil Conservation Service  
and  
Utah Agricultural Experiment Station  
Logan, Utah

Mimeographed Series No. 345 - Utah Agricultural Experiment Station

APRIL 1, 1940  
FORECASTED WATER SUPPLY

Over 110% of Average  
 90 to 110% of Average  
 Below 90% of Average  
 Areas not colored are not irrigated or no data available



### UTAH SNOW COURSES

FEBRUARY, 1947



WATER SUPPLY FORECAST FOR UTAH, 1948

Water supplies in Utah will be sufficient to meet the demands of the irrigators over practically the entire state during the coming season; no deficiencies of serious magnitude are expected in any area. Reservoirs of the state are in excellent condition with total storage for the state amounting to 75 per cent of capacity. Some damage to irrigation systems and farm lands will result from peak floods over most of the state during April.

SUMMARY OF WATER OUTLOOK FOR 1948

The mountain watersheds of the state of Utah enter the melting season in excellent condition with adequate supplies assured for practically all areas of the state. Late summer flows for most streams of the state should hold up fairly well, but will be a smaller proportion of the total runoff because of the high peak flows expected early in the season. Flood danger will come during the month of April in most areas and will be attributed to the melting of the late-winter accumulation of snow at low elevations. Considerable flood damage may be sustained by irrigators and land owners since this snow will melt rapidly under the warm spring sun.

Watershed soils are all in excellent condition under the snow pack since a heavy rainfall covered most of the state during the fall just prior to the beginning of accumulation of snow. This will make possible a high percentage of yield from the snow pack on the mountain watersheds when melting does occur.

Reservoirs of the state are in the best condition for many years with total storage reaching a new high of 75 per cent of capacity as of the first of April. All of the major reservoirs of the state will fill with the exception of Scofield Reservoir which has been recently enlarged and which will probably fill to 80 per cent of capacity, Utah Lake which is spilling water at the present time to prevent damage to surrounding areas, and Bear Lake and Strawberry Reservoir which have sufficient storage for several seasons.

A prospective deficiency on Beaver River, Virgin River, and Coal Creek which appeared in evidence on the first of March has been partially erased by heavy accumulation of snow during the month of March. Supplies in this area are expected to range between 80 and 90 per cent of average and represent the only areas where deficiencies might occur.

Table I  
STREAMFLOW FORECASTS - APRIL 1, 1948

Basin & Stream	April-Sept. Streamflow in 1000's Acre Feet					July-Sept. Streamflow in 1000's Acre Feet				
	Forecast 1948	Measured Runoff			10-Year Average 1937-46	Forecast 1948	Measured Runoff			10-Year Average 1937-46
		1947	1946	1945			1947	1946	1945	
		<u>G R E A T B A S I N D R A I N A G E</u>								
<u>Bear River System</u>										
Bear River at Harer, Idaho	210.0	325.0	311.4	210.9	219.1	40.0	78.4	45.8	76.9	44.9
Blacksmith Fork River near Hyrum, Utah	46.0	46.4	68.6	48.2	43.9	14.5	17.2	23.9	16	15.1
Little Bear near Paradise, Utah	32.0	30.8	54.4	51.5	-----	3.6	4.2	5.0	5.3	-----
Logan River near Logan, Utah	120.0	125.2	168.4	122.9	114.5	36.0	38.8	47.9	48.8	37.3
<u>Weber-Ogden Rivers</u>										
South Fork of Ogden River near Huntsville	60.0	49.2	77.7	63.7	52.7	8.0	9.2	8.9	10.2	7.6
Weber River at Oakley	110.0	133.3	121.6	110.3	112.8	19.0	26.3	19.3	29.7	20.8
<u>Jordan River &amp; Salt Lake</u>										
Big Cottonwood Creek near Salt Lake City	38.0	43.1	38.2	38.6	36.3	8.0	11.1	7.2	11.9	7.9

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Streamflow Forecasts - April 1, 1948

Basin & Stream	April-Sept. Streamflow in 1000's Acre Feet					July-Sept. Streamflow in 1000's Acre Ft.				
	Forecast 1948	Measured Runoff				Forecast 1948	Measured Runoff			
		1947	1946	1945	10-Year Average 1937-46		1947	1946	1945	10-Year Average 1937-46
<u>Provo River &amp; Utah Lake</u>										
American Fork River above Power Plant	38.0		32.3	41.1	32.5	9.5		6.1	13.4	7.9
Provo River below Forks <sup>xx</sup>	140.0	163.4	140.0	163.8	142.3	34.0	43.0	33.1	52.0	40.7
<u>Sevier River</u>										
Sevier River at Hatch	75.0	64.8	32.0	60.6	----	18.0	16.4	10.3	19.1	----
Sevier River at Kingston	60.0	40.5	15.8	37.4	53.2	9.0	7.3	2.5	9.5	9.6
<u>Beaver River</u>										
Beaver River at Beaver	30.0	42.1	22.6	34.4	35.0	6.0	9.8	5.0	9.4	7.4
<u>Coal Creek</u>										
Coal Creek near Cedar City	19.0	21.0	8.4	20.4	22.2	3.2	2.8	2.2	3.9	3.4

<sup>xx</sup> Corrected for storage and Weber Diversion

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## Streamflow Forecasts - April 1, 1948

Basin & Stream	April-Sept. Streamflow in 1000's Acre Feet					July-Sept. Streamflow in 1000's Acre Feet					
	Forecast 1948	Measured Runoff				Forecast 1948	Measured Runoff				
		1947	1946	1945	10-Year Average 1937-46		1947	1946	1945	10-Year Average 1937-46	
		<u>C O L O R A D O R I V E R B A S I N</u>									
<u>Upper Green River</u>											
Ashley Creek near Vernal	70.0	78.7	36.1	52.6	59.6	19.0	23.0	12.1	20.5	17.8	
<u>Duchesne River</u>											
Duchesne River at Tabiona	100.0	136.0	101.9	106.0	107.4	20.0	31.8	17.8	30.3	23.0	
Lakefork River below Moon Lake <sup>x</sup>	80.0	91.3	60.8	74.9	-----	23.0	26.3	15.4	30.2	-----	
Uinta River near Neola	110.0	129.5	65.3	96.5	108.6	45.0	49.9	25.8	46.4	44.1	
Whiterocks at Whiterocks	75.0	93.5	40.9	64.2	69.8	24.0	31.1	14.3	25.4	22.4	
Strawberry at Duchesne	72.0	66.3	51.6	56.6	70.4	14.0	14.0	11.6	18.9	16.5	
<u>Price River</u>											
Price River near Heiner <sup>x</sup>	65.0	62.7	36.0	57.8	64.6	7.0	6.0	3.8	7.1	9.0	
<u>San Rafael River</u>											
Cottonwood Creek at Orangeville, Utah	54.0	60.4	45.5	95.2	64.4	9.0	13.2	7.4	13.3	10.4	
Huntington Creek at Huntington	50.0	56.7	46.5	53.7	58.0	12.5	17.5	12.4	17.6	14.9	

<sup>x</sup>Corrected for storage

Table I - Page 4  
Streamflow forecasts - April 1, 1948

Basin & Stream	April-Sept. Streamflow in 1000's Acre Feet					July-Sept. Streamflow in 1000's Acre Ft.				
	Forecast 1948	Measured Runoff				Forecast 1948	Measured Runoff			
		1947	1946	1945	10-Year Average 1937-46		1947	1946	1945	10-Year Average 1937-46
<u>Virgin River</u>										
Santa Clara near Central	6.5	8.1	2.3	8.2	----	1.4	1.8	0.7	2.3	----
Virgin River near Virgin	75.0	56.7	36.0	69.3	93.4					

DETAILS OF WATER FORECAST BY DRAINAGES

Detailed discussions of water supply for each area of the state covered by the Utah Cooperative snow surveys are listed below. The discussions are grouped by drainage basins.

BEAR RIVER DRAINAGE

Bear River at Harer:

Snow surveys on the Bear River system show an approximately normal water supply in prospect for the drainage above Harer, Idaho. At Goodman Ranch on March 29 a water content of 4.2 inches of water was measured compared with 3.2 inches last year and a ten-year average of 4.0 inches. At the head of the Bear River course at 8600 feet elevation 6.6 inches of water were found compared with 8.4 inches in 1947 and a thirteen-year average of 7.7. At Lost Lake near Mt. Baldy at the head of the Bear River the snow survey made on April 2 indicated a water content of 19.7 inches of water compared with a 15-year average of 22.3. The snow course at Garden City Summit at 8200 feet elevation showed a water content on March 20 of 15.4 inches compared with 16 inches last year and a 17-year average of 17.8. At the Monte Cristo Ranger Station near the Bear Lake-Ogden River Divide, measurements on March 29 showed a water content of 22.0 inches compared with 24.0 inches last year and a 15-year average of 22.2 inches. A substantial amount of the total April first accumulation was deposited during the month of March over much of the Bear River drainage. This means that the low elevation area feeding the Bear River has a blanket of new snow on it and this will increase the possibility of flash floods during the early spring season.

The average runoff of the Bear River at Harer over the 10-year period 1937-46 is 219,100 acre feet during the April-September period and 14,900 acre feet during the July-September period. The runoff during the past two seasons has been considerably greater than has been anticipated at the time of the annual snow survey because of the extremely wet conditions after the snow surveys were made which contributed large amounts of water to the Bear River drainage.

Based upon the snow surveys at the present time it is expected that the runoff for the Bear River at Harer will be approximately 210,000 acre feet and 40,000 acre feet during the April-September and July-September periods respectively. This forecast is, of course, based upon the supposition that normal precipitation will occur during the runoff period. If runoff materializes as anticipated, it will be slightly below the 10-year average for both the April-September and the July-September periods.

Bear River at Stewart Dam:

The flow of the Bear River at Stewart Dam is somewhat of an index of the water available for storage in Bear Lake. During the past year, there have been 358,900 acre feet of water available at Stewart Dam and roughly 125,000 acre feet of water available from tributary streams draining directly into Bear Lake. The maximum elevation of Bear Lake at the end of any month during the past year was on June 30 when the Lake was at an elevation of 5921.2 having risen from 5918.0 on April 1. By March 31 of this year, the Lake level was at 5918.6 showing a net gain for the year of 0.6 of a foot in elevation representing a net storage gain of approximately 42,000 acre feet. It is rather difficult to predict the maximum elevation to which the Lake will rise because it is not entirely dependent upon natural phenomena but is subject to a fluctuating demand on the storage brought about by variation in the power demand. During the coming year, the inflow available at Bear Lake will probably be as high as was available last year and this could cause as much as a three-foot rise in the Lake level before the heavy demand on storage is made. If a three-foot rise is realized, the maximum elevation could go as high as about 5922.0 feet.

Bear River below Bear Lake:

Snow surveys are made above Grace, Idaho, and below Bear Lake at Emigration Summit and at Slug Creek Divide. Measurement of these courses near April 1 showed water contents of 21.6 and 13.3 inches respectively. These figures are slightly below the average for a 12-year record and slightly higher than in 1947.

Logan River:

The runoff during 1947 of the Logan River near the Utah Power & Light Station was slightly higher again during 1947 than had been anticipated at the time the snow surveys were made. This was due to the heavy precipitation during the summer months, which increased the streamflow at most of the stations in northern Utah.

Snow surveys on the Logan River watershed this season indicate a normal water prospect during the coming summer. Some of the stations indicate supplies slightly less than the average while others are slightly above average with the overall picture being one of adequate water supply during the coming season. There is some danger of flash floods causing damage to irrigation structures and farm lands during the spring runoff period. This is due to the fact that late snow storms during March have deposited a considerable amount of snow at lower elevations which will runoff all at once at the first sign of warm weather. Snow surveys at Franklin Basin on March 26 showed a water content of 26.5 inches compared with 23.3 at the same time last year and a 24-year average of 25.2 inches. At the Spring Hollow and Mt. Logan courses the supplies are slightly below the long-time average with 13.9, 22.0, and 26.4 inches of water at

7,000, 8,000 and 9,000 feet respectively. These figures compare with 9.9, 18.8 and 21.0 inches last year and 23-year averages of 13.8, 25.6 and 27.7 inches. At Garden City Summit the snow registered a water content of 15.4 inches compared with 16 inches last year and an average of 17.8 inches over the 17-year period of record.

It is expected that the snow in storage on the Logan River watershed will bring a runoff of approximately 120,000 acre feet during the April-September period with 36,000 running off during July-September. The 10-year average runoff at this station for the 1937-46 period is 114,500 acre feet and 37,300 acre feet during the April-September and July-September period respectively.

#### Blacksmith Fork River:

Snow surveys reflecting the water conditions on the Blacksmith Fork River drainage are made at three stations on the rim of the Blacksmith Fork drainage. At Mt. Logan, Garden City Summit and Monte Cristo Ranger Station. Snow surveys this season at these stations show a prospective water supply for the Blacksmith Fork River of approximately normal magnitude. At Mt. Logan, the water content of the snow on March 30 was 26.4 inches compared with 21 inches last year and a 24-year average of 27.7 inches. At Garden City Summit the snow registered a water content of 15.4 inches on March 29 compared with 16 inches last year and 17.8 inches over the 17-year period of record. At the Monte Cristo Ranger Station on March 29 there was a water content of 22 inches compared with 24 inches last year and a 15-year average of 22.2 inches.

The average runoff at the Blacksmith Fork River station near Hyrum for the 10-year period 1937-46 is 43,900, acre feet during April-September and 15,100 during July-September. Last year there were 46,400 and 17,200 acre feet running off during the April-September and July-September periods respectively. It is anticipated that, based on the snow in storage on this watershed, the runoff during the coming season will be about 46,000 acre feet and 14,500 acre feet during the April-September and July-September periods respectively. This, of course, is based on the supposition that normal precipitation will occur during the melting season.

#### Little Bear River:

The snow course at the Monte Cristo Ranger Station furnishes an index of the water supply for the Little Bear River. The water content at this course on March 29 was 22.0 inches compared with 24 inches last year, and a 22.2 inch average for the 15-year period. Although the water content at the Monte Cristo snow course is slightly less than last year, the snow cover at lower elevations on the Little Bear River watershed is considerably greater than it was a year ago and this is expected to result in a water supply for the summer months of slightly more than last year except during late season when the water supply will be slightly less than a year ago.

Stream flow at the Paradise gaging station last year amounted to 30,800 acre feet and 4,200 acre feet during the April-September and July-September periods respectively. It is expected that approximately 32,000 at 3,600 acre feet ran off during these same periods this year. At the present time the Hyrum Reservoir is about half full with 7,400 acre feet of available storage on April 1. The water supply from the Little Bear River during the coming season is expected to be more than sufficient to fill the Hyrum Reservoir to capacity.

Cub River, Maple Creek, High Creek and Summit Creek:

Snow courses at Franklin Basin, Emigration Summit and Smithfield Spring furnish an index for the runoff from these small streams in Northern Cache Valley. The total runoff from these streams should be slightly greater than last year both during the early-season and late-summer months. It is expected that some damage may result to irrigation systems and farm lands due to high water during the spring melting season. There is a considerable amount of new snow at low elevations on these water-sheds which will melt with the first warm weather.

Providence and Millville Creeks:

The runoff from these watersheds is reflected in the measurement of snow on the Mt. Logan snow course. The snow cover at Mt. Logan this year is slightly greater than it was a year ago, but slightly below the average for the past 24 years. This, coupled with the fact that the low elevation snow has not melted this season will cause a runoff approximately 20% greater than in 1947, with some damage from high flood flows during the next 30 days. Late-season runoff should hold fairly well and total supplies should be normal during the coming season.

WEBER-OGDEN RIVER DRAINAGE

Ogden River:

Although the snow cover at the Monte Cristo snow course is only equal to the average for the period of record, it is expected that the runoff from this drainage will be slightly greater than a year ago and about a 15% above the normal for the past ten years. This is due to the fact that there is a considerable amount of snow at the lower elevation which has not as yet melted and which will contribute to the summer flow from this watershed.

A new snow course has been established near Snow Basin to replace the one eliminated by the ski run in this area. The new course is located at the base of Mt. Ogden at an elevation of 8600 feet. Measurements are reported herein, although there are no measurements with which to make comparisons at this location.

The average runoff for the South Fork of the Ogden River near Huntsville during the ten year period, 1937-46, is 52,700 acre feet at 7,600 acre feet during the April-September and July-September period respectively. The runoff last year was 49,200 acre feet and 9,200 acre feet during the same periods and it is anticipated during the coming season the runoff will approximate 60,000 and 8,000 acre feet respectively during the April-September and July-September periods.

The Pine View Reservoir is at the lowest level for several years with 1500 acre feet in storage on April 1. However, the runoff from the Ogden River above the Pine View Reservoir is expected to be ample to fill the reservoir to capacity before the irrigation season is advanced.

#### Weber River:

The prospective water supply from the Weber River is largely dependent upon the snow cover on the upper regions of the Weber River drainage and is reflected in the snow courses at Parley's Canyon Summit, Beaver Creek Ranger Station, Smith and Morehouse, and Redden Mine. Snow surveys at these courses indicate supplies slightly better than a year ago and generally about equal to average except at the lower elevation stations where the average is exceeded this season.

The average runoff of the Weber River at Oakley during the past 10 years has been 112,800 acre feet and 20,800 acre feet during the April-September and the July-September periods respectively. Runoff during the coming season will be very little different from this average provided normal conditions occur during the melting season and will be somewhat less than the runoff last year. It is expected that 110,000 acre feet will runoff during the April-September period with 19,000 acre feet occurring during the July-September period.

Storage in the East Canyon Reservoir on April 1 amounted to 24,100 acre feet or approximately 78 per cent of capacity. It is expected that supplies will be sufficient to fill this reservoir to capacity. At Echo Reservoir the storage on April 1 was 38,900 acre feet compared with 55,300 acre feet a year ago and a total available capacity of 73,900 acre feet. It is believed there will be sufficient water to fill the Echo Reservoir to capacity during the coming season because of the high peak flows which will occur when the low elevation snow is melted, and because of the lateness of the irrigation season this year.

### JORDAN RIVER AND SALT LAKE DRAINAGE

#### Salt Lake Watersheds:

The streams draining directly into Salt Lake from Farmington on the north to Murray on the south will all be subject to high

peak flows during the coming melting season. This is due to the heavy accumulation of snow during the late winter months which has not as yet melted and which will melt and runoff at the first sign of warm weather. Runoff from these streams should hold up fairly well through the late season for irrigation. At Barnard Creek above Farmington, the measurement of snow on March 31 showed a water content of 28.4 inches compared with 22.8 inches a year ago and a 12-year average of 26.8 inches. At Lambs Canyon on Parley's Creek the snow surveys on March 29 showed a water content of 15.4 inches compared with 13.2 inches a year ago and a 13-year average of 14.8 inches.

#### Big Cottonwood Creek:

On Big Cottonwood Creek there are two snow courses, one at Silver Lake and one at Mill D South Fork. Measurement of these courses on March 31 showed water contents higher than the average for the period of record and also higher than in 1947. This indicates a supply for the coming season which will be slightly greater than the average for the past ten years, and should be ample to meet the demands of water users in this area.

The average runoff of Big Cottonwood Creek near Salt Lake City for the past ten years has been 36,300 acre feet during April-September and 7,900 acre feet during July-September. The runoff during the coming season is expected to be about 38,000 acre feet and 8,000 acre feet during the April-September and July-September period respectively.

### PROVO RIVER AND UTAH LAKE DRAINAGE

#### Provo River:

Snow surveys on the Provo River indicate a stored water content of slightly less than average at the higher elevations and slightly above or equal to average at the lower elevations. This will result in a runoff from Provo River of near normal for the total runoff period from April through September, but will result in slightly sub-normal conditions for the July-September period. At Trial Lake the water content is 22.7 inches compared with 25.8 inches in 1947 and a 17-year average of 24.3. At Washington-Long Lake the water is 25.4 inches compared with a 15-year average of 28.1. At Lost Lake the water content of 19.7 inches compares with a 15-year average of 22.3. At Soapstone Ranger Station a water content of 10.2 inches of water was measured on April 2 compared with 12.0 inches last year. The 17-year average at this station is 10.6 inches. On the Timpanogas Divide between American Fork and Provo Rivers the snow surveys on March 27 showed 25.5 inches of water compared with 23.6 last year and a 13-year average of 23.3. On Daniels Creek at the Daniels Strawberry Summit snow course the water content was measured at 14.3 inches compared with a measurement last year of 12.5 and an 18-year average of 13.6 inches.

The average runoff of the Provo River for the past ten years during the April-September period is 142,300 acre feet while the average July-September runoff for the same period is 40,700 acre feet. On the basis of snow surveys made this season it is expected that the water supply during the coming season will be approximately 140,000 acre feet and 34,000 acre feet during the April-September and the July-September periods respectively. In 1947 there were 163,400 and 43,000 acre feet running off during these same periods.

Storage in the Deer Creek Reservoir on the Provo River stands at a high level with 87 per cent of capacity on April 1 when 127,600 acre feet were recorded in storage. There will be more than sufficient water on the Provo River to fill Deer Creek Reservoir to capacity this season.

#### American Fork River:

Snow surveys on the American Fork River made this spring show accumulations of snow storage at a slightly higher level than the storage of last year. At Timpanogas Cave Camp there was no snow a year ago while this year 3.5 inches of water were measured there. At South Fork Ranger Station there were only small patches of snow at this time last year but this year 10.4 inches of water were recorded. At camp Altamount 18.4 inches of water were measured compared with 12.8 inches a year ago and a 13-year average of 16.4, while on the Timpanogas Divide 25.5 inches of water were measured against 23.6 inches last year and 23.3 for a 13-year average figure. On the North Fork at the Dutchman Ranger Station 19.2 inches of water were measured on March 31 as against 14.9 inches a year ago and a 17-year average of 17.0 inches.

No figures are yet available on the amount of runoff on the American Fork River in 1947; however, it is believed that supplies will be greater than last year and that 38,000 acre feet will runoff during the April-September period with 9,500 acre feet occurring during July-September. The ten year average at this station is 32,500 acre feet and 7,900 acre feet during the April-September and July-September periods respectively.

#### Hobble, Payson, and Santaquin Creeks and Spanish Fork River:

The expected runoff from these water sheds is indicated by the snow cover at Hobble Creek Summit, the Strawberry Divide, Gooseberry Reservoir, and Payson Ranger Station snow courses. It is expected from the measurements made on these snow courses that the water supply during late season on these streams will be little different from last year; however, more high water will probably result because of the large amount of low elevation snow cover at present for this time of the year. At the time of this writing the Payson Ranger Station snow course has not yet been measured.

Strawberry Reservoir:

The snow cover on the drainage area surrounding Strawberry Reservoir is slightly better than a year ago, generally speaking. Only on Strawberry Divide above the tunnel is the water content of the snow lower than 1947 and this only a small amount. The yield of the snow draining directly into the Reservoir should be approximately 15 per cent greater than in 1947. The level of the Reservoir on April 1 this year was exactly the same as April 1 a year ago with 92,800 acre feet in storage. The Reservoir may sustain a slight rise between now and next year at this time, but this will, of course, be dependent upon the irrigation demand which is a function of the dryness of the coming irrigation season.

Utah Lake:

The storage in Utah Lake is at the highest April 1 level for many years with 758,800 acre feet in storage. This compares with a ten year average for the 1937-46 period of 428,300 acre feet and a usable capacity of 850,200 acre feet. At the present time water is being spilled from Utah Lake into Great Salt Lake. This spilling has been ordered by the Utah Lake Control Commission in order to take care of high water inflow during the coming melting season. It is likely that Utah Lake would have come up to comprise level had not the Commission ordered water to be spilled from the lake.

SEVIER RIVER SYSTEMSevier River Headwaters:

Supplies of water in storage on the Sevier watershed are slightly better than a year ago with a few high elevation stations recording amounts of water content less than were recorded in 1947. Snow courses east of Cedar Mountain show a somewhat greater water content than in 1947 with the exception of the Cedar Breaks snow course. At Gravel Springs Junction 2.7 inches of water were measured on March 24 compared with no snow a year ago, at Harris Flat Ranger Station 8.1 inches of water were measured on March 24 compared with no snow a year ago, and at Duck Creek Ranger Station 14.4 inches were measured compared with 13.4 last year and a 13-year average of 17.2. The snow course at Cedar Breaks recorded 21.2 inches of water compared with 36.3 in 1947 and a 13-year average of 26.1. At Big Flat Ranger Station near the Beaver-Sevier divide 16.8 inches of water were measured compared with 19.8 in 1947 and a 12-year average of 20.8. The Panguitch Lake snow course was measured on March 14 and showed 7.7 inches of water compared with 3.9 last year and a 21-year average of 5.0 inches. At Bryce Canyon on March 23 7.2 inches of water were measured compared with a 9-year average of 7.0. No snow was recorded at this station in 1947, on April 1. At Widtsoe-Esclanate Summit a total of 10.8 inches of water had been accumulated by March 31 compared with 8.0 inches in 1947 and a 16-year average of 8.6 inches.

Snow water content at Fish Lake for April 1 is somewhat above normal with 8.8 inches being recorded in March 31 compared with 4.3 inches last year and a 17-year average of 5.3 inches.

Both early and late season water supplies on the Sevier River Stations at Hatch and Kingston are expected to be better than in 1947. At the Hatch Station last year there were 64,800 acre feet and 16,400 acre feet running off in the April-September and July-September periods respectively. It is expected that the runoff at this station will be approximately 75,000 acre feet and 18,000 acre feet during the April-September and July-September periods, while at the Kingston Station the runoff is expected to be about 60,000 and 9,000 acre feet during these same periods compared with 40,500 acre feet and 7,300 acre feet in 1947 and ten year averages of 53,200 and 9,600 acre feet during the April-September and July-September periods respectively. It is apparent that peak flood flows will be considerably greater than a year ago with resulting damage to farm land and irrigation systems throughout the Sevier River area because of the low elevation snow cover which is late in melting.

The reservoirs of the Sevier River are in excellent condition at this time of year with storage at a high level. Otter Creek Reservoir is full, Piute is 83 per cent, and Sevier Bridge Reservoir is at better than 93 per cent of capacity. All of these reservoirs should easily be filled during the coming season.

#### Clear Creek:

Measurement of snow cover on the Clear water shed at Kimberly Mine shows a water content of 20.9 inches at the upper course compared with 13.4 inches a year ago and a 13-year average of 16.4 inches. At the lower course 16.8 inches were measured as against a 22-year average of 11.8 inches. Runoff from Clear Creek is expected to be considerably more than in 1947 with higher peak flows during the early melting season and water supplies holding up fairly well during the late summer period.

#### Salina Creek:

The water supply of Salina Creek is reflected in the measurement of snow at the Gooseberry Ranger Station. At this snow course on March 24 there were 14.4 inches of water compared with 7.6 inches a year ago and an 18-year average of 9.6. It is expected that supplies on this watershed will be considerably more than a year ago both during the peak flow period and during the late summer season. Considerable damage to irrigation systems and low lying farm lands along the stream will probably result during the early melting period.

#### San Fitch River:

Snow cover measurements on the San Fitch headwaters above Fairview show a total stored water content slightly greater than

in 1947 but somewhat less than the average for the period of record. Runoff from the streams in this area should be considerably more than a year ago especially during the early runoff period of April and May.

Snow cover in Ephriam Canyon is only slightly different from last year at the higher elevations, however, there is considerably more low elevation snow cover in this area and this will result in higher peak flows from the streams of this vicinity during the early melting season with late season supplies holding up about the same as in 1947.

#### INDEPENDENT STREAMS WEST OF THE WASATCH RANGE

##### Fillmore Drainage:

Snow surveys on the Pine Creek-Chalk Creek snow course show a water content of 17.2 inches compared with 10.9 inches a year ago and an 11.6 inch 18-year average. The resulting runoff from this snow cover will be considerably greater than last year especially during the early melting season when high peak flows will result in some damage to farm lands and irrigation systems in this area.

##### Beaver River:

On the Beaver River watershed early season snow surveys made early in March indicated quite a deficient supply during the coming irrigation season, however, accumulation of snow during the month of March has added a considerable amount to the snow storage on this water shed and it is not likely that serious shortages will result in this area. The Merchant's Valley snow course recorded 10.4 inches of water from March 30 compared with 8.0 inches last year and a 17-year average of 11.0 inches. At Otter Lake a water content of 13.8 compared with 15.4 in 1947 and a twelve year average of 17.4. At Big Flat Ranger Station a water content of 16.8 was measured compared with 19.8 inches in 1947 and a 12-year average figure of 20.8 inches.

Water supplies on the Beaver River will be slightly less than normal but the shortage is not expected to be serious. Total supplies during the runoff season will be somewhat increased because of the low elevation snow cover. Most of this runoff will come during the early melting season when no advantage for irrigation can be gained from it. With RockyFord Reservoir at 79 per cent of capacity it is likely that much of this early spring runoff will be wasted.

The average runoff for the Beaver River at Beaver over the past ten years is 35,000 acre feet and 7,400 acre feet during the April-September and July-September periods respectively. It is expected that the runoff during the coming season will be about 30,000 acre feet and 6,000 acre feet during these same periods

respectively. It is expected that the runoff during the coming season will be about 30,000 acre feet and 6,000 acre feet during these same periods respectively. In 1947 there were 42,100 acre feet during these same periods respectively. In 1947 there were 42,100 acre feet running off during April-September and 9,800 acre feet during July-September. This is considerably greater than had been anticipated at the time the snow surveys were made--the increase being due to the heavy contribution of precipitation after the snow surveys were made.

#### Coal Creek:

Snow surveys on the Coal Creek Drainage indicate a slightly deficient supply during the coming runoff season. The snow cover at Cedar Breaks is considerably less than last year and slightly less than the average for the period of record. At Cedar Breaks snow course 21.2 inches of water were measured on March 26 compared with 36.3 inches at the same time last year and a 13-year average of 26.1 inches. At the Webster Flat snow course 17.8 inches were recorded on March 22 compared with 18.7 in 1947, and a 21-year average of 17.4.

The runoff from the Coal Creek near Cedar City is expected to be somewhat below the average for the past ten years 22,200 acre feet and 3,400 acre feet of runoff during the April-September and July-September periods respectively. It is expected that runoff during the coming season will be approximately 19,000 acre feet during April-September and 3,200 acre feet during July-September. This compares with 21,000 and 2,800 acre feet during the same periods last year.

### UPPER GREEN RIVER DRAINAGE

#### Black's Fork and Henry's Fork:

The snow cover at the Hewinta Ranger Station is considerably greater than last year and also greater than the average for the period of record. It is expected that water supplies from Black's Fork and Henry's Fork Drainages will be considerably better than last year and somewhat better than the average for the period of record. High peak flows will probably result in this area and will cause some damage to irrigation systems and farm lands. Runoff should hold up fairly well throughout the late summer months.

#### Beaver Creek and Burnt Fork:

The snow survey at Hole-In-The-Rock on March 17 showed a water content of 8.1 inches compared with 6.4 inches in 1947 and a 16-year average of 5.1 inches. This snow cover should result in a water supply considerably better than last year with a larger amount running off during the early spring melting season than is normally expected.

Ashley Creek near Vernal:

Snow surveys at the King's Cabin snow courses showed stored water in about the same ratio as the North side of the Uinta mountains at Hole-In-The-Rock. At the Upper King's Cabin course, 13 inches of water were measured compared with 11.6 in 1947 and an 18-year average of 9.2 inches. At Lower King's Cabin course, 11.1 inches were measured compared with 10.6 last year and 8.7 average for the 18-year period. In spite of the fact that the snow-stored water content is slightly greater than was present in 1947, it is expected that the water supply will be somewhat less than that last year. This is due to the fact that more water ran off from the Ashley Creek Drainage last year than had been anticipated at the time the snow surveys were made. This increase was due to the fact that the heavy amount of precipitation added to that water in snow storage causing a high amount of runoff.

The average runoff for Ashley Creek at Vernal during the past 10 years is 59,600 acre feet and 17,800 acre feet during the April-September and July-September periods respectively. During 1947 the runoff was 78,700 and 23,000 during the same periods. It is expected that the runoff during the coming year will be about 70,000 acre feet and 19,000 acre feet during the April-September and July-September periods.

DUCHESNE RIVER DRAINAGEDuchesne River at Tabiona:

Snow surveys at Lost Lake near Mt. Baldy at the headwaters of the Duchesne River provide a good index for the runoff of the Duchesne River at Tabiona. Snow surveys at the Lost Lake on April 2 showed a water content of 19.7 inches compared with a 15-year average of 22.3. At the Lakefork Mountain snow course, a measurement of 10.2 inches of water was made on March 26 compared with 12.6 a year ago and a 17-year average of 9.5 inches. At Brown Duck Lake a measurement of 12.7 inches on March 31 compared with a 4-year average of 15.4. The runoff of the Duchesne River at Tabiona has averaged 107,400 acre feet during the April-September and 23,000 acre feet during July-September over the past 10 years. The runoff for the coming season is expected to be slightly less than average with 100,000 acre feet running off during April-September and 20,000 acre feet during July-September. This water should be sufficient to meet demands of users on this stream.

Lakefork River below Moon Lake Reservoir:

The flow at this station is affected by storage in Moon Lake Reservoir and the analyses of natural river flow is therefore corrected to make allowance for this fact. During the past year 31,300 acre feet ran off during April-September period and 26,300 during the July-September period. The amount of water which can be expected from the drainage above this station is reflected in the amount of snow at the Brown Duck snow course and at the Lakefork

Mountain snow course. Measurements at these courses this year indicate a runoff slightly less than in 1947, but slightly greater than the average for the past several years. This station is at a relatively high elevation and is therefore not affected materially by the low elevation snow cover. It is expected that the April-September runoff collected for storage at this station would be approximately 80,000 acre feet with 23,000 acre feet occurring during the July-September period. At the Moon Lake Reservoir on April 1, there was estimated 15,300 acre feet in storage. This represents 43 per cent of the capacity but there should be sufficient water sunning off at this station to fill the reservoir to capacity during the coming season.

Strawberry River at Duchesne:

The runoff from the Strawberry River drainage above Duchesne is reflected in the measurement of snow at Indian Canyon snow course. A snow cover on March 30 at this course showed 10.1 inches of water compared with 12.4 in 1947 and 9.3 over the 18-year period of record.

Snow surveys and other observations indicate that the runoff during the April-September period will be somewhat greater than last year with the late summer runoff being approximately the same. The average runoff at this station for the past 10 years is 70,400 acre feet with 16,500 acre feet occurring during the July-September period. The forecast of water supply at this station during the coming season is set at 72,000 acre feet during the April-September period and 14,000 acre feet during July-September.

Uinta River at Neola:

The snow courses at Mosby Mountain, Paradise Park, and Lakefork Mountain provide information to determine the runoff at this station. Measurements at these snow courses indicate that the water supply will be slightly less than a year ago during both the April-September and July-September periods. Measurement of snow at the Mosby Mountain snow course showed 11.8 inches of water at elevation 9500 compared with 15.6 inches last year and an 18-year average of 9.9 inches. At Paradise Park the surveys recorded 14.4 inches of water compared with 17.7 inches a year ago and a 16-year average of 11.3. The Lakefork Mountains snow course is also slightly below the figure for last year, but slightly above the average for the 17 year period of record. The average runoff at the Neola Station over the past 10 years has been 108,600 acre feet during April-September with 44,100 acre feet runoff occurring during the July-September period. The forecast for this year is 110,000 acre feet during April-September and 45,000 acre feet during July-September.

Whiterocks River at Whiterocks:

The snow courses at Paradise Park and Mosby Mountain reflect the runoff conditions for the Whiterocks River. Measurements at these courses show water contents less than in 1947 but slightly greater than the average. Indications are that the yield from the Whiterocks

River will be slightly less than last year with 75,000 acre feet running off during April-September and 24,000 acre feet during July-September. The average for the past ten years at this station is 69,800 and 22,400 for the same periods compared with 93,500 and 31,100 last year.

#### PRICE RIVER DRAINAGE

##### Price River near Heiner:

The flow of the Price River at this station is affected by the storage water from the Scofield Reservoir and in making analysis of the natural runoff, it is therefore necessary to correct the runoff figures measured at this station in order that the totals used will reflect the natural streamflow conditions. The snow course at Gooseberry Reservoir and Huntington Horseshoe as well as the lower elevation courses of Staley Ranch, Clear Creek and Dry Valley Divide furnish information for forecasting the runoff of the Price River. Only the low-elevation snow-cover snow courses show an accumulated snow water content greater than average on this watershed. However, all snow courses have recorded water contents higher than were recorded at the same time last year, and water supplies therefore are expected to be slightly greater than in 1947. The average corrected runoff of the Price River near Heiner for the past ten years is 64,600 acre feet during April-September with 9,000 acre feet occurring during the July-September period. The forecast for the coming season is set at 65,000 acre feet during April-September and 7,000 during July-September. This compares with 62,700 acre feet and 6,000 acre feet during the April-September and the July-September period of 1947.

##### Scofield Reservoir:

On April 1 of this year there were 15,400 acre feet in storage at the Scofield Reservoir compared with 8,300 a year ago. It is expected that the inflow into the Reservoir available for storage will be somewhat greater this year than last and the Reservoir may fill to approximately 80 per cent of capacity before the irrigation season is advanced. This should be more than ample to meet the demands of irrigators on the Price River during the coming irrigation season.

#### SAN RAFAEL RIVER DRAINAGE

##### Huntington Creek at Huntington:

The runoff from the Huntington Creek at Huntington is reflected in the measurement of snow at the Huntington Horseshoe and the Seeley Creek Ranger Station snow courses. At Huntington Horseshoe, 23.0 inches of water were measured on April 3, compared with 17.5 inches a year ago and an 18-year average of 24.0 inches.

At the Seeley Creek Ranger Station 13.7 inches were recorded on March 30 compared with a measurement of 13.1 inches in 1947 and an 18-year average of 18.9. The average runoff at the Huntington Station during the past ten years is 58,000 acre feet during April-September with 14,900 acre feet running off during July-September. Runoff during the coming season is expected to be slightly below this average with 50,000 acre feet coming during April-September and 12,500 acre feet during July-September. This compares with 56,700 and 17,500 acre feet during the same periods of 1947.

Cottonwood Creek at Orangeville:

The runoff from the Cottonwood Creek is forecast from the measurement of the snow at the Seeley Creek Ranger Station where records show 13.7 inches of water measured on March 30 which is below 1947 and the 18-year average by a small amount. The average April-September runoff of the Cottonwood Creek at Orangeville is 64,400 during the past 10-year period with 10,400 running off during July-September. In 1947 there were 60,400 and 13,200 acre feet running off during the same periods respectively. The runoff for 1948 is expected to be somewhat less and should approximate 54,000 acre feet during April-September and 9,000 acre feet during the July-September periods.

VIRGIN RIVER DRAINAGE

Virgin River at Virgin:

With the exception of the Cedar Breaks snow course, most of the courses affecting the Virgin River Drainage show a snow cover of at least equal to that of last year and at the low elevation stations considerably greater. The flow of the Virgin River will be considerably affected by this low elevation snow cover during the early melting season and it is therefore expected that the runoff during the coming season will be slightly greater than a year ago although still somewhat below the average for the past 10 years. The forecast has been set at 75,000 acre feet during the April-September period compared with 56,700 acre feet a year ago and a ten-year average of 93,400 acre feet.

Santa Clara River near Central:

Snow cover at the Pine Valley snow course at 9150 feet elevation is slightly greater than last year but slightly less than the average for the period of record over the last 11 years. On March 24, 19.5 inches were measured at this station compared with 18.9 in 1947 and an average of 20.3 inches. The runoff from the Santa Clara River was augmented last season a considerable amount by the abnormal precipitation during the runoff season. During April-September, a total of 8,100 acre feet ran off from this watershed with 1,800

acre feet running off during July-September. Water supplies this year will probably be less than last year provided that normal precipitation conditions occur, with about 6,500 acre feet running off during April-September and 1,400 acre feet running off during July-September.

#### LOWER COLORADO DRAINAGE

##### LaSal Mountain Area:

Snow cover at the LaSal Mountain snow course is considerably greater than both last year and the 17-year average at this station. Water supplies in this area should be better than for several years, and should hold up well throughout the late summer months. However, some damage may result to irrigation systems during the high peak flow of the early snow melting season.

##### Blue Mountain Area:

The measurement of snow at Buckboard Flat showed a high-water content on March 29 with 16.7 inches being measured compared with 10.8 inches last year and 13.1 inches for the 18-year period of record. Water supplies in this area should be plentiful and will be a considerable help to farmers in the vicinity of Monticello and Blanding. Care should be exercised to prevent damage to irrigation systems from the high water which will result early in the melting season.

TABLE II  
STATUS OF RESERVOIR STORAGE ABOUT APRIL 1, 1948

BASIN and STREAM	RESERVOIR	USABLE CAPACITY (1000's of Acre Feet)	1000's OF ACRE FT. IN STORAGE APR. 1				10-YEAR AVERAGE 1937-46
			1948	1947	1946	1945	
<u>BEAR RIVER SYSTEM</u>							
BEAR RIVER	BEAR LAKE	1420.0	1065.0	1026.0	821.0	608.7	555.8
LITTLE BEAR RIVER	HYRUM	15.3	7.4	8.5	8.8	10.7	11.3 <sup>x</sup>
<u>WEBER-OGDEN RIVERS</u>							
OGDEN RIVER	PINE VIEW	44.2	1.5	14.6	13.3	7.3	13.5 <sup>xx</sup>
WEBER RIVER	EAST CANYON	28.7	24.1	15.4	23.2	24.7	20.0
WEBER RIVER	ECHO	73.9	38.9	55.3	55.3	20.0	34.1
<u>PROVO RIVER and UTAH LAKE</u>							
PROVO RIVER	DEER CREEK	147.3	127.6	73.4	63.3	49.9	24.0 <sup>xxx</sup>
SPANISH FORK RIVER	STRAWBERRY <sup>o</sup>	270.0	92.8	92.8	98.4	78.4	64.0
UTAH LAKE	UTAH LAKE	850.2	758.8	733.6	689.7	550.0	428.3
<u>SEVIER RIVER SYSTEM</u>							
SEVIER RIVER	OTTER CREEK	52.6	52.5	39.7	53.5	39.9	39.6
SEVIER RIVER	PIUTE	84.8	70.3	61.0	71.5	69.0	62.9
SEVIER RIVER	SEVIER BRIDGE	236.0	221.5	202.6	232.3	213.5	157.4
<u>BEAVER RIVER</u>							
BEAVER RIVER	ROCKY FORD	25.1	19.8	17.2	23.5	23.1	19.3
<u>DUCHESNE RIVER</u>							
LAKE FORK RIVER	MOON LAKE	35.8	15.3 <sup>e</sup>	9.1	17.9	14.1	19.8 <sup>xx</sup>
<u>PRICE RIVER</u>							
PRICE RIVER	SCOFIELD	65.9	15.4	8.3	12.6	9.4	11.4

<sup>x</sup>Eight year record

<sup>xx</sup>Nine year record

<sup>xxx</sup>Six year record

<sup>e</sup>Estimated by U.S.G.S.

<sup>o</sup>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.

TABLE III  
UTAH SNOW SURVEYS - ABOUT APRIL 1, 1948

DRAINAGE BASIN and SNOW COURSE NAME	SNOW COURSE NO.	LOCATION			ELEV.	SNOW COVER MEASUREMENTS						
		Sec.	Twp.	Range		Date of Survey 1948	Snow Depth (Inches) 1948	WATER CONTENT (INCHES)			Past Record	
								About April 1			Years of Record	Av. Water Content (Inches)
						1948	1947	1946				
<u>GREAT BASIN DRAINAGE</u>												
<u>Bear River System:</u>												
Franklin Basin (Idaho)	1	1&12	16S <sup>x</sup>	41E <sup>x</sup>	8200	3-26	82.2	26.5	23.3	30.2	24	25.2
Emigrant Summit (Idaho)	1A	21	12S <sup>x</sup>	42E <sup>x</sup>	7700	3-26	71.7	21.6	17.4	29.1	12	23.3
Slug Creek Divide (Idaho)	1B	10&15	10S <sup>x</sup>	44E <sup>x</sup>	7300	4- 1	48.0	13.3	12.2	17.2	12	15.2
Tony Grove Lake	2	5	13N	3E	8200				28.0	37.4	24	32.6
Tony Grove R.S.	3	11	13N	3E	6250				3.8	6.8	21	9.3
Spring Hollow (Lower)	4	26	12N	2E	7000	3-30	49.5	13.9	9.9	13.1	23	13.8
Spring Hollow (Upper)	5	35	12N	2E	8000	3-30	85.0	22.0	18.8	30.0	24	25.6
Mt. Logan	6	3	11N	2E	9000	3-30	86.5	26.4	21.0	36.1	24	27.7
Smithfield Spring	7	2	13N	2E	7000	4- 3	71.8	25.1	16.9	30.6	11	22.0
Garden City Summit	9	34	14N	4E	8200	3-29	56.0	15.4	16.0	26.1	17	17.8
Head of Bear River	10	15	2N	10E	8600	3-30	38.0	6.6	8.4	4.2	13	7.7
Goodman Ranch	10A	19	3N	10E	7900	3-29	17.7	4.2	3.2	3.2	10	4.0
Monte Cristo	12	3	8N	4E	8960	3-29	65.0	22.0	24.0	30.6	15	22.2
<u>Weber-Cgden Rivers:</u>												
Monte Cristo	12	3	8N	4E	8960	3-29	65.0	22.0	24.0	30.6	15	22.2
Dry Broad Pond	12A	3	7N	4E	8230	N O S U R V E Y			16.0	18.7	11	16.8
Geortsen Creek	12B	8	7N	2E	8200	N O S U R V E Y				19.8	11	19.2
Parley's Canyon Summit	15	9&10	1S	3E	7500	4- 2	62.4	20.2	14.5	17.8	14	16.4
Beaver Creek R. S.	24	28	2S	7E	7500	4- 2	25.1	8.0		4.9	16	7.0
Smith & Morchouse	30	25	1N	7E	7600	3-29	38.7	11.4	10.7	11.2	19	12.0
Redden Mine (Upper)	31	1	2S	6E	9000	3-30	61.7	17.8	18.7	18.9	18	19.0
Redden Mine (Lower)	31A	1	2S	6E	8500	3-30	60.5	17.0	17.0	18.6	18	18.0
Mt. Ogden	74	5	5N	1E	8600	3-31	107.8	36.7	N E W C O U R S E			

<sup>x</sup> Boise Meridian

TABLE III (Cont'd)  
UTAH SNOW SURVEYS - ABOUT APRIL 1, 1948

DRAINAGE BASIN and SNOW COURSE NAME	SNOW COURSE NO.	LOCATION			ELEV.	SNOW COVER MEASUREMENTS						
		Sec.	Twp.	Range		Date of Survey 1948	Snow Depth (Inches) 1948	WATER CONTENT (INCHES)			Past Record	
								About April 1			Years of Record	Average Water Content (Inches)
1948	1947	1946										
<u>Jordan River &amp; Great Salt Lake:</u>												
Barnard Creek	13A	34	3N	1E	8000	3-31	87.2	28.4	22.8	22.5	12	26.8
Lamb's Canyon	14	19	1S	3E	6600	3-29	50.1	15.4	13.2	16.6	13	14.8
Silver Lake	16	35	2S	3E	8720	3-31	89.9	25.5	12.5	23.8	17	24.1
Mill D. South Fork	16A	18	2S	3E	7400	3-31	77.4	21.4	14.6	19.7	13	18.9
<u>Provo River &amp; Utah Lake:</u>												
Dutchman R. S.	17	27	3S	3E	7500	3-31	62.1	19.2	14.9	14.1	17	17.0
Timpanogas Cave Camp	18	27	4S	2E	5500	3-27	10.6	3.5	No Snow	No Snow	13	0.7
South Fork R. S.	19	24	4S	2E	6100	3-27	31.1	10.4	Patchy	Patchy	13	3.8
Camp Altamont	20	29	4S	3E	7300	3-27	60.5	18.4	12.8	10.9	13	16.4
Timpanogas Divide	21	33	4S	3E	8200	3-27	82.0	25.5	23.6	15.4	13	23.3
Hobble Creek Summit	22	20	7S	5E	7300	3-27	48.1	10.9	9.6	11.6	12	12.9
Daniels-Strawberry Summit	23	20	2S <sup>x</sup>	12W <sup>x</sup>	8000	3-29	48.0	14.3	12.5	11.0	18	13.6
Soapstone R. S.	25	9	3S	2E	7800	4- 2	38.7	10.2	12.0	12.0	17	10.6
Trial Lake	26	5	2S	9E	9800	4- 2	77.3	22.7	25.8	26.6	17	24.3
Washington-Long Lake	27	1	2S	8E	10300	4- 1	82.4	25.4		31.2	15	28.1
Lost Lake	28	33	1S	9E	9900	4- 2	73.1	19.7		No Survey	15	22.3
East Portal	33	36	7S	6E	7560	3-27	35.6	9.8	9.0	10.4	14	11.2
Strawberry Divide	33A	34-35	7S	6E	8000	3-27	59.2	17.2	18.2	19.0	14	19.5
Paysen R. S.	68	30	10S	3E	8840	4- 9	59.1	19.8	13.8	No Record	5	17.9
<u>Sevier River:</u>												
Gooseberry Reservoir	41	25	13S	5E	8700	4- 3	56.2	17.3	16.2	16.4	20	18.4
Mammoth R. S.-												
Cottonwood Creek	42	23	13S	5E	8800	4- 3	55.8	17.6	15.4	16.9	19	19.8

Uinta Special Meridian

TABLE III (Cont'd)  
 UTAH SNOW SURVEYS - ABOUT APRIL 1, 1948

DRAINAGE BASIN and SNOW COURSE NAME	SNOW COURSE NO.	LOCATION			ELEV.	SNOW COVER MEASUREMENTS						
		Sec.	Twp.	Range		Date of Survey 1948	Snow Depth (Inches) 1948	WATER CONTENT (INCHES)			Past Record	
								About April 1			Years of Record	Av. Water Content (Inches)
						1948	1947	1946				
<u>Sevier River (Cont'd)</u>												
Huntington-Horseshoe	43	12	14S	5E	9800	4-3	67.5	23.0	17.5	21.7	18	24.0
G.B.E.S. Headquarters	45	21	17S	4E	8700	3-29	53.7	15.2	15.4	13.8	18	15.9
G.B.E.S. Meadows	46	27	17S	4E	10000	3-30	73.9	23.2	24.6	21.5	18	23.5
Sooley Creek R. S. #2	48A	25	17S	4E	10000	3-30	46.4	13.7	14.1	12.7	18	14.9
Pine Creek-Chalk Creek	49	14	22S	4W	8500	3-30	57.7	17.2	10.9	7.0	18	11.6
Gooseberry R. S.	50	32	23S	2E	8400	3-24	50.1	14.4	7.6	8.3	18	9.6
Fish Lake	51	35	26S	1E	8700	3-31	45.4	8.8	4.3	5.4	17	5.3
Kimberly Mine	52A	11	27S	5W	8900	3-27	63.4	20.9	13.4	15.4	13	16.4
Widtsoc-Escalante Summit	53	22	34S	1W	9500	3-31	36.8	10.8	8.0	4.1	16	8.6
Bryce Canyon	54	36	36S	4W	8000	3-23	32.2	7.2	No Snow	No Snow	9	7.0
Panguitch Lake	55	4	36S	7W	8200	3-14	23.9	7.7	3.9	1.6	21	5.0
Gravel Springs Junction	56	22	38S	6W	7500	3-24	9.5	2.7	No Snow	No Snow	11	6.2
Harris Flat R. S.	57	24	38S	7W	7700	3-24	35.1	8.1	No Snow	3.1	17	9.7
Duck Creek R. S.	58	11	38S	8W	8560	3-25	50.9	14.4	13.4	8.3	13	17.2
Cedar Breaks	59	2	37S	9W	10300	3-26	71.1	21.2	36.3	16.1	13	26.1
Big Flat	63B	18	29S	4W	10000	3-30	61.9	16.8	19.8	14.2	12	20.8
<u>Beaver River:</u>												
Merchant's Valley	63	8&9	29S	5W	8200	3-30	39.6	10.4	8.0	8.8	17	11.0
Otter Lake	63A	1	29S	5W	9300	3-30	51.2	13.8	15.4	12.0	12	17.4
Big Flat	63B	18	29S	4W	10000	3-30	61.9	16.8	19.8	14.2	12	20.8
<u>Coal Creek:</u>												
Cedar Breaks	59	2	37S	9W	10300	3-26	71.1	21.2	36.3	16.1	13	26.1
Webster Flat	61	20	37S	9W	9200	3-22	66.7	17.8	18.7	11.5	21	17.4

TABLE III (Cont'd)  
UTAH SNOW SURVEYS - ABOUT APRIL 1, 1948

DRAINAGE BASIN and SNOW COURSE NAME	SNOW COURSE NO.	LOCATION			ELEV.	SNOW COVER MEASUREMENTS									
		Sec.	Twp.	Range		Date of Survey 1948	Snow Depth (Inches) 1948	WATER CONTENT ( INCHES)			Past Record				
								About April 1			Years of Record	Av. Water Content (Inches)			
													1948	1947	1946
<u>COLORADO RIVER DRAINAGE</u>															
<u>Upper Green River:</u>															
Hewinta R. S.	34	33	3N	13E	9500	3-26	42.5	12.2	9.2	10.4	16	9.0			
Hole-In-The-Rock	35	13	2N	15E	9150	3-17	32.6	8.1	6.4	4.4	16	5.1			
Kings Cabin (Upper)	39	22	1S	21E	8800	3-31	54.1	13.0	11.6	3.7	18	9.2			
Kings Cabin (Lower)	39A	23&26	1S	21E	8600	3-31	47.3	11.1	10.6	4.3	18	8.7			
<u>Duchesne River:</u>															
Lakefork Mountain	36	2&3	2N <sup>x</sup>	5W <sup>x</sup>	10500	3-26	41.0	10.2	12.6	8.4	17	9.5			
Paradise Park	37	7	3N <sup>x</sup>	1E <sup>x</sup>	10500	3-24	54.9	14.4	17.7	8.1	16	11.3			
Mosby Mountain (Upper)	38	5	2N <sup>x</sup>	1E <sup>x</sup>	9700	N O R E P O R T				6.4	17	8.9			
Mosby Mountain (Lower)	38A	5	2N <sup>x</sup>	1E <sup>x</sup>	9500	3-25	48.1	11.8	15.6	6.0	18	9.9			
Brown Duck Lake	73	2	2N <sup>x</sup>	6W <sup>x</sup>	10300	3-31	52.0	12.7	No Survey	No Survey	4	15.4			
Indian Canyon	40	2	11S	10E	9100	3-30	44.1	10.1	12.4	4.0	18	9.3			
<u>Price River:</u>															
Indian Canyon	40	2	11S	10E	9100	3-30	44.1	10.1	12.4	4.0	18	9.3			
Gooseberry Reservoir	41	25	13S	5E	8700	4- 3	56.2	17.3	16.2	16.4	20	18.4			
Staley Ranch	42A	32	12S	7E	7600	3-26	23.0	7.0	No Snow	3.5	12	6.2			
Dry Valley Divide	42B	20	12S	8E	7800	3-26	27.3	11.3	9.5	7.0	13	9.8			
Clear Creek	42C	28	13S	7E	8150	3-26	24.0	7.0	No Snow	2.5	12	7.2			
Huntington-Horseshoe	43	12	14S	5E	9800	4- 3	67.5	23.0	17.5	21.7	18	24.0			
<u>San Rafael River:</u>															
Huntington-Horseshoe	43	12	14S	5E	9800	4- 3	67.5	23.0	17.5	21.7	18	24.0			
Seeley Creek R. S.	48A	25	17S	4E	10000	3-30	46.4	13.7	14.1	12.7	18	14.9			
<u>Muddy River:</u>															
Black Fork	69A	34	20S	4E	9200	N O R E P O R T			14.2	12.4	3	12.2			
Dill's Camp	69B	27	20S	4E	9200	N O R E P O R T			11.2	No Report	2	10.2			

Xuinta Special Meridian

TABLE III (Cont'd)  
 UTAH SNOW SURVEYS - ABOUT APRIL 1, 1948

DRAINAGE BASIN and SNOW COURSE NAME	SNOW COURSE No.	LOCATION			ELEV.	SNOW COVER MEASUREMENTS						
		Sec.	Twp.	Range		Date of Survey 1948	Snow Depth (Inches) 1948	WATER CONTENT (INCHES)			PAST RECORD	
								About April 1			Years of Record	Av. Water Content (Inches)
1948	1947	1946										
<u>Virgin River:</u>												
Gravel Springs Junction	56	22	38S	7W	7500	3-24	9.5	2.7	No Snow	No Snow	11	6.2
Harris Flat R. S.	57	11	38S	8W	8560	3-24	35.1	8.1	No Snow	3.1	17	9.7
Cedar Breaks	59	2	37S	9W	10300	3-26	71.1	21.2	36.3	16.1	13	26.1
Webster Flat	61	20	37S	9W	9200	3-22	66.7	17.8	18.7	11.5	21	17.4
Pine Valley	62	3	40S	15W	9150	3-24	63.2	19.5	18.9	10.9	11	20.3
<u>Lower Colorado River:</u>												
LaSal Mountain	64	5	27S	24E	8800	3-29	41.0	12.7	7.2	6.1	17	8.2
Buckboard Flat	65	36	33S	22E	9000	3-29	52.7	16.7	10.8	7.2	18	13.1