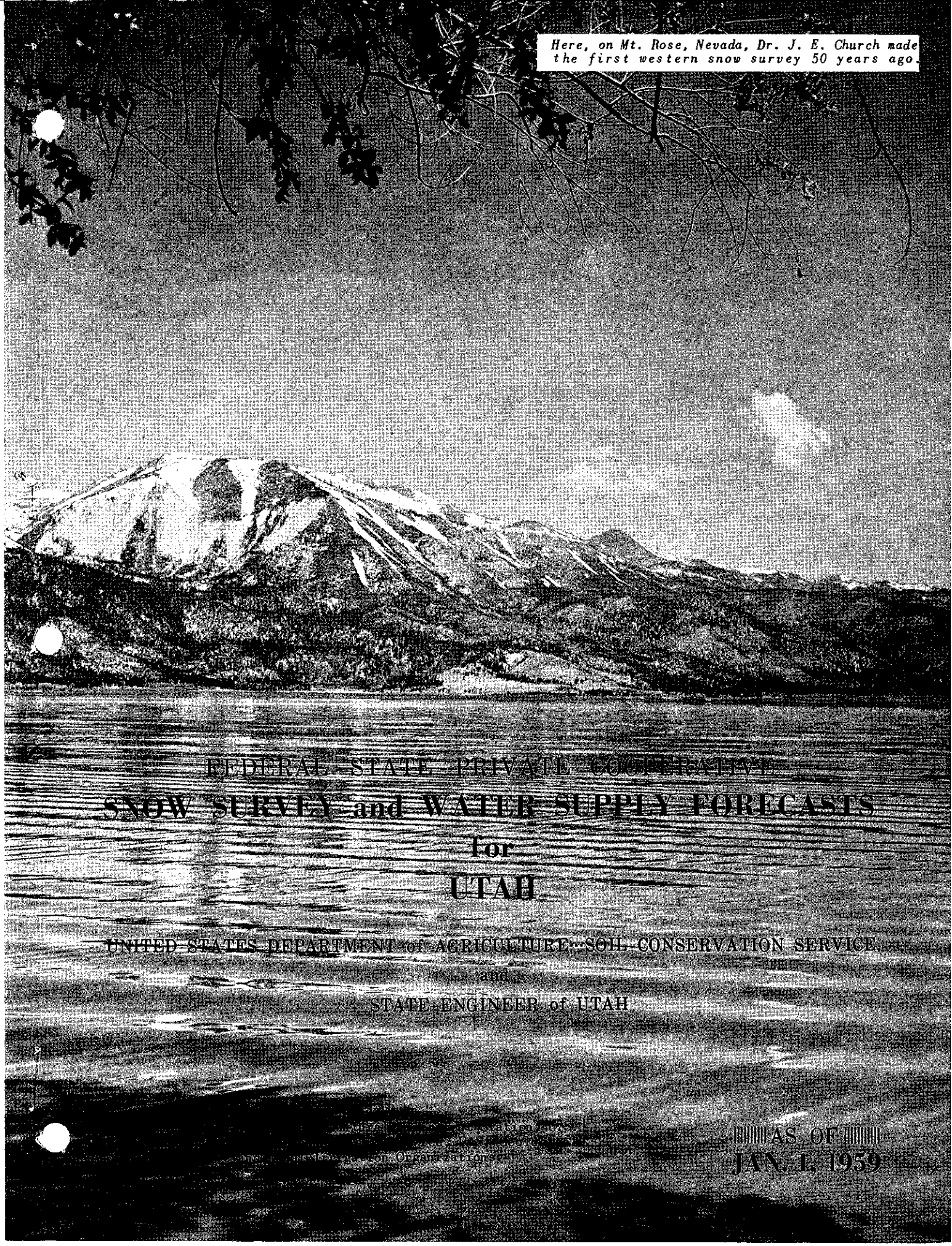

Here, on Mt. Rose, Nevada, Dr. J. E. Church made the first western snow survey 50 years ago.

FEDERAL - STATE - PRIVATE COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for UTAH

UNITED STATES DEPARTMENT of AGRICULTURE - SOIL CONSERVATION SERVICE

and

STATE ENGINEER of UTAH

Cooperating Agencies and Organizations

AS OF

JAN. 1, 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

U T A H

JANUARY 1, 1959

Report Prepared

by

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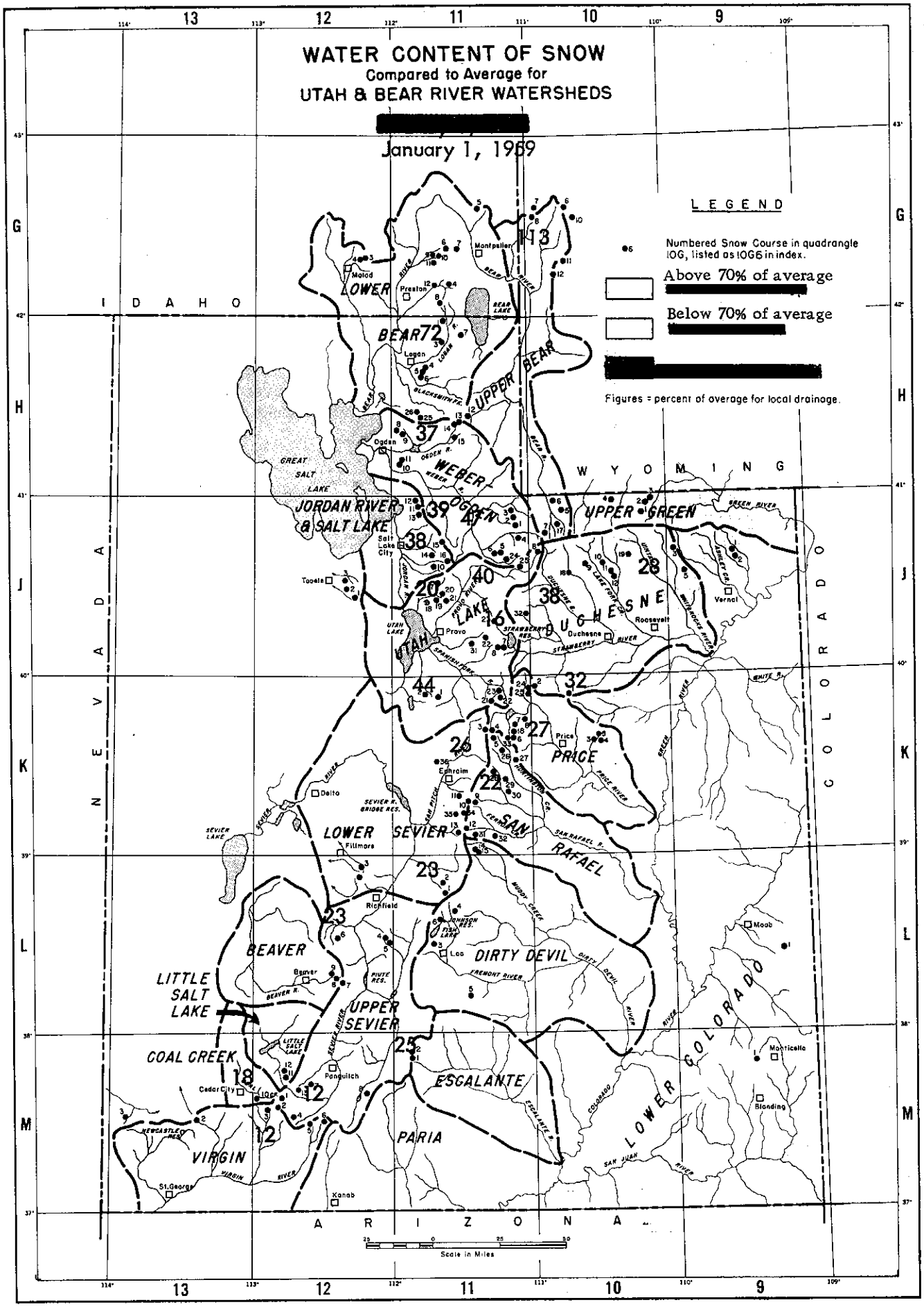

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

M-925

WATER SUPPLY OUTLOOK

FOR UTAH

January 1, 1959

****
*A record or near record low snowpack for January 1 now covers *
*most watersheds of the state varying from 12 to 72 percent of *
average. Moisture in the soil underneath the snowpack is much
*below average as a result of the dry summer and fall weather. *
*Streamflow forecasts range from 34 to 84 percent of average *
*in Utah, and 100 percent on the Smith's Fork of Bear River in *
*Wyoming. *
****

GENERAL OUTLOOK

Dry watershed soils underlying one of the lightest snowpacks in the past 30 years combine to give the state a poor water supply outlook for next summer.

The water content of the snowpack on the Logan river and the higher elevations of the Weber-Provo-Duchesne rivers is about 70 percent of average. The areas having the poorest snowpack are the Strawberry Reservoir Valley, the American Fork river, the eastern and southern parts of the Uintah Basin, and all streams in the central and southern half of the state starting from the headwaters of the Price, San Pitch and Spanish Fork rivers southward to the Virgin river. In this whole area the water in the snow varies from 12 to 30 percent of average. On the remaining watersheds of the state, it is 30 to 50 percent.

If the present drought trend changes so that we have average snowpack accumulation for the rest of the season, next summer's streamflow coming from the streams between the Provo and Strawberry rivers on the north and the Sevier and Virgin rivers in the southern part of the state will be from 40 to 60 percent of average. In the Uintah Basin, the northern streams have prospects of 60 to 70 percent of average flow.

The upper Bear, lower Weber, American Fork and Ogden rivers, as well as the streams in Cache Valley and Big and Little Cottonwood Creeks near Salt Lake are expected to have streamflow between 65 to 75 percent. The Weber river at Oakley is forecast at 84 percent, East Canyon Creek near Morgan at 34 percent, and Parleys Creek near Salt Lake at 53 percent.

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, 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, 1959

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1959 Snow Water Expressed as Percent of		
			1958	1957	& 1938-52 Av.
GREAT BASIN					
Smith's Fork - Bear River	2	10-21	90	89	113 *
Logan River	2	7-8	50	78	72 *
Ogden River	3	3-5	28	53	37 *
Weber River above Echo Dam	6	3-23	35	43	47 *
East Canyon Creek	3	5-23	31	38	39 *
Farmington Creek	2	5-7	35	45	39 *
Salt Lake Area	4	5-23	30	37	38 *
American Fork River	3	17-23	18	30	20 *
Provo River above Vivian Park	6	3-27	30	39	40 *
Strawberry Reservoir Valley	1	27	11	18	16
Payson Creek	1	6	43	62	44 *
Sevier River above Hatch	2	4-6	8	50	12 *
East Fork Sevier River	2	8-20	14	63	25 *
Clear Creek above Sevier	1	0	-	-	23 *
Salina Creek	2	1	20	-	23 *
San Pitch River	5	0-18	26	37	26 *
Coal Creek-Cedar City	2	4-5	14	86	18 *
COLORADO RIVER BASIN					
Duchesne-Strawberry Rivers	4	3-27	28	40	38 *
Whiterocks - Uintah Rivers	3	1-2	17	33	28 *
Price River	2	2-19	21	44	27 *
San Rafael River	2	2-7	22	35	22 *
Escalante River	2	4-6	14	63	25 *
Virgin River	3	4-6	10	58	12 *

* 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 35 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, 1959 (1)

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET 1959	1958	1957	15-Yr. Av. 1938-52
		GREAT BASIN				
Bear River	Bear Lake	1421.0	977.5	978.2	804.9	709.8
Little Bear	Hyrum	15.3	- -	2.1	10.4	9.0 (2)
Ogden	Pine View	110.0	11.8	6.8	0.0	9.3
Weber	Wanship	59.1	12.3	41.4	- -	- -
	Echo	73.9	16.0	34.3	16.3	23.5
	East Canyon	28.7	10.2	15.7	12.0	15.0
Provo	Deer Creek	144.7	84.1	99.2	72.0	67.3 (3)
Spanish Fork	Strawberry	270.0	149.5	150.6	132.7	93.6
Utah Lake	Utah Lake	1149.0(4)	488.6	499.4	349.2	396.9
Sevier River	Otter Creek	52.5	30.4	16.9	6.4	28.1
	Piute	74.0	42.6	27.3	10.7	34.9
	Sevier Bridge	236.0	62.9	70.4	19.9	120.2
Beaver River	Rocky Ford	23.3	9.6	15.0	3.9	13.1
		COLORADO RIVER DRAINAGE				
Lake Fork	Moon Lake	35.8	6.2	21.7	5.1	13.2
Price River	Scofield	65.8	- -	37.6	2.4	13.7 (5)

(1) All data contained in this table supplied by the 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
(5) Average for 1943-57

UTAH SNOW SURVEYS - ABOUT JANUARY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
GREAT BASIN DRAINAGE									
BEAR RIVER above HARER, IDAHO									
Trial Lake x	10J8	9800	12/29	33	7.0	12.7	11.7	- -	3
Salt River Summit x	10G8	7900	12/29	27	6.5	7.8	7.3	6.7**	10
CCC Camp x	10G7	7500	12/29	24	5.8	6.0	6.5	4.5*	21
BEAR RIVER below HARER, IDAHO									
Garden City Summit	11H7	7900	12/29	22	4.4	10.4	7.3	8.4**	8
Tony Grove R. S.	11H3	6250	12/29	12	3.6	6.3	3.7	4.3**	7
OGDEN RIVER									
Ben Lomond (lower)	11H9	6000	12/30	8	1.2	9.2	5.1	- -	3
Mt. Ogden	11H10	8600	12/29	22	6.0	14.3	7.4	10.7**	5
Snow Basin	11H11	6500	12/29	10	2.2	7.8	4.0	5.3**	5
WEBER RIVER									
Trial Lake x	10J8	9800	12/29	33	7.0	12.7	11.7	- -	3
Smith & Morehouse	11J4	7600	12/29	14	2.8	7.3	6.0	5.2**	5
Beaver Creek R. S.	11J24	7500	12/29	6	1.5	6.2	4.0	3.8**	5
Silver Lake x	11J16	8725	12/30	26	5.2	12.8	9.4	10.9*	23
Parley's Canyon Smt.	11J15	7500	12/29	15	2.9	10.0	8.8	7.5**	5
Lamb's Canyon x	11J14	6600	12/31	10	1.8	7.8	6.6	6.0**	10
PROVO RIVER & UTAH LAKE									
Trial Lake	10J8	9800	12/29	33	7.0	12.7	11.7	- -	3
Soapstone R. S.	11J25	7800	12/29	13	2.0	7.6	5.8	5.4**	6
Daniels-Strawberry Smt.	11J23	8000	12/29	7	0.8	7.5	4.5	5.0*	27
Strawberry Divide	11J8	8000	12/29	1/	1/	9.5	7.0	9.0*	19
East Portal	11J7	7560	12/29	1/	1/	5.4	2.6	4.7*	20
Payson R. S.	11K1	8050	12/29	16	3.2	7.5	5.2	5.5**	6
Rock Bridge	11K2	6750	12/29	13	3.1	5.4	3.5	3.8**	5
Timpanogas Divide	11J21	8200	12/30	12	2.5	12.1	7.5	10.7	23
Camp Altamont	11J20	7300	12/30	6	1.0	9.0	4.2	7.4	23
South Fork R. S.	11J19	6100	12/30	6	0.9	4.3	2.8	3.7*	17
Timpanogas Cave Camp	11J18	5500	12/30	3	0.5	0.0	T	2.3**	13

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 yrs. nearest base period.
** - Average for period of record.
1/ - Not measured because of shallow snow depth.

UTAH SNOW SURVEYS - ABOUT JANUARY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
JORDAN RIVER & GREAT SALT LAKE									
Silver Lake	11J16	8725	12/30	26	5.2	12.8	9.4	10.9*	23
Mill D. South Fork	11J10	7400	12/30	17	2.8	11.0	8.3	8.2**	5
Lamb's Canyon	11J14	6600	12/31	10	1.8	7.8	6.6	6.0**	10
Parley's Canyon Smt. x	11J15	7500	12/29	15	2.9	10.0	8.8	7.5**	5
Farmington Canyon (upper)	11J11	8000	12/30	21	4.4	12.3	10.5	9.9**	5
Farmington Canyon (lower)	11J12	6950	12/31	14	3.2	9.4	6.8	7.6**	7
Middle Canyon	12J3	7000	12/31	10	2.6	6.9	5.7	--	2
SEVIER RIVER above RICHFIELD									
Midway Va lley	12M2	9400	12/29	12	2.3	14.0	2.3	--	4
Duck Creek R. S.	12M4	8560	12/29	0	0.0	7.3	1.2	3.6**	6
Harris Flat R. S.	12M5	7700	12/29	0	0.0	4.0	T	1.8**	6
Long Valley Junction x	12M6	7500	12/29	0	0.0	T	0.0	0.1**	5
Bryce Canyon	12M8	8000	12/29	0	0.0	2.8	0.0	--	4
Widtsoe-Escalante Smt.	11M1	9500	12/30	0	0.0	6.0	T	3.0*	20
Widtsoe-Escalante #2	11M2	9500	12/30	9	2.2	8.0	1.7	4.2**	8
Widtsoe-Escalante #3	11M3	9500	12/30	13	3.4	New Course			0
Kimberly Mine (upper)	12L6	8900	12/22	6	1.6	-	-	--	0
SEVIER RIVER below RICHFIELD including SAN PITCH RIVER									
Farnsworth Lake	11L1	9900	12/31	15	2.4	8.1	--	--	1
Gooseberry R. S.	11I2	8400	12/31	9	0.6	5.5	--	--	1
Gooseberry Reservoir x	11K4	8700	12/26	9	1.9	9.1	4.8	--	2
G.B.R.C. Meadows	11K10	10000	12/29	21	2.5	11.2	8.4	9.8**	7
G.B.R.C. Headqtrs.	11K11	8700	12/29	16	2.3	6.4	5.6	5.2*	18
Mt. Baldy R. S.	11K12	9500	12/30	18	2.7	--	--	--	0
Beaver Dams	11K13	8000	12/30	8	1.2	--	--	--	0
COAL CREEK									
Midway Valley x	12M2	9400	12/29	12	2.3	14.0	2.3	--	4
Webster Flat x	12M3	9200	12/29	9	1.1	8.6	1.5	4.3**	5
Urie Flat	12M10	8450	12/29	3	T	3.5	T	--	4

x - Adjacent Drainage.
* - Less than 15 yrs. in 1938-52 period. Average for 15 yrs. nearest base period.
** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT JANUARY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
COLORADO RIVER DRAINAGE									
DUCHESNE RIVER									
Trial Lake x	10J8	9800	12/29	33	7.0	12.7	11.7	--	3
Soapstone R. S. x	11J25	7800	12/29	13	2.0	7.6	5.8	5.4**	6
Daniels-Strawberry Smtx	11J23	8000	12/29	7	0.8	7.5	4.5	5.0*	27
Strawberry Divide x	11J8	8000	12/29	1/	1/	9.5	7.0	9.0*	19
East Portal x	11J7	7560	12/29	1/	1/	5.4	2.5	4.7*	20
Indian Canyon	10K1	9100	12/30	7	1.4	6.6	2.9	4.4*	19
Paradise Park	9J3	10500	12/29	10	1.5	8.0	--	--	1
Julius Park	9J6	9800	12/29	9	1.5	8.7	--	--	1
Mosby Mountain(lower)	9J5	9500	12/29	7	1.0	6.8	3.0	--	2
PRICE RIVER									
Gooseberry Reservoir	11K4	8700	12/26	9	1.9	9.1	4.8	--	2
Mud Creek #2	11K33	8300	Delayed Data			6.8	4.8	--	3
Staley Ranch	11K7	7600	Delayed Data			3.8	1.8	2.6**	13
Dry Valley Divide	11K8	7800	Delayed Data			5.7	2.1	3.5**	13
Indian Canyon x	10K1	9100	12/30	7	1.4	6.6	2.9	4.4*	19
SAN RAFAEL RIVER									
Gooseberry Reservoir x	11K4	8700	12/26	9	1.9	9.1	4.8	--	2
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	12/30	0	0.0	6.0	T	3.0*	20
Widtsoe-Escalante #2	11M2	9500	12/30	9	2.2	8.0	1.7	4.2**	8
Widtsoe-Escalante #3	11M3	9500	12/30	13	3.4	New Course			0
VIRGIN RIVER									
Long Valley Junction	12M6	7500	12/29	0	0.0	T	0.0	0.1**	5
Harris Flat R. S. x	12M5	7700	12/29	0	0.0	4.0	T	1.8**	6
Duck Creek R. S. x	12M4	8560	12/29	0	0.0	7.3	1.2	3.6**	6
Midway Valley x	12M2	9400	12/29	12	2.3	14.0	2.3	--	4
Webster Flat	12M3	9200	12/29	9	1.1	8.6	1.5	4.3**	5

x - Adjacent Drainage.
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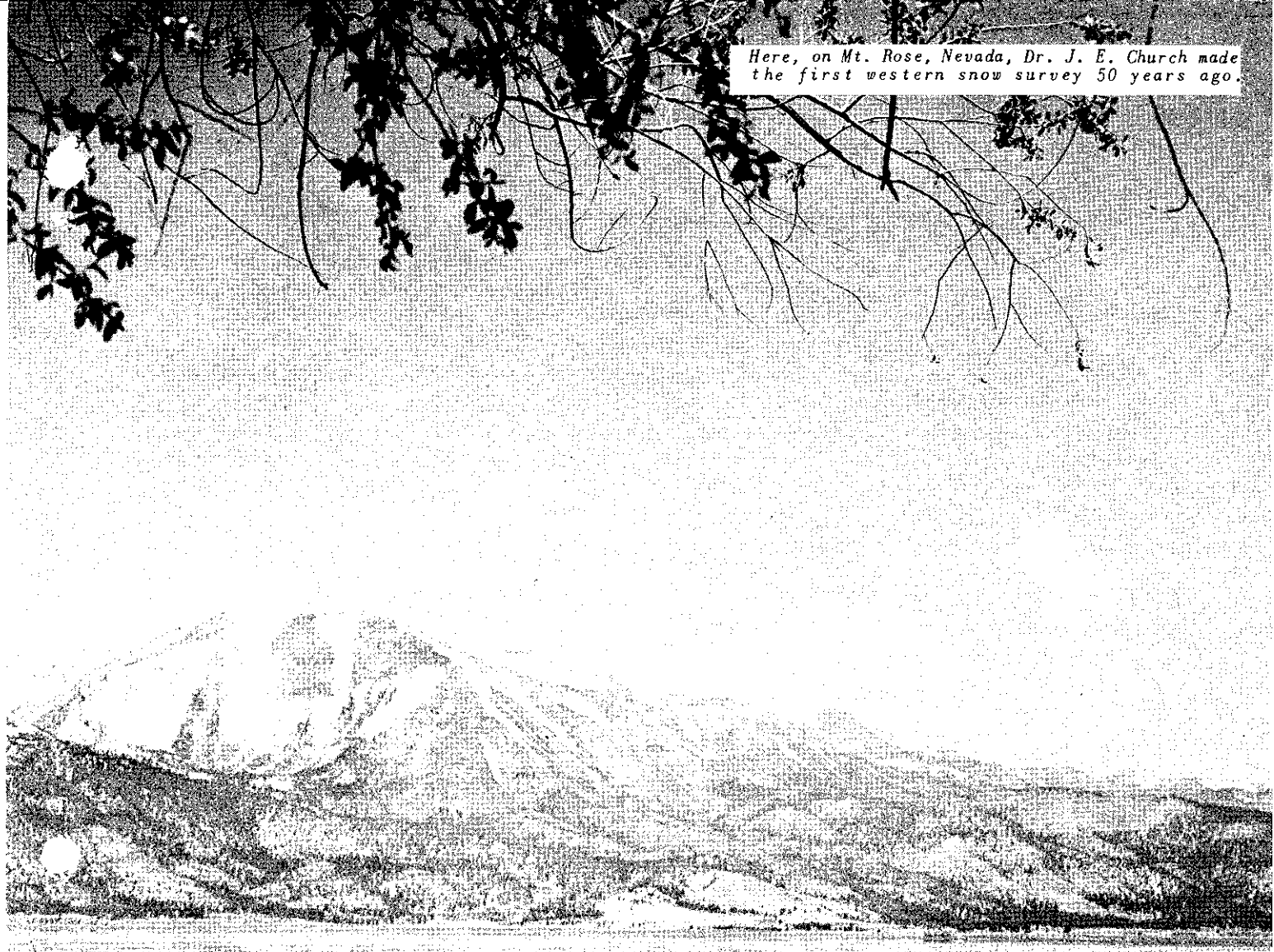

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UNITED STATES DEPARTMENT of AGRICULTURE--SOIL CONSERVATION SERVICE,

and

STATE ENGINEER of UTAH

[illegible] Agricultural Experiment Station, U.S. [illegible] Park Service, U.S. Geological [illegible] and Local Irrigation Organizations.

AS OF

FEB. 1, 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

U T A H

FEBRUARY 1, 1959

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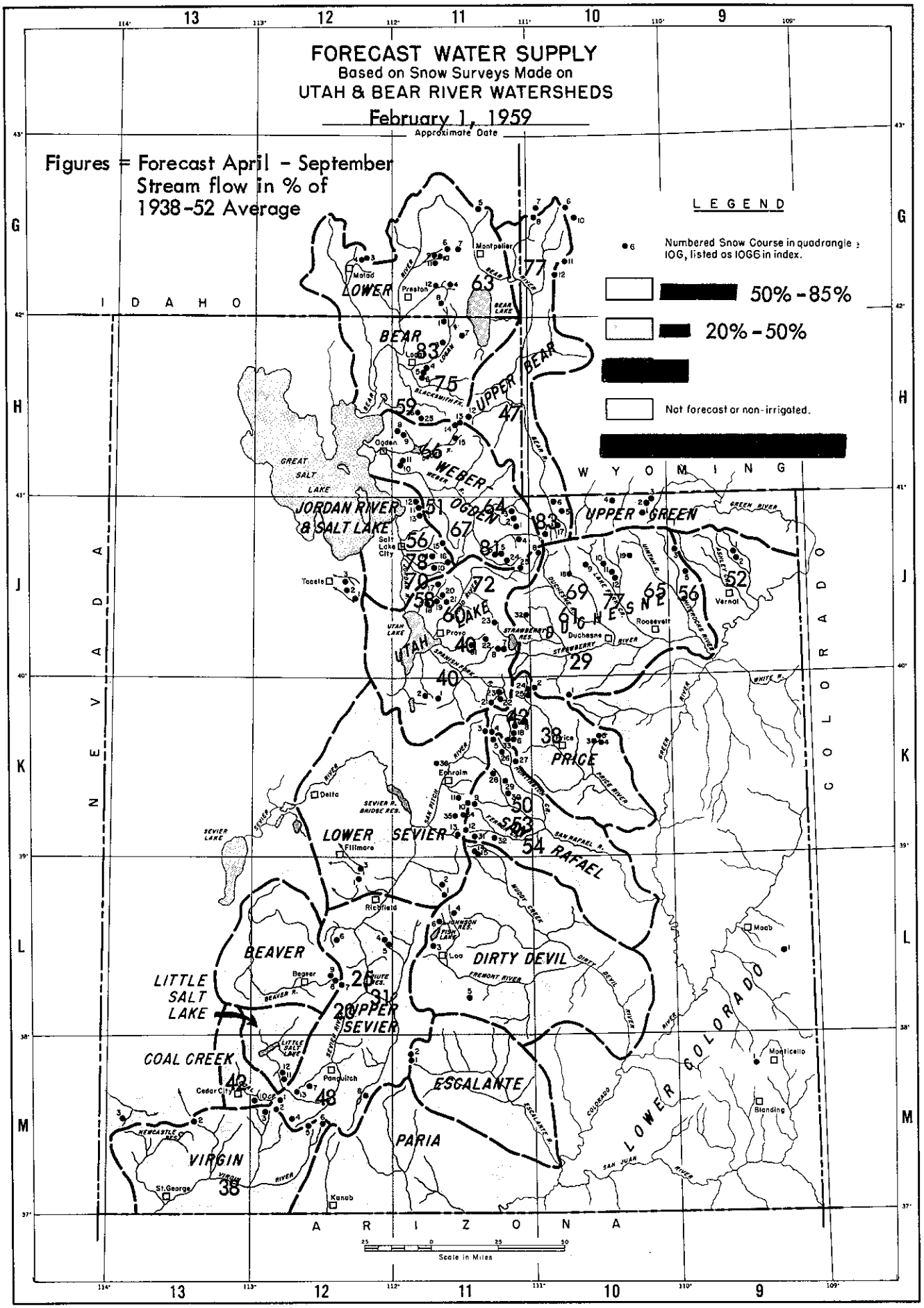


U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

M-926

WATER SUPPLY OUTLOOK

FOR UTAH

FEBRUARY 1, 1959

****
* A record low snowpack for February 1 on watersheds *
* of the central and southern part of the state indi-*
* cates streamflow of 20% to 50% of average. The *
* northern part has prospects of about 50% to 85%. *
****

New record low readings of the water content of the snowpack, as of about February 1, were set this month on nearly all the snow courses in the central and southern half of the state. In a few places the readings were essentially the same as previous low records set for the past 35 years. This area lies between the Utah-Arizona state line and a line drawn from the Timpanogos Divide snow course on the American Fork river across to Daniels Canyon south of Heber City, on eastward across the valley of the Strawberry reservoir and down the Strawberry.

This entire area can expect next summer's streamflow to be from 20% to 50% of average, providing the present drought trend changes and average snowfall occurs for the rest of the season. If the present trend continues, these streams will produce runoff comparable to that of 1934 when about 10% to 25% of average streamflow was experienced. For an average water supply to be realized, the entire next three months would have to have from 150% to 200% of average snowfall.

Prospective streamflow in the northern part of the state varies from about 50% to 85% of the usual amount. This area starts with the Provo river and extends northward across the streams which flow into Utah Lake and the Jordan river, the Farmington area, the Weber and Ogden rivers and all streams draining into the Bear river in Utah, Idaho and Wyoming. Also included are the streams on the northern side of the Uintah Basin.

In this northern area the lower forecast percentages apply to the watersheds which produce their water from lower elevations, such as Little Bear river in Cache Valley, East Canyon Creek near Morgan and Parley's Creek near Salt Lake. The higher percentages apply to streams whose watersheds produce most of their water from the higher elevations, such as the Logan and Weber rivers and Big Cottonwood Creek near Salt Lake.

The larger reservoirs in the northern part of the state - Bear Lake, Deer Creek, Utah Lake and Strawberry reservoir all have stored water which is considerably above the average amount and water users served by them will have adequate water supplies.

On the Sevier river, Piute and Otter Creek reservoirs have an above average water supply stored in them as a carryover from last year's heavy streamflow. While this will go a long way toward taking care of the needs of the people who are served by them, carryover for next year will be very poor.

In sharp contrast to the outlook for those having adequate storage supplies, users in the central and southern parts of the state who are dependent on natural streamflow are faced with the prospect of serious shortages. If the next few months should prove to be dry ones, the outlook for people with natural flow rights in the northern part of the state will also quickly become very poor.

These users should start planning now to institute as many water saving practices as possible.

Snowpack Changes During January

Except in the immediate Salt Lake area where increases in the snowpack water during January were 25% more than average, people in the rest of the state saw their water supply prospects for next summer become poorer.

The upper Sevier, Virgin, Paria and Escalante river watersheds had increases for the month which were from 0% to 34% of the average amount. On the watersheds from the Richfield vicinity northward to a line from Payson across to the southern tributaries of the Spanish Fork, upper Price and San Pitch rivers it was 70% to 80%. The watersheds of the American Fork river, southern tributaries of the Provo river, Hobble Creek near Springville, and the Strawberry river had changes of 40% to 55%. On the northern streams of the Uintah Basin, the snowpack increases varied from 20% on Ashley Creek and Whiterocks river to 71% on the upper Duchesne. It was 70% to 80% of average on the Weber, Ogden and all watersheds of the Bear river.

UTAH STREAMFLOW FORECASTS - FEBRUARY 1, 1959

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 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
			GREAT BASIN				
BEAR RIVER SYSTEM							
Bear River near Utah-Wyo. State line	102	83	Apr-Sept	101	158	124	123(1)
Bear River near Randolph, Utah	55	47	Apr-Sept	44	142	94	116(2)
Smith's Fork near Border, Wyoming	92	77	Apr-Sept	112	148	152	119(3)
Bear River at Harer, Idaho	177	63	Apr-Sept	189	357	321	281
Little Bear River nr Paradise, Utah	26	59	Apr-Sept	42	45	38	44
Logan River near Logan, Utah(4)	111	83	Apr-Sept	139	142	155	133
Blacksmith Fork near Hyrum, Utah(5)	45	75	Apr-Sept	61	68	73	60
WEBER-OGDEN RIVERS							
Weber River near Oakley, Utah	104	81	Apr-Sept	106	153	145	128
Weber River near Coalville, Utah (6)	93	67	Apr-Sept	114	170	136	138
Chalk Creek at Coalville, Utah	27	64	Apr-Sept	19.7	53	35	42

(1) Average runoff for 15 years, 1943-57
(2) Average runoff for 14 years, 1944-1957
(3) Average runoff for 15 years, 1943-1957
(4) Includes U.P. & L. Co. tailrace and Logan, Hyde Park & Smithfield Canal.
(5) Above Utah Power and Light Company's dam.
(6) Includes diversion by Weber-Provo canal and change in storage in Wanship Reservoir.

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
WEBER-OGDEN RIVERS							
East Canyon Creek nr Morgan, Utah(7)	15	51	Apr-Sept	32	28.5	16.9	29.2
South Fork Ogden River nr Huntsville, Utah	43	66	Apr-Sept	58	77	63	65
PROVO RIVER & UTAH LAKE							
Spanish Fork at Thistle, Utah	18	40	Apr-Sept		54	27.3	45
Hobble Creek near Springville, Utah	9.5	40	Apr-Sept		25.6	15.5	24(8)
Provo River nr Hailstone, Ut. (9)	82	72	Apr-Sept		145	114	113(10)
Provo River at Vivian Park, Ut.(11)	95	60	Apr-Sept		174	139	156
American Fork River nr.American Fork, Ut.	21	58	Apr-Sept	42	33	32	36
JORDAN RIVER & SALT LAKE							
Little Cottonwood Creek nr Salt Lake City, Utah	28	70	Apr-Sept	42	38	37	40
Big Cottonwood near Salt Lake City	31	78	Apr-Sept	50	50	35	40
Parley's Creek near Salt Lake City, Utah	8.5	56	Apr-Sept	14.2	15.8	8.4	15.2
SEVIER RIVER							
Sevier River at Hatch, Utah	28	48	Apr-Sept	93	48	25.8	58(12)
Sevier River near Kingston, Utah	9	20	Apr-Sept	69	18.1	5.3	46

(7) Observed flow plus change in storage in East Canyon reservoir.
(8) For 12 years 1946-1957.
(9) Observed flow minus diversions thru Duchesne tunnel and Weber-Provo Canal.
(10) Calculated average runoff, 1938-52
(11) Observed flow plus change in storage in Deer Creek reservoir, minus diversions thru Duchesne tunnel and Weber-Provo Canal, plus diversion thru Salt Lake Aqueduct.
(12) Average runoff for 15 years, 1940-1954.

UTAH STREAMFLOW FORECASTS - FEBRUARY 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
East Fork Sevier River nr Kingston, Utah (13)	9	31	Apr-Sept	49	19.7	7.9	23.8
Sevier River below Piute Dam (14)	19	25	Apr-Sept	115	33	13.1	75
BEAVER RIVER							
Beaver River near Beaver, Utah	12	35	Apr-Sept	43	45	20.2	34
COAL CREEK							
Coal Creek near Cedar City, Utah	8.5	42	Apr-Sept	32	20.3	10.6	20.4
COLORADO RIVER BASIN							
UPPER GREEN RIVER							
Ashley Creek near Vernal, Utah	34	52	Apr-Sept	55	64	49	65
DUCHESNE RIVER							
Duchesne River near Tabiona, Utah (15)	75	61	Apr-Sept		135	121	122
Rock Creek near Mtn. Home, Utah	75	69	Apr-Sept		124	111	109
Strawberry River at Duchesne, Utah	24	29	Apr-Sept		79	59	82
Lakefork River below Moon Lake, Utah (16)	60	77	Apr-Sept		82	82	78 (17)
Uinta River near N eola, Utah	72	65	Apr-Sept	108	104	90	111
Whiterocks River near Whiterocks, Utah	40	56	Apr-Sept	63	70	54	72

(13) Observed flow plus change in storage in Otter Creek Reservoir
(14) Observed flow plus change in storage in Otter Creek & Piute Reservoirs.
(15) Observed flow plus diversion through Duchesne tunnel.
(16) Observed flow plus change in storage in Moon Lake reservoir.
(17) Average runoff for 15 years, 1943-1957

UTAH STREAMFLOW FORECASTS - FEBRUARY 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
PRICE RIVER							
Price River near Scofield, Utah(18)	18	42	Apr-Sept	51	57	28.7	43
Price River near Heiner, Utah (18)	29	38	Apr-Sept	108	94	48	77
SAN RAFAEL RIVER							
Huntington Creek near Huntington, Utah	31	50	Apr-Sept	91	76	44	62
Cottonwood Creek near Orangeville, Utah	34	53	Apr-Sept		92	41	64
Ferron Creek near Ferron, Utah	24	54	Apr-Sept		63	31	44(19)
VIRGIN RIVER							
Virgin River at Virgin, Utah	23	38	Apr-June		38	26	60

(18) Observed flow plus change in storage in Scofield reservoir.
(19) Calculated average runoff for 1938-52.

STATUS OF UTAH RESERVOIR STORAGE - FEBRUARY 1, 1959 (1)

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FT. 1959	1958	1957	15-Yr. Av. 1938-52
		GREAT BASIN				
Bear River	Bear Lake	1421.0	987.9	983.7	828.4	706.0
Little Bear	Hyrum	15.3	10.5	5.4	10.4	10.2(2)
Ogden	Pine View	110.0	13.0	12.5	0.6	7.2
Weber	Wanship	59.1	12.2	40.1	- -	- -
	Echo	73.9	22.8	35.7	19.2	22.9
	East Canyon	28.7	11.4	15.7	13.0	16.0
Provo	Deer Creek	144.7	92.4	91.9	76.4	81.0(3)
Spanish Fork	Strawberry	270.0	151.6	152.9	136.6	96.5
Utah Lake	Utah Lake	1149.0(4)	538.9	547.5	392.1	447.8
Sevier River	Otter Creek	52.5	34.2	20.8	9.2	31.1
	Piute	74.0	51.7	34.0	17.0	43.2
	Sevier Bridge	236.0	75.6	81.7	28.0	136.4
Beaver River	Rocky Ford	23.3	12.4	16.7	5.6	14.8
		COLORADO RIVER DRAINAGE				
Lake Fork	Moon Lake	35.8	7.8	23.6	6.8	15.1
Price River	Scofield	65.8	32.9	38.8	3.7	15.2(5)

(1) All Data contained in this table supplied by U.S. Geological Survey.
(2) Average for 1939-53.
(3) Average for 1943-57.
(4) Active capacity taken at 3.1 feet above compromise point.
(5) Average for 1943-57.

COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of February 1, 1959

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1959 Snow Water Expressed as Percent of 1958	1957	1938-52 Av.
GREAT BASIN					
Smith's Fork - Bear River	2	10-23	75	76	71 *
Logan River	4	5-12	60	77	84 *
Blacksmith Fork	4	6-12	52	65	66 *
Ogden River	5	3-7	38	51	48 *
Weber River above Echo Dam	7	5-24	56	54	61 *
East Canyon Creek	3	8-24	59	63	68 *
Farmington Area	2	6-8	66	74	67 *
Salt Lake Area	4	6-24	58	66	70 *
American Fork River	2	24	32	34	29
Provo River above Vivian Park	7	6-28	44	47	51 *
Strawberry Reservoir Valley	3	23-28	33	26	29
Mt. Nebo Area	1	5	65	50	58 *
Sevier River above H atch	3	4-15	13	13	12 *
East Fork Sevier River	2	8-21	14	26	17*
Salina Creek	2	3	33	34	40 *
San Pitch River	3	8-20	44	42	42 *
Beaver River	3	8-9	26	32	28 *
Coal Creek-Cedar City	2	4-7	23	27	24 *
COLORADO RIVER BASIN					
Duchesne-Strawberry River	5	6-28	39	38	41 *
Lakefork River	2	6-8	36	48	42 *
Whiterocks River	2	6	24	26	24 *
Price River	4	3-23	34	32	35 *
San Rafael Tributaries	7	3-8	39	38	40 *
Escalante River	2	8-21	14	26	17 *
Virgin River	4	4-15	15	16	14 *

* 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 36 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, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS? 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
GREAT BASIN DRAINAGE									
BEAR RIVER above HARER, IDAHO									
Trial Lake x	10J8	9800	1/29	50	10.9	17.7	18.0	16.6**	6
Poison Meadows x	10G6	8500	Delayed Data			- -	- -	- -	0
Piney LaBarge x	10G10	8820	"		"	- -	11.9	- -	1
Big Park	10G11	8700	"		"	- -	- -	- -	0
Kelly R. S.	10G12	8200	"		"	- -	- -	- -	0
Salt River Summit x	10G8	7900	1/27	30	7.4	9.9	10.0	11.1**	10
CCC Camp x	10G7	7500	1/27	24	6.0	7.9	7.8	7.9	23
BEAR RIVER below HARER, IDAHO									
Garden City Summit	11H7	7900	1/27	33	7.1	13.9	12.0	12.5**	12
Strawberry Mink Div.	11G10	6800	1/28	37	8.2	18.4	13.5	- -	3
Strawberry Creek	11G9	5800	1/28	21	4.4	10.2	7.6	- -	3
Christensen Ranch	11G11	5600	1/29	22	4.9	7.6	5.7	- -	3
Willow Flat	11G4	6100	1/27	25	6.8	13.4	10.7	- -	3
Cub River R. S.	11G12	5400	1/27	13	3.4	7.6	5.8	- -	3
Franklin Basin R. S.	11G8	8200	1/28	44	11.8	21.1	17.5	18.4**	5
Klondike Narrows	11H1	7400	1/28	45	9.1	17.1	12.9	13.8**	5
Tony Grove R. S.	11H3	6250	1/27	21	5.6	10.7	7.4	7.4**	10
Dry Bread Pond	11H13	8230	1/26	28	6.1	13.4	11.3	12.1**	6
Beaver Crk-Skunk Crk.	11H14	7150	1/26	19	3.8	9.6	8.2	8.4**	6
Oxford Mountain	12G3	6800	1/30	20	4.1	8.0	5.8	- -	4
Dry Creek Flat	12G4	6350	1/30	12	2.3	7.0	4.6	- -	4
OGDEN RIVER									
Dry Bread Pond	11H13	8230	1/26	28	6.1	13.4	11.3	12.1**	6
Beaver Crk-Skunk Crk.	11H14	7150	1/26	19	3.8	9.6	8.2	8.4**	6
Sagebrush Flat	11H15	6300	1/26	8	1.0	4.7	5.3	4.4**	6
Ben Lomond (lower)	11H9	6000	1/27	12	3.5	14.3	9.2	- -	3
Mt. Ogden	11H10	8600	1/24	29	8.1	21.0	13.2	19.6**	7
Snow Basin	11H11	6500	1/24	14	3.3	11.9	8.8	9.8**	5

x - Adjacent Drainage
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT FEBRUARY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
WEBER RIVER									
Trial Lake x	10J8	9800	1/29	50	10.9	17.7	18.0	16.6**	6
Smith & Morehouse	11J4	7600	1/28	23	5.1	8.5	10.6	8.1**	5
Beaver Creek R. S.	11J24	7500	1/29	12	2.4	8.4	7.5	6.5**	8
Chalk Creek #2	11J2	8200	1/27	29	5.2	7.8	10.7	9.6**	5
Chalk Creek #3	11J3	7500	1/27	19	3.7	4.7	6.4	4.9**	5
Silver Lake x	11J16	8725	1/28	44	9.9	16.0	14.7	15.4	24
Parley's Canyon Smt.	11J15	7500	1/29	37	8.2	12.9	13.2	11.6**	8
Lamb's Canyon x	11J14	6600	1/29	31	6.4	13.8	11.2	9.9**	13
PROVO RIVER & UTAH LAKE									
Trial Lake	10J8	9800	1/29	50	10.9	17.7	18.0	16.6**	6
Soapstone R. S.	11J25	7800	1/29	24	4.3	10.6	10.0	7.5**	8
Daniels-Strawberry Smt	11J23	8000	1/29	17	3.4	9.8	11.2	9.6	28
Strawberry Divide	11J8	8000	1/25	20	4.2	11.3	16.5	13.8	23
East Portal	11J7	7560	1/25	8	1.1	6.8	8.1	8.5	23
Clear Creek Ridge #2	11K22	8000	1/26	20	3.9	10.0	11.3	- -	3
Clear Creek Ridge #3	11K23	6600	1/26	14	2.7	6.7	6.0	- -	3
Payson R. S.	11K1	8050	1/28	25	6.6	10.2	13.2	10.8**	5
Rock Bridge	11K2	6750	1/28	22	5.6	8.4	8.8	7.4**	5
Timpanogas Divide	11J21	8200	1/29	23	5.0	15.6	15.1	17.4	24
Camp Altamont	11J20	7300	1/29	16	3.4	10.6	9.6	12.2	24
South Fork R. S.	11J19	6100	1/29	12	2.7	7.3	3.7	6.3*	21
Timpanogas Cave Camp	11J18	5500	1/29	9	1.2	2.4	2.0	3.6*	16
JORDAN RIVER & GREAT SALT LAKE									
Silver Lake	11J16	8725	1/28	44	9.9	16.0	14.7	15.4	24
Mill D. South Fork	11J10	7400	1/28	34	8.3	15.8	12.2	12.8**	6
Lamb's Canyon	11J14	6600	1/29	31	6.4	13.8	11.2	9.9**	13
Parley's Canyon Smt. x	11J15	7500	1/29	37	8.2	12.9	13.2	11.6**	8
Farmington Canyon (upper)	11J11	8000	1/31	46	11.5	18.7	16.9	18.8**	6
Farmington Canyon (lower)	11J12	6950	1/31	41	10.2	14.1	12.7	15.6**	8
Middle Canyon	12J3	7000	1/27	25	5.8	9.0	8.2	8.4**	5

x - Adjacent Drainage
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT FABRUARY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
SEVIER RIVER above RICHFIELD									
Midway Valley	12M2	9400	1/28	18	4.0	17.0	13.3	- -	4
Duck Creek R. S.	12M4	8560	1/28	2	0.5	8.6	12.4	10.1*	15
Harris Flat R. S.	12M5	7700	1/28	3	0.7	4.8	6.9	6.6**	13
Long Valley Jnct. x	12M6	7500	1/28	0	0.0	0.8	4.3	4.4**	7
Bryce Canyon	12M8	8000	1/28	0	0.0	3.7	2.8	3.8**	10
Widtsoe-Escalante Smt.	11M1	9500	1/27	0	0.0	6.4	3.2	5.5*	21
Widtsoe-Escalante #2	11M2	9500	1/27	11	2.3	8.3	4.4	6.1**	8
Widtsoe-Escalante #3	11M3	9500	1/27	14	3.4	New Course			0
Big Flat x	12L7	10000	1/31	20	4.3	15.4	10.7	12.4**	8
SEVIER RIVER below RICHFIELD including SAN PITCH RIVER									
Farnsworth Lake	11L1	9900	1/26	20	4.3	13.2	12.6	- -	3
Gooseberry R. S.	11L2	8400	1/26	15	2.8	8.2	8.2	- -	3
Gooseberry Reservoir	11K4	8700	1/27	22	5.1	12.3	13.2	13.6**	8
G.B.R.C. Meadows	11K10	10000	1/28	28	6.7	16.1	16.6	17.0**	8
G.B.R.C. Headqtrs.	11K11	8700	1/28	20	4.6	9.2	10.1	9.6*	20
Middle Fork	11K34	9600	1/26	30	6.4	- -	14.6	- -	2
Thistle Flat	11K35	8500	1/26	21	4.5	9.3	11.5	- -	3
BEAVER RIVER									
Big Flat	12L7	10000	1/31	20	4.3	15.4	10.7	12.4**	8
Otter Lake	12L8	9300	1/31	17	3.6	10.6	9.4	10.0**	8
Merchant's Valley	12L9	8200	1/31	7	1.2	6.9	6.4	6.8**	9
COAL CREEK									
Midway Valley x	12M2	9400	1/28	18	4.0	17.0	13.3	- -	4
Webster Flat	12M3	9200	1/28	13	2.4	10.7	10.0	11.8**	7
Urie Flat	12M10	8450	1/28	T	T	5.5	5.3	- -	4

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT FEBRUARY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
COLORADO RIVER DRAINAGE									
DUCHESNE RIVER									
Trial Lake x	10J8	9800	1/29	50	10.9	17.7	18.0	16.6**	6
Soapstone R. S. x	11J25	7800	1/29	24	4.3	10.6	10.0	7.5**	8
Daniels-Strawberry Smt.	11J23	8000	1/29	17	3.4	9.8	11.2	9.6	28
Strawberry Divide x	11J8	8000	1/25	20	4.2	11.3	16.5	13.8	23
East Portal	11J7	7560	1/25	8	1.1	6.8	8.1	8.5	23
Indian Canyon	10K1	9100	1/29	14	2.4	7.2	6.6	6.9*	23
Lakefork Mountain	10J10	10500	1/28	16	3.4	8.5	6.6	8.7**	8
Lakefork Mountain #2	10J11	8900	1/28	7	1.9	5.7	4.2	6.2**	6
Lakefork Mountain #3	10J12	8100	1/28	5	0.8	3.6	3.6	4.6**	6
Paradise Park	9J3	10500	1/27	14	2.1	8.4	7.4	8.6**	6
Julius Park	9J6	9800	1/27	13	2.2	8.8	- -	- -	1
Mosby Mtn. (lower)	9J5	9500	1/27	10	1.5	6.8	5.9	7.2**	6
PRICE RIVER									
Gooseberry Reservoir	11K4	8700	1/27	22	5.1	12.3	13.2	13.6**	8
Mud Creek #2	11K33	8300	1/28	17	3.1	8.8	11.4	- -	3
Staley Ranch	11K7	7600	1/27	6	1.0	5.6	6.4	5.5*	17
Dry Valley Divide	11K8	7800	1/27	11	2.1	7.6	8.0	7.3*	17
Indian Canyon x	10K1	9100	1/29	14	2.4	7.2	6.6	6.9*	23
SAN RAFAEL RIVER									
Gooseberry Reservoir x	11K4	8700	1/27	22	5.1	12.3	13.2	13.6**	8
Red Pine Ridge	11K28	9400	1/27	25	5.2	11.6	13.8	- -	3
Joe's Valley	11K29	8800	1/27	15	2.6	5.6	6.8	- -	3
Buck Flat	11K31	9400	1/28	19	3.5	11.4	10.6	- -	3
Rush Pond	11K38	9800	1/28	18	3.8	10.2	9.6	- -	3
Wrigley Creek	11K32	9000	1/28	15	2.5	8.2	6.8	- -	3
FREMONT RIVER									
Farnsworth Lake x	11L1	9900	1/26	20	4.3	13.2	12.6	- -	3
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	1/27	0	0.0	6.4	3.2	5.5*	21
Widtsoe-Escalante #2	11M2	9500	1/27	11	2.3	8.3	4.4	6.1**	8
Widtsoe-Escalante #3	11M3	9500	1/27	14	3.4	New Course			0

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

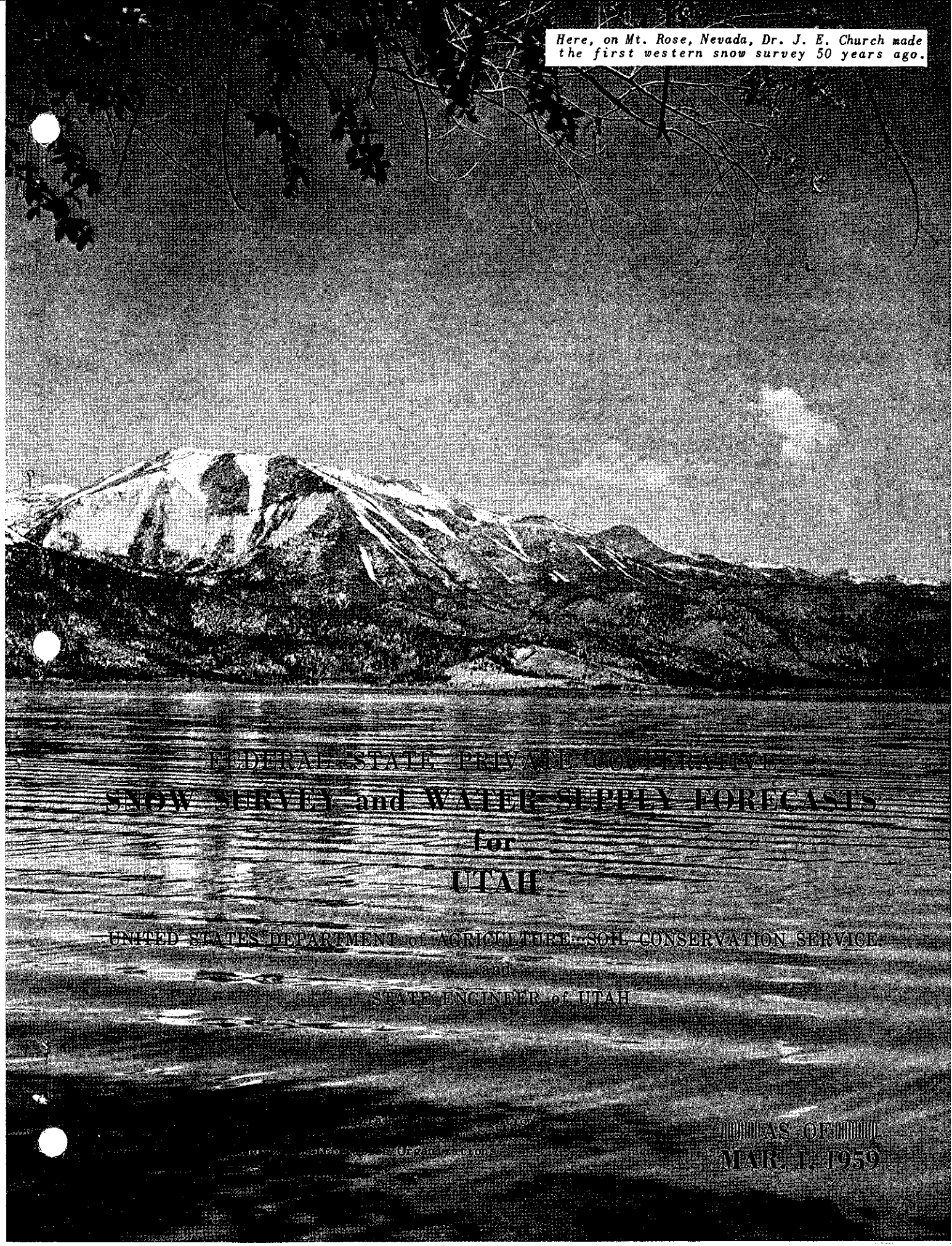
UTAH SNOW SURVEYS - ABOUT FEBRUARY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
VIRGIN RIVER									
Long Valley Jnct.	12M6	7500	1/28	0	0.0	0.8	4.3	4.4**	7
Harris Flat R. S.	12M5	7700	1/28	3	0.7	4.8	6.9	6.6**	13
Duck Creek R. S.	12M4	8560	1/28	2	0.5	8.6	12.4	10.1*	15
Midway Valley x	12M2	9400	1/28	18	4.0	17.0	13.3	- -	4
Webster Flat	12M3	9200	1/28	13	2.4	10.7	10.0	11.8**	7
COLUMBIA RIVER DRAINAGE									
RAFT RIVER									
Clear Creek Meadows	13H2	9050	Delayed Data				New Course		0
One Mile Summit	13H1	7330	" "				New Course		0

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

UTAH SNOW SURVEYS - DELAYED REPORTS RECEIVED SINCE BULLETIN OF JANUARY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS - 1959		
			Date of Survey	Snow Depth (In.)	Water Content (In.)
COLORADO RIVER DRAINAGE					
PRICE RIVER					
Mud Creek #2	11K33	8300	1/5	11	1.5
Staley Ranch	11K7	7600	1/5	3	T
Dry Valley Divide	11K8	7800	1/5	2	T



Here, on Mt. Rose, Nevada, Dr. J. E. Church made the first western snow survey 50 years ago.

FEDERAL-STATE-PRIVATE COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for UTAH

UNITED STATES DEPARTMENT of AGRICULTURE—SOIL CONSERVATION SERVICE

and

STATE ENGINEER of UTAH

Organizations

AS OF

MAR. 1, 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

U T A H

MARCH 1, 1959

Report Prepared

by

Gregory L. Pearson
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and

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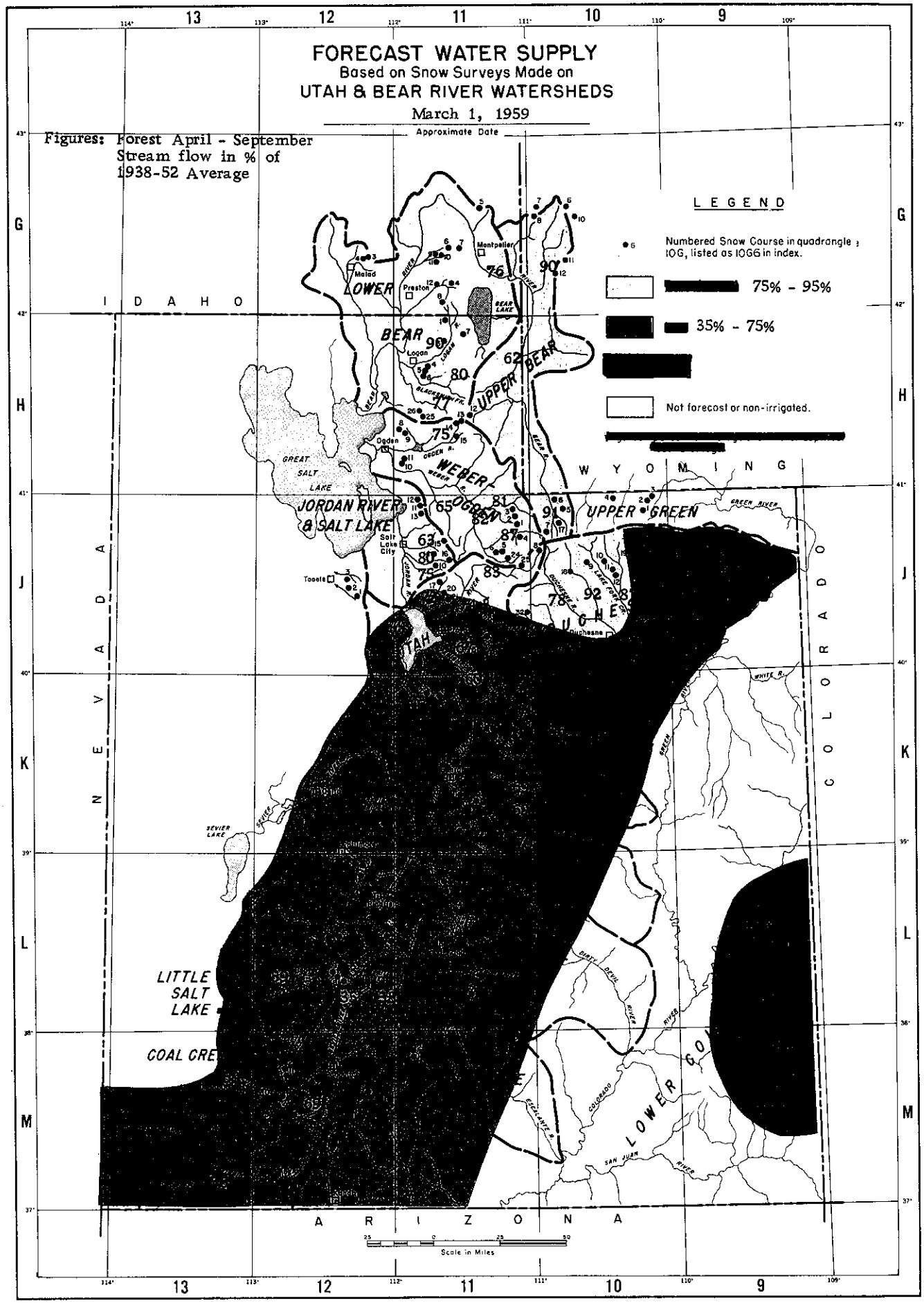

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

M-926

WATER SUPPLY OUTLOOK

FOR UTAH

MARCH 1, 1959

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* February storms improved the water outlook, *
* but it is still poor in the central and     *
* southern part of the state where streamflow *
* is forecast at 35% to 75%. In the northern *
* part it is fair, with most forecasts rang-  *
* ing between 75% and 95%. Reservoir storage *
* is above average.                           *
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The outlook for water during the coming April thru September period has brightened considerably as a result of the storm pattern of the past month. Throughout the state, the water content of the snowpack at most of the snow courses has increased from one and one-half to nearly three times the amount it generally does during February.

The result of this above average increase is that streamflow forecasts are now 10% to 30% higher than a month ago. Several examples illustrating this are as follows:

1. Sevier River at Hatch is now forecast at 69%, whereas last month it was 48%.
2. Sevier River below Piute Dam is forecast at 37%, last month at 25%.
3. Spanish Fork River at Thistle now 60%, last month 40%
4. Ashley Creek near Vernal now 62%, last month 52%.

In the center of the state, in Carbon, Emery, Sanpete, Sevier and Millard counties the streams are expected to yield about 70% of their average flow.

The Virgin River, the streams at Cedar City, Parowan, Beaver and in the Southeastern part of the state at Moab and Monticello are all expected to flow at 50% to 60% of average. Ashley Creek near Vernal is forecast at 62%.

A month ago the outlook in this central and southern area was for a record drought. In spite of the fact that this month's storms have materially brightened the water picture, the forecasts show that the outlook is still for very poor supplies except where adequate reservoir storage is available. Fortunately for water users having rights to stored water, most reservoirs have above average supplies in them as a result of carryover from the good streamflow of the past year or two.

In the northern part of the state the outlook is somewhat better. Here streams are forecast to flow at about 75% to 95% of their usual amounts except for the Bear River near Randolph, East Canyon Creek near Morgan and Parleys Creek near Salt Lake which are forecast at 62%, 65% and 63%, respectively. This northern area includes the streams from Tooele eastward past Salt Lake, across the Weber and Provo rivers and to the Uintah river in the Uintah Basin. It extends northward over the Ogden river, the streams of Cache Valley and all tributaries of the Bear river in Utah, Idaho and Wyoming.

Another month or two of storms such as we have had during February are needed if the central and southern parts of the state are to have near average streamflow this summer. On the other hand, if the drought trend which prevailed for so long before February should return for the next couple of months, the effect of this month would be quickly offset and a near record drought could still be experienced. The forecasts presented here are on the assumption that average conditions will prevail for the balance of the season.

UTAH STREAMFLOW FORECASTS - MARCH 1, 1959

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 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
GREAT BASIN							
BEAR RIVER SYSTEM							
Bear River near Utah-Wyo.State Line	112	91	Apr-Sept	101	158	124	123(1)
Bear River near Randolph, Utah	72	62	Apr-Sept.	44	142	94	116(2)
Smith's Fork near Border, Wyoming	107	90	Apr-Sept	112	148	152	119(3)
Bear River at Harer, Idaho	213	76	Apr-Sept	189	357	321	281
Little Bear River nr Paradise, Utah	34	77	Apr-Sept.	42	45	38	44
Logan River near Logan, Utah(4)	120	90	Apr-Sept	139	142	155	133
Blacksmith Fork near Hyrum, Utah (5)	48	80	Apr-Sept	61	68	73	60
WEBER-OGDEN RIVERS							
Weber River near Oakley, Utah	111	87	Apr-Sept	106	153	145	128
Weber River near Coalville, Utah(6)	113	82	Apr-Sept	114	170	136	138
Chalk Creek at Coalville, Utah	34	81	Apr-Sept	19.7	53	35	42

(1) Average runoff for 15 years, 1943-57
(2) Average runoff for 14 years, 1944-1957
(3) Average runoff for 15 years, 1943-1957
(4) Includes U.P. & L. Co. tailrace and Logan, Hyde Park & Smithfield Canal.
(5) Above Utah Power and Light Company's dam.
(6) Includes diversion by Weber-Provo canal and change in storage in Wanship Reservoir.

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr Av. 1938-5
WEBER-OGDEN RIVERS							
East Canyon Creek nr Morgan, Utah(7)	19	65	Apr-Sept	32	28.5	16.9	29.2
South Fork Ogden River nr Huntsville, Utah	49	75	Apr-Sept	58	77	63	65
PROVO RIVER & UTAH LAKE							
Spanish Fork at Thistle, Utah	27	60	Apr-Sept	54	54	27.3	45
Hobble Creek near Springville, Utah	16	67	Apr-Sept	27.3	25.6	15.5	24(8)
Provo River nr Hailstone, Utah(9)	94	83	Apr-Sept	110	145	114	113(10)
Provo River at Vivian Park, Ut.(11)	115	74	Apr-Sept	149	174	139	156
American Fork River nr American Fork, Ut.	26	72	Apr-Sept	42	33	32	36
JORDAN RIVER & SALT LAKE							
Little Cottonwood Creek nr Salt Lake City, Utah	30	75	Apr-Sept	42	38	37	40
Big Cottonwood near Salt Lake City	32	80	Apr-Sept	50	50	35	40
Parley's Creek near Salt Lake City, Utah	9.5	63	Apr-Sept	14.2	15.8	8.4	15.2
SEVIER RIVER							
Sevier River at Hatch, Utah	40	69	Apr-Sept	93	48	25.8	58(12)
Sevier River near Kingston, Utah	16	35	Apr-Sept	69	18.1	5.3	46

(7) Observed flow plus change in storage in East Canyon reservoir.
(8) For 12 years, 1946-1957.
(9) Observed flow minus diversions thru Duchesne tunnel and Weber-Provo Canal.
(10) Calculated average runoff, 1938-52.
(11) Observed flow plus change in storage in Deer Creek reservoir, minus diversions thru Duchesne tunnel & Weber-Provo Canal, plus diversion thru Salt Lake Aqueduct.
(12) Average runoff for 15 years, 1940-1954.

UTAH STREAMFLOW FORECASTS - MARCH 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Y Av. 1938-
East Fork Sevier River nr Kingston, Utah (13)	11	38	Apr-Sept	49	19.7	7.9	28.8
Sevier River below Piute Dam(14)	28	37	Apr-Sept	115	33	13.1	75
BEAVER RIVER							
Beaver River near Beaver, Utah	20	59	Apr-Sept	43	45	20.2	34
COAL CREEK							
Coal Creek near Cedar City, Utah	12	59	Apr-Sept	32	20.3	10.6	20.4
COLORADO RIVER BASIN							
UPPER GREEN RIVER							
Ashley Creek near Vernal, Utah	40	62	Apr-Sept	55	64	49	65
DUCHESNE RIVER							
Duchesne River near Tabiona, Utah (15)	95	78	Apr-Sept	117	135	121	122
Rock Creek near Mtn. Home, Utah	100	92	Apr-Sept	99	124	111	109
Strawberry River at Duchesne, Utah	40	49	Apr-Sept	85	79	59	82
Lakefork River below Moon Lake, Utah(16)	68	87	Apr-Sept	76	82	82	78(17)
Uinta River near Neola, Utah	82	74	Apr-Sept	108	104	90	111
Whiterocks River near Whiterocks, Utah	49	68	Apr-Sept	63	70	54	72

(13) Observed flow plus change in storage in Otter Creek Reservoir.
(14) Observed flow plus change in storage in Otter Creek & Piute Reservoirs.
(15) Observed flow plus diversion through Duchesne Tunnel.
(16) Observed flow plus change in storage in Moon Lake reservoir.
(17) Average runoff for 15 years, 1943-1957.

UTAH STREAMFLOW FORECASTS - MARCH 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
PRICE RIVER							
Price River near Scofield, Utah (18)	31	72	Apr-Sept	51	57	28.7	43
Price River near Heiner, Utah (18)	43	56	Apr-Sept	108	94	48	77
SAN RAFAEL RIVER							
Huntington Creek near Huntington, Utah	43	69	Apr-Sept	91	76	44	62
Cottonwood Creek near Orangeville, Utah	44	69	Apr-Sept	83	92	41	64
Ferron Creek near Ferron, Utah	31	70	Apr-Sept	66	63	31	44 (19)
VIRGIN RIVER							
Virgin River at Virgin, Utah	33	55	Apr-June	108	38	26	60

(18) Observed flow plus change in storage in Scofield reservoir.
(19) Calculated average runoff for 1938-52.

STATUS OF UTAH RESERVOIR STORAGE - MARCH 1, 1959 (1)

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FT. 1959	1958	1957	15-Yr. Av 1938-52
		GREAT BASIN				
Bear River	Bear Lake	1421.0	1003.0	956.9	850.5	714.3
Little Bear	Hyrum	15.3	10.6	10.0	11.4	10.5(2)
Ogden	Pine View	110.0	16.0	12.0	6.3	6.8
Weber	Wanship	59.1	12.2	38.4	5.6	- -
	Echo	73.9	27.7	40.0	24.4	25.0
	East Canyon	28.7	12.8	15.5	15.0	16.8
Provo	Deer Creek	149.7	74.9	96.3	87.3	85.2(3)
Spanish Fork	Strawberry	270.0	156.7	156.4	138.9	99.0
Utah Lake	Utah Lake	1149.0(4)	594.2	604.8	433.1	498.2
Sevier River	Otter Creek	52.5	37.2	28.2	13.6	35.3
	Piute	74.0	54.1	45.0	20.1	51.5
	Sevier Bridge	236.0	90.4	103.6	40.9	152.6
Beaver River	Rocky Ford	23.3	14.2	19.0	7.4	16.6
		COLORADO RIVER				
Lake Fork	Moon Lake	35.8	9.1	26.0	8.4	16.6
Price River	Scofield	65.8	34.5	40.0	4.6	16.3(5)

(1) All data contained in this table supplied by U. S. Geological Survey.
(2) Average for 1939-53.
(3) Average for 1943-57.
(4) Active capacity taken at 3.1 feet above compromise point.
(5) Average for 1943-57.

COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of March 1, 1959

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1959 Snow Water Expressed as Percent of 1958	1957	1938-52 Av.
GREAT BASIN					
Smith's Fork - Bear River(Wyo)	2	11-23	80	80	89 *
Strawberry-Mink Creeks(Ida.)	2	4	66	91	--
Cub River(Ida.)	2	4-8	74	93	91 *
Logan River	4	5-12	73	89	90 *
Blacksmith Fork - Little Bear	7	3-12	79	95	82 *
Malad River(Idaho)	2	4	101	157	--
Ogden River	6	3-11	69	94	82 *
Weber River above Echo Dam	9	6-24	86	87	88 *
East Canyon Creek	3	11-24	67	83	80 *
Farmington Creek	2	8	64	101	78 *
Salt Lake Area	4	6-24	66	85	82 *
Tooele Area	1	5	76	112	92 *
American Fork River	3	4-24	67	77	70 *
Provo River above Vivian Park	6	8-28	79	74	77 *
Strawberry Reservoir Valley	3	23-28	80	65	69
Hobble Creek	1	6	98	85	92 *
Payson Creek	1	11	89	87	84 *
Sevier River above Panguitch	4	5-16	63	72	63 *
East Fork Sevier River	4	3-22	48	92	55 *
Clear Creek above Sevier	1	14	67	86	65 *
Salina Creek	2	6-8	57	74	70 *
San Pitch River	6	7-21	74	89	85 *
Chicken Creek - Levan	1	2	70	76	--
Chalk Creek - Fillmore	2	5	73	97	90 *
Beaver River	3	10-12	58	72	63 *
Parowan Creek	3	4-13	59	103	53 *
Coal Creek - Cedar City	3	5-13	55	70	55 *
COLORADO RIVER BASIN					
Duchesne River above Tabiona	3	12-28	79	76	84 *
Strawberry River	5	4-28	76	66	69 *
Lakefork River	2	6-8	106	106	83 *
Whiterocks - Uintah Rivers	2	8-9	69	78	58 *
Ashley Creek	4	8-10	92	90	68 *
Price River	6	4-21	71	72	74 *
San Rafael Tributaries	6	3-14	69	80	77 *
Muddy River			No Report		
Fremont River	4	3-6	42	74	52 *
Escalante River	2	9-22	50	100	57 *
Virgin River	5	5-16	63	72	63 *
LaSal Mtns. near Moab	2	3-7	38	44	40 *
Blue Mtns. near Monticello	2	3	48	44	43 *

* 15 year average values partly estimated.

UTAH SNOW SURVEYS - ABOUT MARCH 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Yrs. of Prior Record
GREAT BASIN DRAINAGE									
BEAR RIVER above HARER, IDAHO									
Trial Lake x	10J8	9800	2/25	68	17.8	23.7	23.6	23.9**	13
Monte Cristo R. S.	11H12	8960	2/25	58	17.5	24.7	20.9	24.5**	9
Poison Meadows x	10G6	8500	No Report			28.6	25.9	25.9**	11
Piney LaBarge x	10G10	8820	No Report			19.6	16.0	- -	4
Salt River Summit x	10G8	7900	2/25	45	11.6	16.1	14.6	14.1**	11
CCC Camp x	10G7	7500	2/25	38	9.3	10.7	11.4	9.7	23
BEAR RIVER below HARER, IDAHO									
Garden City Summit	11H7	7900	2/24	47	12.4	18.5	16.4	18.2**	12
Strawberry Mink Divide	11G10	6800	2/26	51	14.1	23.5	17.8	- -	4
Strawberry Creek	11G9	5800	2/26	31	8.9	12.4	8.6	- -	4
Christensen Ranch	11G11	5600	2/25	26	8.0	9.9	6.6	- -	4
Willow Flat	11G4	6100	2/25	39	12.3	16.8	11.6	- -	4
Cub River R. S.	11G12	5400	2/25	27	7.4	11.0	4.7	- -	4
Franklin Basin R. S.	11G8	8200	2/21	64	19.7	26.7	24.0	24.5**	8
Klondike N arrows	11H1	7400	2/21	54	15.0	21.5	17.2	17.4**	5
Tony Grove R. S.	11H3	6250	2/24	36	10.1	12.5	9.2	10.6**	10
Monte Cristo R. S.	11H12	8960	2/25	58	17.5	24.7	20.9	24.5**	9
Dry Bread Pond x	11H13	8230	2/25	42	12.6	16.7	15.7	17.9**	11
Beaver Crk-Skunk Crk.	11H14	7150	2/25	33	8.9	11.4	11.5	11.6**	7
Little B ear(upper)	11H25	6850	2/26	34	9.7	10.8	9.7	- -	3
Little Bear(lower)	11H26	6100	2/26	28	8.9	9.4	6.2	- -	3
Oxford Mountain	12G3	6800	2/27	30	8.0	9.9	6.6	- -	4
Dry Creek Flat	12G4	6350	2/27	21	6.2	5.2	3.2	- -	4
OGDEN RIVER									
Monte Cristo R. S. x	11H 12	8960	2/25	58	17.5	24.7	20.9	24.5**	9
Dry Bread Pond	11H13	8230	2/25	42	12.6	16.7	15.7	17.9**	11
Beaver Crk-Skunk Crk	11H14	7150	2/25	33	8.9	11.4	11.5	11.6**	7
Sagebrush Flat	11H15	6300	2/25	14	4.1	4.5	2.8	4.2**	6
Ben Lomond(lower)	11H9	6000	2/24	32	9.7	18.2	9.4	- -	3
Mt. Ogden	11H10	8600	2/21	62	20.2	31.4	18.4	25.9**	9
Snow Basin	11H11	6500	2/21	40	10.6	14.5	9.2	12.3**	5

x - Adjacent Drainage
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT MARCH 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 AV.	Pri. Yrs. Reco.
WEBER RIVER									
Trial Lake x	10J8	9800	2/25	68	17.8	23.7	23.6	23.9**	13
Smith & Morehouse	11J4	7600	2/24	34	10.4	12.8	12.1	12.3**	8
Redden Mine(upper)	11J5	9000	2/24	53	15.4	18.8	15.6	17.7**	8
Redden Mine(lower)	11J6	8500	2/24	49	13.3	17.6	15.0	16.5**	8
Beaver Creek R. S.	11J24	7500	2/25	22	7.0	9.8	9.2	8.7**	10
Chalk Creek #1	11J1	9100	2/26	61	17.0	18.6	18.1	20.1**	6
Chalk Creek #2	11J2	8200	2/26	43	11.3	10.4	13.0	12.8**	8
Chalk Creek #3	11J3	7500	2/26	28	8.4	6.9	8.1	7.1**	7
Silver Lake	11J16	8725	2/26	54	15.0	22.3	20.7	20.7	24
Parley's Canyon Smt.	11J15	7500	2/27	46	13.3	18.4	15.4	16.6**	11
Lamb's Canyon x	11J14	6600	2/27	38	10.8	17.1	11.8	13.2*	18
PROVO RIVER & UTAH LAKE									
Trial Lake	10J8	9800	2/25	68	17.8	23.7	23.6	23.9**	13
Soapstone R. S.	11J25	7800	2/25	39	11.0	13.5	12.8	12.2**	12
Daniels-Strawberry Smt.	11J23	8000	2/26	36	10.0	12.2	14.6	13.6	28
Strawberry Divide	11J8	8000	2/21	48	12.7	16.4	19.9	18.0*	23
East Portal	11J7	7560	2/21	26	7.2	8.8	11.3	11.6	24
Hobble Creek Summit	11J22	7300	2/26	40	11.9	12.2	14.0	12.2**	6
Packard Canyon	11J31	6400	2/26	30	9.0	10.3	10.4	- -	4
Clear Creek Ridge #1	11K21	9200	2/24	49	12.2	14.1	16.4	- -	3
Clear Creek Ridge #2	11K22	8000	2/24	37	9.6	10.8	14.3	- -	4
Clear Creek Ridge #3	11K23	6600	2/24	23	6.1	7.6	7.0	- -	4
Payson R. S.	11K1	8050	2/24	50	13.2	14.8	15.2	15.8**	11
Rock Bridge	11K2	6750	2/24	38	11.1	11.7	7.7	9.9**	5
Dutchman R. S.	11J17	7500	2/27	43	13.6	19.7	16.8	- -	4
Timpanogos Divide	11J21	8200	2/27	43	13.4	20.6	21.6	23.2	24
Camp Altamont	11J20	7300	2/27	29	9.3	14.5	12.1	16.6	24
South Fork R. S.	11J19	6100	2/27	9	3.0	10.3	0.0	7.7*	21
Timpanogos Cave Camp	11J18	5500	2/27	5	1.8	3.6	0.0	3.9*	17
JORDAN RIVER & GREAT SALT LAKE									
Silver Lake	11J16	8720	2/26	54	15.0	22.3	20.7	20.7	24
Mill D. South Fork	11J10	7400	2/26	51	14.8	23.8	16.4	17.9**	6
Lamb's Canyon	11J14	6600	2/27	38	10.8	17.1	11.8	13.2*	18
Parley's Canyon Smt.	11J15	7500	2/27	46	13.3	18.4	15.4	16.6**	11
Farmington Canyon(upper)	11J11	8000	2/25	65	17.5	27.9	17.8	23.4**	8
Farmington Cyn.(lower)	11J12	6950	2/25	54	15.6	23.8	14.8	19.7**	8
Middle Canyon	12J3	7000	2/25	36	10.4	13.7	9.3	10.9**	5

x - Adjacent Drainage

* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.

** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT MARCH 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
SEVIER RIVER above RICHFIELD									
Cedar Breaks	12M1	10390	2/18	43	10.4	20.8	14.2	18.8**	13
Midway Valley	12M2	9400	2/18	47	11.4	21.4	17.0	19.5**	5
Duck Creek R. S.	12M4	8560	2/25	40	9.1	14.2	14.6	13.8*	15
Harris Flat R. S.	12M5	7700	2/25	26	6.6	7.8	7.6	9.6*	16
Long Valley Junction x	12M6	7500	2/25	18	4.3	0.9	T	3.8**	10
Castle Valley	12M13	9700	2/27	33	8.6	13.7	8.0	- -	2
Panguitch Lake	12M7	8200	2/27	11	2.4	5.2	1.4	4.1**	7
Bryce Canyon	12M8	8000	No Report			4.5	2.4	5.0**	12
Widtsoe-Escalante Smt.	11M1	9500	2/26	18	4.0	8.9	4.2	7.7*	22
Widtsoe-Escalante #2	11M2	9500	2/26	28	6.1	11.2	5.8	7.3**	9
Widtsoe-Escalante #3	11M3	9500	2/26	34	8.1	New Course			0
Fish Lake	11L3	8700	2/19	16	3.0	9.6	3.9	- -	4
Box Creek	12L4	9800	2/24	40	8.2	13.6	8.8	- -	4
Squaw Springs	12L5	9300	2/24	27	5.2	8.2	6.1	- -	3
Big Flat x	12L7	10000	2/26	49	10.6	20.4	14.9	16.1**	10
Kimberly Mine (upper)	12L6	8900	2/20	37	9.5	14.2	11.0	12.4**	14
SEVIER RIVER below RICHFIELD including SAN PITCH RIVER									
Farnsworth Lake	11L1	9900	2/27	40	9.7	17.6	14.2	15.5**	6
Gooseberry R. S.	11L2	8400	2/27	30	7.0	11.8	8.7	9.5**	8
Huntington-Horseshoe	11K5	9800	2/24	65	18.6	26.7	20.5	22.4**	9
Gooseberry Reservoir	11K4	8700	2/24	54	13.7	16.4	17.0	18.5**	14
G.B.R.C. Meadows	11K10	10000	2/25	60	16.6	24.7	20.5	21.6**	9
G.B.R.C. Headqrtrs.	11K11	8700	2/25	50	13.0	14.8	13.1	14.3*	21
Middle Fork	11K34	9600	2/20	54	13.6	22.4	21.2	- -	3
Thistle Flat	11K35	8500	2/20	42	10.5	15.2	16.2	- -	3
Mt. Baldy R.S.	11K12	9500	2/26	62	15.8	24.7	20.0	21.2**	7
Beaver Dams	11K13	8000	2/26	38	10.1	13.8	9.5	11.6**	7
Rees's Flat	11K36	7300	2/19	28	7.6	10.9	10.0	- -	2
Pine Creek	12L1	8700	2/25	43	11.0	14.1	11.0	12.6**	5
Bear Canyon	12L3	7200	2/24	29	6.5	9.4	6.8	8.1**	5
BEAVER RIVER									
Big Flat	12L7	10000	2/26	49	10.6	20.4	14.9	16.1**	10
Otter Lake	12L8	9300	2/26	45	8.6	14.8	12.9	13.9**	11
Merchant's Valley	12L9	8200	2/26	30	6.5	10.0	8.3	9.7**	12
PAROWAN CREEK									
Yankee Reservoir	12M11	8700	2/24	30	6.1	8.3	5.4	- -	4
Ed Ward Flat	12M12	8300	2/24	20	3.6	6.7	2.9	4.8**	5

x - Adjacent Drainage

* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.

** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT MARCH 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prio Yrs. o Recor
COAL CREEK									
Cedar Breaks x	12M1	10390	2/18	43	10.4	20.8	14.2	18.8**	13
Midway Valley x	12M2	9400	2/18	47	11.4	21.4	17.0	19.5**	5
Webster Flat x	12M3	9200	2/20	39	9.8	15.9	14.0	14.3**	9
Urie Flat	12M10	8450	2/26	19	5.3	8.2	4.9	- -	4
ENTERPRISE to NEW HARMONY									
Long Flat	13M2	8200	2/26	19	5.2	4.6	1.3	- -	4
Little Grassy Creek	13M4	6100	2/25	20	5.3	New Course			0
COLORADO RIVER DRAINAGE									
UPPER GREEN RIVER in UTAH									
King's Cabin(upper)	9J1	8800	2/24	36	7.4	6.3	7.4	10.0**	10
King's Cabin(lower)	9J2	8600	2/24	32	6.8	6.0	6.6	8.8**	10
DUCHESNE RIVER									
Trial Lake x	10J8	9800	2/25	68	17.8	23.7	23.6	23.9**	13
Soapstone R. S. x	11J25	7800	2/25	39	11.0	13.5	12.8	12.2**	12
Daniels-Strawberry Smt.	11J23	8000	2/26	36	10.0	12.2	14.6	13.6	28
Strawberry Divide x	11J8	8000	2/21	48	12.7	16.4	19.9	18.0*	23
East Portal x	11J7	7560	2/21	26	7.2	8.8	11.3	11.6	24
White River #1 x	10K2	8600	2/26	30	7.6	13.0	13.2	- -	4
Indian Canyon	10K1	9100	2/27	29	6.5	8.0	8.4	8.9*	21
Lakefork Mountain	10J10	10500	2/26	35	8.2	9.2	8.2	10.2**	8
Lakefork Mountain #2	10J11	8900	2/26	25	6.0	4.9	5.3	6.7**	6
Lakefork Mountain #3	10J12	8100	2/26	23	5.2	3.4	4.0	5.7**	6
Paradise Park	9J3	10500	2/25	32	6.5	9.2	8.3	11.4**	8
Julius Park	9J6	9800	2/25	32	7.0	- -	- -	- -	0
Mosby Mtn. (lower)	9J5	9500	2/25	27	5.3	7.9	6.9	9.7**	9
PRICE RIVER									
Huntington-Horseshoe	11K5	9800	2/24	65	18.6	26.7	20.5	22.4**	9
Gooseberry Reservoir	11K4	8700	2/24	54	13.7	16.4	17.0	18.5**	14
Mud Creek #2	11K33	8300	2/25	41	8.9	12.8	14.1	- -	4
Staley Ranch	11K7	7600	2/25	20	4.2	7.8	8.8	7.0*	18
Dry Valley Divide	11K8	7800	2/25	30	7.2	11.1	9.8	9.8*	18

x - Adjacent Drainage.
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** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT MARCH 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. Reco
PRICE RIVER - Continued									
White River #1	10K2	8600	2/26	30	7.6	13.0	13.2	--	4
White River #2	11K24	7600	2/26	23	5.9	7.9	9.2	--	4
White River #3	11K25	7400	2/26	22	6.2	8.5	9.2	--	4
Indian Canyon x	10K1	9100	2/27	29	6.5	8.0	8.4	8.9*	21
Grassy Trail-Left Fork	10K3	7970	2/27	32	7.1	11.6	6.6	--	3
Corral	10K5	8200	2/27	26	6.2	9.8	6.7	--	3
Timberline	10K6	9100	2/27	37	8.6	13.2	--	--	1
SAN RAFAEL RIVER									
Huntington-Horseshoe	11K5	9800	2/24	65	18.6	26.7	20.5	22.4**	9
Gooseberry Reservoir	11K4	8700	2/24	54	13.7	16.4	17.0	18.5**	14
Red Pine Ridge	11K28	9400	2/25	51	12.0	18.4	17.5	--	4
Joe's Valley	11K29	8800	2/25	36	7.8	10.6	8.7	--	3
Seeley Creek R. S.	11K9	10000	2/25	34	9.9	17.2	12.2	14.3**	7
Buck Flat	11K31	9400	2/24	49	10.5	17.2	14.9	--	3
Rush Pond	11K38	9800	2/24	46	9.4	14.7	13.6	--	3
Wrigley Creek	11K32	9000	2/24	38	7.7	12.4	9.6	--	3
MUDDY RIVER									
Black's Fork	11K14	9200		N.S.	N.S.	13.2	10.3	--	3
Dill's Camp	11K15	9200		N.S.	N.S.	13.9	10.8	--	3
Mt. Baldy R. S. x	11K12	9500	2/26	62	15.8	24.7	20.0	21.2**	7
FREMONT RIVER									
Farnsworth Lake x	11L1	9900	2/27	40	9.7	17.6	14.2	15.5**	6
Fish Lake	11L3	8700	2/19	16	3.0	9.6	3.9	--	4
Johnson Valley	11L6	8850	2/19	15	2.8	7.9	4.6	--	3
Black's Flat-U.M.Creek	11L4	9250	2/19	26	6.2	13.9	6.8	--	3
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	2/26	18	4.0	8.9	4.2	7.7*	22
Widtsoe-Escalante #2	11M2	9500	2/26	28	6.1	11.2	5.8	7.3**	9
Widtsoe-Escalante #3	11M3	9500	2/26	34	8.1	New Course			0

x - Adjacent Drainage
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.
NS - No Survey

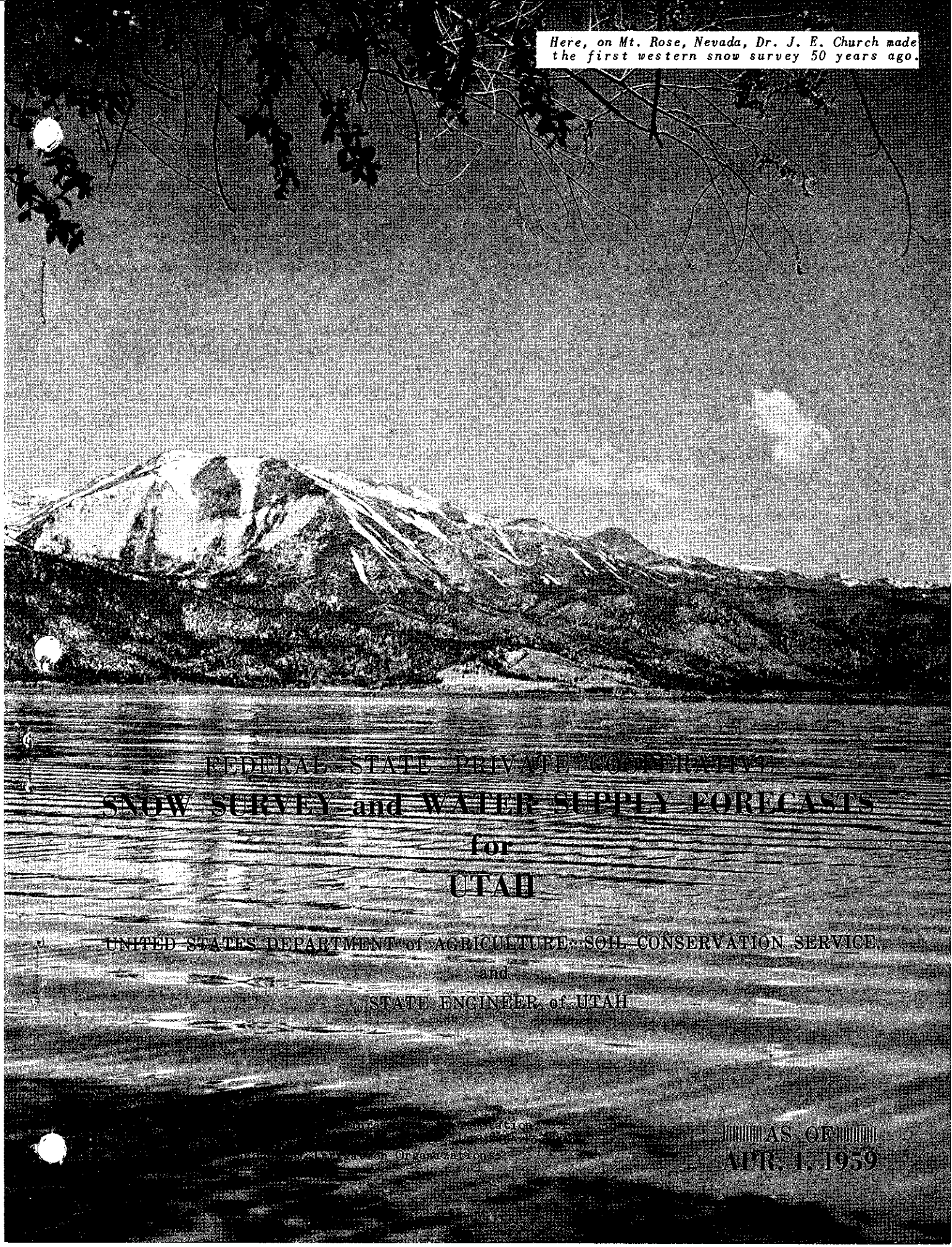
UTAH SNOW SURVEYS - ABOUT MARCH 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 AV.	Prior Yrs. of Record
VIRGIN RIVER									
Long Valley Junction	12M6	7500	2/25	18	4.3	0.9	T	3.8**	10
Harris Flat R. S. x	12M5	7700	2/25	26	6.6	7.8	7.6	9.6*	16
Duck Creek R. S. x	12M4	8560	2/25	40	9.1	14.2	14.6	13.8*	15
Midway Valley x	12M2	9400	2/18	47	11.4	21.4	17.0	19.5**	5
Cedar Breaks x	12M1	10390	2/18	43	10.4	20.8	14.2	18.8**	13
Webster Flat	12M3	9200	2/20	39	9.8	15.9	14.0	14.3**	9
LOWER COLORADO RIVER (Southeastern Utah)									
LaSal Mountain (Upper)	9I2	9600	2/19	31	7.6	20.5	15.8	- -	3
LaSal Mountain	9L1	8800	2/19	20	4.1	10.7	9.9	10.1**	7
Buckboard Flat	9M1	9000	2/19	28	5.9	12.9	12.5	- -	3
Camp Jackson	9M2	8600	2/20	25	5.4	10.4	13.4	- -	3

COLUMBIA RIVER DRAINAGE

RAFT RIVER									
Clear Creek Meadows	13H2	9050	No Report			New Course			0
One Mile Summit	13H1	7330	No Report			New Course			0

x - Adjacent Drainage
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.



Here, on Mt. Rose, Nevada, Dr. J. E. Church made the first western snow survey 50 years ago.

FEDERAL-STATE-PRIVATE COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for UTAH

UNITED STATES DEPARTMENT of AGRICULTURE—SOIL CONSERVATION SERVICE

and

STATE ENGINEER of UTAH

AS OF

APR. 1, 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

U T A H

APRIL 1, 1959

Report Prepared

by

Gregory L. Pearson
Snow Survey Supervisor

and

Grant R. Talbot - Civil Engineer

Soil Conservation Service
222 South West Temple
Salt Lake City, Utah

Issued

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Mimeograph Series #450

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FORECAST WATER SUPPLY

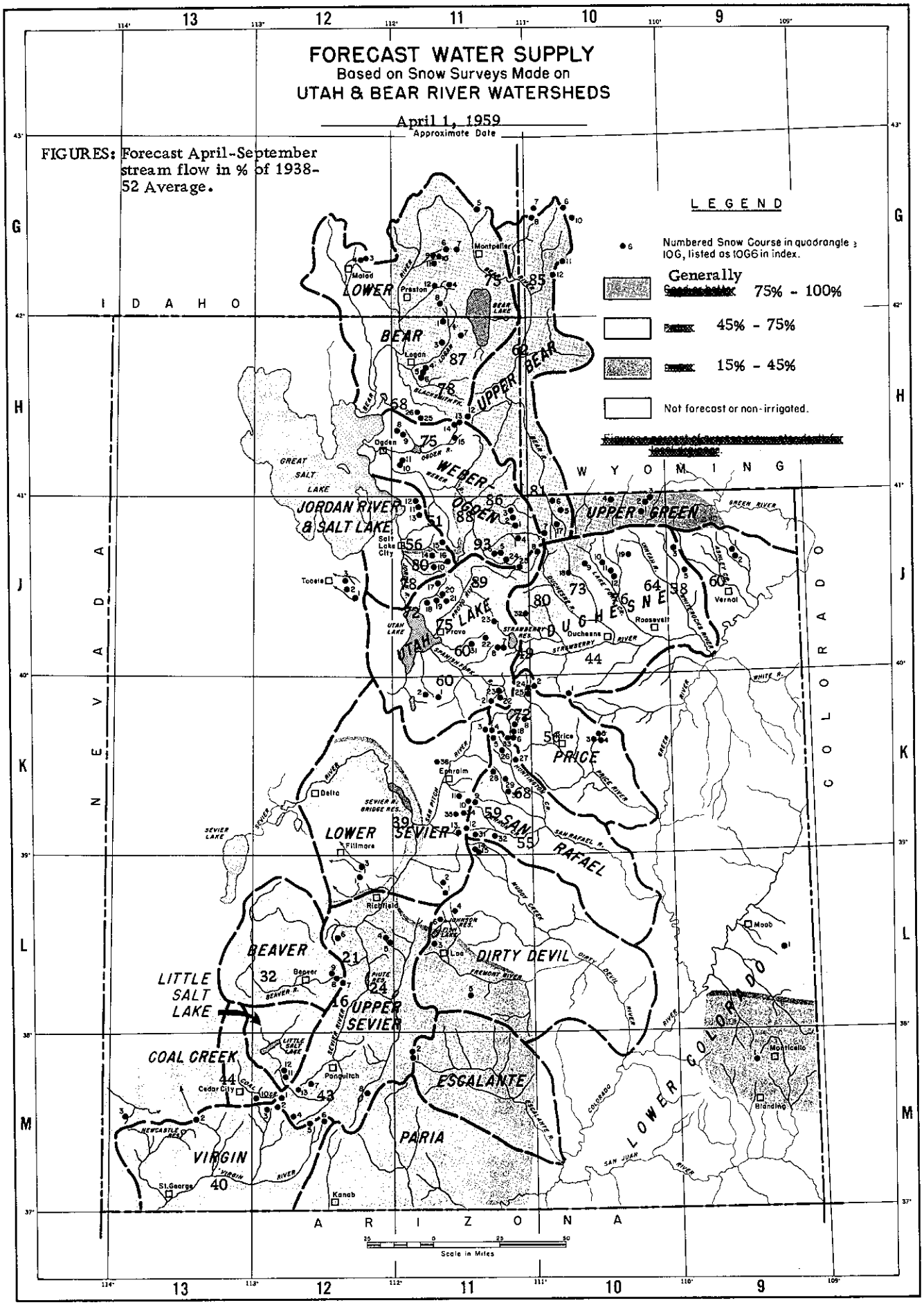
Based on Snow Surveys Made on

UTAH & BEAR RIVER WATERSHEDS

April 1, 1959

Approximate Date

FIGURES: Forecast April-September stream flow in % of 1938-52 Average.



WATER SUPPLY OUTLOOK

FOR UTAH

April 1, 1959

****
*A fair water supply is in prospect for the area bounded *
*on the North by the tributaries of the Bear River in Idaho *
*and Wyoming and on the south by the Upper Duchesne and the *
*streams draining into Utah Lake. South of this area to the *
*Arizona state line and in the Uintah Basin other than the *
*upper Duchesne, the outlook is for only fair to critically *
*short water supplies. Reservoir storage is generally above *
average and will prove to be a vital factor for those having
*rights to its use. *
****

GENERAL OUTLOOK

As has happened so frequently in the past ten years, critically low streamflow this spring and summer is the prospect for southern Utah and much of the Uintah Basin. Illustrative of the poor streamflow which will be realized during the coming April-September period are the forecasts for the Sevier River. Forecasts are expressed as a percent of the 1938-52 average flow. Near Kingston the Sevier River (south fork) is forecast at 16%, the East Fork at 24%, and below Piute Dam at 21%. Up at Hatch it is 43%, while down the river near Gunnison it is 39%. At Gunnison, 30,000 acre feet are expected and essentially represents inflow to Sevier Bridge reservoir.

In this same southern area the Beaver river near Beaver is forecast at 32%. The two upper snow courses on the Beaver River, at Big Flat and Otter Lake, set new record low readings since they were first measured in 1936. The lower course at Merchant's Valley has had a few slightly lower readings. Runoff this year on this stream will be the lowest it has been since the 1934 drought year, and will only be slightly higher than it was then.

The Virgin River is forecast at 40%, Coal Creek at Cedar City at 44%. The streams draining from the Monroe Mountain, Clear Creek at Sevier, the Fremont, Escalante and Paria Rivers as well as the streams coming from the Blue Mountains near Monticello and Blanding have prospects of 30% to 45% of their usual water supply. The streams near Moab will flow at about 50% to 60%.

Ferron, Cottonwood and Huntington Creeks, tributaries of the San Rafael River, are expected to flow at 55% to 68%. An interesting thing happened here in the storm which came the last few days of March. Snowfall was heavy on the San Pitch River drainages on the west side of the mountain--

on Ephraim Creek, Manti Creek, the streams near Mt. Pleasant--but it failed to carry on over to the eastern side of the mountain. On the western slopes the snow courses show nearly an average increase for the month, while on the eastern slope, even at 10,000 feet elevation, the snow courses show only a slight gain, some even showing a loss during the month. In contrast to the forecast of 55% to 68% for the San Rafael tributaries, the tributaries of the San Pitch are expected to flow at about 75% to 80%. The streams near Fillmore are also expected to flow at about 75%.

In the Uintah Basin, the lowest forecast is 44% for the Strawberry River, the highest is the Duchesne River near Tabiona at 80%. From Ashley Creek to Rock Creek forecasts vary between 58% and 76%.

Coming back into the Utah Lake drainage we find that the Spanish Fork River at Thistle and Hobble Creek near Springville are both expected to yield 60% of their usual amounts. Inflow to Strawberry reservoir is expected to be 49%. Fortunately for this area, Strawberry reservoir has a little more than one and one-half times its usual water in storage.

Other streams from the Provo River northward into Idaho and Wyoming on the Bear River tributaries have about 70% to 95% of their average flows expected with the exception of Parley's Creek near Salt Lake, East Canyon Creek near Morgan and the Bear River near Randolph which are forecast at 56%, 51% and 62%, respectively. High forecasts in this area are 93% on the Weber River at Oakley and 87% on the Logan River,

A belt of heavy snow extends in a line from the vicinity of the Chalk Creek #3 snow course east of Coalville, past the Goodman Ranch snow course on the Bear River south of Evanston, Wyoming, the Hewinta Ranger Station on the West Fork of Smiths Fork south of Robertson, Wyoming, the Hole-in-the-Rock snow courses south of Lonetree, Wyoming, and on around the eastern end of the Uinta Mountains to the King's Cabin courses on Brush Creek north of Vernal. This belt of heavy snowpack decreases rapidly with increasing elevation.

At the Chalk Creek #3 course (elev. 7500 ft.) the snow is 124% of average. At Chalk Creek #2 (elev. 8200 ft.) it is 92%, while at the #1 course (elev. 9100 ft.) it is 85%. On the Bear River the Goodman Ranch course (elev. 7900 ft.) has 146%. At Stillwater camp (elev. 8550 ft.) it is about average while at Hayden Fork (elev. 9300 ft.) it is 80%. At the Hewinta Ranger Station the percentage is 141 while at the Hole-in-the-Rock it is 120%. While there are no higher elevation courses with which to compare Hewinta R. S. and Hole-in-the-Rock, the pattern existing on the other streams indicates that the snowpack here also probably decreases rapidly with elevation. At Goodman Ranch and Hewinta R.S. this years' reading has been exceeded only twice in the past. At Hole-in-the-Rock it has been equaled or exceeded only three times.

At the King's Cabin courses (elev. 8600 and 8800 ft.) on Brush Creek, the snow is 92% and 90%, while at Paradise Park (elev. 10,500 ft.) on the Whiterocks River it drops to 59%.

If this belt of heavier snowpack had come 8 to 15 miles higher on the mountain, the water outlook would have been greatly different. However, it will contribute to the earlier season streamflow.

The folks who have experienced the effect of the drought in recent years and have the prospect of having it continue, certainly don't need much advice to tell them to do all they can to conserve their available water and use it as wisely as possible. Those who have stretched their supply of irrigation water in the past through proven good water management practices have found that it helps in relieving water shortages, and pays in dollars and cents. Farmers and ranchers will be wise to work through their local Soil Conservation District to secure the help of Soil Conservation Service technicians in planning their cropping patterns to fit their soil and the available water supply.

UTAH STREAMFLOW FORECASTS - APRIL 1, 1959

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 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
GREAT BASIN							
BEAR RIVER SYSTEM							
Bear River near Utah-Wyo. State Line	100	81	Apr-Sept	101	158	124	123(1)
Bear River near Randolph	72	62	Apr-Sept	44	142	94	116(2)
Smith's Fork near Border, Wyoming	101	85	Apr-Sept	112	148	152	114(3)
Bear River at Herer, Idaho	210	75	Apr-Sept	189	357	321	281
Little Bear River nr Paradise, Utah	30	68	Apr-Sept	42	45	38	44
Logan River near Logan, Utah (4)	116	87	Apr-Sept	139	142	155	133
Bla cksmith Fork near Hyrum, Utah (5)	47	78	Apr-Sept	61	68	73	60
WEBER-OGDEN RIVERS							
Weber River near Oakley, Utah	119	93	Apr-Sept	106	153	145	128
Weber River near Coalville, Utah(6)	122	88	Apr-Sept	114	170	136	138
Chalk Creek at Coalville, Utah	36	86	Apr-Sept	19.7	53	35	42

(1) Average runoff for 15 years, 1943-57.
(2) Average runoff for 14 years, 1944-1957.
(3) Average runoff for 15 years, 1943-1957.
(4) Includes U.P. & L. Co. tailrace and Logan, Hyde Park & Smithfield Canal.
(5) Above Utah Power & Light Company's dam.
(6) Includes diversion by Weber-Provo canal and change in storage in Wahship Reservoir.

UTAH STREAMFLOW FORECASTS - APRIL 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Fore-cast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
WEBER-OGDEN RIVERS							
East Canyon Creek nr Morgan, Utah(7)	15	51	Apr-Sept	32	28.5	16.9	29.2
South Fork Ogden River nr Huntsville, Utah	49	75	Apr-Sept	58	77	63	65
PROVO RIVER & UTAH LAKE							
Strawberry Reservoir Inflow(8)	27	49	Apr-Sept	52	58	49	55
Spanish Fork at Thistle, Utah	27	60	Apr-Sept	54	54	27.3	45
Hobble Creek near Springville, Utah	14.5	60	Apr-Sept	27.3	25.6	15.5	24(9)
Provo River near Hailstone, Utah(10)	101	89	Apr-Sept	110	145	114	113(11)
Provo River at Vivian Park, Ut.(12)	117	75	Apr-Sept	149	174	139	156
American Fork River nr American Fork, Ut.	26	72	Apr-Sept	42	33	32	36
JORDAN RIVER & SALT LAKE							
Little Cottonwood Creek nr Salt Lake City, Utah	31	78	Apr-Sept	42	38	37	40
Big Cottonwood near Salt Lake City	32	80	Apr-Sept	50	50	35	40
Parley's Creek near Salt Lake City, Utah	8.5	56	Apr-Sept	14.2	15.8	8.4	15.2
SEVIER RIVER							
Sevier River at Hatch, Utah	25	43	Apr-Sept	93	48	25.8	58(13)
Sevier River near Kingston, Utah	7.5	16	Apr-Sept	69	18.1	5.3	46

(7) Observed flow plus change in storage in East Canyon reservoir.
(8) Change in storage plus diversion thru Strawberry tunnel to Daniels Creek.
(9) For 12 years, 1946-1957.
(10) Observed flow minus diversions thru Duchesne tunnel and Weber-Provo Canal.
(11) Calculated average runoff, 1938-52.
(12) Observed flow plus change in storage in Deer Creek reservoir, minus diversions thru Duchesne tunnel & Weber-Provo Canal, plus diversion thru Salt Lake Aqueduct.
(13) Average runoff for 15 years, 1940-1954.

UTAH STREAMFLOW FORECASTS - APRIL 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Fore cast-Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
East Fork Sevier River nr Kingston, Utah(14)	7	24	Apr-Sept	49	19.7	7.9	28.8
Sevier River below Piute Dam (15)	16	21	Apr-Sept	115	33	13.1	75
BEAVER RIVER							
Beaver River near Beaver, Utah	11	32	Apr-Sept	43	45	20.2	34
COAL CREEK							
Coal Creek near Cedar City, Utah	9	44	Apr-Sept	32	20.3	10.6	20.4
COLORADO RIVER BASIN							
UPPER GREEN RIVER							
Ashley Creek near Vernal, Utah	39	60	Apr-Sept	55	64	49	65
DUCHESNE RIVER							
Duchesne River at Provo River Trail nr Hanna, Ut.	33	82	Apr-Sept	--	--	--	40
Duchesne River near Tabiona, Utah (16)	98	80	Apr-Sept	117	135	121	122
Rock Creek near Mtn.Home, Utah	80	73	Apr-Sept	99	124	111	109
Strawberry River at Duchesne, Utah	36	44	Apr-Sept	85	79	59	82
Lakefork River below Moon Lake, Utah(17)	59	76	Apr-Sept	76	82	82	78(18)
Uinta River near Neola, Utah	71	64	Apr-Sept	108	104	90	111
Whiterocks River near Whiterocks, Utah	42	58	Apr-Sept	63	70	54	72

(14) Observed flow plus change in storage in Otter Creek Reservoir.
(15) Observed flow plus Change in storage in Otter Creek & Piute Reservoir.
(16) Observed flow plus diversion through Duchesne Tunnel.
(17) Observed flow plus change in storage in Moon Lake reservoir.
(18) Average runoff for 15 years, 1943-1957.

UTAH STREAMFLOW FORECASTS - APRIL 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Fore Cast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
PRICE RIVER							
Gooseberry Creek near Scofield, Utah	9.0	68	Apr-Sept	15.4	17.5	10.1	13.2(1
Price River near Scofield, Utah (20)	31	72	Apr-Sept	51	57	28.7	43
Price River near Heiner, Utah (21)	43	56	Apr-Sept	108	94	48	77
SAN RAFAEL RIVER							
Huntington Creek near Huntington, Utah	42	68	Apr-Sept	91	76	44	62
Cottonwood Creek near Orangeville, Utah	38	59	Apr-Sept	83	92	41	64
Ferron Creek near Ferron, Utah	24	55	Apr-Sept	66	63	31	44(19)
VIRGIN RIVER							
Virgin River at Virgin, Utah	24	40	Apr-June	108	38	26	60

(19) Average runoff for 15 years, 1941-55
(20) Observed flow plus change in storage in Scofield reservoir.
(21) Calculated average runoff for 1938-52.

STATUS OF UTAH RESERVOIR STORAGE - APRIL 1, 1959 (1)

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FT. 1959	1958	1957	15-Yr.Av. 1938-52
		GREAT BASIN				
Bear River	Bear Lake	1421.0	1023.0	975.4	894.7	750.5
Little Bear	Hyrum	15.3	12.9	12.2	12.0	11.6(2)
Ogden	Pine View	110.0	21.3	4.7	15.0	10.7
Weber	Wanship	59.1	12.5	36.2	1.7	- -
	Echo	73.9	38.2	44.0	36.5	33.7
	East Canyon	28.7	14.7	17.4	18.2	18.4
Provo	Deer Creek	149.7	88.9	95.8	85.7	87.1(3)
Spanish Fork	Strawberry	270.0	157.7	159.8	141.8	102.2
Utah Lake	Utah Lake	1149.0(4)	632.1	662.6	474.6	547.9
Sevier River	Otter Creek	52.5	40.2	35.8	16.4	40.4
	Piute	74.0	55.3	56.5	16.2	61.7
	Sevier Bridge	236.0	106.2	126.8	52.6	169.1
Beaver River	Rocky Ford	23.3	15.5	21.1	8.4	18.3
		COLORADO RIVER				
Lake Fork	Moon Lake	35.8	10.5	28.0	9.6	18.3(5)
Price River	Scofield	65.8	35.9	41.7	6.0	17.9(3)

(1) All data contained in this table supplied by U. S. Geological Survey.
(2) Average for 1939-53.
(3) Average for 1943-57.
(4) Active capacity taken at 3.1 feet above compromise point.
(5) Average for 1939-52.

COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of April 1, 1959

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1959 Snow Water Expressed as Percent of 1958	1957 &	1938-52 Av.
GREAT BASIN					
Bear River So. of Evanston(Wyo.)	4	4-30	106	98	103 *
Smith's Fork Bear River(Wyo)	2	11-23	88	72	93 *
Emigration Creek(Idaho)	2	6-23	63	66	75 *
Strawberry-Mink Creeks(Idaho)	2	4	70	89	--
Cub River(Idaho)	3	4-35	67	94	93
Logan River	7	5-35	74	80	89
Blacksmith Fork-Little Bear	8	3-28	63	74	78
Malad River (Idaho)	2	4	35	56	--
Ogden River	7	5-26	54	74	68 *
Weber River above Echo Dam	8	24-30	72	77	80
Chalk Creek	3	7-8	98	88	88 *
East Canyon Creek	3	24-28	69	76	78
Farmington Creek	2	8	66	90	80 *
Salt Lake Area	4	24-28	75	82	86
Tooele Area	3	4-5	75	82	86 *
American Fork River	3	24-28	50	70	74
Provo River above Vivian Park	6	24-29	70	74	78
Strawberry Reservoir Valley	3	25-29	70	63	74
Hobble Creek	2	4-23	64	61	62 *
Payson Creek	2	6-16	65	72	78 *
Sevier River above Panguitch	6	3-29	36	46	40 *
East Fork Sevier River	4	5-28	34	58	42
Clear Creek above Sevier	1	24	61	70	62
Salina Creek	2	8-29	48	52	60 *
Mt. Pleasant Area	3	29-31	63	69	75
Ephraim Area	2	29	68	64	83
Manti Area	2	3	58	63	72 *
Mayfield Area	2	8	55	62	71 *
Chicken Creek-Levan	1	3	56	54	--
Chalk Creek-Fillmore	2	5-10	63	93	84 *
Beaver River	3	23-28	43	50	54
Parowan Creek	3	14-24	36	64	42 *
Coal Creek-Cedar City	3	5-32	45	63	53
COLORADO RIVER BASIN					
Duchesne River above Tabiona	3	28-29	81	81	88
Strawberry River	3	25-29	62	63	68
Lakefork River	2	6-28	70	101	70 *
Whiterocks-Uintah Rivers	2	27-28	55	69	54
Ashley Creek	4	27-29	73	91	72
Price River	8	4-30	56	60	69
San Rafael River	6	3-31	52	56	67 *
Muddy River	2	10-12	50	60	63 *
Fremont River	5	4-28	42	61	56 *
Escalante River	2	8-27	26	48	32 *
Virgin River	4	5-32	38	56	47 *
LaSal Mtns. near Moab	2	3-28	46	52	62 *
Blue Mtns. near Monticello	1	29	46	50	48

* 15 year average values partly estimated.

COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of April 1, 1959

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1959 Snow Water Expressed as Percent of 1958	1957 &	1938-52 Av.
GREAT BASIN					
Bear River So. of Evanston(Wyo.)	4	4-30	106	98	103 *
Smith's Fork Bear River(Wyo)	2	11-23	88	72	93 *
Emigration Creek(Idaho)	2	6-23	63	66	75 *
Strawberry-Mink Creeks(Idaho)	2	4	70	89	--
Cub River(Idaho)	3	4-35	67	94	93
Logan River	7	5-35	74	80	89
Blacksmith Fork-Little Bear	8	3-28	63	74	78
Malad River (Idaho)	2	4	35	56	--
Ogden River	7	5-26	54	74	68 *
Weber River above Echo Dam	8	24-30	72	77	80
Chalk Creek	3	7-8	98	88	88 *
East Canyon Creek	3	24-28	69	76	78
Farmington Creek	2	8	66	90	80 *
Salt Lake Area	4	24-28	75	82	86
Tooele Area	3	4-5	75	82	86 *
American Fork River	3	24-28	50	70	74
Provo River above Vivian Park	6	24-29	70	74	78
Strawberry Reservoir Valley	3	25-29	70	63	74
H obble Creek	2	4-23	64	61	62 *
Payson Creek	2	6-16	65	72	78 *
Sevier River above Panguitch	6	3-29	36	46	40 *
East Fork Sevier River	4	5-28	34	58	42
Clear Creek above Sevier	1	24	61	70	62
Salina Creek	2	8-29	48	52	60 *
Mt. Pleasant Area	3	29-31	63	69	75
Ephraim Area	2	29	68	64	83
Manti Area	2	3	58	63	72 *
Mayfield Area	2	8	55	62	71 *
Chicken Creek-Levan	1	3	56	54	--
Chalk Creek-Fillmore	2	5-10	63	93	84 *
Beaver River	3	23-28	43	50	54
Parowan Creek	3	14-24	36	64	42 *
Coal Creek-Cedar City	3	5-32	45	63	53
COLORADO RIVER BASIN					
Duchesne River above Tabiona	3	28-29	81	81	88
Strawberry River	3	25-29	62	63	68
Lakefork River	2	6-28	70	101	70 *
Whiterocks-Uintah Rivers	2	27-28	55	69	54
Ashley Creek	4	27-29	73	91	72
Price River	8	4-30	56	60	69
San Rafael River	6	3-31	52	56	67 *
Muddy River	2	10-12	50	60	63 *
Fremont River	5	4-28	42	61	56 *
Escalante River	2	8-27	26	48	32 *
Virgin River	4	5-32	38	56	47 *
LaSal Mtns. near Moab	2	3-28	46	52	62 *
Blue Mtns. near Monticello	1	29	46	50	48

* 15 year average values partly estimated.

UTAH SNOW SURVEYS - ABOUT APRIL 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
GREAT BASIN DRAINAGE									
BEAR RIVER above HARER, IDAHO									
Trial Lake x	10J8	9800	3/27	72	23.7	27.8	28.4	27.7	28
Hayden Fork	10J7	9300	3/30	51	15.9	15.7	16.3	19.0**	7
Bear Lake Camp	10J17	8550	3/30	45	14.1	11.2	12.8	--	4
Goodman Ranch	10J6	7900	3/30	23	8.2	6.7	8.0	5.6*	21
Monte Cristo R. S.	11H12	8960	3/24	56	20.0	31.5	25.7	26.3	26
Piney LaBarge x	10G10	8820	3/30	53	18.7	20.5	19.1	18.5	22
Big Park	10G11	8700	4/1	56	18.2	20.5	19.7	22.3**	8
Kelly R. S.	10G12	8200	4/1	51	16.0	18.5	17.6	19.6**	8
Salt River Summit x	10G8	7900	3/30	42	14.3	16.1	18.6	16.8**	11
CCC Camp x	10G7	7500	3/30	13	10.7	12.4	15.0	11.4*	22
BEAR RIVER below HARER, IDAHO									
Garden City Summit	11H7	7900	3/25	47	16.0	22.8	21.0	18.8	28
Emigrant Summit	11G6	7700	3/27	52	18.0	27.5	24.6	24.3	23
Emigration Canyon	11G7	6500	3/27	22	7.7	12.6	13.2	10.1**	6
Slug Creek Divide	11G5	7300	3/31	41	11.9	16.7	17.9	15.3	23
Strawberry Mink Divide	11G10	6800	3/31	50	17.3	26.1	21.4	--	4
Strawberry Creek	11G9	5800	3/31	28	10.1	13.9	10.4	--	4
Christensen Ranch	11G11	5600	3/30	22	7.4	10.9	7.3	--	4
Willow Flat	11G4	6100	3/30	34	12.3	18.8	15.2	--	4
Cub River R. S.	11G12	5400	3/30	17	5.9	10.3	4.8	--	4
Franklin Basin R. S.	11G8	8200	3/31	69	24.9	31.6	31.6	26.9	35
Klondike Narrows	11H1	7400	3/30	52	17.8	24.3	22.3	20.4**	5
Tony Grove R. S.	11H3	6250	3/25	24	9.6	13.4	9.5	9.2*	33
Mt. Logan	11H6	9000	3/24	65	23.1	--	30.5	29.6	35
Spring Hollow(upper)	11H5	8000	3/24	62	19.9	--	28.1	26.1	35
Spring Hollow(lower)	11H4	7000	3/24	36	12.3	--	16.1	14.1	35
Monte Cristo R. S.	11H12	8960	3/24	56	20.0	31.5	25.7	26.3	26
Dry Bread Pond x	11H13	8230	3/24	37	12.9	22.2	19.0	19.2	21
Beaver Crk-Skunk Crk. x	11H14	7150	3/24	27	9.2	14.5	14.1	14.1**	7
Little Bear(upper)	11H25	6850	3/25	24	8.7	13.9	10.7	--	3
Little Bear(lower)	11H26	6100	3/25	19	7.3	11.2	6.4	--	3
Oxford Mountain	12G3	6800	3/27	18	5.9	10.6	8.5	--	4
Dry Creek Flat	12G4	6350	3/27	2	0.6	4.6	1.4	--	4

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT APRIL 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. Reco
OGDEN RIVER									
Monte Cristo R. S. x	11H12	8960	3/24	56	20.0	31.5	25.7	26.3	26
Dry Bread Pond	11H13	8230	3/24	37	12.9	22.2	19.0	19.2	21
Beaver Crk-Skunk Crk.	11H14	7150	3/24	27	9.2	14.5	14.1	14.1**	7
Sagebrush Flat	11H15	6300	3/24	0	0.0	2.6	0.0	1.6**	6
Ben Lomond Peak	11H8	8000	3/23	58	21.1	45.5	30.5	36.8**	8
Ben Lomond (lower)	11H9	6000	3/23	28	9.7	21.3	12.4	14.9**	5
Mt. Ogden	11H 10	8600	3/28	60	21.7	40.2	27.9	31.3**	11
Snow Basin	11H11	6500	3/28	26	9.4	19.8	11.9	15.5**	10
WEBER RIVER									
Trial Lake x	10J8	9800	3/27	72	23.7	27.8	28.4	27.7	28
Smith & Morehouse	11J4	7600	3/26	34	11.9	16.1	14.7	14.2	30
Redden Mine (upper)	11J5	9000	3/26	49	17.6	22.6	21.8	21.9	29
Redden Mine (lower)	11J6	8500	3/26	47	15.7	20.8	19.7	20.9	29
Beaver Creek R. S.	11J24	7500	3/27	17	6.8	11.6	10.5	8.7*	27
Chalk Creek #1	11J1	9100	3/25	65	21.3	22.8	24.1	26.1**	8
Chalk Creek #2	11J2	8200	3/25	48	15.0	14.5	16.6	16.4**	8
Chalk Creek #3	11J3	7500	3/25	30	8.8	8.9	10.2	7.8**	7
Silver Lake x	11J16	8725	4/1	66	21.3	27.3	26.6	27.3	28
Parley's Canyon Smt.	11J15	7500	3/27	41	14.1	22.4	20.4	19.0	25
Lamb's Canyon x	11J14	6600	3/31	37	13.0	19.6	16.6	15.7	24
PROVO RIVER & UTAH LAKE									
Tria l Lake	10J8	9800	3/27	72	23.7	27.8	28.4	27.7	28
Soapstone R. S.	11J25	7800	3/27	34	12.2	15.7	14.8	13.1	28
Daniels-Strawberry Smt	11J23	8000	3/31	42	13.2	16.3	17.1	15.8	29
Strawberry Divide	11J8	8000	3/25	44	14.3	22.1	24.3	21.7	25
East Portal	11J7	7560	3/25	24	7.5	12.7	14.3	13.2	25
Hobble Creek Summit	11J22	7300	3/26	28	10.6	15.9	17.0	14.3	23
Packard Canyon	11J31	6400	3/26	19	7.3	12.2	12.1	- -	4
Clear Creek Ridge #1	11K21	9200	3/26	41	14.2	22.1	21.4	- -	4
Clear Creek Ridge #2	11K22	8000	3/26	32	10.7	17.1	17.9	- -	4
Clear Creek Ridge #3	11K23	6600	3/26	9	3.5	10.5	6.5	- -	4
Payson R. S.	11K1	8050	3/25	41	14.4	23.0	21.0	19.2*	16
Rock Bridge	11K2	6750	3/25	32	10.9	16.3	14.6	12.0**	6
Dutchman R. S.	11J17	7500	3/30	42	17.0	26.7	17.6	20.2	28
Timpanogos Divide	11J21	8200	3/30	40	14.2	31.6	24.8	26.7	24
Camp Altamont	11J20	7300	3/30	25	9.4	23.5	16.5	18.4	24
South Fork R. S.	11J19	6100	3/30	2	1.0	10.5	0.0	4.9	24
Timpanogos Cave Camp	11J18	5500	3/30	0	0.0	1.6	0.0	2.1	24

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DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
JORDAN RIVER & GREAT SALT LAKE									
Silver Lake	11J16	8720	4/1	66	21.3	27.3	26.6	27.3	28
M.I. D. South Fork	11J10	7400	4/1	53	19.2	27.4	21.7	20.4	24
Lamb's Canyon	11J14	6600	3/31	37	13.0	19.6	16.6	15.7	24
Parley's Canyon Smt.x	11J15	7500	3/27	41	14.1	22.4	20.4	19.0	25
Farmington Canyon(u)	11J11	8000	3/30	63	20.8	34.3	26.4	29.5**	8
Farmington Canyon(l)	11J12	6950	3/30	49	17.2	28.4	19.9	24.3**	8
Barnard Creek	11J13	8000	Delayed Data			32.0	23.6	27.3	23
Rky.Basin-Settlemt.Cyn.	12J1	8900	3/24	53	19.2	29.2	29.0	24.4**	5
Bevan's Cabin	12J2	6450	3/24	25	10.0	10.2	9.9	--	4
Middle Canyon	12J3	7000	3/30	29	10.8	17.3	12.6	13.3**	5
SEVIER RIVER above RICHFIELD									
Cedar Breaks	12M1	10390	3/25	37	12.1	30.4	21.1	25.0	24
Midway Valley	12M2	9400	3/25	41	13.4	31.5	22.6	24.5**	5
Duck Creek R. S.	12M4	8560	3/27	17	7.2	22.8	16.6	17.4	24
Harris Flat R. S.	12M5	7700	3/27	8	3.4	14.0	6.7	9.4	28
Long Valley Jnct. x	12M6	7500	3/27	0	0.0	3.1	0.0	5.5*	22
Castle Valley	12M13	9700	3/31	19	7.5	18.9	11.6	--	3
Panguitch Lake	12M7	8200	3/31	0	0.0	8.3	0.3	6.8	29
Bryce Canyon	12M8	8000	3/30	0	0.0	7.4	0.0	5.5	23
Widtsoe-Escalante Smt.	11M1	9500	3/30	4	1.8	12.5	5.7	9.3	27
Widtsoe-Escalante #2	11M2	9500	3/30	20	5.5	14.3	8.4	9.0**	9
Widtsoe-Escalante #3	11M3	9500	3/30	26	7.3	New Course		--	0
Fish Lake x	11L3	8700	3/23	12	4.0	11.4	5.4	8.4	28
Box Creek	12L4	9800	3/25	29	8.6	17.4	14.2	--	4
Squaw Springs	12L5	9300	3/25	15	4.4	11.1	9.1	--	4
Big Flat x	12L7	10000	3/25	39	11.7	27.3	22.6	20.8	23
Kimberly Mine	12L6	8900	3/26	35	11.4	18.8	16.2	18.3	24
SEVIER RIVER below RICHFIELD (including SAN PITCH RIVER)									
Farnsworth Lake	11L1	9900	3/24	36	10.9	22.8	21.6	18.6**	8
Gooseberry R. S.	11L2	8400	3/24	25	7.3	15.4	13.4	11.6	29
Huntington-Horseshoe x	11K5	9800	3/30	55	18.4	35.2	28.1	26.3	29
Gooseberry Reservoir x	11K4	8700	3/30	48	16.6	24.2	23.5	20.8	31
Mammoth R. S. - Cottonwood Creek	11K3	8800	3/30	45	16.6	24.8	23.0	21.9	30

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DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
SEVIER RIVER below RICHFIELD including SAN PITCH RIVER - Continued									
G.B.R.C. Meadows	11K10	10000	3/31	61	20.7	32.8	32.4	26.2	29
G.B.R.C. Headqtrs.	11K11	8700	3/31	44	15.4	20.8	23.8	17.5	29
Middle Fork	11K34	9600	3/27	53	17.7	32.4	27.5	- -	3
Thistle Flat	11K35	8500	3/27	35	12.4	20.3	19.9	- -	3
Mt. Baldy R. S.	11K12	9500	3/26	52	17.2	33.2	28.8	25.0**	8
Beaver Dams	11K13	8000	3/26	27	9.4	16.3	14.7	13.1**	8
Rees' Flat	11K36	7300	3/25	27	8.1	14.4	15.1	- -	3
Pine Creek	12L1	8700	3/30	30	10.4	19.7	28.7	17.0**	10
Bear Canyon	12L3	7200	3/31	26	7.8	12.4	8.4	9.3**	5
BEAVER RIVER									
Big Flat	12L7	10000	3/25	39	11.7	27.3	22.6	20.8	23
Otter Lake	12L8	9300	3/25	34	9.5	20.8	18.1	17.5	23
Merchant's Valley	12L9	8200	3/25	19	6.2	15.2	12.0	12.1	28
PAROWAN CREEK									
Yankee Reservoir	12M11	8700	3/24	19	5.4	13.2	8.6	12.2*	15
Ed Ward Flat	12M12	8300	3/24	7	2.9	10.8	4.1	8.9**	14
COAL CREEK									
Cedar Breaks x	12M1	10390	3/25	37	12.1	30.4	21.1	25.0	24
Midway Valley x	12M2	9400	3/25	41	13.4	31.5	22.6	24.5**	5
Webster Flat x	12M3	9200	3/25	36	11.6	22.1	15.8	19.8	32
Urie Flat	12M10	8450	3/24	6	2.3	11.8	5.7	6.4**	5
ENTERPRISE to NEW HARMONY									
Long Flat	13M2	8200	3/26	6	2.0	11.6	0.0	- -	3
Little Grassy Creek	13M4	6100	3/27	0	0.0	New Course			
COLORADO RIVER DRAINAGE									
UPPER GREEN RIVER in UTAH									
Hewinta R. S.	10J4	9500	3/31	49	13.7	11.9	9.4	9.7*	25
Hole-in-the-Rock	10J1	9150	4/1	30	7.7	7.2	7.0	6.4	28
Middle Beaver Creek	10J2	8550	4/1	26	7.4	5.9	5.2	5.3**	5
Hole-in-the-Rock R. S.	10J3	8300	4/1	8	2.0	3.6	0.0	1.5**	5
King's Cabin(upper)	9J1	8800	3/30	39	10.3	11.5	9.5	11.4	29
King's Cabin(lower)	9J2	8600	3/30	31	9.6	10.3	8.1	10.4	29

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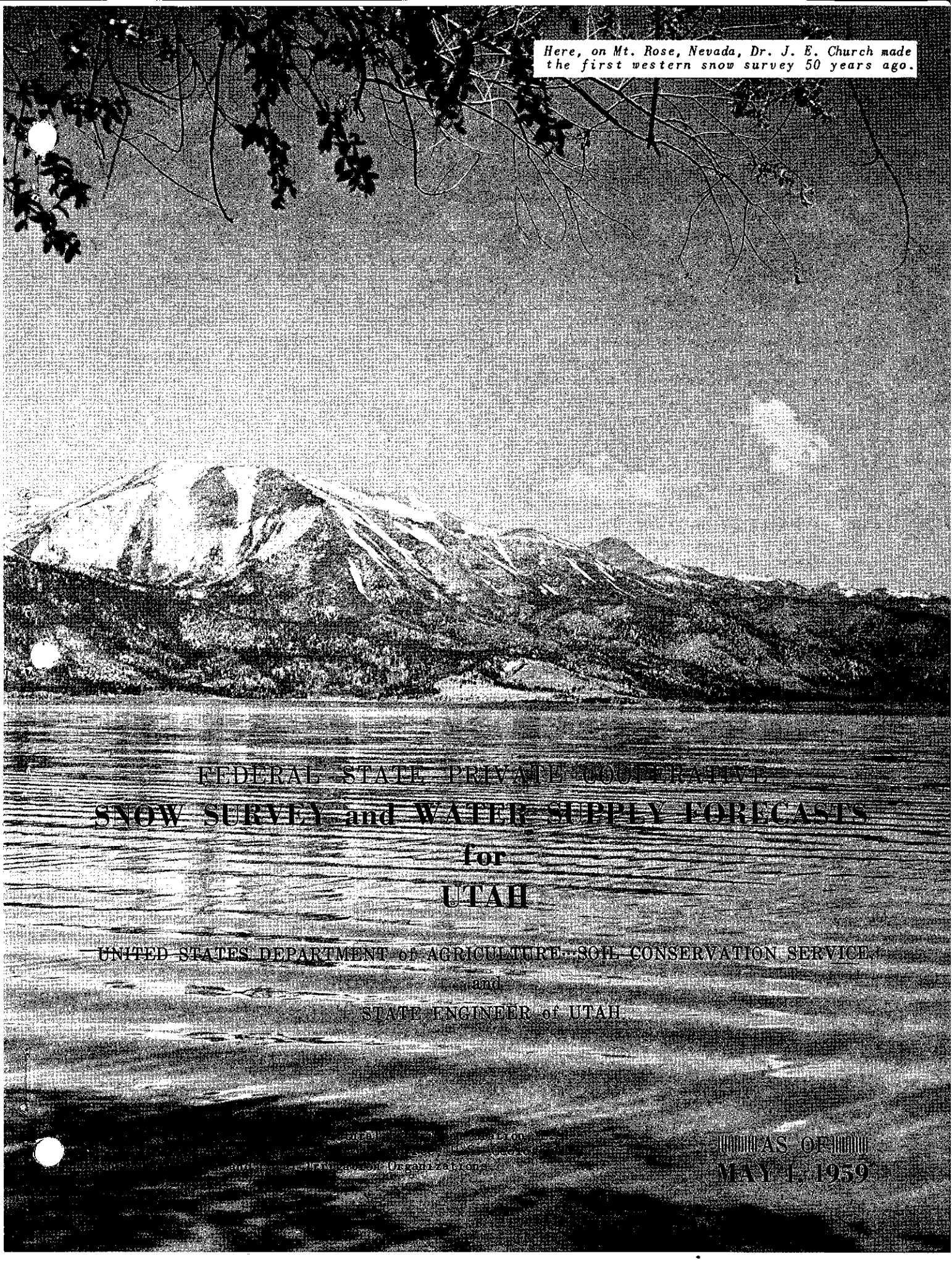
UTAH SNOW SURVEYS - ABOUT APRIL 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. of Record
DUCHESNE RIVER									
Trial Lake x	10J8	9800	3/27	72	23.7	27.8	28.4	27.7	28
Soapstone R. S. x	11J25	7800	3/27	34	12.2	15.7	14.8	13.1	28
Daniels-Strawberry Smt.	11J23	8000	3/31	42	13.2	16.3	17.1	15.8	29
Strawberry Divide x	11J8	8000	3/25	44	14.3	22.1	24.3	21.7	25
East Portal x	11J7	7560	3/25	24	7.5	12.7	14.3	13.2	25
White River #1 x	10K2	8600	3/31	30	8.8	14.8	15.0	- -	4
Currant Creek	11J32	7800	3/31	19	6.4	11.0	9.0	- -	3
Indian Canyon	10K1	9100	3/27	22	7.1	14.8	11.0	11.4	29
Rock Creek	10J18	7900	4/1	14	5.2	7.5	5.7	- -	4
Brown Duck Lake	10J9	10300	Delayed Data			- -	15.7	19.4**	13
Jackson Park	10J19	11300	Delayed Data			13.2	12.8	- -	3
Lakefork Mountain	10J10	10500	3/28	34	8.6	12.5	10.4	13.0	28
Lakefork Mountain #2	10J11	8900	3/28	19	6.4	8.9	5.3	7.8**	6
Lakefork Mountain #3	10J12	8100	3/28	15	5.4	5.8	3.9	5.5**	6
Paradise Park	9J3	10500	3/29	33	7.9	12.8	11.0	13.4*	27
Julius Park	9J6	9800	3/29	34	8.2	17.5	- -	- -	1
Mosby Mtn. (lower)	9J5	9500	3/29	27	6.1	12.7	9.2	12.4	28
PRICE RIVER									
Huntington-Horseshoe	11K5	9800	3/30	55	18.4	35.2	28.1	26.3	29
Gooseberry Reservoir	11K4	8700	3/30	48	16.6	24.2	23.5	20.8	31
Mammoth R. S. - Cottonwood Creek x	11K3	8800	3/30	45	16.6	24.8	23.0	21.9	30
Mud Creek #2	11K33	8300	3/26	30	9.9	17.1	17.7	- -	4
Staley Ranch	11K7	7600	3/26	13	4.8	10.6	10.6	6.2*	22
Dry Valley Divide	11K8	7800	3/26	21	6.7	13.8	13.7	10.8	24
White River #1	10K2	8600	3/31	30	8.8	14.8	15.0	- -	4
White River #2	11K24	7600	3/31	17	5.1	10.0	8.9	- -	4
White River #3	11K25	7400	3/31	14	4.6	11.4	9.4	- -	4
Indian Canyon x	10K1	9100	3/27	22	7.1	14.8	11.0	11.4	29
Grassy Trail Creek - Left Fork	10K3	7970	Delayed Data			17.8	8.5	- -	4
Corral	10K5	8200	Delayed Data			17.2	8.2	- -	4
Timberline	10K6	9100	Delayed Data			- -	14.2	- -	1
SAN RAFAEL RIVER									
Huntington-H orseshoe	11K5	9800	3/30	55	18.4	35.2	28.1	26.3	29
Gooseberry Reservoir x	11K4	8700	3/30	48	16.6	24.2	23.5	20.8	31
Switchback	11K26	8600	3/26	35	11.4	21.0	22.8	- -	4
Stuart R. S.	11K27	7950	3/26	14	4.6	11.6	11.1	- -	4
Red Pine Ridge	11K28	9400	3/25	39	12.6	23.7	23.3	- -	4
Upper Joe's Valley	11K29	8800	3/25	24	7.1	13.8	12.8	- -	3

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. Recor
SAN RAFAEL RIVER - Continued									
Seeley Creek R. S.	11K9	10000	3/31	28	9.5	23.8	22.3	16.8	29
Buck Flat	11K31	9400	3/24	36	11.2	24.6	20.4	- -	3
Rush Pond	11K38	9800	3/24	33	9.6	21.1	17.8	- -	4
Wrigley Creek	11K32	9000	3/24	27	7.7	17.2	11.9	- -	4
MUDDY RIVER									
Black's Fork	11K14	9200	3/23	29	9.7	18.0	15.1	15.3**	12
Dill's Camp	11K15	9200	3/23	29	8.8	19.2	15.6	14.0**	10
Mt. Baldy R. S. x	11K12	9500	3/26	52	17.2	33.2	28.8	26.0**	8
FREMONT RIVER									
Farnsworth Lake x	11L1	9900	3/24	36	10.9	22.8	21.6	18.6**	8
Fish Lake	11L3	8700	3/23	12	4.0	11.4	5.4	8.4	28
Johnson Valley	11L6	8850	3/23	13	4.4	9.8	7.7	- -	4
Black's Flat-U.M.Crk.	11L4	9250	3/23	26	7.8	15.8	10.0	10.3**	5
Donkey Reservoir	11L5	9800	3/30	16	4.1	13.0	9.0	7.6**	5
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	3/30	4	1.8	12.5	5.7	9.3	27
Widtsoe-Escalante #2	11M2	9500	3/30	20	5.5	14.3	8.4	9.0**	8
Widtsoe-Escalante #3	11M3	9500	3/30	26	7.3	New Course			0
VIRGIN RIVER									
Long Velley Junction	12M6	7500	3/27	0	0.0	3.1	0.0	5.5*	22
Harris Flat R. S. x	12M5	7700	3/27	8	3.4	14.0	6.7	9.4	28
Duck Creek R. S. x	12M4	8560	3/27	17	7.2	22.8	16.6	17.4	24
Midway Valley x	12M2	9400	3/25	41	13.4	31.5	22.6	24.5**	5
Cedar Breaks x	12M1	10390	3/25	37	12.1	30.4	21.1	25.0	24
Webster Flat	12M3	9200	3/25	36	11.6	22.1	15.8	19.8	32
LOWER COLORADO RIVER (Southeastern Utah)									
LaSal Mtn. (upper)	9L2	9600	4/1	40	11.5	25.8	23.0	- -	3
LaSal Mountain	9L1	8800	4/1	23	7.1	14.6	12.8	11.5	28
Buckboard Flat	9M1	9000	3/30	21	7.4	15.9	14.7	15.3	29
Camp Jackson	9M2	8600	Delayed Data			15.6	14.6	- -	3
COLUMBIA RIVER									
RAFT RIVER									
Clear Creek Meadows	13H2	9050	3/26	47	15.5	New Course			0
One Mile Summit	13H1	7330	3/26	24	7.7	New Course			0

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.



Here, on Mt. Rose, Nevada, Dr. J. E. Church made the first western snow survey 50 years ago.

FEDERAL-STATE-PRIVATE COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for UTAH

UNITED STATES DEPARTMENT of AGRICULTURE—SOIL CONSERVATION SERVICE

and

STATE ENGINEER of UTAH

AS OF

MAY 1, 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

U T A H

MAY 1, 1959

Report Prepared

by

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Mimeograph Series #451

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FORECAST WATER SUPPLY

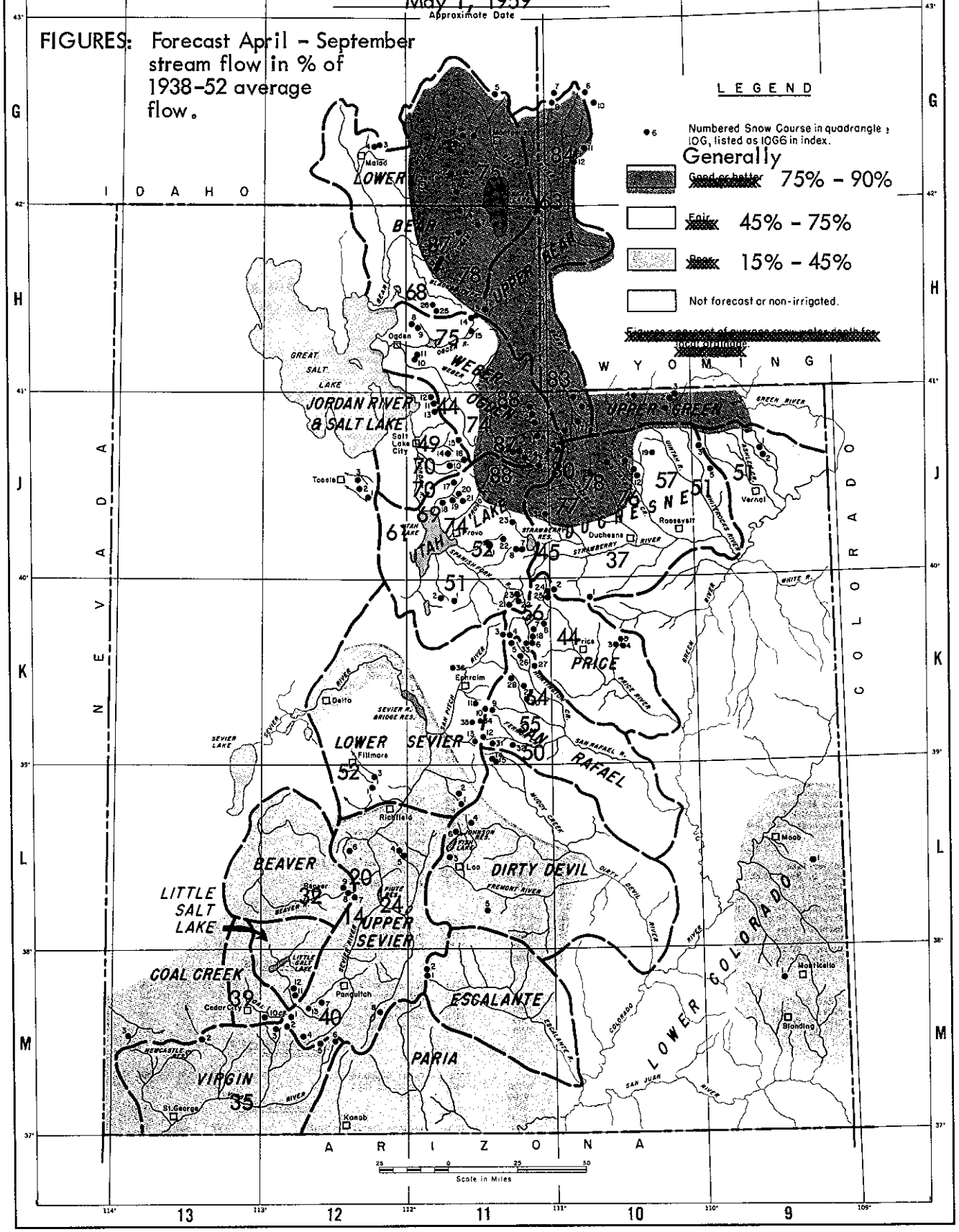
Based on Snow Surveys Made on

UTAH & BEAR RIVER WATERSHEDS

May 1, 1959

Approximate Date

FIGURES: Forecast April – September stream flow in % of 1938-52 average flow.



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

M-926

WATER SUPPLY OUTLOOK

FOR UTAH

May 1, 1959

****
Limited to critically short water supplies will be experienced in
*the central and southern half of the State, including the Utah *
*Lake area and the Uintah Basin. While generally adequate, there *
*will be some late season shortages at Tooele, along the Wasatch *
front from Draper to Farmington, the lower Weber and Ogden Rivers
and the Malad River. Other northern areas can expect an adequate
*water supply. *
****

GENERAL OUTLOOK

Revised forecasts prepared following the storms of April show that at only three stream gaging stations have forecasts been raised over that expected the first of April. These are Chalk Creek at Coalville and the Bear River near the Utah-Wyoming State Line south of Evanston, Wyoming. Both of these are up 2%, while the Bear River near Randolph is up 1%. Most other forecasts remained within 5% of the previous forecast, with a few decreasing about 10% to 15%.

Although snow and rain in the mountains of the southwestern part of the State was extremely light this month, forecasts have only been lowered a few percent. This is because the snowpack was so light the first of April that most of it would be used up in trying to satisfy soil moisture deficits, with very little left over to contribute to stream flow. In this area most of this year's water will come from base flow which is a carryover from previous years. Even if precipitation had been normal for the month, most of it would have been used in trying to bring the moisture of the soil profile up to field capacity. Very little would have contributed to stream flow. Only very heavy storms could have made much difference this month.

What little snow there was on these watersheds has nearly all disappeared, as illustrated by the measurement at Cedar Breaks National Monument where there is only 11 inches of snow. Ordinarily there would be about four feet here.

From 14% to 65% of average stream flow is expected for the stream from the Arizone State line northward to a line drawn from the Spanish Fork-Springville area eastward across the Strawberry Reservoir Valley and down the Strawberry River. Also included is the eastern part of the Uintah Basin from the Uintah River to Ashley Creek. In most of this area the stream flow will be in the range of 35% to 55%. The lowest forecast is 14% for the Sevier River near Kingston.

Forecasts for streams near Salt Lake have been lowered 8% to 10%. Big and Little Cottonwood Creeks are now expected to flow at 70%, while Parley's Creek is down to 49%. In general it can be said that the lower the elevation of a watershed, the poorer will be its water supply. This is illustrated by these streams where the Cottonwood Creeks have watersheds which are much higher than Parley's Creek.

East Canyon Creek near Morgan is expected to yield 44%.

The streams near Tooele, the Farmington-Bountiful area, the Little Bear river in Cache Valley and the Malad river will all have streamflow in the 60% to 70% range. Other streams in the northern part of the state will flow at 75% to 90% of average.

Individual forecasts are given on pages 2 to 5 of this report.

UTAH STREAMFLOW FORECASTS - MAY 1, 1959

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 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr Av. 1938-[illegible]
			GREAT BASIN				
BEAR RIVER SYSTEM							
Bear River near Utah-Wyo. State Line	102	83	Apr-Sept	101	158	124	123(1)
Bear River near Randolph	73	63	Apr-Sept	44	142	94	116(2)
Smith's Fork near Border, Wyoming	100	84	Apr-Sept	112	148	152	119(3)
Bear River at Harer, Idaho	210	75	Apr-Sept	189	357	321	281
Little Bear River nr Paradise, Utah	30	63	Apr-Sept	42	45	38	44
Logan River near Logan, Utah (4)	116	87	Apr-Sept	139	142	155	133
Blacksmith Fork near Hyrum, Utah (5)	47	78	Apr-Sept	61	68	73	60
WEBER-OGDEN RIVERS							
Weber River near Oakley, Utah	112	87	Apr-Sept	106	153	145	128
Weber River near Coalville, Utah (6)	102	74	Apr-Sept	114	170	136	138
Chalk Creek at Coalville, Utah	37	88	Apr-Sept	19.7	53	35	42

(1) Average runoff for 15 years, 1943-57.
(2) Average runoff for 14 years, 1944-1957.
(3) Average runoff for 15 years, 1943-1957.
(4) Includes U.P. & L. Co. tailrace and Logan, Hyde Park & Smithfield Canal.
(5) Above Utah Power & Light Company's dam.
(6) Includes diversion by Weber-Provo canal and change in storage in Wanship Reservoir.

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-5
WEBER-OGDEN RIVERS - Continued							
East Canyon Creek nr Morgan, Utah (7)	13	44	Apr-Sept	32	28.5	16.9	29.2
South Fork Ogden River nr Huntsville, Utah	49	75	Apr-Sept	58	77	63	65
PROVO RIVER & UTAH LAKE							
Strawberry Reservoir Inflow (8)	25	45	Apr-Sept	52	58	49	55
Spanish Fork at Thistle, Utah	23	51	Apr-Sept	54	54	27.3	45
Hobble Creek near Springville, Utah	12.5	52	Apr-Sept	27.3	25.6	15.5	24(9)
Provo River near Hailstone, Utah(10)	100	88	Apr-Sept	110	145	114	113(11
Provo River at Vivian Park, Utah(12)	116	74	Apr-Sept	149	174	139	156
American Fork River nr American Fork, Ut.	25	69	Apr-Sept	42	33	32	36
Utah Lake Inflow (13)	190	61	Apr-Sept	295	350	208	310
JORDAN RIVER & SALT LAKE							
Little Cottonwood Creek nr Salt Lake City, Utah	28	70	Apr-Sept	42	38	37	40
Big Cottonwood near Salt Lake City	28	70	Apr-Sept	50	50	35	40
Parley's Creek near Salt Lake City, Utah	7.5	49	Apr-Sept	14.2	15.8	8.4	15.2

(7) Observed flow plus change in storage in East Canyon Reservoir.
(8) Change in storage plus diversion thru Strawberry tunnel to Daniels Creek.
(9) For 12 years, 1946-1957.
(10) Observed flow minus diversions thru Duchesne tunnel and Weber-Provo Canal.
(11) Calculated average runoff, 1938-52.
(12) Observed flow plus change in storage in Deer Creek reservoir, minus diversions thru Duchesne tunnel & Weber-Provo Canal, plus diversion thru Salt Lake Aqueduct.
(13) Inflow as computed by the Utah Lake & Jordan River Water Commissioner.

UTAH STREAMFLOW FORECASTS - MAY 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
SEVIER RIVER							
Sevier River at Hatch, Utah	23	40	Apr-Sept	93	48	25.8	58(14)
Sevier River near Kingston, Utah	6.5	14	Apr-Sept	69	18.1	5.3	46
East Fork Sevier River nr Kingston, Utah(15)	7	24	Apr-Sept	49	19.7	7.9	28.8
Sevier River below Piute Dam(16)	15	20	Apr-Sept	115	33	13.1	75
PAVANT VALLEY							
Chalk Creek near Fillmore, Utah	12.5	52	Apr-Sept	21.3	29.7	9.6	24(17)
BEAVER RIVER							
Beaver River near Beaver, Utah	11	32	Apr-Sept	43	45	20.2	34
COAL CREEK							
Coal Creek near Cedar City, Utah	8	39	Apr-Sept	32	20.3	10.6	20.4
COLORADO RIVER BASIN							
UPPER GREEN RIVER							
Ashley Creek near Vernal, Utah	33	51	Apr-Sept	55	64	49	65
DUCHESNE RIVER							
Duchesne River at Provo River Trail nr Hanna, Ut.	32	80	Apr-Sept	- -	- -	- -	40
Duchesne River near Tabiona, Utah (18)	94	77	Apr-Sept	117	135	121	122
Rock Creek near Mountain Home, Utah	85	78	Apr-Sept	99	124	111	109
Strawberry River at Duchesne, Utah	31	37	Apr-Sept	85	79	59	82

(14) Average runoff for 15 years, 1940-1954.
(15) Observed flow plus change in storage in Otter Creek Reservoir.
(16) Observed flow plus change in storage in Otter Creek & Piute Reservoir.
(17) Calculated average runoff for 1938-52.
(18) Observed flow plus diversion through Duchesne Tunnel.

UTAH STREAMFLOW FORECASTS - MAY 1, 1959

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet						
	Forecast Runoff 1959	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	1957	1956	15-Yr. Av. 1938-52
DUCHESNE RIVER - Continued							
Lakefork River below Moon Lake, Utah(19)	59	76	Apr-Sept	76	82	82	78(20)
Uinta River near Neola, Utah	63	57	Apr-Sept	108	104	90	111
Whiterocks River near Whiterocks, Utah	37	51	Apr-Sept	63	70	54	72
PRICE RIVER							
Gooseberry Creek near Scofield, Utah	7.5	57	Apr-Sept	15.4	17.5	10.1	13.2(2
Price River near Scofield, Utah (22)	24	56	Apr-Sept	51	57	28.7	43
Price River near Heiner, Utah (22)	34	44	Apr-Sept	108	94	48	77
SAN RAFAEL RIVER							
Huntington Creek near Huntington, Utah	40	64	Apr-Sept	91	76	44	62
Cottonwood Creek near Orangeville, Utah	35	55	Apr-Sept	83	92	41	64
Ferron Creek near Ferron, Utah	22	50	Apr-Sept	66	63	31	44(23)
VIRGIN RIVER							
Virgin River at Virgin, Utah	21	35	Apr-June	108	38	26	60

(19) Observed flow plus change in storage in Moon Lake reservoir.
(20) Average runoff for 15 years, 1943-1957.
(21) Average runoff for 15 years, 1941-55.
(22) Observed flow plus change in storage in Scofield reservoir.
(23) Calculated average runoff for 1938-52.

STATUS OF UTAH RESERVOIR STORAGE - MAY 1, 1959 (1)

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FT. 1959	1958	1957	15-Yr. Av. 1938-52
		GREAT BASIN				
Bear River	Bear Lake	1421.0	1067.4	1102.9	946.0	825.0
Little Bear	Hyrum	15.3	15.7	11.5	15.3	14.6(2)
Ogden	Pine View	110.0	33.5	20.0	17.8	32.1
Weber	Wanship	59.1	13.7	21.4	6.6	- -
	Echo	73.9	49.0	51.1	43.7	54.7
	East Canyon	28.7	17.0	25.1	24.8	24.7
Provo	Deer Creek	149.7	87.5	96.1	88.4	97.8(3)
Spanish Fork	Strawberry	270.0	163.3	166.4	147.2	115.5
Utah Lake	Utah Lake	1149.0(4)	633.9	710.7	520.8	587.0
Sevier River	Otter Creek	52.5	40.2	47.6	18.0	46.2
	Piute	74.0	44.8	65.7	16.6	63.3
	Sevier Bridge	236.0	92.8	130.7	62.1	173.8
Beaver River	Rocky Ford	23.3	15.1	18.0	8.3	18.6
		COLORADO RIVER				
Lake Fork	Moon Lake	35.8	8.5	29.2	9.4	17.4(5)
Price River	Scofield	65.8	34.3	40.0	9.3	23.9(3)

(1) All data contained in this table supplied by U. S. Geological Survey.
(2) Average for 1939-53.
(3) Average for 1943-57.
(4) Active capacity taken at 3.1 feet above compromise point.
(5) Average for 1939-52.

APRIL PRECIPITATION DATA

(Measured at or near Snow Courses) (1)

DRAINAGE BASIN and RAINGAGE LOCATION	Elev.	April Precipitation from date of Apr. 1 Snow Survey to Approximately May 1					
		Date of Read. 1959	Precipitation 1959 (In.)	Past Record 1958 (In.)	Past Record 1957 (In.)	Yrs. of Record	Av. for Record Period (In.)
GREAT BASIN DRAINAGE							
Bear River above Harer, Idaho							
Trial Lake *	9800	4/30	4.23	3.40	5.60	7	3.11
Stillwater Camp	8550	4/30	2.30	1.50	4.60	3	2.53
Bear River below Harer, Idaho							
Willow Flat	6100	4/28	4.50	3.95	6.45	3	4.07
Klondike Narrows	7400	4/21	2.20	4.85	4.80	4	3.88
Garden City Summit	7900	4/29	4.68	--	--	4	2.58
Dry Bread Pond	8230	4/27	5.20	2.53	6.60	6	2.96
Little Bear (upper)	6850	4/23	2.50	4.08	5.70	2	4.89
Ogden River							
Dry Bread Pond	8230	4/27	5.20	2.53	6.60	6	2.96
Sagebrush Flat	6300	4/27	3.35	1.29	4.30	3	2.30
Ben Lomond(lower)	6000	4/28	4.80	4.74	6.00	4	4.21
Snow Basin	6500	4/29	5.38	New Gage		0	--
Weber River							
Trial Lake *	9800	4/30	4.23	3.40	5.60	7	3.11
Smith & Morehouse	7600	4/29	3.75	2.15	5.20	4	3.01
Chalk Creek #2	8200	4/28	3.45	3.30	--	6	2.17
Silver Lake(Brighton)*	8725(2)	4/29	2.70	7.26	6.42	28**	4.02
Parley's Canyon Smt.	7500	4/29	3.85	5.38	6.20	6	4.78
Mt. Dell Dam* (2)	5500	4/29	1.64	3.63	5.15	24**	2.80

(1) Precipitation from non-recording raingages located on or near snow course 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.

* Adjacent Drainage.

** Period of Snow Surveys.

APRIL PRECIPITATION DATA

(Measured at or near Snow Courses) (1)

DRAINAGE BASIN and RAINGAGE LOCATION	Elev.	April Precipitation from Date of April 1 Snow Survey to Approximately May 1					
		Date of Read. 1959	Precipitation 1959 (In.)	Past Record 1958 (In.)	Past Record 1957 (In.)	Yrs. of Record	Av. for Record Period (In.)
Provo River & Utah Lake							
Trial Lake	9800	4/30	4.23	3.40	5.60	7	3.11
Soapstone R. S.	7800	4/30	2.90	3.10	4.70	4	3.08
Daniels Strawberry Smt.	8000	4/29	3.20	2.50	4.70	4	2.69
Strawberry Reservoir - East Portal (2)	7606	4/30	1.77	1.22	2.17	10	1.47
Hobble Creek Summit	7300	4/28	3.05	3.75	3.40	4	2.64
Clear Creek Ridge #2	8000	4/27	2.90	2.77	4.10	3	2.69
Payson Ranger Sta.	8050	4/27	3.01	4.16	6.10	4	3.92
Timpanogos Divide (2)	8200	4/29	3.15	4.05	4.40	20	3.68
Dutchman R. S.	7500	4/29	2.98	4.72	3.85	3	3.82
Jordan River & Great Salt Lake							
Silver Lake(Brighton)(3)	8725	4/29	2.70	7.26	6.42	28**	4.02
Mt. Dell Dam (3)	5500	4/29	1.64	3.63	5.15	24**	2.80
Parley's Canyon Smt.	7500	4/29	3.85	5.38	6.20	6	4.78
Farmington Rice (4)	7000	4/30	5.69	6.60	6.92	19	5.00
Farmington Flats (4)	7500	4/30	6.28	7.36	7.90	6	5.60
Middle Canyon-Tooele	7000	4/27	3.03	4.88	8.70	2	6.79
Sevier River above Richfield							
Webster Flat *	9200	4/29	1.30	6.70	7.00	7	3.57
Duck Creek R. S.	8560	4/27	1.03	4.65	3.20	7	2.13
Castle Valley	9700	4/27	0.83	3.85	6.10	2	4.98
Panguitch Lake (5)	8200	4/27	0.20	1.15	1.70	6	1.04
Widtsoe-Escalante #3	9500	4/29	1.45	3.18	5.10	3	3.39
Widtsoe R. S. (5)	7600	4/29	0.70	1.05	2.10	20**	1.06
Box Creek	9800	4/23	1.64	4.35	6.10	3	4.15
Kimberly Mine(upper)	8900	4/25	1.36	5.06	10.15	2	7.60

(1) Precipitation from non-recording raingages located on or near snow course and measured monthly, except that supplied by U. S. Weather Bureau, which was measured daily, as noted.
(2) Data measured monthly, supplied by U. S. Weather Bureau.
(3) Data measured daily and supplied by U. S. Weather Bureau. Mt. Dell Dam data figured from date of Lamb's Canyon snow survey.
(4) Data supplied by U. S. Forest Service
(5) U. S. Weather Bureau raingage measured by SCS personnel.
* Adjacent drainage.
** Period of snow surveys.

APRIL PRECIPITATION DATA

(Measured at or near Snow Courses) (1)

DRAINAGE BASIN and RAINGAGE LOCATION	Elev.	April Precipitation from Date of April 1 Snow Survey to Approximately May 1					
		Date of Read. 1959	Precipitation 1959 (In.)	Past Record			
				1958 (In.)	1957 (In.)	Yrs. of Record	Av. for Record Period (In.)
Sevier River below Richfield including San Pitch River							
Farnsworth Lake	9900	4/24	3.25	4.95	11.20	3	6.05
Gooseberry R. S. (2)	7800	4/24	2.01	2.93	7.65	15**	3.01
Gooseberry Reservoir	8700	4/28	3.20	4.32	4.85	5	2.93
GBRC Meadows (3)	10000	4/29	2.88	5.16	5.61	23	3.69
GBRC Headquarters (3)	8700	4/29	3.05	4.15	3.81	28**	3.41
GBRC Oaks (3)	7655	4/29	2.32	2.05	2.77	33	2.18
Beaver Dams	8000	4/27	3.04	2.13	4.70	3	2.81
Pine Creek	8700	4/30	4.92	5.78	4.00	2	4.89
Beaver River							
Big Flat	10000	Not Read		5.25	6.00	5	3.49
B eaver Canyon P.H. (4)	7275	4/27	0.57	3.04	6.43	19	2.22
Parowan Creek							
Yankee Reservoir	8700	4/27	1.90	2.87	6.25	2	4.56
Coal Creek							
Webster Flat *	9200	4/29	1.30	6.70	7.00	7	3.57
Enterprise to New Harmony							
Long Flat	8200	4/28	0.80	New Gage		0	--
Little Grassy Creek	6100	4/28	0.10	New Gage		0	--

(1) Precipitation from non-recording raingages located on or near snow course and measured monthly, except that supplied by U. S. Weather Bureau, which was measured daily, as noted.
(2) U. S. Weather Bureau raingage measured by SCS personnel.
(3) Data supplied by U. S. Forest Service.
(4) Data measured daily and supplied by U. S. Weather Bureau. Data figured from date of Merchant Valley snow survey.

* - Adjacent Drainage.

** - Period of Snow Surveys.

APRIL PRECIPITATION DATA

(Measured at or near Snow Courses) (1)

DRAINAGE BASIN and RAINGAGE LOCATION	Elev.	April Precipitation from Date of April 1 Snow Survey to Approximately May 1					
		Date of Read. 1959	Precipitation 1959 (In.)	Past Record 1958 (In.)	Past Record 1957 (In.)	Yrs. of Record	Av. for Record Period (In.)
COLORADO RIVER DRAINAGE							
Upper Green River							
King's Cabin (upper)	8800	4/28	1.60	1.90	4.15	7	2.05
Duchesne River							
Trial Lake *	9800	4/30	4.23	3.40	5.60	7	3.11
Soapstone R. S. *	7800	4/30	2.90	3.10	4.70	4	3.08
Daniels-Strawberry Smt. *	8000	4/29	3.20	2.50	4.70	4	2.69
Strawberry Reservoir-East Portal * (2)	7560	4/30	1.77	1.22	2.17	10	1.47
White River #1 *	8600	4/24	0.80	2.10	3.50	2	2.80
Currant Creek	7800	4/24	0.80	2.50	2.52	3	2.09
Rock Creek	7900	4/23	1.15	1.55	0.95	3	1.38
Moon Lake (2)	8150	4/30	1.15	--	1.65	22	1.31
Lakefork Mountain	10500	4/27	2.00	3.50	3.25	6	1.96
Paradise Park	10500	4/29	2.70	2.30	3.30	4	2.02
Julius Park	9800	4/30	2.80	New Gage		0	--
Price River							
Gooseberry Reservoir	8700	4/28	3.20	4.32	4.85	5	2.93
Clear Creek Ridge #2 *	8000	4/27	2.90	2.77	4.10	3	2.69
Mud Creek	8300	4/24	1.45	1.90	3.30	2	2.60
Clear Creek (3)	8300	5/1	2.10	1.92	4.23	23	1.95
White River #1	8600	4/24	0.80	2.10	3.50	2	2.80

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

* Adjacent drainage.

APRIL PRECIPITATION DATA

(Measured at or near Snow Courses) (1)

DRAINAGE BASIN and RAINGAGE LOCATION	Elev.	April Precipitation from Date of April 1 Snow Survey to Approximately May 1					
		Date of Read. 1959	Precipitation 1959 (In.)	Past Record 1958 (In.)	Past Record 1957 (In.)	Yrs. of Record	Av. for Record Period (In.)
San Rafael River							
Gooseberry Reservoir *	8700	4/28	3.20	4.32	4.85	5	2.93
Stuart Ranger Sta.	7950	4/27	2.60	2.25	3.40	4	1.75
Red Pine Ridge	9400	4/29	4.05	4.30	5.90	4	4.29
GEEO Meadows * (4)	10000	4/29	2.88	5.16	5.61	23	3.69
Buck Flat	9400	4/28	3.90	1.60	6.50	3	3.30
Fremont River							
Farnsworth Lake *	9900	4/24	3.25	4.95	11.20	3	6.05
Black's Flat-U.M. Creek	9250	4/22	2.06	2.98	6.45	3	3.51
Escalante River							
Widtsoe-Escalante #3	9500	4/29	1.45	3.18	5.10	3	3.39
Virgin River							
Duck Creek R. S.	8560	4/27	1.03	4.65	3.20	7	2.13
Webster Flat	9200	4/29	1.30	6.70	7.00	7	3.57
Lower Colorado River (Southeastern Utah)							
LaSal Mountain (upper)	9600	4/29	1.90	New Gage		0	- -
Buckboard Flat	9000	4/28	2.05	2.40	4.55	3	2.73
Camp Jackson	8600	4/28	3.30x	2.25	4.50	3	2.67

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

(4) Data supplied by U. S. Forest Service

* Adjacent drainage.

x - Precipitation since 2/20/59

UTAH SNOW SURVEYS - ABOUT MAY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs o Recor
GREAT BASIN DRAINAGE									
BEAR RIVER above HARER, IDAHO									
Trial Lake x	10J8	9800	4/30	62	24.4	30.2	34.3	30.7**	11
Hayden Fork	10J7	9300	4/30	30	13.7	17.3	21.8	16.2**	5
Stillwater Camp	10J17	8550	4/30	14	6.1	9.6	13.0	6.6**	4
Goodman Ranch	10J6	7900	4/30	0	0.0	T	4.6	1.2**	4
Monte Cristo R. S.	11H12	8960	4/27	51	20.8	30.6	31.4	27.3**	8
Poison Meadows x	10G6	8500	Delayed Data			31.7	36.8	--	3
Piney LaBarge x	10G10	8820	Delayed Data			17.5	25.6	13.2*	22
Big Park	10G11	8700	4/27	49	18.0	21.7	25.1	21.9**	7
Kelly R. S.	10G12	8200	4/27	41	14.2	16.4	20.3	--	3
Salt River Summit x	10G8	7900	4/29	25	10.0	15.4	17.7	10.6**	6
CCC Camp x	10G7	7500	4/29	12	5.2	10.4	13.3	6.1**	9
BEAR RIVER below HARER, IDAHO									
Garden City Summit	11H7	7900	4/24	35	14.9	22.0	21.0	15.7**	7
Strawberry Mink Divide	11G10	6800	4/29	16	7.6	26.0	19.8	--	3
Strawberry Creek	11G9	5800	4/29	0	0.0	8.5	0.0	--	3
Christensen Ranch	11G11	5600	4/29	0	0.0	0.0	0.0	--	3
Willow Flat	11G4	6100	4/28	0	0.0	7.2	6.4	--	3
Cub River R. S.	11G12	5400	4/28	0	0.0	0.0	0.0	--	3
Franklin Basin R. S.	11G8	8200	4/21	64	24.6	35.0	37.2	--	3
Klondike Narrows	11H1	7400	4/21	31	13.0	21.9	18.4	--	4
Tony Grove R. S.	11H3	6250	4/24	0	0.0	3.3	0.0	--	3
Mt. Logan	11H6	9000	4/28	71	28.5	36.0	39.4	26.4*	32
Spring H ollow (upper)	11H5	8000	4/28	64	23.1	29.5	31.4	23.4*	32
Spring H ollow (lower)	11H4	7000	4/28	13	4.3	10.9	11.6	7.4*	19
Monte Cristo R. S.	11H12	8960	4/27	51	20.8	30.6	31.4	27.3**	8
Dry Bread Pond x	11H13	8230	4/27	24	9.2	18.8	21.2	15.1**	8
Beaver Crk-Skunk Crk x	11H14	7150	4/27	0	0.0	6.7	6.8	4.9**	7
Little Bear (upper)	11H25	6850	4/23	0	0.0	3.9	0.0	--	2
Little Bear (lower)	11H26	6100	4/23	0	0.0	T	0.0	--	2
Oxford Mountain	12G3	6800	4/28	0	0.0	4.9	--	--	3
Dry Creek Flat	12G4	6350	4/28	0	0.0	0.0	--	--	3

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

UTAH SNOW SURVEYS - ABOUT MAY 1, 1959

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prio Yrs Rec
OGDEN RIVER									
Monte Cristo R. S. x	11H12	8960	4/27	51	20.8	30.6	31.4	27.3**	8
Dry Bread Pond	11H13	8230	4/27	24	9.2	18.8	21.2	15.1**	8
Beaver Crk-Skunk Crk.	11H14	7150	4/27	0	0.0	6.7	6.8	4.9**	7
Sagebrush Flat	11H15	6300	4/27	0	0.0	0.0	0.0	- -	4
Ben Lomond Peak	11H8	8000	4/28	38	17.3	46.0	33.5	31.9**	8
Ben Lomond(lower)	11H9	6000	4/28	0	0.0	13.7	0.0	4.1**	5
Mt. Ogden	11H10	8600	4/25	46	21.1	46.5	31.0	29.5**	8
Snow Basin	11H11	6500	4/25	0	0.0	16.5	4.4	5.8**	5
WEBER RIVER									
Trial Lake x	10J8	9800	4/30	62	24.4	30.2	34.3	30.7**	11
Smith & Morehouse	11J4	7600	4/29	Trace	Trace	12.2	12.6	6.6**	8
Redden Mine(upper)	11J5	9000	4/29	36	15.2	23.2	25.8	18.4**	8
Redden Mine(lower)	11J6	8500	4/29	31	12.8	21.2	24.0	16.3**	8
Beaver Creek R. S.	11J24	7500	4/30	0	0.0	5.7	3.8	1.2**	8
Chalk Creek #1	11J1	9100	4/28	56	22.6	23.2	30.4	24.9**	8
Chalk Creek #2	11J2	8200	4/28	26	10.7	12.7	19.4	11.7**	8
Chalk Creek #3	11J3	7500	4/28	0	0.0	3.3	7.7	1.6**	7
Silver Lake x	11J16	8725	4/29	44	19.2	31.3	29.9	26.8**	8
Parley's Canyon Smt.	11J15	7500	4/29	14	5.5	19.2	17.8	11.5**	8
Lamb's Canyon x	11J14	6600	4/28	10	3.0	16.8	5.8	6.8**	8
PROVO RIVER & UTAH LAKE									
Trial Lake	10J8	9800	4/30	62	24.4	30.2	34.3	30.7**	11
Soapstone R. S.	11J25	7800	4/30	Patchy		13.1	13.1	5.3**	9
Daniels-Strawberry Smt	11J23	8000	4/29	12	4.8	11.7	14.2	8.3**	7
Hobble Creek Summit	11J22	7300	4/28	1	0.7	11.1	9.1	- -	4
Packard Canyon	11J31	6400	4/28	0	0.0	2.1	0.0	- -	2
Clear Creek Ridge #1	11K21	9200	4/27	26	9.2	21.6	24.0	- -	4
Clear Creek Ridge #2	11K22	8000	4/27	4	1.1	13.9	14.8	- -	4
Clear Creek Ridge #3	11K23	6600	4/27	0	0.0	1.1	0.0	- -	4
Payson R. S.	11K1	8050	4/27	12	4.4	22.1	22.5	13.4**	5
Rock Bridge	11K2	6750	4/27	0	0.0	12.2	7.3	- -	4
Dutchman R. S.	11J17	7500	4/29	3	1.1	22.4	11.6	- -	4
Timpanogos Divide	11J21	8200	4/29	19	8.1	28.5	23.4	18.8*	18
Camp Altamont	11J20	7300	4/29	0	0.0	16.2	8.2	8.7**	6

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs of Record
JORDAN RIVER & GREAT SALT LAKE									
Silver Lake	11J16	8700	4/29	44	19.2	31.3	29.9	26.8**	8
Mill D. South Fork	11J10	7400	4/29	21	8.4	28.6	11.6	13.6**	7
Lamb's Canyon	11J14	6600	4/28	10	3.0	16.8	5.8	6.8**	8
Parley's Canyon Smt.x	11J15	7500	4/29	14	5.5	19.2	17.8	11.5**	8
Farmington Canyon(u)	11J11	8000	Delayed Data			38.9	33.7	30.9**	8
Farmington Canyon(l)	11J12	6950	Delayed Data			28.4	19.5	18.9**	8
Rocky Basin - Settlement Canyon	12J1	8900	4/30	38	17.0	33.0	35.6	24.0**	5
Bevan's Cabin	12J2	6450	4/30	0	0.0	6.5	2.4	- -	3
Middle Canyon	12J3	7000	4/27	2	1.2	13.8	15.4	7.9**	5
SEVIER RIVER above RICHFIELD									
Cedar Breaks	12M1	10390	4/29	11	4.7	30.1	27.1	20.1**	7
Midway Valley	12M2	9400	4/29	21	9.2	33.5	26.8	22.5**	5
Duck Creek R. S.	12M4	8560	4/27	0	0.0	13.0	9.5	6.0**	8
Harris Flat R. S.	12M5	7700	4/27	0	0.0	2.3	T	0.3**	7
Castle Valley	12M13	9700	4/27	0	0.0	14.0	11.7	- -	3
Panguitch Lake	12M7	8200	4/27	0	0.0	T	0.0	T**	6
Widtsoe-Escalante Smt.	11M1	9500	4/29	0	0.0	8.7	4.2	2.4**	6
Widtsoe-Escalante #2	11M2	9500	4/29	Trace	Trace	14.0	7.8	5.1**	6
Widtsoe-Escalante #3	11M3	9500	4/29	0	0.0	New Course			
Fish Lake x	11L3	8700	4/22	Trace	Trace	10.5	8.1	- -	3
Box Creek	12L4	9800	4/23	11	4.0	18.7	17.2	- -	3
Squaw Springs	12L5	9300	4/23	0	0.0	9.3	7.4	- -	3
Big Flat x	12L7	10000	4/27	29	9.2	32.5	26.6	22.3**	7
Kimberly Mine(upper)	12L6	8900	4/25	12	3.6	20.4	21.8	- -	3
SEVIER RIVER below RICHFIELD including SAN PITCH RIVER									
Farnsworth Lake	11L1	9900	4/24	29	10.5	25.9	29.9	20.0**	6
Gooseberry R. S.	11L2	8400	4/24	0	0.0	14.0	17.2	7.7**	6
Huntington-Horseshoe x	11K5	9800	4/28	50	18.8	39.3	33.6	26.2**	8
Gooseberry Reservoir x	11K4	8700	4/28	30	11.4	23.9	25.5	16.7**	11

x - Adjacent Drainage.
* - Less than 15 years in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs of Record
SEVIER RIVER below RICHFIELD including SAN PITCH RIVER - Continued									
G.B.R.C. Meadows	11K10	10000	4/29	47	19.9	35.9	37.0	30.5**	7
G.B.R.C. Headquarters	11K11	8700	4/29	20	8.9	20.9	25.0	15.5**	7
Middle Fork	11K34	9600	4/30	47	18.8	33.4	33.4	- -	3
Thistle Flat	11K35	8500	4/30	17	7.0	18.6	21.2	- -	3
Mt. Baldy R. S.	11K12	9500	4/27	45	16.5	32.7	32.9	24.3**	6
Beaver Dams	11K13	8000	4/27	5	1.1	12.0	11.3	6.1**	6
Pine Creek	12L1	8700	4/30	0.3	0.2	19.8	28.2	- -	2
BEAVER RIVER									
Big Flat	12L7	10000	4/27	29	9.2	32.5	26.6	22.3**	7
Otter Lake	12L8	9300	4/27	18	6.4	23.0	20.7	16.5**	7
Merchant's Valley	12L9	8200	4/27	0	0.0	12.9	10.2	5.1**	7
PAROWAN CREEK									
Yankee Reservoir	12M11	8700	4/27	0	0.0	10.7	10.6	- -	4
Ed Ward Flat	12M12	8300	4/27	0	0.0	6.9	2.4	- -	4
COAL CREEK									
Cedar Breaks x	12M1	10390	4/29	11	4.7	30.1	27.1	20.1**	7
Midway Valley x	12M2	9400	4/29	21	9.2	33.5	26.8	22.5**	5
Webster Flat	12M3	9200	4/29	2	0.7	23.3	17.4	12.3**	7
Urie Flat	12M10	8450	4/29	0	0.0	5.9	0.0	- -	4
COLORADO RIVER DRAINAGE									
UPPER GREEN RIVER IN UTAH									
King's Cabin(upper)	9J1	8800	4/28	17	6.1	9.2	7.7	6.6**	7
King's Cabin(lower)	9J2	8600	4/28	8	3.3	7.5	6.7	4.7**	7
DUCHESNE RIVER									
Trial Lake x	10J8	9800	4/30	62	24.4	30.2	34.3	30.7**	11
Soapstone R. S. x	11J25	7800	4/30	Patchy		13.1	13.1	5.3**	9
Daniels-Strawberry Smt	11J23	8000	4/29	12	4.8	11.7	14.2	8.3**	7
White River #1 x	10K2	8600	4/24	7	2.5	13.2	17.2	- -	3

x - Adjacent Drainage.
* - Less than 15 yrs. in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs of Record
DUCHESNE RIVER - Continued									
Lakefork Mountain	10J10	10500	4/27	24	8.9	13.0	12.5	12.0**	7
Lakefork Mountain #2	10J11	8900	4/27	0	0.0	6.1	2.1	2.4**	5
Lakefork Mountain #3	10J12	8100	4/27	0	0.0	0.6	0.9	0.3**	5
Paradise Park	9J3	10500	4/29	25	8.4	12.8	12.6	12.4**	5
Julius Park	9J6	9800	4/30	18	7.9	14.6	--	--	1
Mosby Mtn. (lower)	9J5	9500	4/29	15	5.1	11.9	8.9	9.8**	5
Currant Creek	11J32	7800	4/24	0	0.0	5.2	0.0	--	3
PRICE RIVER									
Huntington-Horseshoe	11K5	9800	4/28	50	18.8	39.3	33.6	26.2**	8
Gooseberry Reservoir	11K4	8700	4/28	30	11.4	23.9	25.5	16.7**	11
Dry Valley Divide	11K8	7800	4/24	0	0.0	7.5	9.3	--	3
Mud Creek #2	11K33	8300	4/24	9	3.4	11.7	14.8	--	2
White River #1	10K2	8600	4/24	7	2.5	13.2	17.2	--	3
White River #2	11K24	7600	4/24	0	0.0	T	5.8	--	3
White River #3	11K25	7400	4/24	0	0.0	0	1.8	--	3
SAN RAFAEL RIVER									
Huntington-Horseshoe	11K5	9800	4/28	50	18.8	39.3	33.6	26.2**	8
Gooseberry Reservoir x	11K4	8700	4/28	30	11.4	23.9	25.5	16.7**	11
Switchback	11K26	8600	4/27	24	7.6	20.3	22.2	--	4
Stuart R. S.	11K27	7950	4/27	0	0.0	5.7	6.9	--	4
Red Pine Ridge	11K28	9400	4/29	18	7.6	21.1	25.9	--	4
Joe's Valley	11K29	8800	4/29	0	0.0	8.0	11.1	--	2
Seeley Creek R. S.#2	11K9	10000	4/29	21	8.4	26.1	25.9	18.5**	6
Buck Flat	11K31	9400	4/28	23	8.4	24.1	26.4	--	3
Rush Pond	11K38	9800	4/28	16	5.4	18.0	20.8	--	4
Wrigley Creek	11K32	9000	4/28	3	0.8	11.7	12.7	--	4
FREMONT RIVER									
Farnsworth Lake x	11L1	9900	4/24	29	10.5	25.9	29.9	20.0**	6
Fish Lake	11L3	8700	4/22	Trace	Trace	10.5	8.1	--	3
Johnson Valley	11L6	8850	4/22	Trace	Trace	8.2	9.0	--	3
Black's Flat-U.M.Crk.	11L4	9250	4/22	9	3.0	15.8	12.9	--	3

x - Adjacent Drainage
* - Less than 15 yrs. in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1959 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1958	1957	1938-52 Av.	Prior Yrs. Recor
ESCALANTE RIVER									
Widtsoe-Escalante Smt	11M1	9500	4/29	0	0.0	8.7	4.2	2.4**	6
Widtsoe-Escalante #2	11M2	9500	4/29	Trace	Trace	14.0	7.8	5.1**	6
Widtsoe-Escalante #3	11M3	9500	4/29	0	0.0	New Course			0
VIRGIN RIVER									
Harris Flat R. S. x	12M5	7700	4/27	0	0.0	2.3	T	0.3**	7
Duck Creek R. S. x	12M4	8560	4/27	0	0.0	13.0	9.5	6.0**	8
Midway Valley x	12M2	9400	4/29	21	9.2	33.5	26.8	22.5**	5
Cedar Breaks x	12M1	10390	4/29	11	4.7	30.1	27.1	20.1**	7
Webster Flat	12M3	9200	4/29	2	0.7	23.3	17.4	12.3**	7

x - Adjacent Drainage
* - Less than 15 yrs. in 1938-52 period. Average for 15 years nearest base period.
** - Average for period of record.