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SNOW SURVEY and WATER SUPPLY FORECASTS for UTAH, BEAR and COLORADO RIVER BASIN

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE,

and

STATE ENGINEER of UTAH

In cooperation with Agricultural Experiment Stations at Arizona, Colorado and Utah; the State Engineers of Colorado, New Mexico and Wyoming; U.S. Forest Service; Bureau of Reclamation, U.S. National Park Service, U.S. Geological Survey; and other Federal, State, and private organizations.

AS OF

JAN. 1, 1960

USDA-SCS-PORTLAND, OREG. 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

UTAH, BEAR and COLORADO RIVER BASINS

JANUARY 1, 1960

Report Prepared

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FORECAST WATER SUPPLY

Based on Snow Surveys Made on

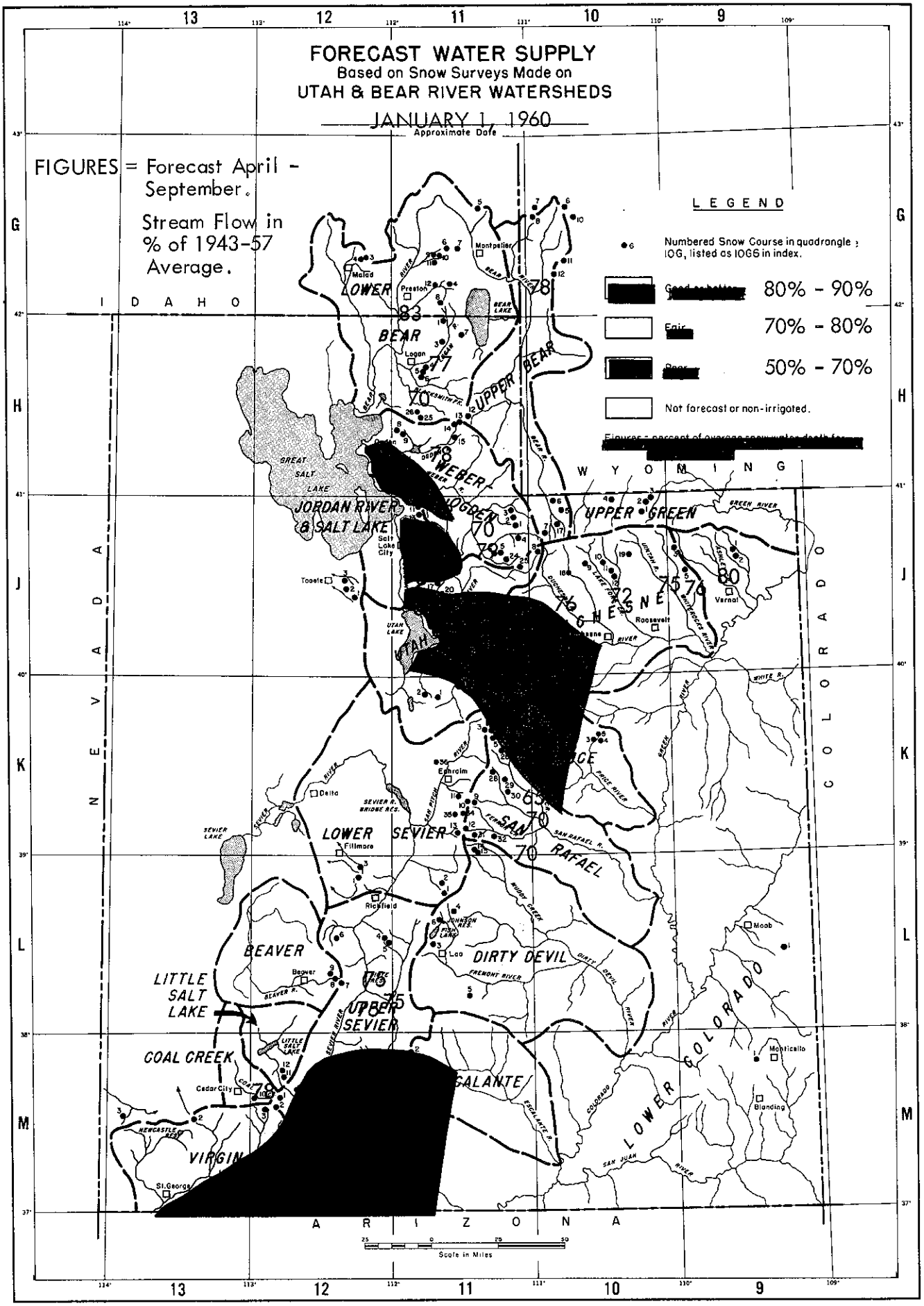
UTAH & BEAR RIVER WATERSHEDS

JANUARY 1, 1960

Approximate Date

FIGURES = Forecast April - September.

Stream Flow in % of 1943-57 Average.



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

M-926

WATER SUPPLY OUTLOOK

as of

JANUARY 1, 1960

****
* A very light snowpack for January 1 now lies on most *
* watersheds of the state. This applies particularly *
* to the watersheds of Utah Lake, the Price river, *
* Uintah Basin and northward. Here the snowpack varies*
* from about 25% to 40% of average. South of this area*
* it varies from 40% to a high of 87% on the headwaters*
* of the Escalante and East Fork Sevier Rivers. Soil *
* moisture is about average or above in the north, *
* average or below in the center, and below average in *
* the south. Most streamflow forecasts fall between *
* 70% and 80% of average. *
****

GENERAL OUTLOOK

A very light snowpack now lies on most watersheds of the state. However, the trend of recent years of having heavier snows in the north with a much lighter snowpack in the south has been reversed. This year the area with the least snow includes the watersheds of Utah Lake, the Price River, Uintah Basin, northward across the Salt Lake Area, the Weber, Ogden and Cache Valley streams and into Wyoming and Idaho across all watersheds of the Bear River. Here the water content of the snow varies from 25% to 40% of average.

In the center of the state it varies from 40% to 60%, going from Mt. Nebo southeast to the head of Huntington Creek and then southward to about the Beaver and Fremont rivers. The South Fork of the Sevier, Coal Creek near Cedar City and the Virgin river range from 60% to 80%, while the heaviest snowpack percentage-wise is on the Escalante and East Fork Sevier rivers where it is 87%.

Moisture in the soil underlying the snowpack - which often is a major factor influencing streamflow - reverses the snowpack figures. In the north it is about average, and in some places considerably above, average or below in the center, and below average in the south.

Forecasts are made by combining these two factors and assuming that the drought trend of the past few months will change, with average conditions prevailing for the balance of the season. On this basis, next summer's streamflow for most of the state will be in the 70% to 80% of average range, or about 3/4 of the usual amount. The streams near Salt Lake will run a little higher, about 85% to 90%, while in the south the Virgin, Escalante and Paria rivers can expect 80% to 90%. The areas with the poorest outlook are East Canyon Creek near Morgan, the lower Weber, the streams draining into Utah Lake, the Strawberry reservoir, Strawberry river, the upper San Pitch and Price rivers, and Huntington Creek. Forecasts for these streams vary from 50% to 70%.

In most years between 35% to 40% of the total snowpack to be expected has accumulated by the first of January. Since this leaves the major portion yet to come, the water supply prospects may change considerably, either up or down, as the rest of the winter's snow accumulates.

COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of January 1, 1960

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1960 Snow Water Expressed as Percent of 1959	1958	& 1943-57 Av.
GREAT BASIN					
Smith's Fork - Bear River	2	11-22	38	34	43*
Logan River	3	5-9	36	23	37*
Ogden River	3	4-6	127	38	55*
Weber River above Echo Dam	6	4-24	65	29	36*
East Canyon Creek	3	6-24	79	33	40*
Farmington Creek	2	6-8	32	11	12*
Salt Lake Area	4	6-24	84	31	41*
American Fork River	3	18-24	128	26	30
Provo River above Vivian Park	6	4-28	88	31	39*
Strawberry Reservoir Valley	3	20-28	475	26	34
Payson Creek	2	6-7	90	44	57*
Sevier River above Hatch	3	5-7	239	51	75*
East Fork Sevier River	2	9-21	205	45	87*
Clear Creek above Sevier	1	1	206	--	49*
Salina Creek	2	2	161	28	38*
San Pitch River	5	1-19	157	41	47*
Coal Creek-Cedar City	2	5-6	350	49	62*
COLORADO RIVER BASIN					
Duchesne-Strawberry Rivers	6	4-28	278	28	35*
Whiterocks - Uintah Rivers	3	2-3	103	17	24*
Price River	2	3-20	146	33	43*
San Rafael River	2	3-8	174	38	46*
Escalante River	2	9-21	205	45	87*
Virgin River	3	5-7	350	53	70*

* 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 RESERVOIR STORAGE - JANUARY 1, 1960 (1)

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET 1960	1959	1958	15-Yr. Av. 1943-57
		GREAT BASIN				
Bear River	Bear Lake	1421.0	916.0	977.5	978.2	806.4
Little Bear	Hyrum	15.3	8.6	9.8	2.1	9.8
Ogden	Pine View	110.0	7.7	11.8	15.1	7.2
Weber	Wanship	59.1	10.5	12.3	41.4	- -
	Echo	73.9	19.2	16.0	34.3	26.3
	East Canyon	28.7	11.5	10.2	15.7	14.1
Provo	Deer Creek	149.7	63.1	86.7	101.7	87.7
Spanish Fork	Strawberry	270.0	102.7	149.5	150.6	128.6
Utah Lake	Utah Lake	1149.0(2)	385.1	488.6	499.4	516.7
Sevier River	Otter Creek	52.5	16.9	30.4	16.9	21.6
	Piute	74.0	15.8	42.6	27.3	29.6
	Sevier Bridge	236.0	30.1	62.9	70.4	120.1
Beaver River	Rocky Ford	23.3	4.3	9.6	15.0	11.9
		COLORADO RIVER DRAINAGE				
Lake Fork	Moon Lake	35.8	7.8	6.2	21.7	10.6
Price River	Scofield	65.8	5.5	32.0	37.6	13.7

(1) All data contained in this table supplied by the U. S. Geological Survey.

(2) Active capacity taken at 3.1 feet above compromise point.

SNOW SURVEYS - ABOUT JANUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
GREAT BASIN DRAINAGE									
UPPER BEAR RIVER (Above Harer, Idaho)									
CCC Camp x	10G7	7500	12/31	15	2.6	5.8	6.0	4.9	22
Salt River Summit x	10G8	7900	12/31	15	2.0	6.5	7.8	6.2*	11
Trial Lake x	10J8	9800	12/29	20	6.0	7.0	12.7	11.0**	4
LOWER BEAR RIVER (Below Harer, Idaho)									
Garden City Summit	11H7	7600	12/28	15	1.8	6.3	10.3	7.5*	9
Klondike Narrows	11H1	7400	12/28	18	3.3	-	11.9	7.2**	5
Tony Grove R. S.	11H3	6250	12/28	9	1.6	3.6	6.3	4.8**	8
OGDEN RIVER									
Ben Lomond(lower)	11H9	5850	12/30	17	3.7	1.2	9.2	5.8**	4
Mt. Ogden	11H10	8600	12/29	21	5.3	6.0	14.3	11.0**	6
Snow Basin	11H11	6420	12/29	11	2.8	2.2	7.8	5.2**	6
WEBER RIVER									
Beaver Creek R. S.	11J24	7500	12/29	4	0.6	1.5	6.2	4.1**	6
Lamb's Canyon x	11J14	6600	12/30	10	3.4	1.8	7.8	6.0*	11
Parley's Canyon Smt.	11J15	7500	12/29	14	2.1	2.9	10.0	7.3**	6
Silver Lake x	11J16	8725	12/30	17	4.5	5.2	12.8	11.5	24
Smith & Morehouse	11J4	7600	12/29	6	1.1	2.8	7.3	4.9**	6
Trial Lake x	10J8	9800	12/29	20	6.0	7.0	12.7	11.0**	4
PROVO RIVER & UTAH LAKE									
Camp Altamont	11J20	7300	12/30	15	2.4	1.0	9.0	7.3	24
Daniels-Strawberry Smt.	11J23	8000	12/28	13	2.8	0.8	7.5	5.3*	28
East Portal	11J7	7560	12/27	8	1.1	0.2	5.4	4.6*	21
Payson R. S.	11K1	8050	12/29	18	3.2	3.2	7.5	6.0**	7
Rock Bridge	11K2	6750	12/29	14	2.5	3.1	5.4	4.1**	6
Soapstone R. S.	11J25	7800	12/29	4	0.8	2.0	7.6	5.3**	7
South Fork R. S.	11J19	6100	12/31	17	2.6	0.9	4.3	4.1*	18
Strawberry Divide	11J8	8000	12/27	16	2.1	0.4	9.5	8.7*	20
Timpanogos Cave Camp	11J18	5500	12/31	6	0.8	0.5	0.0	2.2*	14
Timpanogos Divide	11J21	8140	12/30	17	3.2	2.5	12.1	11.4	24
Trial Lake	10J8	9800	12/29	20	6.0	7.0	12.7	11.0**	4

x - Adjacent Drainage

* - Average for 15 year period partly estimated.

** - Average for 15 year period mostly or wholly estimated.

SNOW SURVEYS - ABOUT JANUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1959	1958	1943-57 Av.	Prio Yrs. Reco
JORDAN RIVER & GREAT SALT LAKE									
Farmington Canyon(upper)	11J11	8000	12/29	10	1.1	4.4	12.3	10.5**	6
Farmington Canyon(lower)	11J12	8000	12/29	10	1.2	3.2	9.4	8.6**	8
Lamb's Canyon	11J14	6600	12/30	10	3.4	1.8	7.8	6.0*	11
Middle Canyon	12J3	7000	12/30	14	2.2	2.6	6.9	5.3**	3
Mill D South Fork	11J10	7400	12/30	13	2.6	2.8	11.0	7.6**	6
Parley's Canyon Smt. x	11J15	7500	12/29	14	2.1	2.9	10.0	7.3**	6
Silver Lake	11J16	8725	12/30	17	4.5	5.2	12.8	11.5	24
UPPER SEVIER RIVER (South of Richfield, Utah)									
Bryce Canyon	12M8	8000	12/28	13	2.6	0.0	2.8	1.9**	5
Duck Creek R. S.	12M4	8560	12/29	19	3.6	0.0	7.3	5.0**	7
Harris Flat R. S.	12M5	7700	12/29	14	3.0	0.0	4.7	2.5**	7
Kimberly Mine	12I6	8900	12/30	18	3.3	1.6	-	6.7**	1
Long Valley Junction x	12M6	7500	12/29	12	2.2	0.0	T	1.0**	6
Midway Valley	12M2	9800	12/28	24	5.5	2.3	14.0	9.7**	5
Widtsoe-Escalante Smt.	11M1	9500	12/28	11	2.0	0.0	6.0	3.2*	21
Widtsoe-Escalante #2	11M2	9500	12/28	22	4.5	2.2	8.0	4.0*	9
Widtsoe-Escalante #3	11M3	9500	12/28	26	5.4	3.4	-	-	1
LOWER SEVIER RIVER (Including San Pitch River)									
Beaver Dams	11K13	8000	12/29	14	1.7	1.2	-	3.9**	1
Farnsworth Lake	11I1	9900	12/24	14	2.8	2.3	8.1	7.4**	2
G.B.R.C. Headquarters	11K11	8700	12/30	19	3.0	2.3	6.4	5.8*	19
G.B.R.C. Meadows	11K10	10000	12/30	21	4.3	2.5	11.2	10.0**	8
Gooseberry R. S.	11I2	8400	12/24	7	1.2	0.6	5.5	4.6**	2
Gooseberry Reservoir x	11K4	8700	12/31	11	1.6	1.9	9.1	7.3**	3
Mt. Baldy R. S.	11K12	9500	12/29	23	4.5	2.7	-	9.3**	1
COAL CREEK									
Midway Valley x	12M2	9800	12/28	24	5.5	2.3	14.0	9.7**	5
Urie Flat	12M10	8450	12/29	15	3.3	T	3.5	1.8**	5
Webster Flat x	12M3	9200	12/28	25	5.1	1.1	8.6	7.6**	6

x - Adjacent Drainage
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SNOW SURVEYS - ABOUT JANUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1959	1958	1943-57 Av.	Pri Yrs Rec
COLORADO RIVER DRAINAGE									
UPPER COLORADO RIVER (Above Glenwood Springs, Colo.)									
Berthoud Summit	5K14	11300	12/29	41	11.1	8.7	7.3	7.6 1/	5
Fremont Pass	6K8	11400	12/30	30	6.9	5.0	5.6	6.3 1/	4
Vail Pass	6K15	10000	12/30	19	4.7	4.7	6.9	-	2
GUNNISON RIVER									
Porphyry Creek	6I3	10700	12/29	27	7.3	4.5	9.0	6.8 1/	4
Red Mountain Pass	7M15	11000	No Report			-	-	-	-
UPPER GREEN RIVER (Above Flaming Gorge Reservoir)									
East Rim Divide	10F17	7950	12/28	8	1.1	5.8	5.9	4.4 1/	9
YAMPA RIVER									
Columbine Lodge x	6J3	9300	No Report			10.3	11.3	9.0 1/	5
DUCHESNE RIVER									
Daniels-Strawberry Smt. x	11J23	8000	12/28	13	2.8	0.8	7.5	5.3*	28
East Portal x	11J7	7560	12/27	8	1.1	0.2	5.4	4.6*	21
Indian Canyon	10K1	9100	12/29	11	2.1	1.7	6.9	5.2*	20
Julius Park	9J6	9800	12/28	10	1.5	1.5	8.7	-	2
Mosby Mountain	9J5	9500	12/28	9	1.1	1.0	6.8	5.0**	3
Paradise Park	9J3	10100	12/28	11	1.5	1.5	8.0	5.7**	2
Soapstone R. S. x	11J25	7800	12/29	4	0.8	2.0	7.6	5.3**	7
Strawberry Divide x	11J8	8000	12/27	16	2.1	0.4	9.5	8.7*	20
Trial Lake x	10J8	9800	12/29	20	6.0	7.0	12.7	11.0**	4
PRICE RIVER									
Dry Valley Divide	11K8	7800	12/28	10	0.8	T	5.7	4.7*	14
Gooseberry Reservoir	11K4	8700	12/31	11	1.6	1.9	9.1	7.3**	3
Indian Canyon x	10K1	9100	12/29	11	2.0	1.7	6.9	5.2*	20
Mud Creek #2	11K33	8300	12/28	10	1.2	1.5	6.8	5.0**	4
Staley Ranch	11K7	7600	12/28	4	0.3	T	3.8	2.6*	14

x - Adjacent Drainage

1/ - Average for period of record.

* - Average for 15 year period partly estimated.

** - Average for 15 yr. period mostly or wholly estimated.

SNOW SURVEYS - ABOUT JANUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In.) 1959	1958	1943-57 Av.	Prior Yrs. of Record
SAN RAFAEL RIVER									
Gooseberry Reservoir x	11K4	8700	12/31	11	1.6	1.9	9.1	7.3**	3
FREMONT RIVER									
Farnsworth Lake x	11L1	9900	12/24	14	2.8	2.3	8.1	7.4**	2
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	12/28	11	2.0	0.0	6.0	3.2*	21
Widtsoe-Escalante #2	11M2	9500	12/28	22	4.5	2.2	8.0	4.0*	9
Widtsoe-Escalante #3	11M3	9500	12/28	26	5.4	3.4	-	-	1
VIRGIN RIVER									
Duck Creek R. S.	12M4	8560	12/29	19	3.6	0.0	7.3	5.0**	7
Harris Flat R. S. x	12M5	7700	12/29	14	3.0	0.0	4.7	2.5**	7
Long Valley Junction	12M6	7500	12/29	12	2.2	0.0	T	1.0**	6
Midway Valley x	12M2	9400	12/28	24	5.5	2.3	14.0	9.7**	5
Webster Flat	12M3	9200	12/28	25	5.1	1.1	8.6	7.6**	6
SAN JUAN RIVER									
Spud Mountain	7M11	10700	12/31	49	10.1	5.5	20.0	12.0 1/	5
Upper San Juan	6M3	10000	12/28	61	13.9	7.3	19.1	12.7 1/	5
Wolf Creek Pass x	6M1	10000	No Report			5.7	14.8	10.9 1/	5
Wolf Creek Summit x	6M17	11000	12/28	79	20.8	6.4	18.5	12.5 1/	4

x - Adjacent Drainage
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Issued by

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Wayne D. Criddle
State Engineer
State of Utah
Salt Lake City, Utah

Dr. D. W. Thorne, Dir.
Utah Agricultural Exp. Station
Logan, Utah

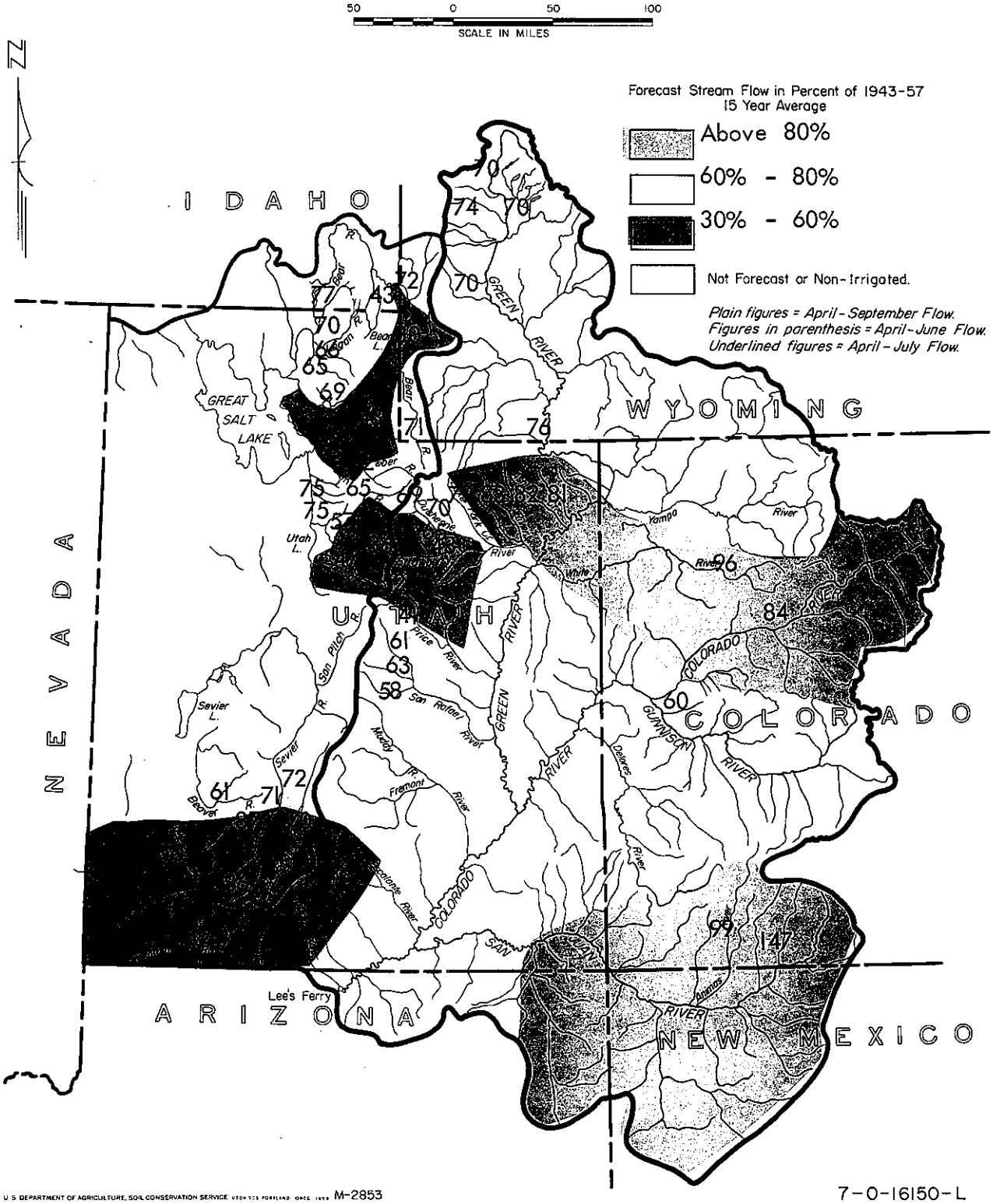
Mimeograph Series #453

PROSPECTIVE WATER SUPPLIES

Based on Snow Surveys Made on UTAH, BEAR and UPPER COLORADO BASINS

FEBRUARY 1, 1960

Approximate Date



U S DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE USDA SCS PORTLAND OREG 1959 M-2853

7-0-16150-L

WATER SUPPLY OUTLOOK

as of

FEBRUARY 1, 1960

****
* A near record low snowpack in the central part of Utah indicates *
* that streams there will run at one third to one half of their *
* usual amounts next summer. Best outlook is on the Virgin and *
* upper Sevier rivers in the south, and in the eastern portion of *
* the Uintah Basin. Here forecasts are for 80% to 90% of average. *
* In the north the outlook is also poor, with most streams expect- *
* ed to produce in the 60% to 75% range. Reservoir storage is *
* generally below average. *
* In the Colorado River Basin, the tributaries of the Green river *
* in Wyoming and the Yampa and Gunnison rivers in Colorado will *
* flow between 60% to 80% of average. Tributaries of the Colorado *
* river above Glenwood Springs, the White and San Juan rivers are *
* forecast to yield between 80% to 150%. *
****

UTAH & BEAR RIVER

Below average snowpack accumulation during January on most watersheds of Utah and the Bear river has resulted in streamflow forecasts being lowered from 5% to 18% below that expected a month ago. Exceptions to this occurred on the Virgin river, Coal Creek at Cedar City, the eastern part of the Uintah Basin, the American Fork river and North Fork Ogden river. Here forecasts remained the same or were raised 5% to 10%.

The area where the most serious shortage of water supply threatens for next summer includes Hobble Creek at Springville, the Spanish Fork river, inflow to Strawberry reservoir, the Strawberry river and the Price river. Here forecasts vary from 36% to 52% of average. North of here, some of the lower elevation watersheds such as Parley's Creek near Salt Lake, East Canyon Creek near Morgan and Chalk Creek near Coalville are also expected to flow at about 40%.

In the north the higher elevation watersheds generally have a little better outlook with forecasts of the upper Weber, Provo, Duchesne and Bear rivers, the streams of Cache Valley, the Ogden river and the Cottonwood Creeks near Salt Lake ranging from 60% to 75%. This also applies to the Tooele and Farmington areas.

The entire area between lines drawn from about Mt. Pleasant to Huntington and southward to a line from Beaver to Loa can expect streams to flow at about 55% to 65% of average.

On the Sevier river, the forecast at Hatch is 86%, at Circleville 81% and below Piute Dam 72%. Outlook on the East Fork Sevier river dropped this month, and is now forecast at 70%. Although these forecasts are below average, they are for three to four times as much as there was last year.

Coal Creek at Cedar City, the Virgin and Paria rivers and Kanab Creek can all expect streamflow to be about 90% of average.

In the Uintah Basin, the streams from Lakefork river below Moon Lake eastward to Ashley Creek near Vernal are forecast at 79% to 83%. West of here, Rock Creek and the Duchesne river are forecast at 65% to 70%.

In comparing this year's snowpack with that of a year ago, in the central and northern part, it is essentially the same. However, last year the snowfall during February varied from 1.5 to 3 times the usual amount, considerably improving the outlook. While this can happen again, the odds are against it. For an average water supply to be realized next summer, the entire next three months would have to have from 150% to 200% of average snowfall.

In general, the larger reservoirs such as Utah Lake and Strawberry reservoir, while having less than average storage, have sufficient to give an adequate supply to water users having rights to water in them. However, heavy depletion of stored water can be expected to take place. Users dependent on natural flow, and on the smaller reservoirs are faced with the prospect of serious shortages. Water users in these areas should start planning now to institute as many water saving practices as possible.

COLORADO RIVER BASIN

The Green river and it's tributaries in Wyoming and the Yampa river in Colorado are now expected to produce 70% to 80% of average flow next summer. Tributaries of the White river and the Colorado above Glenwood Springs should yield from about 85% to average streamflow. Outlook for the Gunnison is down, with only about 60% forecast.

Moving south of here the outlook improves, with yields from the San Juan tributaries expected to vary from about average to 150%. Reservoir storage in Colorado is similar to last year, and a little above average.

Central Utah tributaries to the Green and Colorado rivers are now expected to yield in the range of 35% to 65%, with extreme northern and southern streams in the 70% to 90% bracket.

In Arizona, with well above average snow cover in all areas and soil moisture at field capacity at practically all stations, the outlook for water supply is excellent. Storage in the eight major reservoirs serving central Arizona is 185% of average, 156% of last year and 47% of capacity.

STREAMFLOW FORECASTS - FEBRUARY 1, 1960

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 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	Measured Runoff 1957	15-Yr. Av. 1943-57
GREAT BASIN						
BEAR RIVER SYSTEM						
Bear nr Ut-Wyo. State Line	87	71	Apr-Sept	101	158	123
Bear nr Randolph	35	30	Apr-Sept	44	142	115(*)
Smith's Fork nr Border, Wyo.	87	73	Apr-Sept	112	148	119
Bear at Harer, Idaho	130	43	Apr-Sept	189	357	299
Cub River nr Preston, Ida.	40	77	Apr-Sept	52	58	52(*)
Little Bear nr Paradise	30	65	Apr-Sept	42	45	46
Logan nr Logan (1)	100	70	Apr-Sept	139	142	143
Blacksmith Fork nr Hyrum(2)	44	66	Apr-Sept	61	68	67
WEBER-OGDEN RIVERS						
Weber nr Oakley	97	72	Apr-Sept	106	153	134
Weber nr Coalville(3)	75	52	Apr-Sept	114	170	143
Chalk Crk at Coalville	18	43	Apr-Sept	19.7	53	42
East Canyon Crk nr Morgan(4)	11	38	Apr-Sept	32	28.5	28.7
So. Fork Ogden nr Huntsville	48	69	Apr-Sept	58	77	70
PROVO RIVER & UTAH LAKE						
Strawberry Reservoir Inflow(5)	20	36	Apr-Sept	52	58	56
Spanish Fork at Thistle	20	47	Apr-Sept	54	54	43
Hobble Crk nr Springville	8.5	36	Apr-Sept	27.3	25.6	23.7*
Provo nr Hailstone (6)	75	65	Apr-Sept	110	145	116*
Provo at Vivian Park(7)	90	57	Apr-Sept	149	174	159
Am.Fork nr American Fork	24	75	Apr-Sept	42	33	36
Utah Lake Inflow	170	54	Apr-Sept	295	350	317
JORDAN RIVER & SALT LAKE						
Little Cottonwood Crk nr SLC	29	74	Apr-Sept	42	38	39
Big Cottonwood nr SLC	30	75	Apr-Sept	50	50	40
Parley's Crk nr SLC	6	41	Apr-Sept	14.2	15.8	14.7

(1) Includes U.P.&L. Co. tailrace and Logan, Hyde Park & Smithfield Canal.
(2) Above Utah Power & Light Company's dam.
(3) Includes diversion by Weber-Provo canal and change in storage in Wanship Reservoir.
(4) Observed flow plus change in storage in East Canyon Reservoir.
(5) Change in storage plus diversion thru Strawberry tunnel.
(6) Observed flow minus diversions thru Duchesne tunnel and Weber-Provo Canal.
(7) Observed flow plus change in storage in Deer Creek reservoir, minus diversions thru Duchesne tunnel & Weber-Provo Canal, plus diversion thru Salt Lake Aqueduct.
* - Partly estimated.

STREAMFLOW FORECASTS - FEBRUARY 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	Measured Runoff 1957	15-Yr. Av. 1943-57
SEVIER RIVER						
Sevier at Hatch	42	86	Apr-Sept	93	48	49
Sevier above Circleville	35	81	Apr-Sept	92.1	34.5	43*
Sevier nr Kingston	21	71	Apr-Sept	69	18.1	29.7
East Fork Sevier nr Kingston(8)	15	70	Apr-Sept	49	19.7	21.3
Sevier below Piute Dam(9)	37	72	Apr-Sept	115	33	51
BEAVER RIVER						
Beaver nr Beaver	18	61	Apr-Sept	43	45	29.4
COAL CREEK						
Coal Crk nr Cedar City	15	90	Apr-Sept	32	20.3	16.6
COLORADO RIVER BASIN						
GREEN RIVER TRIBUTARIES IN UTAH						
FLAMING GORGE TO DUCHESNE RIVER						
Ashley Creek nr Vernal	48	81	Apr-Sept	55	64	59
DUCHESNE RIVER						
Duchesne at Provo River (Trail nr Hanna)	29	69	Apr-Sept	-	-	42*
Duchesne nr Tabiona(10)	80	65	Apr-Sept	117	135	124
Rock Crk nr Mtn. Home	76	70	Apr-Sept	99	124	109
Strawberry at Duchesne	34	43	Apr-Sept	85	79	79
Lakefork below Moon Lake(11)	62	79	Apr-Sept	76	82	78
Uinta nr Neola	84	83	Apr-Sept	108	104	101
Whiterocks nr Whiterocks	55	82	Apr-Sept	63	70	67
PRICE RIVER						
Gooseberry Crk nr Scofield	8.0	63	Apr-Sept	15.4	17.5	12.6
Price nr Scofield (12)	21	52	Apr-Sept	51	57	40
Price nr Heiner(12)	29	41	Apr-Sept	108	94	70
SAN RAFAEL RIVER						
Huntington Crk nr Huntington	36	61	Apr-Sept	91	76	59
Cottonwood Crk nr Orangeville	37	63	Apr-Sept	83	92	59
Ferron Crk nr Ferron	25	58	Apr-Sept	66	63	43*
VIRGIN RIVER						
Virgin at Virgin	40	91	Apr-June	108	38	44

(8) Observed flow plus change in storage in Otter Creek Reservoir
(9) Observed flow plus change in storage in Otter Crk & Piute Reservoirs.
(10) Observed flow plus diversion through Duchesne Tunnel
(11) Observed flow plus change in storage in Moon Lake reservoir.
(12) Observed flow plus change in storage in Scofield reservoir.
* - Partly estimated.

STREAMFLOW FORECASTS - FEBRUARY 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Fore cast Period	Measured Runoff 1958	Measured Runoff 1957	15-Yr. Av. 1943-57
GREEN RIVER TRIBUTARIES IN WYOMING (Above Flaming Gorge Reservoir)						
Green at Warren Bridge, Wyo.	244	70	Apr-Sept	-	394	348
New Fork nr Boulder, Wyoming	182	70	Apr-Sept	-	268	261
No. Piney Crk nr Mason, Wyo.	30	74	Apr-Sept	-	47	41
Green nr Fontenelle, Wyo.	700	70	Apr-Sept	-	1177	995
Green nr Linwood, Utah	1050	76	Apr-Sept	-	1596	1387
GREEN RIVER TRIBUTARIES IN COLORADO						
White nr Meeker	330	96	Apr-Sept	390	558	343
COLORADO RIVER (Above junction with Green River)						
Colorado at Glenwood Springs(13)	1,300.0	84	Apr-Sept	1,557	2,520	1,546
Gunnison nr Grand Jct.	850.0	60	Apr-Sept	1,856	2,909	1,416
SAN JUAN RIVER						
San Juan at Rosa	900.0	147	Apr-Sept	901	1,073	613
Animas at Durango	470.0	99	Apr-Sept	626	733	475

(13) Observed flow plus diversions by Adams tunnel and Grand river ditch plus change in storage in Granby reservoir plus Moffat Ditch

STATUS OF RESERVOIR STORAGE - FEBRUARY 1, 1960

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET 1960	1959	1958	15-Yr. Av 1943-57
			GREAT BASIN			
Bear River	Bear Lake	1421.0	924.8	987.9	983.7	806.4
Little Bear	Hyrum	15.3	10.4	10.5	5.4	10.7
Ogden	Pine View	110.0	9.7	13.0	12.5	7.0
Weber	Wanship	59.1	13.5	12.2	40.1	- -
	Echo	73.9	23.0	22.8	35.7	27.0
	East Canyon	28.7	11.9	11.4	15.7	15.2
Provo	Deer Creek	149.7	65.4	97.4	96.9	86.0
Spanish Fork	Strawberry	270.0	104.3	151.6	152.9	131.9
Utah Lake	Utah Lake	1149.0*	433.1	538.9	547.5	568.2
Sevier River	Otter Creek	52.5	20.5	34.2	20.8	27.5
	Piute	74.0	24.0	51.7	34.0	38.0
	Sevier Bridge	236.0	39.8	75.6	81.7	134.6
Beaver River	Rocky Ford	23.3	5.7	12.4	16.7	13.6
			COLORADO RIVER BASIN			
Lake Fork	Moon Lake	35.8	9.4	7.8	23.6	12.4
Price River	Scofield	65.8	5.8	32.9	38.8	15.2
Colorado	Granby	465.5	250.5	287.3	320.8	212.9**
Blue	Green Mtn.	146.9	85.9	70.1	105.1	76.7
Gunnison	Taylor Park	106.2	43.4	51.4	83.3	61.0
Dolores	Groundhog	21.7	3.0	5.0	15.0	7.4
San Juan	Vallecito	126.3	37.9	45.2	61.7	42.0
Little Colorado	Lyman	30.6	10.3	18.3	8.0	5.9
Colorado	Lake Mead	27,207.0	19,283.0	22,515.0	20,013.0	17,488.0
Colorado	Lake Mohave	1,810.0	1,780.4	1,680.0	1,542.0	1,426.6**
Colorado	Lake Havasu	619.4	539.1	547.7	519.5	592.7
Gila	San Carlos	1,205.0	181.2	110.8	56.4	98.4
Salt	Roosevelt	1,381.6	767.5	440.2	44.4	442.3
Salt	Apache	245.1	239.8	238.2	207.0	194.1
Salt	Canyon	57.9	57.1	54.4	54.4	33.4
Salt	Saguaro	69.8	66.6	65.9	56.0	28.7
Verde	Horseshoe	143.0	104.5	7.0	1.8	12.7**
Verde	Bartlett	180.0	153.3	101.3	106.3	41.4
Agua Fria	Lake Pleasant	163.8	47.2	18.0	7.6	22.9

* - Active capacity taken at 3.1 feet above compromise point.

** - Less than 15 years of record in the 1943-57 period.

COMPARATIVE SNOW DATA

Summary of Snow Survey Data by Tributary Watersheds as of February 1, 1960

TRIBUTARY BASINS	No. of Courses Averaged	Years of Record	1960 Snow Water Expressed as Percent of 1959	1958	& 1943-57 Av.
GREAT BASIN					
Smith's Fork - Bear River	2	11-24	75	56	54*
Logan River	4	6-13	89	48	60*
Blacksmith Fork	4	7-13	96	46	52*
Ogden River	5	4-8	167	56	70*
Weber River above Echo Dam	7	6-25	75	41	43*
East Canyon Creek	3	9-25	71	40	45*
Farmington Area	2	7-9	70	48	50*
Salt Lake Area	4	7-25	70	39	45*
Tooele Area	1	6	86	56	60*
American Fork River	2	25	237	76	62
Provo River above Vivian Park	7	7-29	106	43	44*
Strawberry Reservoir Valley	3	24-29	141	39	34
Mt. Nebo Area	2	6	97	64	64*
Sevier River above Hatch	3	5-16	232	99	92*
East Fork Sevier River	3	9-22	261	84	98*
Bryce Canyon	1	11	-	113	127*
Salina Creek	2	4	167	56	66*
San Pitch River	3	9-21	112	50	50*
Beaver River	3	9-10	167	41	47*
Coal Creek - Cedar City	3	5-8	371	89	95*
COLORADO RIVER BASIN					
Duchesne - Strawberry Rivers	5	7-29	124	45	42*
Lakefork River	3	7-9	271	76	67*
Whiterocks River	3	2-7	240	57	54*
Price River	5	4-24	131	48	46*
San Rafael Tributaries	7	4-9	121	45	49*
Escalante River	2	9-22	261	69	84*
Virgin River	4	5-16	300	100	94*
Upper Green River (Wyo)	5	2-4	49	42	--
Yampa River (Colo)	4	18-24	70	66	64
White River (Colo)	2	20-24	70	56	70
Colorado River above Grand Jct.	15	16-24	102	89	81*
Gunnison - Dolores Rivers(Colo)	10	11-24	135	75	75*
San Juan-Animas Rivers(Colo)	7	9-23	251	116	115*

* - 15 year average values partly estimated.

AVAILABLE SOIL MOISTURE

February 1, 1960

DRAINAGE BASIN & STATION	Station No. 1/	Elev	Soil Profile in Inches Depth	Soil Profile in Inches Cap	Date	Soil Moisture Content in Inches about Feb. 1 1960	1959	1958	Av.	Years of Record
COLORADO STATIONS										
ROARING FORK										
Placita	7K7*	8800	48	8.0	Fall	2.4	0.1	1.2	1.8	4
Maroon	6K25*	8400	48	8.0	Fall	4.8	0.1	2.9	2.3	6
UPPER COLORADO										
Vail	6K5*	9200	48	8.0	Fall	5.2	0.6	5.4	2.6	6
Ranch Creek	5K18M	9400	48	7.0	Fall	5.7	4.3	5.8	4.4	4
Hairpin	5K20*	9800	48	8.0	Fall	1.0	0.5	6.4	2.0	4
Vasquez Siphon	5K22*	9600	48	7.0	Fall	-	3.8	5.9	3.7	4
Gore	5J15*	8900	48	7.0	Fall	2.1	0.1	1.9	1.2	4
Blue River	6K21M	10500	48	7.0	Fall	4.4	0.4	6.8	2.9	4
King	6L9*	10500	48	8.0	Fall	5.9	7.3	7.2	6.0	3
SAN JUAN										
Mineral Creek	7M14M	10300	48	8.0	Fall	5.6	3.1	6.5	5.0	3
Molas Lake	7M12M	10500	48	8.0	Fall	3.2	2.5	6.7	4.1	3
Cascade	7M5M	8850	48	8.0	Fall	5.7	4.7	7.0	5.8	3

SNOW SURVEYS - ABOUT FEBRUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
GREAT BASIN DRAINAGE									
UPPER BEAR RIVER (Above Harer, Idaho)									
Big Park a	10G11	8700	1/29	32		10.4	- -	- -	1
CCC Camp x	10G7	7500	1/27	24	5.0	6.0	7.9	8.3	24
Piney LaBarge x	10G10	8820	1/26	24	6.3	11.4	- -	- -	2
Poison Meadows x a	10G6	8500	1/29	46		- -	- -	- -	-
Salt River Summit x	10G8	7900	1/27	26	5.0	7.4	9.9	10.6*	11
Trial Lake x	10J8	9800	1/28	42	9.4	10.9	17.7	17.1**	7
LOWER BEAR RIVER (Below Harer, Idaho)									
Beaver Crk-Skunk Crk.	11H14	7150	1/25	20	4.2	3.8	9.6	8.5**	7
Christensen Ranch	11G11	5600	1/28	23	4.4	4.9	7.6	- -	4
Cub River R. S.	11G12	5400	1/29	25	5.3	3.4	7.6	- -	4
Dry Bread Pond x	11H13	8230	1/25	23	6.1	6.1	13.4	12.3**	7
Dry Creek Flat	12G4	6350	1/27	22	4.7	2.3	7.0	5.2 1/	5
Garden City Summit	11H7	7600	1/28	30	5.8	7.1	13.9	12.5*	13
Klondike Narrows	11H1	7400	1/28	38	8.2	9.1	17.1	12.3**	6
Oxford Mountain	12G3	6800	1/27	20	3.8	4.1	8.0	6.6 1/	5
Strawberry Creek	11G9	5800	1/28	23	4.7	4.4	10.2	- -	4
Strawberry Mink Divide	11G10	6800	1/28	30	7.0	8.2	18.4	- -	4
Tony Grove R. S.	11H3	6250	1/28	26	5.0	5.6	10.7	8.0*	11
Willow Flat	11G4	6100	1/29	29	5.8	6.8	13.4	- -	4
OGDEN RIVER									
Beaver Crk-Skunk Crk.	11H14	7150	1/25	20	4.2	3.8	9.6	8.5**	7
Ben Lomond(lower)	11H9	5850	1/25	34	8.9	3.5	14.3	9.0**	4
Dry Bread Pond	11H13	8230	1/25	23	6.1	6.1	13.4	12.3**	7
Mt. Ogden	11H10	8600	1/30	41	13.2	8.1	21.0	17.4**	8
Sagebrush Flat	11H15	6300	1/25	12	2.3	1.0	4.7	3.9 1/	7
Snow Basin	11H11	6420	1/30	29	6.9	3.3	11.9	8.8**	6
WEBER RIVER									
Beaver Creek R. S.	11J24	7500	1/28	12	1.9	2.4	8.4	6.2*	9
Chalk Creek #2	11J2	8000	1/27	23	4.3	5.2	7.8	9.5**	6
Chalk Creek #3	11J3	7500	1/27	11	2.1	3.7	4.7	5.1**	6
Lamb's Canyon x	11J14	6600	1/29	24	4.4	6.2	13.8	10.0*	14
Parley's Canyon Smt.	11J15	7500	1/28	24	5.1	8.2	12.9	11.5*	9
Silver Lake x	11J16	8725	1/30	38	7.9	9.9	16.0	16.8	25
Smith & Morehouse	11J4	7600	1/28	17	3.1	5.1	8.5	8.6**	6
Trial Lake x	10J8	9800	1/28	42	9.4	10.9	17.7	17.1**	7

x - Adjacent Drainage

1/ - Average for period of record

* - Average for 15-Yr. period partly estimated

** - Average for 15-Yr. period mostly or wholly estimated.

SNOW SURVEYS - ABOUT FEBRUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prio Yrs. Reco
PROVO RIVER & UTAH LAKE									
Camp Altamont	11J20	7300	1/28	35	9.1	3.4	10.6	12.9	25
Clear Creek Ridge #2	11K22	8000	1/26	22	3.9	3.9	10.0	8.5**	4
Clear Creek Ridge #3	11K23	6600	1/26	14	2.4	2.7	6.7	5.2**	4
Daniels-Strawberry Smt.	11J23	8000	1/29	26	5.4	3.4	9.8	10.5	29
East Portal	11J7	7560	1/25	13	1.8	1.1	6.8	8.7	24
Payson R. S.	11K1	8050	1/27	28	6.8	6.6	10.2	11.0**	6
Rock Bridge	11K2	6750	1/27	22	5.1	5.6	8.4	7.7**	6
Soapstone R. S.	11J25	7800	1/28	17	2.8	4.2	10.6	8.8*	9
South Fork R. S.	11J19	6100	1/28	20	6.4	2.7	7.3	5.9*	22
Strawberry Divide	11J8	8000	1/25	20	4.2	4.2	11.3	14.5	24
Timpanogos Cave Camp	11J18	5500	1/28	8	2.1	1.2	2.4	3.6*	17
Timpanogos Divide	11J21	8140	1/28	42	10.3	5.0	15.6	19.4	25
Trial Lake	10J8	9800	1/28	42	9.4	10.9	17.7	17.1**	7
JORDAN RIVER & GREAT SALT LAKE									
Farmington Canyon(upper)	11J11	8000	1/29	32	7.4	11.5	18.7	17.3**	7
Farmington Canyon(lower)	11J12	6950	1/29	32	7.8	10.2	14.1	13.7**	9
Lamb's Canyon	11J14	6600	1/29	24	4.4	6.2	13.8	10.0*	14
Middle Canyon	12J3	7000	1/29	21	5.0	5.8	9.0	8.3**	6
Mill D South Fork	11J10	7400	1/28	27	5.5	8.3	15.8	12.5**	7
Parley's Canyon Smt. x	11J15	7500	1/28	24	5.1	8.2	12.9	11.5*	9
Silver Lake	11J16	8725	1/30	38	7.9	9.9	16.0	16.8	25
UPPER SEVIER RIVER (South of Richfield, Utah)									
Big Flat x	12L7	10000	1/25	26	6.2	4.3	15.4	11.7*	9
Bryce Canyon	12M8	8000	2/1	19	4.2	0.0	3.7	3.3*	11
Duck Creek R. S.	12M4	8560	1/28	29	7.9	0.5	8.6	9.5*	16
Harris Flat R. S.	12M5	7700	1/28	26	7.1	0.7	5.1	6.0*	14
Long Valley Junction x	12M6	7500	1/28	19	4.7	0.0	0.8	4.2**	8
Midway Valley	12M2	9800	1/28	38	11.0	4.0	17.0	14.5**	5
Widtsoe-Escalante Smt.	11M1	9500	1/29	16	4.2	0.0	6.4	5.5*	22
Widtsoe-Escalante #2	11M2	9500	1/29	25	6.0	2.3	8.3	6.6*	9
Widtsoe-Escalante #3	11M3	9500	1/29	29	7.2	3.4	- -	- -	1
LOWER SEVIER RIVER (Including San Pitch River)									
Farnsworth Lake	11L1	9900	1/25	28	7.0	4.3	13.2	11.3**	4
G.B.R.C. Headquarters	11K11	8700	1/29	22	5.3	4.6	9.2	9.1*	21
G.B.R.C. Meadows	11K10	10000	1/29	30	7.6	6.7	16.1	15.6*	9
Gooseberry R. S.	11L2	8400	1/25	20	4.8	2.8	8.2	7.0**	4
Gooseberry Reservoir x	11K4	8700	1/28	24	5.5	5.1	12.3	11.5*	9
Middle Fork	11K34	9600	Delayed Report			6.4	- -	- -	3
Thistle Flat	11K35	8500	Delayed Report			4.5	9.3	- -	4

x - Adjacent Drainage

* - Average for 15-Yr. period partly estimated

** - Average for 15-Yr. period mostly or wholly estimated.

SNOW SURVEYS - ABOUT FEBRUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. Record
BEAVER RIVER									
Big Flat	12L7	10000	1/25	26	6.2	4.3	15.4	11.7*	9
Merchant's Valley	12L9	8200	1/25	16	3.3	1.3	6.9	6.5*	10
Otter Lake	12L8	9300	1/25	20	3.7	3.6	10.6	9.9*	9
COAL CREEK									
Midway Valley x	12M2	9800	1/28	38	11.0	4.0	17.0	14.5**	5
Uric Flat	12M10	8450	1/28	21	5.4	T	5.5	5.0**	5
Webster Flat	12M3	9200	1/28	37	11.2	2.4	10.7	11.2*	8
COLORADO RIVER DRAINAGE									
DUCHESNE RIVER									
Daniels-Strawberry Smt. x	11J23	8000	1/29	26	5.4	3.4	9.8	10.5	29
East Portal x	11J7	7560	1/25	13	1.8	1.1	6.8	8.7	24
Indian Canyon	10K1	9100	1/27	23	4.6	3.1	7.3	8.6*	24
Julius Park	9J6	9800	1/27	24	4.8	2.2	8.8	- -	2
Lakefork Mountain	10J10	10500	1/28	24	4.6	3.4	8.5	8.1**	9
Lakefork Mountain #2	10J11	8900	1/28	21	4.1	1.9	5.7	6.0**	7
Lakefork Mountain #3	10J12	8100	1/28	20	3.7	0.8	3.6	4.8**	7
Mosby Mountain	9J5	9500	1/27	21	4.1	1.5	6.8	7.7**	7
Paradise Park	9J3	10100	1/27	24	4.8	2.1	8.4	8.7**	7
Soapstone R. S. x	11J25	7800	1/28	17	2.8	4.2	10.6	8.8*	9
Strawberry Divide x	11J8	8000	1/25	20	4.2	4.2	11.3	14.5	24
Trial Lake x	10J8	9800	1/28	42	9.4	10.9	17.7	17.1**	7
PRICE RIVER									
Dry Valley Divide	11K8	7800	1/28	20	3.2	2.1	7.6	8.0*	18
Gooseberry Reservoir	11K4	8700	1/28	24	5.5	5.1	12.3	11.5*	9
Indian Canyon x	10K1	9100	1/27	23	4.6	3.1	7.3	8.6*	24
Mud Creek #2	11K33	8300	1/28	25	3.6	3.1	8.8	8.3**	4
Staley Ranch	11K7	7600	1/28	14	1.6	1.0	5.6	5.5*	18
SAN RAFAEL RIVER									
Buck Flat	11K31	9400	1/28	25	4.6	3.5	11.4	10.0**	4
Gooseberry Reservoir x	11K4	8700	1/28	24	5.5	5.1	12.3	11.5*	9
Red Pine Ridge	11K28	9400	1/27	22	3.9	5.2	11.6	10.9**	4
Rush Pond	11K38	9800	1/28	25	4.4	3.8	10.2	9.2**	4
Upper Joe's Valley	11K29	8800	1/27	17	2.7	2.6	5.6	6.0**	4
Wrigley Creek	11K32	9000	1/28	26	5.0	2.5	8.2	6.8**	4

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SNOW SURVEYS - ABOUT FEBRUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. o Recor
FREMONT RIVER									
Farnsworth Lake x	11L1	9900	1/25	28	7.0	4.3	13.2	11.3**	4
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	1/29	16	4.2	0.0	6.4	5.5*	22
Widtsoe-Escalante #2	11M2	9500	1/29	25	6.0	2.3	8.3	6.6*	9
Widtsoe-Escalante #3	11M3	9500	1/29	29	7.2	3.4	- -	- -	1
VIRGIN RIVER									
Duck Creek R. S.	12M4	8560	1/28	29	7.9	0.5	8.6	9.5*	16
Harris Flat R. S.	12M5	7700	1/28	26	7.1	0.7	5.1	6.0*	14
Long Valley Junction	12M6	7500	1/28	19	4.7	0.0	0.8	4.2**	8
Midway Valley x	12M2	9800	1/28	38	11.0	4.0	17.0	14.5**	5
Webster Flat	12M3	9200	1/28	37	11.2	2.4	10.7	11.2*	8
UPPER GREEN RIVER (Above Flaming Gorge Reservoir)									
Big Park a	10G11	8700	1/29	32	7.5E	10.4	- -	- -	1
Blind Bull a	10G2	8750	1/29	36	8.5E	17.7	- -	- -	1
Dinwoodie Glaxiers x a	9F17	10500	1/29	29	- -	6.3	- -	- -	1
Dutch Joe R. S.	9G5	8700	1/26	13	2.5	5.3	6.6	- -	4
East Rim Divide	10F17	7950	Delayed Report			6.9	6.5	6.9 1/	5
Grennier Meadows	8G4	9000	Delayed Report			5.1	7.0	9.9*	18
Gros Ventre Summit a	10F19	8750	1/29	30	7.0E	NR	6.8	- -	3
Kendall R. S.	10F15	7900	Delayed Report			6.1	5.8	- -	4
Loomis Park	10F16	8500	Delayed Report			10.2	NR	- -	4
Mulligan Park	9G1	8900	1/26	13	2.8	5.9	6.4	- -	4
Piney-LaBarge	10G10	8820	1/26	24	6.3	11.4	NR	- -	2
Poison Meadows x a	10G6	8500	1/29	46	11.5E	- -	- -	- -	0
Snyder Basin R. S. #2	10G13	8040	1/26	20	5.0	9.3	NR	- -	2
Soda Lake	10G14	8300	1/27	24	5.5	11.4	12.5	- -	3
South Pass	8G3	9000	No Report			5.6	7.1	10.3	18
Triple Peaks	10G15	8500	1/27	34	8.1	16.8	18.7	- -	3
Twenty Lakes x a	9G7	10500	1/29	19	- -	2.0	- -	- -	1
YAMPA RIVER									
Clark a	6J13	7800	1/29	24	4.9	6.1	NS	- -	1
Columbine Lodge x	6J3	9300	1/27	44	9.8	14.0	14.9	15.3	24
Dry Lake a	6J1	8200	1/29	40	8.2	11.6	NS	13.2	18
Elk River a	6J4	8700	1/29	37	7.6	12.5	NS	10.8	19
Lynx Pass x	6J6	9100	1/26	25	4.6	NS	NS	7.7	20
Old Battle	6H10	9800	2/2	57	14.4	12.8	21.1	20.0	22
Rabbit Ears	6J9	9550	No Survey			17.4	NS	17.8	8
Yampa View	6J10	8500	1/26	26	6.1	8.8	NS	9.1	8

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1/ - Average for period of record
a - Aerial marker
E - Estimated

SNOW SURVEYS - ABOUT FEBRUARY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
WHITE RIVER									
Burro Mountain a	7K2	9000	1/29	42	9.2	11.7	15.0	10.3	24
Rio Blanco	7J1	8500	1/29	23	5.0	8.4	10.0	9.9	20
UPPER COLORADO RIVER (Above Glenwood Springs, Colo.)									
Arrow	5K6	9900	1/25	24	5.3	6.4	5.7	6.5	21
Berthoud Pass	5K3	9700	1/27	36	9.0	9.3	9.4	8.8	23
Berthoud Summit	5K14	11300	2/1	49	13.6	13.4	11.0	11.6*	9
Blue River	6K21	10500	1/28	22	3.3	5.9	6.0	- -	3
Cameron Pass x a	5J1	10300	Est.	38	9.0	14.9	13.2	13.6	21
Frazer View	5K15	10600	2/1	26	2.9	6.8	NS	7.7*	9
Fremont Pass	6K8	11400	1/28	44	9.8	8.6	9.3	10.3	24
Frisco	6K13	9300	1/27	15	2.5	3.9	5.1	5.5*	9
Glen-Mar Ranch	6K20	8850	1/27	17	3.0	4.4	3.9	5.8	12
Gore Pass	6J11	8900	1/26	21	3.5	5.3	5.3	6.6*	8
Granby	5J16	8700	1/26	18	3.0	4.6	3.7	5.1*	11
Grand Lake	5J19	8600	1/28	21	3.0	6.9	3.8	5.6*	11
Grizzly Peak	5K9	11250	1/26	45	11.5	8.0	10.4	11.3	18
Hoosier Pass x	6K1	11400	1/28	35	8.1	8.4	8.4	7.2	21
Jones Pass	5K21	10400	1/26	34	8.2	NS	7.2	- -	3
Kokomo	6K18	10600	1/28	32	6.6	NS	5.8	- -	5
Lynx Pass	6J6	9100	1/26	25	4.6	NS	NS	7.7	20
Monarch Lake	5J14	8500	No Survey			9.7	3.6	8.3*	8
Pando	6K19	9500	1/27	14	2.4	4.6	NS	- -	5
Phantom Valley	5J4	9300	1/28	22	3.9	8.2	5.7	6.6	23
Ranch Creek	5K18	9400	1/25	17	4.2	6.5	4.5	- -	3
Shrine Pass	6K9	10500	1/27	41	9.6	8.2	10.7	10.8	18
Snake River	5K16	9700	1/26	15	2.4	4.2	NS	5.8*	8
Tennessee Pass x	6K2	10200	1/27	25	5.6	6.5	5.4	6.9	23
Vail Pass	6K15	10000	1/27	31	7.0	10.3	9.1	- -	6
Vasquez Creek	5K19	9600	1/27	32	7.4	8.0	6.0	- -	3
Willow Creek Pass	6J5	9500	1/26	28	6.3	6.1	6.2	10.8	20
ROARING FORK									
Ind. Pass Tunnel	6K4	10200	1/27	37	9.1	7.3	9.3	10.6	24
Ivanhoe	6K10	10400	No Survey			8.1	9.0	11.2*	14
Lift	7K10	11250	1/25	28	7.6	6.1	NS	- -	2
North Lost Trail a	7K1	9200	1/29	23	4.2	5.7	NS	9.2	18
PLATEAU CREEK									
Mesa Lakes	7K4	10000	1/28	38	9.1	6.7	16.0	10.2	23
Trickle Divide a	7K5	10000	1/29	53	13.9	9.5	19.5	17.0*	16

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SNOW SURVEYS - ABOUT FEBRUARY 1, 1960

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GUNNISON RIVER									
Alexander Lake a	7K3	10000	1/29	41	9.8	6.6	15.3	13.4	23
Cochetopa Pass x	6L6	10000	1/26	18	2.9	3.4	4.3	3.5*	11
Crested Butte	6L1	9000	1/25	14	2.1	4.7	6.6	9.4	24
Ironton Park	7M6	9800	1/28	28	5.4	5.9	11.6	7.4	23
McClure Pass a	7K8	9500	1/29	40	11.5	7.7	NS	- -	5
Park Cone	6L2	9700	1/25	20	4.3	3.0	5.0	7.0	24
Park Reservoir a	7K6	9500	1/29	48	12.7	8.0	15.5	15.6*	16
Porphyry Creek	6L3	10700	1/29	37	11.7	7.5	9.8	10.0	20
Red Mountain Pass	7M15	11000	1/27	58	18.9	NS	NS	- -	2
Tomichi	6L7	10500	1/29	20	4.3	5.4	- -	- -	1
Trickle Divide x a	7K5	10000	1/29	53	13.9	9.5	19.5	17.0*	16
DOLORES RIVER									
Lizard Head	7M3	10300	1/29	39	10.3	4.8	NS	10.2	13
Rico	7M1	8700	1/29	23	5.6	0.5	5.2	6.2	20
Telluride x	7M2	8600	1/29	19	3.6	2.8	6.2	5.1	21
Trout Lake	7M9	9700	1/29	32	6.8	3.5	8.3	8.5*	11
SAN JUAN RIVER									
Cascade	7M5	8850	1/28	34	8.1	2.2	7.9	9.1	21
Chama	6N2	7750	1/28	21	6.3	0.6	3.3	4.0	20
Chamita	6N3	8500	1/28	26	6.4	1.9	4.8	6.6	18
Howardville	7M13	9800	No Survey			NS	NS	- -	6
Ironton Park x	7M6	9800	1/28	28	5.4	5.9	11.6	7.4	23
Mineral Creek	7M14	10300	No Survey			NS	NS	- -	2
Molas Lake	7M12	10500	1/27	27	8.2	3.2	10.3	10.1*	9
Red Mountain Pass x	7M15	11000	1/27	58	18.9	NS	NS	T	2
Silverton Sub-Station	7M4	9400	No Survey			NS	NS	4.3	18
Spud Mountain	7M11	10700	1/27	57	17.6	6.0	18.7	16.4*	9
Upper San Juan	6M3	10000	1/28	76	22.9	8.4	21.6	21.8	20
Wolf Creek Pass x	6M1	10000	1/28	71	21.4	6.4	16.7	19.5	20
Wolf Creek Summit x	6M17	11000	1/28	88	27.3	6.3	20.1	15.5*	9
LITTLE COLORADO RIVER									
Baldy	9S1	9125	1/29	33	9.1	T	3.2	5.5*	9
Canyon Creek #2	10R7	7500	1/30	21	6.7	0.0	T	- -	2
Forest Dale	10R6	6430	1/29	9	2.6	0.0	0.1	1.5*	20
Ft. Apache	9R5	9160	1/29	34	9.3	2.4	2.9	6.1*	7
Fort Valley	11P2	7350	1/29	13	3.8	0.0	T	2.9*	13
Gentry	10R5	7600	1/30	20	6.8	0.0	T	3.0*	9
Happy Jack x	11R5	7630	1/31	18	4.7	0.0	0.0	3.0*	7
Heber	10R4	7600	1/30	19	6.4	0.0	T	3.2*	9
McNary	9R2	7200	1/29	20	6.3	0.0	0.0	2.7	21
Mormon Lake	11R4	7350	1/31	14	4.7	0.0	T	5.2*	12
Mormon Mountain	11R3	7500	1/31	20	6.8	0.0	T	5.1*	9
Nutrioso	9S4	8500	1/29	15	3.8	T	T	2.0	22

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SNOW SURVEYS - ABOUT FEBRUARY 1, 1960

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LOWER COLORADO									
Chalender x	12P1	7100	1/29	15	3.7	0.0	T	3.4*	13
Fort Valley	11P2	7350	1/29	13	3.8	0.0	T	2.9*	13
Grand Canyon	11P1	7500	1/31	12	3.5	T	0.7	2.6*	12
WILLIAMS RIVER									
Camp Wood x	12R1	5700	1/31	0	0.0	0.0	0.0	1.5*	14
Iron Springs	12R2	6200	1/28	8	2.5	0.0	T	1.7*	14
Willow Ranch	13P1	5000	1/26	7	0.7	0.0	0.0	1.0*	11
GILA RIVER									
Bear Wallow	10T1	8100	1/29	32	10.7	0.0	0.3	3.0*	12
Beaver Head	9S6	8000	1/31	23	6.0	0.0	0.4	2.9	20
Coronado Trail	9S7	8000	1/29	18	3.9	0.0	0.3	2.6	22
Frisco Divide	8S1	8000	1/29	15	3.9	0.5	1.8	2.1	22
Inman	7S2	7800	1/31	7	1.9	0.0	0.0	0.5*	14
Mogollon	8S2	7000	1/30	22	3.1	0.0	0.0	0.7*	7
Nutrioso	9S4	8500	1/29	15	3.6	T	T	2.0	22
Rose Canyon	10T2	7300	1/29	20	6.0	0.0	0.0	1.6*	12
State Line	9S8	8000	1/29	21	5.4	0.0	1.6	2.5	22
Taylor Creek	7S1	7850	1/31	5	1.4	0.0	0.0	0.6	18
SALT RIVER									
Baldy x	9S1	9125	1/29	33	9.1	T	3.2	5.5*	9
Beaver Head	9S6	8000	1/31	23	6.0	0.0	0.4	2.9	20
Canyon Creek #2	10R7	7500	1/30	21	6.7	0.0	T	- -	2
Coronado Trail	9S7	8000	1/29	18	3.9	0.0	0.3	2.6	22
Forest Dale	10R6	6430	1/29	9	2.6	0.0	0.1	1.5	20
Ft. Apache x	9R5	9160	1/29	34	9.3	2.4	2.9	6.1*	7
Gentry	10R5	7600	1/30	20	6.8	0.0	T	3.0*	9
Heber	10R4	7600	1/30	19	6.4	0.0	T	3.2*	9
Maverick Fork	9S2	9050	1/29	36	10.9	0.0	4.4	6.4*	8
McNary	9R2	7200	1/29	20	6.3	0.0	0.0	2.7	21
Milk Ranch	9R1	7000	1/29	13	4.3	0.0	0.0	2.0	19
Nutrioso x	9S4	8500	1/29	15	3.6	T	T	2.0	22
Pacheta	9S5	7800	1/30	25	9.9	0.0	0.0	2.7*	10
Workman Creek	10S1	6900	1/28	26	9.3	0.4	0.2	3.4*	8
VERDE RIVER									
Camp Wood	12R1	5700	1/31	0	0.0	0.0	0.0	1.5*	14
Casner Park	11R2	6930	1/31	12	4.2	0.0	0.0	4.1*	9
Chalender	12P1	7100	1/29	15	3.7	0.0	T	3.4*	13
Fort Valley x	11P2	7350	1/29	13	3.8	0.0	T	2.9*	13
Gaddes Canyon	12R4	7600	1/29	24	7.4	0.6	0.3	3.4*	6
Happy Jack	11R5	7630	1/31	18	4.7	0.0	0.0	3.0*	7
Iron Springs x	12R2	6200	1/28	8	2.5	0.0	T	1.7*	14
Mingus Mountain	12R3	7100	1/29	7	2.5	0.0	0.0	1.7*	13
Mormon Lake x	11R4	7350	1/31	14	4.7	0.0	T	5.2*	12
Mormon Mountain	11R3	7500	1/31	20	6.8	0.0	T	5.1*	9
Munds Park	11R1	6500	1/31	8	2.6	0.0	0.0	2.6*	9

x - Adjacent Drainage T - Trace
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COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for UTAH, BEAR and COLORADO RIVER BASIN

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE,

and

STATE ENGINEER of UTAH

In cooperation with Agricultural Experiment Stations at Arizona, Colorado and Utah; the State Engineers of Colorado, New Mexico and Wyoming; U.S. Forest Service; Bureau of Reclamation, U.S. National Park Service, U.S. Geological Survey; and other Federal, State, and private organizations.

AS OF

MAR. 1, 1960

USDA-SCS-PORTLAND, OREG. 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

UTAH, BEAR and COLORADO RIVER BASINS

MARCH 1, 1960

Report Prepared

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Mimeograph Series #454

WATER SUPPLY OUTLOOK

as of

MARCH 1, 1960

February storms greatly improved the water outlook for most of Utah and the Colorado river. In Utah practically all sections can still expect below average streamflow, but for much of the state it will be within 20% of average. Poorest outlook is along the Bear river in the Woodruff Randolph area, and on the Weber river in the Coalville-Morgan section. Water supplies here are forecast at 45% to 65% of average. Reservoir storage is generally below average. It is seriously low in the reservoirs of the Sevier, Beaver and Price rivers where total storage is 52% of average.

In the Colorado river basin, forecasts for streams coming from Colorado range between about 80% to 130%. Tributaries of the Green in Wyoming are forecast to flow about 65%.

UTAH & BEAR RIVER

With a few exceptions, the outlook for next summer's water supply has been greatly improved as a result of February storms. The water content of the snowpack at most courses increased from one and one-half to nearly three times their usual monthly amounts. Many of the courses picked up as much water this month alone as they had during all the rest of the winter. On quite a number of courses the amount of water picked up during the month was nearly double that on the ground the first of February.

Exceptions to this general picture occurred in southern Utah on the Virgin and So. Fork Sevier rivers, and in the Uintah Basin from Moon Lake eastward to the streams north of Vernal. In these areas the forecasts have been lowered, since snowpack increases for the month varied from only one-half to three fourths of the usual amounts.

The area with the poorest outlook extends south along the Bear river from Harer, Idaho to Rahdolph and Woodruff, and then southwest to Coalville and Morgan on the lower Weber river. Here streams are forecast to produce between 45% to 65% of their 1943-57 average for the April-September period.

Flow of the South Fork of the Sevier river is expected to be down enough that definite shortages will be experienced, with 71% forecast at Hatch, 63% at Circleville, 54% at Kingston. Inflow to the river from Kingston to Vermillion is forecast at 28,000 acre feet, or 60%. There is very little chance that any flows will be high enough for any water to be available for storage in Piute reservoir.

While practically all sections can still expect below average streamflow, for much of the state it will be within 20% of average. For the areas concerned this will be generally adequate, with some shortages during the late summer months. These areas include the Virgin, Paria, East Fork Sevier, Escalante and Fremont rivers in the southwest and the streams near Moab, Monticello and Blanding in the southeast. In the center of the state, it includes Chalk Creek near Fillmore, Salina Creek, the tributaries of the San Pitch and San Rafael rivers. In the northern section this same picture holds for the streams near Tooele, the American Fork river, the Cottonwood Creeks near Salt Lake, most tributaries of the Bear river in Idaho and Smith's Fork near Border, Wyoming.

Most other streams are expected to flow between about 70% to 80% of the 15 year average. In the northern half of the state this includes the streams of the Uintah Basin, Cache Valley, Strawberry reservoir, and the following rivers: Price, Spanish Fork, Provo, the Weber at Oakley and the South Fork of the Ogden. In the southern section it includes Coal Creek near Cedar City, the Beaver river near Beaver and Clear Creek near Sevier.

There is only one small area which has the prospect of above average streamflow. This is the North Fork of the Ogden river, the Brigham City and Willard area. Here the snowpack is 145% of average, and already has 19% more than the average for the first of April. Unfortunately, this heavy snow cover failed to carry over onto the South Fork of the Ogden River where streamflow is forecast at 74%.

Reservoir storage is generally below average. This is particularly noticeable on the Sevier river, the Beaver river at Beaver, and the Price river. Storage in these reservoirs is mostly in the 35% to 60% bracket.

While the overall outlook has been vastly improved during February, a month or two of dry weather could make the water picture pretty black again for the whole state.

COLORADO RIVER BASIN

In Colorado, almost all areas tributary to the Colorado river have had an improvement in the water outlook this month. Areas that were below normal are now near normal. Areas that were previously normal or higher are now considerably above normal. Practically all forecasts range between 90% to 130%. The trend previously established still continues with heavier snowpack in the southern half of the state on the San Juan, Animas and Dolores watersheds. A normal or slightly less than normal snowpack is in the northern half on the Gunnison, White and Yampa rivers. Soil moisture in all areas remains good. Reservoir storage is just slightly less than last year and still somewhat above normal.

Most Utah streams tributary to the Green and Colorado rivers are expected to yield between about 70% and 90% of average. In Arizona, with well above average snow cover in all areas and soil moisture at field capacity at practically all stations, the outlook for water supply remains excellent. Storage in the eight major reservoirs serving central Arizona is 186% of average.
Outlook for water supply in the Green river is poor, with streams forecast at about 65%

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	Measured Runoff 1957	15-Yr. Av. 1943-57
SEVIER RIVER						
Sevier at Hatch	25	71	Apr-June	72	33	35
	35	71	Apr-Sept	93	48	49
Sevier above Circleville	27	63	Apr-Sept	92.1	34.5	43*
Sevier nr Kingston	12.2	50	Apr-June	60	15.6	24.6
	16	54	Apr-Sept	69	18.1	29.7
East Fk. Sevier nr Kingston(8)	17	80	Apr-Sept	49	19.7	21.3
Sevier below Piute Dam(9)	34	67	Apr-Sept	115	33	51
Clear Crk at Sevier	11	75	Apr-June	18.6	25.3	14.6
BEAVER RIVER						
Beaver nr Beaver	23	78	Apr-Sept	43	45	29.4
PAVANT VALLEY						
Chalk Crk nr Fillmore	16.5	81	Apr-Sept	21.3	29.7	20.3*
COAL CREEK						
Coal Crk nr Cedar City	13	78	Apr-Sept	32	20.3	16.6
COLORADO RIVER BASIN						
GREEN RIVER TRIBUTARIES IN UTAH						
FLAMING GORGE TO DUCHESNE RIVER						
Ashley Creek nr Vernal	44	75	Apr-Sept	55	64	59
DUCHESNE RIVER						
Duchesne at Provo River (Trail nr Hanna)	31	74	Apr-Sept	-	-	42*
Duchesne nr Tabiona(10)	93	75	Apr-Sept	117	135	124
Rock Crk nr Mtn. Home	78	72	Apr-Sept	99	124	109
Strawberry at Duchesne	54	68	Apr-Sept	85	79	79
Lakefork below Moon Lake(11)	60	77	Apr-Sept	76	82	78
Uinta nr Neola	78	77	Apr-Sept	108	104	101
Whiterocks nr Whiterocks	51	76	Apr-Sept	63	70	67
PRICE RIVER						
Gooseberry Crk nr Scofield	10	79	Apr-Sept	15.4	17.5	12.6
Price nr Scofield(12)	31	78	Apr-Sept	51	57	40
Price nr Heiner(12)	45	64	Apr-Sept	108	94	70
SAN RAFAEL RIVER						
Huntington Crk nr Huntington	47	80	Apr-Sept	91	76	59
Cottonwood Crk nr Orangeville	52	88	Apr-Sept	83	92	59
Ferron Crk nr Ferron	38	88	Apr-Sept	66	63	43*
VIRGIN RIVER						
Virgin at Virgin	36	82	Apr-June	108	38	44

(8) Observed flow plus change in storage in Otter Creek Reservoir.
(9) Observed flow plus change in storage in Otter Crk & Piute Reservoirs.
(10) Observed flow plus diversion through Duchesne Tunnel
(11) Observed flow plus change in storage in Moon Lake reservoir.
(12) Observed flow plus change in storage in Scofield reservoir.
* - Partly estimated.

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	Measured Runoff 1957	15-Yr. Av. 1943-57
GREEN RIVER TRIBUTARIES IN WYOMING (Above Flaming Gorge Reservoir)						
Green at Warren Bridge, Wyo.	225	65	Apr-Sept	- -	394	348
New Fork nr Boulder, Wyoming	170	65	Apr-Sept	- -	268	260
No. Piney Crk nr Mason, Wyoming	27	65	Apr-Sept	- -	47	41
Green nr Fontenelle, Wyo.	645	65	Apr-Sept	- -	1,177	995
Green nr Linwood, Ut.	870	67	Apr-Sept	- -	1,596	1,302
GREEN RIVER TRIBUTARIES IN COLORADO						
Yampa at Steamboat Springs	295	102	Apr-Sept	328	503	288
Elk at Clark	206	96	Apr-Sept	219	301	215
Little Snake nr Lily	345	99	Apr-Sept	369	479	350
White nr Meeker	315	92	Apr-Sept	390	558	343
COLORADO RIVER (Above junction with Green River)						
Colorado nr Granby (13)	230	98	Apr-Sept	- -	- -	235
Willow Crk nr Granby	43	98	Apr-Sept	43	88	44
Williams Fk. Res. nr Parshall	73	94	Apr-Sept	38	57	78
Blue Above Green Mtn. Res.	280	97	Apr-Sept	262	399	290
Colorado at Glenwood Spgs.(14)	1490	96	Apr-Sept	1,557	2,521	1,546
Roaring Fork at Glenwood Spgs.(15)	800	100	Apr-Sept	722	1,419	798
Plateau Crk nr Collbran	51	89	Apr-Sept	59	93	57
Surface Crk nr Cedaredge	17	94	Apr-Sept	23	28	18
Uncompahgre at Colona	156	104	Apr-Sept	225	249	150
Gunnison nr Grand Jct.	1100	78	Apr-Sept	1,856	2,909	1,416
Dolores at Dolores	310	111		384	490	279
SAN JUAN RIVER						
Piedra nr Piedra	217	117	Apr-Sept	254	315	186
San Juan at Rosa	750	122	Apr-Sept	901	1,073	613
Los Pinos nr Bayfield(16)	270	123	Apr-Sept	273	394	220
Animas at Durango	550	116	Apr-Sept	626	734	475
Florida nr Durango	80	129	Apr-Sept	86	101	62
LaPlata at Hesperus	32	114	Apr-Sept	40	52	28
COLORADO RIVER -(Main Stem)						
Colorado nr Grand Canyon	8700	95	Apr-Sept	10,642	15,443	9,155

(13) Observed flow plus diversions by Adams tunnel and Grand river ditch plus change in storage in Granby reservoir.
(14) Observed flow plus diversions by Adams tunnel and Grand river ditch plus change in storage in Granby reservoir plus Moffat ditch.
(15) Observed flow plus diversion through Twin Lakes Tunnel.
(16) Observed flow plus change in storage in Vallecito reservoir.

STATUS OF RESERVOIR STORAGE - MARCH 1, 1960

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET 1960	1959	1958	15-Yr.Av 1943-57
		GREAT BASIN				
Bear River	Bear Lake	1421.0	955.5	1,003.0	956.9	815.6
Little Bear	Hyrum	15.3	10.5	10.6	10.0	10.7
Ogden	Pine View	110.0	12.3	16.0	12.0	7.2
Weber	Wanship	59.1	14.1	12.2	38.4	- -
	Echo	73.9	27.0	27.7	40.0	28.5
	East Canyon	28.7	13.1	12.8	15.5	16.0
Provo	Deer Creek	149.7	67.8	74.9	96.3	85.2
Spanish Fork	Strawberry	270.0	107.6	156.7	156.4	134.3
Utah Lake	Utah Lake	1149.0*	481.2	594.2	604.8	614.2
Sevier River	Otter Creek	52.5	24.8	37.2	28.2	31.9
Piute	Piute	74.0	27.6	54.1	45.0	46.4
	Sevier Bridge	236.0	52.4	90.4	103.6	150.4
Beaver River	Rocky Ford	23.3	7.2	14.2	19.0	15.3
		COLORADO RIVER BASIN				
Lake Fork	Moon Lake	35.8	11.0	9.1	26.0	13.9
Price River	Scofield	65.8	6.6	34.5	40.0	16.3
Colorado	Granby	465.5	231.2	267.9	309.3	213.3
Blue	Green Mtn.	146.9	71.4	53.4	91.7	68.0
Gunnison	Taylor Park	106.2	46.2	54.3	84.6	60.9
Dolores	Groundhog	21.7	3.2	5.5	15.3	7.0
San Juan	Vallecito	126.3	NR	46.1	63.6	41.0
Little Colorado	Lyman	30.6	10.5	18.7	8.5	6.3
Colorado	Lake Mead	27,207.0	19,124.0	21,194.0	19,712.0	16,929.0
Colorado	Lake Mohave	1,810.0	1,728.2	1,700.0	1,743.0	1,467.0**
Colorado	Lake Havasu	619.4	549.9	549.0	532.8	602.6
Gila	San Carlos	1,205.0	205.9	107.9	63.6	102.2
Salt	Roosevelt	1,381.6	834.1	450.6	56.0	432.8
Salt	Apache	245.1	238.8	238.3	232.2	203.5
Salt	Canyon	57.9	57.8	57.0	52.6	42.4
Salt	Saguaro	69.8	69.0	64.1	63.6	38.5
Verde	Horseshoe	143.0	124.3	25.5	12.8	16.8**
Verde	Bartlett	180.0	121.6	97.4	139.4	54.4
Agua Fria	Lake Pleasant	163.8	48.7	18.5	12.7	24.9

* - Active capacity taken at 3.1 feet above compromise point.

** - Less than 15 years of record in the 1943-57 period.

AVAILABLE SOIL MOISTURE

March 1, 1960

DRAINAGE BASIN & STATION	Station No. 1/	Elev	Soil Profile in Inches Depth	Soil Profile in Inches Cap	Date	Soil Moisture Content in Inches about Feb. 1 1960	1959	1958	Av.	Years of Record
COLORADO STATIONS										
ROARING FORK										
Placita	7K7*	8800	48	8.0	Fall	2.4	0.1	1.2	1.8	4
Maroon	6K25*	8400	48	8.0	Fall	4.8	0.1	2.9	2.3	6
UPPER COLORADO										
Vail	6K5*	9200	48	8.0	Fall	5.2	0.6	5.4	2.6	6
Ranch Creek	5K18M	9400	48	7.0	Fall	5.7	4.3	5.8	4.4	4
Hairpin	5K20*	9800	48	8.0	Fall	1.0	0.5	6.4	2.0	4
Vasquez Siphon	5K22*	9600	48	7.0	Fall	-	3.8	5.9	3.7	4
Gore	5J15*	8900	48	7.0	Fall	2.1	0.1	1.9	1.2	4
Blue River	6K21M	10500	48	7.0	Fall	4.4	0.4	6.8	2.9	4
King	6L9*	10500	48	8.0	Fall	5.9	7.3	7.2	6.0	3
SAN JUAN										
Mineral Creek	7M14M	10300	48	8.0	Fall	5.6	3.1	6.5	5.0	3
Molas Lake	7M12M	10500	48	8.0	Fall	3.2	2.5	6.7	4.1	3
Cascade	7M5M	8850	48	8.0	Fall	5.7	4.7	7.0	5.8	3

SNOW SURVEYS - ABOUT MARCH 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
GREAT BASIN DRAINAGE									
UPPER BEAR RIVER (Above Harer, Idaho)									
Big Park a	10G11	8700	No Report			15.5	17.9	17.6 1/	9
CCC Camp x	10G7	7500	2/23	38	9.3	9.3	10.7	10.4	24
Monte Cristo R. S.	11H12	8960	2/25	57	15.5	17.5	24.7	22.7*	10
Piney LaBarge x	10G10	8820	2/24	40	11.1	14.6	18.6	17.8 1/	5
Poison Meadows x a	10G6	8500	No Report			22.3	28.6	25.6 1/	12
Salt River Summit x	10G8	7900	2/23	41	10.1	11.6	16.1	13.6*	12
Trial Lake x	10J8	9800	2/26	61	16.8	17.8	23.7	23.4*	14
LOWER BEAR RIVER (Below Harer, Idaho)									
Beaver Crk-Skunk Crk.	11H14	7150	2/25	36	9.6	8.9	11.4	11.6*	8
Christensen Ranch	11G11	5600	2/29	35	9.0	8.0	9.9	8.3 1/	5
Cub River R. S.	11G12	5400	2/29	39	10.6	7.4	11.0	8.2 1/	5
Dry Bread Pond x	11H13	8230	2/25	49	13.2	12.6	16.7	16.7*	12
Dry Creek Flat	12G4	6350	2/24	35	9.1	6.2	5.2	6.6 1/	5
Franklin Basin R. S.	11G8	8200	2/23	62	17.2	19.7	26.7	23.6*	9
Garden City Summit	11H7	7600	2/25	44	11.0	12.4	18.5	17.4*	13
Klondike Narrows	11H1	7400	2/23	56	14.6	15.0	21.5	16.7**	6
Little Bear(Lower)	11H26	6100	2/24	38	10.7	8.9	9.4	8.0**	4
Little Bear(Upper)	11H25	6850	2/24	45	12.9	9.7	10.8	10.2**	4
Monte Cristo R. S.	11H12	8960	2/25	57	15.5	17.5	24.7	22.7*	10
Oxford Mountain	12G3	6800	2/24	34	8.7	8.0	9.9	8.4 1/	5
Strawberry Creek	11G9	5800	2/25	42	9.9	8.9	12.4	10.3 1/	5
Strawberry Mink Divide	11G10	6800	2/25	57	14.7	14.1	23.5	18.1 1/	5
Tony Grove R. S.	11H3	6250	2/25	38	10.2	10.1	12.5	11.2*	11
Willow Flat	11G4	6100	2/29	46	13.0	12.3	16.8	14.1 1/	5
OGDEN RIVER									
Beaver Crk-Skunk Crk.	11H14	7150	2/25	36	9.6	8.9	11.4	11.6*	8
Ben Lomond(Lower)	11H9	5850	2/24	53	17.8	9.7	18.2	12.3**	4
Dry Bread Pond	11H13	8230	2/25	49	13.2	12.6	16.7	16.7*	12
Monte Cristo R. S. x	11H12	8960	2/25	57	15.5	17.5	24.7	22.7*	10
Mt. Ogden	11H10	8600	2/27	78	24.8	20.2	31.4	24.0*	10
Sagebrush Flat	11H15	6300	2/25	25	6.4	4.1	4.5	4.2 1/	7
Snow Basin	11H11	6420	2/27	50	13.2	10.6	14.5	12.2**	6

a - Aerial marker. Water content estimated.
x - Adjacent drainage.
* - Average for 15-yr. period partly estimated.
** - Average for 15-yr. period mostly or wholly estimated.
1/ - Average for period of record.

SNOW SURVEYS - ABOUT MARCH 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
WEBER RIVER									
Beaver Creek R. S.	11J24	7500	2/26	29	6.6	7.0	9.8	8.4*	11
Chalk Creek #1	11J1	9100	2/25	52	14.0	17.0	18.6	20.8**	7
Chalk Creek #2	11J2	8000	2/25	35	8.6	11.3	10.4	13.2**	9
Chalk Creek #3	11J3	7500	2/25	22	5.1	8.4	6.9	6.9**	8
Lamb's Canyon x	11J14	6600	2/28	42	11.0	10.8	17.1	13.5*	19
Parley's Canyon Smt.	11J15	7500	2/25	52	12.4	13.3	18.4	15.7*	12
Redden Mine(lower)	11J6	8500	2/29	47	12.4	13.3	17.6	16.9*	9
Redden Mine(upper)	11J5	9000	2/29	49	13.5	15.4	18.8	17.9*	9
Silver Lake x	11J16	8725	2/25	59	14.3	15.0	22.3	21.4	25
Smith & Morehouse	11J4	7600	2/29	31	8.2	10.4	12.8	12.3*	9
Trial Lake x	10J8	9800	2/26	61	16.8	17.8	23.7	23.4*	14
PROVO RIVER & UTAH LAKE									
Camp Altamont	11J20	7300	2/29	44	13.0	9.3	14.5	16.3	25
Clear Creek Ridge #1	11K21	9200	2/27	48	12.7	12.2	14.1	15.2**	4
Clear Creek Ridge #2	11K22	8000	2/27	42	10.2	9.6	10.8	12.0**	5
Clear Creek Ridge #3	11K23	6600	2/27	29	6.6	6.1	7.6	7.0**	5
Daniels-Strawberry Smt.	11J23	8000	2/27	41	10.8	10.0	12.2	13.9	29
Dutchman R. S.	11J17	7500	2/29	49	14.6	13.6	19.7	18.0**	5
East Portal	11J7	7560	2/29	32	8.4	7.2	8.8	11.0*	25
Hobble Creek Summit	11J22	7300	2/24	38	10.4	11.9	12.2	13.4**	7
Packard Canyon	11J31	6400	2/25	38	8.2	9.0	10.3	10.5**	5
Payson R. S.	11K1	8050	2/26	55	15.0	13.2	14.8	15.5*	12
Rock Bridge	11K2	6750	2/26	46	11.8	11.1	11.7	10.7**	6
Soapstone R. S.	11J25	7800	2/26	34	8.1	11.0	13.5	12.0*	13
South Fork R. S.	11J19	6100	2/29	30	8.4	3.0	10.3	7.3*	22
Strawberry Divide	11J8	8000	2/29	49	13.5	12.7	16.4	18.1*	24
Timpanogos Cave Camp	11J18	5500	2/29	17	4.3	1.8	3.6	4.0*	18
Timpanogos Divide	11J21	8140	2/29	52	16.2	13.4	20.6	24.5	25
Trial Lake	10J8	9800	2/26	61	16.8	17.8	23.7	23.4*	14
JORDAN RIVER & GREAT SALT LAKE									
Farmington Canyon(lower)	11J12	6950	2/27	71	16.6	15.6	23.8	19.2**	9
Farmington Canyon(upper)	11J11	8000	2/27	72	17.4	17.7	27.9	23.4**	9
Lamb's Canyon	11J14	6600	2/28	42	11.0	10.8	17.1	13.5*	19
Middle Canyon	12J3	7000	2/28	47	12.2	10.4	13.7	11.3**	6
Mill D South Fork	11J10	7400	2/25	61	10.8	15.0	23.8	17.2**	7
Parley's Canyon Smt. x	11J15	7500	2/25	52	12.4	13.3	18.4	15.7*	12
Silver Lake	11J16	8725	2/25	59	14.3	15.0	22.3	21.4	25

x - Adjacent drainage.
* - Average for 15-yr. period partly estimated.
** - Average for 15-yr. period mostly or wholly estimated.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
UPPER SEVIER RIVER (South of Richfield, Utah)									
Big Flat x	12L7	10000	2/22	42	10.8	10.6	20.4	15.8*	11
Box Creek	12L4	9800	2/23	41	9.1	8.2	13.6	12.0**	5
Bryce Canyon	12M8	8000	2/26	25	4.6	1.5	4.5	4.5*	13
Castle Valley	12M13	9700	2/29	40	11.0	8.6	13.7	12.0**	3
Cedar Breaks	12M1	10390	2/25	45	13.9	10.4	20.8	19.2*	14
Duck Creek R. S.	12M4	8560	2/26	37	10.4	9.1	14.2	13.5*	16
Fish Lake	11L3	8700	2/19	25	5.6	3.0	9.6	7.3**	5
Harris Flat R. S.	12M5	7700	2/26	31	8.4	6.6	7.8	9.0*	17
Kimberly Mine	12L6	8900	2/24	50	12.7	9.5	14.2	14.0*	15
Long Valley Jnct. x	12M6	7500	2/26	23	5.7	4.3	0.9	5.9*	11
Midway Valley	12M2	9800	2/25	50	14.0	11.4	21.4	20.1**	6
Panguitch Lake	12M7	8200	2/29	21	4.5	2.4	5.2	4.5**	8
Squaw Springs	12L5	9300	2/23	27	5.5	5.2	8.2	7.0**	5
Widtsoe-Escalante Smt.	11M1	9500	2/25	24	6.1	4.0	8.9	6.7*	23
Widtsoe-Escalante #2	11M2	9500	2/25	34	7.9	6.1	11.2	8.7*	10
Widtsoe-Escalante #3	11M3	9500	2/25	37	9.1	8.1	- -	- -	1
LOWER SEVIER RIVER (Including San Pitch River)									
Bear Canyon	12L3	7200	2/26	43	11.2	6.5	9.4	7.8 1/	6
Beaver Dams	11K13	8000	2/24	39	9.8	10.1	13.8	10.1**	8
Farnsworth Lake	11L1	9900	2/18	45	11.3	9.1	17.6	15.1**	7
G.B.R.C. Headquarters	11K11	8700	2/29	56	12.5	13.0	14.8	13.6*	22
G.B.R.C. Meadows	11K10	10000	3/1	73	18.2	16.6	24.7	21.0*	10
Gooseberry R. S.	11L2	8400	2/18	33	8.0	7.0	11.8	9.3*	9
Gooseberry Reservoir x	11K4	8700	2/25	48	11.9	13.7	16.4	16.2*	15
Mammoth R. S. - Cottonwood Creek	11K3	8800	2/25	54	12.5	- -	- -	17.1**	7
Middle Fork	11K34	9600	2/18	53	12.0	13.6	22.4	- -	4
Mt. Baldy R. S.	11K12	9500	2/24	58	15.6	15.8	24.7	19.5**	8
Pine Creek	12L1	8700	2/25	65	16.3	11.0	14.1	13.3**	6
Rees' Flat	11K36	7300	2/26	45	10.2	7.6	10.9	- -	3
Shingle Mill	12L11	6200	2/26	40	10.3	New Course			
Thistle Flat	11K35	8500	2/18	34	9.2	10.5	15.2	- -	4
BEAVER RIVER									
Big Flat	12L7	10000	2/22	42	10.8	10.6	20.4	15.8*	11
Merchant's Valley	12L9	8200	2/22	29	7.4	6.5	10.0	9.0*	13
Otter Lake	12L8	9300	2/22	35	8.9	8.6	14.8	13.3*	12
PAROWAN CREEK									
Ed Ward Flat	12M12	8300	2/24	29	5.5	3.6	6.8	4.6 1/	6
Yankee Reservoir	12M11	8700	2/24	37	7.6	6.1	8.4	6.3 1/	5

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DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
COAL CREEK									
Cedar Breaks	12M1	10390	2/25	45	13.9	10.4	20.8	19.2*	14
Midway Valley x	12M2	9800	2/25	50	14.0	11.4	21.4	20.1**	6
Urie Flat	12M10	8450	2/24	29	6.7	5.3	8.2	7.8**	5
Webster Flat	12M3	9200	2/27	47	13.9	9.8	15.9	15.6*	10
ENTERPRISE TO NEW HARMONY DRAINAGE									
Little Grassy Creek	13M4	6100	2/26	21	6.5	5.3	- -	--	1
Long Flat	13M2	8200	2/26	29	7.4	5.2	4.6	4.0 1/	5
COLORADO RIVER DRAINAGE									
COLORADO RIVER DRAINAGES IN UTAH									
BRUSH CREEK									
King's Cabin(lower)	9J2	8600	2/24	24	5.3	6.8	6.0	8.7*	11
King's Cabin(upper)	9J1	8800	2/24	27	6.0	7.4	6.3	9.9*	11
DUCHESNE RIVER									
Daniels-Strawberry Smt.x	11J23	8000	2/27	41	10.8	10.0	12.2	13.9	29
East Portal x	11J7	7560	2/29	32	8.4	7.2	8.8	11.0*	25
Indian Canyon	10K1	9100	2/25	32	7.5	7.5	8.5	10.7*	22
Julius Park	9J6	9800	2/25	30	7.0	7.0	- -	- -	1
Lakefork Mountain	10J10	10500	2/27	31	6.8	8.2	9.2	10.9*	9
Lakefork Mountain #2	10J11	8900	2/27	26	5.2	6.0	4.9	7.6**	7
Lakefork Mountain #3	10J12	8100	2/27	25	4.8	5.2	3.4	6.4**	7
Mosby Mountain	9J5	9500	2/25	25	5.8	5.3	7.9	10.2*	10
Paradise Park	9J3	10100	2/25	31	7.2	6.5	9.2	11.8*	9
Soapstone R. S. x	11J25	7800	2/26	34	8.1	12.0	13.5	12.0*	13
Strawberry Divide x	11J8	8000	2/29	49	13.3	12.7	16.4	18.1*	24
Trial Lake x	10J8	9800	2/26	61	16.8	17.8	23.7	23.4*	14
White River #1 x	10K2	8600	2/29	34	8.1	7.6	13.0	12.1 1/	5
PRICE RIVER									
Corral	10K5	8200	2/23	29	6.6	6.2	9.8	- -	4
Dry Valley Divide	11K8	7800	2/25	32	7.2	7.2	11.1	10.7*	19
Gooseberry Reservoir	11K4	8700	2/25	48	11.9	13.7	16.4	16.2*	15
Grassy Trail Crk-Left Fk.	10K3	7970	2/23	35	8.8	7.1	11.6	- -	4
Indian Canyon x	10K1	9100	2/25	32	7.5	7.5	8.5	10.7*	22
Mammoth R. S. - Cottonwood Creek x	11K3	8800	2/25	54	12.5	- -	- -	17.1**	7
Mud Creek #2	11K33	8300	2/25	34	7.2	8.9	12.8	11.5**	5
Staley Ranch	11K7	7600	2/25	22	4.3	4.2	7.8	7.0*	19
Timberline	10K6	9100	No Report			8.6	13.2	- -	2
White River #1	10K2	8600	2/29	34	8.1	7.6	13.0	12.1 1/	5
White River #2	11K24	7600	2/29	31	6.3	5.9	7.9	8.3 1/	5
White River #3	11K25	7400	2/29	33	8.4	6.2	8.5	8.2 1/	5

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SNOW SURVEYS - ABOUT MARCH 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In.)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yr. of Record
SAN RAFAEL RIVER									
Buck Flat	11K31	9400	2/28	61	13.4	10.5	17.2	13.5**	4
Gooseberry Reservoir x	11K4	8700	2/25	48	11.9	13.7	16.4	16.2*	15
Red Pine Ridge	11K28	9400	2/27	59	13.0	12.0	18.4	15.3**	5
Rush Pond	11K38	9800	2/28	54	11.2	9.4	14.7	12.4**	4
Seely Creek R. S.	11K9	10000	3/1	49	12.7	9.9	17.2	13.0*	8
Upper Joe's Valley	11K29	8800	2/27	39	9.3	7.8	10.6	8.4**	4
Wrigley Creek	11K32	9000	2/28	44	10.3	7.7	12.4	9.1**	4
MUDDY RIVER									
Mt. Baldy R. S. x	11K12	9500	2/24	58	15.6	15.8	24.7	19.5**	8
FREMONT RIVER									
Black's Flat-UM Creek	11L4	9250	2/19	33	7.4	6.2	13.9	- -	4
Farnsworth Lake x	11L1	9900	2/18	45	11.3	9.1	17.6	15.1**	7
Fish Lake	11L3	8700	2/19	25	5.6	3.0	9.6	7.3**	5
Johnson Valley	11L6	8850	2/19	24	5.0	2.8	7.9	- -	4
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	2/25	24	6.1	4.0	8.9	6.7*	23
Widtsoe-Escalante #2	11M2	9500	2/25	34	7.9	6.1	11.2	8.7*	10
Widtsoe-Escalante #3	11M3	9500	2/25	37	9.1	8.1	- -	- -	1
VIRGIN RIVER									
Cedar Breaks	12M1	10390	2/25	45	13.9	10.4	20.8	19.2*	14
Duck Creek R. S.	12M4	8560	2/26	37	10.4	9.1	14.2	13.5*	16
Harris Flat R. S.	12M5	7700	2/26	31	8.4	6.6	7.8	9.0*	17
Long Valley Junction	12M6	7500	2/26	23	5.7	4.3	0.9	5.9*	11
Midway Valley x	12M2	9800	2/25	50	14.0	11.4	21.4	20.1**	6
Webster Flat	12M3	9200	2/27	47	13.9	9.8	15.9	15.6*	10
SOUTHEASTERN UTAH DRAINAGES									
Buckboard Flat	9M1	9000	2/18	44	13.1	5.9	12.9	- -	4
Camp Jackson	9M2	8600	2/19	41	12.8	5.4	10.4	- -	4
LaSal Mountain	9L1	8800	2/18	29	7.3	4.1	10.7	9.8**	8
LaSal Mountain(upper)	9L2	9600	2/18	41	11.8	7.6	20.5	- -	4

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SNOW SURVEYS - ABOUT MARCH 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960: Date of Survey	Snow Depth (In)	Water Content (In.)	Past Record: Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
UPPER GREEN RIVER (Above Flaming Gorge Reservoir)									
Big Park a	10G11	8700	No Report			15.5	17.9	17.6 1/	9
Blind Bull a	10G2	8750	No Report			22.0	--	28.4 1/	8
Dinwoodie Glaciers x a	9F17	10500	No Report			9.7	--	--	1
Dutch Joe R. S.	9G5	8700	3/2	24	5.7	6.5	7.6	7.9 1/	8
East Rim Divide	10F17	7950	2/29	23	4.7	10.4	8.9	10.5	20
Grennier Meadows	8G4	9000	2/23	38	8.3	6.6	6.7	13.1	23
Gros Ventre Summit a	10F19	8750	No Report			11.9	7.2	10.8 1/	12
Kendall R. S.	10F15	7900	2/26	22	5.2	8.9	7.5	10.5*	19
Loomis Park	10F16	8500	2/23	38	9.1	16.0	13.4	15.9	19
Mulligan Park	9G1	8900	2/26	23	5.2	9.8	--	9.6	17
Piney-LaBarge	10G10	8820	2/24	40	11.1	14.6	18.6	17.8 1/	5
Poison Meadows x a	10G6	8500	No Report			22.3	28.6	25.6 1/	12
Snyder Basin R. S. #2	10G13	8040	2/24	33	8.7	12.4	16.1	--	4
Soda Lake	10G14	8300	2/25	37	9.6	15.5	17.8	--	3
South Pass	8G3	9000	2/23	36	7.1	8.4	7.2	13.2	20
Triple Peaks	10G15	8500	2/25	49	14.0	23.1	26.1	--	3
Twenty Lakes x a	9G7	10500	No Report			2.0	--	--	1
YAMPA RIVER									
Bear River	7J3	9100	No Survey			10.9	--	--	
Clark a	6J13	7800	2/26	31	7.6	12.0	11.7	--	
Columbine Lodge x	6J3	9300	2/25	60	16.4	22.2	21.8	19.6	
Dry Lake a	6J1	8200	2/29	58	16.2	18.5	22.0	17.1	
Elk River a	6J4	8700	2/29	46	12.4	18.0	13.4	15.1	
Lynx Pass x	6J6	9100	2/24	34	8.0	10.1	9.8	10.6	
Old Battle x	6H10	9800	3/2	70	20.5	20.2	26.6	25.8	
Rabbit Ears	6J9	9550	No Survey			--	--	22.0 1/	
Yampa View	6J10	8500	2/26	31	7.6	13.8	--	12.5 1/	
WHITE RIVER									
Burro Mountain	7K2	9000	2/26	48	13.0	17.9	19.3	14.6	
Rio Blanco	7J1	8500	2/26	33	13.1	14.4	14.3	13.1	
UPPER COLORADO RIVER (Above Glenwood Springs, Colo)									
Arrow	5K6	9900	2/25	36	8.7	11.9	8.1	9.0	
Berthoud Pass	5K3	9700	2/26	47	12.7	14.5	12.6	11.5	
Berthoud Summit	5K14	11300	3/1	67	16.1	20.2	15.8	15.1*	
Blue River	6K21	10500	2/26	45	11.8	10.3	9.2	--	
Cameron Pass x a	5J1	10300	2/29	60	18.0	19.8	18.0	18.0	

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DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior yrs. of Record
UPPER COLORADO RIVER - Continued									
Cooper Hill x	6K23	10800	3/1	53	13.5	-	-	-	0
Fiddler Gulch	6K5	11000	No Survey			13.7	14.2	13.6	23
Frazer View	5K15	10600	3/1	43	5.1	15.2	9.2	9.6*	9
Fremont Pass	6K8	11400	2/25	53	14.2	12.9	13.3	12.2	24
Frisco	6K13	9300	2/25	21	4.3	7.7	6.9	7.4*	9
Glen-Mar Ranch	6K20	8850	2/26	29	6.2	7.6	5.3	7.4*	13
Gore Pass	6J11	8900	2/24	26	5.5	8.6	8.2	8.4*	9
Granby	5J16	8700	2/24	23	4.9	6.4	5.6	6.4*	11
Grand Lake	5J19	8600	2/25	28	18.1	9.3	4.8	7.5*	11
Grizzly Peak	5K9	11250	2/25	56	14.9	14.5	13.7	14.9	18
Hoosier Pass x	6K1	11400	2/26	46	11.1	12.9	11.7	10.0	23
Jones Pass	5K21	10400	2/26	45	11.8	11.0	11.2	- -	3
Kokomo	6K18	10600	2/23	42	10.0	7.5	9.7	- -	7
Lake Irene	5J10	10600	No Survey			19.0	18.8	18.6	22
Lapland	5K7	9300	2/25	28	5.9	11.0	8.6	10.3	20
Lulu	5J7	10200	No Survey			15.9	17.0	13.9	22
Lynx Pass	6J6	9100	2/24	34	8.0	10.1	9.8	10.6	24
Middle Fk.Camp Grnd.	5K4	9000	Est.	34	7.0	8.2	6.4	8.0	24
Milner Pass	5J24	10100	No Survey			NS	12.5	- -	8
Monarch Lake	5J14	8500	2/26	36	9.0	10.4	6.1	10.1*	12
N. Inlet Grand Lake	5J9	9000	No Survey			10.1	5.2	8.0	21
Pando	6K19	9500	2/24	28	6.1	8.0	7.9	- -	7
Phantom Valley	5J4	9300	2/25	31	7.3	10.9	7.4	8.9	24
Ranch Creek	5K18	9400	2/25	26	5.4	9.4	5.4	- -	3
Shrine Pass	6K9	10500	2/24	53	14.8	13.8	15.1	14.0	18
Snake River	5K16	9700	2/25	25	4.4	7.5	7.1	7.3*	9
Summit Ranch	6K14	10000	No Survey						
Tennessee Pass x	6K2	10200	2/26	40	9.1	10.2	12.1	7.9	24
Vail Pass	6K15	10000	2/24	42	11.2	14.1	15.9	-	7
Vasquez Creek	5K19	9600	2/25	40	9.7	11.5	8.9	-	3
Willow Creek Pass	6J5	9500	2/24	42	10.0	8.6	8.8	13.6	22
ROARING FORK									
Aspen	6K22	9700	2/25	59	17.4	-	-	-	-
Ind. Pass Tunnel	6K4	10200	2/29	57	13.1	15.8	15.2	14.3	24
Ivanhoe	6K10	10400	2/27	50	10.6	13.3	13.0	15.9*	13
Lift	7K10	11250	2/25	41	10.2	10.5	13.3	-	3
Nast	6K6	8700	No Survey			6.0	5.8	5.2	22
North Lost Trail a	7K1	9200	2/24	39	9.8	12.8	12.0	12.2	23
PLATEAU CREEK									
Mesa Lakes	7K4	10000	2/28	52	14.9	12.0	22.1	13.2	23
Trickle Divide a	7K5	10000	2/24	63	18.9	19.8	29.5	22.3	20

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GUNNISON RIVER									
Alexander Lake a	7K3	10000	2/24	59	16.9	15.3	23.6	17.6	23
Blue Mesa	7I2	8700	2/25	29	5.5	6.0	- -	- -	1
Cochetopa Pass x	6I6	10000	2/26	28	5.7	5.0	5.1	4.2*	11
Crested Butte	6L1	9000	2/25	25	4.3	10.4	9.3	12.6	24
Ironton Park	7M6	9800	2/25	42	11.6	9.2	- -	10.3	22
McClure Pass a	7K8	9500	2/24	43	14.1	16.5	15.5	13.4*	10
Park Cone	6I2	9700	2/26	36	7.8	6.8	7.3	9.4	23
Park Reservoir a	7K6	9500	2/24	60	18.1	17.2	28.0	20.9	20
Porphyry Creek	6L3	10700	2/26	53	14.5	12.9	14.8	13.5	19
Red Mountain Pass	7M15	11000	2/29	92	27.4	22.3	34.2	23.8*	9
Trickle Divide x a	7K5	10000	2/24	63	18.9	19.8	29.5	22.2	20
DOLORES RIVER									
Lizard Head	7M3	10300	2/26	51	12.3	12.1	14.5	13.2	18
Rico	7M1	8700	2/26	33	7.8	5.6	7.9	7.9	20
Telluride x	7M2	8600	2/27	29	5.3	6.0	8.5	6.7	21
Trout Lake	7M9	9700	No Survey			9.5	12.5	11.2*	11
SAN JUAN RIVER									
Cascade	7M5	8850	2/29	51	11.8	7.4	10.5	11.3	21
Chama x	6N2	7750	2/26	28	6.1	0.4	4.2	4.4	20
Chamita x	6N3	8500	2/26	32	8.5	4.9	7.4	8.7	19
Howardville	7M13	9800	No Survey			7.8	13.8	9.5*	9
Ironton Park x	7M6	9800	2/25	42	11.6	9.2	- -	10.3	22
Mineral Creek	7M14	10300	2/29	56	13.7	11.4	17.8	12.5*	9
Molas Lake	7M12	10500	2/29	47	10.2	7.0	15.3	13.2*	9
Red Mountain Pass x	7M15	11000	2/29	92	27.4	22.3	34.2	23.8*	9
Silverton Sub-Station	7M4	9400	2/29	31	7.4	3.6	- -	5.1	18
Spud Mountain	7M11	10700	2/29	79	21.8	12.5	27.4	21.3*	9
Upper San Juan	6M3	10000	2/29	104	30.1	18.1	27.3	27.6	22
Wolf Creek Pass x	6M1	10000	2/29	91	27.2	15.3	20.6	25.4	23
Wolf Creek Summit	6M17	11000	2/29	105	33.9	12.3	23.6	21.4*	9
LITTLE COLORADO RIVER									
Baldy	9S1	9125	2/27	37	11.8	2.8	7.7	5.9*	10
Canyon Creek #2	10R7	7500	2/28	28	8.7	2.3	0.6	- -	2
Forest Dale	10R6	6430	2/29	9	2.7	0.3	0.0	1.0	21
Ft. A pache	9R5	9160	2/27	40	12.3	4.6	6.8	6.8*	9
Fort Valley	11P2	7350	2/29	21	5.6	2.7	0.3	2.3*	13
Gentry	10R5	7600	2/28	T	T	2.9	0.8	2.4*	8
Happy Jack x	11R5	7630	No Report			T	T	2.6*	8
Heber	10R4	7600	2/28	27	9.0	2.4	0.7	2.4*	9
McNary	9R2	7200	2/29	24	7.7	0.8	T	2.4	21
Mormon Lake	11R4	7350	2/29	27	7.5	2.1	0.8	4.9*	13
Mormon Mountain	11R3	7500	2/29	36	9.6	2.9	1.6	4.6*	10
Nutrioso	9S4	8500	2/29	12	3.8	T	0.7	1.7	22

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LOWER COLORADO									
Chalender x	12P1	7100	2/29	25	6.1	3.4	T	2.8*	13
Fort Valley	11P2	7350	2/29	21	5.6	2.7	0.3	2.3*	13
Grand Canyon	11P1	7500	2/29	21	4.6	1.8	0.5	2.1*	13
WILLIAMS RIVER									
Camp Wood x	12R1	5700	No Report			2.5	0.0	0.8*	14
Iron Springs	12R2	6200	2/25	T	T	0.0	T	1.2*	14
Willow Ranch	13P1	5000	2/28	T	T	-	0.0	0.5*	9
GILA RIVER									
Bear Wallow	10T1	8100	2/29	31	10.7	1.2	1.8	2.6*	12
Beaver Head	9S6	8000	2/29	26	6.3	T	1.1	2.3	21
Coronado Trail	9S7	8000	2/29	18	4.7	T	0.9	2.3	22
Frisco Divide	8S1	8000	2/29	14	4.7	0.9	2.4	1.7	22
Inman	7S2	7800	2/29	3	0.4	0.0	0.5	0.5*	13
Mogollon	8S2	7000	2/29	12	3.2	T	1.6	1.3*	7
Nutrioso	9S4	8500	2/29	12	3.8	T	0.7	1.7	22
Rose Canyon	10T2	7300	2/29	16	5.8	0.0	0.6	0.7	12
State Line	9S8	8000	2/29	20	5.4	0.4	1.2	2.1	22
Taylor Creek	7S1	7850	2/29	T	T	0.0	0.5	0.4	17
SALT RIVER									
Baldy x	9S1	9125	2/27	37	11.8	2.8	7.7	5.0*	10
Beaver Head	9S6	8000	2/29	26	6.3	T	1.1	2.3	21
Canyon Creek #2	10R7	7500	2/28	28	8.7	2.3	0.6	- -	2
Coronado Trail	9S7	8000	2/29	18	4.7	T	0.9	2.3	22
Forest Dale	10R6	6430	2/29	9	2.7	0.3	0.0	1.0	21
Ft. Apache x	9R5	9160	2/27	40	12.3	4.6	6.8	6.8*	9
Gentry	10R5	7600	2/28	24	8.0	2.9	0.8	2.4*	8
Heber	10R4	7600	2/28	27	9.0	2.4	0.7	2.4*	9
Maverick Fork	9S2	9050	2/27	41	12.7	2.3	9.6	7.5*	9
McNary	9R2	7200	2/29	24	7.7	0.8	T	2.4	21
Milk Ranch	9R1	7000	2/29	14	4.5	0.0	T	0.9	19
Nutrioso	9S4	8500	2/29	12	3.8	T	0.7	1.7	22
Pacheta	9S5	7800	2/29	24	5.0	0.0	2.0	2.4*	9
Workman Creek	10S1	6900	2/23	28	10.4	1.9	0.9	1.5*	8
VERDE RIVER									
Camp Wood	12R1	5700	No Report			2.5	0.0	1.8*	14
Casner Park	11R2	6930	2/29	28	7.5	2.3	T	2.2*	9
Chalender	12P1	7100	2/29	25	6.1	3.4	T	2.8*	13
Fort Valley x	11P2	7350	2/29	21	5.6	2.7	0.3	2.3*	13
Gaddes Canyon	12R4	7600	2/29	37	9.4	5.2	1.9	2.7*	6
Happy Jack	11R5	7630	No Report			T	T	2.6*	8
Iron Springs x	12R2	6200	2/25	T	T	0.0	T	1.2*	14
Mingus Mountain	12R3	7100	2/29	12	2.5	1.7	T	1.1*	13
Mormon Lake x	11R4	7350	2/29	27	7.5	2.1	0.8	4.9*	13
Mormon Mountain	11R3	7500	2/29	36	9.6	2.9	1.6	4.6*	10
Munds Park	11R1	6500	2/29	21	5.4	1.7	T	1.6*	9

x - Adjacent Drainage

* - Average for period of record.

FEDERAL - STATE - PRIVATE

COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for UTAH, BEAR and COLORADO RIVER BASIN

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE,

and

STATE ENGINEER of UTAH

In cooperation with Agricultural Experiment Stations at Arizona, Colorado and Utah; the State Engineers of Colorado, New Mexico and Wyoming; U.S. Forest Service; Bureau of Reclamation, U.S. National Park Service, U.S. Geological Survey; and other Federal, State, and private organizations.

AS OF

APR. 1, 1960

USDA-SCS-PORTLAND, OREG. 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

UTAH, BEAR and COLORADO RIVER BASINS

APRIL 1, 1960

Report Prepared

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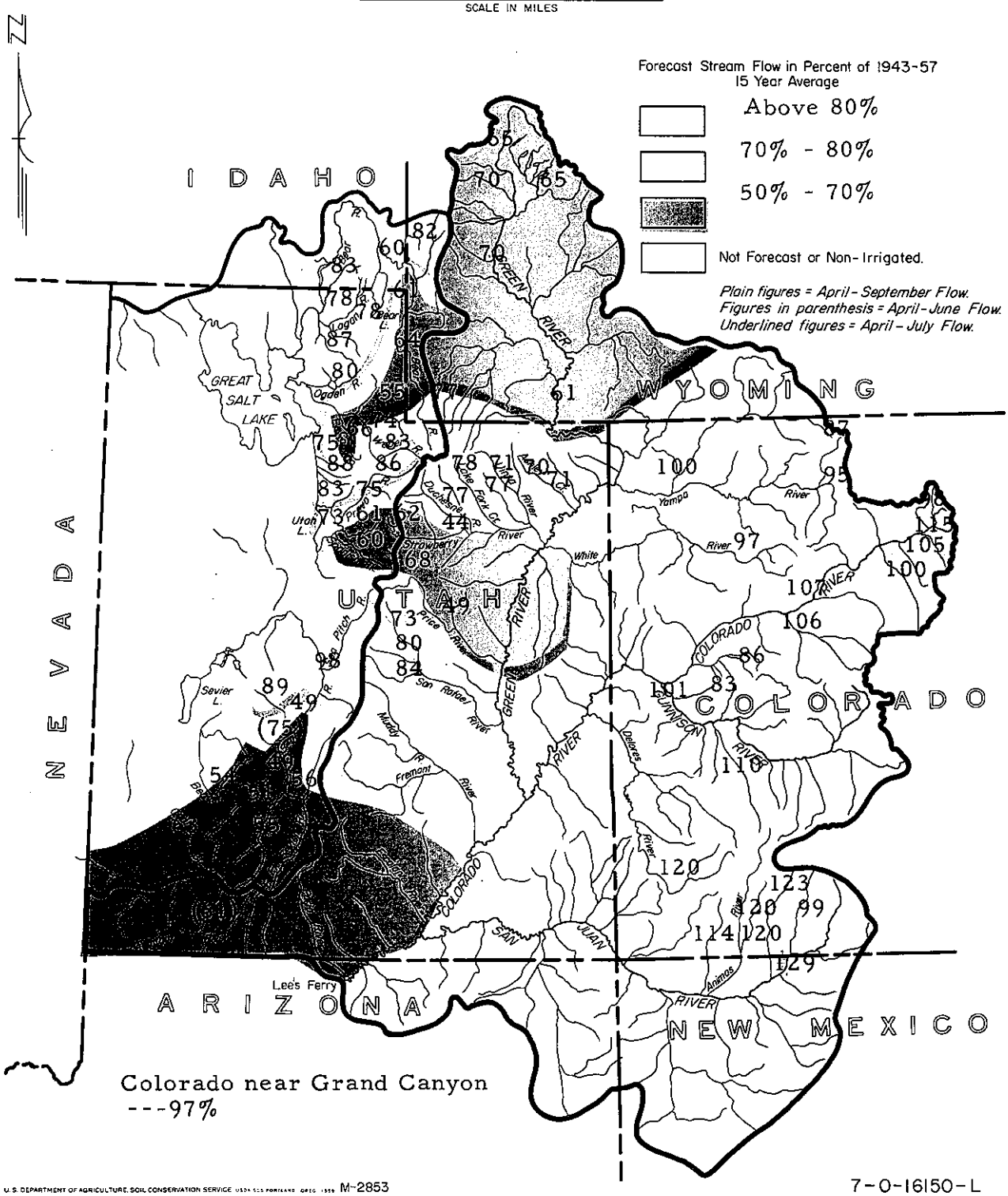
PROSPECTIVE WATER SUPPLIES

Based on Snow Surveys Made on UTAH, BEAR and UPPER COLORADO BASINS

April 1, 1960

Approximate Date



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE USDA SCS PORTLAND OREG. 1959 M-2853

7-0-16150-L

WATER SUPPLY OUTLOOK

as of

APRIL 1, 1960

****
* While March storms generally improved the water outlook for streams in *
* Utah from Provo northward to the Idaho line and on the watersheds of the *
* Bear river, in the southwestern section of the state light snowfall caused *
* the outlook to become much worse. In central areas the outlook has not *
* changed appreciably from a month ago. Poorest outlook is on the upper *
* Sevier, Virgin and adjacent streams; the Spanish Fork river, Strawberry *
* reservoir, Strawberry river; East Canyon Creek near Morgan, Chalk Creek *
* near Coalville and along the main stem of the Bear river in the Woodruff- *
* Randolph area. These areas are forecast at 50% to 65%. Storage in 13 *
* major reservoirs is 77% of average, excluding Bear Lake which is 117% and *
* Utah Lake which is 79%. *
* In the Colorado river basin, forecasts for streams coming from Colorado *
* range between 80% to 130%. Tributaries of the Green in Wyoming are fore- *
* cast to flow between 60% and 70%. *
****

UTAH & BEAR RIVER

Serious water shortages are expected in the Richfield area and southward on both the South and East Forks of the Sevier river, on the Beaver, Virgin, Escalante and Paria rivers, and the smaller streams near Cedar City and Parowan. These streams are all forecast to flow in the 50% to 65% of average range during the April-September period. Below average reservoir stored water complicates the problem for the Sevier and Beaver rivers. While Clear Creek near Sevier should produce 75% of average flow during the April-June period, inflow to Piute reservoir from the South Fork of the Sevier during the same period is forecast at 24%. Combining the effect of these two streams indicates that the inflow for the section of the river from Kingston to Vermillion Dam will be 49% of average.

Similar low streamflow is also expected for the Spanish Fork river, Hobble Creek near Springville, the Strawberry reservoir, Strawberry river, and for East Canyon Creek near Morgan, Chalk Creek near Coalville, and along the main stem of the Bear river in the Woodruff-Randolph area. These streams are also expected to flow in the 50% to 65% range. The outlook on the Price river is only slightly better with forecasts ranging from 50% to 70%. Scofield reservoir has 42% of its usual amount of water in storage now. While water shortages will be experienced here, they should not be too severe unless dry weather prevails during the spring months. Scofield reservoir, however, will have essentially no carryover left in it by the end of the summer for next year.

Fortunately for those living along the middle portion of the Sevier river in the section extending from just below the Rocky Ford-Willow Bend canal down to Sevier Bridge reservoir, a much heavier snowpack lies on the tributary watersheds than there is on the upper reaches of the river. While the water supply for Rocky Ford-Willow Bend canal is expected to be about 60%, for the lower canals(West view, Gunnison-Fayette and Dover) and the Salina area it is expected to be 113%. Because of low carryover storage in Sevier Bridge reservoir, the outlook for the Delta area is only fair.

Inflow to Koosharem reservoir, the flow of the Fremont river, the streams near Fillmore and those in the Moab-Monticello-Blanding area are also expected to be within about 10% of average.

Forecasts for tributaries of the San Pitch, San Rafael and Muddy rivers range from 75% in the north to 85% in the central and south section. Streams coming from Mt. Nebo-Payson, Santaquin and Salt Creeks, etc., can be expected to flow in the 80% to 85% of average range.

In northern Utah the streams along the Wasatch Front from American Fork northward to the Idaho line, the upper Weber and Provo rivers, the Tooele area, the Ogden river and Cache Valley streams are all expected to produce from about 80% to average flow. The north and middle forks of the Ogden, the south fork of the Little Bear and the streams in the Brigham City area should yield 10% to 20% above average flow.

While the main Bear river in the Woodruff-Randolph area is expected to have only 60% to 65% of average flow, the tributary streams flowing into it in Utah, Idaho and Wyoming will flow at near 80%.

In general, the streams of the Uintah Basin will produce 70% to 80% of their usual amounts.

The warm period during the latter part of March caused excessive snow melt at all elevations. This was particularly noticeable at the lower elevations. One example of this is shown by readings at the Sagebrush Flat snow course on the South Fork of the Ogden river. Here 10.8 inches of water melted from the snow. Such melting caused heavy runoff from some of the lower elevation watersheds. Where the runoff was caught in reservoirs the effect is not too serious for those having rights to such water. However, for those dependent on natural flow during the spring and summer months this was not good, since it will mean less water for them during the growing season. The effect will be most noticeable on the smaller, lower elevation watersheds.

COLORADO RIVER BASIN

In Colorado, streamflow forecasts range between 83% and 129% of average, with the lowest forecasts in the central and north sections, the highest forecasts being in the south. The prospects are for adequate water during the summer months, with only very limited shortages existing during late summer months in the areas where forecasts are the lowest.

Most areas should have ample water. Soil moisture is good throughout the area.

Most Utah streams tributary to the Green and Colorado rivers are expected to yield between 75% and 80% of average flow. In Arizona there has been heavy melting of the snowpack during March, all snow having disappeared except at the highest elevations. Streamflow has been considerably above average, with an excellent water supply being assured for this summer.

Outlook for water from the tributaries of the Green river is poor, with streams forecast to yield between 60% and 70% of average.

STREAMFLOW FORECASTS - APRIL 1, 1960

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 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1959	Measured Runoff 1958	15-Yr. Av. 1943-57
GREAT BASIN						
BEAR RIVER SYSTEM						
Bear nr Ut-Wyo. State Line	95	77	Apr-Sept	100	101	123
Bear nr Woodruff	85	64	Apr-Sept	77	81	133
Bear nr Randolph	70	61	Apr-Sept	35	44	115(*)
Smith's Fork nr Border, Wyo.	97	82	Apr-Sept	80	112	119
Bear at Harer, Idaho	180	60	Apr-Sept	124	189	299
Cub River nr Preston, Ida.	43	83	Apr-Sept	40	52	52(*)
Little Bear nr Paradise	40	87	Apr-Sept	19.0	42	46
Logan nr Logan (1)	112	78	Apr-Sept	102	139	143
Blacksmith Fork nr Hyrum(2)	52	78	Apr-Sept	37	61	67
WEBER-OGDEN RIVERS						
Weber nr Oakley	92	86	Apr-June	73	90	107
	111	83	Apr-Sept	91	106	134
Wanship Reservoir Inflow(3)	100	77	Apr-July	83	86	130*
Weber nr Coalville(4)	106	74	Apr-Sept	86	114	143
Chalk Crk at Coalville	23	57	Apr-Sept	16.8	19.7	42
East Canyon Crk nr Morgan(5)	19	66	Apr-Sept	10.2	32	28.7
So. Fork Ogden nr Huntsville	56	80	Apr-Sept	29.3	58	70
PROVO RIVER & UTAH LAKE						
Strawberry Reservoir Inflow(6)	35	62	Apr-Sept	10.4	52	56
Spanish Fork at Thistle	26	60	Apr-Sept	14.4	54	43
Hobble Crk nr Springville	14.5	61	Apr-Sept	5.9	27.3	23.7*
Provo nr Hailstone(7)	100	86	Apr-Sept	72	110	116*
Provo at Vivian Park(8)	120	75	Apr-Sept	81	149	159
American Fork nr American Fork	30	83	Apr-Sept	19.1	42	36
Utah Lake Inflow	230	73	Apr-Sept	195	295	317

(1) Includes U.P.&L. Co. tailrace and Logan, Hyde Park & Smithfield Canal.
(2) Above Utah Power & Light Company's dam.
(3) Observed flow Weber River near Wanship, Utah, plus change in storage in Wanship reservoir, plus diversion by Weber-Provo Canal.
(4) Includes diversion by Weber-Provo canal and change in storage in Wanship Reservoir.
(5) Observed flow plus change in storage in East Canyon Reservoir.
(6) Change in storage plus diversion thru Strawberry tunnel.
(7) Observed flow minus diversions thru Duchesne tunnel and Weber-Provo Canal.
(8) Observed flow plus change in storage in Deer Creek reservoir, minus diversions thru Duchesne tunnel & Weber-Provo Canal, plus diversion thru Salt Lake Aqueduct.

* - Partly estimated.

STREAMFLOW FORECASTS - APRIL 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1959	Measured Runoff 1958	15-Y Av. 1943-
JORDAN RIVER & SALT LAKE						
Little Cottonwood Crk nr SLC	34	87	Apr-Sept	28	42	39
Big Cottonwood nr SLC	35	88	Apr-Sept	31	50	40
Parley's Crk nr SLC	11	75	Apr-Sept	4.6	14.2	14.7
SEVIER RIVER						
Sevier at Hatch	16	46	Apr-June	11.0	72	35
	27	55	Apr-Sept	19.5	93	49
Sevier nr Circleville	22	51	Apr-Sept	16.0	92	43 *
Sevier nr Kingston	6	24	Apr-June	2.9	60	24.6
	10	34	Apr-Sept	4.6	69	29.7
East Fork Sevier nr Kingston(9)	8.0	47	Apr-June	1.7	46	17.0
	12	56	Apr-Sept	5.2	49	21.3
Sevier below Piute Dam(10)	25	49	Apr-Sept	12.5	115	51
Clear Crk nr Sevier(abv. div.)	12	75	Apr-June	3.5	19.9	15.9
Inflow						
Kingston to Vermillion Dam	23	49	Apr-June	9.0	78	47
Vermillion Dam to Gunnison	62	98	March-June	35	78	63
Salina Crk at Salina(11)	13	138	Apr-June	- -	- -	9.4
BEAVER RIVER						
Beaver nr Beaver	14	63	Apr-June	6.4	33	22.3
	16	54	Apr-Sept	9.2	43	29.4
PAVANT VALLEY						
Chalk Crk nr Fillmore	18	89	Apr-Sept	5.7	21.3	20.3
COAL CREEK						
Coal Crk nr Cedar City	10.5	63	Apr-Sept	7.0	32	16.6

(9) Observed flow plus change in storage in Otter Creek Reservoir.
(10) Observed flow plus change in storage in Otter Crk & Piute Reservoirs.
(11) Gage is below diversions near Salina.
* - Partly estimated

STREAMFLOW FORECASTS - APRIL 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1959	Measured Runoff 1958	15-Yr. Av. 1943-57
COLORADO RIVER BASIN						
GREEN RIVER TRIBUTARIES IN UTAH						
FLAMING GORGE TO DUCHESNE RIVER						
Ashley Creek nr Vernal	42	71	Apr-Sept	34	55	59
DUCHESNE RIVER						
Duchesne at Provo River (Trail nr Hanna)	33	79	Apr-Sept	- -	- -	42*
Duchesne nr Tabiona(12)	95	77	Apr-Sept	69	117	124
Rock Crk nr Mtn. Home	85	78	Apr-Sept	80	99	109
Strawberry at Duchesne	35	44	Apr-Sept	17.7	85	79
Lakefork below Moon Lake(13)	60	77	Apr-Sept	58	76	78
Uinta nr Neola	72	71	Apr-Sept	76	108	101
Whiterocks nr Whiterocks	47	70	Apr-Sept	51	63	67
PRICE RIVER						
Gooseberry Crk nr Scofield	9	71	Apr-Sept	6.3	15.4	12.6
Price nr Scofield(14)	27	68	Apr-Sept	14.0	51	40
Price nr Heiner(14)	34	49	Apr-Sept	15.5	108	70
SAN RAFAEL RIVER						
Huntington Crk nr Huntington	43	73	Apr-Sept	26.5	91	59
Cottonwood Crk nr Orangeville	47	80	Apr-Sept	23.0	83	59
Ferron Crk nr Ferron	36	84	Apr-Sept	17.9	66	43*
VIRGIN RIVER						
Virgin at Virgin	27	61	Apr-June	18.4	108	44

(12) Observed flow plus diversion through Duchesne Tunnel
(13) Observed flow plus change in storage in Moon Lake reservoir.
(14) Observed flow plus change in storage in Scofield reservoir.
* - Partly estimated.

STREAMFLOW FORECASTS - APRIL 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	Measured Runoff 1957	15-Yr. Av. 1943-57
GREEN RIVER TRIBUTARIES IN WYOMING (Above Flaming Gorge Reservoir)						
Green at Warren Bridge, Wyo.	225	65	Apr-Sept	- -	394	348
New Fork nr Boulder, Wyoming	170	65	Apr-Sept	- -	268	260
No. Piney Crk nr Mason, Wyo.	30	70	Apr-Sept	- -	47	41
Green nr Fontenelle, Wyo.	696	70	Apr-Sept	- -	1,177	995
Green nr Linwood, Utah	840	61	Apr-Sept	- -	1,596	1,381
GREEN RIVER TRIBUTARIES IN COLORADO						
Yampa at Steamboat Springs	270	95	Apr-Sept	328	503	283
Elk at Clark	188	87	Apr-Sept	219	301	215
Little Snake nr Lily	350	100	Apr-Sept	369	479	350
White nr Meeker	325	97	Apr-Sept	390	558	335
COLORADO RIVER (Above jnct. with Green River)						
Colorado nr Granby(15)	271	115	Apr-Sept	- -	- -	235
Willow Crk nr Granby	43	98	Apr-Sept	43	88	44
Williams Fk. Res. nr Parshall	82	105	Apr-Sept	38	57	78
Blue above Green Mtn. Res.	290	100	Apr-Sept	262	399	290
Colorado at Glenwood Spgs.(16)	1650	107	Apr-Sept	1,557	2,521	1,546
Roaring Fork at Glenwood Spgs.(17)	850	106	Apr-Sept	722	1,419	803
Plateau Crk nr Collbran	49	86	Apr-Sept	59	93	57
Surface Crk nr Cedaredge	15	83	Apr-Sept	23	28	18
Uncompahgre at Colona	160	110	Apr-Sept	225	249	145
Gunnison nr Grand Jct.	1390	101	Apr-Sept	1,856	2,909	1,386
Dolores at Dolores	335	120	Apr-Sept	384	490	279
SAN JUAN RIVER						
Piedra nr Piedra	185	99	Apr-Sept	254	315	186
San Juan at Rosa	760	129	Apr-Sept	901	1,073	587
Los Pinos nr Bayfield(18)	270	123	Apr-Sept	273	394	220
Animas at Durango	570	120	Apr-Sept	626	734	475
Florida nr Durango	74	120	Apr-Sept	86	101	62
LaPlata at Hesperus	32	114	Apr-Sept	40	52	28
COLORADO RIVER -(Main Stem)						
Colorado nr Grand Canyon	8860	97	Apr-Sept	10,642	15,443	9,155

(15) Observed flow plus diversions by Adams tunnel and Grand river ditch plus change in storage in Granby reservoir.
(16) Observed flow plus diversions by Adams tunnel and Grand river ditch plus change in storage in Granby reservoir plus Moffat ditch.
(17) Observed flow plus diversion through Twin Lakes Tunnel.
(18) Observed flow plus change in storage in Vallecito reservoir.

STATUS OF RESERVOIR STORAGE - APRIL 1, 1960

BASIN and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET 1960	1959	1958	15-Yr.Av. 1943-57
		GREAT BASIN				
Bear River	Bear Lake	1421.0	995.4	1,023.0	975.4	848.8
Little Bear	Hyrum	15.3	12.9	12.9	12.2	11.8
Ogden	Pine View	110.0	30.4	21.3	4.7	9.7
Weber	Wanship	59.1	18.1	11.2	36.2	- -
	Echo	73.9	40.8	38.2	44.0	35.7
	East Canyon	28.7	17.2	14.7	17.4	17.6
Provo	Deer Creek	149.7	78.8	88.9	95.8	87.1
Spanish Fork	Strawberry	270.0	109.6	157.7	159.8	137.6
Utah Lake	Utah Lake	1149.0*	519.4	632.1	662.6	658.0
Sevier River	Otter Creek	52.5	30.2	40.2	35.8	36.7
Piute	Piute	74.0	28.9	55.3	56.5	54.2
	Sevier Bridge	236.0	68.8	106.2	126.8	166.0
Beaver River	Rocky Ford	23.3	8.7	15.5	21.1	17.0
		COLORADO RIVER BASIN				
Lake Fork	Moon Lake	35.8	12.5	10.5	28.0	15.5
Price River	Scofield	65.8	8.0	35.9	41.7	17.9
Colorado	Granby	465.5	216.4	246.0	286.2	197.5
Blue	Green Mountain	146.9	57.6	49.1	70.9	57.5
Gunnison	Taylor Park	106.2	49.9	56.7	83.2	62.2
Dolores	Groundhog	21.7	3.5	5.8	15.6	7.0
San Juan	Vallecito	126.3	44.3	47.0	66.2	40.7
Little Colorado	Lyman	30.6	16.5	18.7	9.9	6.8
Colorado	Lake Mead	27,207.0	19,171.0	20,735.0	19,092.0	16,438.0
Colorado	Lake Mohave	1,810.0	1,568.1	1,703.0	1,740.0	1,491.8**
Colorado	Lake H avasu	619.4	546.3	567.1	546.7	626.1
Gila	San Carlos	1,205.0	214.6	80.8	175.3	107.9
Salt	Roosevelt	1,381.6	1,021.9	405.1	263.6	471.7
Salt	Apache	245.1	235.4	242.0	238.8	209.7
Salt	Canyon	57.9	57.7	53.4	54.0	46.3
Salt	Saguaro	69.8	65.9	47.7	64.3	49.5
Verde	Horseshoe	143.0	76.0	43.2	105.9	30.6
Verde	Bartlett	180.0	145.1	71.3	144.3	70.9
Agua Fria	Lake Pleasant	163.8	49.7	18.3	22.4	29.8

* - Active capacity taken at 3.1 feet above compromise point.
** - Less than 15 years of record in the 1943-57 period.

SNOW SURVEYS - ABOUT APRIL 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
JORDAN RIVER & GREAT SALT LAKE									
Barnard Creek	11J13	8000	3/29	58	23.6	19.3	32.0	26.2	24
Bevan's Cabin	12J2	6450	4/2	26	11.3	10.0	10.2	9.7 1/	5
Farmington Canyon(lower)	11J12	6950	3/31	59	22.6	17.5	29.5	24.4*	9
Farmington Canyon(upper)	11J11	8000	3/31	70	25.4	20.8	34.3	28.5*	9
Lamb's Canyon	11J14	6600	3/29	35	11.6	13.0	19.6	15.6	25
Middle Canyon	12J3	7000	3/29	30	11.6	10.8	17.3	13.5**	6
Mill D. South Fork	11J10	7400	3/30	47	16.4	19.2	27.4	20.8	25
Parley's Canyon Smt. x	11J15	7500	3/24	43	15.7	14.1	22.4	19.0	26
Rocky Basin-Settlmt.Cyn.	12J1	8900	4/2	68	26.4	19.2	29.2	23.6 1/	6
Silver Lake	11J16	8725	3/27	51	19.6	21.3	27.3	28.7	29
UPPER SEVIER RIVER (South of Richfield, Utah)									
Big Flat x	12L7	10000	3/23	52	16.8	11.7	27.3	20.0	24
Box Creek	12L4	9800	3/25	36	12.2	8.6	17.4	15.0**	5
Bryce Canyon	12M8	8000	3/30	2	1.0	0.0	7.4	4.0	24
Castle Valley	12M13	9700	3/30	28	10.8	7.5	18.9	14.0**	4
Cedar Breaks	12M1	10390	3/25	38	15.4	12.1	30.4	24.0	25
Duck Creek R. S.	12M4	8560	3/29	22	8.2	7.2	22.8	15.9	25
Fish Lake	11L3	8700	3/24	25	8.4	4.0	11.4	8.3	29
Harris Flat R. S.	12M5	7700	3/29	9	3.4	3.4	14.0	8.5	29
Kimberly Mine	12L6	8900	3/28	42	15.8	11.4	18.8	17.4	25
Long Valley Jnct. x	12M6	7500	3/29	0	0.0	0.0	3.1	4.2	23
Midway Valley	12M2	9800	3/25	46	17.0	13.4	31.5	25.2**	6
Panguitch Lake	12M7	8200	3/30	6	2.4	0.0	8.3	5.1	30
Squaw Springs	12L5	9300	3/25	20	7.0	4.4	11.1	9.2**	5
Widtsoe-Escalante Smt.	11M1	9500	4/1	11	3.9	1.8	12.5	7.5	28
Widtsoe-Escalante #2	11M2	9500	3/31	26	8.2	5.5	14.3	10.4*	10
Widtsoe-Escalante #3	11M3	9500	3/31	30	9.6	7.3	- -	- -	1
LOWER SEVIER RIVER (Including San Pitch River)									
Bear Canyon	12L3	7200	3/29	34	12.1	7.8	12.4	9.1 1/	6
Beaver Dams	11K13	8000	3/29	33	12.4	9.4	16.3	12.8*	9
Farnsworth Lake	11L1	9900	3/29	57	19.3	10.9	22.8	18.7*	9
G.B.R.C. Headquarters	11K11	8700	3/30	36	14.0	15.4	20.8	17.2	30
G.B.R.C. Meadows	11K10	10000	3/30	63	23.0	20.7	32.8	26.0	30
Gooseberry R. S.	11L2	8400	3/29	37	12.6	7.3	15.4	11.5	30
Gooseberry Reservoir x	11K4	8700	3/31	44	17.1	16.6	24.2	20.2	32
Huntington-Horseshoe x	11K5	9800	3/31	60	23.5	18.4	35.2	24.5	30
Mammoth R.S.-Cottonwd.Crk	11K3	8800	3/31	44	17.2	16.6	24.8	21.3	31
Middle Fork	11K34	9600	3/25	63	22.2	17.7	32.4	- -	4
Mt. Baldy R. S.	11K12	9500	3/29	62	21.2	17.2	33.2	24.2*	9
Pine Creek	12L1	8700	3/28	39	16.1	10.4	19.7	16.5*	11
Rees' Flat	11K36	7300	4/1	39	13.5	8.1	14.4	- -	4
Shingle Mill	12L11	6200	3/29	26	10.3		New Course		0
Thistle Flat	11K35	8500	3/25	37	14.3	12.4	20.3	- -	4

x - Adjacent Drainage

* - Average for 15-yr. period partly estimated.

** - Average for 15-yr.period mostly or wholly estimated.

1/ - Average for period of record.

SNOW SURVEYS - ABOUT APRIL 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
BEAVER RIVER									
Big Flat	12L7	10000	3/23	52	16.8	11.7	27.3	20.0	24
Merchant's Valley	12L9	8200	3/23	21	7.4	6.2	15.2	11.1	29
Otter Lake	12L8	9300	3/23	36	11.1	9.5	20.8	16.6	24
PAROWAN CREEK									
Ed Ward Flat	12M12	8300	3/24	19	6.4	2.9	10.8	7.9*	16
Yankee Reservoir	12M11	8700	3/24	27	8.4	5.4	13.2	11.0*	16
COAL CREEK									
Cedar Breaks	12M1	10390	3/25	38	15.4	12.1	30.4	24.0	25
Midway Valley x	12M2	9800	3/25	46	17.0	13.4	31.5	25.2**	6
Urie Flat	12M10	8450	3/25	13	3.9	2.3	11.8	7.3**	6
Webster Flat	12M3	9200	3/25	36	13.8	11.6	22.1	18.1	33
ENTERPRISE TO NEW HARMONY DRAINAGE									
Little Grassy Creek	13M4	6100	3/28	0	0.0	0.0	- -	- -	1
Long Flat	13M2	8000	3/28	10	3.2	2.0	11.6	- -	4
COLORADO RIVER DRAINAGE									
COLORADO RIVER DRAINAGES IN UTAH									
BRUSH CREEK									
King's Cabin(lower)	9J2	8600	3/29	18	5.4	9.6	10.3	10.5	30
King's Cabin(upper)	9J1	8730	3/29	27	6.2	10.3	11.5	12.0	30
DUCHESNE RIVER									
Brown Duck Lake	10J9	10300	Delayed Report			13.8	- -	19.7*	14
Currant Creek	11J32	7800	3/23	24	8.2	6.4	11.0	- -	4
Daniels-Strawberry Smt.x	11J23	8000	3/30	28	11.1	13.2	16.3	16.4	30
East Portal x	11J7	7560	3/29	25	8.0	7.5	12.7	13.1	26
Indian Canyon	10K1	9100	3/28	22	7.4	7.7	16.0	13.1	30
Jackson Park	10J19	11300	3/30	30	8.8	10.1	13.2	- -	4
Julius Park	9J6	9800	3/28	27	7.7	8.2	17.5	- -	2
Lakefork Mountain	10J10	10500	3/25	28	8.2	8.6	12.5	13.6	29
Lakefork Mountain #2	10J11	8900	3/25	12	4.2	6.4	8.9	8.8**	7
Lakefork Mountain #3	10J12	8100	3/25	12	4.2	5.4	5.8	6.4**	7
Mosby Mountain	9J5	9500	3/28	17	5.1	6.1	12.7	12.7*	29
Paradise Park	9J3	10100	3/28	28	7.2	7.9	12.8	14.5*	28
Rock Creek	10J18	7900	3/24	14	5.0	5.2	7.5	6.6 1/	5
Soapstone R. S. x	11J25	7800	3/29	29	9.0	12.2	15.7	14.0	29
Strawberry Divide x	11J8	8000	3/29	41	15.0	14.3	22.1	22.1	26
Trial Lake x	10J8	9800	3/29	65	21.7	23.7	27.8	29.1	29
White River #1 x	10K2	8600	3/25	24	8.2	8.8	14.8	13.5 1/	5

x - Adjacent Drainage

* - Average for 15-yr. period partly estimated.

** - Average for 15-yr. period mostly or wholly estimated.

1/ - Average for period of record.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
PRICE RIVER									
Corral	10K5	8200	3/26	16	4.6	2.6	17.4	7.8 1/	5
Dry Valley Divide	11K8	7800	3/28	21	8.0	6.7	13.8	11.7	25
Gooseberry Reservoir	11K4	8700	3/31	44	17.1	16.6	24.2	20.2	32
Grassy Trail Crk-Left Fk.	10K3	7970	3/26	25	8.4	6.2	17.8	8.8 1/	5
Huntington Horseshoe x	11K5	9800	3/31	60	23.5	18.4	35.2	24.5	30
Indian Canyon x	10K1	9100	3/28	22	7.4	7.7	16.0	13.1	30
Mammoth R.S.-Cottonwd Crk.	11K3	8800	3/31	44	17.2	16.6	24.8	21.3	31
Mud Creek #2	11K33	8300	3/28	25	8.0	9.9	17.1	14.2**	5
Staley Ranch	11K7	7600	3/28	11	3.8	4.8	10.6	6.2*	23
Timberline	10K6	9100	No Survey			9.9	- -	- -	1
White River #1	10K2	8600	3/25	24	8.2	8.8	14.8	13.5 1/	5
White River #2	11K24	7600	3/25	18	6.4	5.1	10.0	8.1 1/	5
White River #3	11K25	7400	3/25	20	7.4	4.6	11.4	8.1 1/	5
SAN RAFAEL RIVER									
Buck Flat	11K31	9400	3/30	45	15.8	11.2	24.6	16.4**	4
Gooseberry Reservoir x	11K4	8700	3/31	44	17.1	16.6	24.2	20.2	32
Huntington-Horseshoe	11K5	9800	3/31	60	23.5	18.4	35.2	24.5	30
Red Pine Ridge	11K28	9400	3/29	45	15.7	12.6	23.7	19.1**	5
Rush Pond	11K38	9800	3/30	38	12.6	9.6	21.1	15.1**	5
Seely Creek R. S.	11K9	10000	3/30	40	14.9	9.5	23.8	15.8	30
Stuart R. S.	11K27	7950	3/28	12	4.2	4.6	11.6	8.4 1/	5
Switchback	11K26	8600	3/28	31	11.4	11.4	21.0	18.3**	5
Upper Joe's Valley	11K29	8800	3/29	27	8.9	7.1	13.8	10.5**	4
Wrigley Creek	11K32	9000	3/30	36	11.8	7.7	17.2	11.0**	5
MUDDY RIVER									
Black's Fork	11K14	9200	3/31	36	13.2	11.1	19.9	16.5*	13
Dill's Camp	11K15	9200	3/31	32	11.4	8.4	18.1	14.0*	11
Mt. Baldy R. S. x	11K12	9500	3/29	62	21.2	17.2	33.2	24.2*	9
FREMONT RIVER									
Black's Flat-U.M. Crk.	11L4	9250	3/24	36	11.8	7.8	15.8	9.8 1/	6
Donkey Reservoir	11L5	9800	3/23	27	7.0	4.1	13.0	7.0 1/	6
Farnsworth Lake x	11L1	9900	3/29	57	19.3	10.9	22.8	18.7*	9
Fish Lake	11L3	8700	3/24	25	8.4	4.0	11.4	8.3	29
Johnson Valley	11L6	8850	3/24	24	8.5	4.4	9.8	6.8 1/	5
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	4/1	11	3.9	1.8	12.5	7.5	28
Widtsoe-Escalante #2	11M2	9500	3/31	26	8.2	5.5	14.3	10.4*	9
Widtsoe-Escalante #3	11M3	9500	3/31	30	9.6	7.3	-	-	1

x - Adjacent Drainage
* - Average for 15-Yr. period partly estimated.
** - Average for 15-yr. period mostly or wholly estimated.
1/- Average for period of record.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
VIRGIN RIVER									
Cedar Breaks x	12M1	10390	3/25	38	15.4	12.1	30.4	24.0	25
Duck Creek R. S.	12M4	8560	3/29	22	8.2	7.2	22.8	15.9	25
Harris Flat R. S.	12M5	7700	3/29	9	3.4	3.4	14.0	8.5	29
Long Valley Junction	12M6	7500	3/29	0	0.0	0.0	3.1	4.2	23
Midway Valley x	12M2	9800	3/25	46	17.0	13.4	31.5	25.2**	6
Webster Flat	12M3	9200	3/25	36	13.8	11.6	22.1	18.1	33
SOUTHEASTERN UTAH DRAINAGES									
Buckboard Flat	9M1	9000	3/23	46	16.9	7.4	15.9	14.9	30
Camp Jackson	9M2	8600	3/24	42	16.3	- -	15.6	- -	3
LaSal Mountain	9L1	8800	3/23	35	11.5	7.1	14.6	11.0	29
LaSal Mountain(upper)	9L2	9400	3/23	54	19.0	11.5	25.8	- -	4
UPPER GREEN RIVER (Above Flaming Gorge Reservoir)									
Big Park	10G11	8700	3/29	46	15.8	18.2	20.5	21.8*	9
Blind Bull a	10G2	8750	Delayed Report			30.0e	- -	33.2*e	9
Dinwoodie Glaciers x a	9F17	10500	Delayed Report			11.5e	- -	- -	-
Dutch Joe R. S.	9G5	8700	3/30	15	3.7	7.6	7.5	8.7 1/	24
East Rim Divide	10F17	7950	3/23	26	7.6	10.3	9.9	12.4	24
Grennier Meadows	8G4	9000	3/23	38	11.1	10.0	8.0	16.1	23
Gros Ventre Summit	10F19	8750	3/24	31	8.9	13.7	8.8	13.0*	12
Hewinta R. S.	10J4	9500	3/25	28	8.8	13.7	11.9	10.5	26
Hole-in-the-Rock	10J1	9150	3/23	21	4.8	7.7	7.2	6.5	29
Hole-in-the-Rock R. S.	10J3	8300	3/23	5	1.2	2.0	3.6	1.6*	6
Kelly R. S.	10G12	8200	3/29	43	15.0	16.0	18.5	19.2*	9
Kendall R. S.	10F15	7900	3/24	24	7.6	9.9	8.6	11.9	23
Loomis Park	10F16	8500	3/25	37	12.8	17.2	15.4	19.4	23
Middle Beaver Creek	10J2	8550	3/23	16	4.2	7.4	5.9	5.6*	6
Mulligan Park	9G1	8900	3/23	22	6.7	9.1	10.6	11.5	24
Piney-LaBarge	10G10	8820	3/27	35	13.6	18.7	20.5	20.5	23
Poison Meadows x	10G6	8500	3/27	69	23.3	27.2	31.0	31.0*	12
Snyder Basin R. S. #2	10G13	8040	3/27	31	11.5	15.8	16.5	17.0*	5
Soda Lake	10G14	8300	3/26	37	12.9	18.1	19.6	- -	4
South Pass	8G3	9000	3/23	37	10.2	11.6	8.6	16.4	20
Triple Peaks	10G15	8500	3/26	51	19.2	27.8	28.4	- -	4
Twenty Lakes x a	9G7	10500	Delayed Report			6.5e	- -	- -	1
YAMPA RIVER									
Bear River	7J3	9100	3/25	35	9.5	14.0	12.2	- -	4
Clark	6J13	7800	3/29	27	8.9	11.7	12.5	- -	4
Columbine Lodge x	6J3	9300	3/30	63	21.5	27.9	25.6	24.7	24
Dry Lake	6J1	8200	3/30	51	20.9	21.8	25.7	21.0	24
Elk River	6J4	8700	3/28	34	14.5	18.6	19.5	18.2	24
Lynx Pass x	6J6	9100	3/30	35	10.5	13.9	12.4	12.7	24
Old Battle x	6H10	9800	3/29	84	27.8	27.0	33.8	33.3	24
Rabbit Ears	6J9	9550	3/16	121	30.9	- -	- -	28.4*	8
Yampa View	6J10	8500	3/30	41	16.0	- -	15.9	16.3*	9

a - Aerial marker e - Estimated x - Adjacent Drainage
* - Average for period of record ** - Av. for 15-yr. period mostly or wholly estimated
1/- Average for 15 yrs. of data within and adjacent to the 1943-57 period.

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
WHITE RIVER									
Burro Mountain	7K2	9000	3/30	46	15.9	19.0	22.2	18.6	23
Rio Blanco	7J1	8500	3/29	32	17.4	17.9	18.7	16.7	24
UPPER COLORADO RIVER (Above Glenwood Springs, Colo.)									
Arrow	5K6	9900	3/28	39	13.1	15.3	12.4	11.6	22
Berthoud Pass	5K3	9700	3/29	52	15.9	17.9	17.0	15.0	24
Berthoud Summit	5K14	11300	3/30	72	21.6	25.7	23.2	20.4*	9
Blue River	6K21	10500	3/30	29	8.7	14.1	11.6	- -	3
Cameron Pass x	5J1	10300	3/28	82	29.2	30.9	29.4	24.9	24
Cooper Hill x	6K23	10800	3/29	60	17.4	- -	- -	- -	1
Fiddler Gulch	6K5	11000	3/29	63	19.1	18.2	15.8	17.2	23
Frazer View	5K15	10600	3/30	44	15.2	15.6	13.7	13.0*	9
Fremont Pass	6K8	11400	3/27	62	19.6	16.9	15.9	16.9	24
Frisco	6K13	9300	3/28	20	6.5	8.4	8.6	9.7*	9
Glen-Mar Ranch	6K20	8850	3/29	25	6.1	10.7	9.1	8.8*	13
Gore Pass	6J11	8900	3/25	29	8.4	11.5	9.4	9.8*	9
Granby	5J16	8700	3/25	25	7.2	7.2	7.1	8.4*	11
Grand Lake	5J19	8600	3/27	30	6.8	8.5	6.6	9.0*	11
Grizzly Peak	5K9	11250	3/26	66	22.5	17.8	18.6	18.9	18
Hoosier Pass x	6K1	11400	3/28	49	14.0	17.9	15.0	13.1	24
Jones Pass	5K21	10400	3/29	56	16.4	17.2	16.0	- -	3
Kokomo	6K18	10600	3/26	50	15.6	13.0	12.8	12.9*	8
Lake Irene	5J10	10600	3/25	79	19.9	20.1	23.7	22.9	22
Lapland	5K7	9300	3/28	26	8.0	14.4	11.3	12.1	22
Lulu	5J7	10200	3/28	63	18.6	19.1	20.6	17.6	22
Lynx Pass	6J6	9100	3/30	35	10.5	13.9	12.4	12.7	24
Middle Fk. Camp Grnd.	5K4	9000	3/29	30	9.4	11.6	9.6	9.7	24
Milner Pass	5J24	10100	3/25	53	15.0	15.3	15.9	12.2*	8
Monarch Lake	5J14	8500	3/26	33	9.8	9.9	8.8	10.7*	12
N. Inlet Grand Lake	5J9	9000	3/28	29	8.0	10.1	9.0	10.3	22
Pando	6K19	9500	3/27	31	11.2	10.6	12.7	11.7*	8
Phantom Valley	5J4	9300	3/27	33	11.6	11.3	10.3	10.8	24
Ranch Creek	5K18	9400	3/28	34	10.3	11.8	9.8	- -	3
Shrine Pass	6K9	10500	3/27	61	20.4	17.6	20.2	18.3	18
Snake River	5K16	9700	3/26	25	7.4	10.7	7.8	9.0*	9
Summit Ranch	6K14	10000	3/31	21	5.8	8.1	6.3	8.7*	9
Tennessee Pass x	6K2	10200	3/28	36	11.2	12.5	11.1	10.0	24
Vail Pass	6K15	10000	3/27	47	16.2	20.1	20.8	19.6*	8
Vasquez Creek	5K19	9600	3/28	50	15.2	12.5	12.7	- -	3
Willow Creek Pass	6J5	9500	3/25	48	14.4	12.4	10.8	13.6	22

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

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
ROARING FORK									
Aspen	6K22	9700	3/25	71	19.6	- -	- -	- -	1
Ind. Pass Tunnel	6K4	10200	3/29	63	19.9	18.9	20.4	18.7	24
Ivanhoe	6K10	10400	Delayed Report			18.0	16.5	18.6*	13
Lift	7K10	11250	3/25	53	15.6	13.5	16.6	- -	2
Nast	6K6	8700	3/31	18	3.3	7.2	5.5	6.1	23
North Lost Trail	7K1	9200	4/2	41	12.7	14.2	14.6	15.7	23
PLATEAU CREEK									
Mesa Lakes	7K4	10000	3/26	58	20.5	15.9	27.6	17.4	23
Trickle Divide	7K5	10000	4/1	81	26.8	22.5	31.5	28.9	20
GUNNISON RIVER									
Alexander Lake	7K3	10000	4/1	65	22.0	20.0	31.5	22.8	23
Blue Mesa	7L2	8700	3/28	29	8.7	- -	- -	- -	2
Cochetopa Pass x	6L6	10000	3/28	23	6.5	6.0	7.3	4.7*	11
Crested Butte	6L1	9000	3/29	36	10.4	11.8	12.7	15.3	24
Ironton Park	7M6	9800	3/28	42	14.3	14.7	- -	13.1	23
Lake City	7M8	10300	3/29	32	9.3	8.1	14.7	8.6*	11
McClure Pass	7K8	9500	4/2	41	15.3	13.4	16.1	15.7*	10
Park Cone	6L2	9700	3/28	37	10.3	7.1	10.7	12.3	23
Park Reservoir	7K6	9500	4/1	70	23.4	20.5	30.9	26.8	20
Porphyry Creek	6L3	10700	3/29	59	20.2	15.4	19.7	17.1	20
Red Mountain Pass	7M15	11000	3/30	102	36.3	29.3	40.5	33.3*	9
Trickle Divide x	7K5	10000	4/1	81	26.8	22.5	31.5	28.9	20
DOLORES RIVER									
Lizzard Head	7M3	10300	3/30	52	17.8	13.1	25.0	17.6	22
Rico	7M1	8700	3/31	20	9.2	0.0	10.0	7.7	24
Telluride x	7M2	8600	3/30	14	4.5	3.8	7.4	6.8	24
Trout Lake	7M9	9700	3/30	48	17.0	11.0	16.5	13.5*	11
SAN JUAN RIVER									
Cascade	7M5	8850	3/30	35	13.0	6.2	15.3	12.1	24
Chama x	6N2	7750	3/30	5	1.6	0.0	5.7	1.7	20
Chamita x	6N3	8500	3/30	26	9.7	3.0	12.3	8.7	17
Howardville	7M13	9800	3/30	50	14.8	9.2	17.3	12.6*	9
Ironton Park x	7M6	9800	3/28	42	14.3	14.7	- -	13.1	23
Mineral Creek	7M14	10300	3/30	55	18.1	13.0	21.2	17.5*	9
Molas Lake	7M12	10500	3/30	41	14.3	8.4	19.5	13.9*	9
Red Mountain Pass x	7M15	11000	3/30	102	36.3	29.3	40.5	33.3*	9
Silverton Sub-Station	7M4	9400	3/30	24	8.8	3.5	- -	5.1	22
Spud Mountain	7M11	10700	3/30	72	25.8	13.3	39.7	24.6*	9
Upper San Juan	6M3	10000	3/29	81	33.2	19.0	36.2	33.9	24
Wolf Creek Pass x	6M1	10000	3/29	80	32.5	15.3	26.1	30.5	24
Wolf Creek Summit	6M17	11000	3/29	104	37.9	15.7	29.4	29.8*	9

x - Adjacent Drainage

* - Average for period of record.

SNOW SURVEYS - ABOUT APRIL 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
LITTLE COLORADO RIVER									
Baldy	9S1	9125	3/29	15	6.1	0.0	11.9	3.4*	9
Canyon Creek #2	10R7	7500	3/30	T	T	0.0	1.7	- -	2
Forest Dale	10R6	6430	4/1	0	0.0	0.0	0.0	0.0	19
Ft. Apache	9R5	9160	3/29	21	7.6	0.0	10.3	6.4*	9
Fort Valley	11P2	7350	4/1	0	0.0	0.0	0.2	1.2*	13
Gentry	10R5	7600	4/1	0	0.0	0.0	1.5	0.3*	6
Happy Jack x	11R5	7630	4/1	0	0.0	0.0	1.1	1.3*	5
Heber	10R4	7600	3/30	2	0.9	0.0	1.6	0.4*	6
McNary	9R2	7200	4/1	0	0.0	0.0	0.0	0.2	19
Mormon Lake	11R4	7350	4/1	0	0.0	0.0	1.9	3.5*	10
Mormon Mountain	11R3	7500	3/31	T	T	0.0	4.1	2.4*	7
Nutrioso	9S4	8500	4/1	0	0.0	0.0	0.9	0.5	18
LOWER COLORADO									
Chalender x	12P1	7100	4/1	0	0.0	0.0	0.2	1.6*	13
Fort Valley	11P2	7350	4/1	0	0.0	0.0	0.2	1.2*	13
Grand Canyon	11P1	7500	4/1	0	0.0	0.0	0.9	1.2*	12
WILLIAMS RIVER									
Camp Wood x	12R1	5700	4/1	0	0.0	0.0	0.0	0.0*	13
Iron Springs	12R2	6200	4/1	0	0.0	0.0	0.0	0.0*	13
Willow Ranch	13P1	5000	4/1	0	0.0	0.0	- -	0.0*	7
GILA RIVER									
Bear Wallow	10T1	8100	3/31	23	10.5	0.0	2.1	0.9*	10
Beaver Head	9S6	8000	3/30	T	T	0.0	5.5	0.7	19
Coronado Trail	9S7	8000	4/1	0	0.0	0.0	3.0	1.1	18
Frisco Divide	8S1	8000	4/1	0	0.0	0.0	3.9	0.5	19
Inman	7S2	7800	4/1	0	0.0	0.0	0.0	0.0*	10
Mogollon	8S2	7000	4/1	0	0.0	0.0	T	0.3*	6
Nutrioso	9S4	8500	4/1	0	0.0	0.0	0.9	0.5	18
Rose Canyon	10T2	7300	4/1	0	0.0	0.0	0.5	0.3*	10
State Line	9S8	8000	4/1	0	0.0	0.0	2.0	0.5	19
Taylor Creek	7S1	7850	4/1	0	0.0	0.0	0.0	0.0*	14

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

SNOW SURVEYS - ABOUT APRIL 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
SALT RIVER									
Baldy x	9S1	9125	3/29	15	6.1	0.0	11.9	3.4*	9
Beaver Head	9S6	8000	3/30	T	T	0.0	5.5	0.7	19
Canyon Creek #2	10R7	7500	3/30	T	T	0.0	1.7	- -	2
Coronado Trail	9S7	8000	4/1	0	0.0	0.0	3.0	1.1	18
Forest Dale	10R6	6430	4/1	0	0.0	0.0	0.0	0.0	19
Ft. Apache x	9R5	9160	3/29	21	7.6	0.0	10.3	6.4*	9
Gentry	10R5	7600	4/1	0	0.0	0.0	1.5	0.3*	6
Heber	10R4	7600	3/30	2	0.9	0.0	1.6	0.4*	6
Maverick Fork	9S2	9050	3/29	18	8.2	0.0	14.0	5.5*	7
McNary	9R2	7200	4/1	0	0.0	0.0	0.0	0.2	19
Milk Ranch	9R1	7000	4/1	0	0.0	0.0	0.0	0.0	16
Nutrioso	9S4	8500	4/1	0	0.0	0.0	0.9	0.5	18
Pacheta	9S5	7800	4/1	0	0.0	0.0	0.0	0.6*	7
Workman Creek	10S1	6900	No Report			0.0	0.0	1.2*	7
VERDE RIVER									
Camp Wood	12R1	5700	4/1	0	0.0	0.0	0.0	0.0*	13
Casner Park	11R2	6930	4/1	0	0.0	0.0	T	1.0*	6
Chalender	12P1	7100	4/1	0	0.0	0.0	0.2	1.6*	13
Fort Valley x	11P2	7350	4/1	0	0.0	0.0	0.2	1.2*	13
Gaddes Canyon	12R4	7600	3/31	6	2.6	T	4.4	1.6*	5
Happy Jack	11R5	7630	4/1	0	0.0	0.0	1.1	1.3*	5
Iron Springs x	12R2	6200	4/1	0	0.0	0.0	0.0	0.0*	13
Mingus Mountain	12R3	7100	4/1	0	0.0	0.0	0.0	0.0*	10
Mormon Lake x	11R4	7350	4/1	0	0.0	0.0	1.9	3.5*	11
Mormon Mountain	11R3	7500	3/31	T	T	0.0	4.1	2.4*	7
Munds Park	11R1	6500	4/1	0	0.0	0.0	0.0	0.6*	6
COLUMBIA RIVER									
RAFT RIVER									
Clear Creek Meadows	13H2	9050	3/28	46	15.1	15.5	- -	- -	1
One Mile Summit	13H1	7330	3/28	21	6.7	7.7	- -	- -	1

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

COLORADO RIVER BASINS

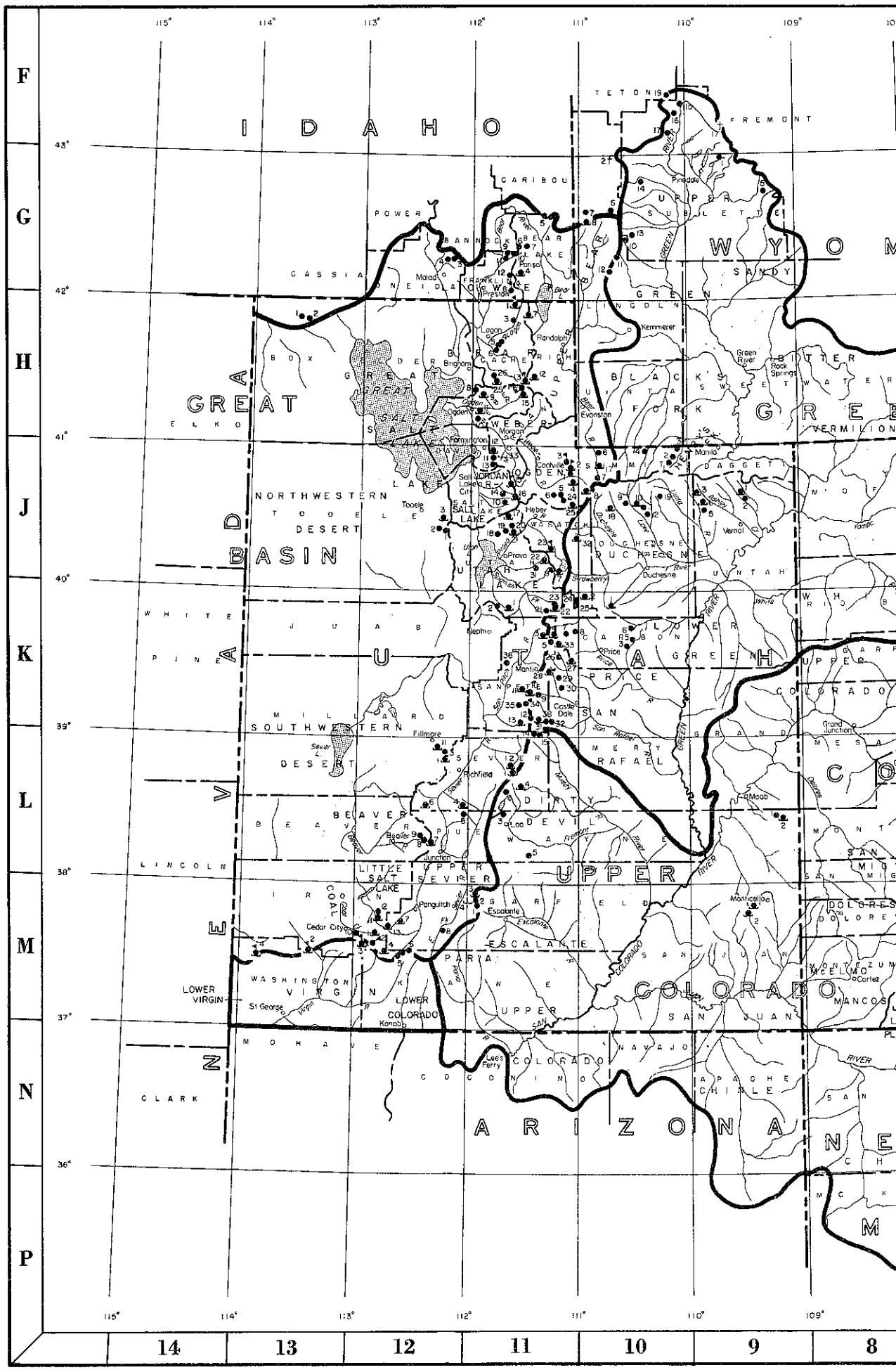
STATE	NAME	SEC. / LAT.	TWP. OR AND	RGE. / LONG.	ELEV.
	ROARING FORK				
C	Independence Pass Tunnel	24	11S	83W	10200
C	Lift	7	11S	84W	11250
C	Ivanoe	12	9S	82W	10400
C	Nast	1	9S	83W	8700
C	North Lost Trail	20	11S	87W	9200
	PLATEAU CREEK				
C	Mesa Lakes	35	11S	96W	10000
C	Trickle Divide	23	11S	94W	10000
	GUNNISON RIVER				
C	Park Cone	19	14S	82W	9700
C	Crested Butte	22	13S	86W	9000
C	Porphyry Creek	19	49N	6E	10700
C	Tomichi	30	49N	5E	10500
C	Cochetopa Pass x	12	45N	3E	10000
C	McClure Pass	1	11S	89W	9500
C	Trickle Divide x	23	11S	94W	10000
C	Park Reservoir	34	11S	94W	9500
C	Alexander Lake	2	12S	95W	10000
C	Blue Mesa	23	48N	5W	8700
C	Red Mountain Pass	13	42N	8W	11000
C	Ironton Park	29	43N	7W	9800
C	Lake City	13	43N	4W	10300
	DOLORES RIVER				
C	Lizzard Head	24	41N	10W	10300
C	Rico	11	39N	11W	8700
C	Trout Lake x	8	41N	9W	9700
C	Telluride x	6	42N	8W	8600
	SOUTHEASTERN UTAH DRAINAGES				
U	LaSal Mountain (upper)	3	27S	24E	9400
U	LaSal Mountain	5	27S	24E	8800
U	Buckboard Flat	36	33S	22E	9000
U	Camp Jackson	22	34S	22E	8600
	UPPER GREEN RIVER (Above Flaming Gorge Reservoir)				
W	Dinwoodie Glaciers x	43°14'		109°35'	10500
W	Gros Ventre Summit	36	40N	111W	8750
W	Kendall R. S.	23	38N	110W	7900
W	Loomis Park	14	37N	111W	8500
W	East Rim Divide	32	37N	111W	7950
W	Blind Bull x	6	34N	115W	8750
W	Soda Lake	14	33N	115W	8300
W	Mulligan Park	17	35N	108W	8900
W	Dutch Joe R. S.	32	31N	104W	8700
W	Poison Meadows x	29	30N	116W	8500
W	Snyder Basin R. S. #2	15	29N	114W	8040
W	Piney-LaBarge	19	29N	114W	8820
W	Big Park	7	27N	117W	8700
W	Kelly R. S.	13	26N	118W	8200
U	Hewinta R. S.	33	3N	13E	9500
U	Hole-in-the-Rock	13	2N	15E	9150
U	Middle Beaver Creek	31	3N	16E	8550
U	Hole-in-the-Rock R. S.	32	3N	16E	8300
	YAMPA RIVER				
C	Rabbit Ears	30	5N	83W	9550
C	Yampa View	21	5N	84W	8500
C	Lynx Pass x	2	1N	83W	9100
C	Bear River	14	1N	86W	9100
W	Old Battle	29	14N	85W	9800
C	Elk River	6	10N	85W	8700
C	Clark	24	9N	85W	7800
C	Dry Lake	26	7N	84W	8200
C	Columbine Lodge x	21	5N	82W	9300
	BRUSH CREEK				
U	King's Cabin (upper)	22	1S	21E	8730
U	King's Cabin (lower)	23 & 26	1S	21E	8600
	DUCHESNE RIVER				
U	Trial Lake x	5	2S	9E	9800
U	Soapstone R. S. x	9	3S	8E	7800
U	Daniels-Strawberry Summit x	20	2S	12W	8000
U	Strawberry Divide x	34 & 35	7S	6E	8000
U	East Portal x	36	7S	6E	7560
U	White River #1 x	11	10S	8E	8600
U	Currant Creek	31	1S	10W	7800
U	Indian Canyon	2	11S	10E	9100
U	Rock Creek	21	2N	7W	7900
U	Brown Duck Lake	2	2N	6W	10300
U	Lakefork Mountain	2 & 3	2N	5W	10500
U	Lakefork Mountain #2	17	2N	4W	8900
U	Lakefork Mountain #3	29	2N	4W	8100
U	Jackson Park	23	3N	4W	11300
U	Paradise Park	7	3N	1E	10100
U	Julius Park	20	3N	1E	9800
U	Mosby Mountain	27	2S	18E	9500
	WHITE RIVER				
C	Rio Blanco	28	1N	88W	8500
C	Burro Mountain	15	2S	91W	9000

NO.	STATE	NAME	SEC. / LAT.	TWP. OR AND	RGE. / LONG.	ELEV.
		PRICE RIVER				
11K5	U	Huntington-Horseshoe	12	14S	5E	9800
11K4P	U	Gooseberry Reservoir	25	13S	5E	8700
11K3P	U	Mammoth R. S.-Cottonwood Cr.	13 & 23	13S	5E	8800
11K33P	U	Mud Creek #2	4	14S	7E	8300
11K7	U	Staley Ranch	32	12S	7E	7600
11K8	U	Dry Valley Divide	20	12S	8E	7800
10K2P	U	White River #1	11	10S	8E	8600
11K24	U	White River #2	9	10S	8E	7600
11K25	U	White River #3	30	10S	8E	7400
10K1P	U	Indian Canyon x	2	11S	10E	9100
10K6	U	Timberline	28	13S	13E	9100
10K3	U	Grassy Trail Creek-Left Fork	2	14S	13E	7970
10K5	U	Corral	32	13S	14E	8200
		SAN RAFAEL RIVER				
11K5	U	Huntington-Horseshoe	12	14S	5E	9800
11K4P	U	Gooseberry Reservoir x	25	13S	5E	8700
11K26	U	Switchback	14	14S	6E	8600
11K27P	U	Stuart R. S.	8 & 9	15S	7E	7950
11K28P	U	Red Pine Ridge	5	16S	6E	9400
11K29	U	Upper Joe's Valley	21	16S	6E	8800
11K9	U	Seely Creek R. S.	25	17S	4E	10000
11K31P	U	Buck Flat	23	19S	4E	9400
11K38	U	Rush Pond	24	19S	4E	9800
11K32	U	Wrigley Creek	27	19S	5E	9000
		MUDDY RIVER				
11K14	U	Black's Fork	34	20S	4E	9200
11K15	U	Dill's Camp	27	20S	4E	9200
11K12	U	Mt. Baldy R. S. x	19	19S	4E	9500
		FREMONT RIVER				
11L1P	U	Farnsworth Lake x	27 & 33	23S	2E	9900
11L3	U	Fish Lake	35	26S	1E	8700
11L6	U	Johnson Valley	24	25S	2E	8850
11L4P	U	Black's Flat - U.M. Creek	33	24S	3E	9250
11L5	U	Donkey Reservoir	9	30S	4E	9800
		ESCALANTE RIVER				
11M1	U	Widtsoe-Escalante Summit	22	34S	1W	9500
11M2	U	Widtsoe-Escalante #2	22	34S	1W	9500
11M3P	U	Widtsoe-Escalante #3	22	34S	1W	9500
		SAN JUAN RIVER				
6M1	C	Wolf Creek Pass x	4	37N	2E	10000
6M17	C	Wolf Creek Summit	6	37N	2E	11000
6M3	C	Upper San Juan	1	37N	1E	10000
6N2	NM	Chama Divide x	36°52'		106°40'	7500
6N3	NM	Chamita x	36°56'		106°40'	8500
7M6	C	Ironton Park x	29	43N	7W	9800
7M15	C	Red Mountain Pass x	13	42N	8W	11000
7M12	C	Molas Lake	7	40N	7W	10500
7M14	C	Mineral Creek	35	42N	8W	10300
7M13	C	Howardville	15	41N	7W	9800
7M4	C	Silverton Sub-Station	10	41N	7W	9400
7M11	C	Spud Mountain	32	40N	8W	10700
7M5	C	Cascade	13	39N	9W	8850
		VIRGIN RIVER				
12M6	U	Long Valley Junction	22	38S	6W	7500
12M5	U	Harris Flat R. S. x	24	38S	7W	7700
12M4P	U	Duck Creek R. S. x	11	38S	8W	8560
12M1P	U	Cedar Breaks x	2	37S	9W	10390
12M2M	U	Midway Valley x	26	37S	9W	9800
12M3MP	U	Webster Flat	20	37S	9W	9200

LEGEND

Numbering System (example)

10J7	Snow Course Only.
10J7P	Snow Course and Precipitation Gage.
10J7M	Snow Course and Soil Moisture Station.
10J7A	Snow Course and Aerial Marker.
10J7MA	Snow Course, Soil Moisture Station and Aerial Marker.
10J7MP	Snow Course, Soil Moisture Station and Precipitation Gage.
10J7m	Soil Moisture Station Only.
10J7a	Aerial Marker Only.
10J7p	Storage Precipitation Gage Only.
x	Adjacent Drainage



U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE USDA SCS-PORTLAND OREG 1959 M-2854

FEDERAL - STATE - PRIVATE

COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for UTAH, BEAR and COLORADO RIVER BASIN

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE,

and

STATE ENGINEER of UTAH

In cooperation with Agricultural Experiment Stations at Arizona, Colorado and Utah; the State Engineers of Colorado, New Mexico and Wyoming; U.S. Forest Service; Bureau of Reclamation, U.S. National Park Service, U.S. Geological Survey; and other Federal, State, and private organizations.

AS OF

MAY 1, 1960

USDA-SCS-PORTLAND, OREG. 1959

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

UTAH, BEAR and COLORADO RIVER BASINS

MAY 1, 1960

Report Prepared

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Mimeograph Series #456

storage picture is comparable, with Rocky Ford reservoirs having 53% of last year and 47% of average, while Scofield reservoir has 24% of last year and 45% of average.

The second item noticeable in the forecasts is associated with the long dry spell and high winds which were experienced during the April, with most of the precipitation coming near the end of the month.

A condition such as this causes excessive evaporation directly from the snowpack, removes the snow from the low and intermediate elevations much more rapidly than usual and then starts drying out the soils. When the soils begin drying out, less water yield is realized from subsequent rain and snowfall, since part of what falls is used in wetting the soil up again to the point that there is excess water to contribute to streamflow. This shows up in forecasts for the lower elevation watersheds and in the lower sections of the larger rivers. An illustration of this effect is shown on the Bear river. At the Utah-Wyoming state line south of Evanston the forecast is for 77% of average flow, which is the same as was forecast last month. However, at Randolph, Utah the forecast is for 43% as compared with last month's forecast of 61%.

Most areas of the state can expect some late season shortage of water supply.

The best prospects for water are from the North and Middle Forks of the Ogden river, the South Fork of the Little Bear and the streams in the Brigham City-Willard area. These streams can be expected to produce from 10% to 20% above average supplies. Streams near Moab, Monticello and Blanding in the southeast corner of the state should produce about an average supply.

Streams which can be expected to yield between 70% to 85% of average are as follows: the streams of Cache Valley, the South Fork of the Ogden river, the upper Weber and Provo rivers, the Wasatch Front streams from American Fork to Ogden(except Parley's Creek which is forecast at 61%), those in the Tooele area, streams coming from Mt. Nebo, streams coming from the north side of the Uintah Basin, the San Pitch, San Rafael and Fremont rivers, Salina Creek and Chalk Creek near Fillmore.

Streams which can be expected to yield between 40% and 70% of average(most are between 50% and 60%), are as follows: the Virgin, Paria, Escalante, Sevier and Beaver rivers, smaller streams near Cedar City and Parowan, the Spanish Fork and Price rivers, Hobble Creek near Springville, Strawberry reservoir inflow, Utah Lake inflow, East Canyon Creek near Morgan, Bear river in the Woodruff-Randolph area, Chalk Creek near Coalville and East Canyon Creek near Morgan.

In addition to the May-September, May-June, etc., forecasts, revised April-September, April-June, etc., forecasts are included for comparison with last month's forecasts for the benefit of those who wish to see how the water outlook has changed..

COLORADO RIVER BASIN

In Colorado, the water supply outlook is not quite as favorable as it was last month, but is still nearly normal with forecasts ranging between 80% and 115%. The low elevation snowpack is all gone due to warm weather and very light snowfall during the month. Soil moisture is excellent at all stations. The prospects are for adequate water during the summer months with only limited shortages existing during late summer months in the areas where forecasts are the lowest.

Most Utah streams tributary to the Green and Colorado rivers are expected to yield between 70% and 80% of average flow. In Arizona an excellent water supply is assured, where the reservoirs on the Little Colorado, Gila, Salt, Verde and Agua Fria all have above average stored water supplies in them.

Outlook for water from the tributaries of the Green river in Wyoming is poor, with streams forecast to yield between 55% and 70% of average.

STREAMFLOW FORECASTS - MAY 1, 1960

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 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1959	Measured Runoff 1958	15-Yr Av. 1943-5
GREAT BASIN						
BEAR RIVER SYSTEM						
Bear nr Ut-Wyo. State Line	87	75	May-Sept	96	97	116
	95	77	Apr-Sept	100	101	123
Bear nr Woodruff	51	48	May-Sept	67	69	106
	75	58	Apr-Sept	77	81	133
Bear nr Randolph	37	42	May-Sept	25	31	88*
	50	43	Apr-Sept	35	44	115*
Smith's Fork nr Border, Wyo.	83	80	May-Sept	73	107	104
	95	80	Apr-Sept	80	112	119
Bear at Harer, Idaho	110	47	May-Sept	92	161	235
	145	48	Apr-Sept	124	199	299
Cub River nr Preston, Idaho	35	74	May-Sept	36	48	47*
	39	75	Apr-Sept	40	52	52*
Little Bear nr Paradise	22	79	May-Sept	9.5	27	28
	37	80	Apr-Sept	19.0	42	46
Logan nr Logan (1)	97	78	May-Sept	89	126	125
	110	77	Apr-Sept	102	139	143
Blacksmith Fork nr Hyrum (2)	37	72	May-Sept	28	50	51
	48	72	Apr-Sept	37	61	67
WEBER-OGDEN RIVERS						
Weber nr Oakley	81	84	May-June	66	84	96
	102	84	May-Sept	84	100	122
	112	84	Apr-Sept	91	106	134
Wanship Reservoir Inflow(3)	82	75	May-July	69	70	110*
Weber nr Coalville (4)	83	71	May-Sept	73	94	119
	100	70	Apr-Sept	86	114	143
Chalk Crk at Coalville	20	59	May-Sept	13.1	15.5	34
	25	60	Apr-Sept	16.8	19.7	42
East Canyon Crk nr Morgan(5)	10	55	May-Sept	7.6	19.2	18.1
	16	56	Apr-Sept	10.2	32	28.7
So. Fork Ogden nr Huntsville	39	79	May-Sept	22	44	49
	55	79	Apr-Sept	29.3	58	70

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

STREAMFLOW FORECASTS - MAY 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1959	Measured Runoff 1958	15-Yr. Av. 1943-5
PROVO RIVER & UTAH LAKE						
Strawberry Reservoir Inflow(6)	16	38	May-Sept	4.0	45	42
	29	52	Apr-Sept	10.4	52	56
Spanish Fork at Thistle	19	56	May-Sept	11.7	45	34
	24	56	Apr-Sept	14.4	54	43
Hobble Crk nr Springville	7.6	46	May-Sept	4.7	21	16.5*
	12	50	Apr-Sept	5.9	27.3	23.7*
Provo nr Hailstone (7)	81	79	May-Sept	62	99	102*
	95	82	Apr-Sept	72	110	116*
Provo at Vivian Park(8)	95	74	May-Sept	68	126	129
	120	75	Apr-Sept	81	149	159
American Fork nr Am. Fork	26	81	May-Sept	16.9	40	32
	30	83	Apr-Sept	19.1	42	36
Utah Lake Inflow	106	45	May-Sept	136	216	234
	165	52	Apr-Sept	195	295	317
JORDAN RIVER & SALT LAKE						
Little Cottonwood Crk nr SLC	28	78	May-Sept	26	40	36
	31	79	Apr-Sept	28	42	39
Big Cottonwood Crk nr SLC	27	75	May-Sept	27	46	36
	32	80	Apr-Sept	31	50	40
Parley's Crk nr SLC	5.5	50	May-Sept	3.6	11.1	11.0
	9	61	Apr-Sept	4.6	14.2	14.7
BEAVER RIVER						
Beaver nr Beaver	6.1	32	May-June	4.4	29	18.9
	12.5	48	May-Sept	7.2	40	26.0
	15	51	Apr-Sept	9.2	43	29.4
COAL CREEK						
Coal Crk nr Cedar City	7.2	53	May-Sept	5.1	29	13.5
	9.5	57	Apr-Sept	7.0	32	16.6

(6) Change in storage plus diversion thru Strawberry tunnel.
(7) Observed flow minus diversions thru Duchesne tunnel and Weber-Provo Canal.
(8) Observed flow plus change in storage in Deer Creek reservoir, minus diversions thru Duchesne tunnel & Weber-Provo Canal, plus diversion thru Salt Lake Aqueduct.

* - Partly estimated.

STREAMFLOW FORECASTS - MAY 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1959	Measured Runoff 1958	15-Yr Av. 1943-57
SEVIER RIVER						
Sevier at Hatch	11	39	May-June	7.2	62	28
	18.5	40	May-Sept	15.7	84	46
	22	45	Apr-Sept	19.5	93	49
Sevier nr Circleville	14	41	May-Sept	11.8	75	34*
	17	40	Apr-Sept	16.0	92	43*
Sevier nr Kingston	2.2	14	May-June	1.1	43	15.9
	4.5	22	May-Sept	2.8	52	20.9
	4.5	18	Apr-June	2.9	60	24.6
	6.5	22	Apr-Sept	4.6	69	29.7
East Fork Sevier nr Kingston(9)	2.5	27	May-June	- -	30	9.1
	7.5	56	May-Sept	3.2	33	13.4
	11	52	Apr-Sept	5.2	4.9	21.3
Sevier below Piute Dam (10)	12.5	36	May-Sept	9.7	84	35
	19	37	Apr-Sept	12.5	115	51
Clear Crk nr Sevier(abv.Div.)	7	58	May-June	2.6	16.0	12.1*
	10	63	Apr-June	3.5	19.9	15.9*
Inflow						
Kingston to Vermillion Dam	19	40	Apr-June	9.0	78	47
Vermillion Dam to Gunnison	53	84	March-June	35	78	63
Salina Crk at Salina (11)	6.5	79	May-June	- -	- -	8.2*
	8	85	Apr-June	- -	- -	9.4*
Sevier nr Gunnison	35	55	Apr-Sept	31	81	64
PAVANT VALLEY						
Chalk Crk nr Fillmore	11.7	73	May-Sept	4.4	17.5	16.0*
	16	79	Apr-Sept	5.7	21.3	20.3*

(9) Observed flow plus change in storage in Otter Creek Reservoir.
(10) Observed flow plus change in storage in Otter Crk & Piute Reservoirs.
(11) Gage is below diversions near Salina.
* - Partly estimated.

STREAMFLOW FORECASTS - MAY 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Fore-cast Period	Measured Runoff 1959	Measured Runoff 1958	15-Yr. Av. 1943-57
COLORADO RIVER BASIN						
GREEN RIVER TRIBUTARIES IN UTAH						
FLAMING GORGE TO DUCHESNE RIVER						
Ashley Creek nr Vernal	38	68	May-Sept	33	52	56
	41	69	Apr-Sept	34	55	59
DUCHESNE RIVER						
Duchesne at Provo River Trail nr Hanna	30	75	May-Sept	- -	- -	40
	32	76	Apr-Sept	- -	- -	42*
Duchesne nr Tabiona (12)	83	79	May-Sept	59	108	105
	96	77	Apr-Sept	69	117	124
Rock Crk nr Mtn. Home	84	81	May-Sept	76	95	104
	88	81	Apr-Sept	80	99	109
Strawberry at Duchesne	26	40	May Sept	12.9	74	65
	35	44	Apr-Sept	17.7	85	79
Lakefork below Moon Lake (13)	60	81	May-Sept	56	74	74
	63	81	Apr-Sept	58	76	78
Uinta nr Neola	69	72	May-Sept	72	103	96
	74	73	Apr-Sept	76	108	101
Whiterocks nr Whiterocks	42	66	May-Sept	49	60	64
	45	67	Apr-Sept	51	63	67
PRICE RIVER						
Gooseberry Crk nr Scofield	7	61	May-Sept	5.8	14.4	11.4
	8.5	67	Apr-Sept	6.3	15.4	12.6
Price nr Scofield (14)	18	53	May-Sept	10.5	47	34
	25	62	Apr-Sept	14.0	51	40
Price nr Heiner (14)	28	50	May-Sept	10.7	91	56
	34	48	Apr-Sept	15.5	108	70
SAN RAFAEL RIVER						
Huntington Crk nr Huntington	33	62	May-Sept	23.3	85	53
	37	63	Apr-Sept	26.5	91	59
Cottonwood Crk nr Orangeville	44	78	May-Sept	21.0	79	56
	47	80	Apr-Sept	23.0	83	59
Ferron Crk nr Ferron	34	87	May-Sept	16.0	62	39*
	37	86	Apr-Sept	17.9	66	43*
VIRGIN RIVER						
Virgin at Virgin	15	36	May-June	10.0	102	42
	25	57	Apr-June	18.4	108	44

(12) Observed flow plus diversion through Duchesne Tunnel.
(13) Observed flow plus change in storage in Moon Lake reservoir.
(14) Observed flow plus change in storage in Scofield reservoir.
* - Partly estimated.

STREAMFLOW FORECASTS - MAY 1, 1960

BASIN, STREAM and STATION	Seasonal Streamflow in Thousands of Acre Feet					
	Forecast Runoff 1960	% 15-Yr. Av.	Forecast Period	Measured Runoff 1958	Measured Runoff 1957	15-Yr. Av. 1943-57
GREEN RIVER TRIBUTARIES IN WYOMING (Above Flaming Gorge Reservoir)						
Green at Warren Bridge, Wyo.	210	60	Apr-Sept	- -	394	348
New Fork nr Boulder, Wyoming	156	60	Apr-Sept	- -	268	260
No. Piney Crk nr Mason, Wyoming	28	68	Apr-Sept	- -	47	41
Green nr Fontenelle, Wyoming	645	65	Apr-Sept	- -	1,177	995
Green nr Linwood, Utah	765	55	Apr-Sept	- -	1,596	1,381
GREEN RIVER TRIBUTARIES IN COLORADO						
Yampa at Steamboat Springs	230	81	Apr-Sept	328	503	283
Elk at Clark	182	85	Apr-Sept	219	301	215
Little Snake nr Lily	312	89	Apr-Sept	369	479	350
White nr Meeker	270	81	Apr-Sept	390	558	335
COLORADO RIVER (Above Jnct. with Green River)						
Colorado nr Granby (15)	240	102	Apr-Sept	- -	- -	235
Willow Crk nr Granby	38	86	Apr-Sept	43	88	44
Williams Fk. Res. Nr Parshall	82	105	Apr-Sept	38	57	78
Blue above Green Mtn. Res.	265	91	Apr-Sept	262	399	290
Colorado at Glenwood Spgs.(16)	1,640	106	Apr-Sept	1,557	2,521	1,546
Roaring Fork at Glenwood Spgs.(17)	754	94	Apr-Sept	722	1,419	803
Plateau Crk nr Collbran	49	86	Apr-Sept	59	93	57
Surface Crk nr Cedaredge	16	89	Apr-Sept	23	28	18
Uncompahgre at Colona	160	110	Apr-Sept	225	249	145
Gunnison nr Grand Jct.	1,400	101	Apr-Sept	1,856	2,909	1,386
Dolores at Dolores	310	111	Apr-Sept	384	490	279
SAN JUAN RIVER						
Piedra nr Piedra	170	91	Apr-Sept	254	315	186
San Juan at Rosa	675	115	Apr-Sept	901	1,073	587
Los Pinos nr Bayfield(18)	230	105	Apr-Sept	273	394	220
Animas at Durango	520	109	Apr-Sept	626	734	475
Florida nr Durango	62	100	Apr-Sept	86	101	62
LaPlata at Hesperus	31	111	Apr-Sept	40	52	28
COLORADO RIVER - (Main Stem)						
Colorado nr Grand Canyon	6,500	81	Apr-July	9,926	12,887	8,056
	7,500	82	Apr-Sept	10,642	15,443	9,155

(15) Observed flow plus diversions by Adams tunnel and Grand river ditch plus change in storage in Granby reservoir.
(16) Observed flow plus diversions by Adams tunnel and Grand river ditch plus change in storage in Granby reservoir plus Moffat ditch.
(17) Observed flow plus diversion through Twin Lakes Tunnel.
(18) Observed flow plus change in storage in Vallecito reservoir.

STATUS OF RESERVOIR STORAGE - MAY 1, 1960

Basin and/or Stream	RESERVOIR	USABLE CAPACITY 1000s AF	USABLE STORAGE - 1000 ACRE FEET 1960	1959	1958	15-Yr.Av. 1943-57
			GREAT BASIN			
Bear River	Bear Lake	1421.0	1,039.6	1,067.4	1,102.9	921.5
Little Bear	Hyrum	15.3	15.6	15.7	11.5	14.6
Ogden	Pine View	110.0	63.7	33.5	20.0	29.3
Weber	Wanship	59.1	20.9	12.4	21.4	- - -
	Echo	73.9	52.0	49.0	51.1	54.8
	East Canyon	28.7	23.4	17.0	25.1	23.8
Provo	Deer Creek	149.7	92.3	87.5	96.1	97.8
Spanish Fork	Strawberry	270.0	117.0	163.3	166.4	150.1
Utah Lake	Utah Lake	1149.0*	515.2	633.9	710.7	691.1
Sevier River	Otter Creek	52.5	31.6	40.2	47.6	41.4
Piute	Piute	74.0	19.4	44.8	65.7	53.1
	Sevier Bridge	236.0	63.8	92.8	130.7	169.2
Beaver River	Rocky Ford	23.3	8.0	15.1	18.0	17.0
			COLORADO RIVER BASIN			
Lake Fork	Moon Lake	35.8	14.3	8.5	29.2	15.5
Price River	Scofield	65.8	10.8	34.3	40.0	23.9
Colorado	Granby	465.5	236.3	231.7	281.0	185.3
Blue	Green Mountain	146.9	53.6	42.6	46.4	52.3
Gunnison	Taylor Park	106.2	61.3	51.1	76.5	67.0
Dolores	Groundhog	21.7	7.5	6.1	19.0	9.2
San Juan	Vallecito	126.3	50.6	51.4	70.7	64.3
Little Colorado	Lyman	30.6	20.6	18.1	24.2	9.6
Colorado	Lake Mead	27,207.0	19,876.0	20,230.0	19,232.0	16,451.0
Colorado	Lake Mohave	1,810.0	1,565.5	1,650.0	1,782.0	1,515.8**
Colorado	Lake Havasu	619.4	579.0	608.2	582.3	611.7
Gila	San Carlos	1,205.0	193.8	58.6	228.0	96.1
Salt	Roosevelt	1,381.6	1,095.8	379.9	490.5	819.7
Salt	Apache	245.1	234.9	217.4	235.9	219.0
Salt	Canyon	57.9	53.8	53.9	56.0	50.1
Salt	Saguaro	69.8	61.5	66.2	62.9	53.5
Verde	Horseshoe	143.0	56.7	31.3	70.5	20.9
Verde	Bartlett	180.0	106.8	66.2	163.4	93.0
Agua Fria	Lake Pleasant	163.8	48.9	17.8	24.3	29.4

* - Active capacity taken at 3.1 feet above compromise point.
** - Less than 15 years of record in the 1943-57 period.

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.					
				Past Record			
		Date of Read. 1960	Precip-itation 1960 (In)	1959 (In)	1958 (In)	Yrs. of Record	Av. for Record Period (In.)
GREAT BASIN DRAINAGE							
Bear River above Harer, Idaho							
Monte Cristo #2 (3)	8960	4/27	2.55	New Gage		0	- -
Salt River Summit	7900	4/29	3.50	2.70	3.20	2	2.95
Stillwater Camp	8550	4/27	2.15	2.30	1.50	4	2.48
Trial Lake x	9800	4/27	2.50	4.23	3.40	8	3.25
Bear River below Harer, Idaho							
Dry Bread Pond	8230	4/27	2.85	5.20	2.53	7	3.28
Garden City Summit	7600	4/25	3.10	4.68	- -	5	3.00
Klondike Narrows	7400	4/25	3.35	2.20	4.85	5	3.54
Little Bear(upper)	6550	4/26	2.85	2.50	4.08	3	4.09
Monte Cristo #2 (3)	8960	4/27	2.55	New Gage		0	- -
Willow Flat	6100	4/28	3.23	4.50	3.95	4	4.18
Ogden River							
Ben Lomond(lower)	5850	4/28	3.10	4.80	4.74	5	4.33
Dry Bread Pond	8230	4/27	2.85	5.20	2.53	7	3.28
Monte Cristo #2 * (3)	8960	4/27	2.55	New Gage		0	- -
Sagebrush Flat	6300	4/27	2.65	3.35	1.29	4	2.56
Snow Basin	6420	4/25	3.25	5.38	- -	1	5.38
Weber River							
Chalk Creek #2	8000	4/26	3.14	3.45	3.30	7	2.35
Mt. Dell Dam * (2)	5500	4/30	1.23	1.64	3.63	25**	2.74
Parley's Canyon Smt.	7500	4/27	3.78	3.85	5.38	7	4.65
Silver Lake(Brighton)* (2)	8725	4/30	4.80	2.70	7.26	29**	3.97
Smith & Morehouse	7600	4/28	3.20	3.75	2.15	5	3.16
Trial Lake *	9800	4/27	2.50	4.23	3.40	8	3.25

(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.

(3) 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. 1960	Precipitation 1960 (In)	Past Record 1959 (In)	Past Record 1958 (In)	Past Record Yrs. of Record	Past Record Av. for Record Period (In)
Provo River & Utah Lake							
Clear Creek Ridge #2	8000	4/27	2.84	2.90	2.77	4	2.74
Daniels-Strawberry Smt.	8000	4/28	2.00	3.20	2.50	5	2.51
Dutchman R. S.	7500	4/29	2.50	2.98	4.72	4	3.61
Hobble Creek Summit	7300	4/26	2.47	3.05	3.75	5	2.72
Payson R. S.	8050	4/28	2.37	3.01	4.16	5	3.73
Soapstone R. S.	7800	4/27	1.90	2.90	3.10	5	3.04
Strawberry Reservoir - East Portal (2)	7606	4/30	1.52	1.77	1.22	11	1.49
Timpanogos Divide (2)	8200	4/29	2.55	3.15	4.05	21	3.35
Trial Lake	9800	4/27	2.50	4.23	3.40	8	3.25
Jordan River & Great Salt Lake							
Farmington Flats (4)	7500	4/29	2.91	6.28	7.36	7	5.69
Farmington Rice (4)	7000	4/29	2.80	5.69	6.60	20	5.04
Middle Canyon-Tooele	7000	4/29	2.61	3.03	4.88	3	5.54
Mt. Dell Dam (3)	5500	4/30	1.23	1.64	3.63	25**	2.74
Parley's Canyon Smt.	7500	4/27	3.78	3.85	5.38	7	4.65
Silver Lake(Brighton)(3)	8725	4/30	4.80	2.70	7.26	29**	3.97
Sevier River above Richfield							
Box Creek	9800	4/25	1.82	1.64	4.35	4	3.52
Castle Valley	9700	4/29	2.40	0.83	3.85	3	3.59
Cedar Breaks (5)	10320	4/28	3.35	New Gage		0	- -
Duck Creek R.S.	8560	4/28	2.50	1.03	4.65	8	1.99
Kimberly Mine(upper)	8900	4/26	1.44	1.36	5.06	3	5.52
Panguitch Lake (5)	8200	4/29	0.95	0.20	1.15	7	0.92
Webster Flat *	9200	4/28	3.05	1.30	6.70	8	3.29
Widtsoe-Escalante #3	9500	4/27	1.15	1.45	3.18	4	2.91
Widtsoe R. S. (5)	7600	4/27	0.36	0.70	1.05	25**	0.98

(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. 1960	Precipitation 1960 (In)	Past Record: 1959 (In)	1958 (In)	Yrs. of Record	Av. for Record Period (In)
Sevier River below Richfield Including San Pitch River							
Beaver Dams	8000	4/27	1.30	3.04	2.13	4	2.87
Farnsworth Lake	9900	4/26	2.23	3.25	4.95	4	4.62
G.B.R.C. Headquarters(3)	8700	4/28	2.76	3.05	4.15	29**	3.41
G.B.R.C. Meadows (3)	10000	4/28	3.74	2.88	5.16	24	3.66
G.B.R.C. Oaks (3)	7655	4/28	1.70	2.32	2.05	34	2.18
Gooseberry R. S.	7800	4/26	1.25	2.01	2.93	16**	2.70
Gooseberry Reservoir*	8700	4/29	3.33	3.20	4.32	6	2.98
Mammoth R. S. #2 * (2)	8600	4/29	3.58	New Gage		0	- -
Pine Creek	8700	4/26	2.62	4.92	5.78	3	4.90
Shingle Mill	6200	4/26	0.93	New Gage		0	- -
Beaver River							
Beaver Canyon P.H. (4)	7275	4/29	1.87	0.57	3.04	20	2.14
Big Flat	10000	4/26	1.45	2.55	5.25	6	3.33
Parowan Creek							
Yankee Reservoir	8700	4/27	0.75	1.90	2.87	3	3.67
Coal Creek							
Cedar Breaks (2)	10320	4/28	3.35	New Gage		0	- -
Webster Flat *	9200	4/28	3.05	1.30	6.70	8	3.29
Enterprise To New Harmony							
Little Grassy Creek	6100	4/27	0.75	0.10	- -	1	0.10
Long Flat	8200	4/27	0.50	0.80	- -	1	0.80

(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) 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. 1960	Precipitation 1960 (In)	Past Record 1959 (In)	Past Record 1958 (In)	Past Record Yrs. of Record	Past Record Av. for Record Period (In)
COLORADO RIVER DRAINAGE IN UTAH							
Upper Green River							
King's Cabin(upper)	8730	4/28	1.60	1.60	1.90	8	1.99
Duchesne River							
Currant Creek	7800	4/27	1.95	0.80	2.50	4	1.77
Daniels-Strawberry Smt.*	8000	4/28	2.00	3.20	2.50	5	2.51
Julius Park	9800	4/28	2.05	2.80	- -	1	2.80
Lakefork Mountain	10500	4/29	3.60	2.00	3.50	7	1.96
Moon Lake (2)	8150	4/29	1.80	1.15	1.83	20	1.46
Paradise Park	10100	4/28	1.95	2.70	2.30	5	2.16
Rock Creek	7900	4/27	1.30	1.15	1.55	4	1.32
Soapstone R. S.*	7800	4/27	1.90	2.90	3.10	5	3.04
Strawberry Reservoir - East Portal * (2)	7560	4/30	1.52	1.77	1.22	11	1.49
Trial Lake *	9800	4/27	2.50	4.23	3.40	8	3.25
White River #1*	8600	4/29	2.70	0.80	2.10	3	2.13
Price River							
Clear Creek (3)	8300	4/29	1.56	2.10	1.92	24	1.96
Clear Creek Ridge #2 *	8000	4/27	2.84	2.90	2.77	4	2.74
Gooseberry Reservoir	8700	4/29	3.33	3.20	4.32	6	2.98
Mammoth R. S. #2	8600	4/29	3.58	New Gage		0	- -
Mud Creek #2	8300	4/29	2.96	1.45	1.90	3	2.22
White River #1	8600	4/29	2.70	0.80	2.10	3	2.13

(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. 1960	Precipitation 1960 (In)	Past Record 1959 (In)	Past Record 1958 (In)	Yrs. of Record	Av. for Record Period (In)
San Rafael River							
Buck Flat	9400	4/25	2.00	3.90	1.60	4	3.45
G.B.R.C. Meadows * (2)	10000	4/28	3.74	2.88	5.16	24	3.66
Gooseberry Reservoir *	8700	4/29	3.33	3.20	4.32	6	2.98
Red Pine Ridge	9400	4/26	2.50	4.05	4.30	5	4.24
Stuart R. S.	7950	4/24	1.80	2.60	2.25	5	1.92
Fremont River							
Black's Flat-U.M. Creek	9250	4/22	1.67	2.06	2.98	4	3.15
Farnsworth Lake *	9900	4/26	2.23	3.25	4.95	4	4.62
Escalante River							
Widtsoe-Escalante #3	9500	4/27	1.15	1.45	3.18	4	2.91
Virgin River							
Cedar Breaks * (3)	10320	4/28	3.35	New Gage		0	- -
Duck Creek R. S.	8560	4/28	2.50	1.03	4.65	8	1.99
Webster Flat	9200	4/28	3.05	1.30	6.70	8	3.29
Lower Colorado River (Southeastern Utah)							
Buckboard Flat	9000	4/22	1.45	2.05	2.40	4	2.56
Camp Jackson	8600	4/21	0.85	1.60	2.25	4	2.40
LaSal Mountain(upper)	9400	4/21	1.60	1.90	- -	1	1.90

(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 supplied by U. S. Forest Service
(3) U. S. Weather Bureau raingage measured by SCS personnel.
* Adjacent drainage.

AVAILABLE SOIL MOISTURE

MAY 1, 1960

DRAINAGE BASIN & STATION	Station No. 1/	Elev	Soil Profile in Inches Depth	Soil Profile in Inches Cap.	Date	Soil Moisture Content In Inches about May 1 1960	1959	1958	Av.	Years of Record
COLORADO STATIONS										
ROARING FORK										
Placita	7K7*	8800	48	8.0	4/28	7.8	5.1	7.5	6.6	4
Maroon	6K25*	8400	48	8.0	4/28	7.8	8.0	7.4	7.3	6
UPPER COLORADO										
Vail	6K5*	9200	48	8.0	4/28	7.9	8.0	5.8	6.3	6
Ranch Creek	5K18M	9400	48	7.0	No Report		4.2	3.8	3.8	4
Hairpin	5K20*	9800	48	8.0	No Report		0.1	4.2	1.4	4
Vasquez Siphon	5K22*	9600	48	7.0	NO Report		6.2	5.3	5.7	4
Gore	5J15*	8900	48	7.0	4/26	6.4	7.0	6.5	6.4	4
Blue River	6K21M	10500	48	7.0	4/27	3.9	1.4	5.9	2.5	4
King	6L9*	10500	48	8.0	4/28	5.4	6.3	7.1	6.3	3
DOLORES										
Lizard Head	7M3M	10300	48	7.0	4/27	3.9	5.3	- -	- -	2
Dolores	8M1*	7500	48	7.0	4/27	4.2	2.8	- -	- -	2
Rico	7M1M	8700	48	7.0	4/27	3.5	4.7	- -	- -	2
SAN JUAN										
Mineral Creek	7M14M	10300	48	7.0	4/30	4.8	- -	6.5	- -	3
Molas Lake	7M12M	10500	48	7.0	4/30	4.4	- -	6.7	- -	3
Cascade	7M5M	8850	48	7.0	4/30	4.9	- -	6.7	- -	3

1/ * - Indicates soil moisture station only.
M - Indicates soil moisture station on snow course.

SNOW SURVEYS - ABOUT MAY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs of Record
GREAT BASIN DRAINAGE									
UPPER BEAR RIVER (Above Harer, Idaho)									
Big Park	10G11	8700	4/23	37	14.3	18.0	21.7	21.5*	8
CCC Camp x	10G7	7500	4/29	15	4.5	5.3	10.4	6.0*	10
Goodman Ranch	10J6	7900	4/27	0	0.0	0.0	T	0.9*	5
Hayden Fork	10J7	9300	4/27	23	8.8	13.4	17.3	15.7*	6
Kelly Ranger Station	10G12	8200	4/23	32	12.8	14.2	16.4	- -	4
Monte Cristo R. S.	11H12	8960	4/27	36	16.0	20.8	30.6	26.6*	9
Piney LaBarge x	10G10	8820	4/25	24	9.3	16.0	17.5	16.1	23
Poison Meadows x	10G6	8500	4/25	66	23.9	28.7	31.7	- -	4
Salt River Summit	10G8	7900	4/29	24	8.4	10.0	15.4	10.5*	7
Stillwater Camp	10J17	8550	4/27	3	0.6	6.1	9.6	6.6*	5
Trial Lake x	10J8	9800	4/27	51	21.0	24.6	30.2	30.2*	12
LOWER BEAR RIVER (Below Harer, Idaho)									
Beaver Crk-Skunk Crk.	11H14	7150	4/27	2	T	0.0	6.7	4.3*	8
Dry Bread Pond x	11H13	8230	4/27	23	9.4	9.2	18.8	14.4*	9
Franklin Basin R. S.	11G8	8000	4/25	48	19.8	24.6	35.0	- -	4
Garden City Summit	11H7	7600	4/25	23	7.2	14.9	22.0	15.6*	8
Klondike Narrows	11H1	7400	4/25	26	9.2	13.0	21.9	15.7*	5
Little Bear(lower)	11H26	5800	4/27	2	0.7	0.0	T	- -	3
Little Bear(upper)	11H25	6550	4/27	7	1.3	0.0	3.9	- -	3
Monte Cristo R. S.	11H12	8960	4/27	36	16.0	20.8	30.6	26.6*	9
Mt. Logan	11H6	9000	4/26	58	23.5	28.5	36.0	30.1**	33
Oxford Mountain	12G3	6800	No Survey			0.0	4.9	- -	4
Spring Hollow(lower)	11H4	7000	4/26	7	1.9	4.3	10.9	7.5**	20
Spring Hollow(upper)	11H5	8000	4/26	57	20.6	23.1	29.5	26.2**	33
Strawberry Creek	11G9	5800	4/29	0	0.0	0.0	8.5	- -	4
Strawberry Mink Divide	11G10	6800	4/29	14	7.3	7.6	26.0	- -	4
Tony Grove R. S.	11H3	6250	4/25	0	0.0	0.0	3.3	- -	4
Willow Flat	11G4	6100	4/28	0	0.0	0.0	7.2	- -	4
OGDEN RIVER									
Beaver Crk-Skunk Crk.	11H14	7150	4/27	2	T	0.0	6.7	4.3*	8
Ben Lomond(lower)	11H9	5850	4/28	16	7.9	0.0	13.7	3.4*	6
Ben Lomond Peak	11H8	8000	4/28	62	30.1	17.3	46.0	30.3*	9
Dry Bread Pond	11H13	8230	4/27	23	9.4	9.2	18.8	14.4*	9
Monte Cristo R. S. x	11H12	8960	4/27	36	16.0	20.8	30.6	26.6*	9
Mt. Ogden	11H10	8600	4/25	52	25.3	21.1	46.5	28.6*	9
Sagebrush Flat	11H15	6300	4/27	0	0.0	0.0	0.0	0.0*	5
Snow Basin	11H11	6420	4/25	11	3.5	0.0	16.5	4.8*	6

x - Adjacent Drainage
* - Average for period of record.
** - Average for 15-yr. period partly estimated.

SNOW SURVEYS - ABOUT MAY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yr. of Record
WEBER RIVER									
Beaver Creek R. S.	11J24	7500	4/27	0	0.0	0.0	5.7	1.1*	9
Chalk Creek #1	11J1	9100	4/26	46	17.4	22.6	23.2	24.6*	9
Chalk Creek #2	11J2	8000	4/26	23	6.5	10.7	12.7	11.6*	9
Chalk Creek #3	11J3	7500	4/26	7	1.4	0.0	3.3	1.4*	8
Lamb's Canyon x	11J14	6600	4/27	9	2.2	4.0	16.8	6.5*	9
Parley's Canyon Smt.	11J15	7500	4/27	12	4.9	5.6	19.2	10.8*	9
Redden Mine(lower)	11J6	8500	4/28	26	9.3	12.8	21.2	15.9*	9
Redden Mine(upper)	11J5	9000	4/28	27	9.8	15.2	23.2	18.1*	9
Silver Lake x	11J16	8725	4/27	35	17.4	19.2	31.3	26.0*	9
Smith & Morehouse	11J4	7600	4/28	5	1.4	T	12.2	5.8*	9
Trial Lake x	10J8	9800	4/27	51	21.0	24.6	30.2	30.2*	12
PROVO RIVER & UTAH LAKE									
Camp Altamont	11J20	7300	4/29	2	0.4	0.0	16.2	7.5*	7
Clear Creek Ridge #1	11K21	9200	4/27	24	9.8	9.2	21.6	16.9*	5
Clear Creek Ridge #2	11K22	8000	4/27	10	3.2	1.1	13.9	9.1*	5
Clear Creek Ridge #3	11K23	6600	4/27	0	0.0	0.0	1.1	0.2*	5
Daniels-Strawberry Smt.	11J23	8000	4/28	5	0.9	4.8	11.7	7.9*	8
Dutchman R. S.	11J17	7500	4/29	3	1.1	1.1	22.4	9.7*	5
Hobble Creek Summit	11J22	7300	4/26	4	1.0	0.7	11.1	5.1*	5
Packard Canyon	11J31	6400	4/26	T	T	0.0	2.1	- -	3
Payson R. S.	11K1	8050	4/28	20	7.8	4.4	22.1	11.9*	6
Rock Bridge	11K2	6750	4/28	0	0.0	0.0	12.2	5.7*	5
Soapstone R. S.	11J25	7800	4/27	0	0.0	0.0	13.1	4.7*	10
Timpanogos Divide	11J21	8140	4/29	23	10.2	8.1	28.5	18.7	19
Trial Lake	10J8	9800	4/27	51	21.0	24.6	30.2	30.2*	12
JORDAN RIVER & GREAT SALT LAKE									
Bevan's Cabin	12J2	6450	4/30	0	0.0	0.0	6.5	- -	4
Farmington Canyon(lower)	11J12	6950	4/29	36	16.8	- -	28.4	20.1*	8
Farmington Canyon(upper)	11J11	8000	4/29	52	22.5	- -	38.9	30.9*	8
Lamb's Canyon	11J14	6600	4/27	9	2.2	4.0	16.8	6.5*	9
Middle Canyon	12J3	7000	4/29	2	0.8	1.2	13.8	6.8*	6
Mill B. South Fork	11J10	7400	4/27	17	4.3	8.4	28.6	13.0*	8
Parley's Canyon Smt. x	11J15	7500	4/27	12	4.9	5.6	19.2	10.8*	9
Rocky Basin-Settlmt.Cyn.	12J1	8900	4/30	52	23.4	17.0	33.0	22.9*	6
Silver Lake	11J16	8725	4/27	35	17.4	19.2	31.3	26.0*	9
UPPER SEVIER RIVER (South of Richfield, Utah)									
Big Flat x	12L7	10000	4/26	36	13.7	9.2	32.5	20.7*	8
Box Creek	12L4	9800	4/25	14	4.1	4.0	18.7	- -	4
Castle Valley	12M13	9700	4/29	9	1.3	0.0	14.0	- -	4
Cedar Breaks	12M1	10390	4/28	20	4.1	4.7	30.1	18.2*	8

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

SNOW SURVEYS - ABOUT MAY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (in)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
UPPER SEVIER RIVER - Continued									
Duck Creek R. S.	12M4	8560	4/28	15	1.7	0.0	13.0	5.3*	9
Fish Lake	11L3	8700	4/22	0	0.0	0.0	10.5	- -	4
Harris Flat R. S.	12M5	7700	4/28	8	1.1	0.0	3.1	0.4*	8
Kimberly Mine	12L6	8900	4/26	16	7.0	3.6	20.4	- -	4
Midway Valley	12M2	9800	4/28	40	11.6	9.2	33.5	20.3*	6
Panguitch Lake	12M7	8200	4/29	1	Trace	0.0	T	T *	7
Squaw Springs	12L5	9300	4/25	00	0.0	0.0	9.3	- -	4
Widtsoe-Escalante Smt.	11M1	9500	4/27	0	0.0	0.0	8.7	2.0*	7
Widtsoe-Escalante #2	11M2	9500	4/27	8	1.8	0.0	14.0	4.4*	7
Widtsoe-Escalante #3	11M3	9500	4/27	9	2.4	0.0	- -	- -	1
LOWER SEVIER RIVER (Including San Pitch River)									
Beaver Dams	11K13	8000	4/27	4	1.5	1.1	12.0	5.4*	7
Farnsworth Lake	11L1	9900	4/26	41	16.9	10.5	25.9	18.6*	7
G.B.R.C. Headquarters	11K11	8700	4/28	23	8.2	8.9	20.9	14.7*	8
G.B.R.C. Meadows	11K10	10000	4/28	55	22.5	19.9	35.9	29.2*	8
Gooseberry R. S.	11L2	8400	4/26	11	3.6	0.0	14.0	6.6*	7
Gooseberry Reservoir	11K4	8700	4/29	37	12.7	11.4	23.9	16.2*	12
Mammoth R. S.-Cottonwd.Crk	11K3	8800	4/29	38	13.1	11.0	- -	- -	3
Middle Fork	11K34	9600	No Report			18.8	33.4	- -	4
Mt. Baldy R. S.	11K12	9500	4/27	48	19.7	16.5	32.7	23.2*	7
Pine Creek	12L1	8700	4/26	7	3.3	0.2	19.8	- -	3
Thistle Flat	11K35	8500	No Report			7.0	18.6	- -	4
BEAVER RIVER									
Big Flat	12L7	10000	4/26	36	13.7	9.2	32.5	20.7*	8
Merchant's Valley	12L9	8200	4/26	0	0.0	0.0	12.9	4.4*	8
Otter Lake	12L8	9300	4/26	5	1.3	6.4	23.0	15.2**	8
PAROWAN CREEK									
Ed Ward Flat	12M12	8300	4/27	0	0.0	0.0	6.9	1.9*	5
Yankee Reservoir	12M11	8700	4/27	0	0.0	0.0	10.7	6.0*	5
COAL CREEK									
Cedar Breaks	12M1	10390	4/28	20	4.1	4.7	30.1	18.2*	8
Midway Valley x	12M2	9800	4/28	40	11.6	9.2	33.5	20.3*	6
Urie Flat	12M10	8450	4/29	7	1.0	0.0	5.9	1.2*	5
Webster Flat	12M3	9200	4/28	15	1.6	0.7	23.3	10.8*	8

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

SNOW SURVEYS - ABOUT MAY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content(In) 1959	1958	1943-57 Av.	Prior Yrs. o Record
COLORADO RIVER DRAINAGE									
COLORADO RIVER DRAINAGES IN UTAH									
BRUSH CREEK									
King's Cabin(lower)	9J2	8600	4/28	4	1.0	3.3	7.5	4.5*	8
King's Cabin(upper)	9J1	8730	4/28	5	1.4	6.1	9.2	6.5*	8
DUCHESNE RIVER									
Daniels-Strawberry Smt.x	11J23	8000	4/28	5	0.9	4.8	11.7	7.9*	8
Julius Park	9J6	9800	4/28	17	4.0	7.9	14.6	- -	2
Lakefork Mountain	10J10	105000	4/29	25	5.3	8.9	13.0	11.6**	8
Lakefork Mountain #2	10J11	8900	4/29	11	1.8	0.0	6.1	2.0*	6
Lakefork Mountain #3	10J12	8100	4/29	5	0.6	0.0	0.6	0.2*	6
Mosby Mountain	9J5	9500	4/28	12	2.5	5.1	11.9	9.0*	6
Paradise Park	9J3	10100	4/28	20	5.4	8.4	12.8	11.8*	6
Soapstone R. S. x	11J25	7800	4/27	0	0.0	0.0	13.1	4.7*	10
Trial Lake x	10J8	9800	4/27	51	21.0	24.6	30.2	30.2*	12
White River #1 x	10K2	8600	4/29	10	1.2	2.5	13.2	- -	4
PRICE RIVER									
Corral	10K5	8200	No Report			- -	- -	- -	1
Gooseberry Reservoir	11K4	8700	4/29	37	12.7	11.4	23.9	16.2*	12
Grassy Trail Crk-Left Fk.	10K3	7970	No Report			- -	3.4	- -	2
Mammoth R.S.-Cottonwd.Crk.	11K3	8800	4/29	38	13.1	11.0	- -	- -	3
Mud Creek #2	11K33	8300	4/29	12	2.0	3.4	11.7	- -	3
Timberline	10K6	9100	No Report			- -	- -	- -	0
White River #1	10K2	8600	4/29	10	1.2	2.5	13.2	- -	4
White River #2	11K24	7600	4/29	3	0.2	0.0	T	- -	4
White River #3	11K25	7400	4/29	T	T	0.0	0.0	- -	4
SAN RAFAEL RIVER									
Buck Flat	11K31	9400	4/25	30	11.4	8.4	24.1	- -	4
Gooseberry Reservoir x	11K4	8700	4/29	37	12.7	11.4	23.9	16.2*	12
Red Pine Ridge	11K28	9400	4/26	25	9.7	7.6	21.1	14.8*	5
Rush Pond	11K38	9800	4/25	20	6.4	5.4	18.0	12.0*	5
Seely Creek R. S.	11K9	10000	4/28	36	14.2	8.4	26.1	17.1*	7
Stuart R. S.	11K27	7950	4/24	T	T	0.0	5.7	2.5*	5
Switchback	11K26	8600	4/24	19	5.8	7.6	20.3	14.0*	5
Upper Joe's Valley	11K29	8800	4/26	4	1.3	0.0	8.0	- -	3
Wrigley Creek	11K32	9000	4/25	14	3.8	0.8	11.7	5.7*	5

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

SNOW SURVEYS - ABOUT MAY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
FREMONT RIVER									
Black's Flat-U.M. Crk.	11L4	9250	4/22	15	5.5	3.0	15.8	- -	4
Farnsworth Lake x	11L1	9900	4/26	41	16.9	10.5	25.9	18.6*	7
Fish Lake	11L3	8700	4/22	0	0.0	0.0	10.5	- -	4
Johnson Valley	11L6	8850	4/22	0	0.0	0.0	8.2	- -	4
ESCALANTE RIVER									
Widtsoe-Escalante Smt.	11M1	9500	4/27	0	0.0	0.0	8.7	2.0*	7
Widtsoe-Escalante #2	11M2	9500	4/27	8	1.8	0.0	14.0	4.4*	7
Widtsoe-Escalante #3	11M3	9500	4/27	9	2.4	0.0	- -	- -	1
VIRGIN RIVER									
Cedar Breaks x	12M1	10390	4/28	20	4.1	4.7	30.1	18.2*	8
Duck Creek R. S.	12M4	8560	4/28	15	1.7	0.0	13.0	5.3*	9
Harris Flat R. S.	12M5	7700	4/28	8	1.1	0.0	3.1	0.4*	8
Midway Valley x	12M2	9800	4/28	40	11.6	9.2	33.5	20.3*	6
Webster Flat	12M3	9200	4/28	15	1.6	0.7	23.3	10.8*	8
SOUTHEASTERN UTAH DRAINAGES									
Buckboard Flat	9M1	9000	4/22	11	4.5	0.0	10.0	- -	2
LaSal Mountain(upper)	9L2	9400	4/21	28	12.1	9.0	- -	- -	1
UPPER GREEN RIVER (Above Flaming Gorge Reservoir)									
Big Park	10G11	8700	4/23	37	14.3	18.0	21.7	21.5*	8
Dutch Joe R. S.	9G5	8700	4/26	0	0.0	5.2	6.0	4.3**	21
East Rim Divide	10F17	7950	4/26	10	2.9	9.8	9.8	10.6*	14
Grennier Meadows x	8G4	9000	4/25	20	6.8	6.2	11.0	15.5	23
Gros Ventre Summit	10F19	8750	4/26	20	6.7	11.9	7.2	- -	4
Kelly R. S.	10G12	8200	4/23	32	12.8	14.2	16.4	- -	4
Kendall R. S.	10F15	7900	4/27	0	0.0	5.3	5.4	7.3**	21
Loomis Park	10F16	8500	4/26	16	6.0	13.2	11.0	13.5**	21
Mulligan Park	9G1	8900	4/26	0	0.0	6.5	9.5	8.0	24
Piney-LaBarge	10G10	8820	4/25	24	9.3	16.0	17.5	15.4	23
Poison Meadows x	10G6	8500	4/25	66	23.9	28.7	31.7	- -	4
Snyder Basin R. S. #2	10G13	8040	4/25	16	5.6	11.2	12.7	12.5*	5
Soda Lake	10G14	8300	4/27	20	8.3	15.3	15.5	17.1*	5
South Pass	8G3	9000	4/25	15	4.3	7.4	11.4	16.3	20
Triple Peaks	10G15	8500	4/27	37	16.8	26.9	26.6	- -	4

x - Adjacent Drainage
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** - Average is for 15 years nearest the base period.

SNOW SURVEYS - ABOUT MAY 1, 1960

DRAINAGE BASIN and SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS 1960 Date of Survey	Snow Depth (In)	Water Content (In)	Past Record Water Content (In) 1959	1958	1943-57 Av.	Prior Yrs. of Record
YAMPA RIVER									
Bear River	7J3	9100	4/27	3	1.2	10.8	11.6	- -	4
Clark	6J13	7800	4/28	0	0.0	4.7	7.3	- -	4
Columbine Lodge x	6J3	9300	4/25	42	13.7	28.1	28.3	21.3	24
Dry Lake	6J1	8200	4/27	20	9.6	20.7	29.1	15.2	24
Elk River	6J4	8700	4/28	24	8.8	16.8	19.7	12.8	24
Lynx Pass x	6J6	9100	4/26	8	2.8	10.0	11.1	7.5	24
Old Battle x	6H10	9800	4/28	67	27.0	29.5	35.5	34.1	24
Rabbit Ears	6J9	9550	4/28	64	28.0	- -	- -	26.1*	7
Yampa View	6J10	8500	4/27	15	6.1	15.1	16.6	8.0*	9
WHITE RIVER									
Burro Mountain	7K2	9000	4/27	41	17.0	17.0	23.2	14.6	24
Rio Blanco	7J1	8500	4/27	2	1.0	9.7	16.9	10.2	24
UPPER COLORADO RIVER (Above Glenwood Springs, Colo.)									
Arrow	5K6	9900	4/26	23	8.2	12.2	13.3	7.8	20
Berthoud Pass	5K3	9700	4/26	35	13.1	18.1	22.0	14.3	24
Berthoud Summit	5K14	11300	4/28	62	21.7	23.6	27.4	19.9*	9
Blue River	6K21	10500	4/27	8	2.3	10.9	12.5	- -	3
Cameron Pass x	5J1	10300	4/27	63	26.0	29.7	32.9	25.6	24
Cooper Hill x	6K23	10800	4/28	49	16.3	- -	- -	- -	0
Fiddler Gulch	6K5	11000	4/28	43	15.3	19.5	20.3	15.9	22
Frazer View	5K15	10600	4/28	30	11.7	15.1	17.3	11.7*	9
Fremont Pass	6K8	11400	4/27	57	19.2	17.7	21.5	18.6	24
Frisco	6K13	9300	4/27	2	0.9	7.0	10.3	5.7*	9
Glen-Mar Ranch	6K20	8850	4/26	0	0.0	6.6	9.2	4.5*	13
Gore Pass	6J11	8900	4/26	6	1.9	9.9	8.7	7.7*	9
Granby	5J16	8700	4/26	0	0.0	5.0	5.0	3.5*	11
Grand Lake	5J19	8600	4/28	4	1.3	3.1	0.0	3.8*	11
Grizzly Peak	5K9	11250	4/27	55	18.2	21.2	23.2	20.1	18
Hoosier Pass x	6K1	11400	4/27	36	11.4	15.8	17.1	11.9	24
Jones Pass	5K21	10400	4/27	38	13.5	17.0	19.2	- -	3
Kokomo	6K18	10600	4/27	35	14.0	11.5	14.4	11.3*	8
Lake Irene	5J10	10600	4/27	63	23.0	23.4	27.0	24.3	22
Lapland	5K7	9300	4/28	9	3.3	10.3	11.0	9.1	22
Lulu	5J7	10200	4/26	52	18.2	19.1	22.5	19.0	20
Lynx Pass	6J6	9100	4/26	8	2.8	10.0	11.1	7.5	24
Middle Fk. Camp Grnd.	5K4	9000	4/26	6	2.2	8.2	10.4	6.0	24
Milner Pass	5J24	10100	4/27	30	10.2	12.4	16.4	12.5*	8
Monarch Lake	5J14	8500	4/26	15	4.9	6.5	5.9	6.0*	12
N. Inlet Grand Lake	5J9	9000	4/26	10	3.3	6.7	8.2	7.0	22
Pando	6K19	9500	4/28	10	5.0	10.5	12.9	9.1*	8

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SNOW SURVEYS - ABOUT MAY 1, 1960

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UPPER COLORADO RIVER - Continued									
Phantom Valley	5J4	9300	4/28	10	2.8	5.5	10.7	6.6	24
Ranch Creek	5K18	9400	4/26	20	6.8	10.5	10.2	- -	3
Shrine Pass	6K9	10500	4/28	53	20.5	21.5	24.1	18.7	18
Snake River	5K16	9700	4/27	0	0.0	6.1	8.1	5.7*	9
Summit Ranch	6K14	10000	4/26	3	0.9	6.5	6.5	6.1**	9
Tennessee Pass x	6K2	10200	4/28	16	6.2	11.9	13.0	6.8	24
Vail Pass	6K15	10000	4/28	26	10.8	15.7	22.6	17.7*	8
Vasquez Creek	5K19	9600	4/26	30	10.9	15.6	14.1	- -	3
Willow Creek Pass	6J5	9500	4/25	24	7.6	9.9	11.8	11.5	22
ROARING FORK									
Aspen	6K22	9700	4/26	53	16.2	- -	- -	- -	0
Ind. Pass Tunnel	6K4	10200	4/29	44	15.4	18.3	21.1	17.8	24
Ivanhoe	6K10	10400	No Report			- -	18.6	18.5*	14
Lift	7K10	11250	4/26	35	10.8	- -	- -	- -	1
Nast	6K6	8700	4/28	6	1.4	1.6	2.5	1.6	23
North Lost Trail	7K1	9200	4/28	1	0.4	9.7	12.2	8.8	24
PLATEAU CREEK									
Mesa Lakes	7K4	10000	4/26	38	16.4	14.1	27.1	14.4	23
Trickle Divide	7K5	10000	Est.	69	27.0	21.0	34.5	29.4	20
GUNNISON RIVER									
Alexander Lake	7K3	10000	4/30	53	22.5	14.1	31.2	22.7	23
Blue Mesa	7L2	8700	4/29	1	0.4	0.4	- -	- -	1
Cochetopa Pass x	6L6	10000	4/28	0	0.0	0.0	7.7	2.3*	11
Crested Butte	6L1	9000	4/27	0	0.0	8.8	11.3	7.9	24
Ironton Park	7M6	9800	4/29	24	8.7	11.6	- -	7.0	23
Lake City	7M8	10300	4/28	11	3.4	3.2	11.9	3.5*	12
McClure Pass	7K8	9500	4/28	9	4.2	9.8	13.7	9.6*	10
Park Cone	6L2	9700	4/27	22	7.9	6.1	8.7	7.4	23
Park Reservoir	7K6	9500	Est.	61	23.7	18.5	30.5	25.5	20
Porphyry Creek	6L3	10700	4/28	41	15.6	17.7	21.9	16.7	20
Red Mountain Pass	7M15	11000	4/27	86	33.5	30.7	42.2	29.8*	9
Trickle Divide x	7K5	10000	Est.	69	27.0	21.0	34.5	29.4	20
DOLORES RIVER									
Lizard Head	7M3	10300	4/27	30	14.3	11.8	23.4	12.9	23
Rico	7M1	8700	4/28	0	0.0	0.0	0.0	1.3	23
Telluride x	7M2	8600	4/28	0	0.0	0.0	3.7	1.2	24
Trout Lake	7M9	9700	4/28	29	12.2	9.3	18.5	9.6*	11

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SAN JUAN RIVER									
Cascade	7M5	8850	4/27	11	3.0	0.0	10.5	2.9	24
Howardville	7M13	9800	4/27	30	9.9	6.2	14.8	6.3*	9
Ironton Park x	7M6	9800	4/29	24	8.7	11.6	- -	7.0	23
Mineral Creek	7M14	10300	4/27	35	12.1	11.4	22.6	14.7*	9
Molas Lake	7M12	10500	4/27	14	5.0	1.5	17.5	10.5*	9
Red Mountain Pass x	7M15	11000	4/27	86	33.5	30.7	42.2	29.8*	9
Silverton Sub-Station	7M4	9400	4/27	0	0.0	0.0	- -	- -	22
Spud Mountain	7M11	10700	4/27	60	20.8	13.4	35.8	25.8*	9
Upper San Juan	6M3	10000	4/27	47	19.8	18.3	34.0	30.3	24
Wolf Creek Pass x	6M1	10000	4/27	42	15.9	15.9	26.4	25.4	24
Wolf Creek Summit	6M17	11000	4/27	84	34.5	19.4	36.6	31.9*	9

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