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UTAH COOPERATIVE SNOW SURVEYS

and

WATER-SUPPLY FORECASTS

1944

by

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Utah Agricultural Experiment Station

Department of Irrigation and Drainage

Irrigation Division
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Utah State Engineer

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United States Weather Bureau

United States Park Service

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WATER SUPPLY FORECAST FOR UTAH, 1944.

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Utah Agricultural Experiment Station.

During the period from March 28 to April 1, snow surveys were completed on all of the Utah cooperative snow courses. The water content in snow storage at this time may be taken as indicative of the April-September and July-September runoff with, of course, later modification of estimates in accordance with subsequent precipitation and temperature conditions.

This report presents:

1. Forecasts of April-September and July-September runoff for the streams on whose drainage areas snow surveys have been conducted for a sufficient number of years to make it possible to forecast streamflow quantitatively.

2. A brief statement of conditions on other watersheds of the state, based on available reports.

3. A water forecast summary by drainage basins.

4. A comparison of runoff from principal Utah streams.

5. Storage in reservoirs as of April 1.

6. Results of annual snow surveys grouped according to stream basins.

7. Summary of snow course measurements 1924-1944, inclusive.

BEAR RIVER at Harer, Idaho:

There is a United States Geological Survey gaging station at Harer, Idaho. This station is about 10 miles above the Stewart Dam at which the intake to the Rainbow feeder canal is located. The record shows the 1924-43 average April - September runoff at Harer to be 204,500 acre feet, with 43,600 acre feet of this running off during the July-September period. During 1943 the runoff for these periods was 315,460 and 64,460 acre feet respectively.

The water content of the snow cover measured at the Goodman Ranch and on the headwaters of Bear River shows an increase of 10.6 percent on the lower area around the Goodman Ranch, and an increase of 11.1 percent on the higher areas, over 1943. With normal spring precipitation and temperature the runoff at Harer during the April-September period will probably not exceed 300,000 acre feet with not more than 50,000 acre feet running off during the July-September period.

BEAR RIVER at Stewart Dam:

The discharge at Stewart Dam is an approximate measure of the water available for storage in Bear Lake. It is diverted through the Rainbow Canal.

From April 1, 1943 to April 1, 1944 approximately 308,000 acre feet were available at Stewart Dam. Of this 205,000 acre feet were available during the period April-June, inclusive. During this period the level of Bear Lake arose from 5907.86 to a maximum of 5912.10 representing a net gain of approximately 264,400 acre feet. Part of this rise was due to inflow from streams tributary to Bear Lake. The low snow cover above Evanston, Wyoming this year is 10.6 greater than in 1943 and the high cover is 11.1 percent greater. With normal precipitation and temperature during the year April, 1944 to April, 1945 there should be available for storage in Bear Lake at Stewart Dam a total of approximately 285,000 acre feet of which approximately 190,000 acre feet should run off during the period April, May and June, 1944.

STREAMS TRIBUTARY TO BEAR LAKE:

The snow cover at Garden City Summit, Emigrant Summit and Monte Cristo is only 44.6 percent of that in 1943. The low snow cover is relatively heavier. It is estimated that the yield to Bear Lake from tributary streams for the period April, 1944 to April, 1945 will be approximately 100,000 acre feet.

PROBABLE MAXIMUM ELEVATION OF BEAR LAKE:

On April 1, 1944 the elevation of Bear Lake was 5910.60 feet. This is 2.74 feet higher than on the same date in 1943. The maximum elevation in 1943 was 5912.10 feet, representing a maximum storage of 626,900 acre feet. Under normal melting conditions the probable maximum elevation of Bear Lake this year will not exceed 5915.05 feet, which represents a storage capacity of 815,900 acre feet.

LOGAN RIVER DRAINAGE:

The April-September yield of the Logan River in 1943 was 173,900 acre feet with 52,500 acre feet running off during the July-September period. The 1924-43 average April-September and July-September runoff was 118,500 and 37,200 acre feet, respectively. The river was discharging on September 30, 1943, 170 c.f.s. as compared to a predicted flow of 150-175 c.f.s. The maximum discharge occurred on June 1 in the amount of 1190 c.f.s.

The high snow cover this year contains only 50 percent and the low snow cover only 40 percent of that in 1943. The heavy fall rains of 1943 filled the soil storage and the runoff yield during 1943 per unit of water in snow storage should be high. The total April-September runoff this year will probably not exceed 85,000 acre feet with approximately 26,000 acre feet running off during the July-September period. The maximum discharge will probably not exceed 600 c.f.s. with a minimum September flow of 125 c.f.s. Under normal melting conditions there should be in the Logan River on July 1 not more than 200 c.f.s.

CUB RIVER DRAINAGE:

The snow cover at Franklin Basin is representative of the conditions on the Cub River Watershed. This year that cover is only 52 percent of 1943 and 79 percent of the 1924-43 average. The snow cover at low elevations is much lighter than in 1943. The soil under the snow is wet but todate there has been no rise in streamflow. The spring flow will be much lower than in 1943 and the late season flow will fall to a critical stage.

MAPLE, HIGH, SUMMIT and PROVIDENCE CREEKS:

These drainages are all on the west side of the Bear River Range and are relatively short and steep. There is little snow on the lower slopes and the cover is light at the higher elevations. The late season flow from these streams will not be more than 50 percent of that in 1943. Little high water can be expected unless unusually high temperatures prevail during the melting season.

BLACKSMITH FORK DRAINAGE:

The snow cover on the Blacksmith Fork drainage this year is much lighter than in 1943 and amounts to only 46 percent of that in 1943 and 63 percent of the 1924-43 average. There is relatively more snow at the low than at the high elevations. The April-September yield of the Blacksmith Fork River in 1943 was 60,800 acre feet with 18,200 acre feet running off during July-September. The soil priming losses this year will be low but the light snow cover will reduce the April-September runoff to approximately 27,000 acre feet and the July-September yield to 10,000 acre feet. There will be high water on the Blacksmith Fork during 1944, and the maximum stage will probably not exceed 200 c.f.s. and with an August-September flow not exceeding 50-60 c.f.s.

LITTLE BEAR RIVER DRAINAGE:

The Little Bear River has an average elevation lower than the Blacksmith Fork. The snow cover is only 46 percent of that in 1943. There will be no high water this year and the late season flow will not exceed 50 percent of that last year. The Hyrum Reservoir will fill to capacity before the irrigation season starts.

OGDEN RIVER DRAINAGE:

The April-September yield of the Ogden River above Huntsville in 1943 was 68,870 acre feet of which 8,820 acre feet ran off during the July-September period. The snow cover at Monte Cristo and on Geertsen Creek this year averages only 56 percent of that in 1943. The low cover is relatively much heavier. The South Fork of the Ogden above Huntsville will yield during April-September of 1944 not to exceed 50,000 acre feet of which probably 6,600 acre feet will run off during July-September. On April 1 of this year the Pine View Reservoir contained 9440 acre feet out of a 41,000 acre foot capacity. The Pine View Reservoir will not fill to capacity unless unusually high temperatures cause a quick runoff. The maximum discharge this year will probably not exceed 600 c.f.s.

WEBER RIVER DRAINAGE:

The major portion of the water in Weber River comes from four main tributaries; Chalk Creek, Lost Creek, East Canyon, and the main Weber above O akley. Snow courses are located on each of these tributaries. The snow cover on the higher areas in East Canyon is 73.5 percent of that in 1943. Moisture in the earth mantle is high. The East Canyon Reservoir contained on April 1, 21,500 out of a capacity of 28,000 acre feet. The East Canyon Reservoir will fill to capacity. The Weber River above Oakley last year yielded 134,090 acre feet of which 24,500 acre feet ran off during the July-September period. The snow cover on the upper Weber River this year averages 68.2 percent of that in 1943. The low snow cover is relatively heavier than in 1943 and the soil is moist under the snow. The Weber River will yield during the April-September period this year not to exceed 105,000 acre feet of which probably 19,000 acre feet will run off during the July-September period.

The Echo Reservoir contained on April 1, 1942 a total of 24,850 acre feet. Its capacity is 74,000 acre feet. With normal precipitation and temperature conditions, the Echo Reservoir will fill this year.

Salt Lake Watersheds:

These watersheds include City, Emigration, Parley's, Big Cottonwood, and Little Cottonwood Creeks. The snow cover on these areas is represented by snow courses at Parley's Canyon Summit, Silver Lake, and Mill "D" South Fork. The average water content of the snow cover on these watersheds this year is 98 percent of that in 1943. The April-September yield of Big Cottonwood Creek in 1943 was 35,800 acre feet of which 8800 acre feet ran off during the July-September period. With a normal April-June precipitation, the yield in 1944 for the April-September period should reach 34,000 acre feet with 8,000 acre feet running off during the July-September period.

Provo River and Utah Lake Drainage:

The flow of the Provo River at the forks is affected by the storage in the Deer Creek Reservoir and the diversions from the Weber River. In 1943 the net yield of the Provo River above the forks was 167,420 acre feet for the July-September period of which some 41,700 acre feet net run off during the July-September period. The snow cover, as indicated by the April 1 surveys, has an average water content only 67 percent of that in 1943, but 92 percent of the 1924-43 average. The high areas, which furnish the most of the July-September flow, showed a water content only 60 percent of that in 1943. The probable net yield from the Provo River watershed above the forks, during the April-September period, will not exceed 112,000 acre feet as compared to 167,420 in 1943. The July-September yield will probably not exceed 25,000 acre feet. With normal spring temperatures little high water is to be expected on the Provo River this spring.

The Deer Creek Reservoir contained on April 1, 1944 some 25,000 acre feet which will aid materially in overcoming the effects of the difficient snow cover.

There are at present 419,500 acre feet of water in Utah Lake. The light snow cover this year will reduce materially the amount of water available for storage in Utah Lake and Deer Creek. Regardless of the spring runoff there is sufficient water in Utah Lake now to provide a full irrigation water supply during the 1944 season. Rigid conservation should be practiced, however, so that a reserve may be built up in Utah Lake to protect the users against future dry years.

American Fork River Drainage:

The snow storage on the American Fork River watershed this year averages only 80 percent of 1943 on the high areas but on the lower areas the cover is much heavier than in 1943. This low snow will run off during early April but there will be little spring high water. The total April-September runoff from this watershed will not exceed 80 percent of that in 1943 but will still be close to the 1924-43 average.

HOBBLE, PAYSON, SANTAQUIN CREEKS and SPANISH FORK RIVER:

The runoff to be expected from these watersheds is indicated by the snow cover at the Hobble Creek Divide, East Portal and the Mammoth Ranger Station. The average water content at these three courses is only 92 percent of that in 1943. There is relatively more low snow. The low snow will melt quickly causing some high water on these streams for a short period. The late season flow will be less than that in 1943.

STRAWBERRY RESERVOIR:

The snow cover on the Strawberry watershed above the Strawberry Reservoir is only 77 percent of that in 1943. The storage in the Strawberry Reservoir on the first of April this year was 85,025 acre feet as compared to 72,254 acre feet in 1943. The ground under the snow is well saturated. Little melting has taken place. The yield to the reservoir during the spring runoff this year should be approximately 20,000 acre feet. The maximum storage available this year should therefore be about 105,025 acre feet.

Note: 22,320 acre feet of this storage is below the reservoir outlet and therefore not available for irrigation.

SAN PITCH DRAINAGE:

The snow cover on the west side of the Wasatch Plateau which drains into the San Pitch River contains 31 percent more water than it did in 1943. Between the Utah Lake drainage on the North and the San Pitch drainage, the snow cover increases rapidly to approximately 12 percent above normal above the San Pete Valley. The water supplies in San Pete County this year should be from 25 to 35 percent better than in 1943. Unusually high melting temperatures will cause high spring floods.

SALINA CREEK DRAINAGE:

The snow storage on the Salina Creek Watershed as measured at the Gooseberry Ranger Station snow course, is approximately equal to that in 1943. The low snow is starting to melt with slight rise in streamflow. The ground moisture conditions are good and a seasonal discharge about equal to that in 1943 can be expected.

CLEAR CREEK DRAINAGE:

The snow storage on this watershed is 53 percent greater than that in 1943 and is approximately 150 percent of normal. With normal spring precipitation the runoff should exceed that in 1943 by 50 percent and considerable high spring runoff is to be expected.

MAINE SEVIER RIVER DRAINAGE:

The East Fork of the Sevier is represented by the snow courses at Fish Lake, Widtsoe-Escalante Summit and Bryce Canyon. The snow cover at Fish Lake is 115 percent of that in 1943 while at the Widtsoe-Escalante Summit the cover is nearly four times that in 1943. Last year there was no snow at Bryce Canyon on April 1. This year the snow cover contains 9.3 inches of water, or approximately 143 percent of the normal. The snow cover on the East Fork of the Sevier will average 150 percent of the normal.

On the main fork of the Sevier the high snow cover as represented by Cedar Breaks course is 115 percent of 1943, which was about a normal year. The low snow cover, as indicated by measurements at Panguitch Lake, Duck Creek R. S. Harris Flat R. S. and Gravel Springs Junction, is 17 percent more than in 1943 and 79 percent more than the average of record.

The main fork of the Sevier River can be expected to discharge at least 17 percent more than it did in 1943 and the presence of relatively large quantities of low snow may cause damaging spring floods.

The East Fork of the Sevier River will probably discharge 50 percent more water than in 1943 and unusually high melting temperatures can cause damaging floods along this stream.

The Otter Creek Reservoir contained 41,700 acre feet of water on April 1. It will fill to capacity this year.

The Piute Reservoir contained on April 1, 1944, 61,200 acre feet. Its capacity is 90,000 acre feet. The heavy snow cover on the upper reaches of the river assures the filling of this reservoir. The spillway of this reservoir should be examined and the outlet gates so controlled that the excess water above that necessary to fill the reservoir can be passed safely.

The Sevier Bridge Reservoir on April 1, 1943 contained 220,000 acre feet. On April 1, 1944 it contained 170,000 acre feet. Under normal melting conditions and with normal spring precipitation, this reservoir should fill to its capacity of 236,000 acre feet.

The Gunnison Reservoir is filled to capacity.

The natural flow rights on the Sevier River should receive from 100 to 130 percent normal flow this year. Unusually high melting temperatures may cause damaging high water in most of the tributaries of the Sevier River.

FILLMORE DRAINAGE:

The snow cover on the Fillmore watersheds this year is 174 percent of that in 1943 and 120 percent of normal. Damaging high water can be expected if unusually high melting temperatures develop.

COAL CREEK DRAINAGE:

The high snow cover on the Coal Creek watershed this year contains 113 percent of that in 1943. The earth mantle was well primed by the fall rains and this should increase the water yield from the snow cover. The April-September yield of Coal Creek in 1943 was 15,257 acre feet of which 2,447 acre feet ran off during the July-September period. It is estimated that the April-September yield in 1943 from Coal Creek will not exceed 26,000 acre feet, of which 3,000 acre feet may be expected to run off during the July-September period.

BEAVER RIVER DRAINAGE:

The snow cover on the Beaver River watershed this year is approximately 107 percent of that in 1943. The low snow cover is relatively heavier than the high snow cover. It is estimated that the April-September yield of the Beaver River during 1944 will be approximately 32,000 acre feet as compared to 26,590 acre feet in 1943. Of this 32,000 acre feet, approximately 6,300 acre feet can be expected to run off during the July-September period. With normal spring precipitation and temperatures, the maximum flow will probably not exceed 500 s.f. and the minimum may go as low as 30 s.f. Rocky Ford Reservoir contained 21,340 acre feet on April 1, 1944. With normal melting conditions this reservoir will fill to capacity this year.

VIRGIN RIVER WATERSHED:

The high snow cover on the Virgin River watershed this year is 114 percent of that in 1943. The runoff during 1943 was less than that indicated by the April 1, 1943 snow cover. This decrease in runoff resulted from defficient precipitation on the high watersheds during April, May and June of 1942. Assuming a normal spring precipitation for 1944 the main fork of the Virgin River can be expected to yield approximately 75,000 acre feet during the April-September period and 20,000 acre feet during the July-September period.

The Santa Clara Creek will probably yield 15 percent more water than in 1943.

SALT CREEK at NEPHI and PAYSON CREEK at PAYSON:

The Payson Ranger Station snow course has been measured only three years. The snow cover on this course is 135 percent of that in 1943. This snow course represents the conditions on both Salt Creek and Payson Creek watersheds. The runoff from these watersheds in 1944 will probably exceed that in 1943 by 30 to 35 percent.

PRICE RIVER DRAINAGE:

The Price River at Helper is affected by the releases from the Scofield Reservoir, as well as by the snow cover on the upper Price River watersheds. On April 1, 1944, the snow courses on the headwaters of Fish Creek showed a water content 108 percent of that in 1943. The low snow cover is much heavier, averaging 65 percent more than in 1943. The storage in the Scofield Reservoir on April 1, 1944 was 10,831 acre feet as compared with 9,400 acre feet on the same day of 1943.

Based on the April 1 snow cover above the Scofield Reservoir, the inflow to the reservoir this year during April-September should exceed that in 1943 by 50 percent.

The snow cover on the headwaters of Price River on April 1, 1943, was 108 percent of that in 1943. Assuming a normal precipitation during April-June, the runoff will be greater than that in 1943. It is estimated that 63,000 acre feet will pass Helper during the April-September period of which 26,000 feet will run off during the July-September period.

HUNTINGTON CREEK:

The discharge of Huntington Creek at Huntington this year will probably reach 56,000 acre feet for the April-September period and 14,000 acre feet during July-September. Some high water is to be expected.

COTTONWOOD CREEK:

The snow cover on the headwaters of Cottonwood Creek is almost 50 percent greater than in 1943.

The discharge of Cottonwood Creek at Orangeville this year may reach 62,000 acre feet for the April-September period and as much as 9,000 acre feet during July-September. High water is to be expected.

ASHLEY CREEK:

The April-September yield of Ashley Creek during 1943 was 53,000 acre feet, of which 17,300 acre feet ran off during the July-September period. The snow cover, as measured at King's Cabin, indicates a potential water supply 22 percent greater than in 1943. It is estimated that the April-September yield of Ashley Creek in 1944 will not exceed 65,000 acre feet of which probably not more than 20,000 acre feet will run off during the July-September period.

UINTA RIVER and WHITEROCKS CREEK:

Water in snow storage on these watersheds this year is only 87 percent of that in 1943. The April-September yield of Whiterocks Creek at Whiterocks for 1943 was 56,360 acre feet, of which 20,630 acre feet ran off during the July-September period. Assuming normal precipitation during April-June, the yield for the same period in 1944 will probably not exceed 49,000 and 17,000 acre feet, respectively.

The yield of the Uinta River at Neola during the April-September period of 1943 was 96,400 acre feet of which 42,120 acre feet ran off during the July-September period. In 1944 the yields for the same respective periods can not be expected to exceed 84,000 and 36,000 acre feet.

LAKE FORK DRAINAGE:

The snow cover on the high areas at the head of Lake Fork this year is slightly less than that in 1943. The low snow cover is relatively heavy and the ground is moist. There will be no high spring runoff and the seasonal yield with normal precipitation, will probably not exceed that in 1943.

DUSCHESNE RIVER DRAINAGE:

This stream heads near the west end of the Uinta Mountains. There are no snow courses directly on the area, but the Lost Lake snow course on the Provo River is fairly representative of the conditions on the headwaters of the Duchesne. The snow cover at Lost Lake this year is only 59 percent of that in 1943. In 1944 the April-September yield will probably not exceed 85,000 acre feet during the April-September period of which probably 18,000 acre feet will run off during the July-September period.

NORTH SIDE of the UINTA MOUNTAINS:

The snow cover on the watersheds located on the north side of the Uinta Mountains is represented by snow measurements at the Hewinta and Hole-in-the-Rock Ranger Stations. The snow cover at the Hole-in-the-Rock snow course is 126 percent of that in 1943, while at the Hewinta Ranger Station it is only 75 percent of that in 1943. There will be little high spring flow and the seasonal yield will probably be about equal to that in 1943.

BLUE MOUNTAIN AREA:

The snow cover in this area is almost 60 percent greater than in 1943. The seasonal yield with a normal spring precipitation will probably exceed that in 1943 by at least 50 percent.

LA SAL MOUNTAIN AREA:

The snow cover on the LaSal Mountains this year is practically the same as that in 1943. With normal spring precipitation, the runoff will be similar to that in 1943.

-SUMMARY-

The Utah cooperative snow surveys show an unusual distribution of moisture over the state this year. The precipitation has been relatively much heavier in the valleys than on the mountains. The heaviest storms have occurred in the southern part of the state. In general the water supplies are least favorable in the northern part of the state but get better towards the south and east.

Even though the Cache Valley streams will probably not yield more than 50 percent of the 1943 discharge there will be no critical water shortage in this area. The late season natural flow will be difficient and the water users should plan to conserve their limited supply. The flow in the Bear River above Bear Lake will approach that in 1943.

The Ogden and Weber Rivers have a large supply of water in snow storage as the storms seemed to increase in intensity from the north to the south. These streams will yield 75 - 80 percent as much water as they did in 1943.

The small streams draining the west face of the mountains between Ogden and Salt Lake City and the Salt Lake City watersheds will yield from 90-95 percent as much water as they did in 1943. There will be more high water due to a delayed rise in the melting temperatures.

The Provo River area which heads near the west end of the Uinta mountains seems to be in a pocket of difficient precipitation. It is more difficient than the Weber which has its source in the same area and much more difficient than the head waters of the Bear River. The Provo River will not yield more than 6-70 percent of that in 1943. The American Fork watershed and the other tributaries to Utah Lake will yield from 80-90 percent of that in 1943. In spite of the probable low yield from the Provo this year there will be no water shortage because of the holdover in the Deer Creek Reservoir and Utah Lake.

The potential water supplies improve south and east of Utah Lake. The Sevier River will yield a natural flow from 100-135 percent of that in 1943 and all reservoirs on the system will fill to capacity.

The potential water supply in the Fillmore area is 174 percent of that in 1943 and some damage can be expected from high spring flow.

The Beaver River will yield probably 20 percent more water than in 1943 and Coal Creek near Cedar City may yield as much as 70 percent more than in 1943. With continued high melting temperatures some damage from high water may result in the Coal Creek area.

In the Uinta Basin area the potential water supply is considerably less than in Southern Utah and less than in 1943 except in the Ashley Valley area where the potential supply is 122 percent of that in 1943. On Whiterocks Creek, Lake Fork, Uinta River and Duchesne River the yield will be less than in 1943 but not enough less to develop into a critical water shortage.

On the Virgin River and Santa Clara Creeks in southern Utah the yield will probably be 15 percent more water than in 1943.

On the east slope of the Wasatch Plateau the streams draining into Carbon and Emery Counties will yield from 110-140 percent of that in 1943 so there should be no water shortage in this area.

The major storage reservoirs in Utah have a total capacity of 3,173,000 acre feet. All of these reservoirs with the exception of Bear Lake, Utah Lake and the Strawberry Reservoir will fill to capacity this year. Utah Lake and Bear Lake both have more than 2 years supply of water in storage. On April 1, 1944 the total amount of water in storage in the major reservoirs listed in Table III was 1,452,000 acre feet.

The potential water supply for Utah during the 1944 season is thus seen to be good over the entire state except for Cache Valley and the Ogden and Weber areas. The potential shortage is not critical in either of these areas but the situation justifies careful conservation of water and a planting program that will limit somewhat the late season crops.

In spite of the quite satisfactory outlook for irrigation water supplies in the state this year, water conservation should be practiced by all users. Although the storage reservoirs have large holdover supplies these waters should be used sparingly and limited to absolute irrigation needs in order that the holdover storage may be maintained at a high level to cover future dry years which are bound to come. All water users should clean their canals immediately in order that they may take advantage of the early spring runoff where storage reservoirs are not available.

"The report on snow cover and potential water supplies this year includes a complete summary of all snow measurements that have been taken over the entire state. Keep these tabulations for your future reference as they apply to your areas."

Table I

-- FORECAST SUMMARY --

NAME OF STREAM OR BASIN	Run-off in 1000' of Acre-Feet								Expected Run-off in 1944 in percent of 1943.	
	1941		1942		1943		1944*			
	I	II	I	II	I	II	I	II	I	II
BEAR RIVER										
Bear River at Harer, Idaho	139.4	45.2	191.8	26.7	315.5	64.5	300.0	50.0	95	78
Bear Lake Drainage										
CACHE VALLEY STREAMS										
Logan River	66.8	23.0	89.8	30.8	173.9	52.5	85.0	26.0	49	49
Blacksmith Fork River	20.6	8.2	28.6	10.7	61.8	18.1	27.0	10.0	44	55
WEBER RIVER										
South Fork of Ogden River	30.5	5.7	49.4	6.6	68.9	8.8	50.0	6.6	73	75
Weber River at Oakley	100.9	20.1	124.0	20.9	134.1	24.5	105.0	19.0	78	78
SALT LAKE CITY WATERSHEDS										
Big Cottonwood Creek	40.4	9.3	43.3	9.5	35.8	8.8	34.0	8.0	95	91
PROVO RIVER										
Provo River	137.2	50.2	158.1	50.6	167.4	41.7	112.0	25.0	67	60
SEVIER RIVER										
San Pitch Tributaries									135	
Salina Creek									100	
Sevier River at Kingston	103.7	17.8	81.7	8.5	103.7	17.8			130	
INDEPENDENT STREAMS										
Fillmore Watersheds									174	
Beaver River	54.7	11.1	36.9	7.3	26.6	5.9	32.0	6.3	120	107
Coal Creek near Cedar City	36.9	4.3	27.1	3.3	15.3	2.4	26.0	3.0	170	125
UINTAH BASIN STREAMS										
Duchesne River at Tabiona	113.0	23.0	103.7	20.1	143.2	31.3	85.0	18.0	59	58
Whiterocks River at Whiterocks	96.5	26.4	80.3	23.9	56.4	20.6	49.0	17.0	87	82
Ashley Creek at Vernal	76.8	22.6	75.2	21.4	53.2	17.3	65.0	20.0	122	116
PRICE RIVER										
Price River	99.3	29.0	109.6	29.3	58.2	26.9	63.0	26.0	108	97
Huntington Creek	75.6	18.8	70.3	16.7	50.2	14.0	56.0	14.0	111	100
Cottonwood Creek	76.7	13.0	74.2	11.1	44.1	8.8	62.0	9.0	141	102
VIRGIN RIVER										
Virgin River	172.5	27.9	99.8	19.7	65.5	17.9	75.0	20.0	115	112

I - April to September, inclusive. II - July to September, inclusive * Forecasted flow

Table II

COMPARISON OF RUN-OFF FROM PRINCIPAL UTAH STREAMS
in 1000's of Acre-Feet

NAME OF STREAMS	April-September Run-off						July-September Run-off					
	1924-43 Average	1940	1941	1942	1943	Forecast for 1944	1924-43 Average	1940	1941	1942	1943	Forecast for 1944
Ashley Creek near Vernal	51.5	38.3	76.8	75.0	53.1	65.0	14.9	9.3	22.6	21.4	16.3	20.0
Bear River at Harer	204.5	39.5	139.4	191.8	315.5	300.0	43.6	13.2	45.2	26.7	64.4	50.0
Beaver River at Beaver	30.7	30.3	54.7	36.9	26.6	32.0	6.8	5.1	11.1	7.2	5.9	6.3
Big Cottonwood Creek near Salt Lake City	33.3	24.6	40.4	43.3	35.8	34.0	6.7	3.6	9.3	9.5	8.8	8.0
Blacksmith Fork at Hyrum	47.4	23.9	20.6	28.5	60.8	27.0	15.2	9.1	8.2	10.7	18.2	10.0
Coal Creek near Cedar City	23.1	13.1	36.9	27.1	15.3	26.0	3.8	3.0	4.3	3.3	2.5	3.0
Cottonwood Creek at Orangeville	58.4	24.6	76.7	74.2	44.1	62.0	9.9	3.6	13.0	11.1	8.7	9.0
Duchesne River at Tabiona	93.1	62.3	113.0	103.0	143.1	85.0	27.9	14.4	23.0	20.0	31.3	18.0
Huntington Creek near Huntington	51.9	47.2	75.6	70.3	50.2	56.0	12.9	10.5	18.8	16.7	13.0	14.0
Logan River at Logan	118.5	77.0	66.8	98.2	173.9	85.0	37.2	24.5	23.0	30.8	52.5	26.0
Ogden River, S. Fork near Huntsville	55.8	28.0	30.5	49.4	68.9	50.0	7.7	5.2	5.7	6.6	8.8	6.6
Price River near Helper	85.2	48.1	99.3	109.6	58.2	63.0	16.7	18.3	29.0	29.3	26.9	26.0
Provo River at Provo	145.2	87.4	137.2	158.1	167.4	112.0	42.8	28.3	50.2	50.6	62.9	25.0
Sevier River near Kingston	57.6	18.1	103.7	81.7			15.5	9.7	17.8	8.5		
Uinta River near Neola	96.8	58.3	156.0	124.0	96.4	84.0	40.2	22.3	57.2	47.0	42.1	36.0
Virgin River at Virgin	85.8	61.5	172.5	99.8	65.5	75.0	24.5	24.4	27.9	19.7	17.8	20.0
Weber River at Oakley	117.2	72.6	100.9	124.0	134.0	105.0	20.6	11.7	20.1	20.9	24.5	19.0
Whiterocks River near Whiterocks	59.4	33.4	96.5	80.3	56.4	49.0	20.0	11.6	26.4	23.9	20.6	17.0

AVAILABLE STORAGE IN PRINCIPAL RESERVOIRS

ACRE-FEET - APRIL 1

Table III

Reservoir	Maximum Capacity	Contents on April 1, in Acre-feet							Percent filled in 1944
		1938	1939	1940	1941	1942	1943	1944	
Bear Lake	1,420,000	582,700	794,000	678,000	406,500	370,080	463,700	533,300	37.5
East Canyon	28,000	10,640	19,700	21,000	12,650	22,000	22,000	21,500	76.8
Echo Reservoir	74,000	55,470	37,150	19,000	18,140	20,500	33,840	25,560	34.5
Gunnison	20,000	18,500	16,500	11,000	11,000	20,000	18,500	20,000	100
Hyrum	18,5644	10,430	9,950	13,200	10,000	13,200	Full	16,400	88.5
Moon Lake	30,100	5,900	29,900	15,700	21,500	30,100	21,271	16,684	55.5
Otter Creek	52,600	40,000	44,800	30,400	24,780	52,600	42,600	41,700	79.2
Pine View	41,000	26,100	10,650	17,955	6,620	8,500	22,837	9,440	23.1
Piute	90,000	78,000	67,000	59,000	51,740	64,570	73,508	61,200	68.0
Rocky Ford	25,070	19,600	18,600	10,130	12,300	21,880		21,340	38.7
Scofield	30,000	8,000	15,500	6,000	5,000	22,400	9,400	10,831	36.2
Sevier Bridge	236,000	89,500	150,000	122,820	94,000	211,500	220,000	170,000	72.0
Strawberry	278,000	81,580	88,180	54,280	33,200	44,400	72,254	85,025	30.8
Utah Lake	830,000	392,900	463,000	372,000	279,000	391,000	423,000	419,500	50.5

Table IV -(a)

UTAH COOPERATIVE SNOW SURVEYS
(Data for all Snow Courses) - 1944

SNOW COURSES BY DRAINAGE AREAS	Course Number	Elevation in Feet	Date of Survey	Depth of Snow in Inches	Water Content of Snow in Inches	Density in Percent	Corresponding Water Content 1941	1942	1943	REMARKS
CACHE VALLEY STREAMS										
Franklin Basin (Idaho)	1	8200	4-2-44	57.7	20.2	35.0	15.4	17.8	38.7	
Tony Grove Lake	2	8300	3-23-44	66.0	20.5	31.1	21.7	23.3	54.9	
Tony Grove Ranger Sta.	3	6250	3-23-44	26.5	7.0	26.4	4.6	2.8	17.6	
Spring Hollow No. 3	4	7000	4-1 -44	34.9	11.5	33.0	9.8	12.3	17.9	
Spring Hollow No. 4	5	8000	4-1 -44	59.7	16.8	28.1	18.4	21.4	35.8	
Mount Logan	6	9000	4-1 -44	58.0	17.8	31.4	19.4	22.5	41.3	
Smithfield Spring	7	7000	4-2 -44	47.1	16.1	34.2	17.1	20.3	31.8	
Garden City Summit	9	8200	3-25-44	44.7	11.9	26.6	12.8	14.1	30.5	
Blake Ranger Station	12A	8000	3-26-44	49.8	12.9	25.9	11.6	N.S.	26.1	
BEAR RIVER										
Garden City Summit	9	8200	3-25-44	44.7	11.9	26.6	12.8	14.1	30.5	
Headwaters of Bear R.	10	8600	3-27-44	38.6	8.0	20.7	5.6	6.3	7.2	
Goodman Ranch	10A	7900	3-26-44	27.3	5.0	18.3	1.6	3.1	4.7	
Monte Cristo Ran. Sta.	12	9000	3-26-44	62.0	18.3	29.5	16.4	18.2	32.7	
OGDEN RIVER										
Huntsville-Wheeler Div.	11A	5775	3-26-44	26.1	5.9	22.8	N.R.	8.7	N.S.	
Monte Cristo Ran. Sta.	12	9000	3-26-44	62.0	18.3	29.5	16.4	18.2	32.7	
Dry Bread Pond	12A	8000	3-26-44	49.8	12.9	25.9	11.6	N.S.	26.1	
Geertsen Creek	12B	8200	4-1- 44	40.6	12.9	31.4	16.7	18.7	23.0	
WEBER RIVER										
Parley's Canyon Summit	15	7500	3-30-44	50.8	16.1	31.7	16.8	19.2	21.9	
Beaver Creek Ran. Sta.	24	7500	3-24-44	27.0	6.9	25.5	4.9	7.7	13.0	
Washington Long Lake	27	10300	3-24-44	80.3	25.2	31.4	19.8	28.2	40.4	
Airway Beacon-Chalk Cr.	29	7000					Abandoned			
Smith and Morehouse	30	7600	3-30-44	42.0	13.2	31.4	9.5	14.5	17.8	

Table IV (b)

UTAH COOPERATIVE SNOW SURVEYS
(Data for all Snow Courses) - 1944

SNOW COURSES BY DRAINAGE AREAS	Course Number	Elevation in Feet	Date of Survey	Depth of Snow in Inches	Water Content of Snow in Inches	Density in per cent	Corresponding Water Content 1941	1942	1943	REMARKS
WEBER RIVER (Cont.)										
Redden Mine (Upper)	31	9000	3-30-44	59.9	19.1	31.9	15.6	21.2	26.0	
Redden Mine (Lower)	31-A	8500					15.0	20.6	24.2	
SALT LAKE WATERSHEDS										
Barnard Creek	13-A	8000	3-26-44	64.0	19.9	31.1	28.0	30.8	26.1	
Lamb's Canyon	14	6600	3-28-44	49.0	12.8	26.1	14.6	16.2	15.0	
Parley's Canyon Summit	15	7500	3-30-44	50.8	16.1	31.7	16.8	19.2	21.9	
Silver Lake	16	8725	3-28-44	82.0	27.3	33.3	19.9	26.4	35.2	
Mill D South Fork	16-A	7400	3-28-44	57.0	17.0	29.8	15.7	22.4	19.4	
PROVO RIVER & UTAH LAKE										
Dutchman Ranger Station	17	7500	3-30-44	53.6	17.8	33.2	18.1	18.9		
Timpanogos Cave Camp	18	5500	3-25-44	14.8	5.6	37.8	N.S.	3.4	N.S.	
South Fork Ranger Sta.	19	6100	3-25-44	22.0	8.8	40.0	4.9	11.4	Patchy	
Camp Altamont	20	7300	3-25-44	50.4	16.4	32.5	16.0	19.2	20.6	
Timpanogos Loop Road D	21	8200	3-25-44	67.4	23.5	34.9	21.5	25.7	30.7	
Aspen Grove	21-A	6900	3-25-44	43.9	15.9	36.2	17.8	18.3	20.6	
Y.L.M.I.A. Site	21-B	6000	3-25-44	28.9	11.4	39.5	11.5	12.2	8.6	
Hobble Creek Summit	22	7300	3-28-44	39.7	12.7	32.0	10.2	12.7	16.4	
Daniels-Strawberry Sum	23	8000	3-30-44	45.1	14.1	31.2	11.1	13.4	18.2	
Beaver Creek Ranger St	24	7500	3-24-44	27.0	6.9	35.5	4.9	7.7	13.0	
Soapstone Ranger Sta.	25	7800	3-24-44	32.6	8.8	27.0	8.7	11.7	19.2	
Trial Lake	26	9800	3-24-44	79.7	21.7	27.3	18.5	23.9	36.6	
Washington Long Lake	27	10300	3-24-44	80.3	25.2	31.4	19.8	28.2	40.4	
Lost Lake	28	9900	3-24-44	72.0	20.3	28.2	17.7	21.6	34.7	
STRAWBERRY RESERVOIR										
Daniels-Strawberry Sum.	23	8000	3-30-44	45.1	14.1	31.2	11.1	13.4	18.2	

Table IV (c)

UTAH COOPERATIVE SNOW SURVEYS
(Data for all Snow Courses) - 1944

SNOW COURSES BY DRAINAGE AREAS	Course No.	Elevation in Feet	Date of Survey	Depth of Snow in Inches	Water Content of Snow in Inches	Density in per cent	Corresponding Water Content 1941	1942	1943	REMARKS
STRAWBERRY RES. (cont)										
East Portal	33	7560	3-30-44	38.7	10.9	28.2	10.3	11.8	14.1	
East Portal-Strawberry Divide	33-A	8000	3-30-44	62.0	18.0	29.1	16.9	18.1	23.2	
NORTH SIDE UINTAH MT.										
Hewinta Ranger Station	34	9500	3-29-44	40.0	9.7	23.9	N.R.	10.7	12.9	
Hole-in-the-Rock	35	9150	3-22-44	40.0	7.7	19.2	5.0	5.8	6.1	
Beaver Meadows	67	8500					7.3	N.S.		
SOUTH SIDE UINTA MT.										
Lake Fork Mountain	36	10500	3-29-44	55.3	12.2	22.1	9.1	11.4	12.8	
Paradise Park	37	10500	3-30-44	69.8	17.3	24.8	9.6	11.7	14.8	
Mosby Mountain No. 1	38	9700	3-30-44	48.4	9.1	18.8	9.9	8.5	13.2	
Mosby Mountain No. 2	38-A	9500	3-30-44	51.3	9.5	18.5	8.7	8.7	13.9	
King's Cabin No. 1	39	8800	3-28-44	53.0	13.9	26.2	8.9	7.1	10.5	
King's Cabin No. 2	39-A	8600	3-28-44	47.6	12.5	26.8	8.9	7.1	10.7	
Indian Canyon	40	9100	3-27-44	48.2	12.0	24.9	8.7	9.2	10.6	
PRICE RIVER										
Indian Canyon	40	9100	3-27-44	48.2	12.0	24.9	8.7	9.2	10.61	
Gooseberry Reservoir	41	8700	3-28-44	53.2	17.7	33.3	20.3	20.3	16.8	
Mammoth Ranger Station	42	8800	3-28-44	59.8	20.6	34.4	21.7	22.1	19.5	
Staley Ranch	42-A	7600	3-31-44	26.6	12.8	48.1	3.9	5.3	6.5	
Dry Valley Divide	42-B	7800	3-31-44	35.5	16.0	45.7	7.3	8.3	9.0	
Clear Creek	42-C	8150	3-31-44	33.9	13.7	40.4	7.7	6.8	9.7	
Huntington Horseshoe	43	9800	3-28-44	70.2	25.2	35.9	26.9	27.1	22.7	
FILLMORE										
Pine Creek-Chalk Creek	49	8500	3-27-44	46.0	14.7	32.0	11.2	12.8	8.5	

Table IV (d)

UTAH COOPERATIVE SNOW SURVEYS
(Data for all Snow Courses) - 1944

SNOW COURSES BY DRAINAGE AREAS	Course Number	Elevation in Feet	Date of Survey	Depth of Snow in Inches	Water Content of Snow in Inches	Density in per cent	Corresponding Water Content 1941	1942	1943	REMARKS
HUNTINGTON, COTTONWOOD AND FERRON CREEKS										
G.B.E.S. Alpine	47	10240	3-28-44	72.1	21.9	30.4	22.4	25.2	16.4	
Huntington Horseshoe	43	9800	3-28-44	70.2	25.2	35.9	26.9	27.1	22.7	
Seeley Cr. R.S. No. 1	48	10000	3-28-44	71.9	21.9	30.5	21.6	25.8	17.3	
Seeley Cr. R.S. No. 2	48-A	10000	3-28-44	60.8	17.4	28.6	18.1	20.0	9.5	
SAN PITCH RIVER										
Mammoth Ranger Station	42	8800	3-28-44	59.8	20.6	34.5	21.7	22.1	19.5	
G.B.E.S. Oaks Ran. Sta.	44	7550	3-29-44	32.2	10.2	31.7	5.9	7.7	4.6	
G.B.E.S. Headquarters	45	8700	3-29-44	60.8	17.6	29.0	16.1	17.0	11.7	
G.B.E.S. Meadows	46	10000	3-29-44	78.7	22.2	28.2	21.0	25.2	18.4	
G.B.E.S. Alpine	47	10240	3-29-44	72.1	21.9	30.4	22.4	25.2	16.4	
SEVIER RIVER										
Gooseberry Ranger Sta.	50	8400	3-25-44	47.5	11.5	24.2	11.2	10.7	11.8	
Fish Lake	51	8700	3-26-44	40.5	5.3	13.1	8.2	6.7	4.6	
Kimberly Mine (Lower)	52	8300	3-30-44	52.4	16.8	32.2	10.8	14.7	10.6	
Kimberly Mine (Upper)	52-A	8900	3-30-44	62.4	21.0	33.6	14.6	18.9	14.1	
Widstoe-Escalante Sum.	53	9500	3-27-44	43.8	12.6	28.7	13.3	12.2	3.3	
Bryce Canyon	54	8000	3-25-44	31.4	9.3	29.6	7.4	6.6		
Panguitch Lake	55	8200	3-25-44	33.9	11.4	33.7	7.6	7.9	8.2	
Gravel Springs Junction	56	7500	3-25-44	28.7	11.7	40.8	8.1	[illegible]	11.0	
Harris Flat Ranger Sta.	57	7700	3-25-44	40.1	16.8	42.0	14.2	9.1	13.3	
Duck Creek Spring	58	8560	3-30-44	55.3	17.8	32.2	22.8	17.4	18.3	
Cedar Breaks	59	10200	3-31-44	76.4	29.0	38.0	25.1	24.8	25.3	
BEAVER RIVER										
Merchants Valley	63	8200	3-29-44	46.2	13.8	30.0	16.2	10.8	13.0	
Otter Lake	63-A	9300	3-29-44	52.7	18.4	35.0	19.7	15.1	17.6	
Big Flat	63-B	10000	3-29-44	66.1	22.1	33.5	23.6	19.3	20.0	

Table IV (e)

UTAH COOPERATIVE SNOW SURVEYS
(Data for all Snow Courses) - 1944

SNOW COURSES BY DRAINAGE AREAS	Course Number	Elevation in Feet	Date of Survey	Depth of Snow in Inches	Water Content of Snow in Inches	Density in Per Cent	Corresponding Water Content 1941	1942	1943	REMARKS
COAL CREEK										
Cedar Breaks	59	10200	3-31-44	76.4	29.0	38.0	25.1	24.8	25.3	
Co-op Flat	60	9500	3-24-44	66.2	23.5	35.5	21.8	21.6	20.2	
Webster Flat	61	9200	3-23-44	68.9	24.5	35.6	23.0	19.6	22.5	
VIRGIN RIVER										
Gravel Springs Junction	56	7500	3-25-44	28.7	11.7	40.8	8.1	P	11.0	
Harris Flat Ranger Sta.	57	7700	3-25-44	40.1	16.8	42.0	14.2	9.1	13.3	
Duck Creek Ranger Sta.	58	8560	3-30-44	55.3	17.8	32.2	22.8	17.4	18.3	
Cedar Breaks	59	10200	3-31-44	76.4	29.0	38.0	25.1	24.8	25.3	
Co-op Flat	60	9500	3-24-44	66.2	23.5	35.5	21.8	21.6	20.2	
Webster Flat	61	9200	3-23-44	68.9	24.5	35.6	23.0	19.6	22.5	
SANTA CLARA RIVER										
Pine Valley	62	9150	3-25-44	69.7	24.4	35.0	27.6	21.3	24.9	
LA SAL & BLUE MTS.										
La Sal Mountain	64	8500	3-25-44	40.1	10.7	26.7	10.9	15.2	10.4	
Buckboard Flat	65	9000	3-28-44	65.1	20.9	34.5	16.3	14.4	13.1	

Table V (a)

UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEER'S OFFICE

UTAH COOPERATIVE SNOW SURVEYS
April 1.

LEGEND

S - Depth of snow cover in inches
W - Water equivalent of snow cover in inches

UNITED STATES FOREST SERVICE
U.S.D.A. BUREAU OF
AGRICULTURAL ENGINEERING

Course No.	1		1-A		1-B		2		3		4		5		6		7	
Snow Survey Course	Franklin Basin El. 8200		Emmigrant Summit (Ida.) El. 7700		Slug Creek Divide (Idaho) El. 7300		Tony Grove Lake El. 8300		Tony Grove Ranger Station El. 6250		Spring Hollow No. 3 El. 7000		Spring Hollow No. 4 El. 8000		Mt. Logan El. 9000		Smithfield Spring El. 7000	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1924	72.0	25.1					77.6	31.8	24.7	10.0	53.0	15.3	75.0	21.8	80.1	25.8		
1925	60.2	28.3					72.5	35.5	Patchy		36.0	16.1	68.5	27.3	73.0	32.1		
1926	50.4	18.4					59.2	21.9	No Snow		35.5	9.4	65.5	17.6	73.0	21.9		
1927	86.0	33.8					106.5	43.5	20.3	8.5	58.2	19.3	102.0	31.5	112.0	41.5		
1928	81.0	31.7					87.2	34.9	Patchy		33.8	11.0	64.7	23.3	81.0	31.2		
1929	84.5	31.1					96.5	36.5	26.3	11.4	47.0	17.3	82.0	28.9	90.7	35.0		
1930	66.7	26.8					80.3	31.5	20.6	9.4	35.0	12.2	59.0	20.5	68.7	28.5		
1931	51.3	14.9					52.9	15.0	12.9	3.6	27.7	8.3	46.3	10.0	49.5	13.4		
1932	91.7	38.6					126.6	54.2	39.3	16.1	66.0	24.3	106.0	36.5	120.0	42.3		
1933	69.9	28.2					88.9	38.4	28.0	13.1	44.0	15.5	73.4	25.6	75.9	28.4		
1934	38.6	12.6					52.9	19.2	No Snow		No Snow		35.6	12.4	51.6	18.2		
1935	65.6	24.4					75.6	29.1	24.7	8.6*	29.8	14.5	82.0	28.9	78.7	27.9		
1936	103.0	39.7			75.1	28.0	133.1	50.5	55.4	23.5	60.6	20.6	110.3	34.8	113.9	38.3		
1937	73.1	20.8	63.5	20.1	48.9	16.4	82.1	32.5	39.2	15.2	45.4	16.2	79.8	25.0	80.3	27.4	62.6	23.8
1938	76.5	24.8	73.4	22.7	52.8	16.7	92.9	36.5	31.4	11.4	42.2	14.5	82.0	21.9	86.9	27.5	64.1	23.1
1939	49.7	20.4	43.1	17.1	24.1	9.4	57.7	25.2	13.4	5.5	24.7	8.5	57.9	19.4	53.3	20.8	43.1	17.8
1940	56.5	21.8	49.5	18.9	30.5	12.8	67.5	27.0	5.9	2.0	21.8	8.1	60.8	20.5	65.6	23.5	51.3	20.6
1941	45.3	15.4	47.5	17.7	32.6	9.7	55.8	21.7	12.4	4.6	24.5	9.8	56.9	18.4	54.3	19.4	43.2	17.1
1942	56.9	17.8	51.1	18.9	33.7	10.3	64.5	23.3	25.0	7.8	36.4	12.3	64.4	21.4	62.7	22.5	51.1	20.5
1943	108.9	38.7	91.5	34.9	64.5	23.1	131.8	54.9	46.5	17.6	49.6	17.9	96.3	35.8	102.2	41.3	72.1	31.8
1944	57.7	20.2	53.7	15.5			66.6	20.5	26.5	7.0	34.9	11.5	59.7	16.8	58.0	17.8	47.1	16.1

Table V (b)

UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEER'S OFFICE

UTAH COOPERATIVE SNOW SURVEYS
April 1.
LEGEND

S - Depth of snow cover in inches
W - Water equivalent of snow cover in inches

UNITED STATES FOREST SERVICE
U. S. D. A. BUREAU OF
AGRICULTURAL ENGINEERING

Course No.	8		9		10		10-A		11-A		12		12-A		12-B		13	
Snow Survey Course	Blacksmith Fork El. 8400		Garden City Summit El. 8200		Head of Bear River El. 8600		Goodman Ranch El. 7900		Huntsville-Wheeler Divide El. 5775		Monte Cristo Ranger Station El. 9000		Blake Ranger Station El. 8000		Geertsen Creek El. 8200		Parrish Creek El. 8000	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1930											38.3	14.6						
1931	41.6	10.4	30.1	4.4							37.0	6.5						
1932	83.8	32.3	95.3	31.4							70.4	20.2						
1933	42.7	15.0	46.6	17.7							No Record							
1934	18.8	5.5	14.8	4.9							No Record							
1935	35.3	11.7	53.6	16.4	38.6	8.7			12.7	4.4	No Record						57.0	19.0
1936	50.4	16.3	97.4	33.9	54.2	14.2			58.6	18.1	90.1	39.6	64.5	22.1	72.1	27.5	92.6	37.7
1937	46.8	10.9	57.9	18.5	31.0	8.2	16.3	3.7	40.4	15.0	61.7	18.8	54.4	13.3	64.0	23.0	79.0	29.7
1938	44.8	18.0	63.4	20.4	31.1	7.9	22.0	5.9	13.2	4.0	84.6	30.7	64.2	23.6	52.1	17.2	73.4	24.5
1939	Abandoned		46.1	16.7	22.2	9.6	No Record		10.9	3.6	53.6	20.3	31.2	11.5	40.0	14.9	47.2	17.8
1940			35.6	12.6	24.7	7.2	17.7	5.5	No Snow		52.2	17.0	35.6	10.7	49.3	17.9	61.7	24.0
1941			38.7	12.8	23.5	5.6	6.4	1.6			48.2	16.4	37.5	11.6	44.0	16.7	62.0	25.5
1942			43.6	14.1	36.7	6.3	22.7	3.1	30.3	8.7	58.1	18.2			49.2	18.7		
1943			78.4	30.5	32.5	7.2	17.9	4.7	No Snow		98.9	32.7	78.9	26.1	57.1	23.0		
1944			44.7	11.9	38.6	8.0	27.3	5.0	26.1	5.9	62.0	18.3	49.8	12.9	40.6	12.9		

Table V (c)
UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEER'S OFFICE

UTAH COOPERATIVE SNOW SURVEYS
April 1.
LEGEND

S - Depth of snow cover in inches
W - Water equivalent of snow cover in inches

UNITED STATES FOREST SERVICE
U. S. D. A. BUREAU OF
AGRICULTURAL ENGINEERING

Course No.	13-A		14		15		16		16-A		17		18		19		20	
Snow Survey Course	Barnard Creek El. 8000		Lamb's Canyon El. 6600		Parley's Canyon Summit El. 7500		Silver Lake El. 8725		Mill D South Fork El. 7400		Dutchman Ranger Station El. 7500		Timpanogos Cave Camp El. 5500		South Fork Ranger Station El. 6100		Camp Altamont El. 7300	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1931							39.8	8.9			25.1	11.3						
1932							92.0	30.1			67.3	23.5						
1933							65.6	25.0			35.7	17.9						
1934					13.5	4.4	46.8	16.4			8.8	4.7						
1935			41.5	14.1	41.2	15.0	58.6	21.0			35.8	9.5	No	Snow	9.3	4.0	34.1	11.6
1936	97.0	42.0	59.0	22.7	62.3	24.0	103.0	35.5			70.8	28.7	No	Snow	27.2	10.6	53.6	22.0
1937	85.3	33.4	50.7	18.8	58.8	19.1	80.7	24.7	55.4	19.9	65.5	25.8	No	Snow	15.0	7.5	60.3	25.3
1938	76.9	24.8	44.4	16.0	54.8	17.2	80.8	26.7	56.6	18.8	46.6	18.1	No	Snow	Patchy		46.0	19.8
1939	57.6	21.0	27.0	10.0	40.6	14.6	54.8	20.5	45.4	17.3	37.9	14.1	No	Snow	No	Snow	29.2	10.1
1940	64.2	26.1	28.6	11.5	40.1	14.4	50.4	18.4	41.9	17.3	32.9	11.0	No	Snow	Patchy		23.5	8.4
1941	72.7	28.0	41.5	14.6	45.4	16.8	59.1	19.9	45.6	15.7	44.7	18.1			10.5	4.9	39.0	16.0
1942	77.8	30.8	50.4	16.2	57.4	19.2	72.7	26.4	60.3	22.4	46.6	18.9	8.7	3.4	26.8	11.4	48.3	19.1
1943	59.2	26.1	44.2	15.0	56.4	21.9	79.5	35.2	58.2	19.4	51.6	21.3	No	Snow	Patchy		50.3	20.6
1944	64.0	19.9	49.0	12.8	50.8	16.1	82.0	27.3	57.0	17.0	53.6	17.8	14.8	5.6	22.0	8.8	50.4	16.4

Table V (d)

UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEER'S OFFICE

UTAH COOPERATIVE SNOW SURVEYS

April 1.

LEGEND

S - Depth of snow cover in inches
W - Water equivalent of snow cover in inches

UNITED STATES FOREST SERVICE
U. S. D. A. BUREAU OF
AGRICULTURAL ENGINEERING

Course No.	21		21-A		21-B		22		23		24		25		26		27	
Snow Survey Course	Timpanogos Loop Road Divide El. 8200		Aspen Grove El. 6900		Y.L.M.I.A. Site El. 6000		Hobble Creek Summit El. 7300		Daniels-Strawberry Summit El. 8000		Beaver Creek Ranger Station El. 7500		Soapstone Ranger Station El. 7800		Trial Lake El. 9800		Washington Long Lake El, 10,300	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1930									36.5	14.1								
1931									30.2	8.0	9.7	1.7	19.4	4.8	54.3	11.0	63.0	14.3
1932									56.2	20.7	29.2	9.8	52.8	14.1	93.8	29.3	104.0	36.0
1933									42.5	13.6	16.7	5.4	27.5	8.3	65.9	20.0	73.8	23.7
1934									10.3	3.5	No	Snow	Patchy	2.5	46.0	16.4	52.8	18.4
1935	48.5	16.6							40.1	12.7	19.95	6.2	33.6	9.0	72.2	23.5	79.3	28.0
1936	72.4	28.1					52.4	20.7	59.7	19.4	37.1	14.0	53.7	18.9	99.2	37.2	109.2	43.5
1937	82.3	32.2	56.8	26.7	36.0	16.0	44.2	17.6	54.7	20.9	29.2	11.0	35.9	12.0	82.9	28.9	89.6	33.6
1938	70.3	26.5	37.5	17.0	17.0	7.2	35.6	11.7	47.2	15.9	23.0	8.5	39.9	12.0	81.2	27.9	88.9	30.6
1939	39.7	15.8	26.1	10.7	13.9	5.3	19.7	7.6	31.2	10.2	12.8	4.6	25.7	7.3	59.0	21.3	68.2	24.4
1940	35.2	13.3	19.9	7.5	Patchy		26.9	10.3	30.0	10.3	10.5	3.3	26.1	8.0	59.9	19.9	69.4	23.6
1941	52.7	21.5	40.3	17.8	24.3	11.5	31.2	10.2	34.0	11.1	11.8	4.9	25.4	8.7	55.9	18.5	59.1	19.8
1942	66.9	25.7	45.6	18.3	27.8	12.2	36.7	12.7	43.0	13.4	24.8	7.7	37.1	11.7	73.4	23.9	79.6	28.2
1943	78.1	30.7	45.9	20.6	19.5	8.6	45.8	16.4	50.8	18.2	36.7	13.0	55.2	19.2	101.9	36.6	107.7	40.4
1944	67.4	23.5	43.9	15.9	28.9	11.0	39.7	12.7	45.1	14.1	27.0	6.9	32.6	8.8	79.7	21.7	80.3	25.2

Table V (e)

UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEERS OFFICE

UTAH COOPERATIVE SNOW SURVEYS

April 1.

LEGEND

S - Depth of snow cover in inches
W - Water equivalent of snow cover in inches

UNITED STATES FOREST SERVICE
U. S. D. A. BUREAU OF
AGRICULTURAL ENGINEERING

Course No.	28		30		31		33		33-A		34		35		36		37	
Snow Survey Course	Lost Lake El. 9900		Smith and Morehouse El. 7600		Redden Mine Upper & Lower El. 9000		East Portal El. 7560		East Portal-Strawberry Divide El. 8000		Hewinta Ranger Station El.9500		Hole-In-The-Rock El. 9150		Lake Fork Mountain El. 10,500		Paradise Park El. 10,500	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1929			40.0	13.3														
1930			34.6	10.6	50.3	19.2					37.1	9.2						
1931	49.9	11.6	22.3	6.6	35.8	8.6					25.9	5.5	19.7	3.4	23.5	4.5	21.8	4.7
1932	84.4	25.9	45.7	17.0	71.9	25.4					47.1	9.6	25.1	5.4	45.8	11.4	53.7	15.3
1933	59.2	18.5	35.8	11.8	51.6	18.4					40.0	8.8	16.1	4.0	30.2	8.4	30.5	9.7
1934	45.0	15.2	10.3	3.3	24.2	10.0	22.3	6.9	23.6	8.0	20.3	6.3	15.9	3.6	20.9	4.3	23.3	7.6
1935	64.7	21.5	30.6	8.8	41.1	12.8	29.7	9.0	60.7	19.3	28.4	7.1	15.9	2.8	36.8	10.1	41.8	12.1
1936	87.7	34.5	52.1	19.3	76.3	27.8	51.4	19.2	81.1	31.7	54.3	15.1	24.8	4.0	67.6	*15.8	43.5	10.7
1937	78.0	27.6	42.5	13.7	63.3	22.1	47.9	17.4	71.5	25.6	32.0	8.4	24.3	5.5	50.6	*14.1	61.8	17.5
1938	73.2	24.8	40.9	14.1	65.3	21.5	36.5	12.0	58.9	19.4	30.3	7.1	25.9	7.9	43.6	9.5	45.8	12.3
1939	57.2	19.6	28.7	9.9	43.6	17.1	21.1	8.8	45.4	17.8	29.1	6.3	19.3	5.6	28.9	5.1	28.8	7.3
1940	54.3	18.4	26.6	10.1	42.7	15.3	28.5	10.0	45.7	17.4	No Report		18.6	3.8	22.5	4.1	23.7	3.8
1941	51.4	17.7	26.7	9.5	41.7	15.3	34.0	10.3	55.4	16.9			21.6	5.0	40.5	9.1	39.9	9.6
1942	65.7	21.6	44.3	14.5	55.2	20.9	39.6	11.8	56.1	18.1	41.2	10.7	35.7	5.8	56.5	11.4	52.3	11.7
1943	91.2	34.7	48.9	17.8	66.7	25.1	42.4	14.1	68.2	23.2	38.5	12.9	27.5	6.1	50.3	12.8	45.4	14.8
1944	72.0	20.3	42.0	13.2	59.9	19.1	38.7	10.9	62.0	18.0	40.6	9.7	40.0	7.7	55.3	12.2	69.8	17.3

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Table V (f)

UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEER'S OFFICE

UTAH COOPERATIVE SNOW SURVEYS

April 1.

LEGEND

S - Depth of Snow Cover in Inches
W - Water equivalent of snow cover in inches

UNITED STATES FOREST SERVICE
U. S. D. A. BUREAU OF
AGRICULTURAL ENGINEERING

Course No.	38		39		40		41		42		42-A		42-B		42-C		43	
Snow Survey Course	Dosby Mountain Upper & Lower El. 9000		King's Cabin Upper & Lower El. 8700		Indian Canyon El. 9100		Gooseberry Reservoir Site El. 8700		Mammouth Ranger Station El. 8600		Staley Ranch El. 7600		Dry Valley Divide El. 7800		Clear Creek El. 8150		Huntington Horseshoe El. 9800	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1925							31.1	15.5										
1926							36.1	14.1										
1927							64.7	26.0	66.0	25.0								
1928							41.4	17.4	44.1	18.5							67.8	28.6
1929							68.5	27.1	64.0	18.5							110.0	45.0
1930	30.3	9.2	34.5	9.5	27.0	9.1	52.0	18.5	54.2	18.6							59.6	20.5
1931	20.4	4.4	16.2	5.5	22.9	7.2	32.2	10.3	27.0	9.5							45.6	12.6
1932	45.8	13.2	45.4	17.1	45.2	15.3	64.8	24.9	64.5	25.5							81.4	30.6
1933	25.4	8.5	18.1	4.3	28.3	9.9	51.1	20.7	52.9	20.0							64.3	22.5
1934	20.0	6.0	14.4	4.2	17.3	5.6	30.6	10.7	30.6	10.6							41.5	15.3
1935	41.0	11.5	37.8	8.7	40.6	10.0	55.2	14.0	56.4	18.7	26.3	6.0	37.2	15.7			68.5	23.2
1936	39.2	9.8	44.0	10.3	33.0	8.3	78.0	33.5	86.6	31.2	28.7	11.8	38.7	13.2	33.7	13.0	103.6	37.6
1937	56.0	15.4	42.7	12.4	55.7	14.3	72.8	24.2	78.6	26.8	26.7	10.7	40.0	11.5	31.6	12.1	83.3	28.9
1938	42.5	11.6	35.4	11.1	41.7	12.4	59.7	20.5	66.2	22.4	21.6	7.3	37.6	12.3	27.8	9.4	76.5	26.1
1939	24.5	6.4	30.8	6.6	24.0	5.4	40.4	16.0	41.8	16.8	No	Snow	No	Snow	No	Snow	56.4	21.8
1940	24.0	5.5	20.9	3.8	20.0	4.2	51.6	20.6	52.6	21.0	10.2	3.2	24.3	8.2	11.3	4.6	70.0	28.1
1941	39.6	8.9	32.7	8.9	35.3	8.7	55.2	20.3	60.3	21.7	14.5	3.9	25.8	7.3	22.4	7.7	74.4	26.9
1942	45.4	8.6	34.2	7.1	42.2	9.2	63.0	20.3	64.7	22.1	24.3	5.3	34.1	8.3	25.2	6.8	80.4	27.1
1943	42.9	13.9	31.6	10.9	35.9	10.6	50.8	16.8	52.9	19.5	24.0	6.5	31.5	9.0	24.5	9.7	64.2	22.7
1944	49.8	9.3	50.6	13.3	48.2	12.0	53.2	17.7	59.8	20.6	26.6	12.8	35.5	16.0	33.9	13.7	70.2	25.2

Table V (g)
UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEER'S OFFICE

UTAH COOPERATIVE SNOW SURVEYS

April 1.

LEGEND

S - Depth of snow cover in inches
W - Water equivalent of snow cover in inches

UNITED STATES FOREST SERVICE
U. S. D. A. BUREAU OF
AGRICULTURAL ENGINEERING

Course No.	44		45		46		47		48		49		50		51		52	
Snow Survey Course	C.B.E.S. Oaks Ranger Sta. El. 7550		G.B.E.S. Headquarters El. 8700		G.B.E.S. Meadows El. 10,000		G.B.E.S. Alpine El. 10,240		Seeley Creek Ranger Station Nos. 1 & 2 El. 10,000		Pine Creek-Chalk Creek El. 8500		Gooseberry Ranger Station El. 8400		Fish Lake El. 8700		Kimberly Mine Upper and Lower El. 8500	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1927																	35.3	14.0
1928																	31.7	14.6
1929																	43.0	16.8
1930	18.0	5.0	48.5	15.9	57.2	17.7	53.7	16.7	47.0	13.9	28.6	11.1	21.9	8.3			27.4	8.4
1931	10.8	3.0	34.3	8.0	42.6	10.8	33.3	10.0	37.1	9.8	49.8	10.8	24.7	5.9	10.9	2.5	16.4	5.7
1932	25.4	7.8	56.8	18.2	75.9	24.0	76.1	26.5	65.7	23.5	47.9	18.3	47.4	12.2	19.5	4.8	42.1	14.0
1933	21.6	6.3	45.3	15.3	60.4	21.4	54.2	19.0	51.9	17.7	40.9	12.5	31.8	7.0	6.0	3.0	26.3	10.1
1934	No	Snow	29.7	10.8	44.2	13.5	41.4	14.0	35.5	10.5	23.2	7.2	18.3	5.3	No	Snow	18.3	5.5
1935	20.4	6.1	45.5	14.4	60.4	19.4	56.2	18.1	58.1	18.9	45.1	10.9	34.0	10.0	15.2	5.9	30.4	11.0
1936	36.4	9.8	68.5	23.5	81.9	28.1	81.4	29.3	71.4	26.1	44.0	10.7	32.7	9.5	19.1	7.6	24.2	10.5
1937	26.3	8.7	54.2	18.4	66.9	21.6	63.4	20.7	59.7	19.1	57.9	16.2	46.3	12.3	31.2	7.2	61.8	20.9
1938	25.7	8.6	54.8	17.8	68.5	22.4	64.5	20.8	57.9	18.7	51.6	15.7	38.1	10.2	27.0	7.0	59.1	17.8
1939	14.0	4.2	40.7	15.3	57.1	20.8	55.6	20.5	47.2	17.0	28.4	10.6	28.5	10.3	18.3	6.1	35.8	11.0
1940	26.3	9.1	53.0	20.7	63.6	22.9	65.4	24.6	58.6	22.1	42.8	15.3	41.5	9.7	22.3	7.6	37.5	13.0
1941	19.4	5.9	45.8	16.1	65.0	21.0	61.6	22.4	58.8	20.2	31.1	11.2	37.2	11.2	26.4	8.2	44.3	13.1
1942	28.9	7.9	53.6	17.0	77.6	25.2	76.3	25.2	71.5	23.3	41.1	12.9	44.7	10.7	34.0	6.7	53.3	17.3
1943	13.3	4.6	40.0	11.7	53.1	18.4	47.1	16.4	39.9	14.0	19.6	8.5	39.5	11.8	13.8	4.6	37.2	12.8
1944	32.2	10.2	60.8	17.6	78.7	22.2	72.1	21.9	67.3	20.1	46.0	14.7	47.5	11.5	40.5	5.3	43.8	12.6

Table V (h)
UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEER'S OFFICE

UTAH COOPERATIVE SNOW SURVEYS
April 1.

UNITED STATES FOREST SERVICE
U. S. D. A. BUREAU OF
AGRICULTURAL ENGINEERING

Legend
S - Depth of Snow cover in inches
W - Water equivalent of snow cover in inches

Course No.	53		54		55		56		57		58		59		60		61	
Snow Survey Course	Widtsoe Escalante Summit El. 9500		Bryce Canyon El. 8000		Panguitch Lake El. 8200		Gravel Springs Junction El. 7500		Harris Flat Ranger Station El. 7700		Duck Creek Ranger Station El. 8560		Cedar Breaks El. 10,200		Co'op Flat El. 9500		Webster Flat El. 9200	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1927					No Snow										51.3	18.3	37.1	14.4
1928					Patchy										38.4	15.4	30.1	12.0
1929					Patchy										43.0	15.6	43.6	12.1
1930					No Snow										33.4	11.8	29.7	9.6
1931					No Snow				11.4	3.6					19.3	6.7	23.8	8.3
1932	31.0	11.0			30.9	10.2			42.8	16.4					55.4	22.7	70.1	28.7
1933	21.2	6.3			19.8	5.4			24.8	8.3					43.6	13.7	43.6	13.6
1934	6.7	2.1			Patchy				5.6	2.5					18.0	7.4	22.0	8.5
1935	36.5	9.5	32.0	8.4	25.5	6.5	15.0	6.0	44.0	14.1	59.8	20.5	68.7	23.1	53.3	18.1	53.0	18.0
1936	15.3	5.0	No Record		13.1	4.2	10.6	3.3	34.0	10.5	43.3	15.2	68.0	24.3	47.6	16.8	48.3	18.7
1937	49.0	14.7	38.3	13.6	34.8	11.5	41.2	13.7	59.8	21.2	79.8	28.9	109.2	41.2	84.6	31.2	83.0	30.0
1938	34.0	11.1	20.5	8.5	22.9	9.9	19.2	8.8	31.6	13.4	60.2	20.1	86.5	29.1	60.8	24.3	73.8	27.6
1939	19.8	7.4	6.2	3.9	14.0	6.0	No	Snow	8.3	3.6	28.8	10.1	58.8	18.7	34.4	13.1	39.3	14.0
1940	15.5	4.5	No	Snow	5.5	3.1	No	Snow	Patchy		17.5	7.0	51.5	16.0	28.4	10.9	28.9	11.0
1941	36.6	13.3	18.6	7.4	18.4	7.6	22.0	8.1	38.1	14.2	53.1	22.8	67.5	25.1	57.4	21.8	59.8	23.0
1942	35.3	12.2	20.1	6.6	23.4	7.9	Patchy		29.0	9.1	66.2	17.4	75.0	24.8	63.8	21.6	57.5	19.6
1943	11.3	3.3	No	Snow	16.9	8.2	17.9	11.0	26.5	13.3	48.3	18.3	66.3	25.3	53.3	20.2	57.5	22.5
1944	43.8	12.6	31.4	9.3	33.9	11.4	28.7	11.7	40.1	16.8	55.2	17.8	76.4	29.0	66.2	23.5	68.9	24.5

Table V (i)

UTAH AGRICULTURAL EXPERIMENT STATION
UNITED STATES WEATHER BUREAU
STATE ENGINEER'S OFFICE

UTAH COOPERATIVE SNOW SURVEYS

April 1.

LEGEND

S - Depth of snow cover in inches
W - Water equivalent of snow cover in inches

UNITED STATES FOREST SERVICE
U. S. D. A. BUREAU OF
AGRICULTURAL ENGINEERING

Course No.	62		63		63-A		63-B		64		65		68		72		73	
Snow Survey Course	Pine Valley El. 9150		Merchants Valley El. 8200		Otter Lake El. 9300		Big Flat El. 10,000		La Sal Mountain El. 8500		Buckboard Flat El. 9000		Payson Ranger Station El. 8400		Snow Basin El. 6525		Brown Duck Lake El. 11800	
YEAR	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
1930											27.3	10.9						
1931			14.3	4.6					21.5	5.6	27.3	10.5						
1932			36.6	10.5					24.4	5.6	55.9	15.9						
1933			25.2	6.2					21.0	7.5	29.7	6.5						
1934			13.1	4.8					Patchy		25.8	6.5						
1935	61.8	15.8	38.5	11.1					26.7	7.7	56.9	15.8						
1936	No	Record	37.8	14.9	54.0	18.0	66.2	23.1	22.7	4.1	28.2	7.9						
1937	82.1	23.7	51.4	16.8	74.5	23.0	89.4	26.4	37.2	11.2	72.1	24.4						
1938	60.8	23.8	42.6	14.6	59.3	20.7	70.7	23.4	30.5	7.8	51.2	14.4						
1939	39.9	14.1	14.4	6.1	34.3	11.3	44.3	13.9	22.4	6.8	33.2	13.8						
1940	38.9	16.1	31.8	12.5	49.7	17.8	56.6	20.7	28.3	9.3	22.5	7.5						
1941	80.7	27.6	46.1	16.2	57.6	19.7	72.0	23.6	35.1	10.9	48.7	16.3						
1942	61.1	21.3	39.5	10.8	53.3	15.1	67.7	19.3	48.8	15.2	46.5	14.4	50.9	19.4	50.9	18.9	49.5	11.3
1943	65.9	24.9	35.9	13.0	49.3	17.6	59.8	20.0	34.8	10.4	40.5	13.1	44.5	15.8	49.0	17.6	68.1	19.9
1944	69.7	24.4	46.2	13.8	52.7	18.4	66.1	22.1	40.1	10.7	65.1	20.9	63.8	21.3	44.1	11.6	65.1	15.7

mcL

REPORT OF SNOW COVER
on
CACHE VALLEY WATERSHEDS

April 1, 1944

George D. Clyde, Irrigation Engineer
Utah Agricultural Experiment Station

Precipitation during March on the valley floor was considerably above normal, 2.59 inches compared to an average of 1.89 inches. However, the accumulated precipitation on the valley floor since October 1, 1943 is below normal. The storms yielding the high precipitation during March did not extend to the high watersheds and as a result there exists on the high watersheds a marked difficiency of snow cover.

The annual snow surveys on the Cache Valley Watersheds were completed on March 31. These surveys show water in snow storage only 45 per cent of that in 1943 and 71 per cent of the 1924-43 average. At the Monte Cristo Ranger Station, on the head waters of the Ogden and Blacksmith Fork Rivers the water content of the snow cover is only 56 per cent of that in 1943 and totals 18.3 inches. The Mount Logan snow courses show a water content at 7000, 8000, and 9000 feet elevation of 11.5, 16.8, and 17.8 inches, respectively. The normal April 1 water content for these courses is 13.5, 24.1, and 28.3 inches respectively. The water content at each of these courses on April 1, 1943 was 17.9, 35.8 and 41.3 inches respectively. These data indicate an average water content of the snow cover on Mt. Logan this year equal to 70 per cent of the 1924-43 average and 49 per cent of that on April 1, 1943.

At Franklin Basin on the head waters of the Logan River, the water content of the snow cover is 20.2 inches compared to 38.7 inches on April 1, 1943, and an average of 25.7 inches. The snow cover on the upper reaches of the Logan River watershed this year is therefore about 78 per cent of the 1924-43 average and 52 per cent of that on April 1, 1943.

At the Tony Grove Ranger Station, elevation 6250 feet, the water content of the snow cover is only 40 per cent of that on April 1, 1943 and 83 per cent of the 1924-43 average. This means that in the absence of unusually high spring temperatures there will be little high water during the spring runoff this year.

Precipitation during the fall of 1943 maintained the ground storage at a high level and the soil under the snow is now well primed. In spite of the extremely low temperatures during the past winter there has been some melting next to the ground. The density of the snow is fairly high and melting with normal temperatures will be quite rapid. The melting that has taken place has been absorbed by the soil and none of the streams have started to rise. A sudden rise in temperature would cause a quick increase in stream discharge but the maximum flow this year from the northern Utah streams is not expected to be large.

In 1943 the runoff forecast for the April to September period on the Logan River was 190,000 acre feet. The actual runoff was 174,000 acre feet. The July to September forecast was 56,000 acre feet and the actual runoff was 52,500 acre feet, indicating a very reasonable accuracy of forecast. This year with a normal precipitation during April and May the April to September runoff from the Logan River should be approximately 85,000 acre feet with 26,000 acre feet of this running off during the July to September period. This runoff will be equal to 72 per cent of the 1924-43 average April to September runoff and 70 per cent of the 1924-43 average July to September runoff.

The runoff from the Logan River for the 1944 season will approach that which occurred in 1939 and 1940. Under normal melting conditions the high water flow from the Logan this year should not exceed 600 c.f.s. and there should be in the river at the end of the irrigation season not less than 125 c.f.s.

The snow cover on the Blacksmith Fork and the Little Bear River watersheds this year is only 46 per cent of that in 1943 and 63 per cent of the average. There is relatively more snow at the low elevations than the high elevations. The Blacksmith Fork River will probably discharge 27,000 acre feet during the April-September period this year as compared to 62,000 acre feet in 1943. Of this 27,000 acre feet, probably not more than 10,000 acre feet, will run off during the July to September period. This represents only 72 per cent of the 1924-43 April to September average and 67 per cent of the 1924-43 July to September average.

The short streams draining the west face of the Bear River range will discharge little high water this spring and the April to September discharge will probably not exceed 50 per cent of that in 1943. In spite of difficient snow cover the Hyrum Reservoir will fill to capacity.

Snow surveys on the head waters of the Bear River show 11 per cent increase in water content over that in 1943. The low snow cover is heavier than in 1943 with more snow in the vicinity of Evanston than there was a year ago. The extremely high cover in the vicinity of Mt. Baldy is only 59 per cent of that in 1943. The runoff available for storage in Bear Lake will probably equal that in 1943 but the late season natural flow of Bear River above Randolph will be much less. Bear Lake has a hold over storage of 5 000 000 acre feet and the Hyrum Reservoir will fill.

~~Although the snow cover on the Northern Utah watersheds is only approximately 50 per cent of that in 1943 and 72 per cent of a twenty year average there will be no critical water shortage in Northern Utah this year.~~ Bear Lake has a hold over storage of over 500,000 acre feet and the Hyrum reservoir will fill. The natural flow users will be forced to conserve water carefully. Irrigation canals should be cleaned early and control structures repaired. The runoff in 1944 from Northern Utah streams will closely approximate that in the years 1939 and 1940. ~~[illegible]~~

The following tabulation shows the snow cover on Mt. Logan and the April to September runoff since 1915.

Year	Stake No. 3*		Stake No. 4*		Stake No. 5*		Logan River Runoff (Acre-feet) April 1 to Sept. 30, Inclusive.
	Depth of Snow and Water Content (inches)						
	Snow	Water	Snow	Water	Snow	Water	
1915	16.0	----	44.0	----	47.0	----	87,000
1916	42.0	----	84.0	----	124.0	----	180,000
1917	66.0	----	89.0	----	96.0	----	191,000
1918	31.0	----	65.0	24.6	75.0	23.6	139,000
1919	28.0	5.6	53.0	10.6	67.0	12.4	110,000
1920	55.0	13.7	84.0	18.0	92.0	18.0	183,000
1921	46.0	11.5	67.0	16.0	81.0	30.0	225,000
1922	55.0	16.0	78.0	23.0	98.0	29.0	186,000
1923	55.0	16.5	75.0	23.5	102.0	29.0	189,000
1924	54.0	15.3	74.0	21.5	86.0	32.5	118,000
1925	36.0	15.2	68.0	27.3	73.0	32.1	134,000
1926	36.0	9.4	65.0	17.6	73.0	21.9	95,000
1927	58.0	18.2	102.0	31.5	112.0	41.5	144,000
1928	34.0	11.0	65.0	23.3	81.0	31.2	139,000
1929	47.0	17.3	82.0	28.8	90.7	35.0	152,000
1930	35.0	12.2	60.0	20.7	67.0	29.4	105,210
1931	28.0	8.3	46.0	10.0	49.5	13.4	55,060
1932	66.0	24.3	106.0	35.5	120.0	42.5	196,000
1933	44.0	15.3	73.4	25.6	75.9	28.4	105,000
1934	No snow--		35.6	12.4	51.6	18.2	50,700
1935	39.5	14.5	32.0	26.9	78.7	27.9	114,500
1936	60.6	20.6	110.3	34.8	113.9	38.3	200,000
1937	45.4	16.2	79.8	25.0	80.3	27.4	119,360
1938	42.2	14.5	82.0	21.9	86.9	27.5	147,000
1939	24.7	8.5	57.9	19.4	53.3	20.2	92,525
1940	21.8	8.1	60.8	20.5	65.6	23.5	77,000
1941	24.5	9.8	56.9	18.4	54.3	19.4	66,800
1942	36.4	12.8	64.4	21.4	62.7	22.5	89,800
1943	46.5	17.6	96.3	35.3	102.2	41.3	173,870
1944	34.9	11.5	59.7	16.8	58.0	17.8	85,000 (Forecast)

J-January
F-February

WATER CONTENT SNOW COVER
at
KEY STATIONS in INCHES

M-March
A-April
M-May

No.	1				2				3				4					5				
	Franklin Basin				Tony Grove Lake				Tony Grove Ranger Station				Spring Hollow No. 3					Spring Hollow No. 4				
Elev.	8200				8300				6250				7000					8000				
Month	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	M	J	F	M	A	M
1924				25.1				31.8				10.0				15.3	0.0		10.3	11.6	21.8	20.5
1925				28.3				35.5				0.0	7.2	10.5	14.6	16.1	0.0	8.4	14.0	24.1	27.3	23.4
1926				18.4				21.9				0.0	2.5	6.1	11.6	9.4	0.0	3.1	8.8	15.6	17.6	0.0
1927				33.8				43.5				8.5	5.0	10.7	16.0	19.3	13.0	10.0	14.5	25.0	31.5	29.0
1928				31.7				34.9				0.0	7.0	8.1	10.5	11.0	0.0	12.7	13.5	16.7	23.3	22.0
1929				31.1				36.5				11.4	8.5	12.5	17.1	17.3	14.0	9.4	17.3	22.0	28.9	32.0
1930				26.8				31.5				9.4	2.2	8.7	11.6	12.2	0.0	3.6	10.0	17.0	20.5	13.8
1931				14.9				15.0				3.6	4.8	6.8	8.0	8.3	0.0	6.6	7.3	8.6	10.0	11.9
1932				38.6				54.2				16.1	9.9	13.5	18.3	24.3	15.2	11.2	18.2	27.0	36.5	39.2
1933				28.2				38.4				13.3	5.3	9.1	12.6	15.5	11.5	8.3	12.5	18.8	25.6	28.2
1934				12.6				19.2				0.0	4.7	6.2	6.5	0.0	0.0	6.6	9.5	10.2	12.4	0.0
1935				24.4				29.1				8.6	5.3	8.8	10.8	14.5	8.5	11.7	17.6	17.4	28.9	28.5
1936				39.7				50.5				23.5	5.2	12.1	19.9	20.6	6.1	8.1	19.6	32.0	34.8	35.1
1937				20.8				32.5				15.2	4.9	7.5	15.1	16.2	14.7	7.9	12.0	20.6	25.0	31.4
1938				24.8				36.5				11.4	2.8	5.6	9.4	14.5	0.0	7.9	9.9	15.3	21.9	22.4
1939				20.4				25.2				5.5	5.7	7.9	12.7	8.5	0.0	9.1	11.9	17.3	19.4	15.2
1940				21.8		12.0	29.7	27.0		4.2	6.8	2.0	1.2	5.9	9.5	8.1	0.0	1.6	8.1	16.1	20.5	18.8
1941				15.4		15.8	21.3	21.7		6.0	8.3	4.6	5.3	7.7	10.8	9.8	4.8	8.4	11.8	16.1	18.4	20.5
1942			17.0	17.8	9.4	14.3		23.3	3.2	5.7		7.8	5.1	7.2	10.9	12.3	0.0	8.3	12.4	18.1	21.4	17.2
1943				38.7			45.3	54.9		11.6	15.5	17.6	8.7	13.7	16.5	17.9	0.0	14.3	23.8	30.2	35.8	26.7
1944													2.6	4.5	6.5	11.5	9.9	4.9	8.1	10.5	16.8	23.8
1945								27.2					4.5	5.3	9.5	12.0	10.0	6.4	8.6	14.0	20.2	22.3
1946				30.2				37.4				6.8	8.1	9.5	15.2	13.1	0.0	15.5	18.3	22.4	30.0	25.2
1947													5.9	9.1				12.1	15.6	20.9		
1948																						
1949																						
1950																						
1951																						
1952																						
1953																						
1954																						
1955																						
1956																						
1957																						
958																						
959																						

J-January
F-February

WATER CONTENT SNOW COVER
at
KEY STATIONS in INCHES

M-March
A-April
M-May

No.	6					9				13-A				14				16				
	Mt. Logan					Garden City Summit				Barnard Creek				Lamb's Canyon				Silver Lake				
Elev.	9000					8200				8000				6600				8725				
Month	J	F	M	A	M	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	M
1924		13.7	18.8	25.8	21.2																	
1925	14.6	19.3	24.9	32.1	28.3																	
1926	5.4	10.9	18.0	21.9																		
1927	12.9	20.8	34.5	41.5	36.8																	
1928	17.3	22.4	23.1	31.2	27.3																	
1929	11.0	21.2	28.1	35.0	37.0																	
1930	5.0	15.0	22.7	28.5	18.3																	
1931	6.1	8.8	11.1	13.4	14.2				8.4													
1932	12.7	20.1	32.6	42.3	44.1				31.4													
1933	8.8	15.5	25.0	28.4	29.0				17.7													
1934	7.1	10.2	12.7	18.2					4.9													
1935	11.9	18.5	20.1	27.9	30.1				16.4								14.1	11.6	15.4	17.0	21.0	
1936	7.5	20.9	34.6	38.3	37.8				33.9								22.7	5.1	13.0	31.7	35.5	
1937	8.2	13.4	22.2	27.4	32.1				18.5					6.0	11.7	16.7	18.8	7.9	13.0	22.0	24.7	
1938	8.7	11.9	16.4	27.5	25.3				20.4					4.0	7.5		16.0	5.4	10.2	16.5	26.7	
1939	10.3	13.7	21.6	20.8	15.9				16.7					7.2	9.4	17.1	10.0	8.8	12.9	19.1	20.5	
1940	1.9	10.2	18.4	23.5	22.0		8.5	12.8	12.6						7.0	12.2	11.5		8.2	15.2	18.5	
1941	9.1	14.3	18.1	19.4	23.2		6.9	12.4	12.8		9.8			7.7	11.1	13.9	14.6	9.7	12.6	20.1	19.9	
1942	8.9	13.6	19.7	27.5	17.7	5.7	9.5		14.1					5.8	10.0	13.2		12.3	17.2	22.2	26.4	
1943	17.5	27.3	34.5	41.3	28.2	14.5	19.6	27.2	30.5		16.4			8.8	10.4	15.8		13.5	19.8	29.1	35.2	
1944	5.5	7.5	10.9	17.8	28.2													6.7	10.2	14.5		
1945	8.0	9.1	16.4	22.8	26.6													9.4	10.5	20.5	27.5	
1946	18.7	23.1	27.4	36.1	27.5				26.1				22.5			14.2	16.6	14.0	16.4	18.5	23.8	
1947	12.9	17.3	21.8															12.0	16.1			
1948																						
1949																						
1950																						
1951																						
1952	[illegible]	15.7																				
1953																						
1954																						
1955																						
1956																						
1957																						
1958																						
1959																						

J-January
F-February

WATER CONTENT SNOW COVER at KEY STATIONS in INCHES

M-March
A-April
M-May

No.	16-A				19				20				21					23				
	Mill D South Fork *				South Fork Ranger Station *				Camp Altamont				Timpanogos Divide *					Strawberry Daniels *				
Elev.	7400				6100				2300				8200					8000				
Month	J	F	M	A*	J*	F*	M*	A*	J	F	M	A	J	F	M	A*	M	J*	F*	M*	A*	M
1924																						
1925																		1.7	4.8	8.0		
1926																		9.0	3.3	7.7	3.5	
1927																			10.5	18.3	20.0	
1928																		3.5	8.5	9.0		
1929																			9.3	13.0	14.1	
1930																			5.1		14.1	
1931																		4.8	6.4	6.1	8.0	
1932																		10.0	15.8	21.8	20.7	
1933																		3.4	9.8	12.8	13.6	
1934																		5.5	6.9	8.8	3.5	
1935						5.2	4.8	4.0		9.8	10.7	11.6		11.5	13.9	16.6		5.6	9.7	10.8	12.7	
1936						9.3	15.2	10.6	2.3	10.9	23.4	22.0	2.8	12.0	28.4	28.1		2.2	7.4	20.4	19.4	
1937				19.9	3.1	6.4	8.4	7.5	9.0	13.7	23.1	25.3	11.1	16.2	28.3	32.2		7.1	12.2	20.4	20.9	
1938				16.8		2.4	4.6		3.5	6.7	12.8	19.8	5.7	8.4	17.2	26.5		4.0	6.1	11.5	15.9	
1939				17.3	3.3	5.2	8.0		4.7	7.3	13.2	10.1	6.3	9.3	16.9	15.8		4.8	7.1	12.7	10.2	
1940				17.3	1.2	3.9	4.9		1.6	4.7	10.9	8.4	1.8	6.0	13.2	13.3		1.4	6.0	11.6	10.3	
1941				15.7	6.0	8.2	9.5	4.9	9.1	12.0	16.5	16.0	10.9	14.8	21.3	21.5		5.3	7.8	10.7	11.1	
1942				22.4	5.1	8.0	11.8	11.4	10.3	14.4	18.3	19.1	13.7	18.5	23.6	25.7	19.0	5.1	7.5	12.5	13.4	
1943				19.4		3.3	5.6		7.6	12.2	19.1	20.6	10.2	17.9	26.1	30.7		6.2	11.9	16.1	18.2	
1944					2.72	5.64	6.1		3.0	8.1	10.6		5.5	12.0	15.0			2.1	5.3	10.4	13.9	
1945																		4.3	5.3	11.8		
1946				19.7				Patchy										4.2	9.4	10.3	11.0	
1947									11.2	14.4			18.0	22.2								
1948																						
1949																						
1950																						
1951																						
1952																						
1953																						
1954																						
1955																						
1956																						
1957																						
1958																						
1959																						
1960																						

J-January
F-February

WATER CONTENT SNOW COVER at KEY STATIONS in INCHES

M-March
A-April
M-May

No.	33				33-A				40				42-A				42-B			
	East Portal				East Portal Divide				Indian Canyon				Staley Ranch				Dry Valley Divide			
Elev.	7560				8000				9100				7600				7800			
Month	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A
1924												7.5								
1925												1.2								
1926												3.0								
1927												12.5								
1928												3.0								
1929												5.5								
1930												9.1								
1931												7.2								
1932												15.3								
1933												9.9								
1934				6.9				8.0				5.6								
1935			7.0	9.0				19.3	7.7	7.7	7.1	10.0				6.0				15.7
1936		8.2	18.2	19.2	3.2	14.6	30.9	31.7	1.6	3.0	6.1	8.3				11.8				13.2
1937		7.6	15.0	17.4	7.2	13.2	21.7	25.6	5.0	6.4	11.0	14.3				10.7				11.5
1938		4.3	9.9	12.0	8.4	10.2	14.5	19.4	2.8	4.7	8.2	12.4				7.3				12.3
1939	4.6	6.1	10.7	8.8	9.1	11.6	17.3	17.8	2.5	3.3	6.7	5.4								
1940		6.3	10.2	10.0		10.1	15.2	17.4		3.2	5.9	4.2		3.2	4.3	3.2		4.1	7.6	8.2
1941			10.2	10.3			16.3	16.9	3.1	5.3	6.3	8.7				3.9				7.3
1942	2.6	7.0	10.1	11.8	6.9	11.9	16.0	18.1	3.9	5.1	7.3	9.2	2.0	2.3	4.6	5.3	3.1	5.9	7.7	8.3
1943	5.6	8.1	10.8	14.1	8.9	14.4	18	23.2	2.0	5.85	7.6	10.6	3.3	6	6.7	6.5	3.9	7.1	9.3	9.0
1944	3.3	5.8			6.9	9.6			2.8	5.6	8.5		3.0	6.8			6.6	7.27	9.6	
1945	2.34	3.74	7.8		4.4	7.6	13.6			2.86			1.6	2.2	4.6		2.3	3.9	6.2	
1946	5.95	7.29	9.9	10.4	10.2	13.2	14.2	[illegible]	[illegible]				5.4	6.7	5.9	3.5	5.8	7.2	6.9	7.0
1947	4.5				9.2			[illegible]	9.5	10.7										
1948																				
1949																				
1950																				
1951																				
1952																				
1953																				
1954																				
1955																				
1956																				

J-January
F-February

WATER CONTEN[illegible] F SNOW COVER
at
KEY STATIONS in INCHES

M-March
A-April
M-May

No.	42-C				44				45				52					52-A			
	Clear Creek				G. B. E. S. Oaks				G. B. E. S. Headquarters				Kimberly Mine (Lower)					Kimberly Mine (Upper)			
Elev.	8150				7550				8700				8500					8500			
Month	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	M	J	F	M	A
1924												11.4									
1925									5.0	10.0	14.3	10.0									
1926									5.1	8.1	7.5	10.3				10.0					
1927									6.0	9.5	11.7	17.8				14.0					
1928									6.2	6.0	10.3	13.2				14.[illegible]					
1929										9.5	11.7	16.6				16.8					
1930								5.0				15.9				8.4					
1931					2.3	3.0	3.4	3.0	3.7	3.3	3.8	8.0				5.7					
1932					4.3	6.0	7.9	7.8	7.4	11.5	14.2	13.2				14.0					
1933					1.7	4.7	5.8	6.4	4.0	9.4	11.6	15.3				10.1					
1934					3.8	4.7	6.4		6.0	7.2	10.8	10.6				5.5					
1935					21.0	3.2	5.7	6.1	5.2	7.1	10.7	14.4				8.8				1[illegible]	
1936				13.0	2.1	5.4	11.5	9.6	4.0	12.3	21.5	23.6				8.0				12.	
1937				12.1	4.3	7.0	10.1	3.7	6.3	10.3	14.7	18.4		6.3	7.6	15.2	5.9		9.6	12.6	24.
1938				9.4	2.1	3.4	7.4	8.6	6.0	6.6	11.4	17.8		7.2	8.8	16.1			8.3	9.7	10.8
1939					3.9	4.1	7.[illegible]	4.2	5.5	9.8	15.1	15.3		4.3		9.4			7.5		14.
1940		3.2	5.3	4.6	.5	4.2	7.9	9.1	.9	8.3	16.5	20.7		4.0	9.9	11.8			8.[illegible]	12.4	14.[illegible]
1941				7.7	2.9	4.3	5.5	5.9	5.1	9.9	11.6	16.1		5.1	7.5	10.9			7.1	10.5	1[illegible]
1942	2.3	3.8	4.6	6.8	3.3	4.1	5.9	7.9	6.3	9.0	13.0	17.0		6.8	9.1				9.0	12.8	
1943	3.2	6.9	7.3	9.7		2.36	4.9	4.6	5.0	6.7	9.7	11.7		4.8	9.4				6.8	10.6	
1944	3.7	5.5	6.6																		
1945	2.0	3.2	6.3																		
1946	4.8	6.2	4.7	2.5				1.0	7.0			13.8				11.5					15.4
1947																					
1948																					
1949																					
1950																					
1951																					
1952																					
1953																					
1954																					
1955																					
1956																					
1957																					
1958																					
1959																					
1960																					

J-January
F-February

WATER CONTENT SNOW COVER
at
KEY STATIONS in INCHES

M-March
A-April
M-May

No.	53				57				58				59				63			
	Widstoe Esc. Summit				Harris Flat Ranger Station				Duck Creek Ranger Station				Cedar Breaks				Lorchants Valley			
Elev.	9500				7700				8560				10,200				8200			
Month	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A
1924																				
1925																				
1926																				
1927																				
1928																				
1929				8.0																
1930																				
1931								3.6												4.6
1932				11.0				16.4												10.5
1933				6.3				8.3												6.2
1934				2.1				2.5												4.6
1935				9.5		7.8	9.3	14.1		11.9	13.4	20.5		13.0	15.0	23.1				11.1
1936	3.2	3.97	5.8	5.0	3.2	6.0	11.5	10.5	3.8	7.3	14.6	18.3	5.7	11.6	18.8	24.3				14.9
1937	3.5	6.6	9.8	14.7			17.9	21.2			21.0	28.9			24.6	41.2				16.8
1938	0.6	2.7	5.0	11.1		5.1		13.4		8.7	20.1	20.1		13.8		29.1				14.0
1939		4.9	7.0	7.4			11.6	3.6		8.9	11.5	10.1		8.1	16.3	16.7				6.1
1940	1.6	5.6	6.3	4.5		2.4	5.6			7.6	8.3	7.0		9.1	13.3	16.0		8.0	12.3	12.3
1941	3.0		9.6	13.3	8.9		11.1	14.2	6.7			22.8				25.1				16.2
1942	4.5	6.8	11.3	12.2					8.6				13.6							10.8
1943	.5	3.4	2.7	3.3									3.5						7.4	13.0
1944		4.2	8.3																	
1945	2.6	4.7	7.5	12.1																
1946	2.0			4.1				3.1				8.3				16.1				8.0
1947	7.4	7.4																		
1948																				
1949																				
1950																				
1951																				
1952																				
1953																				
1954																				
1955																				
1956																				
1957																				
1958																				
1959																				
1960																				

J-January
F-February

WATER CONTENT SNOW COVER
at
KEY STATIONS in INCHES

M-March
A-April
M-May

No.	63-A East Portal Divide (Otter Lake)				63-B Big Flat				68 Payson Ranger Station			
Elev.	9300				10,000				8840			
Month	J	F	M	A	J	F	M	A	J	F	M	A
1924												
1925												
1926												
1927												
1928												
1929												
1930												
1931												
1932												
1933												
1934												
1935												
1936				18.0				23.1				
1937				23.0				28.4				
1938				20.7				23.4				
1939				11.3				13.9				
1940		8.1	17.0	17.8		8.2	17.4	20.7				
1941				19.7				23.8				
1942				15.1				19.3				19.4
1943			10.2	17.6			11.	20.0			11.8	15.8
1944												
1945											11.9	
1946				12.0				14.2				
1947												
1948												
1949												
1950												
1951												
1952												
1953												
1954												
1955												
1956												
1957												
1958												
1959												
1960												

WATER CONTENT SNOW COVER
at
Key Stations in Inches

A-April
M-May

	33				33-A				40				63-A				63-B				
	East Portal				East Portal Divide				Indian Canyon				Otter Lake				Big Flat				
	7560				8000				9100				9300				10,000				
	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	M
												7.5									
												1.2									
												3.0									
												12.5									
												3.0									
												5.5									
												9.1									
												7.2									
												15.3									
												9.9									
				6.9				8.0				5.6									
			7.0	9.0				19.3	7.7	7.7	7.1	10.0									
		8.2	18.2	19.2	3.2	14.6	30.9	31.7	1.6	3.0	6.1	8.3				18.0				23.1	
		7.6	15.0	17.4	7.2	13.2	21.7	25.6	5.0	6.4	11.0	14.3				23.0				26.4	
		4.3	9.9	12.0	8.4	10.2	14.5	19.4	2.8	4.7	8.2	12.4				20.7				23.4	
	4.6	6.1	10.7	8.8	9.1	11.6	17.3	17.8	2.5	3.3	6.7	5.4				11.3				13.9	
		6.3	10.2	10.0		10.1	15.2	17.4		3.2	5.9	4.2		8.1	17.0	17.8		8.2	17.4	20.7	
			10.2	10.3			16.3	16.9	3.1	5.3	6.3	8.7				19.7				23.6	
	2.8	7.0	10.1	11.8	6.9	11.9	16.0	18.1	3.9	5.1	7.3	9.2				15.1				19.3	
	5.6	8.1	10.8	14.1	8.9	14.4	18	23.2	2.0	5.85	7.6	10.6			10.2	17.6			11.0	20.0	
		5.8				9.6			2.8	5.6	8.5										
	2.34	3.74	7.8		4.43	9.6	13.6			2.86											
					10.2	13.2	14.2													14.2	
		6.8	11.3	11.7	7.3	12.3	15.7	[illegible]	3.6	10.8	7.4	[illegible]				17.9				21.3	

J-January
F-February

WATER CONTENT OF SNOW COVER
a.
KEY STATION IN INCHES

A-April
M-May

No.	63				19				20				21					23				
Name	Merchants Valley				South Fork R. S.				Camp Altamont				Timpanogos Divide					Strawberry Daniels				
Elev.	8200				6100				8300				8200					8000				
Month	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	M	J	F	M	A	M
1924																						
1925																		1.7	4.8	8.0		
1926																		9.0	3.3	7.7	3.5	
1927																			10.5	18.3	20.0	
1928																		3.5	8.5	9.0		
1929																			9.3	13.0	14.1	
1930																			5.1		14.1	
1931				4.6														4.8	5.4	6.1	8.0	
1932				10.5														10.0	15.3	21.0	20.7	
1933				6.2														3.4	9.8	12.8	13.6	
1934				4.8														5.5	6.9	8.8	3.5	
1935				11.1		5.2	4.8	4.0		9.8	10.7	11.6		11.5	13.9	16.6		5.6	9.7	10.8	12.7	
1936				14.9		9.3	15.2	10.6	2.3	10.9	23.4	22.0	2.8	12.0	28.4	28.1		2.2	7.4	20.4	19.4	
1937				16.8	3.1	6.4	8.4	7.5	9.0	13.7	23.1	25.3	11.1	16.2	28.3	32.2		7.1	12.2	20.4	20.9	
1938				14.6		2.4	4.6	Patchy	3.5	6.7	12.8	19.8	5.7	8.4	17.2	26.5		4.0	6.1	11.5	15.9	
1939				6.1	3.3	5.2	8.0	No Snow	4.7	7.3	13.2	10.1	6.3	9.3	16.9	15.8		4.6	7.1	12.7	10.2	
1940		6.0	12.2	12.5	1.2	3.9	4.9	Patchy	1.6	4.7	10.9	8.4	1.8	6.0	13.2	13.3		1.4	6.0	11.6	10.3	
1941				16.2	6.0	8.2	9.5	4.9	9.1	12.0	16.5	16.0	10.9	14.8	21.3	21.5		5.3	7.5	10.7	11.1	
1942				10.8	5.1	8.0	11.8	11.4	10.3	14.4	18.3	19.1	13.7	18.5	23.6	25.7	19.0	5.1	7.5	12.5	13.4	
1943			7.4	13.0		3.3	5.6	Patchy	7.6	12.2	19.1	20.6	10.2	17.9	26.1	30.7		6.24	11.9	16.1	18.2	
1944					2.72	5.64	6.1		3.0	8.5	10.6		5.5	12.6	15.0			2.1	5.3			
1945																		4.3	5.3	11.8		
1946				8.0																		
1947																						
1948																						
1949																						
1950																						
1951																						
1952																						
1953																						
1954																						
1955																						
1956																						
1957																						
1958																						
1959																						
1960				10.9		5.7	8.1		6.0	10.1	16.4	16.2	7.8	12.7	21.0	22.0		8.5	8.1	12.9	13.2	

J-January
F-Febru

WATER CONTENT O[illegible] SNOW COVER
at
KEY STATIONS in INCHES

M-Mar
A-April
M-May

4 Spring Hollow No. 3					5 Spring Hollow No. 4					6 Mt. Logan					2 Tony Grove Lake				3 Tony Grove R. S.			
7000					8000					9000					8300				6250			
J	F	M	A	M	J	F	M	A	M	J	F	M	A	M	J	F	M	A	J	F	M	A
			15.3	0		10.3	11.6	21.8	20.5		13.7	18.8	25.8	21.2				31.8				10.0
7.2	10.5	14.6	16.1	0	8.4	14.0	24.1	27.3	23.4	15.6	19.3	24.9	32.1	28.3				35.5				0
5.5	6.1	11.6	9.4	0	3.1	8.8	15.6	17.5	0	5.4	10.9	18.0	21.3					21.9				0
9.0	10.7	16.0	14.3	13.0	10.0	14.5	25.0	31.5	22.0	12.9	20.8	34.5	41.5	36.8				43.5				8.5
7.0	8.1	10.5	11.0	0	12.7	13.5	16.7	23.3	22.0	17.3	22.4	27.1	31.2	27.3				34.9				0
8.5	12.5	17.1	17.3	14.0	9.4	17.3	22.0	28.9	32.0	11.0	21.2	28.1	35.0	37.0				36.5				11.4
5.2	8.7	11.6	12.2	0	3.6	10.0	17.0	20.5	13.8	5.0	15.0	22.7	28.5	18.3				31.5				9.4
6.8	6.8	8.0	8.3	0	6.6	7.3	8.6	10.0	11.9	6.1	8.8	11.1	13.4	14.2				15.0				3.6
9.0	13.5	18.3	24.3	15.2	11.2	18.2	27.0	36.5	33.2	12.7	20.1	32.6	45.3	44.1				51.2				16.1
5.7	9.1	13.6	15.5	11.5	8.3	12.5	18.8	25.6	28.2	8.8	15.5	25.0	28.4	22.0				28.4				13.3
4.7	5.2	6.5	0	0	6.6	9.5	10.2	12.4	0	7.1	10.2	12.7	18.2					19.2				0
6.3	7.8	10.8	11.5	8.5	11.7	17.6	17.4	28.9	28.5	11.9	18.5	20.1	27.9	20.1				29.1				8.6
8.9	12.1	15.9	20.6	6.1	8.1	19.6	32.0	34.8	35.1	7.5	20.9	34.6	38.3	37.8				50.5				22.5
4.1	7.5	15.1	15.2	14.7	7.9	12.0	20.6	25.0	31.4	8.2	17.4	22.2	27.4	32.1				32.5				15.2
5.8	8.6	[illegible]	15.5	0	7.9	9.5	1[illegible].3	21.3	22.4	8.7	11.9	16.4	27.5	25.3				36.5				11.4
5.7	7.9	10.7	8.5	0	9.1	11.9	17.3	17.4	15.2	10.3	13.7	21.6	20.8	15.9				25.2				5.5
1.2	5.0	9.5	8.1	0	1.6	8.1	16.1	20.5	18.8	1.9	10.2	13.4	23.5	22.0		12.0	39.7	27.0		4.2	6.8	2.0
5.[illegible]	7.7	10.8	9.8	4.8	8.4	11.8	16.1	18.4	20.5	9.1	14.3	18.1	19.4	23.2		15.8	21.3	21.7		6.0	8.3	4.6
5.1	7.0	10.9	12.3	0	8.3	12.4	18.1	21.4	17.2	8.9	13.2	13.7	27.5	17.7	9.4	14.3		27.3	3.2	5.7		7.8
8.7	13.7	16.5	17.0	0	14.3	23.8	30.2	35.8	26.7	17.5	27.3	34.5	41.3	28.2			45.3	54.9		11.6	15.5	17.6
3.6	4.5	6.5			4.9	8.1	10.5			5.5	7.5	10.9										
4.5	5.3	9.5			6.4	8.6	14.0			8.0	9.1	16.4										
5.3	8.9	12.7	13.6	4.4	8.3	13.2	19.0	24.1	21.8	9.7	16.1	22.8	28.6	27.1				33.2				2.4

J-January
F-Februa

WATER CONTENT OF SNOW COVER
at
KEY STATIONS in INCHES

M-Marc'
A-Apr.
M-May

No.	9				1				16-A				42-A				16				
Name	Garden City Summit				Franklin Basin				Mill-D South Fork				Staley Ranch				Silver Lake				
Elev.	8200				8200				7400				7600				8725				
Month	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	M
1924								25.1													
1925								28.3													
1926								18.4													
1927								33.8													
1928								31.7													
1929								31.1													
1930								26.8													
1931				8.4				14.9													
1932				31.4				38.6													
1933				17.7				28.2													
1934				4.9				12.6													
1935				16.4				24.4								6.0	11.6	15.4	17.0	21.0	
1936				33.9				39.7								11.8	5.1	16.0	31.7	35.5	
1937				18.5				20.8				19.9				10.7	7.9	13.0	22.0	24.7	
1938				20.4				24.8				18.8				7.3	5.4	10.2	16.5	25.7	
1939				16.7				20.4				17.3				No Snow	8.8	12.9	19.1	20.5	
1940		8.5	12.8	12.6				21.8				17.3		3.2	4.3	3.2		8.2	15.2	18.5	
1941		6.9	12.4	12.8			~~17.0~~	15.4				15.7				3.9	9.7	12.6	20.1	19.9	
1942	5.7	9.5		14.1			17.0	17.8				22.4	2.0	2.3	4.6	5.3	12.3	17.2	22.2	26.4	
1943	14.5	19.6	27.2	30.5				38.7				19.4	3.3	6.	6.7	6.5	13.5	19.8	29.1	35.2	
1944													3.0	6.8	6.9		6.7	10.2	14.5		
1945														2.2	4.6			10.5	20.5		
1946																					
1947																					
1948																					
1949																					
1950																					
1951																					
1952																					
1953																					
1954																					
1955																					
1956																					
1957																					
1958																					
1959																					
1960																					
				18.3				25.7				18.7				6.8	9.3	13.9	21.4	23.8	

J-January
F-February

WATER CONTENT OF SNOW COVER
at
KEY STATIONS in INCHES

M-March
A-April
M-May

No.	42-B				42-C				44				45				53			
Name	Dry Valley Divide				Clear Creek				G. B. E. S. Oaks				G. B. E. S. Headquarters				Widstoe Esc. Summit			
Elev.	7800				8150				7550				8700				9500			
Month	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A	J	F	M	A
1924																11.4				
1925													5.0	10.0	14.3	16.0				
1926													5.1	6.1	7.5	10.3				
1927													5.0	9.5	11.7	17.8				
1928													6.3	6.0	10.3	13.2				
1929														9.5	11.7	16.8				8.0
1930												5.0				15.9				
1931									2.3	3.0	3.4	3.0	3.7	3.5	3.8	8.0				[redacted]
1932									4.3	6.0	7.9	7.8	7.4	11.5	14.2	18.2				11.0
1933									1.7	4.7	5.8	6.4	4.0	9.4	11.8	15.3				6.3
1934									3.8	4.7	6.4		6.0	7.2	10.8	10.8				2.1
1935				15.7					21.0	3.2	5.7	6.1	5.2	7.1	10.7	14.4				9.5
1936				13.2				13.0	2.1	5.4	11.5	9.8	4.0	12.3	21.5	23.5	3.2	3.97	5.8	5.0
1937				11.5				12.1	4.5	7.0	10.1	8.7	6.8	10.3	14.7	18.4	3.5	6.6	9.8	14.7
1938				12.3				9.4	2.1	3.4	7.4	8.6	6.6	6.6	11.4	17.8	0.6	2.7	5.65	11.1
1939									3.9	4.1	7.9	4.2	5.5	9.8	15.1	15.3		4.9	7.0	7.4
1940		4.1	7.6	8.2		3.2	5.3	4.6	.5	4.2	7.9	9.1	.9	8.9	16.5	20.7	1.6	5.6	6.3	4.5
1941				7.3				7.7	2.9	4.3	5.5	5.9	5.1	9.9	11.6	16.1	3.0		9.6	13.3
1942	3.1	5.9	7.7	8.3	2.3	3.8	4.6	6.8	3.3	4.1	5.9	7.9	6.3	9.0	13.0	17.0	4.5	6.8	11.3	12.2
1943	3.9	7.1	9.3	9.0	3.2	6.9	7.3	9.7		2.36	4.9	4.6	5.0	6.7	9.7	11.7	.5	3.4	2.7	3.3
1944	3.3	7.3	9.6		3.7	5.5	6.6											4.2	8.3	
1945		3.9	6.2			3.2	6.3										2.0	4.7	7.5	
1946																				4.1
1947																				
1948																				
1949																				
1950																				
1951																				
1952																				
1953																				
1954																				
1955																				
1956																				
1957																				
1958																				
1959																				
1960																				
				10.7				9.0	4.4	6.0	6.9	6.8	5.2	8.5	12.2	15.5	2.4	9.9	13.6	8.5