WATER SUPPLY OUTLOOK FOR ARIZONA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE,
SALT RIVER VALLEY WATER USERS ASSOCIATION
and
ARIZONA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with the Federal, State and private organizations listed on the last page of this report.

AS OF
APR. 1, 1969

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80521
Idaho	P. O. Box 38, Boise, Idaho 83707
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Building, Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

USDA-SCS-PORTLAND, OREG. 1966

WATER SUPPLY OUTLOOK FOR ARIZONA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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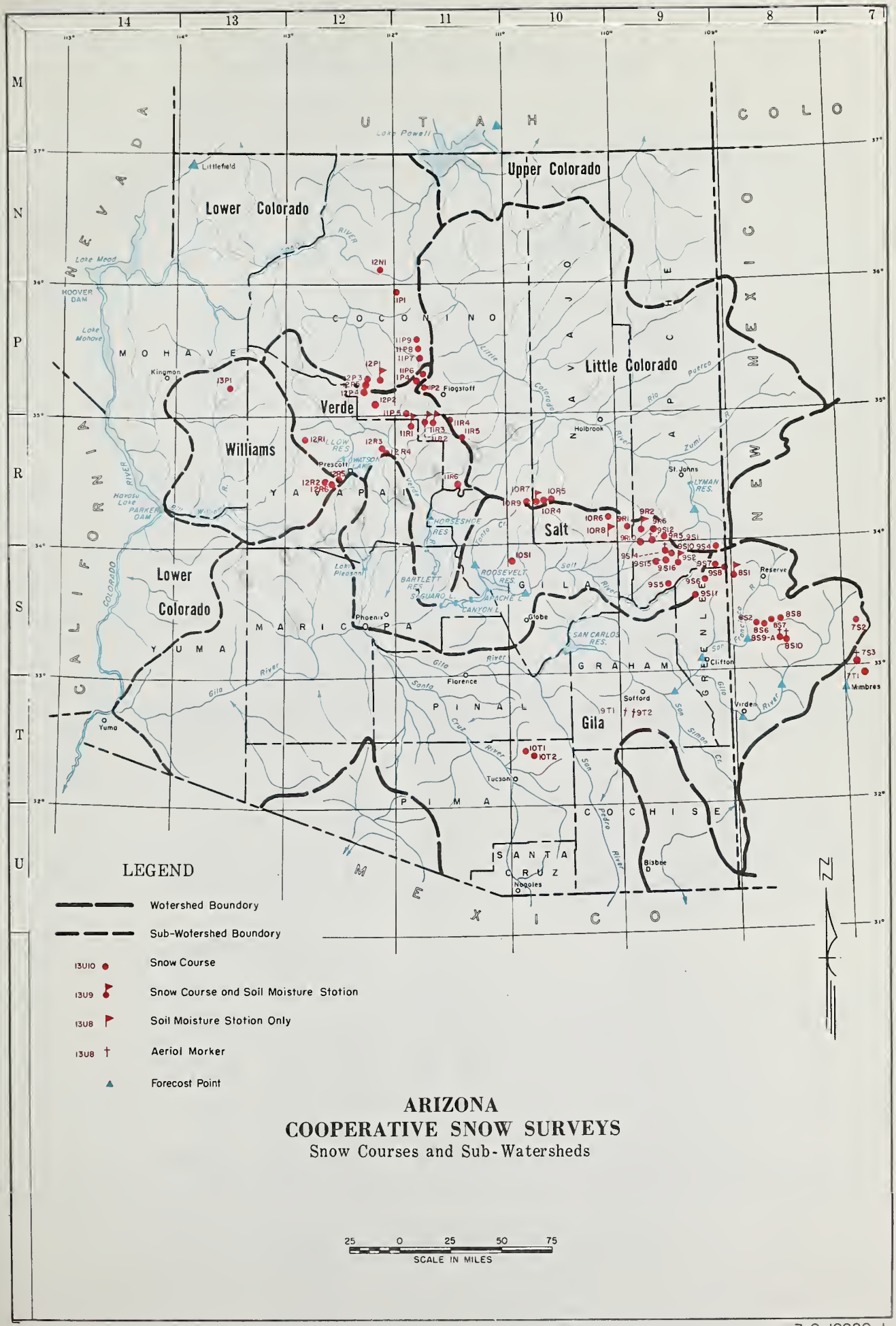


ARIZONA
COOPERATIVE SNOW SURVEYS
Snow Courses and Sub-Watersheds

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE USDA SCS PORTLAND OREG 1954 M-2690

7-0-19920-L

INDEX to SNOW COURSES and SOIL MOISTURE STATIONS

Number	Name	Sec	Twp	Rge	Elevation	River Basin
11R6	Baker Butte (p)	4	12N	9E	7300	Verde
9S1-A	Baldy (p)	28	7N	27E	9125	Little Colorado
9S15	Baldy #2	12	6N	26E	10000	Little Colorado
9S16	Baldy #3	13	6N	26E	11000	Little Colorado
10T1	Bear Wallow	6	12S	16E	8100	Gila
12P5	Bill Williams Intermediate	17	21N	2E	8550	Lower Colorado
12P4	Bill Williams Summit	17	21N	2E	8950	Lower Colorado
9S6	Beaver Head	13	4N	30E	8000	San Francisco
9S10-*	Black River Divide	10	6N	27E	9400	Salt
12N1	Bright Angel	34	33N	3E	8400	Lower Colorado
12R1	Camp Wood	3	16N	6W	5700	Verde
10R7-M	Canyon Creek #2	18	11N	15E	7500	Little Colorado
10R9	Canyon Point (p)	28	11N	14E	7600	Salt
11R2-M	Casner Park	19	18N	8E	6930	Verde
12P1-M	Chalender	27	22N	3E	7100	Verde
12R6	Copper Basin Divide (p)	23	13N	3W	6720	Verde
10R8-*	Corduroy Creek	4	8N	21E	6000	Salt
9S7	Coronado Trail	26	5N	30E	8000	San Francisco
9T2-A	Crazy Horse	34	8S	24E	10200	Gila
7T1	Emory Pass #1	16	16S	9W**	7800	Mimbres
7T2	Emory Pass #2	16	16S	9W**	7800	Mimbres
10R6	Forest Dale	2	9N	21E	6430	Salt
11P2	Fort Valley (p)	22	22N	6E	7350	Little Colorado
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado
8S1-M	Frisco Divide	31	6S	20W**	8000	San Francisco
12R4	Gaddes Canyon	11	15N	2E	7600	Verde
10R5	Gentry	36	11N	15E	7650	Salt
11P1	Grand Canyon	21	30N	4E	7500	Lower Colorado
9S11	Hannagan Meadows (p)	19	3N	29E	9090	Salt
11R5	Happy Jack	30	17N	9E	7630	Verde
9R10	Hawley Lake	13	7N	24E	8300	Salt
10R4	Heber (p)	28	11N	15E	7600	Little Colorado
9T1-A	High Peak	34	8S	24E	10500	Gila
8S9-A	Hummingbird	19	11S	17W**	10550	San Francisco
8S6	Ice King	6	11S	18W**	8020	San Francisco
7S2	Inman	6	11S	10W**	7800	Gila
11P9	Inner Basin #1 (p)	28	23N	7E	10000	Little Colorado
11P8	Inner Basin #2 (p)	28	23N	7E	9750	Little Colorado
11P7	Inner Basin #3	3	23N	7E	10250	Little Colorado
12R2	Iron Springs	22	14N	3W	6200	Bill Williams
9S2-A	Maverick Fork (p)	13	6N	27E	9150	Salt
7S3-A	McKnight Cabin	10	15S	10W**	9300	Mimbres
9R2-M	McNary	23	8N	23E	7200	Salt
9R1	Milk Ranch	33	8N	23E	7000	Salt
12R3	Mingus Mountain	3	15N	2E	7100	Verde
8S2	Mogollon	2	11S	19W**	7000	San Francisco
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado
11R3-M-A	Mormon Mountain (p)	14	18N	8E	7500	Verde
9S12-A	Mt. Ord	4	6N	26E	11000	Salt
11R1-M	Munds Park	15	18N	7E	6500	Verde
11P5-M	Newman Park	25	19N	6E	6750	Verde
9S4	Nutrioso	23	6N	30E	8500	San Francisco
9S5	Pacheta	27	4-1/2N	27E	7800	Salt
8S7	Redstone Trail	5	11S	18W**	8600	San Francisco
10T2	Rose Canyon	15	12S	16E	7300	Gila
8S8	Silver Creek Divide	4	11S	18W**	9000	San Francisco
9S14-A	Smith Cienega	10	6N	26E	9850	Salt
11P4	Snow Bowl #1 (p)	36	23N	6E	10260	Verde
11P6	Snow Bowl #2	31	23N	7E	11000	Verde
9S8	State Line	6	6S	21W**	8000	San Francisco
12R5	White Spar	19	13N	2W	6000	Verde
12P2	White Horse Lake Jct	2	20N	2E	7150	Verde
8S10-A	Whitewater	19	11S	17W**	10750	Gila
12P3	Williams Ski Run	9	21N	2E	7720	Lower Colorado
13P1	Willow Ranch	16	21N	11W	5000	Bill Williams
9R6	Wilson Lake (p)	4	7N	26E	9000	Salt
10S1	Workman Creek	33	6N	14E	6900	Salt

M Soil Moisture Sta.

(p) Storage gage

A Aerial Snow Depth Marker

* Soil Moisture Sta. only

** NM Principal Meridian

ARIZONA WATER SUPPLY OUTLOOK

APRIL 1, 1969

Below normal precipitation since March 15 has caused a slight reduction in streamflow forecasts. Water supplies will be good in all areas of Arizona except along the Upper Gila.

SNOW COVER

Since March 15 snow cover declined at a greater than normal rate at the lower elevations due to the warm temperatures and lack of precipitation. It is still much above normal, however. At 11,000' in the White Mts. and on the San Francisco Peaks there is 7 to 8' of snow containing 3' of water. There has been virtually no melting at this elevation, as evidenced by the dry soil under the snow.

PRECIPITATION

Since the middle of March there has been no significant precipitation. Some stations on the Salt and Verde Watersheds, however, received above normal amounts for the month, due to the early March storms.

SOIL MOISTURE

Soils are above field capacity at the intermediate elevations on the Salt and Verde Watersheds. Below 6000' the soils are drying out and above 9000' they have not yet become wet. Soil moisture on the Gila Watershed is generally low except for a small area at the higher elevations.

RESERVOIR STORAGE

March runoff has increased storage in the Salt River Project reservoirs to 89% of capacity, 62% above the 1953-67 15-year average. Storage in San Carlos is 4 times average, but only 45% of capacity. Lake Pleasant is 3/4 full with 2½ times the average amount of water in storage for this date.

STREAMFLOW AND WATER SUPPLY

Total spring runoff (Jan.-May) into the Salt River Project System is expected to be 800,000 ac-ft. This is 62% above average, but is still only 2/3 as much as received last year. The April-May runoff forecast is just about equal to the unfilled capacity of the reservoirs, but normal use will offset inflow so the reservoirs are not expected to exceed 95% of capacity. Nevertheless, this is an excellent water supply and good carryover storage is assured for next year.

On the Gila Watershed, however, the total spring runoff is expected to be only 58% of average. Water will be short along the Upper Gila and considerable pumping will be required.

THIS IS THE FINAL REPORT FOR THIS SEASON.

STREAMFLOW FORECASTS - APRIL 1, 1969

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.

SUB-WATERSHED, STREAM and STATION	SEASONAL STREAMFLOW IN THOUSANDS OF ACRE FEET FORECAST PERIOD: APRIL-MAY, INCLUSIVE					
	Forecast Runoff 1969	Percent 15-Year Average	Measured Runoff 1968	1967	1966	1953-67 Average
SALT RIVER DRAINAGE						
Salt nr. Roosevelt	200	164	245.1	28.7	202.6	121.7
Tonto Creek nr. Roosevelt	6	78	12.2	2.3	5.5	7.7
Verde River above Horseshoe	55	110	52.5	26.0	26.7	50.1
GILA RIVER DRAINAGE						
Gila River nr. Gila	14	83	52.6	6.5	33.7	16.8
Gila River nr. Solomon	26	75	139.0	8.2	79.0	34.6
Gila River nr. Virden	13	75	76.4	5.6	39.7	17.4
Frisco River at Clifton	15	79	65.7	4.9	37.7	18.9
Frisco River at Glenwood	7	86	36.1	2.0	18.5	8.1
MIMBRES RIVER DRAINAGE						
Mimbres River nr. Mimbres	.7	54	----	0.4	2.7	1.3
COLORADO RIVER DRAINAGE						
Little Colo. River above Lyman Dam (APRIL-JUNE, Incl)	8.5	140	18.4	0.2	13.9	6.1
Colo. River -- Lake Powell* Inflow (APRIL-JULY, Incl)	8,970	137	7247.0	6045.0	4600.0	6527.0
VIRGIN RIVER DRAINAGE						
Virgin River nr. Littlefield (APRIL-JUNE, Incl.)	160	480	36.2	39.0	26.4	33.5
GRANITE CREEK DRAINAGE						
Granite Creek	.5	---	----	----	----	----
Willow Creek	.2	---	----	----	----	----

Gila River near Solomon is forecast to remain above 100 cfs until April 20.

* Forecast issued by Soil Conservation Service, Salt Lake City, Utah.

1969
SEASONAL RUNOFF

STREAM AND STATION	Measured 1/ Runoff Jan.-March	Forecast Runoff April-May	Total - January thru May 1969	15-Year Average	% of Average
Salt River at Intake	183.2	200	383.2	281.0	136
Verde River above Horseshoe	290.3	55	345.3	171.8	202
Tonto Creek above Roosevelt	67.9	6	73.9	42.6	173
Gila River nr. Virden	21.5	13	34.5	59.3	58
Gila River nr. Solomon	37.0	26	63.0	119.6	53
Frisco River at Clifton	18.1	15	33.1	59.8	55

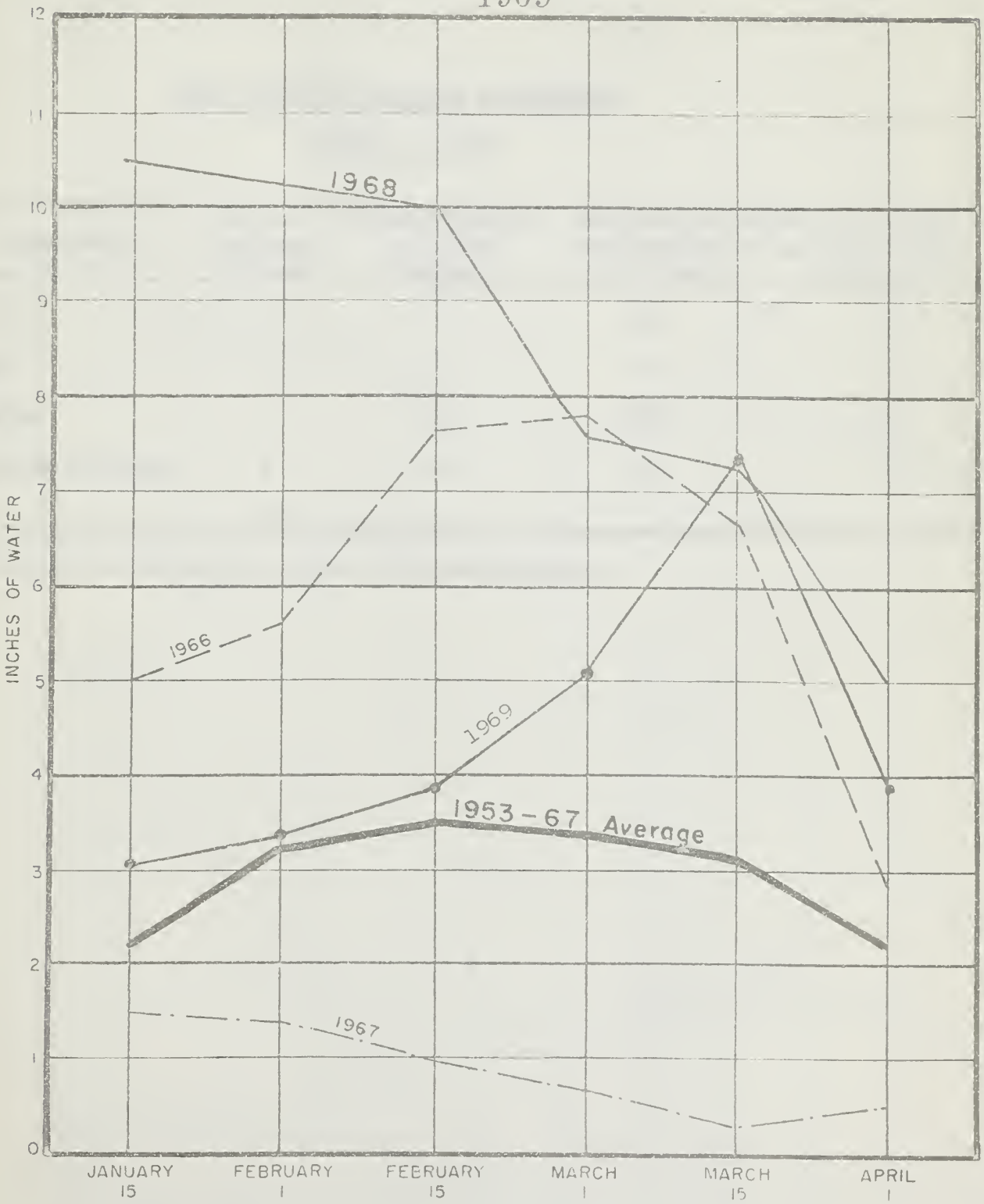
1/ Provisional streamflow data supplied by Salt River Project and U. S. Geological Survey.

STATUS OF ARIZONA RESERVOIR STORAGE - ABOUT APRIL 1, 1969

SUB-WATERSHED and/or STREAM	RESERVOIR	USABLE CAPACITY 1000s ACRE FEET	USABLE STORAGE - 1000s ACRE FEET 1969	1968	1967	15-Year Average 1953-67
		GILA RIVER DRAINAGE				
Agua Fria	Lake Pleasant	157.6	113.6	156.9	121.7	44.1
Granite	Watson Lake	4.7	4.7	4.7	3.4	----
Granite	Willow Creek	6.1	3.4	5.4	3.7	----
Gila	San Carlos	984.9	443.2	635.5	275.3	118.2
Verde (2)	Bartlett & Horseshoe	317.7	252.7	309.4	154.3	131.0
Salt (4)	Roosevelt, Apache, Canyon & Saguaro	1,755.0	1,584.5	1,718.0	1,435.7	1,002.5
		COLORADO RIVER DRAINAGE				
Colorado	Lake Havasu	619.4	553.5	554.8	553.1	554.5
Colorado	Lake Mohave	1,810.0	1,652.5	1,669.0	1,677.0	1,695.9
Colorado	Lake Mead	26,159.0	15,386.0	14,640.0	15,438.0	16,072.4
Colorado	Lake Powell	25,002.0	9,390.0	7,850.0	7,368.0	----
Little Colorado	Lyman	30.6	19.3	21.8	17.8	10.8
Little Colorado	Show Low Lake	5.1	2.5	5.1	0.5	2.3*

* Average is for less than 15 years of record in the 1953-67 period.

RELATIVE SNOW WATER ACCUMULATION
ARIZONA
1969



This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.

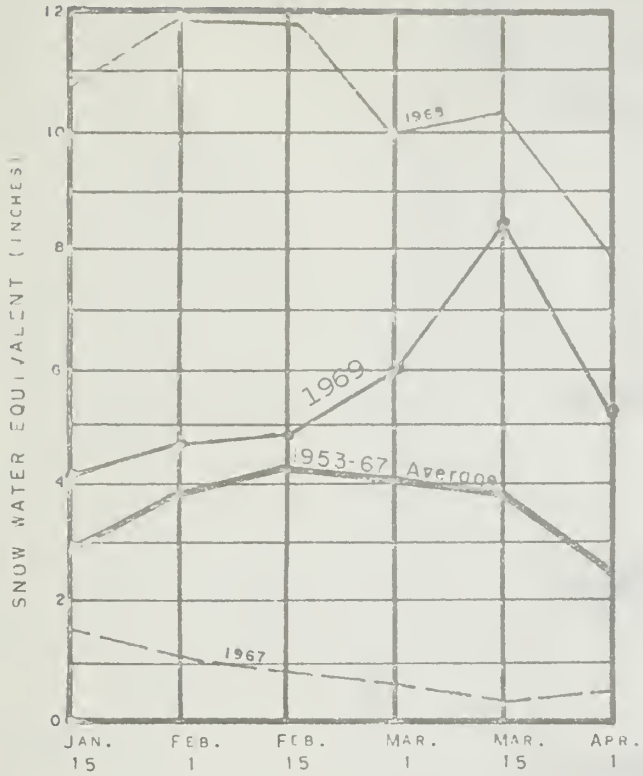
SNOW COVER ON ARIZONA WATERSHEDS

APRIL 1, 1969

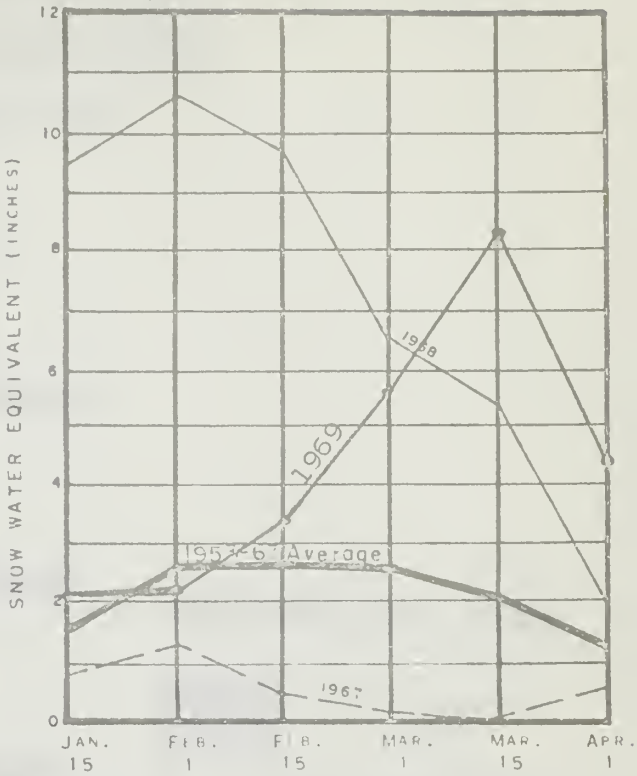
Watershed	No. of Courses Average	Water Content of Snow (Inches)	This Year's Water Content of Snow Expressed as Percent of: Last Year	Average *
Gila	6	1.3	32	345
Salt	9	5.3	69	213
Verde	7	4.4	237	334
Little Colorado	4	5.4	83	178

* Actual or Estimated 1953-67, 15-year Average.

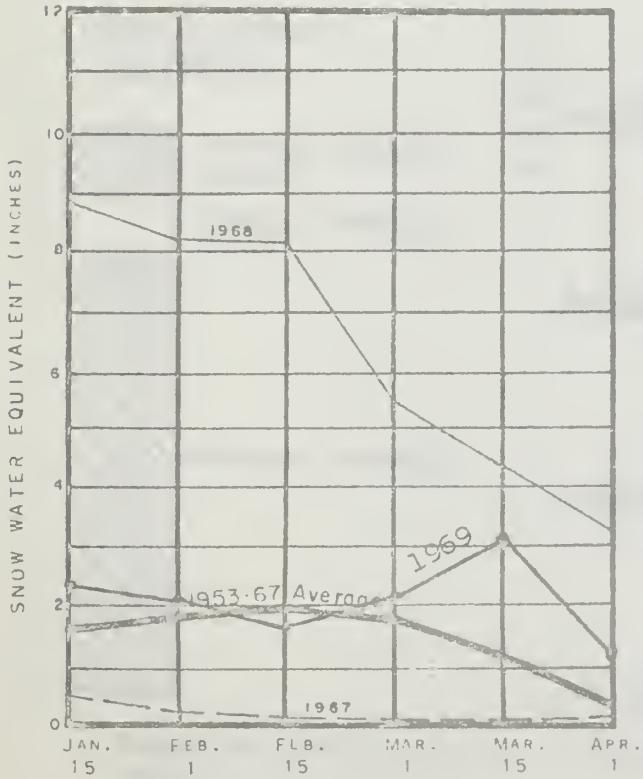
1969
ARIZONA SNOW COVER
BY WATERSHEDS



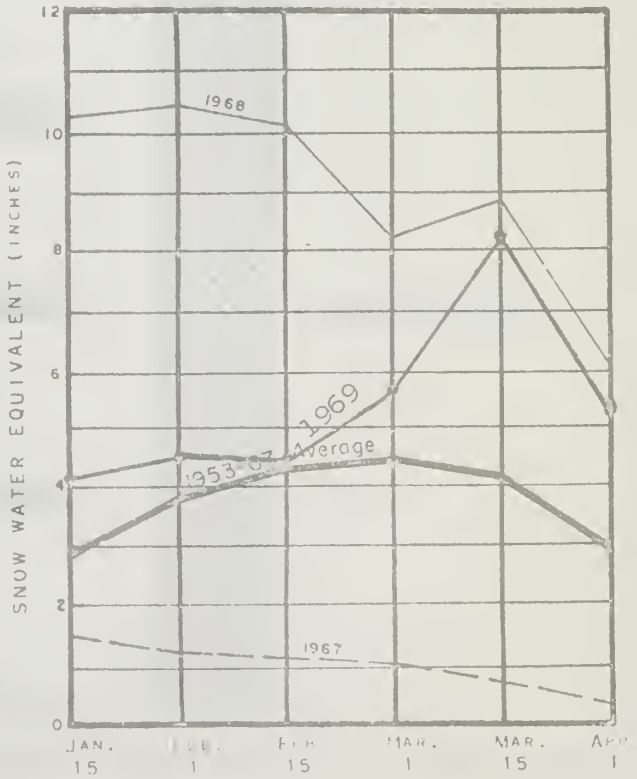
SALT RIVER



VERDE RIVER



GILA RIVER



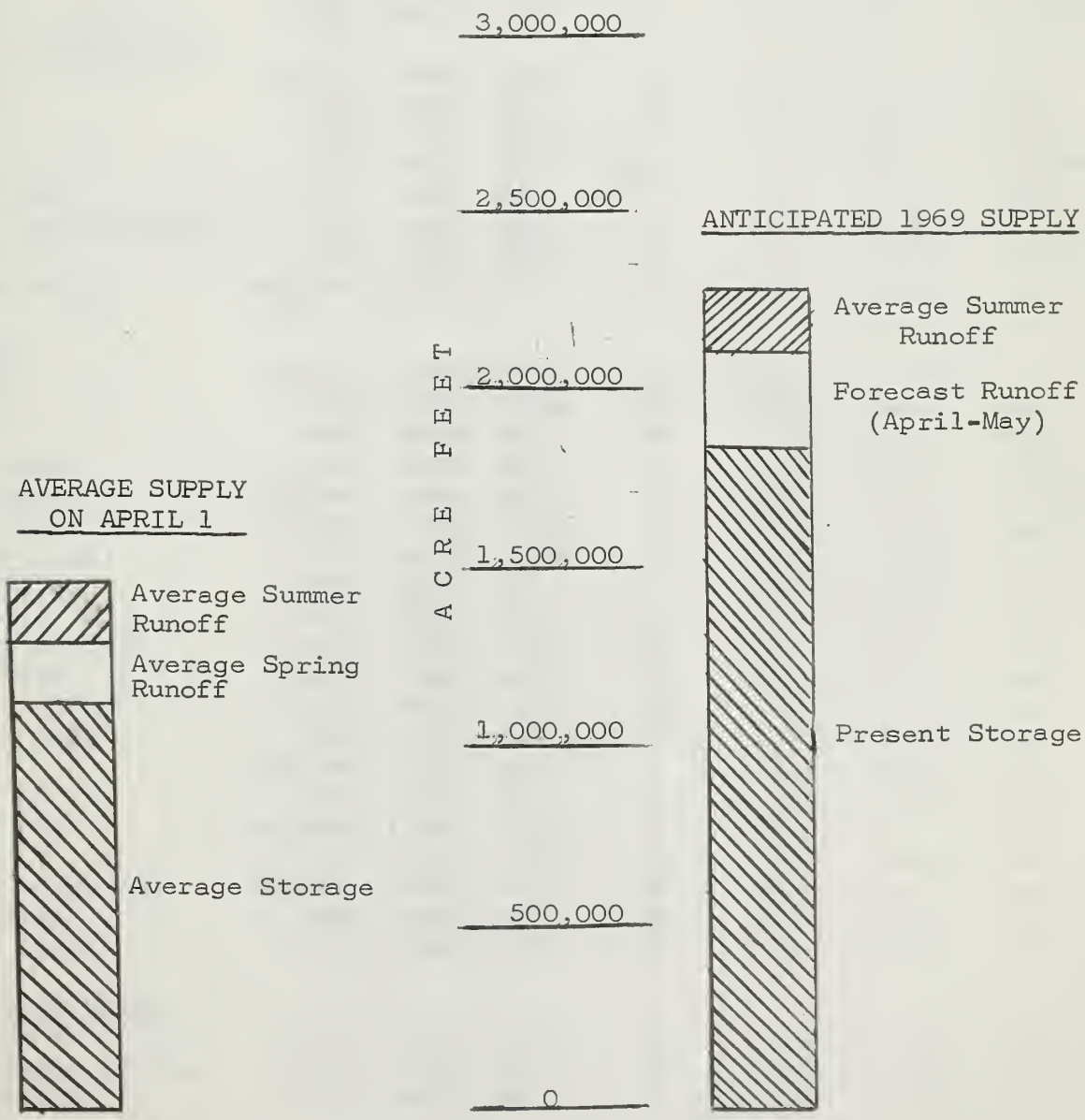
LITTLE COLORADO RIVER

BASED ON SELECTED SNOW SURVEY COURSES

WATER SUPPLY INVENTORY

SALT RIVER VALLEY SYSTEM

APRIL 1, 1969



* Based on Present Storage + Forecast Spring Runoff + Average Summer Runoff

SNOW ABOUT APRIL 1, 1969

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
						WATER CONTENT (inches)	
NAME	NO	ELEVATION	DATE OF SURVEY	SNOW DEPTH (inches)	WATER CONTENT (inches)	LAST YEAR	AVERAGE [a]
GILA RIVER							
Bear Wallow	10T1	8100	4/1	0	0.0	10.8	2.0
Beaver Head	9S6	8000	3/29	5	1.5	9.0	1.0
Coronado Trail	9S7	8000	3/28	7	3.7	3.4	0.3
Crazy Horse (A)	9T2-A	10200	4/2	36	16.2	29.4	---
Emory Pass No. 1 *	7T1	7800	3/28	0	0.0	0.0	---
Emory Pass No. 2 *	7T2	7800	3/28	0	0.0	T	---
Frisco Divide	8S1-M	8000	3/28	1	0.4	2.7	0.4
Hannagan Meadows *	9S11	9090	3/29	41	15.1	17.4	---
High Peak (A)	9T1-A	10500	4/2	36	15.0	30.6	---
Hummingbird (A)	8S9-A	10550	4/1	50	19.0	31.1	---
Ice King	8S6	8020	3/30	17	6.2	11.5	5.7 **
Inman (discontinued)							
McKnight Cabin *	7S3-A	9300	3/28	14	4.4	9.9	---
Mogollon	8S2	7000	4/1	0	0.0	0.0	0.0
Nutrioso	9S4	8500	3/28	3	1.6	2.6	0.3
Redstone Trail	8S7	8600	3/30	22	7.8	15.0	6.8 **
Rose Canyon	10T2	7300	4/1	0	0.0	0.0	0.4
Silver Creek Divide	8S8	9000	3/30	40	14.5	21.8	10.0 **
State Line	9S8	8000	3/28	1	0.4	5.8	0.2
Whitewater (A)	8S10-A	10750	4/1	62	21.7	36.2	---
SALT RIVER							
Baldy #2	9S15	9750	3/24	71	28.1	---	---
Baldy #3	9S16	10950	3/24	95	36.6	---	---
Baldy *	9S1	9125	4/1	26	9.9	12.0	5.3
Beaver Head	9S6	8000	3/29	5	1.5	9.0	1.0
Canyon Creek	10R7-M	7500	3/31	5	2.0	4.3	1.0 **
Canyon Point	10R9	7600	3/31	3	1.3	3.8	---
Coronado Trail	9S7	8000	3/28	7	3.7	3.4	0.3
Forest Dale	10R6	6430	4/1	0	0.0	0.0	0.0
Ft. Apache	9R5	9160	4/1	27	9.6	10.6	6.1
Hannagan Meadows	9S11	9090	3/29	41	15.1	17.4	---
Hawley Lake	9R10	8300	4/1	18	7.4	10.0	---
Heber	10R4	7600	3/31	6	2.6	5.1	1.1
Maverick Fork	9S2	9050	4/1	33	12.7	15.1	6.8
McNary	9R2-M	7200	4/1	1	0.4	0.6	0.3
Milk Ranch	9R1	7000	4/1	0	0.0	0.0	0.0
Mt. Ord (A)	9S12-A	11000	3/25	96	35.9	---	---
Nutrioso *	9S4	8500	3/28	3	1.6	2.6	0.3
Smith Cienega (A)	9S14-A	9850	3/25	82	31.4	---	---
Wilson Lake	9R6	9000	4/1	42	15.6	14.4	---
Workman Creek	10S1	6900	3/27	18	7.3	13.3	1.5
BILL WILLIAMS RIVER							
Camp Wood *	12R1	5700	4/1	0	0.0	0.0	0.1
Copper Basin Divide	12R6	6720	4/1	0	0.0	0.0	0.0 **
Iron Springs	12R2	6200	4/1	0	0.0	0.0	0.0

(a) 1953-67, 15 year period. (*) Adjacent drainage. (**) 1953-67 Adjusted Average. (A) Aerial observation: Water content estimated.

SNOW ABOUT APRIL 1, 1969

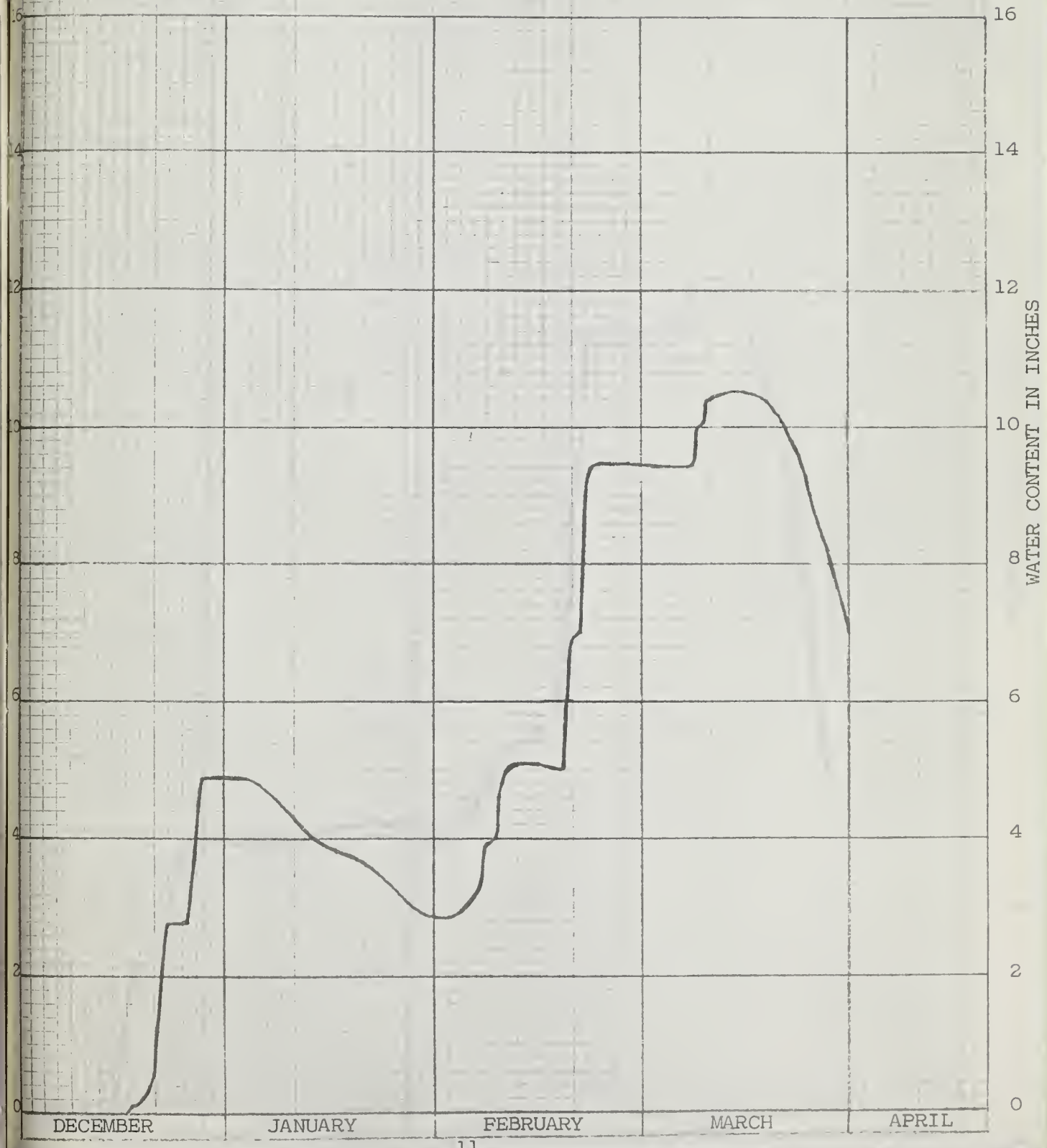
DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
NAME	NO.	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	AVERAGE [a]
VERDE RIVER							
Baker Butte	11R6	7300	3/31	14	5.8	11.8	----
Camp Wood	12R1	5700	4/1	0	0.0	0.0	0.1
Chalender	12P1-M	7100	4/1	6	2.0	0.0	0.7
Copper Basin Divide	12R6	6720	4/1	0	0.0	0.0	0.0 **
Fort Valley	11P2	7350	3/28	10	4.2	0.0	0.7
Gaddes Canyon	12R4	7600	3/31	26	10.0	8.5	2.6 **
Happy Jack	11R5	7630	4/1	9	3.5	0.6	1.2
Iron Springs *	12R2	6200	4/1	0	0.0	0.0	0.0
Mingus Mountain	12R3	7100	3/31	0	0.0	0.0	0.1
Mormon Lake *	11R4	7350	3/31	6	2.6	1.1	1.6
Mormon Mountain	11R3-M	7500	3/31	19	8.7	2.9	2.5
Newman Park	11P5-M	6750	3/31	2	0.8	0.0	0.5 **
Snow Bowl #1	11P4	10260	4/2	49	18.8	13.4	9.0 **
Snow Bowl #2	11P6	11000	4/2	83	29.1	23.6	---
White Spar	12R5	6000	4/1	0	0.0	0.0	0.0 **
White Horse Lake Jct	12P2	7150	3/31	5	2.0	1.8	---
LOWER COLORADO RIVER							
Bill Williams Summit	12P4	8950	3/31	51	20.5	15.8	---
Bill " Intermediate	12P5	8550	3/31	36	14.6	11.9	---
Bright Angel	12N1	8400	NO SURVEY			---	---
Chalender *	12P1-M	7100	4/1	6	2.0	0.0	0.7
Fort Valley	11P2	7350	3/28	10	4.2	0.0	0.7
Grand Canyon	11P1	7500	REPORT DELAYED			0.0	0.4
Williams Ski Run	12P3	7720	3/31	25	9.4	14.3	---
LITTLE COLORADO RIVER							
Agassiz (A)	11P10	11200	4/1	90	37.0	---	---
Baldy	9S1	9125	4/1	26	9.9	12.0	5.3
Baldy #2	9S15	9750	3/24	71	28.1	---	---
Baldy #3	9S16	10950	3/24	95	36.6	---	---
Canyon Creek	10R7-M	7500	3/31	5	2.0	4.3	1.0 **
Canyon Point	10R9	7600	3/31	3	1.3	3.8	---
Cheese Springs	9R7	8600	3/28	31	10.7	---	---
Forest Dale	10R6	6430	4/1	0	0.0	0.0	0.0
Ft. Apache	9R5	9160	4/1	27	9.6	10.6	6.1
Fort Valley	11P2	7350	3/28	10	4.2	0.0	0.7
Happy Jack *	11R5	7630	4/1	9	3.5	0.6	1.2
Heber	10R4	7600	3/31	6	2.6	5.1	1.1
Inner Basin #1	11P9	10100	4/1	70	30.0	21.4	---
Inner Basin #2	11P8	9750	4/1	42	17.6	15.4	---
Inner Basin #3	11P7	10250	4/1	40	17.1	22.0	---
McNary	9R2-M	7200	4/1	1	0.4	0.6	0.3
Mormon Lake	11R4	7350	3/31	6	2.6	1.1	1.6
Mormon Mountain	11R3-M	7500	3/31	19	8.7	2.9	2.5
Nutrioso	9S4	8500	3/28	3	1.5	2.6	0.3
Snow Bowl #1	11P4	10260	4/2	49	18.8	13.4	9.0 **
Snow Bowl #2	11P6	11000	4/2	83	29.1	23.6	---
Wilson Lake *	9R6	9000	3/28	42	15.6	14.4	---

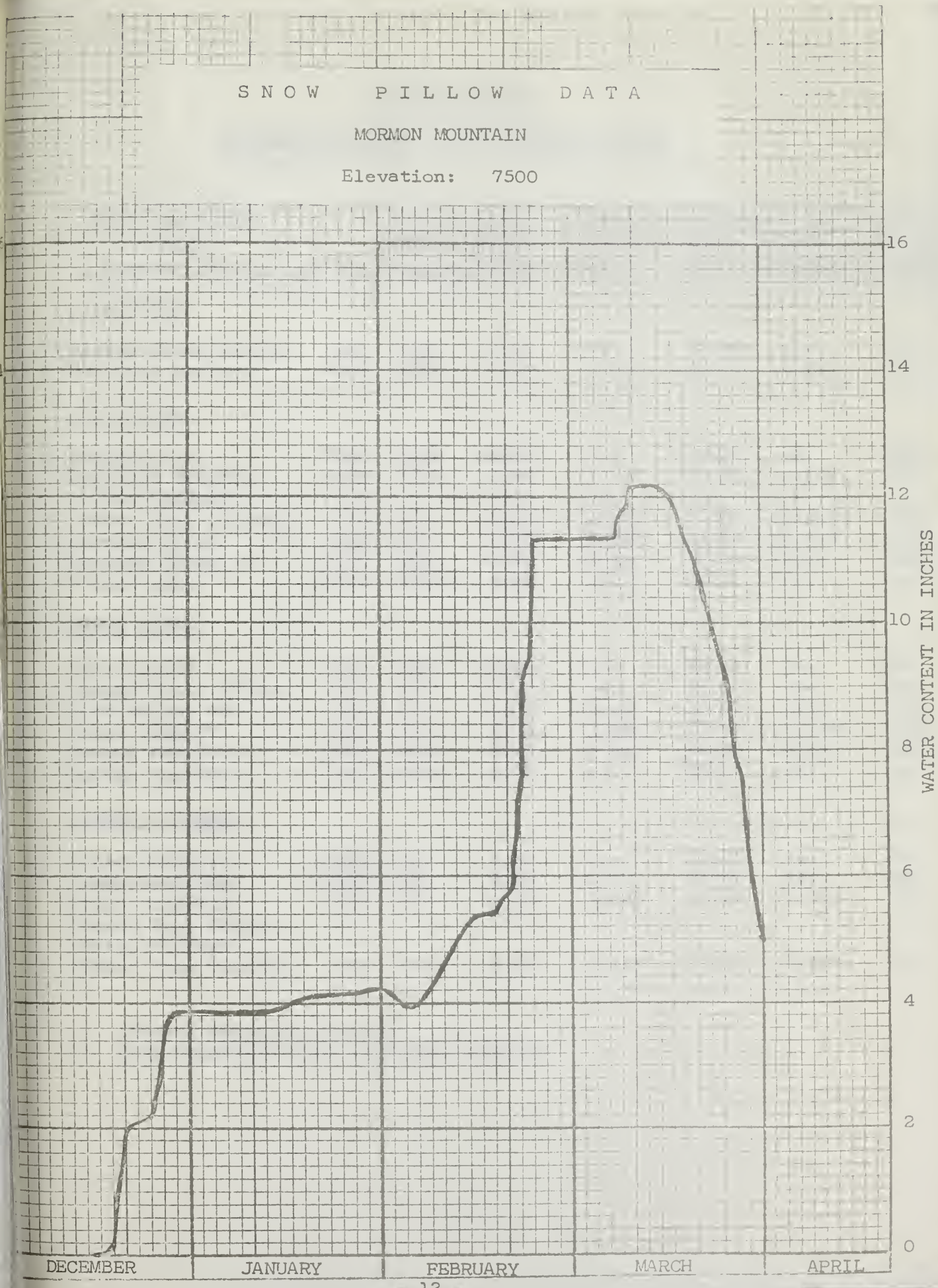
(a) 1953-67, 15 year period. (*) Adjacent drainage. (**) 1953-67 Adjusted Average. (A) Aerial observation: Water content estimated.

S N O W P I L L O W D A T A

BAKER BUTTE

Elevation: 7300




SNOW PILLOW DATA
MORMON MOUNTAIN
Elevation: 7500
16
14
12
10
8
6
4
2
0
WATER CONTENT IN INCHES
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL

PRECIPITATION

STORAGE GAGE DATA - ABOUT APRIL 1, 1969

Drainage Basin and Storage Gage	Elev.	Current Data Date of Reading	Current Data March Precip.	1953-67 Av. March Precip.	From Approx. 11/1 to Date This Year	1953-67 Average	% of Average
GILA RIVER							
Silver Creek Divide	9000	3/30	3.10	---	14.94	---	---
Hannagan Meadows	9030	3/29	3.34	3.14*	16.38	13.24*	123
SALT RIVER							
Canyon Point	7600	3/31	4.07	---	23.56	---	---
Hannagan Meadows	9030	3/29	3.34	3.14*	16.38	13.24*	123
Little Wildcat (Heber Snow Course)	7600	3/31	2.92	3.15*	17.04	14.52*	117
Maverick Fork	9050	4/1	1.50	2.59*	14.43	12.52*	115
Workman Creek **	6970	3/27	2.35	3.38	18.63	17.26	108
Wilson Lake	9100	3/28	3.45	---	14.33	---	---
VERDE RIVER							
Baker Butte	7300	3/31	2.84	---	22.95	---	---
Copper Basin Divide	6720	4/1	3.00	---	16.15	---	---
Fort Valley **	7350	4/1	4.07	1.84	15.63	9.10	172
Happy Jack **	7480	4/1	2.71	2.42*	17.47	11.29*	155
Mingus Mountain	7660	3/31	3.29	2.04	14.65	9.79	150
Mormon Mountain	7500	3/31	3.35	---	24.21	---	---
LITTLE COLORADO							
Inner Basin #1	9830	4/1	3.97	---	19.87	---	---
Inner Basin #2	10050	4/1	4.10	---	21.32	---	---
Sheep Crossing (Baldy Snow Course)	9125	4/1	2.40	2.34*	13.44	11.76*	114
Little Wildcat (Heber Snow Course)	7600	3/31	2.92	3.15*	17.04	14.52*	117

* 1953-67 Adjusted Average
** Data Supplied by U. S. Forest Service

ARIZONA SOIL MOISTURE - ABOUT APRIL 1, 1969

Drainage Basin and Station	1/ Station Number	Elev.	Soil Profile in Inches Depth	Soil Profile in Inches Cap.	Soil Moisture Content in Inches Date	1969	Past Record 1968	Past Record 1967	Past Record Avg.
GILA RIVER									
Frisco Divide	8S1-M	8000	48	13.3	3/28	12.2	13.8	11.2	11.8
SALT RIVER									
Black River Divide	9S10-*	9100	48	16.8	4/1	18.4	18.1	17.9	16.3
Canyon Creek	10R7-M	7500	48	18.3	3/31	17.8	17.6	18.8	15.3
Corduroy Creek	10R8-*	6000	36	13.5	3/26	14.0	14.9	9.8	9.2
McNary	9R2-M	7200	48	16.3	3/28	18.0	17.9	16.0	15.4
VERDE RIVER									
Mormon Mountain	11R3-M	7500	48	16.1	3/31	17.8	17.7	17.8	16.6
Newman Park	11P5-M	6750	48	17.7	3/31	21.6	19.5	19.5	17.9

1/ * - Soil Moisture Station Only
M - Snow Course and Soil Moisture Station

SNOW COURSE	SNOW SURVEYOR
Agassiz	SCS & USBR - Jack Jorgensen and Sid Saunders
Baker Butte	SCS
Baldy	SCS - Bill Cole
Bear Wallow	Forest Service - Carl Sollers
Beaver Head	N. A. Josh
Bill Williams Intermediate	Forest Service - Robert Wagenfehr
Bill Williams Summit	Forest Service - Robert Wagenfehr
Bright Angel	National Park Service - Charles Sigler, Dist. Rgr.
Camp Wood	Forest Service - Walter G. Richardson
Canyon Creek	SCS
Canyon Point	SCS
Chalender	Forest Service - M. E. Richards
Cheese Springs	SCS - Bill Cole
Copper Basin Divide	SCS - Bill Gray
Coronado Trail	Forest Service - John W. Holt
Crazy Horse	Forest Service - Loyd Barnett
Emory Pass #1 and #2	SCS - T. Stevenson and J. Powell
Forest Dale	Bureau of Indian Affairs - Raymond Endfield
Ft. Apache	SCS - Bill Cole
Fort Valley	Rocky Mountain Forest & Range Exp. Station
Frisco Divide	Forest Service - Luna District Ranger
Gaddes Canyon	Paul G. Lidbeck
Grand Canyon	National Park Service -Robert E. Scott, Dist. Rgr.
Hannagan Meadows	N. A. Josh
Happy Jack	Forest Service - Don W. Witt
Hawley Lake	Bureau of Indian Affairs - Raymond Endfield
Heber	SCS
High Peak	Forest Service - Loyd Barnett
Hummingbird	Ray Freeman
Ice King	James R. Wray
Inner Basin #1, #2, #3	SCS and USBR - Jack Jorgensen and Sid Saunders
Iron Springs	SCS - Bill Gray
Maverick Fork	SCS - Bill Cole
McKnight Cabin	Ray Freeman
McNary	Bureau of Indian Affairs - Raymond Endfield
Milk Ranch	Bureau of Indian Affairs - Raymond Endfield
Mingus Mountain	Paul G. Lidbeck
Mogollon	James R. Wray
Mormon Lake	SCS - Jack Jorgensen
Mormon Mountain	SCS - Jack Jorgensen
Mt. Ord	Salt River Project
Munds Park	SCS - Jack Jorgensen
Newman Park	SCS - Jack Jorgensen
Nutrioso	Forest Service - John W. Holt
Redstone Trail	James R. Wray
Rose Canyon	Forest Service - Carl Sollers
Silver Creek Divide	James R. Wray
Smith Cienega	Salt River Project
Snow Bowl #1	Forest Service - Angus Porter
Snow Bowl #2	Forest Service - Angus Porter
State Line	Forest Service - Luna District Ranger
White Horse Lake Junction	Forest Service - Robert Wagenfehr
White Spar	SCS - Bill Gray
Whitewater	Ray Freeman
Williams Ski Run	Forest Service - Robert Wagenfehr
Wilson Lake	SCS - Bill Cole
Workman Creek	Rocky Mountain Forest & Range Exp. Station

The Following Organizations Cooperate in the Arizona Snow Survey Work

FEDERAL

Department of Agriculture

Soil Conservation Service

Forest Service
- Apache Farest
- Coconino Forest
- Caronado Forest
- Gila Forest
- Kaibab Farest
- Prescott Forest
- Rocky Mountain Forest and Range Experiment Station
- Tanto Forest

Department of Commerce
- Weather Bureau
  - Arizona Section

Department af Interior

Bureau of Reclamation
- Region III

Geolagical Survey
- Arizona District

Bureau of Indian Affairs
- Fort Apache Reservation
- San Carlos Irrigation Project

National Park Service
- Grand Canyon Nationai Park

Gila Water Commissianer
- Safford, Arizona

STATE

University af Arizona
- Arizona Agricultural Experiment Station
- Water Resaurce Research Center

IRRIGATION PROJECTS

Salt River Valley Water Users' Association
- Phoenix, Arizona

San Carlos Irrigatian and Drainage District
- Coolidge, Arizona

PRIVATE

Southwest Forest Industries, Inc.
- McNary, Arizona

Other arganizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknawledged.

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