

STORM AND FLOOD OF 04-05 JANUARY 1995

Meteorology -- A formal meteorological investigation for this event was not conducted. It was a frontal winter storm, warmer than average for January, and had a duration of approximately 36 hours.

Rainfall -- Rain began about 08:00 hrs on the 4th and ended about 20:00 hrs on the 5th. Storm total amounts ranged from approximately 1.50 to 3.50 inches in the New River, Skunk Creek and Cave Creek watersheds above Carefree Highway. Many gages in the Phoenix metro area received more than 1 inch of rain.

Runoff -- The USGS estimated a peak discharge of 6,030 cfs on New River near Rock Springs. The District gage at Cave Creek near Spur Cross measured a flow of approximately 4,000 cfs. Minor flooding of low areas and dip-section closures were the result.

Flooded Area -- Low areas and dip-sections flooded along New River, Skunk Creek, and Cave Creek, both above and below Cave Buttes Dam.

Summary of Damages -- A formal damage summary was not prepared for this event.

(Information obtained from ALERT database and USGS ADAPS data).

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY

ARIZONA DISTRICT

01/05/95

STATION NUMBER 09513780 NEW RIVER NR ROCK SPRINGS, ARIZ. STREAM
 CE AGENCY USGS LATITUDE 335827 LONGITUDE 1120554 DRAINAGE AREA 67.3
 DATUM 2310 STATE 04 COUNTY 013

COMPUTED UNIT VALUES (INSTANTANEOUS)

DISCHARGE ,FROM DCP, IN CFS

TIME	VALUE	TIME	VALUE	TIME	VALUE
ISIONAL DATA					
JANUARY 05, 1995					
0:08:00	1200	03:45:00	4920	07:30:00	2450
0:15:00	1320	03:49:00	4920	07:35:00	2450
0:18:00	1320	04:00:00	5400	07:45:00	2220
0:30:00	1430	04:03:00	5400	7:50:00	2220
0:45:00	1550	04:15:00	5190	08:00:00	1990
0:50:00	1550	04:27:00	5190	08:05:00	1990
1:00:00	1800	04:30:00	5530	08:15:00	1820
1:05:00	1800	04:35:00	5530	08:20:00	1820
1:15:00	2020	04:45:00	5520	08:30:00	1700
1:23:00	2020	04:53:00	5520	08:35:00	1700
1:30:00	2440	05:00:00	5440	08:45:00	1740
1:45:00	2510	05:02:00	5440	08:51:00	1740
1:52:00	2510	05:15:00	5830	09:00:00	1750
2:00:00	2630	05:23:00	5830	09:12:00	1750
2:04:00	2630	05:30:00	6030	09:15:00	1650
2:15:00	2830	05:33:00	6030	09:18:00	1650
2:19:00	2830	05:45:00	5690	09:30:00	1610
2:30:00	3140	05:59:00	5690	09:43:00	1610
2:31:00	3140	06:00:00	5060	09:45:00	1600
2:45:00	3380	06:15:00	4620	09:54:00	1600
2:51:00	3380	06:17:00	4620	10:00:00	1800
3:00:00	3770	06:30:00	4000	10:10:00	1800
3:09:00	3770	06:39:00	4000	10:32:00	2330
3:15:00	3860	06:45:00	3490	10:53:00	2300
3:23:00	3860	06:51:00	3490	11:17:00	2100
3:30:00	4690	07:00:00	3120	11:40:00	1990
3:34:00	4690	07:15:00	2750	11:57:00	1890

SUBJECT TO REVISION

? [Y/N DEFAULT=Y]:

Discharge in 1993 - 22-28,000 cfs depending on
channel bottom

ZCZC PHXSFP AZ
TTAA00 KPHX 061012
AZZALL-062210-

STATE FORECAST FOR ARIZONA
NATIONAL WEATHER SERVICE PHOENIX AZ
310 AM MST FRI JAN 6 1995

.TODAY...A FEW MORNING SNOW SHOWERS FAR NORTHEAST, OTHERWISE PARTLY CLOUDY. SLIGHTLY WARMER, MAINLY NORTH AND EAST. HIGHS FROM MID 30S MOUNTAINS TO MID 60S DESERTS.

.TONIGHT...A SLIGHT CHANCE FOR SHOWERS FAR NORTHWEST LATE, OTHERWISE PARTLY CLOUDY. LOWS FROM AROUND 20 MOUNTAINS TO NEAR 50 DESERTS.

.SATURDAY...A FEW SHOWERS CENTRAL MOUNTAINS AND NORTH, OTHERWISE CLOUDY NORTH TO PARTLY CLOUDY SOUTH. BREEZY. HIGHS FROM NEAR 40 MOUNTAINS TO MID 60S DESERTS.

.EXTENDED FORECAST...

.SATURDAY NIGHT...SCATTERED SHOWERS, MAINLY CENTRAL MOUNTAINS AND NORTH. LOWS FROM NEAR 20 MOUNTAINS TO NEAR 50 DESERTS.

.SUNDAY...A FEW MORNING SHOWERS NORTHEAST, OTHERWISE GRADUAL CLEARING FROM THE SOUTHWEST. HIGHS FROM NEAR 40 MOUNTAINS TO UPPER 60S DESERTS.

.MONDAY THROUGH TUESDAY...DRY. LOWS FROM MID TEENS MOUNTAINS TO UPPER 40S DESERTS. HIGHS FROM MID 40S MOUNTAINS AND NORTHEAST TO AROUND 70 DESERTS.

WILT

NNNN

WSI TENDAY 18:13(11)GMT 06-JAN-95

6-TO-10-DAY OUTLOOK FOR JAN 10 - 14 1995
CLIMATE ANALYSIS CENTER NMC
NATIONAL WEATHER SERVICE WASHINGTON DC
3 PM EST WED JAN 04 1995

LITTLE OR NO PRECIPITATION IS INDICATED OVER MOST OF SOUTHERN CALIFORNIA...SOUTHERN NEVADA...ARIZONA AND NEW MEXICO ...MOST OF COLORADO...CENTRAL AND EASTERN PORTIONS OF WYOMING... MOST OF EASTERN MONTANA...MOST OF THE GREAT PLAINS FROM NORTHERN SECTIONS OF SOUTH DAKOTA SOUTHWARDS THROUGH TEXAS...WITH THE EXCEPTION OF NEAR MEDIAN AMOUNTS FOR CENTRAL AND SOUTHERN SECTIONS OF TEXAS...A SMALL POCKET OF ABOVE MEDIAN IN AND AROUND ABILENE TEXAS...AND BELOW MEDIAN TOTALS ARE ANTICIPATED FOR EASTERN PORTIONS OF TEXAS. LITTLE OR NO PRECIPITATION IS ALSO FORECAST FOR WESTERN PORTIONS OF BOTH IOWA AND MISSOURI.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
Daily Surface Water Report
Ending 01/06/95 1000

Gage Name	CURRENT					PEAK-Previous 24hr		
	Gage Ht. Ft.	Disch. cfs	Contents Ac.Ft.	Capacity Ac.Ft.	% full	Gage Ht. Ft.	Disch. cfs	Time MST
Gila R. @ Olberg								
EMF @ Broadway	0.00	0				0.88	129	1006
Rittenhouse FRS	6.07	80	0	3944	0	8.02	93	1519
Vineyard FRS	2.10	25	30	4388	1	2.10	25	0652
Powerline FRS	1.33	16	0	4200	0	2.47	29	1356
EMF @ Queen Creek	0.70	201				1.98	776	1044
Queen Ck. @ Rittenhs	1.40	0				2.25	598	1431
EMF @ Arizona Ave.	0.95	177				1.15	258	2342
Santa Cruz @ SR 84	2.40	0				2.40	0	0801
Santa Rosa @ SR 84	2.30	0				2.30	0	2252
Greene Wash @ SR 84	1.20	0				1.20	0	0637
Vekol Wash	0.50	0				0.68	0	1105
South Mountain Fan	0.00	0				0.00	0	0512
Apache Jct. FRS	0.18	0	0	530	0	3.15	21	1115
Signal Butte FRS	5.37	0	13	1375	1	5.82	0	1349
Spookhill FRS	0.64	0	0	902	0	2.54	30	1147
IBW @ Sweetwater	0.67	0				0.90	0	1133
Tatum Wash @ 40th	0.00	0				0.00	0	0330
IBW Interceptor	0.00	0				0.00	0	0302
IBW @ Indian Bend	1.27	0				2.28	445	1029
IBW @ McKellips Rd.	0.32	28				1.42	348	1305
Salt R. @ Priest Dr	2.00	0				2.00	0	0732
Old Xcut @ Thomas	0.35	8				0.35	8	0035
Old Xcut @ McDowell	0.13	8				0.13	8	2354
Guadalupe FRS	0.00	0	0	329	0	0.00	0	0716
McMicken Dam	0.00	0	0	20816	0	0.00	0	0700
McMicken Floodway	0.15	0				0.15	0	0512
Agua Fria @ Grand	2.00	0				2.37	0	1035
New River Dam	13.33	881	1038	43700	2	16.43	1159	2008
New River Outlet	8.31	1217				9.16	1574	1915
New River @ Bell	1.62	942				1.83	1162	2321
Skunk Cr. nr New R.	2.37	0				3.08	0	1434
Skunk Creek @ I-17	1.14	0				1.24	0	0718
Adobe Dam	0.20	0	0	18000	0	0.20	0	0840
Adobe Dam Outlet	0.75	10				1.87	67	1343
ACDC @ 36 St	0.00	0				0.25	0	1516
ACDC @ 14 St	0.30	0				0.30	0	0344
Dreamy Draw Dam	0.34	0	0	356	0	0.57	0	1416
10 St. Wash								

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
Daily Surface Water Report, Page 2
Ending 01/06/95 1000

Gage Name	CURRENT					PEAK		
	Gage Ht. Ft.	Disch. cfs	Contents Ac.Ft.	Capacity Ac.Ft.	% full	Gage Ht. Ft.	Disch. cfs	Time MST
Cave Cr.@ SpurCross	4.35	188				8.25	2070	1108
Cave Cr nr Cave Cr	0.00	0				2.25	137	1236
Cave Buttes Dam	32.44	260	2622	45650	6	32.44	260	1000
Cave Buttes Outlet	4.83	313				4.83	313	0847
E.Fork CC #1	0.10	0	0	78	0	0.10	0	2007
E.Fork CC #4	0.17	0	0	74	0	0.47	0	1023
E.Fork CC #3	0.00	0	0	172	0	0.00	0	0433
E.Fork CC #2				63				
E.Fork CC #5				145				
Cave Creek @ Cactus	10.12	295				10.12	295	0914
ACDC @ 43 Av	0.90	0				0.90	0	0652
ACDC @ 67 Av	2.67	202				3.05	299	1050
NewRiver @ Glendale	1.35	0				1.37	0	1733
Dysart Chnl@ Dysart	1.20	0				1.75	0	1001
Dysart Chnl@ El Mir	0.00	0				0.37	7	1200
Colter @ El Mirage	0.10	0				0.10	0	0342
Agua Fria @ Buckeye	0.00	0				0.00	0	0158
Gila @ Estrella Pky	5.78	10				5.78	10	0906
White Tanks #3 FRS	0.00	0	0	3012	0	0.00	0	1819
White Tanks #4 FRS	0.00	0	0	1396	0	0.00	0	0658
Estrella Fan	0.00	0				0.00	0	2307
Hassy @ Wagoner Rd	2.10	0				2.10	0	2237
Hassy @ Box Canyon	1.50	188				3.50	1118	1429
Martinez Creek	0.00	0				0.17	0	1240
Sols Wsh nr Matthie								
Hartman Wash	0.00	0				0.00	0	0543
Flying E Wash	0.05	1				0.05	1	0218
Casandro Wash	0.15	0				0.15	0	2323
Powder House Wash								
Hassayampa @ US 60	0.13	581				1.12	935	1435
Sunset FRS	2.28	13	0	63	1	2.60	14	1121
Sunnycove FRS	8.14	23	1	225	1	8.34	24	1504
Buckeye FRS #3	0.10	0	0	1220	0	0.10	0	0259
Buckeye FRS #2	0.33	0	0	780	0	0.33	0	0902
Buckeye FRS #1	0.00	0	0	8200	0	0.00	0	0105
Hassayampa R @ I-10	1.02	85				1.02	85	0426
Harquahala FRS	0.76	0	0		0	0.76	0	0633
Saddleback FRS	0.30	0	0	7920	0	0.30	0	0541
Centennial Railroad	-1.00	0		7012		-1.00	0	0525
Sauceda Wash	0.92	0				1.40	24	1031

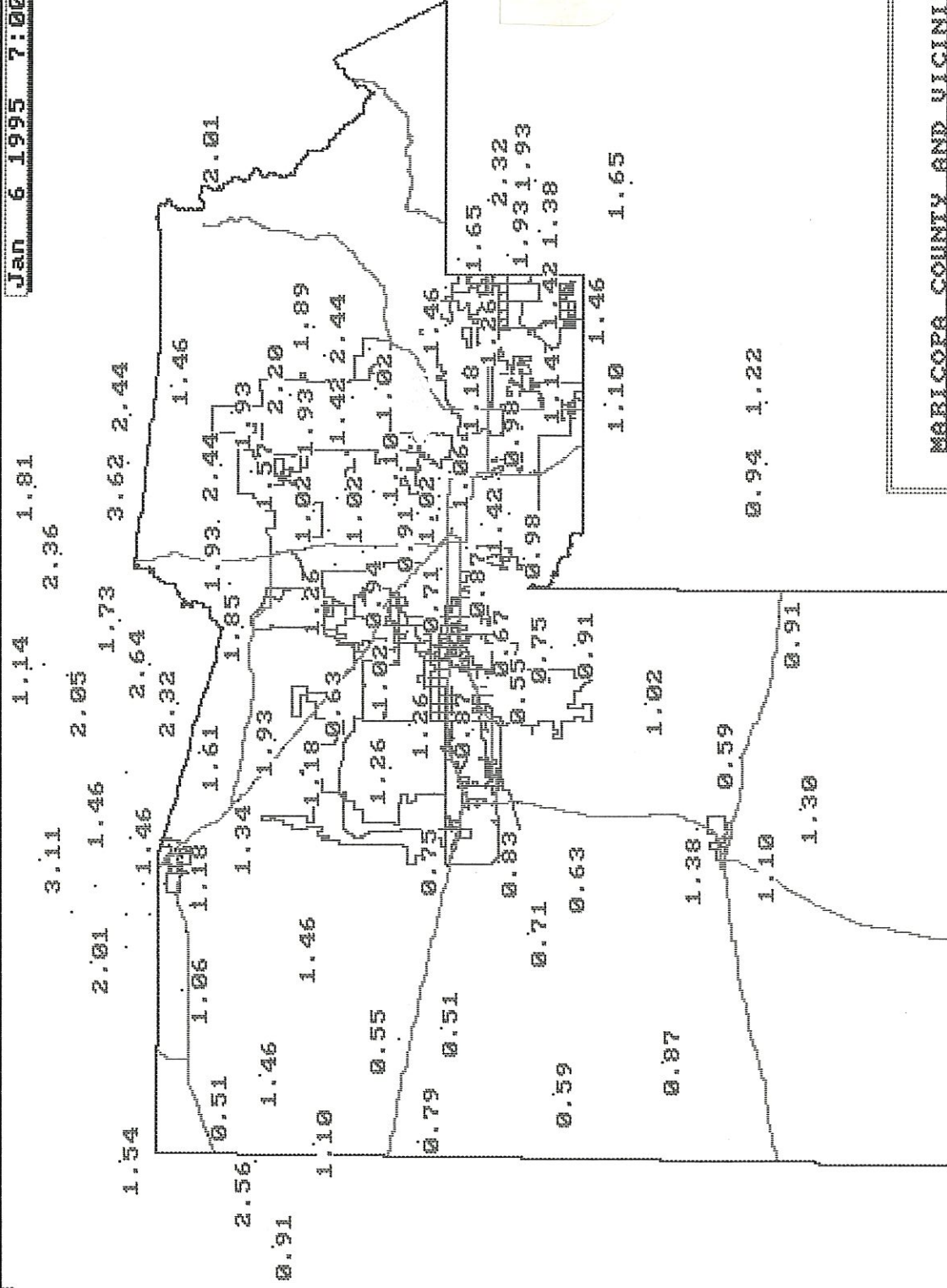
FCDMC FLOOD RETARDING STRUCTURE SUMMARY

NAME	ID #	STAGE (ft)	STORAGE (ac-ft)	DISCHARGE (cfs)	GRAPHIC
Adobe Dam	5539	0.29	0.0	0	□
Apache Jct. FRS	6673	0.18	0.0	0	#
Buckeye FRS #1	5203	0.00	0.0	0	#
Buckeye FRS #2	5208	0.33	0.0	0	#
Buckeye FRS #3	6813	0.10	0.0	0	#
Cave Buttes Dam	4904	32.44	2622.	260	#
Dreamy Draw Dam	4803	0.34	0.0	0	#
Guadalupe FRS	6503	0.00	0.0	0	#
Harquahala FRS	5128	0.76	0.0	0	#
McMicken Dam	5448	0.00	0.0	0	#
New River Dam	5614	13.44	1060.	894	#
Powerline FRS	6683	1.33	0.0	16	#
Rittenhouse FRS	6703	6.18	0.0	80	#
Saddleback FRS	5113	0.30	0.0	0	#
Signal Butte FRS	6628	5.37	13.1	0	#
Spook Hill FRS	4563	0.64	0.0	0	#
Sunnycove FRS	5248	8.14	1.4	23	#
Sunset FRS	5233	2.28	0.5	13	#
Vineyard FRS	6688	2.10	29.7	25	#
White Tank FRS #3	5418	0.00	0.0	0	#
White Tank FRS #4	6823	0.00	0.0	0	#

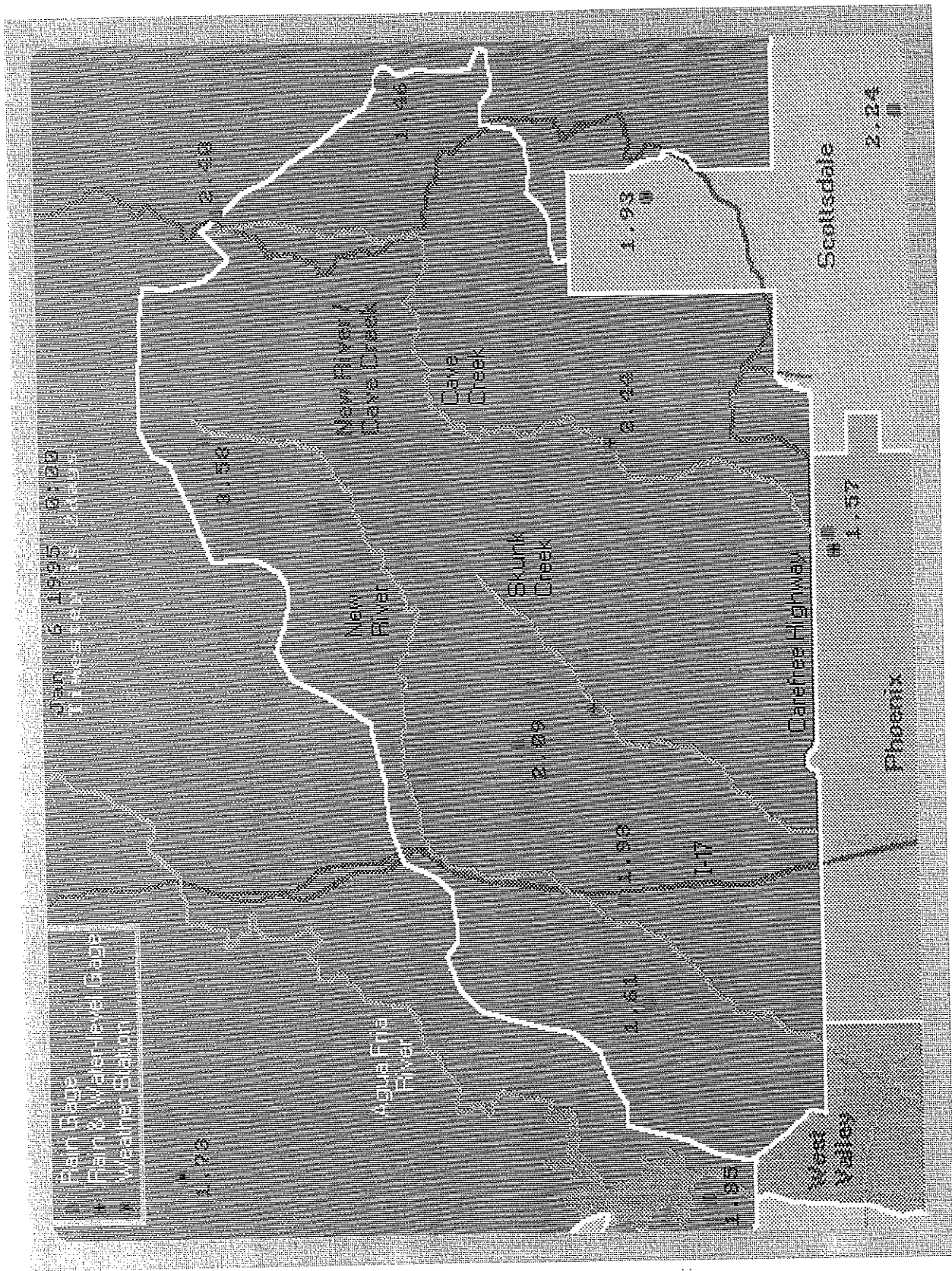
STAGE READINGS: GREEN-OK YELLOW-NOTIFY C&M RED-NOTIFY EMERGENCY MANAGEMENT

Jan 6 1995 10:00

Jan 6 1995 7:00



MARICOPA COUNTY AND VICINITY
RAINFALL IN PREVIOUS 72 HOURS



FCD of Maricopa County ALERT System

Group Name

Date

Time

Precip 12: Upper New R./Skunk Cr. 05/22/1997-13:50:51

DeviceID	SkunkII7	U.SknkCr	NR@Bell	N.RivDam	SunupRch	NR Lndfl	CooksMsa
StatType	dif	dif	dif	dif	dif	dif	dif
Data Type	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in
01/05/95							
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.24	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.12
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.04	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.16
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.20
0900	0.00	0.00	0.00	0.04	0.00	0.00	0.20
0800	0.00	0.04	0.04	0.00	0.28	0.00	0.04
0700	0.08	0.04	0.00	0.00	0.00	0.00	0.16
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.04	0.08	0.00	0.00	0.00	0.00
0400	0.16	0.12	0.00	0.12	0.00	0.20	0.31
0300	0.08	0.20	0.08	0.20	0.20	0.12	0.35
0200	0.08	0.16	0.12	0.12	0.16	0.16	0.24
0100	0.04	0.16	0.04	0.08	0.20	0.16	0.20
01/04/95							
2400	0.04	0.12	0.08	0.12	0.12	0.12	0.24
2300	0.12	0.16	0.16	0.16	0.20	0.20	0.20
2200	0.16	0.24	0.04	0.12	0.12	0.12	0.20
2100	0.08	0.08	0.04	0.08	0.12	0.20	0.12
2000	0.00	0.08	0.00	0.04	0.28	0.00	0.00
1900	0.04	0.04	0.04	0.04	0.00	0.00	0.08
1800	0.12	0.08	0.08	0.12	0.00	0.08	0.16
1700	0.04	0.08	0.08	0.04	0.08	0.08	0.08
1600	0.04	0.04	0.00	0.04	0.00	0.00	0.04
1500	0.00	0.08	0.00	0.08	0.08	0.08	0.04
1400	0.00	0.00	0.04	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.04	0.04	0.00	0.08
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1100	0.04	0.04	0.00	0.08	0.04	0.08	0.16
1000	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0900	0.00	0.04	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0700	0.04	0.04	0.04	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.04
TOTALS:	1.14	2.09	0.94	1.50	1.93	1.61	3.58

FCD of Maricopa County ALERT System
 Group Name Date Time
 Precip 25: Upper Cave Creek 05/22/1997-13:49:44

DeviceID	Buttes	CvCrLnfl	SpurCros	Carefree	ReataPas	HumbltMt	7 Spring
StatType	dif	dif	dif	dif	dif	dif	dif
Data Type	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in
01/05/95							
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.12	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.04	0.04	0.00
2000	0.00	0.00	0.00	0.04	0.00	0.04	0.00
1900	0.00	0.00	0.04	0.24	0.00	0.04	0.08
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.08
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.04	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.08
1100	0.00	0.00	0.00	0.00	0.00	0.12	0.00
1000	0.00	0.00	0.00	0.08	0.08	0.00	0.12
0900	0.00	0.04	0.04	0.00	0.04	0.04	0.28
0800	0.04	0.00	0.00	0.04	0.12	0.08	0.00
0700	0.04	0.00	0.31	0.04	0.31	0.12	0.00
0600	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0500	0.00	0.08	0.00	0.00	0.00	0.00	0.12
0400	0.00	0.16	0.00	0.20	0.20	0.12	0.28
0300	0.08	0.08	0.24	0.08	0.04	0.08	0.20
0200	0.08	0.20	0.16	0.16	0.12	0.16	0.16
0100	0.04	0.00	0.08	0.12	0.00	0.00	0.12
01/04/95							
2400	0.12	0.12	0.16	0.24	0.16	0.08	0.12
2300	0.08	0.16	0.20	0.12	0.20	0.08	0.20
2200	0.16	0.20	0.24	0.12	0.24	0.08	0.08
2100	0.04	0.12	0.28	0.08	0.00	0.08	0.08
2000	0.00	0.00	0.00	0.00	0.04	0.00	0.00
1900	0.08	0.08	0.00	0.04	0.08	0.04	0.04
1800	0.08	0.20	0.20	0.04	0.12	0.08	0.08
1700	0.08	0.04	0.24	0.12	0.08	0.04	0.08
1600	0.00	0.04	0.00	0.00	0.04	0.04	0.04
1500	0.00	0.00	0.00	0.04	0.04	0.00	0.04
1400	0.00	0.00	0.00	0.00	0.04	0.04	0.00
1300	0.04	0.04	0.00	0.00	0.00	0.00	0.04
1200	0.00	0.00	0.04	0.08	0.00	0.00	0.00
1100	0.00	0.00	0.12	0.00	0.00	0.00	0.08
1000	0.04	0.00	0.00	0.04	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.04	0.04	0.00	0.00
0800	0.04	0.04	0.00	0.00	0.08	0.04	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.04
TOTALS:	1.02	1.57	2.44	1.93	2.17	1.46	2.40

Jan 6 1995 13:00

POOL STAGE (ft)

CAVE HITES DAM POOL

S E N S O R 4 2 0 4

STRUCTURE DATA

TOP OF DAM.....1679.0
SPILLWAY ELEV.....1637.1
MAX. DEPTH.....119.0 ft
SPILLWAY CAP...46,100 af

STRUCTURE DIMENSIONS

LENGTH.....2,275 ft
TOP CREST.....20 ft
DRAIN DOWN... 44 days

CURRENT CONDITIONS:

Stage (ft) -----> 32.6
Discharge (cfs) -> 296
Storage (ac-ft) -> 2627.
Percent Full (%) ->
Drawdown (days) ->
Q @ #4918 (cfs) ->

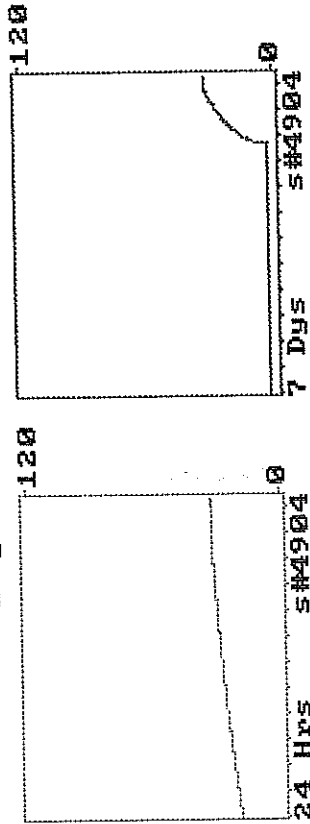
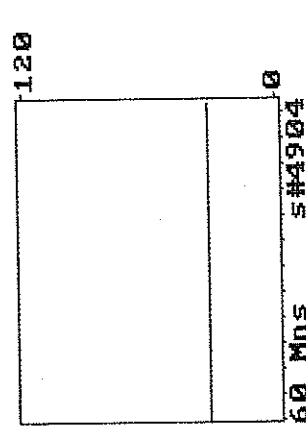
120
Top of Dam
@ 119 ft.

105
Emergency
Spillway

90
Notify
Emergency
Management

75
Notify C&M

60
ALARM(10ft)



PROBLEM AREAS

Beardsley Rd Crossing
Union Hills Crossing
7th Street Crossing
Groovers Ave Crossing
Cave Creek Park

BASIN RAINFALL

L.D.	1hr	6hr	24hr	WYTD
4900	0.00	0.00	0.00	3.74
4915	0.00	0.00	0.00	6.14
4920	0.00	0.00	0.16	7.28
4930	0.00	0.00	0.28	5.16
4940	0.00	0.00	0.16	5.47
4950	0.00	0.00	0.16	7.01

PgDn for Outlet Information

7 Dys s#4904

Sensor Offset = 1.99 feet