FLOOD

DECEMBER

1978

95-37

Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

Property of
District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

DATE Dec. 18, 1978 SHEET 5 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
1434		546A	Placed "D w/c" Signs on Elliot - E/o Hawes Rd	✓
1448		544	There's no water @ Hassayampa @ Ord Sch Rd or Baseline & Ck if it came from Wickenburg you perhaps that's why they were barricades	✓
1454		546A	Placed "D w/c" @ University & 65 Sh	✓
1500		546A	Both "Stops" - 10-4 @ Bush & McKellips	✓
1502		545	103 ave & T-Bird - what's supposed to be the problem? (waterflooding) it's 10-4	✓
15[illegible]5		545	on 103 ave - N of T-Bird - Placed barricades - water building up	✓
1516		399	@ Cave Creek Wash & Carefree Hwy wtr rose 6 more inches - almost to 3 ft mark now -	✓
1558	545		Per P&R @ Estrella Th - wtr over Bullard Rd @ Gila - Ck out	✓
1601		399	21 S/o People disregarding barricades @ Cave Creek Wash & Carefree Hwy	✓
1604		530	Cactus Rd fr 59 ave to 51 ave should be closed - almost went into manhole (Contr to take care of it)	✓
1619		541	"Closed" McKellips Rd @ Lack Pener @ 1610 hrs for E/W bnd traffic also "Closed" Alma School Rd for N/Sbnd traffic @ 1615 hrs	✓

(11)

95-37

Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE 12-18-78 SHEET 1 OF 2

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
1700	SO		ON THE AIR	
735		SO	Chandler Hgt. W/o Hawes Rd D/W caution signs Requested water running 1' deep	
740	542-A		Chandler Hgt. W/o Hawes Rd - Place D/W caution Signs	
806		SO	Ellsworth fr Baseline to Germain Request Rd. Closed.	
810		SO	Barricades Requested To Close off - Southern @ Elmirage, 115th Ave, 107th Ave. Also Broadway & 99th Ave. To Keep people Out of the Holly Acrea AREA	
839	542-A	SO	Request to close Bush Hwy @ McDowell Rd. And Bush Hwy @ Usery Pass Rd	
3		So.	Request BARRICADES to Close to Thru TRAFFIC AT Beloat Rd AND Airport to 7th Ave - Buckeye P.D. STANDING BY	
858		SO	Request closed Airport at Gila River	
903		SO	Request slow + CAUTION AT CAREFREE Hwy w/o Scottsdale Rd	
916		SO	Request closed Northern AT 107th Ave and New River	
722		542-A	Placed D/W Caution Signs on Chandler Hgt W/o Hawes	
731	544-A		CK FOR Possible Rd. closures @ (Southern @ Elmirage) + (115th Ave + (107th Ave) & BELOAT Rd @ Airport to 107th Ave)	
948		300	check HAZARD AT 40ST N/o Bell Rd	
949		SO	check HAZARD (WATER) AT 43rd Ave + Paradise Prince S/o GREENWAY Rd.	
955		520	Closed Hayden @ Curry - River Crossing (SALT RIV)	
955	542A		Closed Bush Hwy @ McDowell Rd	
011	542A		USUARY Pass + Bush Hwy. - Closed	
017	541A		PERRY LANE N/O FIRST St. - Closed	
01[illegible]	541A		PIMA Rd fr. PERRY LANE to Hayden Rd Closed	
019	/		48th St + River bottom - Closed city of Tempe	
020	SO		St Route 87 Bridge OUT @ Verde RIVER	
015	544A		SOUTHERN + 115 S/B TRAFFIC - Closed	
025	544A		SOUTHERN + 107 S/B TRAFFIC - Closed	
035	544A		El MIRAGE + SOUTHERN S/B TRAFFIC closed	
052	544A		99th Ave + BRODWAY FOR S/B TRAFFIC closed	
100	SO		Dysart + Southern AVE - CK for water + D/C SIGNS	
045	520		City of Tempe Closed Scottsdale Bridge	
	~~544A~~		BeLoat Rd AND Airport to 7th Ave	
130	544A		Closed BeLoat Rd W/B Closed Airport Rd	

(28)

95-37

Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE 12-18-78 SHEET 2 OF 2

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN S OPERA
130		300	Released 15,000 CFS LAKE PLEASANT into the AQUA FRI @ 2400 hrs.	
120		541A	Scottsdale Rd & River Bottom - Closed	
046		542A	40th St N/o Bell 2 Signs D/W Cautions	
149		SO	Alma School & McKellips Barricades Needed	
150		544A	Bell Rd & 7th St - Closed	
230		542A	Cave Creek Rd w/o Scottsdale on 2 Caution AND 2 Barr. Placed.	
		~~546~~	~~Broadway Rd~~	

6

12-19-78
DAY

8 AM TO 8 PM

541-A Jessie TAVENA
Roy HERRERA

GORRAIZ
EVANS

542-A LARRY MARQUEZ
DANNY ORTEGA

543-A JIM FRITZ
ALEX ROMERO

544-A RUDY RUDNICK
mike WERLEY

545-A GEO. FEDERICO
M. ORDAZ

546-A R. MOROYOQUI
~~E. BANDA~~ Hicks

PLATFORM TRUCK ~~ROS~~ - ~~HICKS~~
MARTINEZ.

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Jointhead - 48th St. DATE: 12/20/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100	10.1				EL	
0130						
0200						
0230						
0300	9.5				EL	
0330						
0400						
0425	8.6				EL	
0430						
0500						
0530						
0600	8.3				EL	
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Jonathead - 48th Street DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
13:01 1330	9.8				E.J.	
1400	9.8					
1430						
1440 1500	9.7				LO	
1530						
1600						
1630						
1700						
1730	10'				LO	
1800						
1830						
1900						
1930						
2000						
2030	10.1'					
2100						
2130						
2200						
2230	10.1'				LO	
2300						
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Jointhead – 48th Street DATE: 12/19/91

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
2400 ~~0030~~	8.4				EL	
0100						
0130						
0200	9.9				EL	
0230						
0300 ~~0320~~	10.2				EL	
0330						
0400						
0430 ~~0450~~	10.4				EL	
0500						
0530 ~~0550~~	~~10.2~~				EL	
0600						
0630 ~~0636~~	~~10.0~~				EL	
0700	9.9				EL	Water broken out toward south side of river - Water flow breakout may be eroding out to south + Temp. Phx should be alerted.
0730						
0800	10.0				E.M.	
0830						
0900						
0930	9.8				E.M	
1000						
1030	9.8				E.M	
1100	9.8				E.M.	
1130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Mill Avenue Bridge DATE: 12/20/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130	6.95 ft.				EL	
0150						
0200						
0230						
0300					EL	
0315	7.6 ft					
0330						
0400						
0430						
0500						
0530						
0600	4.7 ft				EL	
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Mill Avenue Bridge DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
B:20 1330	6.3				E.M.	
1400						
1430	6.6				do	
1500						
1530						
1600						
1630						
1700						
1730						
1800						
1830						
1900						
1930	7.0				do	
2000						
2030						
2100	7.0				do	
2130						
2200						
2230						
2300	7.08				do	
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Mill Avenue Bridge DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
2340 0030	3.1				EL	
0100						
0130						
0200						
0230						
0300						
0330						
0400						
0430						
0500						
0530						
0600 0603 0630	6.5				EL	
0700						
0730 0750 0800	6.5				EL	
0830						
0900						
9:40 0930	6.3				E.M.	
1000						
1030						
1100						
1130 11:45 1200	6.3				E.M.	

JOURNAL

Date 12-19-78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
1800	Hassayampa - 2' to 3' flow at U.S 80	LG
2030	No water in McMicken	LG

JOURNAL

Date 12/19/78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
1815	13.5 This afternoon Outflow 300-350 cfs from Whitlow Ranch via Karakawa - U.S. Corps Dist	[illegible]
1830	Burt Kennedy concerning Cave Creek Dam release	[illegible]
1930	Called Lake Pleasant gage 169.23 which is less than previous discharge has not changed ∴ gaining storage	GSB
2000	Talked to Chuck Hawley with Az. Rep. and gave him general rundown on flow rates for Gila and Agua Fria confluence. Dispelled myth of est. 200,000 cfs below confluence. Overall situation looks pretty positive → all inflows on decline slight increase should be felt through Phoenix tonight. Bud White	

JOURNAL

Date 12/19/78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
1600	Call from Buckeye resident stating that existing flow is about ~¼ mi. from Beloat Rd vs ~½ mi from Beloat Rd during March flow.	RD
1700	Called Corps in L.A. about Whitlow Ranch Dam	
1715	Stabilized 15,000 cfs at Waddell via Kenneth Horton - Inflow about 15,000 cfs - gaining storage.	RD
1720	Pete Peterson City of Mesa concerning Salt flows	RD
1750	Corps called concerning Witlow Ranch Unable to reach their contact - will be calling back when they can.	RD
1800	Informed Sheriff's Department concerning at ~1700 (4') of flow behind Rittenhouse (9' on gage)	RD
1810	Hassayampa Buckeye ~3' 1700 hrs. Wickenburg 18'-20" Apparently not to significant	RD

JOURNAL

Date 12/19/78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
1300	15,000 release from Waddell confirmed	RJ
1338	Correspondence with Don Wisner concerning Cave Creek outflow vs. Ariz Canal capacity downstream. (Nick Caran coordinating)	RJ
1430	Apparent wind down of SRP releases. Inflows decreasing rapidly.	RJ
1400	Salt River at Granite Reef 115,000 cfs	RJ
1450	15,000 release from Waddell	RJ
1515	From 0800 12/18 to 1200 12/19 Inflow Salt - 222,000 A.F. Verde 165,000 AF Total = 387,000 AF Outflow = 176,000 A.F. (Granite Reef)	RJ
1525	Talked to Corps concerning situation in relation to Painted Rock works	RJ
1535	1500 Readings from SRP Verde outflow 65,000 Salt outflow 50,000 cfs Granite Reef 115,000 cfs Storage increasing on Roosevelt.	RJ

JOURNAL

Date 12/19/78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
1055	Dick Yancy — 15000 1050 @ Pleasant Lake release	DJ
1100	Talked to Scott Clarke concerning conditions -	RJ
1110	Talked to Pete. Peterson City of Mesa concerning flows & critical area at ~Lehi Rd	RJ
1130	Resident in Buckeye Vicinity concerning flows from Gila & Agua Fria	RJ
1135	Granite Reef. 110,000 cfs via SRP	RJ
1130	Waddell Dam 15000 cfs 1130	RJ
1145	Scott Clarke called concerning flows & road closures.	RJ
1220	Corps - John Karakawa 213-688-4756 still at 250 cfs	RJ
1220	County Hwy reported water level @ Beloat Rd & Airport Rd intersection	J
1235	Mrs. Marley - Buckeye Area	RJ
1315	Dale Peterson FIA called concerning conditions (upset)	RJ
1330	115,000 cfs Granite Reef (no additional release) - local info -	

JOURNAL

Date 12/19/78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
0910	Ellis Hyde Aerial 258-6471 for Les Commented that critical areas are Agua Fria	RD
0920	Called above and ordered stereo coverage of following: ① Agua Fria R. from Gila to L. Pleasant ② Gila Sect from Agua Fria conf. to Granite Reef	GSB
0930	Called Dick Yancy flow out of Waddell 20,000 Outflow = Inflow Capacity	RD
0940	Talked to Les - is going on flight - info exchange -	RD
0945	Linda - Sheriff's Depart - Concerning releases	RD
0945	Resident 112 & Southern concerning flows at 91 Ave crossing at 0600.	RD
1000	Army Aviation - Herb taken same flight as Les.	RD
1025	Luke - Concerning flows in Agua Fria	RD
1035	Called Buckeye City Hall had report of flow reaching Beloat & Airport at ~ 1000 - 1030.	RD
1050	110,000 cfs release at Granite Reef	RD
1050	Info from Larry Waggoner - sent man from 11-way Hwy to Maricopa Rd & Gila - flow 3-4' deep.	RD

GSB 12-19-78
0720

Joinhead 9.9

Radio message from Bill J. Dan S.

Water broken out toward south side of river because of this water flood breakout may be ending out to south & Temp & Phx should be alerted.

Phoenix and Tempe notified

DJ 12-19-78
Log beginning 0800

0820 Info concerning evacuation below Lower Buckeye & Agua Fria.

0830 Radio report that flow in Agua Fria is 8' below bridge

0835 Talked to Sheriff's department concerning releases from SRP structures.

0850 3' water at US 80 & Agua Fria

0900 Jack called to talk to Dan (returned call)

GSB/12-19-78

0630 Report from resident? Holly Acres water at 115th Ave & Southern.

0645 Report from Al Dishazo (Hwy) that water is sheeting north across Southern for 1/4 mile east of 115th Ave.

0645 Dan S and Bill J. going to joint head to check on reading (because of conflicting report about water allready to Holly Acres area)

0645 Les B for 'copter ride down Salt to Gila and up Agua Fria to find were wetting fronts actually are. Will report in.

Cave Creek 27.5' [illegible]

Beardsley - Minor 0230 12/19 HB

Big peak at substation 0240 12/19 HB

Bank to bank @ Beardsley flume 0245 12/19 HB

NWS - 0420 - Rainover Agua Fria, tapering off 12/19 HB
Cave Creek, Bartlett - none
Apache Junction to Globe - very little

0420 - Bell Road + Agua Fria - 6.5'
0435 - Bell Road overtopped east of bridge

JOURNAL

Date 12/18/78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
1530	C.D. Phone Manned	DJ
1545	Cave Creek Dam 1500 STAGE 24.3	"
	~~[illegible]~~	
1600	Telephone Questions Concerning flows & releases in Salt	DJ
1610	151,126 Ac-ft. - El 162.13 14500 cfs 26,800 Ac-ft storage Available	DJ
1615	Call Concerning flows out of Cave Creek and behind Cave Buttes (Dave Clemmer?)	DJ
1620	ST. MT. 23,000 - Verde 60,000 - Granite Reef 39000 as of 1500 hrs	DJ
1640	Verde Outflow 75,000 - G Reef - 45000 (anticipation) St. MT 26 000 cfs at 1630	DJ
1700	Phone Call Concerning Conversation about flows current vs. last March	DJ
1720	Country Club Closed	DJ
1730	Cave Creek Dam Stage 25.8	DJ
~~1645~~ 12/19/78 0605	FROM PHX EOC: Union Hills at Cave Creek is closed	DJ

12-18-78

Jack Pfister 11:00 AM

~~Potential~~ 90,000 – 100,000 cfs on Verde
Expect less than March, but over 100,000 cfs.
8000 cfs noon
46,000 cfs by 5:00 PM today
another storm coming in behind this one.

Rainfall in local area less than Mar.
Canals flat.
Probably able to handle local drainage in canals.
2-4" rainfall on some parts of watershed, some on snow.
Flows → 90% snow coverage on Verde, 5' deep.
Ag Canal Cap. → 2000 cfs. → same for Southern Canal.

NWS Bob Ingram
Storm continues for 24 more hrs.
Expect another one Wed.

Rittenhouse → 2' in low flow channel
No water out spillway at McAlister
Nothing at Bachelor.
IBW → 8" – narrow channel.

New R. → Bank full

1000 hrs
10/18/78

Status Resp:

Salt River, Waddell, (Weather Report)

Current Release at Granite Reef - 2000 cfs

Water Front — estimated time of arrival Mesa - Phx. —

Tangle Creek - inflow 28,150
Bartlett 3,000

Waddell 1030 hrs
7000 cfs inflow

72,000 ac-ft storage

Talked to Scott Siom C.P. and got word concerning expected 90,000 - 100,000 cfs release by SRP and relayed info to HPD (1050)

Conversation 830 12/18/78

Steve Rust

1622½ 4,000 ac-ft in 24 hrs

944-9685

3675 ac-ft
+ 4000 ac-ft expected
7675

1632½

concerning stage capacity Cave Creek Dam.

using old stage-capacity curve (1971)
(Neglect of sedimentation & recent excavation

RJ

JOURNAL

Date 12-18-78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
2:00 P.M.	I began manning the Civil Defense Headquarter's Office radio.	GH
1645	Bartlett 75,000 Stewart Mtn 26,000 Granite Reef 45,000	
1800	St. Mtn 32,000 Bartlett 75,000 Granite Reef 67,500	
1900	Tangle 76,500 Roosevelt 114,600 (inflow) Camp Verde 35,000 E Verde 76,800 Salt R. Canyon 66,000	
2000	St. Mtn 32,000 Bartlett 75,000 Granite Reef 85,000 Verde inflow 76,490 Roosevelt inflow 110,410	
2300	Releasing 15,000 (78,000 inflow) at Waddell	

12/18/78

Don Weaver & Bud Cathey 7:00 am

Cave Creek 21½' 250 cfs

Open other gate? → call again in a hr.

Carefree highway down from 6' to 3'

Spilling on AZ Canal?

No. Cave Creek not there yet

Spilling or anticipated spill at Granite Reef?

Spilling 2,400 cfs (about 6:00 AM)

Bartlett 3000 cfs (until Tues)

here in 6 or 7 hrs

Current level of Dam

85% when started.

Not much difference yet

Cave Butte (C/

944-9685

Waddell

1900 - 19 DECEMBER 1978

VERY SERIOUS FLOODING TO PERSIST IN MANY AREAS THROUGH THE NIGHT. FLOODING AND FLOOD RELATED PROBLEMS CONTINUE TO PLAGUE DUNCAN ON THE GILA RIVER WHICH REMAINS UNDER WATER. FLOOD WATERS IN DUNCAN PROBABLY WON'T RECEDE SIGNIFICANTLY UNTIL SOMETIME WEDNESDAY MORNING. AT CLIFTON ON THE SAN FRANCISCO RIVER, WATERS ARE STILL RUNNING QUITE HIGH BUT HAVE RECEDED SOMEWHAT FROM EARLIER IN THE DAY. THERE IS TILL SOME THREAT OF SOME FLOODING IN THE CLIFTON AREA TONIGHT.

DOWNSTREAM ON THE GILA IN THE SAFFORD VALLEY WATERS WERE ALSO RECEDING AS OF EARLY EVENING. HOWEVER, A SECOND CREST IS EXPECTED IN THE SAFFORD VALLEY LATER TONIGHT AND MAY AGAIN CAUSE SOME FURTHER FLOODING. OTHER FLOODING IN THE GILA CONTINUES IN THE CONFLUENCE OF THE SALT RIVER SOUTHWEST OF PHOENIX. WATER FROM THE VERDE, HASSAYAMPA, AGUA FRIA ARE NEAR BANK FULL OR STILL FLOODING IN SOME AREAS ALTHOUGH SOME SHOWERS WERE STILL IN THE CENTRAL ARIZONA AREA AND WILL PROBABLY CONTRIBUTE TO CONTINUED FLOODING AT LEAST THROUGH THE NIGHT.

WATER BEING RELEASED FROM THE RESERVOIRS CONTINUES TO COURSE DOWN THE SALT RIVER. STREET CLOSURES AND FLOODING RESULTING FROM THESE RELEASES WILL CONTINUE THROUGH THE NIGHT AND INTO WEDNESDAY. SOME FLOODING IS ALSO EXPECTED ON THE SANTA CRUZ RIVER NORTHEAST OF TUCSON AND THE CORTERO AND MARANA AREA TONIGHT. THESE FLOOD WATERS WILL PROCEED DOWN THE SANTA CRUZ RIVER AND EMPLY INTO THE GILA RIVER SOUTHWEST OF PHOENIX SOMETIME LATE WEDNESDAY. MANY STREETS AND ROADS ARE CLOSED THROUGHOUT THE STATE DUE TO FLOODING. TRAVE IS DISCOURGAGED AND IN FACT IS IMPOSSIBLE IN MANY AREAS. OBEY LAW ENFORCEMENT OFFICERS. DO NOT ATTEMPT TO BY PASS BARRICADES.

IN ADDITION, A WINTER STORM WARNING CONTINUES IN EFFECT UNTIL MIDNIGHT TONIGHT FOR THE CENTRAL MOUNTAINS IN NORTHEAST ARIZONA. SNOW IS FALLING DOWN TO THE 4,000 FOOT LEVEL AND UP TO 8" OF NEW SNOW COULD ACCUMULATE IN SOME AREAS BEFORE SNOW ENDS LATER TONIGHT.,. ML

NAWAS - 1550. Dec. 19. FROM NATIONAL WEATHER SERVICE, PHOENIX.

WATER AND HEADWATERS OF THE GILA ARE STILL HIGH, SO WATER LEVEL SHOULD REMAIN HIGH MUCH OF WEDNESDAY. FLOOD WATERS ARE REPORTED AT CERRITA - WILL ARRIVE AT MARANA LATE TONIGHT OR TOMORROW MORNING. THIS SHOULD BE THE LAST IN A SERIES OF CRESTS. SOME FLOODING FROM THESE CRESTS IS EXPECTED. IN THE VERDE RIVER BASIN WATERS IN OAK CREEK ARE DOWN SOME. HOWEVER, THE BIG CHINO IS STILL FLOWING HEAVILY WITH SOME FLOODING. IN THE PHOENIX METROPOLITAN AREA EXTREME FLOOD PLAIN FLOODING HAS TAKEN PLACE, FROM THE AGUA FRIA AND SALT RIVER. MANY HIGHWAYS AND ROADS HAVE BEEN CLOSED. THIS IS ONLY A PARTIAL ACCOUNT OF WHAT HAS TAKEN PLACE IN ARIZONA. THE HEAVY RAINFALL FROM THIS STORM, ALONG WITH SNOW IN THE MOUNTAINS, HAS PRODUCED NEW OR ABOVE-RECORD FLOWS ON ALL MAJOR STREAMS, WHICH HAS PRODUCED WIDE-SPREAD FLOODING.

THIS STRONG WINTER STORM HAS STARTED TO WEAKEN IN ARIZONA; HOWEVER, LIGHT TO MODERATE SHOWERS ARE PREDICTED THIS AFTERNOON, AND THE WINTER STORM WARNING CONTINUES IN EFFECT IN THE CENTRAL MOUNTAINS AND NORTHEAST ARIZONA.

NEW SNOW CAN BE EXPECTED. SNOW LEVEL IN MOUNTAINS WILL BE 5,000 FEET. SNOW SHOWERS WILL DECREASE TONIGHT, TOMORROW AND THURSDAY. FURTHER STATEMENTS WILL BE ISSUED AS NEEDED.

FHG

NAWAS - 1050.

A STRONG WINTER STORM IN THE LAST FEW DAYS IS BEGINNING TO SHOW SIGNS OF WINDING DOWN. HOWEVER, THE STORM STILL PACKS ENOUGH PUNCH TO CONTINUE THE WEATHER STORM WARNING IN THE NORTHERN MOUNTAINS THROUGH TONIGHT. THE SNOW LEVEL WILL BE NEAR 5000 FEET IN THE NORTHWEST AND 8,000 FEET IN THE SOUTHEAST. HEAVY SNOWFALL WILL CONTINUE AT TIMES TODAY AND TONIGHT.

FIVE TO TEN INCHES COULD PILE UP AT THE HIGHER ELEVATIONS BY WEDNESDAY MORNING.

THE SOUTHERN DESERTS AND CENTRAL MESAS WILL HAVE SHOWERS AND THUNDERSTORMS TODAY AND EARLY TONIGHT. AS THE STORM MOVES OUT, RAIN WILL DECREASE TONIGHT, WITH PARTIAL CLEARING ON WEDNESDAY AND THURSDAY.

IN GENERAL STORM TOTALS AROUND THE STATE WERE ON THE ORDER OF 2 TO 4 INCHES. HOWEVER, SOME OF THE MORE SIGNIFICANT RAINFALL TOTALS IN EXCESS OF 4" INCLUDE HAWLEY LAKE, - HUMBOLDT HAD IN EXCESS OF 5", JUNIPINE IN EXCESS OF 5", TONTO CREEK, 4.64 INCHES.

PHOENIX AREA - 1-1/2 TO NEARLY 3" IN SOME AREAS. WITH SUCH SIGNIFICANT AMOUNTS, FLOODING IS A PROBLEM NEARLY STATEWIDE.

TRAVEL IS STRONGLY DISCOURAGED, AND UNLESS ABSOLUTELY NECESSARY. BE PREPARED FOR A LONG DELAY AND HAVE ALTERNATE ROUTES PLANNED. MONITOR THIS BROADCAST OR CALL DEPT. OF PUBLIC SAFETY.

AWAS 19 December 1978 0530 hrs

EXTREMELY SERIOUS FLOOD PROBLEM IN ARIZONA AND A WINTER STORM WARNING CONTINUES IN NORTHERN ARIZONA MOUNTAINS TODAY AND TONIGHT.

... 3:30 THIS MORNING THE GAUGE READING AT DUNCAN WAS 4 FT 8 IN AND NEW UPDATE OF THAT AT 5:30 IS NOW 5 FT 10 IN AND STILL RISING.

ABOVE STREAM AT RED ROCK THE WATER IS ALREADY 18 INCHES HIGHER THAN IT WAS AT THANKSGIVING PEAK. NOW THE UPDATE OF THAT IS WELL 3 FT HIGHER THAN IT WAS AT THANKSGIVING PEAK. EARLIER THE WATER WAS OVER THE BRIDGE AT CLIFTON AND STILL RISING.

ALSO AS OF 3:30, 105,000 cfs is measured IN THE SALT RIVER AND 60,000 cfs IN THE AGUA FRIA BELOW LAKE PLEASANT. THESE ARE BUT A FEW MEASUREMENTS. NEEDLESS TO SAY WATER IS POURING DOWN THE GILA, SAN FRANCISCO, LITTLE COLORADO, SANTA CRUZ, AGUA FRIA, HASSAYAMPA, THE SALT AND THE VERDE RIVERS.

THERE ARE NUMERAL REPORTS BRIDGES WASHED OUT, CLOSED FLOODED ROADS AND DAMS, BRIDGES ARE BROKEN. PERHAPS THE MOST STRONGEST, THE MOST COMPLETE DESTRUCTION OF THE I-17 HIGHWAY BRIDGES AT BLACK CANYON CITY.

TRAVELERS INVOLVING CROSSING OR NEAR THESE BRIDGES - ARE NOT POSSIBLE. DO NOT DRIVE AROUND BARRICADES.

SHOWERS OR THUNDERSHOWERS, HEAVY AT TIMES, ARE EXPECTED TO CONTINUE TODAY. THE WORST IS YET TO COME. THE TIME FOR HEIGHT AND CRESTS ARE NOT POSSIBLE TO ESTIMATE AT THIS TIME. THE SHOWERS AND THUNDERSHOWERS WILL TAPER OFF FROM THE WEST TONIGHT BECOMING PARTLY CLOUDY WED. SNOW CONTINUES TO FALL IN CENTRAL ARIZONA MOUNTAINS AT THE 6000 ft LEVEL AND NEW SNOW ACCUMULATIONS OF 12 INCHES OR MORE ARE LIKELY BY WED. MORNING LOWERING TO THE 4000 FT LEVEL.

TRAVELING IN MTNS WILL BE HAZARDOUS AT BEST. BEAR IN MIND THE WASHED OUT BRIDGES AND ROADWAYS.

FURTHER STATEMENTS WILL BE ISSUED AS MORE INFORMATION BECOMES AVAILABLE.

BL

NAWAS 18 Dec 78 1420 hrs

THE WATER IS GOING OVER THE DAM AND IT IS LEAKING. EVACUATING PEOPLE IN AREA BELOW THE DAM IN WILLIAMS, ARIZONA.

STATE ES CALLED FLAGSTAFF S.O. AND FOUND OUT IT WAS ROCK DAM BEHIND OR EAST OF WILLIAMS. [redacted] THERE ARE 3 DAMS AND ALL ARE RUNNING OVER.

BL

SALT RIVER FLOOD

December 1978

Date		Mill Ave. Bridge Time	Mill Ave. Bridge Reading	Joint Head Dam Time	Joint Head Dam Reading	Central Ave. Bridge Time	Central Ave. Bridge Reading
Dec. 18		2340	3.1	2400	8.4	1840	43.4*
						1940	42.9*
Dec. 19	WCA			0200	9.9	0025	25.2
		0150	5.7	0320	10.2	0040	25.1
		0300	6.5	0450	10.4	0400 0230	24.4 22.9
		0435	6.9	0550	10.2	0520	22.2
		0603	6.5	0636	10.0	0705	22.2
	MCHD	0750	6.5	0700	9.9 **	0830	22.4
		0940	6.3	0800	10.0	1030	22.0
	EOK	1145	6.3	0930	9.8	1230	22.0
		1320	6.3	1100	9.8	1345	22.0
		1540	6.6	1305	9.8	1645	21.7
		1930	7.0	1445	9.7	20000	21.1
		2100	7.0	1730	10.0	2200	20.7
		2300	7.1	2030	10.1	2340	20.4
	LW			2230	10.1		
Dec. 20		0150	7.0	0100	10.1	0220	20.4
		0315	6.0	0300	9.5	0400	21.3
		0525	4.7	0425	8.6	0535	21.6
	TNJ	0730	4.2	0600	8.3	0855	24.9
		0930	4.2	0800	8.1	1045	25.0
		1130	4.5	1120	8.0	1210	25.5
	EOK	1300	4.4	1245	8.0	1345	25.5
		1650	4.4	1420	8.0	1800	25.5
		1855	4.3	1540	7.9	1955	26.5
		2130	2.3	1840	7.8	2215	26.9
		2330	2.3	2300	6.5	2400	27.9
Dec. 21	LW	0115	2.3	0100	6.4	0200	28.2
		0250	2.3	0230	6.4	0330	28.2
		0445	2.8	0430	6.6	0600	27.9
	TNJ	0805	2.8	0635	6.6	0830	27.9
		0900	2.8	0730	6.6	1005	28.0
		1100	2.8	0930	6.6		

* Herb Schuman, USGS

** Bill Jolly, FCD

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Interoffice Memorandum

CMT. NO.

SUBJECT: Salt-Verde Storage

To: Herb From: Les Date: 12/6/78

A little-known fact, not likely to be publicized by SRP: since 1910, there have been only 5 years (1916, 1917, 1920, 1942 and 1966) when as little as 500,000 a-f of storage was available on January 1. 1979 will be the sixth such year, and only the third since the SRP system reached its current capacity in 1950. In 9 of the years since 1950 (almost 1/3 of the years), the Jan 1-June 30 runoff has exceeded 500,000 a-f

2 L.R.B. HPD 12-11-78

SRP will probably have to release water. Pls. keep in contact with SCS on amount of snow and water content in the watershed. If excess water is apparent we should request SRP release at a slow rate before a "deluge"

HPD

$$3.5\overline{)12.0}$$

3.4

105

150

935 4532

115 — 8:00 am

91 — 5 am

56

Paul Crosby Scottsdale Rd

$$2.5\overline{)7.5}$$

3

$$4\overline{)15}$$

3.75

96.86

81.59

15.27

12216

3054

7635

80625 ~~60~~

222.3

60 | 13438

120

143

120

138

120

180

13438

6 | 80625

6

20

18

26

24

22

18

115

Allow bridge tee (

3.7

60 | 222

180

420

3.5 - 4 hrs

3 42

26 July 1978

1310 Director radioed that he heard on Hwy radio that water was running at 115th Ave and river. Check on it. Bob Bishop called Flood Control. Only man who would know (Dave Johnson) out to lunch. Back in 30 min.

1315 Director radioed again. Hwy Dept is sending a man out to area to check. Monitor Hwy Radio

1319 Hwy dispatched man (45?) to 115th - 123rd Ave area to check water

1331 Another Hwy Unit at Landfill reported water in Gila. Told to standby.

1345 Bishop reported Dave Johnson + Ryder got info from same source.

390 - 541

1358 ~~Star~~ 390 asks 541 to check Maricopa/Gila.
Water was running at 115

~~1400~~ 400 to 390 ~~Star~~ asked 390 how much water was moving as where it was coming 100 ft wide 3 inch deep from Gila River.

1406 - 545 - 570 -

Flood Control / District - Disaster Defense Center

Day	Mon	Tues	Wed
Les	1400 - 2400	8:00 - 1600	0600 - 1800
Dave	1400 - 2400	8:00 - 1800	0600 - 1800
Dan	1400 - 0700		
Nick		0600 - 1800	0600 - 1800
Emily	0800 - 1700	0800 - 1700	0800 - 1700
Sue	1400 - 0100	Linda 1600 - 0100	1600 - 0100

Night			
Dan	1400 - 0700	1800 - 0600	1800 - 0600
Bill	1800 - 0600	2200 - 0600	1800 - 0600
Scott	2400 - 0800	1800 - 0600	1800 - 0600
Elizabeth	2400 - 0900	2400 - 0900	2400 - 0900

DAMAGE ESTIMATE

AVONDALE	300,000
BUCKEYE	50,000
EL MIRAGE	No Report
GLENDALE	25,000
PHOENIX	No dollar value yet
GOODYEAR	No Problems
MESA	No Report
TEMPE	Minimal - no $ Report
PEORIA	500,000 - 83rd Ave.
SUN CITY	None
YOUNGTOWN	None
TOLLESON	No Damage
SCOTTSDALE	25,000

933-8251 Dick Yancy

(University Priest)

Coyle John Karakawa 213-688-4736
Painted Rock

158,000
131,126
26,874

Sun land along Salt River

90 - 100,000 in 10 minutes 23' - 1045 -

Inflow at Lake Pleasant decreasing 22,000 cubic feet

Notifications

	Agency	Phone	Time	Msg
✓	State	273-9880		46,000 cfs 5 PM
✓	Sheriff	262-3105	- 1052	46,000 cfs 5 PM
✓	Flood Control	262-1501	-	
✓	Mech Equip -	262-3641	1055	"
✓	ARC	264-9481	1055	"
✓	County Mgr	262-3572	1057	"
✓	Phoenix -	262-6054	1103	"
✓	Glendale	-931-5656		
✓	Tempe	968-8221 2068	1100	"
✓	Mesa -	834-2595	1102	"
✓	Buckeye -	935-4532	- 1110	
Gila ✓	Parks + Rec -	262-3716 (Henry Gilmore)	1107	"
✓	Highway -	262-3611	1104	"
County	Public Info -	262-3271		
(Sheriff) ✓	Mg Carter	262-3161		

583-0685 Home

Waddell Dam Dick Yancy 933-8251 ✗
or 933-7979

20,000 900
capacity

storage 2,000,000 120,000

anticipating

Release - 1200-1500 cfs -

859-9556

108 543 - 520 caution sign posted at 115

will proceed to 123

1409 390-520 Barricade at 115 Ave placed by 390

~~648-653~~

343 348

~~5 - 11 000~~

~~61 - 457~~

~~361 - Bill Wolf~~

1437 545 355 Ave Lubin School 1/4 mile North need Bain

C ~~148~~ 642

397 - ~~[illegible]~~

335 - 220

555 - 61 Office

115 - 309 Relay

541 - 390 341 could not raise 390

343 - 61 Shop

Office - 241

511 - 61 - 1090

~~341~~

395 - 541

37

Central Ave Br.
I-10 Br.
Mill Av. Br.

997-0764

25.8 $.7 \times A \times h^{1/2}$

25.8

G.R. 65000 1730

B Ferry 29,000 1700 32,000

Bartlett Verde 75,000 1700

1600 increase 16,200 cfs

23,000 cfs

Agua Fria inflow 18,000

Jim 971-4659

85 + Aqua
5'

Joe Thalba

15,000 cfs at midnight

Jack Prokuff
~~12~~ 14

Armando De la Rosa
541

Andy 642
Replace at 0500 (5720)

60,000 cfs

278

5' at 12:02
5' at 11:01
4' at 10:18

0:55 Aqua Trio & US 80 3' running under bridge
9:05 35th & Buckeye closed
9:47 Cave Creek Rd open - Jomat detour closed
9:52 More water expected in Santa Cruz County (via weather report) from gri in CD office
11:22 Grand Ave - Aqua Trio open

658 - Tom Johnson

Buckeye 80' inside Gila River at Maricopa Road

20.44
2.20

Mill Ave 6 ft. 7:15 AM

48th St 9.53 AM

Gila & Maricopa Rd 3-4' deep

9:40 6.3'
9:30 48th 9.8
(6 I 3) Centre 22.0'

Zimmerman 16:00 -

~~[illegible]~~ LUKE AFB

Major Riemer - Home Phone 938-4018

Mr. Friend - Home Phone 279-4334

Bruce Salmon

Jenny N

gold shoulder -
$25,000

Friend

Grand - Ave

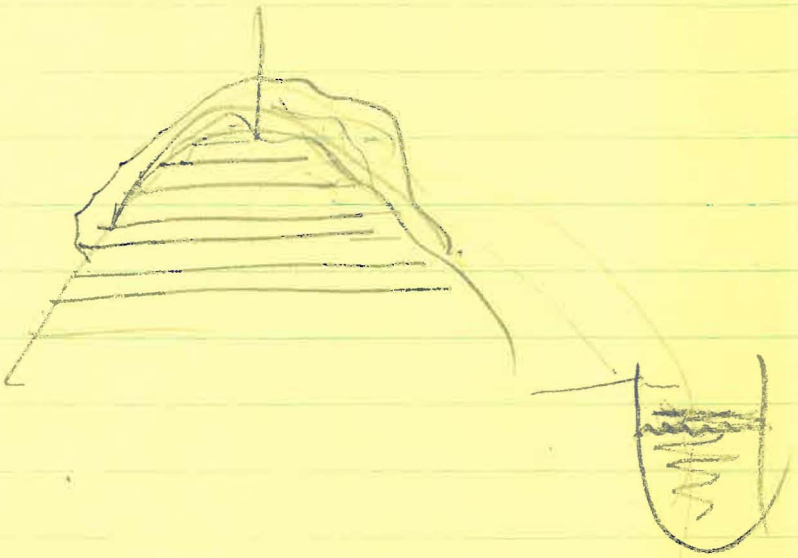
Litchfield, Dyer

North to Rocky - Direct Ope

Preliminary Report of Damage from Cto

KOY

VA Med Ctr



Activities Report

Lee Uhlen –
" Goodyear – No Damage
37% Average Sewer PGA

Jerry Bill Peterson – minimal – Mill Ave Shot Out
– Cortez

Cities – Youngtown – No Problem
Tolleson – "
Glendale – and $25,000 damage.

CFS

51st Ave N of Pima

ADOT - 15, Mesa - no damage reported

Pue director out -

Tolleson - well cut - # homes damaged small business

- possibly - gas lines -

Youngtown - 933-8286 - problems - nothing - no people displaced

(974-4510) 69 =

Peoria

trap - Glendale down 1' last #

Balan MacKenzie - 994-2356 - 1:30

Mr. McKean

KDKB

SRP-

1198.97 (2200-2400) - $100.00 $199.97

Tow Hel

Camelback + 15th

Chrysler - Plymouth

Lowell - Chrysler

- 16th - Thomas

Berg Brown SRP -

345 new entrance

lockout - off

down alt 2 serve lockout

down fuel service

Granite

Kenge -

3000

El Mirage -

Avondale

Phoenix - no excuses

Call Miller

Allenville - money of 262-3870

El Mirage - Surgeon - people Dynamic - 660 - El Mirage

Car Trouble -

- difficulty - or registering

Glendale - $25,000

rebuild roads

restore ocean & exits barbeque

rebuild Shooting Range

replace jaw fencing - load fuel

move tow equip for L.F. - to Phoenix

training refresh + C.O.P. load fuel

Peterbo

$8,000

23,000 cfs
1900 AF/hr
23,000 AF stream

1430 Salt Outflow 23,000
5600 local

1445 Verde Outflow ~~45,000 cfs~~
60,000.
Granite Reef 15,000

1445
1445 20000+ Granite Reef

1430 Roosevelt 58070
Tonto 32400
C. Verde 22200
E. Verde 67,000
Tangle 47970

1600 30,000 CFS Granite Reef

Cane Creek Dam

Stage (ft)	Time
22.6	9:30
23.0	10:45
23.1	11:00
23.8	1300 (1:30)

Cane Creek & Canfree Hickory

Guage elev. (ft.)	Time
2.5	9:45
3.5	10:45

SRP

Bartlett	outflow (CFS)	Time
	3000	9:00
	3000	10:00

Granite Reef		
	5,000	8:00
	6,000	9:00
	7,000	10:00
	9,000	11:00

Tangle Creek	Inflow	Time
Verde	19,000	8:00
Roosevelt	28,150	10:00
Tonto	30,380	10:00
	31,900	10:00

Waddell	Storage ac-ft.		Inflow (C
capacity	158,000	8.00	7600
Available Storage	32,000	10:30	7000

		Time
outflow	0	8:00
	0	10:30

Move things — 1130

SRP release outflow = inflow
mon - 5

46000 Granite Rd

100,000 by Midnight

60 - 70,000 cfs into
cold storm from N
snow blow 10,000 5+

30,000 Tangle Creek

---

bring in colored photographs

need pick-up

info maps — radio

printer to calculator

state map with streams
& washes

wait for Ron

1100 hrs

Weather Report 1100

Continued raining - next couple days
Thunderstorms showing intensity of intense amounts
line Gila Bend NE SW and
Right of that line

Emergency #'s
273-2686 SRP 1100

273-1411

Granite Reef	9000
Tangle Creek Verde	28000
Roosevelt	30,380
Tonto	31,900

(1000) readings

Aric Canal at Cave Creek
has not recieved Slows yet.

Associated Press called concerning
situation recommended he
talk to Civil Defense.

900 hrs 6000 cfs

call 261-6000
at Weather
11:o'clock 11:00

V.M. 91

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FIELD TEAM DAILY REPORT

DATE 12-23 1978 TEAM NUMBER

TEAM PERSONNEL J. GREISIGER

VEHICLE NUMBER 32813 MILEAGE: IN 17629

WEATHER COOL, CLEAR OUT 17417

MILES DRIVEN 212

NARRATIVE REPORT OF ACTIVITIES (include times and locations)

	CAVE CREEK DAM WEST GATE OPEN 2' 6" CENTER GATE BLOCKED 18" (SUPPOSEDLY)	INFLOW CAREFREE HWY	~~OUTFLOW~~ CAVE CREEK WASH OVER C.A.P.
0015	20.0'		1.2'
0100	19.9'		
0200	19.7'	(.2' DEEP 20' WIDE 2'/SEC)	
0300	19.5'		1.2'
0400	19.2'		
0500	19.0'	.2' x 20' x 2'/SEC = 8 CFS	
0600	18.8'		
0700	18.6'		1.15'
1600			1.1'
0160~~0~~5	16.7'		
1630		.2' x 20' x 1'/SEC	
1700	16.4'		
1800	3 TO 3.5' AT BEARDSLEY RD. - CAVE CREEK WASH (ROAD WASHED OUT)		
1900	16.0'		
2000	15.7'		
2100	15.4'		
2200	15.1'	.15 x 20' x 1'/SEC	
2300	14.8'		

(use back side for additional space)

John Greisiger

TEAM CHIEF

NOTES:

AT 0200 STAFF GAGE ON SIDE OF DAM 19.6'
STAFF GAGE OUT IN WATER 19.8'

CORPS DATA: 1. ELEVATION OF EMERGENCY SPILLWAY 1575' TO 1576'.
2. EL PONDING BEHIND CAVE BUTTES - NO CHANGE IN LAST 24 HOURS.
3. BOX CULVERT OVER CAP 60' WIDE - MEASURED AT .7' DEEP AS 170 CFS.

AT 0300 STAFF GAGE ON DAM 19.4'
ON POLE 19.6'

AT 0600 STAFF GAGE ON DAM 18.8'
ON POLE 18.9'

AT 0700 STAFF GAGE ON DAM 18.6
ON POLE 18.8

01615 ON DAM 16.7'
ON STAFF 16.91

SUNDAY, 24TH DECEMBER.
THE WATER ELEVATION READING AT THE PRINCIPLE OUTLET AT 1000 A.M. WAS 10.0/10

[signature]

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FIELD TEAM DAILY REPORT

DATE 12-22 1978 TEAM NUMBER

TEAM PERSONNEL J. GREINIGER

VEHICLE NUMBER 12841 MILEAGE: IN 7714

WEATHER COLD, CLEAR OUT 7581

MILES DRIVEN 133

NARRATIVE REPORT OF ACTIVITIES (include times and locations)

CAVE CREEK DAM (WEST GATE OPEN TWO FEET)

TIME	CAVECREEK WASH AT C.A.P.	CAVECREEK DAM	CAREFREE HWY - CAVE CREEK WASH
0045	1.1'		
0100		23.3'	
0130			.3' 25' WIDE 4'/SEC (30CFS
0200	1.1'	23.25'	
0300		23.1'	
0400		23.0'	
0500		22.9'	
0600		22.7'	
0700		22.6'	
0630			.3'

CORPS DATA: 12-21 C.A.P. BOX CULVERT .7' DEEP = 170CFS

NO WATER SPILLING OVER CAVE BUTTES YET. ON 12-22-78 THE CULVERT WAS 1.1' DEEP (.4' FROM THE EMERGENCY SPILLWAY)

use back side for additional space)

TEAM CHIEF

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FIELD TEAM DAILY REPORT

ATE 12-19 1978 TEAM NUMBER

EAM PERSONNEL J GREISIGER

EHICLE NUMBER 32812, 32623 MILEAGE: IN (32623) 60043

EATHER PARTLY CLOUDY OUT 659947

MILES DRIVEN 96

ARRATIVE REPORT OF ACTIVITIES (include times and locations)

ARRIVED AT CAREFREE HWY - CAVE CREEK WASH 9:45 A.M.

RECORDED DATA AS FOLLOWS:

TIME	HEIGHT ABOVE PAVEMENT	RAIN
9:45	2'	NO
10:00	1.8'	NO
11:00	1.7'	NO
12:00	1.7'	NO
13:00	1.6'	NO
14:00	1.5'	NO
15:00	1.45'	YES
16:00	1.4'	NO
16:30	1.4'	YES
17:00	1.4'	YES (HEAVY)

NOTED 9' - 4" DIAM. GALV. POST INSTALLED 3' IN CONCRETE WASHED OUT.

17:30 DROVE TO MCMICKEN - 4' OF WATER AT NORTH GATED OUTLET 21:00

(se back side for additional space)

John Greisiger

TEAM CHIEF

vm
g8
B1

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FIELD TEAM DAILY REPORT

E 19 December 1978 TEAM NUMBER

M PERSONNEL

ICLE NUMBER 32812 MILEAGE: IN 21744

THER Overcast & Cool 0200 HRS OUT 21694

MILES DRIVEN 50

RATIVE REPORT OF ACTIVITIES (include times and locations)

Cave Creek Wash at Carefree Hwy.

Staff Gauge & Time	Rain	Comments
3.1 ft 0230 HRS	NO	River very quick ~~swift~~
2.9 ft 0300 HRS	"	
2.6 ft 0330 HRS	"	Overcast sky breaking up
2.3 ft. 0400 HRS	"	Heavy cloud build-up
2.5 ft. 0500 HRS	YES	Light rain
2.4 ft. 0600 HRS	"	Drizzle
2.0 ft. 0700 HRS	NO	
2.0 ft. 0800 HRS	~~NO~~ YES	Light rain
2.0 ft 0900 HRS	NO	
2.0 ft 1000 HRS	NO	

Watched was turned over to Don Gieringer at 1000 HRS.

e back side for additional space)

TEAM CHIEF

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FIELD TEAM DAILY REPORT

ATE Dec 18 1978 TEAM NUMBER

EAM PERSONNEL J. Theisiger

EHICLE NUMBER 32814 MILEAGE: IN 19669

EATHER Rain. OUT 19592

MILES DRIVEN

ARRATIVE REPORT OF ACTIVITIES (include times and locations)

(1) Readings on staff gauge at Cavecreek Dam
10:830 Hrs - 22.6 Ft.
0:930 Hrs - 22.8 Ft.
10:30 Hrs. - 23.0 Ft
10:30 Hrs - Opened West gate approx: 2'
11:00 Hrs - 23.1 Ft.
12:00 Hrs - 23.5 Ft.
12:25 Hrs - Closed west gate due to Construction Co. request. reason water washing west side of New Structure [redacted] out.
13:00 Hrs - 23.8 Ft.
14:00 Hrs - 24.0 Ft.
15:00 Hrs - 24.3 Ft.
16:00 Hrs - 24.7 Ft.
17:00 Hrs - 25-2 Ft.
18:30 Hrs - 25.8 Ft
18:00 Hrs - 26.0 Ft.
18:30 Hrs. - 26.3 Ft opened West gate to 2 Ft.

se back side for additional space)

J. Theisiger
TEAM CHIEF

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

FIELD TEAM DAILY REPORT

E 12-18-78 1978 TEAM NUMBER

M PERSONNEL Hamer & Rocleuitch

ICLE NUMBER 32623 MILEAGE: IN 59655

THER RAIN Light to Heavy at times OUT 59464

MILES DRIVEN 181

RATIVE REPORT OF ACTIVITIES (include times and locations)

50-204 Buckeye Structures

Checked all Buckeye structures & White tanks & McMicken. No water build up behind any structures as of 2:00 P.M.

2:00 P.M. Went to assist Tom Johnson 10 mi North West of McMicken as per Radio Conservation claimed he was stuck in mud. Freed vehicle from mud & returned to yard.

back side for additional space)

TEAM CHIEF

Dan Sagamoso

FLOOD CONTROL DISTRICT
RECEIVED
DEC 28 '78

	ENG		HYDRO
	ADMIN		SUSP
	C & O	3	FILE Flood log
	ENGR		DESTROY
REMARKS			

AGENCY COMMUNICATION MEETING

DATE: December 21, 1978, 10 a.m.

PLACE: Power C&M Conference Room

ATTENDANCE: See attached listing

Meeting was opened by Don Weesner who introduced Dick Juetten.

Dick Juetten presented a review of events on the Verde River beginning with Sunday 12-18-78. He reported the increases of flows into Horseshoe and the required releases. It was noted that the available capacity in the Verde reservoirs was used to absorb the peak inflows. This enabled SRP to make smaller releases thus minimizing the effects that would have been experienced had those peak inflows been passed through the system.

Maximum gaged inflows were 89,870 cfs. Ungaged side flow into Horseshoe & Bartlett contributed an estimated 10-12,000 cfs. However, the maximum release at Bartlett was 75,000 cfs for approximately 5 hours.

The Salt River system was then discussed. Here again, the reservoir capacities were used to soften the effects of the large inflows on the Salt and Tonto.

Maximum gaged inflows to Roosevelt were 114,570 cfs. The maximum estimated inflow (including ungaged side inflows) was 174,000 cfs at Roosevelt. The maximum releases at Stewart Mountain Dam was 50,000 cfs.

Mr. Juetten then showed an "Inflow-Storage-Outflow Advisory" that SRP was using to keep track of reservoir operating data. A copy of this report was handed out to those in attendance.

Mr. Weesner then summarized this report by stating that inflows peaked at 270,000+ cfs. No stream gauges are below Roosevelt, but there was another 16,000 cfs inflow estimated from the area which drains into the lower Salt reservoirs.

Don Moon gave the status of current weather conditions. He described the 4:45 a.m. MST satellite photo showing the storm center in the mid-Pacific. Don noted that SRP uses these satellite photos as well as a weather radar unit track and assess systems. This information is then used in conjunction with stream records and other information to develop reservoir operations strategy.

Mr. Juetten stated that our present plan is to develop 150,000 AF available space in Roosevelt with an additional 50,000 AF distributed thru the other Salt reservoirs by January 1.

On the Verde River system SRP plans to have 40,000 AF available storage by January 1, 1979.

Sid Wilson reviewed the recession hydrograph on the Verde. Inflows were slightly above projection. Releases at Bartlett reservoir were reduced to 4,400 at 1:00 pm on 12/20/78. At that time there was 36,513 AF of available storage capacity in the Verde system. Because inflows were exceeding the 4,400 cfs release, the available capacity will gradually be reduced. However, inflows should drop sufficiently to enable establishment of a 40,000 AF hole by Friday, 12/29

Salt system releases which have been 47,000 cfs since 6:00 a.m. on 12/20 will be reduced as the 200,000 AF "hole" space is developed by Friday 12/29/78.

It is planned to stop all releases of water by Friday, December 29, 1978. The release stoppage should last for 6 days. It is projected that river drainage will be over by January 2, 1979 enabling local governments and utilities to assess the condition of road crossings and other facilities. SRP will begin releases again Friday, January 5, 1979. There was discussion at this point requesting larger flow releases permitting quicker release stoppage and a longer dry up. City of Phoenix indicated that they need a minimum of 10 days of dry time to repair approaches to their bridges. The SRP representatives advised that the present plan permitted the most efficient drainage of the Salt River and the projected "hole" storage was consistent with SRP's objective of minimizing flood impacts while conserving water supply for future use.

In response to questions regarding the amount of water which would again be released after the dry up, Wilson indicated that flows in the river should not exceed 8-10,000 cfs. However, these flows as well as the dry up and reservoir operations plan are contingent upon favorable weather and watershed conditions.

City of Phoenix Water & Sewers Dept. representative, Mr. Slagel, indicated that the 51st Avenue sewer line from South Phoenix was damaged and is of concern to the State Health Department and EPA. They will try to work in wet conditions. They believe that they can work with 10,000 cfs.

Phone numbers to call for reservoir information and plan operations are 273-5419 and 273-5224.

Don Weesner summarized the presentation to emphasize major points and concluded that the shutoff will be extended beyond six days if river inflows stay low and available storage can be maintained. He also indicated in response to expressed concerns about a greater "hole" space in order to extend the dry up, that this would be assessed by SRP personnel and considered for implementation if possible.

Meeting adjourned at 11 p.m.

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/21/78 TIME 0800 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
6,969	. . . .Current.	1,328	11,330
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . 12,658
24 hour avg..

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00	
		122,570	Present Storage	1,301,536		
+479	Current 119.74	16,668	Available Storage	80,044	Current 2131.32	-1380
	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00	178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00	
		170,005	Present Storage	237,239		
-52	Current 194.88	8,472	Available Storage	7,899	Current 1911.01	-288
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50	
			Present Storage	48,082		
			Available Storage	9,770	Current 1649.88	-222
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00	
			Present Storage	59,275		
			Available Storage	10,490	Current 1520.30	-115
+427	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-2005
		292,575	Present Storage	1,646,132		
		25,140	Available Storage	108,203		

VERDE OUT FLOW	SALT OUTFLOW
4,400	47,000

Tributary Inflow

ARIZONA CANAL DIVISION	SOUTH CANAL DIVISION

GRANITE REEF 60,000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

NAME	AFFILIATION
J B Mertz	Dept. of Transportation
Jesse Stare	City of Phoenix
PW. SLAGER	CITY OF PHX WATER & SANITATION
Bob Bunton	City of Phoenix
J.R. Dixon	CORPS OF ENGRS
DOUGLAS	CORPS OF ENGINEERS
J. HUMAN	A.P.S
JACK TURNER	SRP
LYNN R STUART	CITY OF SCOTTSDALE
CARL SPARKS	SRP
Rex Richardson	SRP
VIFARL CORKIN	SRP
John Griffin	SRP
TOM BAWDEN	S.R.P.
Don Davis	SRP
Don Moon	SRP
Dick JUETTEN	SRP
Prem Bhardwaja	SRP
Chuck Caldwell	SRP
Michael W. Hitt	SRP
Sid Wilson	SRP
Ted Wilson	SRP

NAME	COMPANY/AGENCY AFFIL.
Rick Hyde	SRP / Project Planning
Larry Waggoner	Maricopa Co. Hwy Dept.
Jim Brundage	" " " "
Louis Pashi	El Paso Natural Gas Company
JERRY MCLAIN	CITY OF SCOTTSDALE
Carl Darden	" " "
John Bolley	APS
BILL WADE	APS
Carl Ostrup	SRP
Ron Markley	SRP
ALAN MEINS	MTN BELL
Floyd Parker	SRP
Don Piper	SRP
Bud Lestekow	S.R.P.
AL GRAVES	USBR
LARRY DIRRIM	SRP
JAMES ROBERTSON	USBR
FRANK SPRINGER	USBR
Leslie Bond	Flood Control District
Dan Sagramoso	Flood Control District
GROVER DERENBETZ	CITY OF TEMPE
Bill Mathews	Ariz Water Commission
Ed Hall	City of Phx
D C. Clymer	" " "
Julie Burch	City of Phoenix
Quanta Stevenson	KOOL-TV
Jim Wilson	KOOL-TV

Dan Sayanosa

12/29/78

C O R R E C T I O N

AGENCY COMMUNICATION MEETING, December 21, 1978

The 7th paragraph on first page of minutes should be corrected to read as follows:

> "Mr Weesner then summarized this report by stating that inflows into the Verde Reservoir system plus Roosevelt Reservoir peaked at 270,000+ cfs. No stream gauges are below Roosevelt, but there was another 16,000 cfs inflow estimated from the area which drains into the lower Salt reservoirs."

xc: To all those in attendance

FLOOD CONTROL DISTRICT
RECEIVED

JAN 02'79

	CH ENG		HYDRO
	A-T		LMgt
	A-N		SUSP
	C-O		FILE
	ENGR		DESTROY
REMARKS			

Leslie Bond

12/29/78

C O R R E C T I O N

AGENCY COMMUNICATION MEETING, December 21, 1978

The 7th paragraph on first page of minutes should be corrected to read as follows:

> "Mr Weesner then summarized this report by stating that inflows into the Verde Reservoir system plus Roosevelt Reservoir peaked at 270,000+ cfs. No stream gauges are below Roosevelt, but there was another 16,000 cfs inflow estimated from the area which drains into the lower Salt reservoirs."

xc: To all those in attendance

FLOOD CONTROL DISTRICT
RECEIVED
JAN 02 '79

	CH ENG		HYDRO
	MST		LMgt
	ADMIN		SUSP
	C & O	/	FILE
	ENGR		DESTROY
REMARKS			

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-22-78 TIME 1600 PERIOD 4 HR.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
3,578	. . . .Current.	518	5400
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	5918	
	24 hour avg..		

STORAGE CHANGE					STORAGE CHANGE	
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	129,246	Present Storage	1,255,100		Gage Hgt. 234.00
+53	Current 122.37	9,992	Available Storage	126,480		Current 2128.61 -4912
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	168,001	Present Storage	230,275		Gage Hgt. 264.00
-260	Current 194.11	10,476	Available Storage	14,863		Current 1908.31 +411
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	44,389		Gage Hgt. 141.50
			Available Storage	13,463		Current 1645.64 -1834
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	59,851		Gage Hgt. 119.00
			Available Storage	9914		Current 1520.80 -0
-207	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM -6335
		297,247	Present Storage	1,589,615		
		20,468	Available Storage	164,720		

VERDE OUT FLOW	SALT OUTFLOW
4400	30,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 35,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/22/78 TIME 1200 PERIOD 4 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
3,845	. . . .Current.	603	5,610
	. . .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	6,213	
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	129,193	Present Storage	1,260,012	Gage Hgt. 234.00	
+849	Current 122.25	10,045	Available Storage	121,568	Current 2128.90	-5454
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	168,261	Present Storage	229,864	Gage Hgt. 264.00	
-286	Current 194.21	10,216	Available Storage	15,274	Current 1908.15	-1569
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	46,223	Gage Hgt. 141.50	
			Available Storage	11,629	Current 1647.87	-270
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,851	Gage Hgt. 119.00	
			Available Storage	9914	Current 1520.80	0
563	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-7293
		297,454	Present Storage	1,595,950		
		20,261	Available Storage	158,385		

VERDE OUT FLOW	SALT OUTFLOW
4,400	30,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 35,000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/22/78 TIME 0800 PERIOD 4 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
4,240	. . . .Current.	688	6,045
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	6733	
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	128,344	Present Storage	1,265,466	Gage Hgt. 234.00	
+239	Current 121.93	10,894	Available Storage	116,114	Current 2129.22	-5288
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	168,547	Present Storage	231,433	Gage Hgt. 264.00	
-234	Current 194.32	9,930	Available Storage	13,705	Current 1908.76	-772
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	46,493	Gage Hgt. 141.50	
			Available Storage	11,359	Current 1648.08	-185
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,851	Gage Hgt. 119.00	
			Available Storage	9,914	Current 1520.80	-0-
			COMBINED RESERVOIR.			
+5	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	-6245
		296,891	Present Storage	1,603,243		
		20,824	Available Storage	151,092		

VERDE OUT FLOW

4,400

SALT OUTFLOW

30,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 35,000 @ 2200 12/21

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Other

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/22/78 TIME 0400 PERIOD _____

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
4,842	. . . .Current.	779	6500
_____	. .24 Hour Average. . .	_____	_____

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE					STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE
	Max.El. 2026.00				Max.El. 2135.95
	Gage Hgt. 126.00	128,105	Present Storage	1,270,754	Gage Hgt. 234.00
	Current 121.84	11,133	Available Storage	110,826	Current 2129.53
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE
	Max.El. 1798.00				Max.El. 1914.00
	Gage Hgt. 198.00	168,781	Present Storage	232,205	Gage Hgt. 264.00
	Current 194.41	9696	Available Storage	12,933	Current 1909.06
			Reservoir Cap.	57,852	CANYON LAKE
					Max.El. 1660.50
			Present Storage	46,678	Gage Hgt. 141.50
			Available Storage	11,174	Current 1648.29
			Reservoir Cap.	69,765	SAGUARO LAKE
					Max.El. 1529.00
			Present Storage	59,851	Gage Hgt. 119.00
			Available Storage	9,914	Current 1520.80
			COMBINED RESERVOIR.		
	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM
		296,886	Present Storage	1,609,488	
		20,829	Available Storage	144,847	

VERDE OUT FLOW
4,400

SALT OUTFLOW
30,000

_____ Tributary Inflow

ARIZONA CANAL DIVISION
_____

GRANITE REEF _____

SOUTH CANAL DIVISION
_____

CANAL DRAIN GATES
Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-21-78 TIME 2400 PERIOD 4 HR.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	5509	. . . .Current.	878	6742
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	7620	
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	127,336	Present Storage	1,276,213	Gage Hgt. 234.00	
-849	Current 121.55	11,902	Available Storage	105,367	Current 2129.85	-584
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	169,016	Present Storage	232,645	Gage Hgt. 264.00	
-234	Current 194.50	9,461	Available Storage	12,493	Current 1909.23	0
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	46,897	Gage Hgt. 141.50	
			Available Storage	10,955	Current 1648.54	-193
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,621	Gage Hgt. 119.00	
			Available Storage	10,144	Current 1520.60	+346
+615	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-5689
		296,352	Present Storage	1,615,376		
		21,363	Available Storage	138,959		

VERDE OUT FLOW	SALT OUTFLOW
4400	30,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 35000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-21-78 TIME 2000 PERIOD 4 HR.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	6210	. . . .Current.	878	7504
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	8382	
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	126,487	Present Storage	1,282,055	Gage Hgt. 234.00	
-1088	Current 121.23	12,751	Available Storage	99,525	Current 2130.19	
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	169,250	Present Storage	232,645	Gage Hgt. 264.00	
-234	Current 194.59	9,227	Available Storage	12,493	Current 1909.23	
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	47,090	Gage Hgt. 141.50	
			Available Storage	10,762	Current 1648.76	
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,275	Gage Hgt. 119.00	
			Available Storage	10,490	Current 1520.30	
			COMBINED RESERVOIR.			
-854	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	
		295,737	Present Storage	1,621,065		
		21,978	Available Storage	133,270		

VERDE OUT FLOW	SALT OUTFLOW
4400	30,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 35000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/21/78 TIME 1600 PERIOD 4 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

*NEW USGS ADJ. CALL IN AND APPLIED TO 1600 hr READS.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	6,795 *	. . . .Current.	983 *	~~9,708~~ *8323
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .		
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	125,399	Present Storage		Gage Hgt. 234.00	
+1087	Current 120.82	13,839	Available Storage		Current 2130.55	
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	169,484	Present Storage		Gage Hgt. 264.00	
-234	Current 194.68	8,993	Available Storage		Current N.A.	
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage		Gage Hgt. 141.50	
			Available Storage		Current 1648.58	
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage		Gage Hgt. 119.00	
			Available Storage		Current N.A.	
+853	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	
		294,883	Present Storage			
		22,832	Available Storage			

VERDE OUT FLOW

4,400

SALT OUTFLOW

30,000 @ 1630 hrs

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 60,000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-21-78 TIME 1200 PERIOD 4 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
6,355	. . . .Current.	1214	11,050
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	12,264	
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	124,312	Present Storage	1,294,633	Gage Hgt. 234.00	
+1,742	Current 120.41	14,926	Available Storage	86,947	Current 2130.92	-6903
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	169,718	Present Storage	234,975	Gage Hgt. 264.00	
-287	Current 194.77	8,759	Available Storage	10,163	Current 1910.13	-2264
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	47,407	Gage Hgt. 141.50	
			Available Storage	10,445	Current 1649.12	-675
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,160	Gage Hgt. 119.00	
			Available Storage	10,605	Current 1520.20	-115
-1455	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-9957
		294,030	Present Storage	1,636,175		
		23,685	Available Storage	118,160		

VERDE OUT FLOW	SALT OUTFLOW
4400	47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 60,000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

12-18-78
(NIGHT)

8PM TO 8AM

NIGHT
SHIFT

ESCALANTE
EBARB

541 – DeLaRosa
Vega

542 – SANCHEZ
~~MEDINA~~ R. Pena

543 – SAMORA
T. RODRIGUEZ

544 – ~~EBARB~~ · BANDA
CORONADO

545 – ROMERO
MATA

546 – SNYDER
~~R. PENA~~ Medina

PLATFORM RAY RAMERIZ
~~VIRGIL MARTINEZ~~
RAY AROS

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/21/78 TIME 0800 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
6,969	. . . .Current.	1,328	11,330
	. .24 Hour Average. . .		

COMBINED INFLOW

Current . . .	12,658
24 hour avg..	

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	122,570	Present Storage	1,301,536	Gage Hgt. 234.00	
+479	Current 119.74	16,668	Available Storage	80,044	Current 2131.32	-1380
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	170,005	Present Storage	237,239	Gage Hgt. 264.00	
-52	Current 194.88	8,472	Available Storage	7,899	Current 1911.01	-288
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	48,082	Gage Hgt. 141.50	
			Available Storage	9,770	Current 1649.88	-222
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,275	Gage Hgt. 119.00	
			Available Storage	10,490	Current 1520.30	-115
			COMBINED RESERVOIR.			
+427	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	-2005
		292,575	Present Storage	1,646,132		
		25,140	Available Storage	108,203		

VERDE OUT FLOW	SALT OUTFLOW
4,400	47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 60,000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen	_____
Indian Bend	_____
Jointhead	_____
City Drains	_____
Arizona Canal (Tail)	_____
Other:	_____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/20/78 TIME 1700 PERIOD 1hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
9922	. . . .Current.	1907	17120
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	113961	Present Storage	1326116	Gage Hgt. 234.00	
+805	Current 116.32	25277	Available Storage	54664	Current 2132.79 (230.84)	-1036
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	170861	Present Storage	241568	Gage Hgt. 264.00	
-82	Current 195.2	7616	Available Storage	3570	Current 1912.95 (262.65)	-948
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	50162	Gage Hgt. 141.50	
			Available Storage	7690	Current 1652.20 (133.20)	-163
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59736	Gage Hgt. 119.00	
			Available Storage	10029	Current 1520.70 (110.7)	0
			COMBINED RESERVOIR.			
+887	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	-2147
		[illegible]	Present Storage	1678382		
		32893	Available Storage	75953		

VERDE OUT FLOW	SALT OUTFLOW
4400	47000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 85000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 1600 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
10,200	. . . .Current.	2,614	18,130
	. .24 Hour Average. . .		

COMBINED INFLOW

Current . . . _____

24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	113,156	Present Storage	1,327,952		Gage Hgt. 234.00
+755	Current 116.00	26,082	Available Storage	53,628		Current 2132.85 -1717
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	170,779	Present Storage	242,516		Gage Hgt. 264.00
+81	Current 195.17	7,698	Available Storage	2622		Current 1913.01 -318
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	50,325		Gage Hgt. 141.50
			Available Storage	7,527		Current 1652.38 -37
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	59,736		Gage Hgt. 119.00
			Available Storage	10,029		Current 1520.70 -0
+836	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM -2072
		283,935	Present Storage	1,680,529		
		33,780	Available Storage	73,806		

VERDE OUT FLOW	SALT OUTFLOW
4400	47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 85000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 1500 PERIOD 1 HR.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
10,500	. . . .Current.	2,614	18,470
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	112,401	Present Storage	1,329,680	Gage Hgt. 234.00	
+906	Current 115.70	26837	Available Storage	51,900	Current 2132.95	-1210
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	170,698	Present Storage	242,834	Gage Hgt. 264.00	
+980	Current 195.14	7,779	Available Storage	2,304	Current 1913.13	-344
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	50,362	Gage Hgt. 141.50	
			Available Storage	7,490	Current 1652.42	-9
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,736	Gage Hgt. 119.00	
			Available Storage	10,029	Current 1520.70	0
-1886	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-1,563
		283,099	Present Storage	1,682,612		
		34616	Available Storage	71723		

VERDE OUT FLOW	SALT OUTFLOW
4400	47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 85,000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 1400 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	10,810	. . . .Current.	2,811	18,820
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .		
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	FLUCTUATING	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE
		Max.El. 2026.00				Max.El. 2135.95
		Gage Hgt. 126.00	111,495	Present Storage	1,330,890	Gage Hgt. 234.00
-1862	Current	115.34	27,743	Available Storage	50,690	Current 2133.02 -1383
		BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE
		Max.El. 1798.00				Max.El. 1914.00
		Gage Hgt. 198.00	169,718	Present Storage	243,178	Gage Hgt. 264.00
1873	Current	194.77	8,759	Available Storage	1,960	Current 1913.26 -239
				Reservoir Cap.	57,852	CANYON LAKE
						Max.El. 1660.50
				Present Storage	50,371	Gage Hgt. 141.50
				Available Storage	7,481	Current 1652.43 -18
				Reservoir Cap.	69,765	SAGUARO LAKE
						Max.El. 1529.00
				Present Storage	59,736	Gage Hgt. 119.00
				Available Storage	10,029	Current 1520.70 ~~0~~
				COMBINED RESERVOIR.		
+11	VERDE SYSTEM	317,715		CAPACITY	1,754,335	SALT SYSTEM -1640
		281,213		Present Storage	1,684,175	
		36,502		Available Storage	70,160	

VERDE OUT FLOW	SALT OUTFLOW
4400 @ 1300	47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 85,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Other _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 1300 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	11,440	. . . .Current.	2,811	19,880
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .		
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	113,357	Present Storage	1,332,273	Gage Hgt. 234.00	
-1119	Current 116.08	25,881	Available Storage	49,307	Current 2133.10	-1383
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	167,845	Present Storage	243,417	Gage Hgt. 264.00	
+651	Current 194.05	10,632	Available Storage	1,721	Current 1913.35	-318
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	50,389	Gage Hgt. 141.50	
			Available Storage	7,463	Current 1652.45	-45
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,736	Gage Hgt. 119.00	
			Available Storage	10,029	Current 1520.70	-0
+468	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-1746
		281,202	Present Storage	1,685,815		
		36,513	Available Storage	68,520		

VERDE OUT FLOW

4400

@ 1300

SALT OUTFLOW

47000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 85,000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 1200 PERIOD 1 HR.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
12,100	. . . .Current.	2,811	20,600
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	114,566	Present Storage	1,333,656	Gage Hgt. 234.00	
1208	Current 116.56	24,672	Available Storage	47,924	Current 2133.18	-1210
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	167,194	Present Storage	243,735	Gage Hgt. 264.00	
-0-	Current 193.80	11,283	Available Storage	1,403	Current 1913.47	-79
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	50,434	Gage Hgt. 141.50	
			Available Storage	7,418	Current 1652.50	-118
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,736	Gage Hgt. 119.00	
			Available Storage	10,029	Current 1520.70	-0-
-1208	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-1328
		281,760	Present Storage	1,687,561		
		35955	Available Storage	66,774		

VERDE OUT FLOW	SALT OUTFLOW
30,000	47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 90,000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 1100 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
12440	. . . .Current.	3017	21340
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	115,774	Present Storage	1,334866	Gage Hgt. 234.00	
-1158	Current 117.04	23,464	Available Storage	46,714	Current 2133.25	-1384
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	167,194	Present Storage	243,814	Gage Hgt. 264.00	
-0	Current 193.80	11,283	Available Storage	1,324	Current 1913.50	+26
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	50,552	Gage Hgt. 141.50	
			Available Storage	7,300	Current 1652.63	-27
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,736	Gage Hgt. 119.00	
			Available Storage	10,029	Current 1520.70	-0
1158	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-1385
		282,968	Present Storage	1,688,968		
		34,747	Available Storage	65,367		

VERDE OUT FLOW
30,000

SALT OUTFLOW
47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION
_____

SOUTH CANAL DIVISION
_____

GRANITE REEF 90,000

CANAL DRAIN GATES
Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 1000 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
13140	. . . .Current.	3017	22090
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	116932	Present Storage	1336250	Gage Hgt. 234.00	
-1082	Current 117.50	22306	Available Storage	45330	Current 2133.33	-345
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	167194	Present Storage	243788	Gage Hgt. 264.00	
+52	Current 193.80	11283	Available Storage	1350	Current 1913.49	+151
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	50579	Gage Hgt. 141.50	
			Available Storage	7273	Current 1652.66	-18
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59736	Gage Hgt. 119.00	
			Available Storage	10029	Current 1520.7	-6
-1030	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-204
		284176	Present Storage	1690353		
		33589	Available Storage	63982		

VERDE OUT FLOW
30,000

SALT OUTFLOW
47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION _____

SOUTH CANAL DIVISION _____

GRANITE REEF 90,000

CANAL DRAIN GATES
Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 0700 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	13500	. . . .Current.	3232	23240
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .		
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	118014	Present Storage	1336595		Gage Hgt. 234.00
-1183	Current 117.93	21224	Available Storage	44985		Current 2133.35 -190
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	167142	Present Storage	243629		Gage Hgt. 264.00
+78	Current 193.78	11335	Available Storage	1509		Current 1913.43 +159
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	50597		Gage Hgt. 141.50
			Available Storage	7255		Current 1652.68 0
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	59736		Gage Hgt. 119.00
			Available Storage	10029		Current 1520.7 0
-1105	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM -1743
		285156	Present Storage	1690557		
		32559	Available Storage	63778		

VERDE OUT FLOW	SALT OUTFLOW
30,000	47,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 90000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 0800 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
14300	. . . .Current.	3232	24430
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . .
24 hour avg..

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00	
		119197	Present Storage	1338497		
-856	Current 118.40	20041	Available Storage	43083	Current 2133.46	-155
	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00	178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00	
		167064	Present Storage	243470		
+104	Current 193.75	11413	Available Storage	1668	Current 1913.37	-159
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50	
			Present Storage	50597		
			Available Storage	7255	Current 1652.68	-64
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00	
			Present Storage	59736		
			Available Storage	10029	Current 1520.70	-0-
-752	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-1779
		286261	Present Storage	1692300		
		31454	Available Storage	62035		

VERDE OUT FLOW	SALT OUTFLOW
30,000	47,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 90,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 0700 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	14,710	. . . .Current.	3455	25,640
		. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	120053	Present Storage	1340053		Gage Hgt. 234.00
-1006	Current 118.74	19185	Available Storage	41527		Current 2133.55 +172
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	166960	Present Storage	243311		Gage Hgt. 264.00
+130	Current 193.71	11517	Available Storage	1827		Current 1913.31 +80
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	50661		Gage Hgt. 141.50
			Available Storage	7191		Current 1652.75 +73
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	59736		Gage Hgt. 119.00
			Available Storage	10029		Current 1520.7 -0-
			COMBINED RESERVOIR.			
-876	VERDE SYSTEM	317,715	CAPACITY	1,754,335		SALT SYSTEM +325
		287013	Present Storage	1693761		
		30702	Available Storage	60574		

VERDE OUT FLOW
30,000

SALT OUTFLOW
47,000

Tributary Inflow

ARIZONA CANAL DIVISION
_____

GRANITE REEF 90,000

SOUTH CANAL DIVISION
_____

CANAL DRAIN GATES
Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/20/78 TIME 0600 PERIOD 1HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
15,560	. . . .Current.	3017	26,890
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	29,907	
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00	
-932	Current 119.14	121,059	Present Storage	1,339,881		
		18,179	Available Storage	41,699	Current 2133.54	-864
	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00	178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00	
		166,830	Present Storage	243,231		
183	Current 193.66	11,647	Available Storage	1907	Current 1913.28	-53
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50	
			Present Storage	50,588		
			Available Storage	7,264	Current 1652.67	-109
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00	
			Present Storage	59,736		
			Available Storage	10,029	Current 1520.70	Ø
-749	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-1026
		287,889	Present Storage	1,693,436		
		29,826	Available Storage	60,899		

VERDE OUT FLOW	SALT OUTFLOW
30,000	47,000 @ 0500

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 90,000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/20/78 TIME 0500 PERIOD 1HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	16,450	. . . .Current.	3644	28,610
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	32,254	
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00		139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00
			121,991	Present Storage	1,340,745	
-1006	Current	119.51	17,247	Available Storage	40,835	Current 2133.59 -519
	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00		178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00
			166647	Present Storage	243,284	
-182	Current	193.59	11,830	Available Storage	1854	Current 1913.30 -80
				Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50
				Present Storage	50,697	
				Available Storage	7,155	Current 1652.79 -81
				Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00
				Present Storage	59,736	
				Available Storage	10,029	Current 1520.70 ∅
-824	VERDE SYSTEM		317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM -680
			288,638	Present Storage	1,694,462	
			29,077	Available Storage	59,873	

VERDE OUT FLOW	SALT OUTFLOW
30,000	50,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 90,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES @ 0500	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/20/78 TIME 0400 PERIOD 1HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	16,910	. . . .Current.	2244	29,480
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	31,724	
		24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00		139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95	
	Gage Hgt. 126.00		122,997	Present Storage	1,341,264	Gage Hgt. 234.00	
- 811	Current	119.91	16,241	Available Storage	40,316	Current 2133.62	- 518
	BARTLETT LAKE Max.El. 1798.00		178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00	
	Gage Hgt. 198.00		166,465	Present Storage	243,364	Gage Hgt. 264.00	
+ 234	Current	193.52	12,012	Available Storage	1774	Current 1913.33	+ 106
				Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50	
				Present Storage	50,778	Gage Hgt. 141.50	
				Available Storage	7,074	Current 1652.88	- 91
				Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00	
				Present Storage	59,736	Gage Hgt. 119.00	
				Available Storage	10,029	Current 1520.70	∅
				COMBINED RESERVOIR.			
- 577	VERDE SYSTEM		317,715	CAPACITY	1,754,335	SALT SYSTEM	- 503
			289,462	Present Storage	1,695,142		
			28,253	Available Storage	59,193		

VERDE OUT FLOW

30,000

SALT OUTFLOW

50,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 100,000 @ 0300

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/20/78 TIME 0300 PERIOD 1HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	17,850	. . . .Current.	3,644	31,740
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	35,384	
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00	
		123,808	Present Storage	1,341,782		
- 849	Current 120.22	15,430	Available Storage	39,798	Current 2133.65	- 692
	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00	178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00	
		166,231	Present Storage	243,258		
- 286	Current 193.43	12,246	Available Storage	1880	Current 1913.29	+ 106
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50	
			Present Storage	50,869		
			Available Storage	6,983	Current 1652.98	- 45
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00	
			Present Storage	59,736		
			Available Storage	10,029	Current 1520.70	ϕ
			COMBINED RESERVOIR.			
- 563	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	- 631
		290,039	Present Storage	1,695,645		
		27,676	Available Storage	58,690		

VERDE OUT FLOW

30,000

SALT OUTFLOW

50,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE 100,000

REEF

CANAL DRAIN GATES @ 0300

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/20/78 TIME 0200 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	19,330	. . . .Current.	4037	32,670
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	36,707	
		24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE Max.El. 2135.95	
	Gage Hgt. 126.00	124,657	Present Storage	1,342,474		Gage Hgt. 234.00	
-689	Current 120.54	14,581	Available Storage	39,106		Current 2133.69	-519
	BARTLETT LAKE Max.El. 1798.00	178,477	Reservoir Cap.	245,138		APACHE LAKE Max.El. 1914.00	
	Gage Hgt. 198.00	165,945	Present Storage	243,152		Gage Hgt. 264.00	
-261	Current 193.32	12,532	Available Storage	1986		Current 1913.25	+79 [redacted]
			Reservoir Cap.	57,852		CANYON LAKE Max.El. 1660.50	
			Present Storage	50,914		Gage Hgt. 141.50	
			Available Storage	6938		Current 1653.03	-64
			Reservoir Cap.	69,765		SAGUARO LAKE Max.El. 1529.00	
			Present Storage	59,736		Gage Hgt. 119.00	
			Available Storage	10,029		Current 1520.70	-115
-428	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM	-619 [redacted] [redacted]
		290,602	Present Storage	1,696,276			
		27,113	Available Storage	58,059			

VERDE OUT FLOW	SALT OUTFLOW
30,000	50,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 115,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Others _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/20/78 TIME 0100 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	20,370	. . . .Current.	4241	34,570
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	38,811	
		24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00		
-478	Current 120.80	125,346	Present Storage	1,342,993	Current 2133.72	-346	
		13,892	Available Storage	38,587			
	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00	178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00		
260	Current 193.22	165,684	Present Storage	243,073	Current 1913.22	+239	
		12,793	Available Storage	2,065			
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50		
			Present Storage	50,978	Current 1653.10	-18	
			Available Storage	6,874			
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00		
			Present Storage	59,851	Current 1520.80	ϕ	
			Available Storage	9,914			
-218	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-125	
		291,030	Present Storage	1,696,895			
		26,685	Available Storage	57,440			

VERDE OUT FLOW	SALT OUTFLOW
30,000	50,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 115,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-20-78 TIME 0001 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	22,010	. . . .Current.	4,450	36,040
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	40,490	
		24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE	
	Max.El. 2026.00					Max.El. 2135.95	
	Gage Hgt. 126.00	125,824	Present Storage	1,343,339		Gage Hgt. 234.00	
-371	Current 120.98	13,414	Available Storage	38,241		Current 2133.74	ϕ
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE	
	Max.El. 1798.00					Max.El. 1914.00	
	Gage Hgt. 198.00	165,424	Present Storage	242,834		Gage Hgt. 264.00	
364	Current 193.12	13,053	Available Storage	2304		Current 1913.13	+106
			Reservoir Cap.	57,852		CANYON LAKE	
						Max.El. 1660.50	
			Present Storage	50996		Gage Hgt. 141.50	
			Available Storage	6856		Current 1653.12	-137
			Reservoir Cap.	69,765		SAGUARO LAKE	
						Max.El. 1529.00	
			Present Storage	59,851		Gage Hgt. 119.00	
			Available Storage	9914		Current 1520.80	ϕ
-7	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM	-31
		291,248	Present Storage	1 697 020			
		26,467	Available Storage	57315			

VERDE OUT FLOW	SALT OUTFLOW
30,000	50,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 115,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 2300 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
23,730	. . . .Current.	4,676 (EST)	39,036
	. .24 Hour Average. . .		

COMBINED INFLOW

Current . . .	43,712
24 hour avg..	

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE		
	Max.El. 2026.00				Max.El. 2135.95		
	Gage Hgt. 126.00	126,195	Present Storage	1,343,339	Gage Hgt. 234.00		
-212	Current 121.12	13,043	Available Storage	38,241	Current	2133.74	+173
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE		
	Max.El. 1798.00				Max.El. 1914.00		
	Gage Hgt. 198.00	165,060	Present Storage	242,728	Gage Hgt. 264.00		
+313	Current 192.98	13,417	Available Storage	2,410	Current	1913.09	+343
			Reservoir Cap.	57,852	CANYON LAKE		
					Max.El. 1660.50		
			Present Storage	51,133	Gage Hgt. 141.50		
			Available Storage	6,719	Current	1653.27	
			Reservoir Cap.	69,765	SAGUARO LAKE		
					Max.El. 1529.00		
			Present Storage	59,851	Gage Hgt. 119.00		
			Available Storage	9,914	Current	1520.80	0
			COMBINED RESERVOIR.				
+101	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM		+516
		291,255	Present Storage	1,697,051			
		26,460	Available Storage	57,284			

VERDE OUT FLOW	SALT OUTFLOW
30,000	50,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 115,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 2200 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
25,560	. . . .Current.	4,976	40,620
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	45,596	
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95	
	Gage Hgt. 126.00	126,407	Present Storage	1,343,166	Gage Hgt. 234.00	
0	Current 121.20	12,831	Available Storage	38,414	Current 2133.73	+346
	BARTLETT LAKE Max.El. 1798.00	178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00	
	Gage Hgt. 198.00	164,747	Present Storage	242,385	Gage Hgt. 264.00	
+364	Current 192.86	13,730	Available Storage	2,753	Current 1912.96	+132
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50	
			Present Storage	51,133	Gage Hgt. 141.50	
			Available Storage	6,719	Current 1653.27	-173
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00	
			Present Storage	59,851	Gage Hgt. 119.00	
			Available Storage	9,914	Current 1520.80	0
+364	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+305
		291,154	Present Storage	1,696,535		
		26,561	Available Storage	57,800		

VERDE OUT FLOW		SALT OUTFLOW
30,000 confirmed @ 2047 hrs.		50,000
	Tributary Inflow	
ARIZONA CANAL DIVISION	GRANITE REEF 115,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 2100 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	27,490	. . . .Current.	5252	42,760
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	48,012	
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	126,407	Present Storage	1,342,820	Gage Hgt. 234.00	
+265	Current 121.20	12,831	Available Storage	38,760	Current 2133.71	+865
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	164,383	Present Storage	242,253	Gage Hgt. 264.00	
+625	Current 192.72	14,094	Available Storage	2,885	Current 1912.91	-79
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	51,306	Gage Hgt. 141.50	
			Available Storage	6,546	Current 1653.46	-109
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,851	Gage Hgt. 119.00	
			Available Storage	9,914	Current 1520.80	0
			COMBINED RESERVOIR.			
+890	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	+677
		290,790	Present Storage	1,696,230		
		26,925	Available Storage	58,105		

VERDE OUT FLOW	SALT OUTFLOW
~~50,000~~	50,000
30,000 confirmed @ 2047 hrs.	

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 115,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Others _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 2000 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	29,520	. . . .Current.	6,443	44,950
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	51,393	
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	126,142	Present Storage	1,341,955	Gage Hgt. 234.00	
-1061	Current 121.10	13,096	Available Storage	39,625	Current 2133.66	+1,383
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	163,758	Present Storage	242,332	Gage Hgt. 264.00	
-1041	Current 192.48	14,719	Available Storage	2,806	Current 1912.94	+ 369
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	51,415	Gage Hgt. 141.50	
			Available Storage	6,437	Current 1653.58	-136
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	59,851	Gage Hgt. 119.00	
			Available Storage	9,914	Current 1520.80	-115
			COMBINED RESERVOIR.			
-2102	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	+1,501
		289,900	Present Storage	1,695,553		
		27,815	Available Storage	58,782		

VERDE OUT FLOW	SALT OUTFLOW
50,000	50,000

Tributary Inflow

ARIZONA CANAL DIVISION	SOUTH CANAL DIVISION

GRANITE REEF 115,000 +

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1900 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
32,400	. . . .Current.	6,131	48,350
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE	
	Max.El. 2026.00					Max.El. 2135.95	
	Gage Hgt. 126.00	127,203	Present Storage	1,340,572		Gage Hgt. 234.00	
-1088	Current 121.50	12,035	Available Storage	41,008		Current 2133.58	+519
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE	
	Max.El. 1798.00					Max.El. 1914.00	
	Gage Hgt. 198.00	164,799	Present Storage	241,963		Gage Hgt. 264.00	
1406	Current 192.88	13,678	Available Storage	3,175		Current 1912.80	+210
			Reservoir Cap.	57,852		CANYON LAKE	
						Max.El. 1660.50	
			Present Storage	51,551		Gage Hgt. 141.50	
			Available Storage	6,301		Current 1653.73	-64
			Reservoir Cap.	69,765		SAGUARO LAKE	
						Max.El. 1529.00	
			Present Storage	59,966		Gage Hgt. 119.00	
			Available Storage	9,799		Current 1520.90	-115
			COMBINED RESERVOIR.				
-2494	VERDE SYSTEM	317,715	CAPACITY	1,754,335		SALT SYSTEM	+550
		292,002	Present Storage	~~1,693,533~~ 1,694,052			
		25,713	Available Storage	~~60,802~~ 60,283			

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000

Tributary Inflow

ARIZONA CANAL DIVISION _____

SOUTH CANAL DIVISION _____

GRANITE REEF 115,000 +

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1800 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
35480	. . . .Current.	6131	50690
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	128291	Present Storage	1340053		Gage Hgt. 234.00
-637	Current 121.91	10947	Available Storage	41527		Current 2133.55 +1728
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	166205	Present Storage	241753		Gage Hgt. 264.00
-1327	Current 193.42	12272	Available Storage	3385		Current 1912.72 +132
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	51615		Gage Hgt. 141.50
			Available Storage	6237		Current 1653.8 -182
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	60081		Gage Hgt. 119.00
			Available Storage	9684		Current 1521.0 -0
-1964	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM +1678
		294496	Present Storage	1693502		
		23219	Available Storage	60833		

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 115,000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1700 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
40490	. . . .Current.	6763	53 700
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . .
24 hour avg..

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	128928	Present Storage	1338325		Gage Hgt. 234.00
-371	Current 122.15	10310	Available Storage	43255		Current 2133.45 +1730
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	167532	Present Storage	241621		Gage Hgt. 264.00
-937	Current 193.93	10945	Available Storage	3517		Current 1912.67 +132
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	51797		Gage Hgt. 141.50
			Available Storage	6055		Current 1654.0 -27
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	60081		Gage Hgt. 119.00
			Available Storage	9684		Current 1521.0 -0
-1308	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM +1835
		296460	Present Storage	1691824		
		21255	Available Storage	62511		

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 115,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1600 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
46010	. . . .Current.	7092	56170
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00	139,238 129299	Reservoir Cap. Present Storage	1,381,580 1336595	ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00	
92	Current 122.29	9939	Available Storage	44985	Current 2133.35	+1729
	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00	178,477 168469	Reservoir Cap. Present Storage	245,138 241489	APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00	
59	Current 194.29	10008	Available Storage	3649	Current 1912.62	+52
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50	
			Present Storage	51824		
			Available Storage	6028	Current 1654.03	-330
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00	
			Present Storage	60081		
			Available Storage	9684	Current 1521.0	~~0~~
151	VERDE SYSTEM	317,715 297768 19947	COMBINED RESERVOIR. CAPACITY Present Storage Available Storage	1,754,335 1689989 64346	SALT SYSTEM	+1451

VERDE OUT FLOW
65,000

SALT OUTFLOW
50,000

Tributary Inflow _____

ARIZONA CANAL DIVISION _____

GRANITE REEF 115,000

SOUTH CANAL DIVISION _____

CANAL DRAIN GATES
Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1500 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
52060	. . . .Current.	8110	58710
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	129591	Present Storage	1334866	Gage Hgt. 234.00	
133	Current 122.40	9647	Available Storage	46714	Current 2133.25	-138
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	169328	Present Storage	241437	Gage Hgt. 264.00	
-364	Current 194.62	9149	Available Storage	3701	Current 1912.6	+132
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	52154	Gage Hgt. 141.50	
			Available Storage	5698	Current 1654.39	-174
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	60081	Gage Hgt. 119.00	
			Available Storage	9684	Current 1521.0	-0-
497	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	-1426
		298919	Present Storage	1688538		
		18796	Available Storage	65797		

VERDE OUT FLOW
65,000

SALT OUTFLOW
50,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 115,000

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1400 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	57530	. . . .Current.	8460	60,000
		. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	129458	Present Storage	1336250		Gage Hgt. 234.00
-398	Current 122.35	9780	Available Storage	45330		Current 2133.13 +743
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	168964	Present Storage	241305		Gage Hgt. 264.00
1093	Current 194.48	9513	Available Storage	3833		Current 1912.55 -184
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	52328		Gage Hgt. 141.50
			Available Storage	5524		Current 1654.58 -22
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	60081		Gage Hgt. 119.00
			Available Storage	9684		Current 1521.0 -116
-695	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM + 6914
		298472	Present Storage	1689964		
		19293	Available Storage	64371		

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	SOUTH CANAL DIVISION
_____	_____

GRANITE REEF 115,000 @ 1230

CANAL DRAIN GATES

Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1300 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
64640	. . . .Current.	8460	61960
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	129856	Present Storage	1328816	Gage Hgt. 234.00	
-318	Current 122.50	9382	Available Storage	52764	Current 2132.9	+3454
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	167871	Present Storage	241489	Gage Hgt. 264.00	
-1510	Current 194.06	10606	Available Storage	3649	Current 1912.62	-580
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	52548	Gage Hgt. 141.50	
			Available Storage	5304	Current 1654.82	-165
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	60197	Gage Hgt. 119.00	
			Available Storage	9568	Current 1511.10	-0-
-1192	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+2709
		297727	Present Storage	1683050		
		19988	Available Storage	71285		

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 110,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Others _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1200 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
72380	. . . .Current.	9160	65990
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	130,174	Present Storage	1325362	Gage Hgt. 234.00	
-451	Current 122.62	9064	Available Storage	56218	Current 2132.70	+4317
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	166361	Present Storage	242069 *	Gage Hgt. 264.00	*
1341	Current 193.48	12116	Available Storage	3069 *	Current 1912.84	-0-
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	52713	Gage Hgt. 141.50	
			Available Storage	5139	Current 1655.0	-212
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	60197	Gage Hgt. 119.00	
			Available Storage	9568	Current 1521.1	-0-
-890	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+4105
		296535	Present Storage	1680341		
		21180	Available Storage	73994		

VERDE OUT FLOW
65,000

SALT OUTFLOW
50,000

Tributary Inflow _____

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 110,000

CANAL DRAIN GATES
Evergreen _____
Indian Bend _____
Jointhead _____
City Drains _____
Arizona Canal (Tail) _____
Others _____

1200 data unavailable — Hiwesa calculated w/ previous data

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1100 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	80780	. . . .Current.	11340	69450
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .		
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	130,625	Present Storage	1321045		Gage Hgt. 234.00
212	Current 122.79	8613	Available Storage	60535		Current 2132.5 +3455
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	164930	Present Storage	242069		Gage Hgt. 264.00
1432	Current 192.93	13547	Available Storage	3069		Current 1912.84 +421
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	52925		Gage Hgt. 141.50
			Available Storage	4927		Current 1655.23 +231
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	60197		Gage Hgt. 119.00
			Available Storage	9568		Current 1521.1 +116
1644	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM +3991
		295555	Present Storage	1676236		
		22160	Available Storage	78099		

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000

Tributary Inflow

ARIZONA CANAL DIVISION		SOUTH CANAL DIVISION
	GRANITE REEF 110,000	
	CANAL DRAIN GATES @ 1000 hrs	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 1000 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
88,300	. . . .Current.	12,840	71,580
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .		
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	130413	Present Storage	1317590		Gage Hgt. 234.00
:557	Current 122.71	8825	Available Storage	63990		Current 2132.25 + 604
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	163498	Present Storage	242490		Gage Hgt. 264.00
·1509	Current 192.38	14979	Available Storage	2648		Current 1913.0 +79
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	53156		Gage Hgt. 141.50
			Available Storage	4696		Current 1655.48 +74
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	60081		Gage Hgt. 119.00
			Available Storage	9684		Current 1521.0 - 815
2066	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM +5382
		293911	Present Storage	1673317		
		23804	Available Storage	81018		

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 105,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Others _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0900 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
89,870	. . . .Current.	11,710	75,930
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .		
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	129856	Present Storage	1311546		Gage Hgt. 234.00
-265	Current 122.5	93822	Available Storage	70034		Current 2131.90 +5178
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	161,989	Present Storage	242,569		Gage Hgt. 264.00
-1562	Current 191.8	16488	Available Storage	2569		Current 1913.03 +369
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	53,082		Gage Hgt. 141.50
			Available Storage	4770		Current 1655.40 +27
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	60896		Gage Hgt. 119.00
			Available Storage	8869		Current 1521.70 -105
-1827	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM +4769
		291845	Present Storage	1668093		
		25870	Available Storage	86242		

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000

Tributary Inflow _____

ARIZONA CANAL DIVISION		SOUTH CANAL DIVISION
_____	GRANITE REEF 105,000	_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0800 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
85,230	. . . .Current.	11,710	80,410
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .		
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	129,591	Present Storage	1306368	Gage Hgt. 234.00	
-982	Current 122.24	9647	Available Storage	75212	Current 2131.6	+6731
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	160,427	Present Storage	242,200	Gage Hgt. 264.00	
+1327	Current 191.20	18,050	Available Storage	2938	Current 1912.89	+289
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	52,805	Gage Hgt. 141.50	
			Available Storage	5047	Current 1655.10	+229
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	61,951	Gage Hgt. 119.00	
			Available Storage	7814	Current 1522.60	-947
-2309	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+6302
		290018	Present Storage	1663324		
		27697	Available Storage	91011		

VERDE OUT FLOW	SALT OUTFLOW
65,000	50,000 @ 0800

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 105,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Others _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0700 PERIOD 1 HR.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
86,760	. . . .Current.	11,710	81940
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .		
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	128609	Present Storage	1299,637		Gage Hgt. 234.00
-530	Current 122.03	10629	Available Storage	81943		Current 2131.21 +672
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	159100	Present Storage	241 911		Gage Hgt. 264.00
-1744	Current 190.69	19377	Available Storage	3227		Current 1912.78 +264
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	52,576		Gage Hgt. 141.50
			Available Storage	5276		Current 1654.85 +449
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	62,898		Gage Hgt. 119.00
			Available Storage	6867		Current 1523.40 -714
-2274	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM +6726
		287,709	Present Storage	1657022		
		30,006	Available Storage	97,313		

VERDE OUT FLOW	SALT OUTFLOW
65,000	45,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 105,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Others _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0600 PERIOD 1 Hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
89,870	. . . .Current.	11,710	86,610
	. .24 Hour Average. . .		

COMBINED INFLOW

Current . . .			
24 hour avg..			

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	128,079	Present Storage	1,292,910	Gage Hgt. 234.00	
+398	Current 121.83	11,159	Available Storage	88,670	Current 2130.82	+6375
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	157,356	Present Storage	241,647	Gage Hgt. 264.00	
+532	Current 190.02	21,121	Available Storage	3,491	Current 1912.68	+105
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	52,127	Gage Hgt. 141.50	
			Available Storage	5,725	Current 1654.36	+412
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	63,612	Gage Hgt. 119.00	
			Available Storage	6,153	Current 1524.00	-602
+1930	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+6290
		285,435	Present Storage	1,650,296		
		32,280	Available Storage	104,039		

Horseshoe Release 85,000

VERDE OUT FLOW 65000

SALT OUTFLOW 45000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 105000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0500 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	85,230	. . . .Current.	10,970	85,040
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .		
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	127,681	Present Storage	1,286,535	Gage Hgt. 234.00	
+557	Current 121.68	11,557	Available Storage	95,045	Current 2130.45	+7237
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	155,824	Present Storage	241,542	Gage Hgt. 264.00	
+1180	Current 189.40	22,653	Available Storage	3596	Current 1912.64	+132
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	51,715	Gage Hgt. 141.50	
			Available Storage	6137	Current 1653.91	+164
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	64,214	Gage Hgt. 119.00	
			Available Storage	5551	Current 1524.50	-845
+2037	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+6688
		283,505	Present Storage	1,644,006		
		34,210	Available Storage	110,329		

HORSESHOE RELEASE 85,000

VERDE OUT FLOW 65,000

SALT OUTFLOW 45,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 105,000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0400 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
85,230	. . . .Current.	12,840	86,610
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . .
24 hour avg..

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	127,124	Present Storage	1,279,298	Gage Hgt. 234.00	
+584	Current 121.47	12,114	Available Storage	102,282	Current 2130.03	+8373
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	154,344	Present Storage	241,410	Gage Hgt. 264.00	
1604	Current 188.80	24,133	Available Storage	3,728	Current 1912.59	+210
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	51,551	Gage Hgt. 141.50	
			Available Storage	6301	Current 1653.73	+182
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	65059	Gage Hgt. 119.00	
			Available Storage	4706	Current 1514.20	-731
			COMBINED RESERVOIR.			
2183	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	+8034
		281,468	Present Storage	1,637,318		
		36,247	Available Storage	117,017		

HORSESHOE RELEASE 85,000

VERDE OUT FLOW 65,000

SALT OUTFLOW 45,000

Tributary Inflow _____

ARIZONA CANAL DIVISION _____

SOUTH CANAL DIVISION _____

GRANITE REEF 105,000

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0300 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	86,760	Current	12840	85,820
		24 Hour Average		
		COMBINED INFLOW Current		
		24 hour avg.		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95	
	Gage Hgt. 126.00	126,540	Present Storage	1,270,925	Gage Hgt. 234.00	
+478	Current 121.25	12,698	Available Storage	110,655	Current 2129.54	+8360
	BARTLETT LAKE Max.El. 1798.00	178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00	
	Gage Hgt. 198.00	152,740	Present Storage	241,200	Gage Hgt. 264.00	
1356	Current 188.15	25,737	Available Storage	3938	Current 1912.51	+263
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50	
			Present Storage	51,369	Gage Hgt. 141.50	
			Available Storage	6483	Current 1653.53	-264
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00	
			Present Storage	65,790	Gage Hgt. 119.00	
			Available Storage	3,975	Current 1525.80	-735
+1834	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+7624
		279,280	Present Storage	1,629,284		
		38435	Available Storage	125,051		

HORSESHOE RELEASE 85,000

VERDE OUT FLOW 65,000

SALT OUTFLOW 45,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 105000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0200 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
83,730	. . . .Current.	11,710	86,610
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .		
	24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE	
	Max.El. 2026.00					Max.El. 2135.95	
	Gage Hgt. 126.00	126,062	Present Storage	1,262,565		Gage Hgt. 234.00	
+610	Current 121.07	13176	Available Storage	119,015		Current 2129.05	+865
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE	
	Max.El. 1798.00					Max.El. 1914.00	
	Gage Hgt. 198.00	151384	Present Storage	240,937		Gage Hgt. 264.00	
+1061	Current 187.60	27,093	Available Storage	4201		Current 1912.41	+132
			Reservoir Cap.	57,852		CANYON LAKE	
						Max.El. 1660.50	
			Present Storage	51,633		Gage Hgt. 141.50	
			Available Storage	6219		Current 1653.82	-329
			Reservoir Cap.	69,765		SAGUARO LAKE	
						Max.El. 1529.00	
			Present Storage	66,525		Gage Hgt. 119.00	
			Available Storage	3240		Current 1526.40	-124
1671	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM	+8330
		277446	Present Storage	1,621,660			
		40269	Available Storage	132,675			

HORSESHOE RELEASE TO 85,000 CFS @ 0116 HRS.

VERDE OUT FLOW	SALT OUTFLOW
65,000	45,000 @ 0215 HRS

Tributary Inflow

ARIZONA CANAL DIVISION	GRANITE REEF 105,000	SOUTH CANAL DIVISION
	CANAL DRAIN GATES	
	Evergreen	
	Indian Bend	
	Jointhead	
	City Drains	
	Arizona Canal (Tail)	
	Others	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-19-78 TIME 0100 PERIOD 1 HR

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
80780	. . . .Current.	12,460	89400
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . _____
24 hour avg.. _____

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	125,452	Present Storage	1,253,914	Gage Hgt. 234.00	
+1114	Current 120.84	13,786	Available Storage	127,666	Current 2128.54	+9149
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	150323	Present Storage	240805	Gage Hgt. 264.00	
+1184	Current 187.17	28154	Available Storage	4,333	Current 1912.36	-26
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	51962	Gage Hgt. 141.50	
			Available Storage	5890	Current 1654.18	-495
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	66649	Gage Hgt. 119.00	
			Available Storage	3116	Current 1526.50	-246
+2298	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+8382
		275,775	Present Storage	1,613,330		
		41,940	Available Storage	141,005		

As of 0110 Hrs Horseshoe Release To 85,000 CFS Soon As change can be made

VERDE OUT FLOW

65,000

SALT OUTFLOW

37,000

To 45,000 Approx 0145 Hrs.

Tributary Inflow _____

ARIZONA CANAL DIVISION

_____

GRANITE REEF 105,000

SOUTH CANAL DIVISION

_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 2400 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
82,240	. . . .Current.	13,600	88,200
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . .
24 hour avg..

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE	
	Max.El. 2026.00					Max.El. 2135.95	
	Gage Hgt. 126.00	124,338	Present Storage	1,244,765		Gage Hgt. 234.00	
1215	Current 120.42	14,900	Available Storage	136,815		Current 2128.00	+9634
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE	
	Max.El. 1798.00					Max.El. 1914.00	
	Gage Hgt. 198.00	149,139	Present Storage	240,831		Gage Hgt. 264.00	
1085	Current 186.69	29,338	Available Storage	4,307		Current 1912.37	-290
			Reservoir Cap.	57,852		CANYON LAKE	
						Max.El. 1660.50	
			Present Storage	52,457		Gage Hgt. 141.50	
			Available Storage	5395		Current 1654.72	-440
			Reservoir Cap.	69,765		SAGUARO LAKE	
						Max.El. 1529.00	
			Present Storage	61,895		Gage Hgt. 119.00	
			Available Storage	[illegible]70		Current 1526.70	-123
			COMBINED RESERVOIR.				
+2300	VERDE SYSTEM	317,715	CAPACITY	1,754,335		SALT SYSTEM	+8781
		273,477	Present Storage	1,604,948			
		44,238	Available Storage	149,387			

VERDE OUT FLOW
65,000

SALT OUTFLOW
37,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 105,000 @ 2300 HRS

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 2300 PERIOD 1

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
80,780	. . . .Current.	17,200	82,710
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	99,910	
	24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE	
	Max.El. 2026.00					Max.El. 2135.95	
	Gage Hgt. 126.00	123,123	Present Storage	1,235,131		Gage Hgt. 234.00	
+1,057	Current 119.96	16,115	Available Storage	146,449		El. 2127.43 Current 225.48	+10969
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE	
	Max.El. 1798.00					Max.El. 1914.00	
	Gage Hgt. 198.00	148,054	Present Storage	241,121		Gage Hgt. 264.00	
+716	Current 186.25	30,423	Available Storage	4,017		El. 1912.48 Current 262.98	-210
			Reservoir Cap.	57,852		CANYON LAKE	
						Max.El. 1660.50	
			Present Storage	52,897		Gage Hgt. 141.50	
			Available Storage	4,955		El. 1655.20 Current 136.20	-277
			Reservoir Cap.	69,765		SAGUARO LAKE	
						Max.El. 1529.00	
			Present Storage	67,018		Gage Hgt. 119.00	
			Available Storage	2,747		El. 1526.80 Current 116.80	-246
+1773	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM	+10,236
		271,177	Present Storage	1,596,167			
		46,538	Available Storage	158,168			

VERDE OUT FLOW

65,000

@ 2205 hrs.

SALT OUTFLOW

37,000

@ 2051 hrs.

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 100,000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 2200 PERIOD 1

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
82,240	. . . .Current.	18,400	82,710
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	101,110	
	24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE		
	Max.El. 2026.00				Max.El. 2135.95		
	Gage Hgt. 126.00	122,066	Present Storage	1,224,162	Gage Hgt. 234.00		
+981	Current 119.54	17,172	Available Storage	157,418	El. 2126.78 Current 224.83	+11,263	
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE		
	Max.El. 1798.00				Max.El. 1914.00		
	Gage Hgt. 198.00	147,338	Present Storage	241,331	Gage Hgt. 264.00		
- 49	Current 185.96	31,139	Available Storage	3,807	El. 1912.56 Current 262.56	-369	
			Reservoir Cap.	57,852	CANYON LAKE		
					Max.El. 1660.50		
			Present Storage	53,174	Gage Hgt. 141.50		
			Available Storage	4,678	El. 1655.50 Current 136.50	-832	
			Reservoir Cap.	69,765	SAGUARO LAKE		
					Max.El. 1529.00		
			Present Storage	67,264	Gage Hgt. 119.00		
			Available Storage	2501	El. 1527.00 Current 117.00	0	
+932	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+10,062	
		269,404	Present Storage	1,585,931			
		48,311	Available Storage	168,404			

VERDE OUT FLOW	SALT OUTFLOW
75,000	37000
65,000 @ 2205	@ 2051 hrs.

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 100,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Others _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 2100 PERIOD 1

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	80,920	. . . .Current.	23,650	82,710
		. .24 Hour Average. . .		
		COMBINED INFLOW Current . . .	106,360	
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	121,085	Present Storage	1,212,899	Gage Hgt. 234.00	
+730	Current 119.15	18,153	Available Storage	168,681	El. 2126.11 Current 224.16	+10033
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	147,387	Present Storage	241,700	Gage Hgt. 264.00	
+74	Current 185.98	31,090	Available Storage	3438	El. 1912.70 Current 262.70	- 53
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	54,006	Gage Hgt. 141.50	
			Available Storage	3846	El. 1656.40 Current 137.40	- 1,032
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	67,264	Gage Hgt. 119.00	
			Available Storage	2,501	El. 1527.00 Current 117.00	- 249
			COMBINED RESERVOIR.			
+804	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	+8699
		268472	Present Storage	1,575,869		
		49,243	Available Storage	178,466		

VERDE OUT FLOW

75,000

SALT OUTFLOW

57,000

@ 2051 hrs.

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 100,000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Other

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 2000 PERIOD 1

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
76,490	. . . .Current.	27,700	82,710
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	110,410	
	24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE		
	Max.El. 2026.00				Max.El. 2135.95		
	Gage Hgt. 126.00	120,355	Present Storage	1,202,866	Gage Hgt. 234.00		
+529	Current 118.86	18,883	Available Storage	178,714	El. 2125.51 Current 223.56		+9340
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE		
	Max.El. 1798.00				Max.El. 1914.00		
	Gage Hgt. 198.00	147,313	Present Storage	241,753	Gage Hgt. 264.00		
-370	Current 185.95	31,164	Available Storage	3,385	El. 1912.72 Current 262.72		-52
			Reservoir Cap.	57,852	CANYON LAKE		
					Max.El. 1660.50		
			Present Storage	55038	Gage Hgt. 141.50		
			Available Storage	2,814	El. 1657.51 Current 138.51		-785
			Reservoir Cap.	69,765	SAGUARO LAKE		
					Max.El. 1529.00		
			Present Storage	67,513	Gage Hgt. 119.00		
			Available Storage	2,252	El. 1527.20 Current 117.20		-249
+159	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM		+8260
		267,668	Present Storage	1,567,170			
		50,047	Available Storage	187,165			

VERDE OUT FLOW

75,000

SALT OUTFLOW

32,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 85,000

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1900 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

	VERDE INFLOW		TONTO INFLOW	SALT INFLOW
	76,490	. . . Current.	33,400	81,170
		. . 24 Hour Average. . .		
		COMBINED INFLOW Current . . .	114,570	
		24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	119,826	Present Storage	1,193,520	Gage Hgt. 234.00	
+302	Current 118.65	19,412	Available Storage	188,060	El. 2124.95 Current 223.00	+9103
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	147,683	Present Storage	241,805	Gage Hgt. 264.00	
-1,382	Current 186.10	30,794	Available Storage	3,333	El. 1912.74 Current 262.74	-27
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	55,823	Gage Hgt. 141.50	
			Available Storage	2029	El. 1658.35 Current 139.35	-87#
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	67,762	Gage Hgt. 119.00	
			Available Storage	2,003	El 1527.40 Current 117.40	-124
-1,080	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+8078
		267,509	Present Storage	1,558,910		
		50,206	Available Storage	195,425		

VERDE OUT FLOW	SALT OUTFLOW
75,000	32,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 75,000	SOUTH CANAL DIVISION
_____	CANAL DRAIN GATES	_____
	Evergreen _____	
	Indian Bend _____	
	Jointhead _____	
	City Drains _____	
	Arizona Canal (Tail) _____	
	Other _____	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1800 PERIOD 1

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
73,730	. . . .Current.	30,900	78,900
	. .24 Hour Average. . .		

			COMBINED INFLOW Current . . .	109,800		
STORAGE CHANGE			24 hour avg..			STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	119524	Present Storage	1,184,417	Gage Hgt. 234.00	
+831	Current 118.53	19,714	Available Storage	197,163	Current 222.45 (2126.40)	+10,720
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	149,065	Present Storage	241,832	Gage Hgt. 264.00	
-197	Current 186.60	29412	Available Storage	3306	Current 262.75 (1912.75)	-158
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	56,697	Gage Hgt. 141.50	
			Available Storage	1155	Current 160.28 (1659.28)	-689
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	67,886	Gage Hgt. 119.00	
			Available Storage	1879	Current 117.50 (1527.50)	+124
			COMBINED RESERVOIR.			
1634	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	10003
		268,589	Present Storage	1,550,832		
		49,126	Available Storage	203,503		

VERDE OUT FLOW

75,000

SALT OUTFLOW

23,000

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 67,500

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1700 PERIOD 1

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
69,730	. . . .Current.	30,900	71,580
	. .24 Hour Average. . .		

COMBINED INFLOW

Current . . .	102,480
24 hour avg..	

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE		
	Max.El. 2026.00				Max.El. 2135.95		
	Gage Hgt. 126.00	118,693	Present Storage	1,173,691	Gage Hgt. 234.00		
+755	Current 118.20	20 545	Available Storage	207,889	Current	2123.75	+983
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE		
	Max.El. 1798.00				Max.El. 1914.00		
	Gage Hgt. 198.00	149,262	Present Storage	241,990	Gage Hgt. 264.00		
+592	Current 186.74	29215	Available Storage	3148	Current	1912.81	-23
			Reservoir Cap.	57,852	CANYON LAKE		
					Max.El. 1660.50		
			Present Storage	57386	Gage Hgt. 141.50		
			Available Storage	466	Current	1660.01	+4
			Reservoir Cap.	69,765	SAGUARO LAKE		
					Max.El. 1529.00		
			Present Storage	67,762	Gage Hgt. 119.00		
			Available Storage	2003	Current	1527.40	-24
			COMBINED RESERVOIR.				
1347	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM		+939
		267,955	Present Storage	1,540,829			
		49,760	Available Storage	213,506			

VERDE OUT FLOW	SALT OUTFLOW
60,000	23000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 30,000	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1600 PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
61,010	. . . .Current.	31,400	66,680
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . . 98,080
24 hour avg..

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95 -	
	Gage Hgt. 126.00	117,938	Present Storage	1,163,857	Gage Hgt. 234.00	
-76	Current 117.90	21,300	Available Storage	217,723	Current 2123.15	+8159
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	148,670	Present Storage	242,227	Gage Hgt. 264.00	
+233	Current 186.50	29,807	Available Storage	2,911	Current 1912.90	0
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	57,339	Gage Hgt. 141.50	
			Available Storage	513	Current 1659.96	+528
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	68,010	Gage Hgt. 119.00	
			Available Storage	1,755	Current 1527.60	0
			COMBINED RESERVOIR.			
-1157	VERDE SYSTEM	317,715	CAPACITY	1,754,335	SALT SYSTEM	+8687
		266,608	Present Storage	1,531,433		
		51,107	Available Storage	222,902		

VERDE OUT FLOW	SALT OUTFLOW
60,000	23,000

Tributary Inflow

ARIZONA CANAL DIVISION	SOUTH CANAL DIVISION

GRANITE REEF 30,000+

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Other

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1500 PERIOD 2 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
51,010	. . . .Current.	31,900	61,960
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	93,860	
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
0 +1900	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00	
		118,014	Present Storage	1,155,698		
-352	Current 117.93	21,224	Available Storage	225,882	Current 2122.65	+8948
0 -1600	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00	178,477	Reservoir Cap.	245,138	APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00	
		147,437	Present Storage	242,227		
-987	Current 186.00	31,040	Available Storage	2,911	Current 1912.90	-846
			Reservoir Cap.	57,852	CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50	
			Present Storage	56,811		
			Available Storage	1,041	Current 1659.40	+444
			Reservoir Cap.	69,765	SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00	
			Present Storage	68,010		
			Available Storage	1,755	Current 1527.60	+248
-1339	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+8794
		265,451	Present Storage	1,522,746		
		52,264	Available Storage	231,589		

VERDE OUT FLOW

60,000 cfs

SALT OUTFLOW

23,000 @14:55

Tributary Inflow

ARIZONA CANAL DIVISION

SOUTH CANAL DIVISION

GRANITE REEF 20,000 + (est)

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Others

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1400 PERIOD 1 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
46,010	. . . .Current.	34,400	57,000 (ESTI)
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	91400 (EST)	
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE
	Max.El. 2026.00					Max.El. 2135.95
	Gage Hgt. 126.00	118,366	Present Storage	1,146,750		Gage Hgt. 234.00
-76	Current 118.07	20,872	Available Storage	234,830		Current 2122.10 +8905
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE
	Max.El. 1798.00					Max.El. 1914.00
	Gage Hgt. 198.00	148,424	Present Storage	243073		Gage Hgt. 264.00
-2787	Current 186.40	30,053	Available Storage	2065		Current 1913.22 +1004
			Reservoir Cap.	57,852		CANYON LAKE
						Max.El. 1660.50
			Present Storage	56,367		Gage Hgt. 141.50
			Available Storage	1,485		Current 1658.93 +150
			Reservoir Cap.	69,765		SAGUARO LAKE
						Max.El. 1529.00
			Present Storage	67,762		Gage Hgt. 119.00
			Available Storage	2,003		Current 1527.46 -124
-2863	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM +9935
		266,790	Present Storage	1,513,952		
		50,925	Available Storage	240,383		

VERDE OUT FLOW	SALT OUTFLOW
45,000	20,000

Tributary Inflow _____

ARIZONA CANAL DIVISION	GRANITE REEF 15,000 ↑	SOUTH CANAL DIVISION
_____		_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1300 hrs PERIOD 1 Hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
40,490	. . . .Current.	33,900	52480
	. .24 Hour Average. . .		

COMBINED INFLOW

Current . . . _____

24 hour avg.. _____

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE	
	Max.El. 2026.00					Max.El. 2135.95	
	Gage Hgt. 126.00	118,442	Present Storage	1,137,845		Gage Hgt. 234.00	
+2089	Current 118.10	20,796	Available Storage	243,735		Current 219.60	+8080
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE	
	Max.El. 1798.00					Max.El. 1914.00	
	Gage Hgt. 198.00	151,211	Present Storage	242,069		Gage Hgt. 264.00	
1283	Current 187.53	27266	Available Storage	3,069		Current 262.84	-0-
			Reservoir Cap.	57,852		CANYON LAKE	
						Max.El. 1660.50	
			Present Storage	56,217		Gage Hgt. 141.50	
			Available Storage	1,635		Current 139.77	+19
			Reservoir Cap.	69,765		SAGUARO LAKE	
						Max.El. 1529.00	
			Present Storage	67,886		Gage Hgt. 119.00	
			Available Storage	1,879		Current 117.50	124
+806	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM	+8153
		269,653	Present Storage	1,504,017			
		48062	Available Storage	250,318			

VERDE OUT FLOW

45,000

SALT OUTFLOW

20,000

Tributary Inflow _____

ARIZONA CANAL DIVISION

_____

GRANITE REEF 9,000+↑

SOUTH CANAL DIVISION

_____

CANAL DRAIN GATES

Evergreen _____

Indian Bend _____

Jointhead _____

City Drains _____

Arizona Canal (Tail) _____

Others _____

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1200 Hrs PERIOD 1 hr

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
36,280	. . . .Current.	32,400	46,630
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	79,030	
	24 hour avg..		

STORAGE CHANGE							STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE	
	Max.El. 2026.00					Max.El. 2135.95	
	Gage Hgt. 126.00	116,353	Present Storage	1,129,765		Gage Hgt. 234.00	
+3851	Current 117.27	22,885	Available Storage	251,815		Current 2121.05	+8208
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138		APACHE LAKE	
	Max.El. 1798.00					Max.El. 1914.00	
	Gage Hgt. 198.00	152,494	Present Storage	242,069		Gage Hgt. 264.00	
-2343	Current 188.05	25,983	Available Storage	3,069		Current 1912.84	+316
	@ 12:43 hrs						
			Reservoir Cap.	57,852		CANYON LAKE	
						Max.El. 1660.50	
			Present Storage	56,020		Gage Hgt. 141.50	
			Available Storage	1,832		Current 1658.56	+159
			Reservoir Cap.	69,765		SAGUARO LAKE	
						Max.El. 1529.00	
			Present Storage	68,010		Gage Hgt. 119.00	
			Available Storage	1,755		Current 1527.60	0
			COMBINED RESERVOIR.				
+1508	VERDE SYSTEM	317,715	CAPACITY	1,754,335		SALT SYSTEM	+8683
		268,847	Present Storage	1,495,864			
		48,868	Available Storage	258,471			

VERDE OUT FLOW

35,000

going to 45,000 cfs

SALT OUTFLOW

15,560

going to 20,000 cfs

Tributary Inflow

ARIZONA CANAL DIVISION

GRANITE REEF 9,000

SOUTH CANAL DIVISION

CANAL DRAIN GATES

Evergreen

Indian Bend

Jointhead

City Drains

Arizona Canal (Tail)

Other

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12/18/78 TIME 1100 PERIOD 3 hr.

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
33,910	. . . .Current.	32,900	36,530
	. .24 Hour Average. . .		
	COMBINED INFLOW Current . . .	69,430	
	24 hour avg..		

STORAGE CHANGE						STORAGE CHANGE
	HORSESHOE LAKE	139,238	Reservoir Cap.	1,381,580	ROOSEVELT LAKE	
	Max.El. 2026.00				Max.El. 2135.95	
	Gage Hgt. 126.00	112,502	Present Storage	1,121,557	Gage Hgt. 234.00	
+6723	Current 115.74	26,736	Available Storage	260,023	Current 2120.54	+20,361
	BARTLETT LAKE	178,477	Reservoir Cap.	245,138	APACHE LAKE	
	Max.El. 1798.00				Max.El. 1914.00	
	Gage Hgt. 198.00	154,837	Present Storage	241,753	Gage Hgt. 264.00	
−592	Current 189.00 @ 11:30	23,640	Available Storage	3,385	Current 1912.72	+816
			Reservoir Cap.	57,852	CANYON LAKE	
					Max.El. 1660.50	
			Present Storage	55,861	Gage Hgt. 141.50	
			Available Storage	1,991	Current 1658.39	−1138
			Reservoir Cap.	69,765	SAGUARO LAKE	
					Max.El. 1529.00	
			Present Storage	68,010	Gage Hgt. 119.00	
			Available Storage	1,755	Current 1527.60	+1731
		lower 3 Salt Res available (7,131)				
+6131	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335	SALT SYSTEM	+21,770
		267,339	Present Storage	1,487,181		
		50,376	Available Storage	267,154		

VERDE OUT FLOW	SALT OUTFLOW
No Confirmation on flow	15,560 @1100hrs

Tributary Inflow

ARIZONA CANAL DIVISION		SOUTH CANAL DIVISION
	GRANITE REEF 9,000	
	CANAL DRAIN GATES	
	Evergreen 150	
	Indian Bend	
	Jointhead	
	City Drains 350	
	Arizona Canal (Tail) 500	
	Others 390	

INFLOW-STORAGE-OUTFLOW-ADVISORY

DATE 12-18-78 TIME 0800 PERIOD 96 HRS

All flow figures are in Cubic Feet Per Second; storage figures are in Acre Feet.

VERDE INFLOW		TONTO INFLOW	SALT INFLOW
19,030	. . . .Current.	36,500	21,900
	. .24 Hour Average. . .		

COMBINED INFLOW
Current . . .
24 hour avg..

12/15-12/18 STORAGE CHANGE						12/15-12/18 STORAGE CHANGE
	HORSESHOE LAKE Max.El. 2026.00 Gage Hgt. 126.00	139,238	Reservoir Cap.	1,381,580		ROOSEVELT LAKE Max.El. 2135.95 Gage Hgt. 234.00
		105,779	Present Storage	1,101,196		
10,032	Current 112.97	33,459	Available Storage	280,384		Current 217.32 +2885
	BARTLETT LAKE Max.El. 1798.00 Gage Hgt. 198.00	178,477	Reservoir Cap.	245,138		APACHE LAKE Max.El. 1914.00 Gage Hgt. 264.00
		155,429	Present Storage	240,937		
+222	Current 189.24	23,048	Available Storage	4,201		Current 262.41 +598
			Reservoir Cap.	57,852		CANYON LAKE Max.El. 1660.50 Gage Hgt. 141.50
			Present Storage	56,999		
			Available Storage	853		Current 140.60 +3030
			Reservoir Cap.	69,765		SAGUARO LAKE Max.El. 1529.00 Gage Hgt. 119.00
			Present Storage	66,279		
			Available Storage	3,486		Current 116.20 +7119
+10,254	VERDE SYSTEM	317,715	COMBINED RESERVOIR. CAPACITY	1,754,335		SALT SYSTEM +44988
		261,208	Present Storage	1,465,411		
		56,507	Available Storage	288,924		

VERDE OUT FLOW
357 2000 @ 0700 HRS
3000 @ 0715 HRS

SALT OUTFLOW
-0-

Tributary Inflow

ARIZONA CANAL DIVISION
181

GRANITE REEF 5,000

SOUTH CANAL DIVISION
240

CANAL DRAIN GATES
Evergreen
Indian Bend
Jointhead
City Drains
Arizona Canal (Tail)
Others

J O U R N A L

DATE 20 Dec 78 PAGE 1

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
					B. BISHOP	
	0030					F & W Industries requesting boat - Referred to MCSO
	0040					State ES reports no change in Gila River at Florence in last 45 minutes.
	0145					State ES reports 4" drop in Gila River at Florence in last hour.
	0200					Received call from 107 Av & Southern asking about releases. Says water seems to be rising. Informed release at Granite Reef same as 2200 (15,000) & 80,000 at dams.
	0207					Indian Police report Gila 3' deep & 80' wide at Maricopa Rd.
	0220					Gila has dropped total of 10" at Florence in last 2 hrs, 6" in last half hour.
	0330					Flow at Granite Reef down to 100,000 cfs. (0300) Total release 80,000 at present. (Took 7½ hours for change from 115,000 to 100,000 to reach Granite Reef)
	0345					In response to a question from MCSO, queried State ES on releases, capacity, etc at San Carlos. Reso. No information, will check.
	0445					State ES advises can only get that "a little bit" was released from San Carlos yesterday and "a little bit" will be released later today. They will leave word for day shift to check back at 0800 & let us know.
	0520					Passed information to MCSO on Cave Creek & Lake Pleasant.
	0640					Luke D.P. will be ext. 7386.

J O U R N A L

DATE Dec 20, 78 PAGE 1

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	1105			State ES		Roy Bluhm contacted State ES in reference to temporary housing for persons displaced by flooding. (Lockwood)
				John Robinson		Roy Bluhm contacted John Robinson in reference to temporary housing for persons displaced by flooding (Lockwood)
	1215	X		Flood Control		Scott Buchanan Flood Control, reported that he had checked with Water Conservation District and the flow from Waddell Dam was 5,000 cfs, not 2,000 as previously reported.
	1240	X		F. Ruf		Reported leaving Holly Acres for Avondale & Buckeye. Reports H.A. a mess - dead animals floating - no lights/sewage/water.
	1245	X		Flood Control		Dan Sagramoso called in names of people to contact tonight: Dan Sagramoso - 240-9090 Jack Leavitt - 948-6285 Les Bond - 968-0485
	1335	X			SRP (Frye)	SRP reports flow from Bartlett into Verde down to 4,400 cfs as of 1300. Release is through valve only.
	1435		X	NWS		Checked with Bob Ingram, NWS re status at Gila River. He stated 2 crests - one should be reaching junction at Gila & Salt River soon.
	1435	X			SRP	SRP reports Granite Reef down to 85,000 at 1100. Horseshoe outflow 1,650 cfs at 1400. Flow at Tempe bridge at 1030 as reported by Corp of Engineers, 90,200.
	1740	X			SRP	Confirmed water release info: S.M. Dam 50,000 Bartlett Dam 4,400 Granite Reef 85,000
	1745	X			ARC	Dysart School Shelter closed 36 in Buckeye Hi 35 in Littleton
	1815				SRP	Frank Gin, Mgr to CD Director: Bartlett is shut down to 4,000 cfs and will remain at that until 1 week from this Friday. Salt will be cut to 20-50,000 until 1 week from Friday

(cont'd next page)

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
						A shut down to allow a dry up will come one week from Friday. This shut-off will continue until Tues after New Years. Then small releases will be resumed unless storms cause changes.
	2015	X			Tempe PD & Howard	Howard called about intercepting a message from Tempe PD stating a need for a helicopter. I checked with Tempe, all was code 4, had the guy out of the river o.k.
	2126	X			Joe Tedder APS Dispatcher PH 271-7031	This man wondered about a head of water being released from Coolidge Dam at 60,000 cfs and when it would hit here. This information apparently originated from the Mayor, Buckeye, John Hawley. I called State, talked to Whitehead, he know of no releases from the dam. Too much storage left.
	2200		X		Gila River Ind Res. Police	243-4567 - PD told us there was only a moderate flow of water in the Gila River and if there was any significant increase they would call us. (Jack H.)
						21 Dec 78
	0500 0640		X	SRP		Requested update of outflow at Bartlett and Granite Reef. Posted. Rainbow Valley & Rd area contact Joan Hernandez - 386-3591
	0820	X		DDC	Sagramoso	Opengated 2 ft at Cave Creek Dam. Releasing 450 cfs at 0800 El: is 25.1 ft
	1240		X	Holly Acres	DDC	Releasing 2,000 cfs at Waddell Continue 60,000 cfs release for a same period of time, midnight 29 Dec.
	1245			DDC	Sagramoso	Notified by Flood Control that Gila/Santa Cruz water would equate to a ft raise in water level at Holly Acres and down stream.
	1250		X	Sheriffs Off Carnes	DDC	Notified of Gila water info.
	1320	X			Flood Control	Waddell Dam outflow now 500 cfs.
	1415	X		DDC	Holly Acres	Got word from Holly Acres that 5 ft wall of water going to hit them. They got word from Deputy in area.
	1420		X	Sheriff	DDC	Got Sheriff's Office to straighten out deputy in Holly Acres area.
	1445					Dispatched Russo & Stevens to helicopter to survey Fila & Santa Cruz.

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	1455			Clearwater Co	DDC	Advised Steve Rudnik of SBA as source of assistance.
	1700	X			SRP	Bing Brown called about meeting at Littleton School pertaining to water flow.
	1725	X			SRP	SRP will not send a rep to the meeting at Littleton School.
	1727		X		Flood Control	Called Dan Sagramoso and told he would be alone at meeting - no SRP rep.
	2015	X		DDC	SRP	St M Dam 30,000 cfs - 1700 hrs Granite Reef will be 35,000 at 2200 hrs.
	2015		X	Sheriff	DDC	Relayed the above information.
	2130	X			State ES Bud Whitehead	Received information from State to the effect that water had been found by Pinal County S.O. to be running over the bridge on Highway 87 between Olberg & Sacaton. Bud will call back. DPS is going to send people to S.R. 87 and I-10 bridges to verify.
	2200	X			State ES	This water had crested on the Gila at Kelvin earlier in the day - Time unknown. Received information from Florence (my mother) that the water was receding, she called local P.D. for me. NWS foresees no difficulty from this amount that would reach the Salt.
	2330	X			State ES	The water in the Gila did go over the bridge on S R 87, and at this time is 2 ft below bridge on I-17, confirmed by DPS, Sheriff notified.
						22 Dec 78
	0025	X			State ES	Reported Gila River holding steady.
	0230	X			Phx PD	Requested Salt River outflow update.
	0645		X	SRP		Confirmed Salt River outflow as: Stewart, 30,000; Bartlett, 4,400; Granite Reef-35,000.
	0715		X	MCSO		Inquired about results of effort to get persons out of Lake Pleasant station (See note 2330/21). S.O. was not aware, but will check it out.

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NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	0940	X		DDC	State ES	Land route to Rainbow Valley. Micka Mine Rd to Route 80, to Patterson Rd across Gillespie Dam to old U.S. 80 to Buckeye.
	1000	X		DDC	Payson	Governor's office referred Payson Emergency Service to Maricopa County. They are having a shortage of food and gas. They were referred to State Emergency Services.
	1115		X	Mrs Englehart	DDC	Called Mrs. Englehart of drug (Paytio Drugs). There may be a problem by Wednesday 27 Dec. At that time Mrs. Englehart & drugs will have to be transported to Rainbow Valley. Mrs. Englehart will call us on Tuesday if the problem still exists.
	1145	X		DDC	State ES	Advised that land route to Rainbow Valley is open, to Buckeye, old U S 80 to Gillispi Dam, Patterson Rd to Route 80 to Micka Mine Rd to Rainbow Valley.

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NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
1	0755	X			Flood Control	Personnel in field - no info on Lake Pleasant & McMicken D.
2	0800	X			Sheriff	Normal Road Closures in
3	0800	X			Flood Control	Observers on way to Dam
4.	0800				Holly Acres	Concern of SRP release, told no danger at this time and would keep them informed.
5	0805				Luke AFB	Bert Friend - discussed problem - will keep
6	0806				Flood Control	New River not running (5 ft reduced to 3 ft this morning) Agua Fria at Camelback running some due to local
7	0815					Put watch on Hiway Radio
8	0815			350 399	399 342	2.5 ft on gauge and running fast. Agua Fria need caution signs and Brown Rd. east of Greenfield Rd.
9	0830			342	340	Brown Rd has water block. Water is up to at least one house Water not running into channel at Spillway
10	0831					Deep hole at McDowell & 83 Av need barricade
11	0834			652	648	Reading at Cave Creek Dam 22.6 ft
12	0851			61	352	Van Buren at 115 bad shape
13	0830				SRP	Bartlett released 3,000 cfs
14	0905				342	Gilbert Rd is being closed - 5 ft of water/150 yds wide - running
15	0845				NAWAS	Winter storm warning & Flash Flood Watch
16	0919			DDC	Granite Reef	7000 cfs is being released from Granite Reef since 1000 pm the 17th Dec
17	0921			340	346	New River is running bank to bank) 83rd & Bell Skunk Creek dry
18	0929				652	Cave Creek reading 22.8 ft
	0845			Flood Control	DDC	Advised to check & watch 51st Av & Gila River and check road to Maricopa

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
19	0925		X	State ES	DDC	WX report and water release notification 7000 cfs
	0927		X	Sheriff	"	
	0930		X	Flood Control	DDC	
	0931		X	MED	"	
	0931		X	ARC	"	
	0932			County Mgr	"	
20	0934			652	650	Want to open outlet at Cave Creek Dam 652 will notify when opened and how much
21	0940		X	DDC	Gary White SRP	Granite Reef 7,000 cfs Pueblo Grande 250 cfs Arizona Canal 500 cfs Grand Canal 200 cfs Bartlett 3,000 cfs Stewart Mtn 1,800 cfs
(19 continued)			X	P & R Highway Opns Central Svcs MaCO Water Dist	DDC	Wx report and water release
	0942			DDC	Phoenix	SRP is passing releases to Phx Street SRP anticipate increasing release to 10-11,000 at 1200
	0943			543	61	Checking Greenway, Reams, Peoria & Reaves
	0950			Phoenix	DDC	Notified of possible Cave Creek Release
	0945			Glendale	DDC	" " " " " "
	0910			Parks & Rec	DDC	Water & Wx notification
	0915			Hiwy	DDC	
	0930			Esterbrooks	DDC	
	0945			Mesa	DDC	
	0945			Tempe	DDC	
	1005	X		Holly Acres	DDC	Notified Holly Acres of water release Alert Organization is on standby Holly Acres decide not to recall people from work

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	1010		X	PIO	DDC	Notified SRP meeting of Press conference at DDC at 1030
	1014				NAWAS	Lake Mary is up 3 ft.
	1030			MCSO	DDC	Advised Major Carter advised of situation. Advised him of possible need for liaison
	1032	X			Highway	Van Buren closed from 108 to 115 Ave.
	1035	X			Hiwy 346	McKellips west of 64th St - Drive with caution " east of 56th St - " " " west bound
	1041	X		650	0652	Cave Creek at 23.0 ft. Opened West Gate at 1030 - 2 ft will be approximately 250 cfs.
	1043			DDC	SRP	46,000 cfs release by 1700 pm from Granite Reef
	1045			Holly Acres	DDC	Holly Acres advised of release
	1100			Allenville	DDC	Advised of release. Also advised to bring in every Organization
	1101			Highway	DDC	Advised of 46,000 cfs by 1700 90,000 - 100,000 cfs by midnight
	1105			Allenville Holly Acres	DDC	On standby for evacuation - advised of releases " " " " "
	1106			Sheriff	DDC	Standing by - given water releases
	1105			Central Svcs	DDC	Water release 46,000 cfs by 5:PM
	1108			Glendale	DDC	90,000-100,000 by midnight
	1110			Littleton	DDC	"
	1111			Laveen	DDC	" "
	1111			Liberty		"
	1052	Sheriff		Sheriff		"
	1055			MED		"
	1055			Red Cross		"
	1057			City Mgr		"
	1103			Phoenix		
	1100			Tempe		" "
	1102			Mesa		

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	1110 1107 1104			Buckeye Parks & Rec Highway		Water release 46,000 cfs by 5: PM " " 90,000 - 100,000 cfs by midnight " "
	1131				Highway	Union Hill & New River closed
	1134				Blender Chief	Advised of Water released
	1130			Red Cross	DDC	Advised of possible evacuation of Allenville & Holly Acres
	1145					EOC activated
	1148			PIO		PIO alerted
	1157				Highway	McDowell at Agua Fria closed
	1201				Peoria	Arlington Bob Richardson 1 - 386 - 2030
	1200				META Forrest Stotaugh	Kyle Himdwarn will be available to help with disaster relief again if flood occurs
	1206	X			Sy Carson	Sgt Carson - advised of release
	1216 1220	X X		DDC	Phoenix	Tom Alridge Phoenix Manny Green was given water release data
	1223				Tolleson H.S.	Advised of
	1230					Holly Acres is beginning to evacuate
	1245				Mike McCoy Associated Press	Will accept calls for any bulletins to put out 258-8934
	1300				Flood Control	Cave Creek 23.8 ft - approximately 500 cfs
	1348	X			Ryder-Weather Report	Radar shows moderate to heavy rain cells moving towards Morristown & Cave Creek areas. Cells not Buckeye - Second storm has not arrived yet. Looking cooler & precip may turn to snow.
	1425			Stak	DDC	Notified agencies of the 45,000 cfs releases in the Verde System.

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	1425			Sheriff		Notified agencies of the 45,000 cfs releases in the Verde System
	1425			Flood Contr		" " " " " " " "
	1425			Mech Equip		" " " " " " " "
	1425			ARC		" "
	1425			County Mgr		" "
	1425			Phoenix		" "
	1425			Glendale		" "
	"			Tempe		" "
	"			Mesa		" "
	"			Buckeye		"
	"			Parks & Rec		" "
	"			Highway		" "
	"			Co Public Info		" "
	"			Sheriff (Mg Carter)		" "
	1410				John Robinson ARC	Stated was making arrangement with school principals for reception centers. Also stated there was a representative on the way to the DDC.
	1435				Luke Disaster Preparedness	Called to give Home Phone number in case of emergency tonight Major Reamer 978-4018 Bert Friend 279-4334
	1440				Crime Stop (Phoenix)	Called Ryder advised them to put a skeleton crew in the Phoenix EOC.
	1525				Ryder	Ryder is working on Mobile Home availability for furniture storage.
	1520					Contact Earl Evans when called by Col Colson about truck availability for furniture movement at Holly Acres & Allenville.
	1535			Stak		Notified 1525-1540 of 1500 release of 30,000 cfs at Granite Reef Dam, Tempe, Mesa, Glendale, Buckeye, Parks & Rec.
	1535			Flood Contr		" " " " " " " "
	1535			Mech Equip		" " " " " " " "
	1535			ARC		" " " " " " " "
	1535			County Mgr		" " " " " " " "
	1535			Phoenix		" " " " " " " "
	"			Glendale		" " " " " " " "
	"			Tempe		" " " " " " " "
	"			Mesa		" " " " " " " "

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NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	1535			Buckeye		Notified 1525-1540 of 1500 release of 30,000 cfs at Granite Reef Dam, Tempe, Mesa, Glendale, Buckeye, Parks & Rec.
	"			Parks & Rec		" " " " " " " "
	"			Highway		" " " " " " " "
	"			County PIO		" " " " " " " "
	"			Sheriff (Mj Carter)		" " " " " " " "
	1540				Jonas Brown	Fron Allenville, notified to evacuate Allenville; Buckeye H.S. Safe Haven
	1540				Mrs Tyler	If Pleasant Lake releases water, please notify Mrs. Tyler at 465-7338.
	1540					New River at Frontage Road is 5 ft below bridge.
	1720					Country Club Rd at Salt Rig er closed to traffic.
	1750	X			Phone	40th & 48th St at Salt Closed.
	1800	X			Phone	Hayden & Scottsdale Rds closed.
	1900	X			City Clerks Off	16th St closed by 8:co pm - 19th Av closed by 9:00 pm - 40th open but in bad condition 48th St closed - Remaining xings closed by am. tomorrow except Cent-Fwy-Tempe
	1925	X			Phx Nitros	Offered assistance - Call Richard Unit #53 247-2717
	2045				Scts P D	Scottsdale Rd
	2050	X	X		Bob J/Hubbard	Called Wickenburg re. flooding prob
	2030				WSB	Flooding problems - memo 2030 hrs - 18 Dec 78
	2100		X		Berrey	Called Wickenburg PD re WSB memo - Wickenburg will keep this office informed.
	2125	X			Flood Control	Lake Pleasant will release 15,000 cfs at 2400 Called Cashion - Avondale - Litchfield Pk - Youngtown - El Mirage - Surprise

HUBBARD

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NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	1915				S Mathews	Gave him an update of the situation
	1940					Checked on security on Holly Acres - 4 Roadblocks and 8 patrols are in the area.
	1955				Mrs. Tyler	Dike breaking in the area. She is to check this out for us and will call back in about 15 minutes.
	2000					Received a bad weather report, Storm #1 is just hanging in the local area, storm #2 is in South Calif and moving this way, could possibly drop an inch or more of rain here, storm #3 should be here about Wed. or Thurs .
	2025					River bottom, by New River below freeway on the river, water higher & muddier.
	2030					Dike broke, residents are leaving on own, DPS not evacuating area. DPS called me me back with this info. Called Mrs.. Tyler.
	2050					Buckeye CD., Gary Hefly called about water flow and other releases. He said people are out of Allenville.
	2125					Mr. Berrey will notify PD of Towns along Agua Fria of water release of 15,000 cfs at midnight.
	2140					El Mirage PD called back on Water release, gave them info on release last March as a guide. Info from Flood Control.
	2145					Called Sun City about water in area. New River 5 ft deep at Thunderbird Rd. 99th Ave ditch full of water. One man drove in to ditch.
	2155					Received word that 100,000 cfs was going over Granite Reef, notified Holly Acres.
	2200					Notified Disaster Preparedness of LUKE about water release from Lake Pleasant.'
	2225					Notified State E.S. about water releases and other pertinent information.
	2240					Call from Mrs. Tyler about evacuation, people were warned by DPS to evacuate, so far she has ascertained no one who needs shelter assistance.
	2255					Water closed 35th Av at Salt River.
	2300					At 2230 Lake Pleasant was full, had a 78,000 cfs inflow, the 15,000 cfs has been stepped up to start at 2310.

NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	2325					Sheriff is notifying Hound Dog Acres & Rose Garden of water release at Lake Pleasant.
	2340					Notifying towns along the Agua Fria about 35,000 cfs release from Lake Pleasant. Info from Flood Control.
	2350					LUKE AFB, Disaster Preparedness is now in command post Ext 2796.
BISHOP						(14 Dec 78)
	0011					933-1341 - C. Skaggs at river - left message.
	0033					Frank Comacho - KTAR - inquiry about Aqua Fria Bridge, I-17 - referred to DPS/
	0035					El Mirage passed 51,000 cfs.
	0039					Avondale - 51,000 cfs Mackin
	0041					Surprise - passed release - 51,000 cfs.
	0043					Youngtown PD 974-3665 - No answer
	0048					Peoria - passed release 51,000 cfs
	0053					El Mirage - Bell in 3 hr. west to El Mirage Rd.
	0057					El Mirage evacuating to Dysart School
	0100					Sky Harbor - 105,000 cfs Runway 7000 7200 ldg
	0103					Youngtown passed into 51,000 cfs
	0110					Notified AP & UPI of evacuation of El Mirage
	0115					Passed evacuation area to Peggy Peterson.
	0122					Passed evac. area to Avondale
	0127					I-17 closed north of Deer Valley

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NO.	TIME	IN	OUT	TO	FROM	SUMMARY OF MESSAGE, EMERGENCY REPORT OR INCIDENT
	0140 0202					Passed info on water to Buckeye. Called Avondale PD about shelters. Passed to Red Cross that Agua Fria H.S. and American Legion are opening. They will coordinate.
	0207					MCSO confirms Bell Rd. closed at Agua Fria River.
	0210					SRP now releasing 110,000 total.
	0232					Passed water at Beardsley to El Mirage.
	0315					Passed water arrival estimates to El M.
	0320					" " " " " Avondale
	0322					" " " " " Holly Acres
	0345					El Mirage evacuation almost complete.
	0401					Phoenix EOC reports local flooding at 21th Av & Mag.
	0402					Passed rising water at Bell Rd. to El Mirage
	0435					Est. 1000 for 80,000 at 115th Av, 100,000 at 1200. Passed to Peggy.
	0436					Passed 0800 est to Avondale.

12-18-78 Rain Gauge Readings

8:00 3.02 at K.O.A.

9:10 AM 2.76" MR. OCCONNOR CAVE CREEK & CARE FREE Hy.

9:15 AM 2" RAIN MR LUNSFORD

8:15 1.3/4" BOLLINSON CAVE CREEK

10:00 1.78 at Guadalupe

9:15 AM SAM CAMERON, Buckeye FCS 1.2/10"

11:45 General Motors Proving ground 2" so FAR

1930 2 1/2' holding Cave Creek Wash

1930 26.8' at Cave Creek Dam

1:45 N 57ST AT CAVE CREEK RD 3.55

Date/ Time	Mill Ave Bridge	Old Joint Head Dam - 48th St.	Central Ave Bridge
12-18-78			
2315 hrs	3.1		
12-19-78 0000 hrs		8.4	
0025 hrs			25.2
0040 hrs			25.1
0150 hrs	5.7		
0200 hrs		9.9	
0230 hrs			24.4
0300	6.5		
0400			22.9
0320		10.2	
0435	6.9		
0450		≈ 10.4	
0550		10.2	

Date/ Time	Mill Ave Bridge	J.T. Head.	Central Ave
12-19-78			
0636		10.0	
0705			22.2
0750	6.5		
0801		10.0	
0833			22.4

12-18-78

5:45 Am. receives call from Dam about time I would arrive at
7:00 F.C.D. office

7:30 A.M. Talked to Bud Lestillo + Don Weesner a
S.R.P. about Cave Creek

7:35 21.5' behind Cave creek Per C of E.

8:00 Roy Bloom civil Defense

8:15 Mr. Rollison Cave creek area with rain Gauge Reader
1 3/4 since 4:00 Pm Sunday

8:35 22.6' behind cave creek Dam Per Diner

8:40 Roy Bloom 3000 C.F.S. released at Bartlett on
granite Reef

8:45 Guzbaly Dry Per Tony G.

8:46 Major Fred Riemer Lake Field concerning
McMicken 935-7411 ext. 7386

8:50 Steve Rust Corp of Eng. are expecting anoth
4000 Acre Ft. in next 24 hrs 22.5' behind Dam

9:00 Roy Bloom someone should check 51st + Gila Staff Gauge

9:02 Herb called; call him at home on McMicken
as soon as we hear

9:30 22.8 at Cave creek Dam.

9:40 No water in Buckeye Structure's and
Hassayampa is dry at I-10

9:45 Tom Johnson No water going through Spillway at
McMicken could not see behind on way to Wickenburg

~~9:45~~ 9:45 Staff Gauge reading Carefree Hiway + Cave Creek wash 2'

10:00 Lenby called 48th St Drain about Half Full
Guadalupe 1.78" rain in Gauge

10:20 Ralph - Rittenhouse Low Flow is Full 3' appr
- Powerline 1' Flow in channel
Vineyard 2' in low Flow

10:43 Staff Gauge reading inflow accross Carefree
3 1/2' 1' higher than Last call (Hiway 542 traffic

10:30 23' at Cave Creek raised Gate 2' 1/2 ope

10:55 Sunset 12.9
Sunnycove 33.2

11:00 Dreamy Draw 8/10 of 1' going through outlet Pipe
rain 1.7/10

High stage 2169.5
Low stage orfice 2148.0 ~~outlet gate~~
Sunny cove 2126.5 inlet Low Gate
Sunset El 2104.75 Gate outlet
2120.0 Low stage orfice

11:00 CID Fryer S.R.P. called wanted GATE shu at Cave creek his office # 273-2680

11:05 I called Les Bond at civil Defense per our earlier conversation it was agreed F.C.D. ~~and~~ S.R.P. C of E. To open GATE 2' he said To Leave it as is till he calls me backe

11:15 Rainwater is going down at RittenHouse 2' at This time (raining at Present Heavy) was 3' at highest Point

11:25 2½' at Carefree Hiway (Per 399 Cty Hiway

11:30 8000 C.F.S. by NOON INTO SALT at This time 100,000 C.F.S. is expected

11:35 Herb wants Linda at civil Defence

11:45 Don Bolin 931-7329 Resident at 38th Ave + Deer Valley says SKunk creek is Diked up at A.B.C. crusher water is backe up To Pinnacle Peak Rd. 6" accross Hiway

11:50 Sue said she talked To Herb about not sending Linda To civil defen

12:05 (339 Hiway) cave creek wash at cave Free holding at 2½' accross Hiway

12:10 Washington wants (gate west) so get mate West Breech

12:00 23.5 CAVE CREEK Reading

12:15 called ~~Dennis~~ Herb D at civil Defense To get OK. For Washington Con't Co to Close west gate at CAVE creek He said not over 2 hrs

12:20 Gave Jack rundown on current Problems

273 2686
Sid Frayer

12:30 Tony will check New River + Skunk Creek - cave Cr.
12:35 Vince FCD at Cave Creek said washington thought they could complete fill on west embankment in two hrs told him to keep me informed on their progress.
12:40 PM. Ernie reports all is well at Buckeye and McMicken with small amounts of water puddling in their structures they will stand 6 at McMicken
1:00 PM 23.8 at Cave Creek Dam. (Vince)
1:05 Roy Bloom needs report on 94th Ave + Grand at New River
1:07 Tom Johnson stuck Exxon station Willow J. LEAVITT.
1500 24.3 @ CAVE CREEK DAM FRANCIS Vincent.
1600 24.7 @ CAVE CREEK DAM FRANCIS Vincent
1700 25.2 @ CAVE CREEK FRANCIS Vincent
1730 25.8 @ CAVE CREEK FRANCIS Vincent

1815 Gate opened 2' at Cave Creek Dam
1830 Francis Vincent 26.3 @ Cave Creek

1845 No measurable rain behind McMicken

1900 26.5 @ Cave Creek Dam

1910 2' under New River Bridge

1930 2½' holding - Cave Creek Wash

1930 26.8' at Cave Creek Dam
2000 9' at Rittenhouse
2030 27.1' at Cave Creek Dam

2040 2½' at Cave Creek Wash - No rain

2100 27.2' at Cave Creek Dam

2130 27.3' at Cave Creek Dam

2130 2' at Cave Creek Wash

2200. 27.3' at Cave Creek Dam - No change

2230 2' at Cave Creek Wash - 20 minutes light rain - 10 minutes moderate rain

2230 27.4' at Cave Creek Dam

2300 27.4' at Cave Creek Dam
2330 27.4 at Cave Creek Dam
2330 2' at Cave Creek Wash Light rain
2400 27.5 at Cave Creek Dam
12:30 A.M Cave Creek Dam 27.5 12-19-78
12:30 A.M Cave creek wash
1:00 A.M Cave Creek 27.5
1:30 A.M Cave creek Dam 27.7
1:30 A.M Cave creek wash 2.6' Per
1:35 Agua Fria + Bell .6" 2.5' New River + Bell
2:35 Cave creek wash 3.1'
2:35 A.M. Cave creek Dam 27.8
3:00 A.M. McMicken No amount of water No inflow
3:05 Cave creek wash 2.9'

4:00 AM	CAVE creek Dam	28.3'	NO RAIN
4:00 AM	Carefree Hiway + Cave crk wash	2.3'	
4:20	AGua Fria + Bell Rd	6'+	
4:50	Carefree Hiway + CAVE creek	2.5'	
4:58	water has arrived at AGua fria + GRand AVE		
5:00 AM	cave creek Dam	28.5	Light rain
5:20	Rittenhouse	9.5'	
5:20	GRand + AGua fria	8'+ 100yds wide (estimated)	
6:00	CAVE creek Dam	28.6	Light rain
6:00	water reaches olive in AGua fria		
6:07	CAVE Creek + Carefree Hiway	2.4'	Light rain
6:12	water reached Northern on AGua fria		
6:19	3' at Northern + AGua fria		
6:28	water reached Glendale at AGua fria		
6:30	Rittenhouse	9.5	
7:00	CAVE creek Dam	28.6	
7:08	cave Creek wash	2'	
7:30	Rittenhouse	9.5	
7:58 AM	cave creek wash	2'	
8:00 AM	cave creek Dam	28.7	
8:15	AGUA FRIA INDIAN SCHOOL	2.5	
8:30	RITENHOUSE	9.7	
8:45	N 52ST A CAVE CREEK RD	3.6	
8:50	US 80 AGUA FRIA	3.0	
9:00	CAVE CREEK WASH	2.0	
9:00	CAVE CREEK DAM	28.7	
10:00	CAVE CREEK DAM	28.7	NO RAIN 1 HR
10:00	CAVE CREEK WASH CAREFREE	1.9	
10:20	US80 AGUA FRIA	4.0	
10:55	CAVE CREEK DAM GATE TO RISE	0.6	ORDER GIVEN
10:55	CAVE CREEK DAM	28.6	
11:00	US85 AUGA FRIA	5.0	
11:10	CAVE CREEK WASH CAREFREE	1.7	
11:25	CAVE CREEK DAM	0.6+	GATE OPEN
		TOTAL 2.6	" "

12:00	CAVE CREEK DAM	28.5
12:00	US 85 AGUA FRIA	5.
12:00	CAVE CREEK WASH CARE FREE Hy	1.7
12:05	MC MICKEN	NO WATER
12:55	CAVE CREEK DAM	28.5
13:00	CAVE CREEK WASH CARE FREE Hy	1.6
13:15	SUNSET GAUGE 13.0	APROX 6' OF WAR
13:15	SUNNYCOVE " 33.5	" 6' " "
	RAIN GAUGE 2.03	
13:15	HASSAYAMPA RIVER IN WICKENBURG FLOWING	
	BANK TO BANK APROX 2½' DEEP	
13:40.	POWER LINE	4"
13:45	RECEIVED A CALL FROM NICK KARAN	
	TO CLOSE WEST GATE ON CAVE BUTTES DAM	
	TO 6" OPENING	
13:50	CAVE CREEK WASH C.F. HY	1.5
14:00	RITTENHOUSE	9.0
14:20	REQUEST THE WEST GATE BE CLOSED	
	PER NICK KARAN GATE IS AT 8"	
14:25	WEST GATE NOW CLOSED.	
14:35	CAVE CREEK WASH	1.5 RAINING
14:35	CAVE CREEK DAM	28.5
15:00	RITTENHOUSE	9.0
15:30	CAVE CREEK DAM	28.5
16:00	RITTENHOUSE	8.11
16:00	CAVE CREEK WASH	1.4
16:00	CAVE CREEK DAM	28.5
17:00	CAVE CREEK DAM	28.4
17:10	CAVE CREEK WASH	1.4
18:00	CAVE CREEK DAM (BOB P)	28.4
18:00	CAVE CREEK WASH (T. Johnson)	1.4
18:40	GATE (WEST) OPENED 2' (BOB P)	

1900	~~23~~. Cave Creek Dam Bob P	28.4
1900	~~13~~ Cave Creek wash. Tom Johnson	1.3
2000	Cave Creek Dam Bob P	28.3
2000	Cave creek wash T. J.	1.3
2100	Cave Creek Dam	28.2
2100	Tom Johnson	1.3
2100	Rittenhouse Dam Tony	9.0
2200	Cave Creek Dam	28.1
2300	Cave Creek Dam	28.1
1200	Cave creek Dam	28.0
7:00	Cave creek Dam	27.3
8:00	Mill Ave Bridge	4.2
8:00	48th St.	8.2

Reading on East Structure
Rain Gauges

T. Martinez	4.3
Dromy Draw	1.75
KOA	3.5
SAN TANKS	3.6
GUADALUPE	2.26

December 26, 1978

San Carlos Reservoir as of 7:00 a.m.

Storage - 517,233 acre feet
Inflow for last 24 hours - 7783 acre feet

December 22, 1978 7:00 a.m.

The San Carlos Reservoir had 474,728 acre feet of storage, a 24 hour gain of 48,479 acre feet.

The capacity is 1,285,000 acre feet.

FLOOD CONTROL DISTRICT of Maricopa County

Interoffice Memorandum

CMT. NO.	SUBJECT: Status of San Carlos Reservoir	☑ FILE 24.3.1 ☐ DESTROY

TO: D65 ~~D7~~, 65B, NPD FROM: LAB DATE: 12/21/78

I called to the San Carlos Irrigation District office in Coolidge (723-5408) to obtain the status of the reservoir. As of 0700 on Dec 21, 1978, storage was 426,249 AF, with capacity of 1,255,000 A-F. I asked if that volume reflected yesterday's flood in Safford. They said probably, since the 24 hour change (0700 Dec 20 - 0700 Dec 21) was 113,764 A-F, the largest in the dam's history.

GSB

Form: 29-3
11/78

Dennis Martin, C of E in Los Angeles
December 22, 1978

Making releases from Painted Rock Dam. They are releasing 250 cfs and it will go to 1000 at noon and 1500 at noon tomorrow. It will stay at 1500 for approximately three months.

He can be reached at 213 688-4757

December 21, 1978 4:00 p.m.

Mr. Worhoe from USGS said the Gila at Laveen is 450 cfs and is rising slowly. The Santa Cruz is 1300 and is peaking now.

December 21, 1978, 1:00 p.m.

Civil Defense was notified that a one to two foot rise could be expected on the Gila River at Holly Acres and below because of water in the Gila River at Maricopa Road. Bob Pendergast estimated a width of 1200 feet and a staff gauge depth of 6.5 feet. With triangular cross sections based on those dimensions and a velosity of five feet per second, there would be 20,000 cfs at Maricopa Road.

Les Bond

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Gila River at Maricopa Road DATE: 12/20/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						River 3 ft. deep – 80 ft. wide at Maricopa Road
0100						
0130					EL	
0200						
0230						
0300						
0330						
0400						
0430						
0500						
0530						
0600						
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Gila River at Maricopa Road DATE: 12/20/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						River 3 ft. deep – 80 ft. wide at Maricopa Road
0100						
0130					EL	
0200						
0230						
0300						
0330						
0400						
0430						
0500						
0530						
0600						
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1130						
1200						

JOURNAL

Date 12-20-78

TIME	MESSAGE/REQUEST/INCIDENT/ACTION TAKEN	INITI
0200	Indian police report Gila River is 3 feet deep and 80 feet wide at Maricopa Road.	Dee

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Central Avenue Bridge DATE: 12/20/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130						
0200						
0220	20.44				EL	
0230						
0300						
0330						
0400	21.3'				EL	
0430						
0500						
0530						
0600	21.6'				EL	
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Central Avenue Bridge DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230	22.0				E.M.	
1300						
1330						
13:45 1400	22.0				E.M.	
~~1445~~ 1430	~~27.7~~					
1500						
1530						
1600						
1630						
1645 1700	27.7				to	
1730						
1800						
1830						
1900						
1930						
2000	21.1					
2030						
2100						
2130						
2200	20.7				to	
2230						
2300						
2330 2340	20.4				to	
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Central Avenue Bridge DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0025	25.2				EL	
0030						
0040	25.1				EL	
0100						
0130						
0200						
0230	24.4				EL	
0300						
0330						
0400						
0430						
0500						
0520	22.2				EL	
0530						
0600						
0630						
0700						
0705	22.2				EL	
0730						
0800						
0830	22.4				E.M.	
0900						
0930	22.0				E.M.	
1000						
1030	22.0'				E.M.	
1100						
130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Central Avenue Bridge DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500						
1530						
1600						
1630						
1700						
1730						
1800						
1830						
1840	43.4				EJ	
1900						
1930						
1940	42.9				EJ	
2000						
2030						
2100						
2130						
2200						
2230						
2300						
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Agua Fria - Bell Rd. DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130	6"				EJ	
0200						
0230						
0300	6"				EJ	
0330						
0400	6'+				EJ	over the marker -
0430						Water starting over road east of bridge - in process of closing 107th Ave to Grand Ave closed
0500	*					Water arrived at Grand Ave - Agua Fria 4:55 Am.
0530						
5:52	Agua Fria Crossed Northern - Water crossed Olive					5 Am - Water over staff gauge at Agua Fria Grand Ave Bridge 100 yards wide & rising.
0600						
0624	Olive at Agua Fria closed					
0630						5:35: Bridge shut down at Grand Avenue
0700	Agua Fria Glendale leveled off - 10 ft below bridge					~~5:52: Agua Fria crossed Northern~~
0730						
0800						
0830	Agua Fria at Glendale Road closed					
0900						
0930						
1000						
1030						
1100						
1130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: New River / Bell Rd. DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130	2 ft				EL	
0200	2½ ft				EL	
0230						
0300						
0330						
0400						
0430						
0500						
0530						
0600						I-17 closed - Black Canyon City
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Bell Road & New River DATE: 12-18-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500						
1530						
1600						
1630						
1700						
1730						
1800						
1830						
1900	2 feet of water under bridge					SM
1930						
2000						
2030						
2100						
2130						
2200						
2230						
2300						
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Skunk Creek & Bell Rd. DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130	No measurable water				EL	
0200						
0230						
0300						
0330						
0400						
0430						
0500						
0530						
0600						
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Skunk Creek at Bell Rd DATE: 12-18-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500						
1530						
1600						
1630						
1700						
1730						
1800						
1830	Dry					
1900						
1930						
2000						
2030						
2100						
2130						
2200						
2230						
2300						
2330						
2400						

1978

HYDROGRAPH VOLUME

0.5 TIME
123.9669421 CUMQ

1. TIME
495.8677686 CUMQ

1.5 TIME
1157.024793 CUMQ

2. TIME
2086.77686 CUMQ

2.5 TIME
3326.446281 CUMQ

HYDROGRAPH VOLUME

3.5 TIME
7252.066116 CUMQ

HYDROGRAPH VOLUME

5. TIME
14690.08264 CUMQ

HYDROGRAPH VOLUME

6. TIME
19235.53719 CUMQ

HYDROGRAPH VOLUME

6.5 TIME
21136.36364 CUMQ

7. TIME
22727.27273 CUMQ

7.5 TIME
24090.90909 CUMQ

HYDROGRAPH VOLUME

9. TIME
27685.95041 CUMQ

HYDROGRAPH VOLUME

9.5 TIME
28739.66942 CUMQ

HYDROGRAPH VOLUME

HYDROGRAPH VOLUME

11. TIME
31466.94215 CUMQ

HYDROGRAPH VOLUME

11.5 TIME
32231.40496 CUMQ

HYDROGRAPH VOLUME

12.5 TIME
33471.07438 CUMQ

HYDROGRAPH VOLUME

16. TIME
36363.63636 CUMQ

HYDROGRAPH VOLUME

26. TIME
42148.76033 CUMQ

HYDROGRAPH VOLUME

26.00001 TIME
42148.76446 CUMQ

HYDROGRAPH VOLUME

HYDROGRAPH VOLUME

6.5 TIME
21136.06364 CUMQ

7. TIME
22727.27273 CUMQ

7.5 TIME
24090.90909 CUMQ

HYDROGRAPH VOLUME

9. TIME
27685.95041 CUMQ

HYDROGRAPH VOLUME

9.5 TIME
28739.66942 CUMQ

HYDROGRAPH VOLUME

11. TIME
31466.94215 CUMQ

HYDROGRAPH VOLUME

11.5 TIME
32231.40496 CUMQ

HYDROGRAPH VOLUME

12.5 TIME
33471.07438 CUMQ

HYDROGRAPH VOLUME

16. TIME
36363.63636 CUMQ

HYDROGRAPH VOLUME

26. TIME
42148.76033 CUMQ

HYDROGRAPH VOLUME

26.00001 TIME
42148.76446 CUMQ

HYDROGRAPH VOLUME

28. TIME
42561.98554 CUMQ

HYDROGRAPH VOLUME

58.5 TIME
47603.30785 CUMQ

HYDROGRAPH VOLUME

59. TIME
47654.96074 CUMQ

HYDROGRAPH VOLUME

67. TIME
47919.42355 CUMQ

HYDROGRAPH VOLUME

251. TIME
52481.40702 CUMQ

Release = 33.3% of reservoir capacity

52481.40702
52481.40702 ÷
157590. =
.3330249827

$$\frac{(12000\ ft^3/sec)(30\ min \times 60\ sec/min)}{43{,}560\ ft^2/acre}$$

$$= 495.8677686\ acre\text{-}ft.$$

FLOOD CONTROL DISTRICT of Maricopa County

Interoffice Memorandum

CMT. NO.

SUBJECT: Releases from Waddell Dam 12/18 - 12/29/78

☒ FILE FloodLog 12/78
☐ DESTROY

TO: ~~DES~~, ~~HPW~~, file

FROM: LAB

DATE: 12/29/78

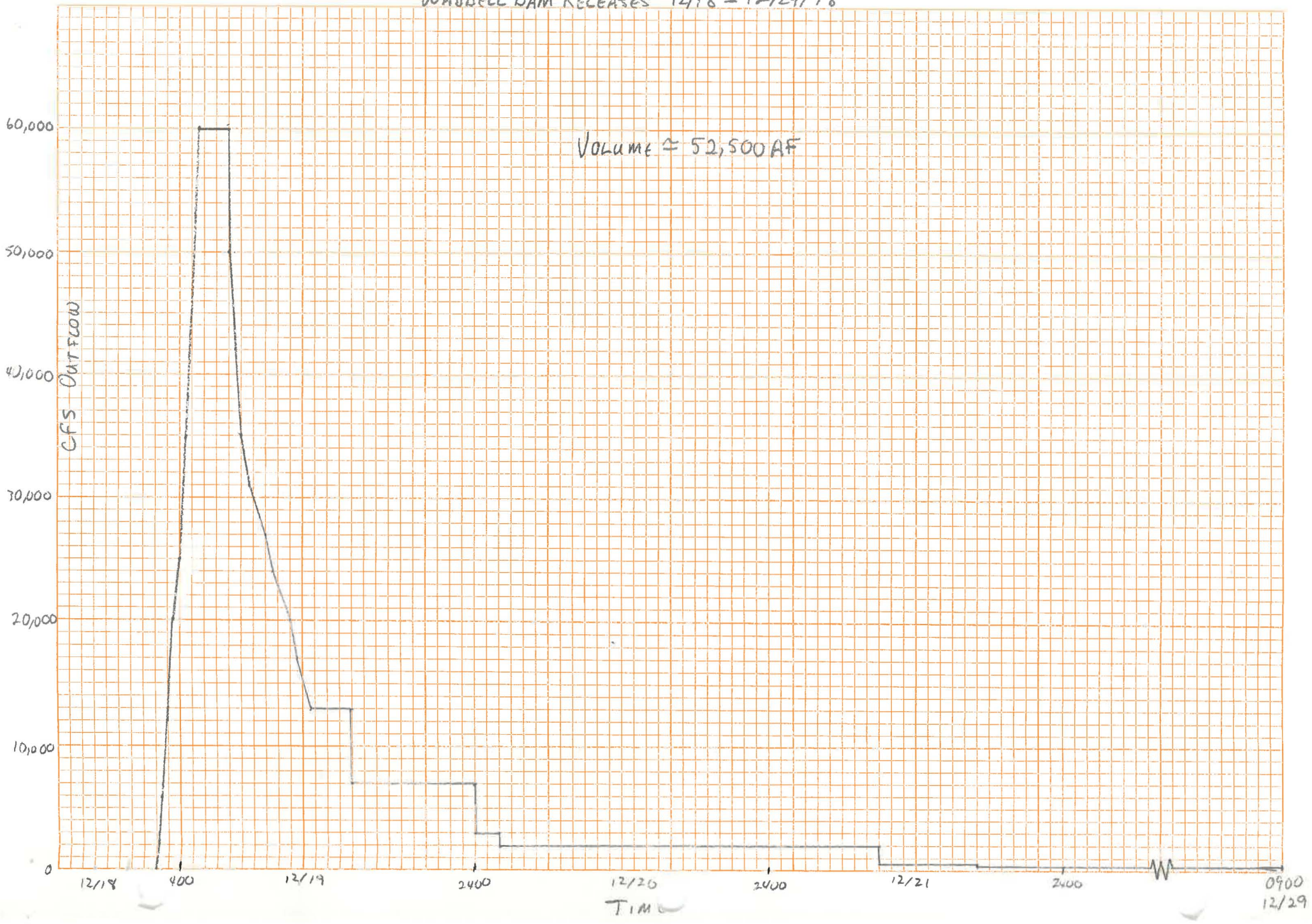
I called Dick Gancy to obtain a complete record of releases from Waddell Dam. The information below is more complete than the log we kept at the time, and is not entirely in agreement with it.

12/18	2230	6000 cfs
	2300	12000
	2330	20000
	2400	25000
12/19	0030	35000
	0130	60000
	0300	60000
	0400	50000
	0430	42000
	0500	35000
	0530	31000
	0700	27000
	0730	24000
	0900	20000
	0930	17000
	1030	13000
	1400	7000
	2400	3000
12/20	0200	2000
12/21	0900	500
	1700	300
		↓
12/29	0900	300

Form: 29-3
11/78

K+E 10 X 10 TO THE INCH • 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 0703

WADDELL DAM RELEASES 12/18 – 12/29/78



FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Lake Pleasant (Waddell) DATE: 12-21-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTED/ RECORDER	COMMENTS
0030						
0100						
0130						
0200						
0230						
0300						
0330						
0400						
0430						
0500						
0530						
0600						
0630						
0700						
0730						
0800						
0830		2000cfs			SY	
0900						
0930						
1000						
1030						
1100						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: ~~Bell Road at~~ Waddell DATE: 12/20/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130						
0200						
0230						
0300						
0330						
0400						
0430						
0500						
0530						
0600						
0630						
0700						
0730						
0800						
0830						
0900						
0930	2000 →				SM	
1000						
1030						
1100						
1130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Lake Pleasant (Waddell Dam) DATE: 12-19-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030	full	51,000			el	
0100						
0130		60,000cfs			el	
0200		60,000			el	
0230						
0300		60,000			el	
0330						
0400						
0430						
0500						
0530						
0600						
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Lake Pleasant (Waddell Dam) DATE: 12-18-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1 (MSL)	Inflow DISCHARGE 1	GAUGE ELEV. 2 (MSL)	Storage Available DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400		11,500	128,642	~~128,000~~ 29,000	SY	No Release Anticipated
1430						
1500						
1530						
1600		16,200	131,000	26,000	SY	
1630						
1700						
1730						
1800		23,000	134,000	23,000	SY	
1830						
1900		29,000	137,000	20,000	SY	Release Possible by midnight
1930						
2000						
2030						
2100		30,000	143,000	14,000	SY	15,000 cfs at midnight to be released
2130						
2200						
2230						
2300		~~40,000~~ 35,000			SY	Starting to release 15,000
2330						
2400						

December 26, 1978 8:00 a.m.

Cave Creek Dam

As of 8:00 a.m. the reservoir was dry. The water had drained out during the weekend.

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: _____ DATE: 12-22-78

DESCRIPTION OF READINGS: Cave Creek Dam

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300	21.8					
1330						
1400				500 cfs		West gate opened to 2.5 feet (6" additional)
2:20 1430	21.7		2:15 pm 2' 6"			
1500	21.6					
1530						
1600						
1630						
1700						
1730						
1800						
1830						
1900						
1930						
2000						
2030						
2100						
2130						
2200						
2230						
2300						
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: _____ DATE: 12-22-78

DESCRIPTION OF READINGS: Cave Creek Dam

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130						
0200						
0230						
0300						
0330						
0400						
0430						
0500						
0530						
0600						
0630						
0700						
0730	✓ 22.6					
0800	~~21.6~~					
0830						
0900	22.5					
0930						
1000	22.3					
1030						
1100	22.1					
1200	21.9					

omaha carefree
Parkfoca [illegible]

✓ corrected reading (8 am)

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES 12-21-78

LOCATION: Cave Creek Dam DATE:

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2 (Carefree Highway)	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300	24.8					
1330						
1400	24.7					
1430						
1500						
1530						
1600	24.5		2.5 inches			
1630						
1700						
1730						
1800						
1830						
1900						
1930						
2000						
2030						
2100						
2130						
2200						
2230						
2300						
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Cane Creek Dam DATE: 12-21-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	Carefree ~~Highway~~ ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100	26.0					
0130						
0200	25.9					
0230						
0300	25.8					
0330						
0400	25.75					
0430						
0500	25.7					
0530						
0600						
0630						
0700	25.5					
0730						
0800	25.4	450cfs				Repairs completed and well gate opened 2 feet at 8:20.
0830						
0900	25.3					
0930						
1000	25.2					
1030						
1100	25.1					
1200	25		6inches			

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Cave Creek Dam DATE: 12-20-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2 (Cave Creek Highway)	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300	26.75					
1330						
1400	26.7					
1430						
1500	26.6					
1530						
1600	26.6					
1630						
1700	26.5					
1730						
1800	26.4					
1830						
1900	26.3					
1930						
2000	26.3					
2030						
2100	26.25		2100 { 7' CAP Culvert			
2130			{ 4' Cave Creek Hgway			
2200	26.2					
2230						
2300	26.1					
2330						
2400	26					

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Cave Creek Dam DATE: 12/20/78

DESCRIPTION OF READINGS:

TIME	Dam GAUGE ELEV. 1	DISCHARGE 1	Carefree Highway GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130						
0200	27.8				EL	
0230						
0300	27.7				EL	
0330						
0400	27.6				EL	
0430						
0500	27.5				EL	
0530						
0600	27.4				EL	
0630						
0700						
0730						
0800						
0830						
0900						
0930	27.0				SM	
1000						
1030						
10:50 1100						Gate closed
30						
1200	26.8					

Cave Creek

Fryer

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

237

FIELD TEAM DAILY REPORT

DATE 12-20 1978 TEAM NUMBER

TEAM PERSONNEL J. Greisiger

VEHICLE NUMBER 32729 MILEAGE: IN 35162

WEATHER Clear & cool OUT 35026

MILES DRIVEN 136

NARRATIVE REPORT OF ACTIVITIES (include times and locations)

(1) CAVE CREEK DAM Reading at 0900 HRS 27.0 FT.
(a) RAIN gauge at 51ST & Carefree Hwy - 2.8 in.
(b) 40ST and Dynamite Rd - 2.6 in
(c) 5814 EAST PEAKVIEW - Empty
(d) closed west gate at Cave creek dam at 10:50 HR
(E) Reading on staff gauge at CAVE CREEK DAM.

1. 1200 HRS - 26.8 FT.	11. 2200 HRS - 26.2 FT.
2. 1300 HRS - 26.75 FT	12. 2300 HRS - 26.1 FT.
3. 1400 HRS. - 26.7 FT	13. 2400 HRS - 26.0 FT.
4. 1500 HRS - 26.6 FT.	12/21/78 1. 0100 HRS - 26.0 FT.
5. 1600 HRS - 26.6 FT.	2. 0200 HRS - 25.9 FT.
6. 1700 HRS - 26.5 FT	3. 0300 HRS - 25.8 FT.
7. 1800 HRS - 26.4 FT	4. 0400 HRS - 25.75 FT.
8. 1900 HRS - 26.3 FT	5. 0500 HRS - 25.7 FT.
9. 2000 HRS - 26.3 FT.	6. 0700 HRS - 25.5 FT.
10. 2100 HRS - 26.25 FT.	7. 0800 HRS - 25.4 FT.
2100 (.7' AT C.A.P. CULVERT)	0825 HRS - opened gate on westside
2100 (.4' AT CARREFREE HWY)	8. 0900 HRS - 25.3 FT.
	9. 1000 HRS - 25.2 FT.

10 am

(use back side for additional space)

J. Vincent
TEAM CHIEF

OVER -

12-20-78
TO 12-21-78

OUTLET CAVE BUTTES 45" DIAM EST. 170 cfs until west end spilled over, then 205 cfs. Approx. 1700 on 12-20-78 NO SPILLAGE - Water ponding behind Cave buttes rising .1 every hour.

ELEVATION EMER. SPILLWAY CAVE BUTTES 1576 EL.
Buttes DAM at 10:00 HRS.
water started spilling over westside of Cave

11:00 HRS. - 25.1 FT.
12:00 HRS. - 25.0 FT
13:00 HRS. - 24.8 FT.

11:30 HRS checked CAVECREEK WASH AND APPROX .5 FT. OF water is still running ACROSS CAVEFREE HWY.

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Cave Creek Dam DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	Dam GAUGE ELEV. 1	DISCHARGE 1	Carefree Highway GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230	28.5				E.M.	
1300						
1330						
~~13:44~~ 1400			1.5'		E.M.	Nick instructed Roy to close West gate from 2.6' to 0.5'
14:16 1430	28.5		1.5'	raining	E.M.	Nick instructed Roy to close W. gate all the way as per SRP request.
14:25 1500						14:25 - West gate closed
1530						
1600	28.5		1.4'		E.M.	
1630						
1700			1.4'		ho	Heavy rain
1725 1730	28.4		1.4'		ho	Cave Creek Carefree Highway closed
1800			1.4'		ho	
18~~40~~						Open gate 2'
1900	28.4		1.3'		ho	
1930						
2000	28.3		1.3'		ho	
2030						
2100	28.2		1.2'		ho	
2130						
2200	28.1				ho	
2230						
2300	28.1				ho	
2330						
2400	28.0				EL	

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Cane Creek Dam DATE: 12-19-78

DESCRIPTION OF READINGS:

TIME	Dam GAUGE ELEV. 1	DISCHARGE 1	Carefree Highway GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
12:30 0030	27.5				EL	risen about 4 inches raining light TO moderately-
0100	27.5				EL	raining light at present
0130	27.7		2.6 ft.		EL	Carefree ~~Hwy~~ Highway 2.6 ft
0200						per SRP
0230	27.8	400 cfs	3.1 ft		EL	Going across Carefree
0300			2.9 ft			Hwy on staff guage = 3.1 ft
0330						
0353 0400	28.3		0400 - 2.3 ft.		EL	west gate opened 2 ft 18" opening discharging water - 2"
0430						going over west side of structure -
0449 0500	28.5		+2.5 ft		EL EL	400 cfs. slight drizzle
0530						
0600	JUST under 28.6		2.4 ft			slight drizzle
0630						
0700	28.6		-2 ft		EL	cloudy w/no rain
0730			2 ft.		EL	
0800	28.7				EL	light rain
0830						
0900	28.6				E.M.	intermit. showers
0930						
1000			1.9 ft.		E.M.	
1030						
1100			1.7 ft		E.M.	
1130						Opened up gate by .6 per JAL's instructions - now open 2.6'
1200	28.5		1.7 ft.		E.M.	

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

MON

LOCATION: Cane Creek Dam DATE: 12-18-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1 (Dam)	DISCHARGE 1	GAUGE ELEV. 2 (Carefree Highway)	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500	24.3	400	2 feet +		SH	
1530						
1600	24.7				SH	
1630						
1700	25.4				SH	
1730	25.8	350	3 feet		SH	
1800	26.0		3 feet		SH	
1830	26.3	380 to 420	3 feet		SH	West gate opened at 1825 2 feet
1900	26.5				SH	
1930	26.8		2.5 feet		SH	
2000	27.0		2.5 feet		SH	
2030	27.1		2 to 2.5 feet		SH	No rain in hour
2100	27.2				SH	
2130	27.3		2 feet		SH	Only 10 minutes of rain in last hour
2200	27.3				SH	
2230	27.4		2 feet		SH	Heavy rain in Cane Creek Intermittent rain
2300	27.4				SH	
2330	27.4		2 feet +		SH	rain in last hour 30 Minutes of light to moderate
2400	27.5				EL	

(1)

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: _____ DATE: _____

DESCRIPTION OF READINGS: _____

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500						
1530						
1600						
1630						
1700						
1730						
1800						
1830						
1900						
1930						
2000						
2030						
2100						
2130						
2200						
2230						
2300						
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: McMicken DATE: 12-9-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130						
0200						
0230	no measurable water				EJ	
0300						
0330						
0400						
0430						
0500						
0530						
0600						
0630						
0700						
0730						
0800						
0830						
0900						
0930						
1000						
1030						
1100						
1130						
1200	no water				E. M.	

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Mc Micken DATE: 12-18-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500						
1530						
1600						
1630						
1700						
1730						
1800						
1830	→					No measurable water
1900						
1930						
2000						
2030						
2100						
2130						
2200						
2230						
2300						
2330						
2400						

Rittenhouse

Top of dam is 24'

(subotracting 5 feet will give you the actual amount of water against the structure)

18' is the alert point. (per Jack Leavitt)

15' - is an alert point

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: ~~Mill Avenue Bridge~~ Rittenhouse DATE: 12/19/78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500	9.0				E. Jm	
1530						
1600						
1630						
1700						
1730						
1800						
1830						
1900						
1930						
2000						
2030						
2100	9.0'				L	
2130						
2200						
2230						
2300						
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Rittenhouse DATE: 12-19-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
0030						
0100						
0130						
0200						
0230						
0300						
0330						
0400						
0430						
0500	9.5				EL	principal outlet gauge
0530						
0600						
0630	9.5				EL	
0700						
0730	9.5				EL	
0800						
0830	9.7				E.M.	
0900						
0930						
1000						
1030						
1100						
1130						
1200						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Rittenhouse DATE: 12-19-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500						
1530						
1600						
1630						
1700						
1730						
1800						
1830						
1900						
1930						
2000						
2030						
2100						
2130	9.0					SM
2200						
2230						
2300						
2330						
2400						

FLOOD ELEVATIONS FOR STREAMS AND FLOOD CONTROL STRUCTURES

LOCATION: Skunk Creek at Freeway DATE: 12-18-78

DESCRIPTION OF READINGS:

TIME	GAUGE ELEV. 1	DISCHARGE 1	GAUGE ELEV. 2	DISCHARGE 2	REPORTER/ RECORDER	COMMENTS
1230						
1300						
1330						
1400						
1430						
1500						
1530						
1600						
1630						
1700						
1730						
1800						
1830	Dry					
1900						
1930						
2000						
2030						
2100						
2130						
2200						
2230						
2300						
2330						
2400						

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE 12/19/78 SHEET 1 OF 2

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
0013		SO	Hassayampa + Baseline + WATER check	
0014		SO	Cactus Rd + 51ST + 59TH Ave WATER check	
022		C.Defence	I17 N+S Bound LANES WIPED out.	
0029		SO	N. Side (BARR. Needed) AT HAYDEN BRIDGE	
0031		SO	CAVE CREEK WASH. check @ 7TH Ave. + Union Hills Rd.	
0040		SO	CAVE CREEK WASH check LOCATIONS	
0040		CD	51000 cfs RELEASE FROM LAKE PLEASANT ALSO EVACUATION of AVONDALE, CASTION, ELMIRAGE.	
0053		SO	CAVE Creek Rd N/o MOHAWK LN. STANDING WATER	
0055		520	10-8 ON AIR	
0111	542		Union HILLS DRIVE W/o 7 STREET. 2 BARR. + Caution SIGNS. placed	
011	543		ROAD WASHED AWAY AT ENTRANCE AT IN LARGE DIP on LAKE PLEASANT Rd. to the LAKE - CLOSED ROAD Completely	
0118	531		CLOSED 51ST Ave AT SALT RIVER	
0131	542		CAUTION + SIGN put AT CAVECREEK + MOHAWK LN.	
~~0141~~	~~546~~		~~checking out~~	
0141		SO	113ST + BROADWAY Rd. - Landslide check	
0142	546		check out 113ST + BROADWAY - Landslide Report	
0156	543		Closed E/o JOMAX + 107TH Ave water 1' or MORE (Hound Dog AREA)	
0200	531		CLOSED 67TH Ave SALT RIVER CROSSING	
0202	545		BARRICADES + CAUTION AT CACTUS Rd AND 51 Ave AND 59TH Ave	
0203	531		CLOSED 91ST Ave AND SALT RIVER CROSSING	
0203	541		ASK ASSISTANCE FOR VIOLATORS crossing Scottsdale BRIDGE.	
0204		511	CALLED SO. FOR ASSISTANCE AT SCOTTSDALE BRIDGE	
07 ^ 5	542		CLOSED Beardsley Rd. FROM 7ST TO 7 Ave.	
0210	543		CLOSED JOMAX AT LAKE PLEASANT Rd.	
0223		SO	BARR. missing AT 51ST Ave + SALT RD.	
0224	531		TO Replace BARRIADES AT 51ST Ave + SALT RD.	
0231	541		Reports - Scottsdale BRIDGE WILL have 2 feet more to cover BRIDGE completely - Remains Closed	
0235	543		Agua Fria + 109TH Ave + 107TH Ave. checked out	
0255	~~543~~	543	Unable to Close Agua Fria AT 109TH - water Prevented Placing BARR. -	
0257	~~543~~	543	CLOSED 107TH Ave + LAKE PLEASANT Rd.	
0258		531	BARR. AT 51ST Ave. sufficiently placed S/SIDE + N/SIDE.	
0310		543	CLOSED 107TH Ave N/o BEARDSLEY	
0311		542	CLOSED UNION HILLS DR FROM 7TH Ave TO 7 STREET.	
0312		541	CLOSED McDOWELL Rd. E/o Alma School Rd	

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE 12/19 SHEET 2 OF 2

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
0315		546	Broadway Rd East + west of Malcolm Dr (113ST) Barr. + Caution Put out	
0324		541	Reported water over top of Hayden Bridge + North end filled w/water.	
0335	542	54	to check out Grovers + 7TH Ave water on Road.	
0345		542	7TH Ave - Between Bell Rd + Union Dr. closed	
0346		542	Grovers Ave @ 7TH Ave Closed	
0425	531	S.O.	75TH Ave & Southern South side Flooded	E.E.
0430		546	Ellsworth Baseline To Germann Rd Placed 6 Barr & Drive with Caution	
0415		545	"Closed" Baseline Rd at Hassayampa River	
[illegible]		543	"Closed" Bell Rd at Agua Fria River	
			107TH Ave To Grand & Greenwood at Bell	
0450	545	S.O.	Jackrabbit Tr. at Gila River Barr needed	
0455		545	Closed Indian Sch at Hassayampa River	
0518		S.O.	4 or 5 additional Barr needed McDowell	
			At Alma Sch Baseline west of McQueen	
0515	546		Above location for additional Barr.	
0530		531	"Closed" Southern Ave at 67TH Ave	
0537	543	S.O.	Olive & Northern at Agua Fria River	
			Barr needed	
0540	546	S.O.	1ST & Hayden Barr needed	
0545		531	"Closed" 75TH Ave at Baseline	
0615		543	"Closed" Northern Ave at Agua Fria River	
0625		543	"Closed" Olive Ave at Agua Fria River	
0630		546	1ST & Hayden Placed 3 additional Barr	
0743		S.O.	"Report" 30FT approx - Rd washed out Bell Rd at Agua Fria River	

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE December 19, 1978 SHEET 1 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN S OPERA
0730			on the air	BH
0740	540		"Stop" Down - Chandler Hts & Higley Rd	V
0801	520		Per S/O - need barricades to close rd @ Bush Hwy & McDowell also Usery Pass & McDowell - Blue Point Bridge "washed out"	✓
0805		543	need Deputy @ Glendale ave - E/Sr - people stranded in trailer (@ aqua min)	✓
0819	545		Per S/O - need barricades W/o Del Webb on Bell Rd - Bridge "out"	✓
0828	543		S/O requests rd closed @ Glendale betw 107 ave & El Mirage	✓
0[illegible]		543	as of 0904 hrs "Closed" Glendale @ El Mirage, 99th ave & 107 ave	✓
0908		348	Have a couple Deputies that have "walkie-talkies" inoperative here @ Elwood & El Mirage Can ck them out - 21 S/O for assist	✓
0910	348		advise Deputies will despatch someone to take over	✓
0912	545A		Per S/O need barricades - lg hole - cave in @ 7000 Blk of Northern ave in front of Southwest Forest Industries	✓
0920		543	as of 0916 hrs El Mirage Rd betw Camelback & Glendale "Closed"	✓
0921	545A		Per Avondale P/D - McDowell is flooding & barricade must be moved back approx to West	✓
0924		582	N/bnd "Stop" - 99 ave & McDowell - Hip needs attn	✓
0933		390	10 cars stranded @ gravel pit @ Camelback 1/4 mi E/o El Mirage	✓
0940	all units		Anyone living in immediate vicinity of Town of Buckeye is free to go home but must report to your respective fire brand due to weather Ltr"	✓
0941		0941	"Stop" - taken care of - McDowell & 99 ave	✓
0947		542A	Placed "D w/ C" on Dotum - 1/4 mi N/o Clearwater Pkwy	✓
0959	340		Health Dept on 21 - Where did they take County Cars? (W/Sr of S/O Bldg & also @ Dysart & Van Buren	✓
0959		353	There's couple Health Dept Cars @ S&D Cattle Co - W/o Van Buren on old Yuma Rd & Cotton Ln near the Gin	✓
1003	To all units		Same transmission as of 0940 hrs	✓
1010	520		Need barricades - N/Sr Gilbert Rd & River Bottom - (Move to 541A)	✓

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE Dec. 19, 1978 SHEET 2 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
1011	541A		Read 520? (In Ckng El Mirage & Ind Sch Rd)	
1012	540		Unit on N/Si soft? @ Gilbert? (Call 546A - N/Si - 541A - S/Si	
1012	546A		No answer	
1021		343	"Double Arrow" Sign down - Cotton Ln & Broadway	
1025		582	Shiga Stephens re: Cactus - 51 to 59 ave - nothing taken care of - (will call)	
1028	545A		Ck @ Jackrabbit & Airport Rd - for necessity of closure	
1 9		349	"Stop" down - 20th St & Bell Rd	
1037	542A		"Stop" down - 20th St & Bell	
1037		340	21 c/Pk - compaction failure - 91 ave ½ mi N/o Ind Sch Rd	
1038		340	Same problem on 107 ave - N/o Ind Sch Rd	
1038		342	Completely wrecked car - stripped @ Ed Rice ave & Sossaman Rd - Lic # VAX-749 78 tabs - 77 Blue - 2 door Trans am	
1039		541A	"Stop" - taken care of Higley Rd & Chandler Hts Rd	
1041		342	Broken wtr ln - S/Si Baseline Rd @ Sossaman belongs to Desert Sands Golf & Country Club - there's quite a gap there (Called Neisel Realty)	
1042		351	@ 57 ave & Lower - Ck w/ SRP for line wires down here	
10	350		Exact 10-20 of line? (X-ing Salt River @ 57 ave - brush hanging from power lines & ready to force down	
1052		324	Inter of El Mirage & Southern N & S/Si gas line leaking 40 ft long - bubbling	
1054		342	Placed "D w/c" S/o Baseline @ Sossaman	
1057		542A	Reinstalled "Stop" - 20th St & Bell	
1059		582	Need Deputy @ Ind & El Mirage	
1108	546A		S/o wants dirt barricade @ Alma Sch & River N & S/Sides also some @ McKellips	
1109		Carl	Will not use dirt barricades only regular ones to be used so can be removed quickly when necessary	
1110		345	21 979-9403 - Gilda Sturm stalled in car @ E/Si Ind Sch Rd & Agua Fria Bridge	

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE Dec. 19, 1978 SHEET 3 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN S OPERA
1112		545A	Placed "D w/c" on northern betw 75 & 67 area	V.
1114	342		no answer	✓
1117		546A	21 Deputy - @ N/S Stisdl Rd & River ~~pro~~ Public hassling our barricade personnel	✓
1134		582	@ 1100 hrs - 107 ave & Ind Sch Rd were from "4-way Stop" N & S to "Stop" for E & W (2-way Stop) Requested by Sheriff	✓ B
1137	511	~~541~~	45 w/ 340 @ aqua Fria Bee - to change traffic to one lane only	✓
1137		342	Hard Rd closed - bridge washing out - Chndlr Hts @ Higley @ Queen Creek Road	✓
1157		544A	Placed more barricade - H.S.R. 85 & Jackrabbit - closed Tuthill S/bnd from H.S. 85	✓
1201		346	Capitan Drive @ Skunk Creek "open" 7th St N. to New River "open"	✓
1214		344	Signals out - Dysart & Olive	✓
1215	344		Power outage @ Dysart & Olive	✓
1217	342		Ck out Chndlr Hts Rd betw Queen Crk Rd & Higley see if going to fair	✓
1226	546A		S/o said no barricades @ Stisdl Rd & River Boston (we have barricades there)	✓
1227		240	I didn't give anyone Case @ Chndlr Hts Rd ~~betw~~ betw Queen Crk & Higley 342 on way to close it	✓
1230	545A		"Stop" Signs need resetting @ 107 ave & Ind Sch Rd	✓
1230		346	Granted N & S/bnd Stops removed	✓
1235		350	@ Patterson Rd & Old Hwy 80 - block ~~to~~ old 80 going South - open Gillespie Dam Bridge	✓
1238	544A		Read 350? (yes)	✓
1238		342	as of 1240 hrs "closed" Higley Rd betw Queen Crk & Chndlr Hts Rd	✓
1238		352	Miller Rd @ River - water reaching Adenville	✓
1239	544A		Read 352? (10-4)	✓
1255	545A		19-66 Case to 107 ave & Ind Sch Rd Leave as is	✓

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE Dec. 19, 1978 SHEET 4 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
1304		544A	"Closed" Miller & Hazen Rds @ 1300 hrs	
1435		643	Re: Vehicle - called in by flood Control	
1445	544A	~~544A~~	need Barrics @ Beer & 107 ave & Beer & Greenwood ("Closed" both ± 1/2 hr ago)	
1457		544A	~~S/O wants~~ SRP wants barrics on power line @ Alma Sch & River Bottom	
1536		544A	Bridge @ Gillespie Dam "open" @ 1500 hrs	
570		545A	Placed "D w/c" signs - 9/ave between SR 85 & Lo Buckeye Rd	
1540		343	Chong - Dysart Rd (N/o Southern - S/o Lakin Cattle Co - for "D w/c"	
573	545A		Copy 343? (10-4)	
1546		544A	Gladden @ Agua Fria "Closed" but people still going thru - send Deputy here	
1547		399	Truck stripping street from @ Carefree Hwy & Cave Crk Wash (S/O has no units to despatch them)	
1547	545A		need "D w/c" @ 9/ave between S/R85 & Lo Buckeye	
1543			Placed "D w/c" @ Southern & Dysart instead of @ Lo Buckeye	
1550		382	21 101-839-5124 be 2½ hrs late	
1550		399	need barrics on W/S Cave Crk Wash & Carefree Hwy	
1553	544A		no answer	
1558	~~544~~	544A	Placed "D w/c" @ old US80 between Agua Caliente & Desert Rose @ Centennial Wash - N & S/bound	LO
1601		570	3rd Sch & Agua Fria open? (yes)	
1605		545A	~~S~~ Elwood & Elliot Mirage "Closed"	
1609		345	need lites on barrics @ McDowell & Agua Fria	
1610	570		Repeat 345? (yes - Lucie Ck - if have any more blinkers)	
1614	541A	~~544A~~	10-20 (S/O Surprise)	
1621	340		Cattle guard has loose bars - 331 ave & Salome Hwy - hazard per S/O (can place barrics there)	

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE Dec 19, 1978

SHEET 5 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
1636	542A		no answer	2/
1640		542A	10-46? (need barrics on N/S Cave Crk Rd & on Carefree Hwy)	
1645		544A	Placed barricade @ 331 ave & Salome Hwy on Cattleguard	

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE Dec. 18, 1978 SHEET 1 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
0730			on the air	B.
0861	556		no answer	LO
0821		399	on Carefree Hwy & Cave Creek Wash - truck turned over in wash (called S/O)	B.
0825		342	"D w/ C" placed on Brown Rd E/o Greenfield Bridge	L
0840		346	Cave C/Ply ni hole - 83rd ave & McD N/o intersection (called C/Ply)	
0845	546A		Per Salt River Rd P/D - @ Gilbert Rd & Salt River - wtr is 150 ft to 175 ft wide - need barricades	✓
0849	546		Place "D w/ C" signs on Brown Rd E/o Greenfield Rd Bridge	✓
[illegible]	545		New River @ T-Bird "closed" - need barricades per S/O	✓
0856		352	@ Van Buren & 115 ave - one-half mile N/ 107th ave in bad shape - need barricades & need to "close"	✓
0909	541		"Stop" down @ Bush & McKellips	
0912		581	Road Closed" signs @ Brown Rd & Val Vista Dr Bridge run over & vandalized	V.
0915	546		no answer	✓
0915		348	"Red" out - N/bnd - Olive & Dysart	✓
[illegible]		541	S/S: "Closed." Gilbert Rd & Salt River	✓
0943		348	Greenway Rd & Peoria "washing out"	✓
0947	545		Ck out Greenway Rd & Peoria	✓
0947		348	Ck "Peoria" Rd & Pima Rd also	✓
0947	545		Copy 348? (yes)	✓
0948	543		no answer	✓
0951	546A		Ck out signs run over & vandalized Brown Rd & Val Vista Dr "Rd Closed" @ Bridge	✓
0952	544		"Stop" missing - 113 ave & Durango	✓
0953		555	Dysart & Olive ~~B~~ engine taken Cave C	✓
0954	556		E/bnd - Hayden & Curry Rd - "red" N/bnd out also "amber" out	LO
0959	545		Ck T-Bird & New River for "Rd Closure"	✓
1000		541	Gilbert Rd - N/o Salt River "Closed"	✓
1004	543		no answer	✓

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE Dec. 18, 1978 SHEET 2 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
1013		544	Never has been a "Stop" @ 113 ave & Durango	
1016		546A	Replaced Sign @ Brown & Val Vista	
1017		545	Placed barricades on Lamar Pk Rd w/o 35 ave - & "Drive w/ Caution" Signs	
1032		556	Nothing wrong w/ Signal @ Scottsdale Rd & Curry (Ck was Curry Rd & Hayden)	
1036		544	Van Buren fr 115 to 107 ave "Closed" due to construction & rain	
1039		54	Placed "D w/c" Signs - McKelligs W/o 64 St & "D w/c" on ~~56th St~~ McKellys Rd w/bnd - E/o 56th St	
10	390		21 Lane Mercer	
1043		542	Carefree Hwy @ New River - Remains "Closed"	
1049		546A	Placed "D w/c" on Bridwy between 76 & 84 Sts	
1051		244	advise Bill & Barry - the 2 dip sections @ Bell & other @ Campobello working fine	
1052		556	Signal taken care of - Curry & Hayden	
1054		581	Cave in - 40th St - E/o Bell Rd in Center - 21 C/Ply	
1055		546A	"Closed" 76th St between Bridwy & Baseline	
1056		545	T-Bird & New River "Closed"	
1100	546A		Ck barricades @ Southern & Power - been run over	
1103	244		21 Wayne Rawlings - 242-7400	
1104	545		need Barricades on 99 ave - N/o olive	
11[illegible]		543	21 C/Peoria - Belongs to them	
1106		581	"Stop" down - 28th St & Bell Rd	
1106	542		Copy 581? (18-4)	
1111		543	"Closed" - 83rd ave & New River - S/side	
1113		546A	"Opened" Power Rd - between Baseline & Southern - Placed "D w/c"	
1122		542	"Stop" reinstalled - 28th St & Bell Rd	
1130		546A	"Closed" - Guadalupe - E & W/o Power Rd (near 170th St?) neg	
1131		305	40th St - just N/o Bell ovrs? (Neg - in C/Pl - Called them re: cave in - they have Rd of ABC on way)	
1136		543	"Closed" - Union Hills Dr & New River	
1144		399	need barricades on Rd to Camp Creek & Bartlett Dam also @ Blue Wash going to Seven Springs	

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE Dec. 18, 1978 SHEET 3 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN & OPERA
1149	54V		Ck for "Closures" need barricades — rd to Camp Creek & Bartlett Dam & Blue Wash	V
1149	543		~~need~~ need "D w/c" signs on 43 ave & Beardsley also E/o 43 ave on Beardsley	V
1150	520		Per S/o - 45000 CFS being released fr Stewart Mtn Dam - Should be @ the Falls in a.m.	V
1153	340		Ck out for pumping out water - on Guadalupe & 170th St - E/o Higley	V
1155	546A		Ck out - Sossaman & Riggs - "washout" need barricades also Ck San Tan Blvd & Higley "washed out"	V
1156	546A		need to "Close" Sossaman & Cloud Rds	V
1159		546A	"Closed" - Sossaman & Ocotillo - also Hawes Rd & Ocotillo	V
1201		541	"Closed" McDowell Rd & Agua Fria under 3 foot of water here, now -	V
1203		546A	"Closed" Sossaman betw Ocotillo & Pittenhouse also Hawes betw Ocotillo & Pittenhouse	V
1218		546A	"Cave-in" - Sossaman & Cloud - contractor working - don't know who	V
1219	240		who was working @ Sossaman & Cloud? (Queen Creek Water Co - "Rancho Jardinis #3)	V
1226		546A	Placed 2 barrics @ "Cave-in" - Sossaman & Cloud - "Rancho Jardines #3)	V
1231		546A	"Closed Via Del Olivos" people cut 2 trenches across rd to let water out of their house	V
1238		54V	Placed "D w/c" @ Cave Creek ~~Rd~~ Wash & Bartlett Dam Rd	V
1251		546A	Sossaman betw Riggs & Cloud Rd	V
1252		546A	Placed "Stop" - on Riggs Rd - E/o Sossaman	V
1253		354	"Stop" K.D. @ 411 ave & Jnd Sch Rd - S & N. I-10	V
1253		54V	What time did you give me car for Seven Springs area? (1144 hrs)	V
1258		543A	"Closed" 43 Ave & Skunk Creek @ 1240 hrs also "Closed" Beardsley & Skunk Creek Wash @ 1253 hrs	

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Maricopa County Highway Department

OPERATING LOG — RADIO STATION KHW61

156.99 M.C. KC-6538

DATE Dec. 18, 1978 SHEET 4 OF 5

TIME	UNIT CALLED	UNIT CALLING	TEXT OF TRANSMISSION	MAIN OPERA
1308		581	Sheriff & Stephens job on Cactus between 59 & 51 are temp patches failed - need barricades & / or material - Sheriff @ 997-6308 - 21 him	21 ✓
1311		544	"Closed" - E/si - Van Buren @ Aqua Fria - W/si "Closed" by C/avondale	✓
1312		543	"Closed" - Deer Valley Dr @ Skunk Creek	✓
1314	390		21 Denise @ Credit Union	✓
1315		542	"Closed" Rd to Seven Springs	✓
1319		542	21 S/O - there's reported a few more people up in 7 Springs area that can't get out need 4 wheel Drive	✓
1321		546A	Scottsdale Rd - E/o Higley - Placed "Dwn" Signs also placed them @ Higley Rd S/o Chandler Hts Rd	✓ ✓
1321		544	Who gave you "Stop" down @ 411 ave & I-10? (2 & 4)	✓
1323		544	"Stop" belongs to "Stub" - 411 & 3rd St Rd	✓
1325		305	Close Alma Sch @ Power yes? (neg)	✓
1325		555	10-46? (10-43)	✓
~~1329~~		~~390~~		
329		390	21 Frank to Comets radio	✓
1345		363	Water getting down to Aqua Fria E/US 80 that is 1/4 mi away from Lower Buckeye Rd	✓
1354	546A		need barricades on Elliot E/o Hawes also "Cave - in" N/si 65th St & Main Dr - due to trench cut across rd	✓ ✓
1356		352	21 S/o 62-63 Falcon Sta Wag cleared ditch @ Broadway & Cotton Ln need "Dead End" Sign Replaced - vehicle in field - S/o can ck it out	✓
403		531	"Closed" Lower Buckeye @ Aqua Fria	✓
1409		544	Look care N "Stop" @ 411 ave & I-10	✓
1410	544		Buckeye S/o Sub Sta wants you to bring barricades to both sides of Baseline & Hassayampa - they'll place them as soon as water comes	✓
1414	541A		Ck to be closed as requested by S/O - Alma Sch Rd & McKellips also McKellips & McClelland Dr	✓
1415	546A		"Stop" down - Bush & McKellips	✓
1415	545		Can ck on Union Hills Dr? (on way to ck on Hassayampa)	✓

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