Rainfall and Flooding Event Report
June 9 - 10, 1990

Report Date: June 13, 1990

On the weekend of June 9 - 10, 1990, a moist unstable air mass associated with tropical depression Boris moved through Clark County. Very intense rainfall cells were associated with this system and resulted in flood conditions in many areas of the County. Floods caused the closure of road crossings in the Overton area (June 9), and wide-spread damage in the Las Vegas Valley. Two fatalities have been attributed to the flooding in the Las Vegas area.

June 9

Intense rainfall began at Valley of Fire State Park at approximately 8 p.m., on June 9th. A RFCD Flood Warning System rain gauge at the Park reported 0.67 inches between 8 - 10:30 p.m. The Metropolitan Police Department's (Metro) dispatch log indicates numerous reports of local flooding along North Shore Road in the Overton area. There have been no reports of damage resulting from this event other than minor debris deposits on roads.

June 10

Rain

In the Las Vegas Valley, intense rainfall began at approximately 12:30 p.m. A RFCD rain gauge located near Sunset Road and Hualpai activated an intense rain-fall alarm at 12:45 p.m. At 12:55 p.m., a RFCD rain gauge located in Jean activated an intense rainfall alarm. These alarms alerted District personnel to the potential for damage causing flooding in the County, and the District's Flood Response Plan was activated. Over the subsequent 2-hour period, eight other rain gauges in the Valley activated intense rainfall alarms. A similar number of stream level gauges activated alarms during this period. Those alarms were based on both the stream levels and the rate of rise of the stream level.

Based on the RFCD rain gauge network data, the storm moved across the south and eastern portions of the Valley, traveling from southwest to northeast. The most intense and greatest depths of rainfall were recorded in an area bounded by Tropicana Avenue, Las Vegas Boulevard, Washington Avenue, and Hollywood Boulevard. Attached to this report are diagrams indicating the total rainfall depths at gauge locations. This data indicates that the majority of the rain-fall occurred over a 1-hour period and exceeded a 10-year rainfall event. The storm approximated a 1-hour, 25-year rainfall event at a number of locations. The peak 5-15 intensities at Washington Avenue/Lamb Boulevard approximated a 50-year rainfall event. These frequency estimates are based on the District's design rainfall criteria.

After exiting the Las Vegas Valley, the storm continued in a northeasterly direction. Moderate rainfall was reported at RFCD rain gauges west and north of Moapa Valley.

Flooding

Attached to this report are diagrams indicating the stream levels recorded at locations in the Valley. All gauged washes had measurable flow as a result of this storm. The highest stream levels were recorded on Las Vegas Creek (Washington Avenue Channel) at Lamb Boulevard (8 feet) and Flamingo Wash at Eastern Avenue (8.3 feet). The USGS's preliminary estimate is 3,000 cfs at the latter location. This is approximately a 25-year flow based on the U.S. Corps of Engineers Special Flood Hazard Study. This value will be further verified.

In addition to significant wash flow, there were innumerable instances of streets made impassible by flooding. Areas where significant flooding occurred include:

Stonegate (Nellis Boulevard/Sahara Avenue)
Van Buskirk Circle (Harmon/McLeod)
Heritage Square
Bayshore Club (Tropicana Boulevard/Jones Avenue)
Mountain Vista/Tropicana Boulevard
Paradise Road/Sahara Avenue
Rancho Drive/Oakey
Paradise Road/Robindale
Residential areas around the Showboat Country Club
Nellis Boulevard/Lake Mead Drive

A mudslide was reported to have partially closed the Old LA Highway south of Jean near milepost 16. Other damage reports will be added as they are made available by the various local governments.

Two deaths have been attributed to the flooding in the Las Vegas Valley. In one incident, a 25-year old woman apparently attempted to drive across flowing water entering the Rawhide Channel near Russell Road/Topaz Avenue. The flowing water pushed her car into the channel and downstream to McLeod Drive. At that location the auto was held against the road crossing and the rushing waters prevented the doors from being opened. Water filled the auto and the woman drowned before she could be rescued.

A second death occurred when a 19-year old man was swept into a manhole from which the cover had been removed. This incident took place along High Vista north of the Showboat County Club in Henderson. It is not clear at this time if the manhole cover was removed intentionedly in an effort to allow the street to drain more rapidly or dislodged due to a surcharged storm sewer system.

In another incident, a shuttle bus transporting 14 people from McCarran Airport to the Imperial Palace attempted to drive up Koval Lane off Winnick Avenue. Flood waters prevented any progress. The passengers and driver were rescued by Clark County Fire Department personnel without any reports of injuries.

Very significant streamflow in California Wash at Glendale was reported by USGS personnel the

following day. The Wash was reported to have risen very quickly to an estimated maximum depth of twelve (12) feet. This estimate was confirmed by Mr. Jack Tuls Jr. (Hidden Valley Dairy). Mr. Tuls estimated the flow as being 12 feet deep and 200 feet wide.

District Response

On the evening of June 9, rainfall at a RFCD gauge located at the Valley of Fire State Park activated an intense rainfall alarm. This alarm initiated an automatic dial-out procedure by the Flood Warning System (FWS) computer. The Senior Hydrologist (SH) interrogated the FWS from his home, determined that a potentially dangerous situation existed, and came to the District offices for additional information. FWS data from four gauges in the Moapa Valley area indicated that the rainfall at Valley of Fire was isolated. A telephone conver-sation with Metro dispatch indicated that there were reports of local road flooding along North Shore Road. No further action was taken.

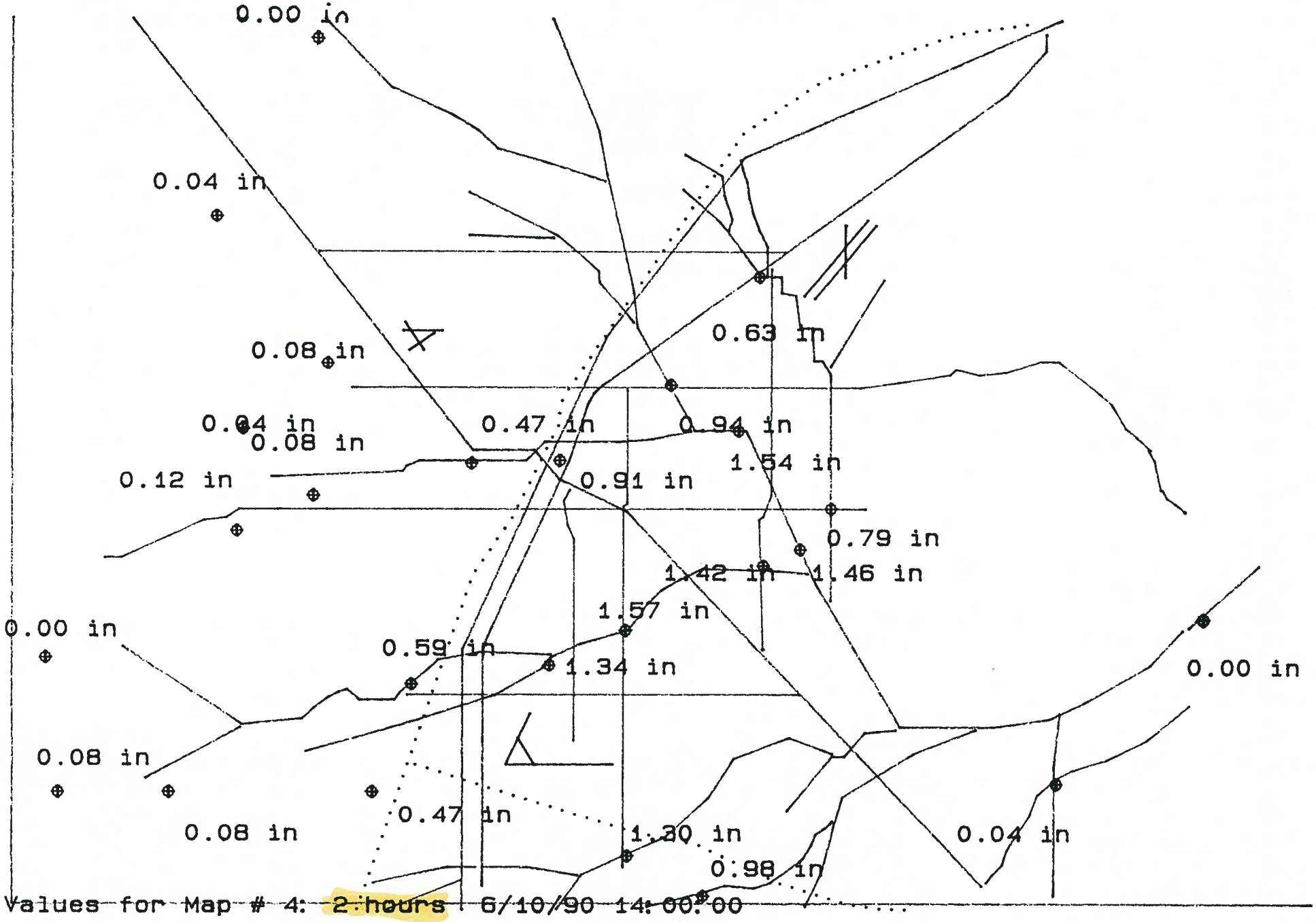
It was noted that no data was collected from any FWS sensor from approximately 4:30 p.m. June 8 until 6:30 p.m. June 9. The resumption of electrical power after an outage of unknown duration caused the FWS software to be automatically restarted at the latter time. While the FWS software was operating on June 8, for some as yet undetermined reason, the data was not being stored in the data base. The cause of this problem needs to be identified and resolved.

Shortly before 1 p.m. on June 10, a RFCD gauge located near Sunset Road/Hualpai Road activated an alarm based on intense rainfall and the automatic dial-out procedure was initiated. After interrogating the FWS from his home, the SH was contacted by the Assistant General Manager (AGM) who was in the District offices. While determining if the alarm had been activated by real data, a second alarm was activated by rainfall in Jean. At that time it was determined that the SH should come to the District offices and the AGM should contact the NWS for verification of rainfall information.

The SH arrived at the District offices shortly after 1:00 p.m. NWS had con-firmed the existence of severe storms in Clark County. Mr. Dick Brennan (CCPW) was notified at his home of the potential for flooding. The Imperial Palace was also notified. The AGM left the office to obtain and provide information on flooding in the area. From 1:15 p.m. until 2:30 p.m., numerous FWS alarms were activated. Mr. Mark Calhoun (Henderson Public Works) was notified of the potential for flooding along Duck Creek and Pittman Washes. As FWS alarms on the east side of town were activated, the SH contacted Mr. Dick Goecke and Mr. Larry Haugsness (Las Vegas). Repeated contacts were made with Mr. Brennan and Mr. Haugsness as additional information on rain and stream flow became available. The NWS was contacted periodically to exchange updated information.

At approximately 2 p.m., the District Engineering Technician (ET) came into the office to offer assistance. The SH updated him on the existing conditions and directed him to the Las Vegas Creek and Las Vegas Wash areas. Both the AGM and ET contacted the SH periodically to exchange information. However, improvements need to be made to the existing radio communications system. Radio communication within the Las Vegas Valley was very difficult, at best. While the SH could monitor communications, he could not communicate with field personnel. Mr. Curt Chandler called the SH to advise him that he had not been able to access the FWS from a remote site. The problem was quickly resolved. Mr. Chandler provided information on flooding in Henderson.

Staff has been and will continue to obtain and analyze additional information regarding damages and flows that the area experienced.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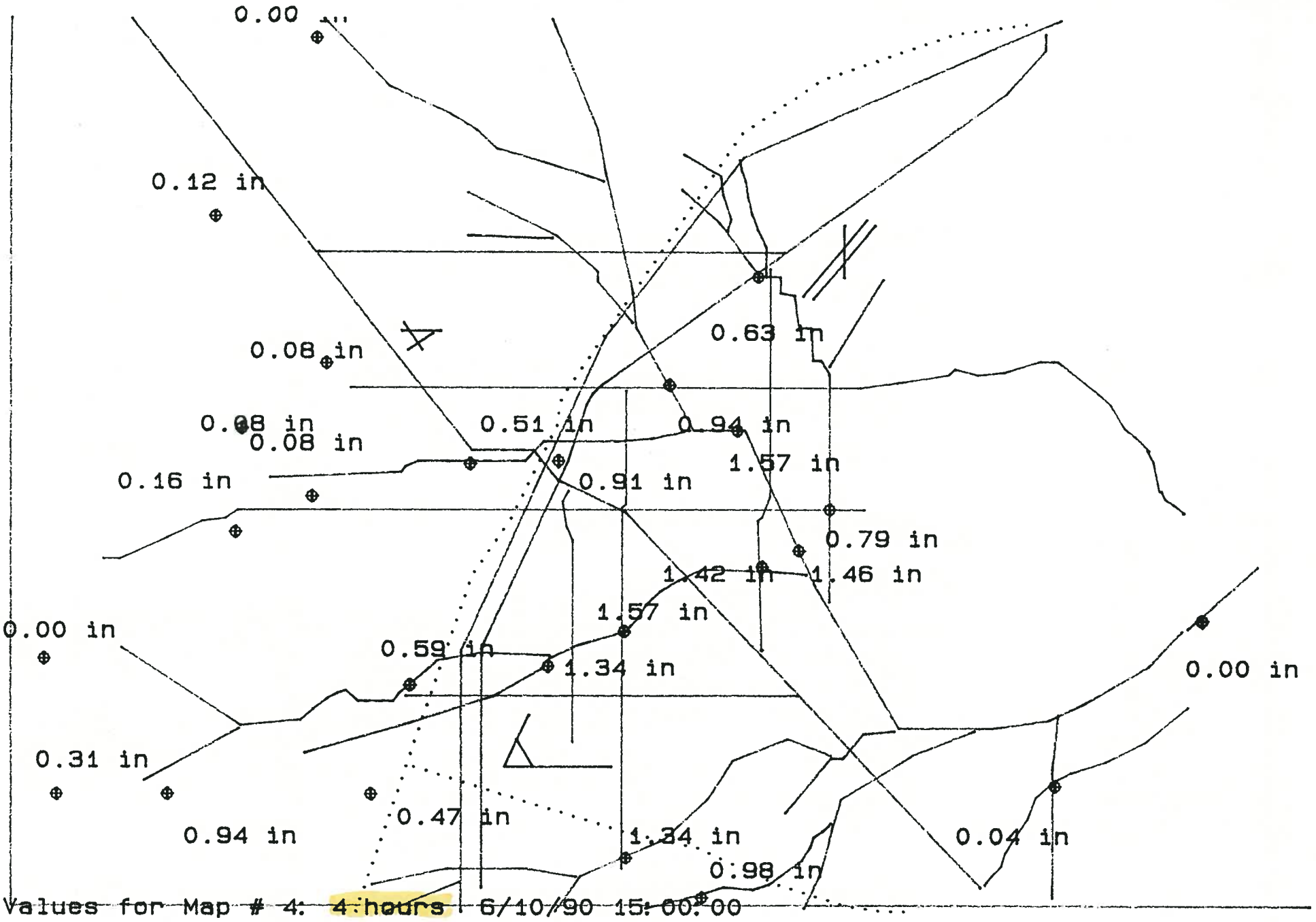
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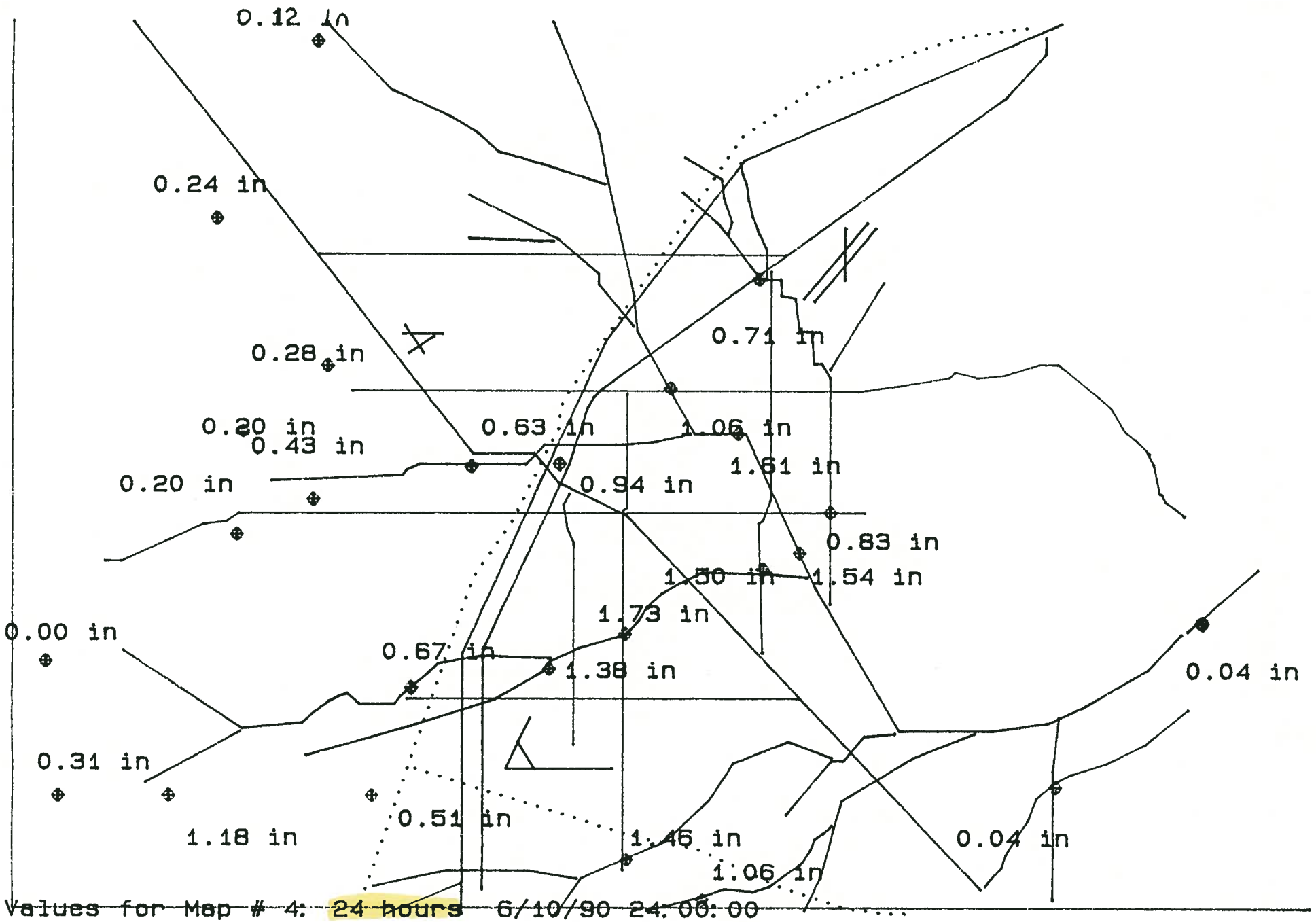
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Values for Map # 4: 24 hours 6/10/90 24:00:00

Clark County Regional Flood Control District

Group Name | Date | Time

Rainfall Summary 1 | 6/11/90 | 600

Sensor #	4014	4044	4049	4054	4234	4284
StatType	rain	rain	rain	rain	rain	rain
DataType	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in
6/10/90						
1600	0.00	0.00	0.00	0.00	0.00	0.00
1545	0.00	0.00	0.00	0.00	0.00	0.00
1530	0.00	0.00	0.00	0.00	0.00	0.00
1515	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.04
1445	0.00	0.00	0.00	0.00	0.00	0.00
1430	0.00	0.00	0.00	0.00	0.00	0.00
1415	0.00	0.00	0.00	0.04	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1345	0.00	0.00	0.00	0.04	0.04	0.00
1330	0.00	0.00	0.00	0.00	0.00	0.12
1315	0.00	0.00	0.00	0.00	0.00	0.08
1300	0.00	0.00	0.00	0.00	0.00	0.28
1245	0.00	0.00	0.00	0.00	0.00	1.06
1230	0.00	0.00	0.00	0.00	0.04	0.00
1215	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.04	0.00	0.00
1145	0.00	0.00	0.00	0.00	0.00	0.00
1130	0.00	0.00	0.00	0.00	0.00	0.00
1115	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.12	0.08	1.57

Clark County Regional Flood Control District

	Group Name	Date	Time
	Rainfall Summary 2	6/11/90	602

Sensor #	4614	4454	4634	4364	4734	4784
StatType	rain	rain	rain	rain	rain	rain
DataType	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in
6/10/90						
1600	0.00	0.00	0.00	0.00	0.00	0.00
1545	0.00	0.00	0.00	0.04	0.00	0.00
1530	0.00	0.00	0.00	0.00	0.00	0.00
1515	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1445	0.00	0.00	0.04	0.00	0.00	0.00
1430	0.00	0.00	0.00	0.00	0.00	0.00
1415	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1345	0.00	0.00	0.00	0.00	0.00	0.00
1330	0.00	0.00	0.00	0.00	0.04	0.00
1315	0.00	0.04	0.08	0.00	0.04	0.04
1300	0.04	0.00	0.35	0.00	0.20	0.00
1245	0.04	0.12	0.59	0.08	0.31	0.00
1230	0.20	0.20	0.28	0.04	0.39	0.00
1215	0.20	0.12	0.00	0.47	0.00	0.00
1200	0.08	0.00	0.00	0.00	0.00	0.00
1145	0.00	0.00	0.00	0.00	0.00	0.00
1130	0.00	0.00	0.00	0.00	0.00	0.00
1115	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.55	0.47	1.34	0.63	0.98	0.04

Clark County Regional Flood Control District

Group Name | Date | Time

Rainfall Summary 3 | 6/11/90 | 603

Sensor #	4304	4314	4334	4344	4224	4229
StatType	rain	rain	rain	rain	rain	rain
DataType	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in
6/10/90						
1600	0.00	0.00	0.00	0.00	0.00	0.00
1545	0.00	0.00	0.00	0.00	0.00	0.00
1530	0.00	0.00	0.00	0.00	0.00	0.00
1515	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1445	0.00	0.00	0.04	0.00	0.00	0.00
1430	0.00	0.00	0.00	0.00	0.00	0.00
1415	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1345	0.00	0.00	0.00	0.08	0.00	0.00
1330	0.04	0.00	0.00	0.04	0.00	0.00
1315	0.04	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1245	0.00	0.00	0.00	0.00	0.00	0.00
1230	0.00	0.00	0.04	0.00	0.00	0.00
1215	0.00	0.00	0.04	0.00	0.04	0.08
1200	0.00	0.00	0.59	0.04	0.04	0.00
1145	0.04	0.00	0.24	0.00	0.00	0.00
1130	0.16	0.00	0.00	0.00	0.00	0.00
1115	0.04	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.31	0.00	0.94	0.16	0.08	0.08

Clark County Regional Flood Control District

Group Name | Date | Time

Rainfall Summary 4 | 6/11/90 | 604

Sensor #	4074	4084	4094	4114	4174	4394
StatType	rain	rain	rain	rain	rain	rain
DataType	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in
6/10/90						
1600	0.00	0.00	0.00	0.00	0.00	0.00
1545	0.00	0.04	0.00	0.00	0.00	0.00
1530	0.00	0.00	0.00	0.00	0.00	0.00
1515	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1445	0.00	0.00	0.00	0.00	0.00	0.00
1430	0.00	0.00	0.00	0.00	0.00	0.00
1415	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1345	0.04	0.00	0.00	0.00	0.04	0.04
1330	0.08	0.04	0.00	0.04	0.08	0.04
1315	0.12	0.20	0.00	0.12	0.08	0.20
1300	0.43	0.35	0.00	0.47	0.24	0.31
1245	0.24	0.71	0.00	0.00	0.35	0.63
1230	0.04	0.16	0.00	0.00	0.00	0.20
1215	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1145	0.00	0.00	0.00	0.00	0.00	0.00
1130	0.00	0.00	0.00	0.00	0.00	0.00
1115	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.94	1.50	0.00	0.63	0.79	1.42

Clark County Regional Flood Control District

	Group Name	Date	Time
	Rainfall Summary 5	6/11/90	605

Sensor #	4264	4274	4374	4484
StatType	rain	rain	rain	rain
DataType	precip	precip	precip	precip
Units	in	in	in	in
6/10/90				
1600	0.00	0.00	0.00	0.00
1545	0.00	0.00	0.00	0.00
1530	0.00	0.00	0.00	0.00
1515	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00
1445	0.00	0.00	0.00	0.00
1430	0.00	0.00	0.00	0.00
1415	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00
1345	0.00	0.00	0.00	0.00
1330	0.04	0.12	0.04	0.04
1315	0.04	0.08	0.35	0.35
1300	0.04	0.28	0.20	0.08
1245	0.12	0.12	0.39	0.28
1230	0.20	0.28	0.55	0.20
1215	0.04	0.04	0.04	0.39
1200	0.04	0.00	0.00	0.00
1145	0.00	0.00	0.00	0.00
1130	0.00	0.00	0.00	0.00
1115	0.00	0.00	0.00	0.00
TOTALS:	0.51	0.91	1.57	1.34

Clark County Regional Flood Control District

Group Name	Date	Time
Rainfall Summary 6 (outlying south)	6/11/90	606

Sensor #	4704	4954	5014
StatType	rain	rain	rain
DataType	precip	precip	precip
Units	in	in	in
6/10/90			
1600	0.00	0.00	0.00
1545	0.00	0.00	0.00
1530	0.00	0.00	0.00
1515	0.00	0.00	0.00
1500	0.00	0.00	0.00
1445	0.00	0.00	0.00
1430	0.00	0.00	0.00
1415	0.00	0.00	0.00
1400	0.00	0.00	0.00
1345	0.04	0.00	0.00
1330	0.00	0.00	0.00
1315	0.00	0.00	0.00
1300	0.00	0.04	0.00
1245	0.31	0.00	0.00
1230	0.12	0.00	0.00
1215	0.04	0.04	0.00
1200	0.00	0.59	0.00
1145	0.04	0.00	0.00
1130	0.00	0.00	0.00
1115	0.00	0.00	0.00
TOTALS:	0.55	0.67	0.00

Clark County Regional Flood Control District

Group Name | Date | Time

Rainfall Summary 7 (Mesquite/Moapa) | 6/11/90 | 607

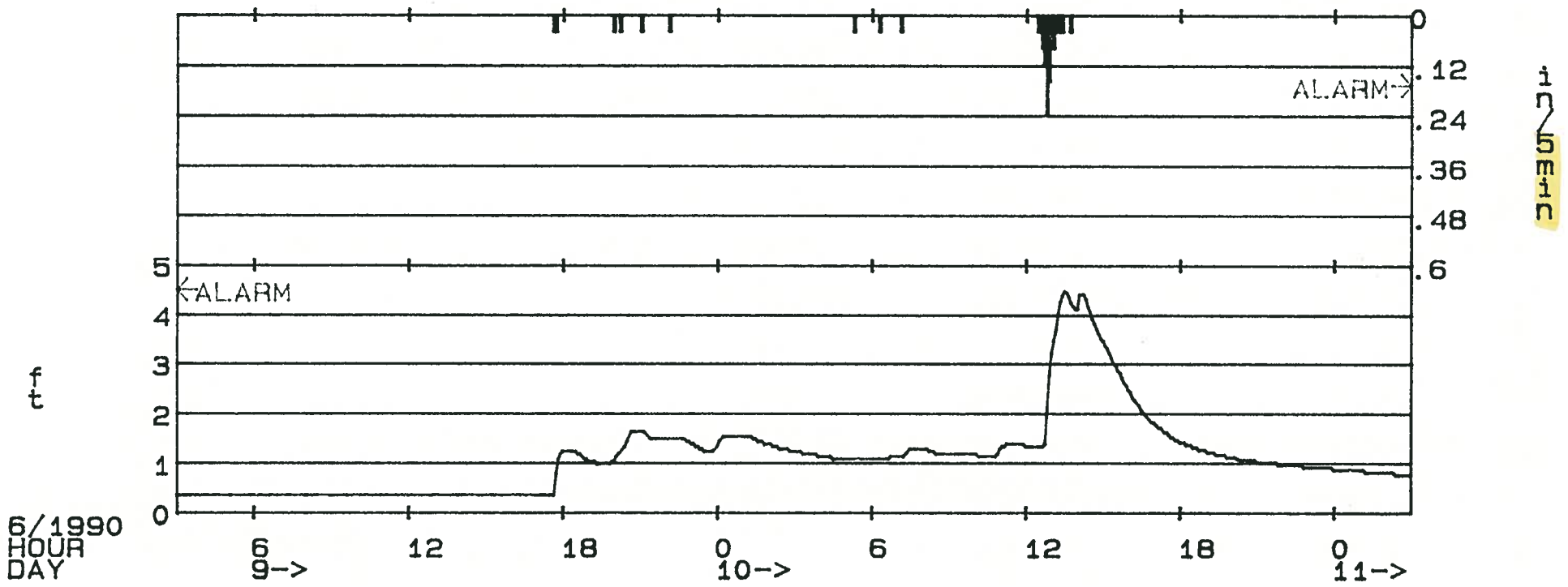
Sensor #	3264	3274	3284	3384
StatType	rain	rain	rain	rain
DataType	precip	precip	precip	precip
Units	in	in	in	in
6/10/90				
1600	0.00	0.00	0.00	0.00
1545	0.00	0.00	0.00	0.00
1530	0.00	0.00	0.00	0.00
1515	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00
1445	0.00	0.00	0.00	0.00
1430	0.31	0.04	0.00	0.00
1415	0.00	0.12	0.08	0.00
1400	0.00	0.00	0.08	0.00
1345	0.00	0.04	0.00	0.00
1330	0.00	0.00	0.00	0.00
1315	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00
1245	0.00	0.00	0.00	0.00
1230	0.00	0.00	0.00	0.00
1215	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00
1145	0.00	0.00	0.00	0.00
1130	0.00	0.00	0.00	0.00
1115	0.00	0.00	0.00	0.00
TOTALS:	0.31	0.20	0.16	0.00

Clark County Regional Flood Control District

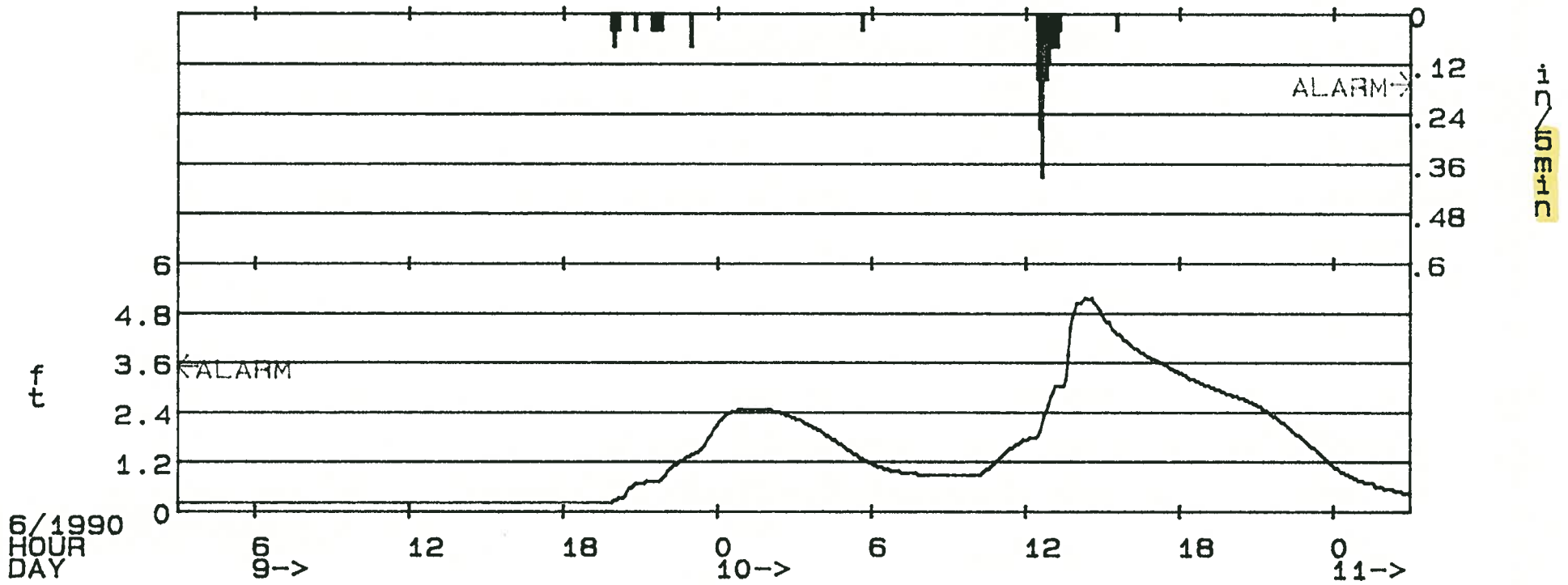
Group Name: Rainfall Summary 7 (Mesquite/Moapa) | Date: 6/11/90 | Time: 957

Sensor #	3264	3274	3284	3384
StatType	rain	rain	rain	rain
DataType	precip	precip	precip	precip
Units	in	in	in	in
6/10/90				
1500	0.00	0.00	0.00	0.00
1430	0.31	0.16	0.08	0.00
1400	0.00	0.04	0.08	0.00
1330	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00
1230	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00
1130	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00
1030	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00
0930	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00
0830	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00
0730	0.00	0.04	0.00	0.00
0700	0.00	0.00	0.00	0.00
0630	0.04	0.00	0.00	0.04
0600	0.00	0.00	0.00	0.00
0530	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00
0430	0.31	0.00	0.00	0.00
0400	-----	0.00	0.00	0.00
0330	-----	0.00	0.00	0.00
0300	-----	0.00	0.00	0.00
0230	-----	0.00	0.00	0.00
0200	-----	0.00	0.00	0.00
0130	-----	0.12	0.04	0.00
0100	-----	0.00	0.00	0.00
0030	-----	0.00	0.00	0.00
6/ 9/90				
2400	-----	0.00	0.00	0.00
2330	-----	0.00	0.00	0.00
2300	-----	0.00	0.00	0.00
2230	-----	0.00	0.00	0.00
2200	-----	0.00	0.00	0.00
2130	-----	0.00	0.08	0.00
2100	-----	0.00	0.08	0.00
2030	-----	0.00	0.12	0.00
2000	-----	0.00	0.43	0.00
1930	-----	0.00	0.00	0.00
TOTALS:	0.67	0.35	0.91	0.04

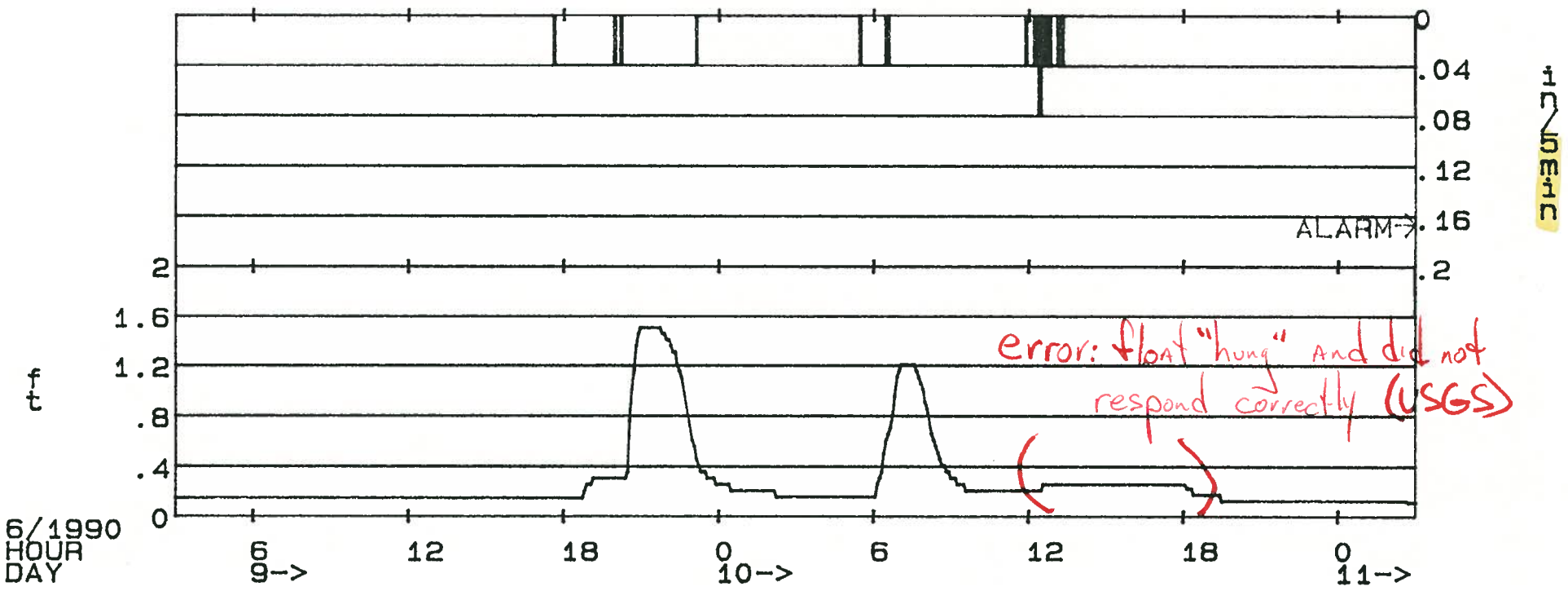
4074 Las Vegas Wash at Lake Mead Drive Rain and Stream Level



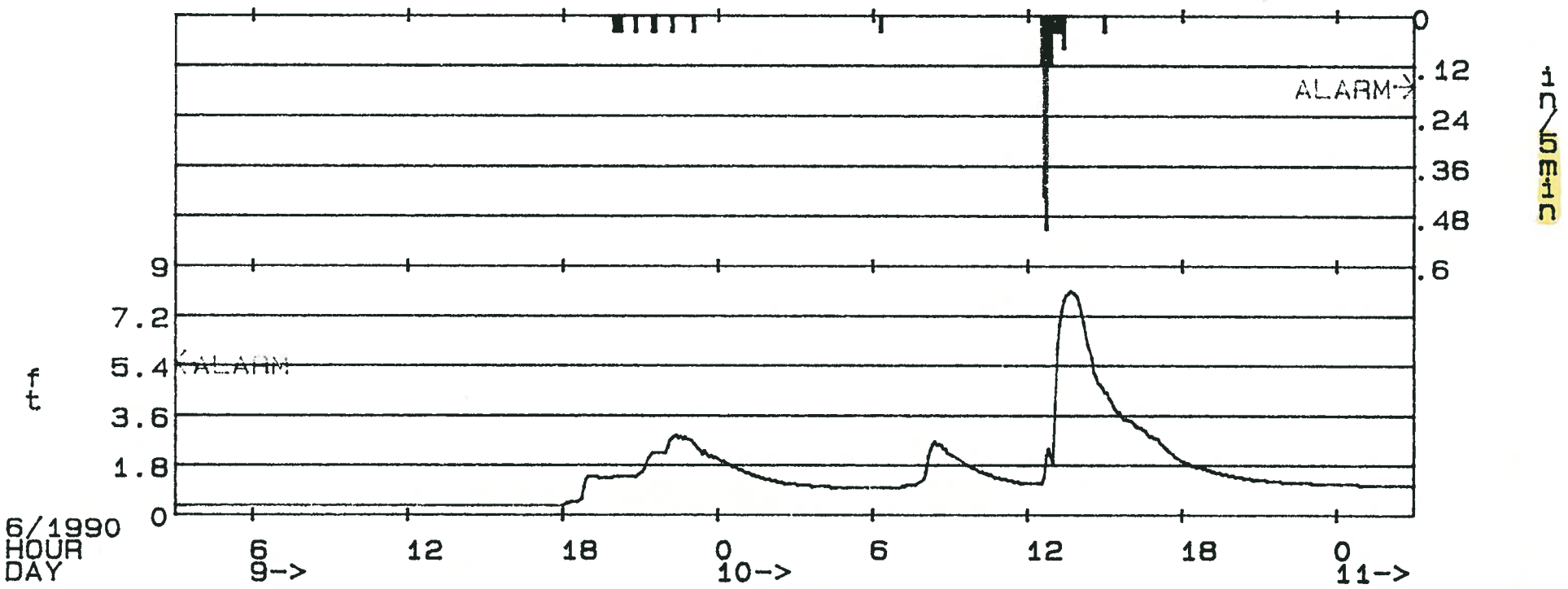
4084 Las Vegas Wash at Sahara Rain and Streal Level



4264 Meadows Detention Basin Outlet Channel Rain and Stream Level

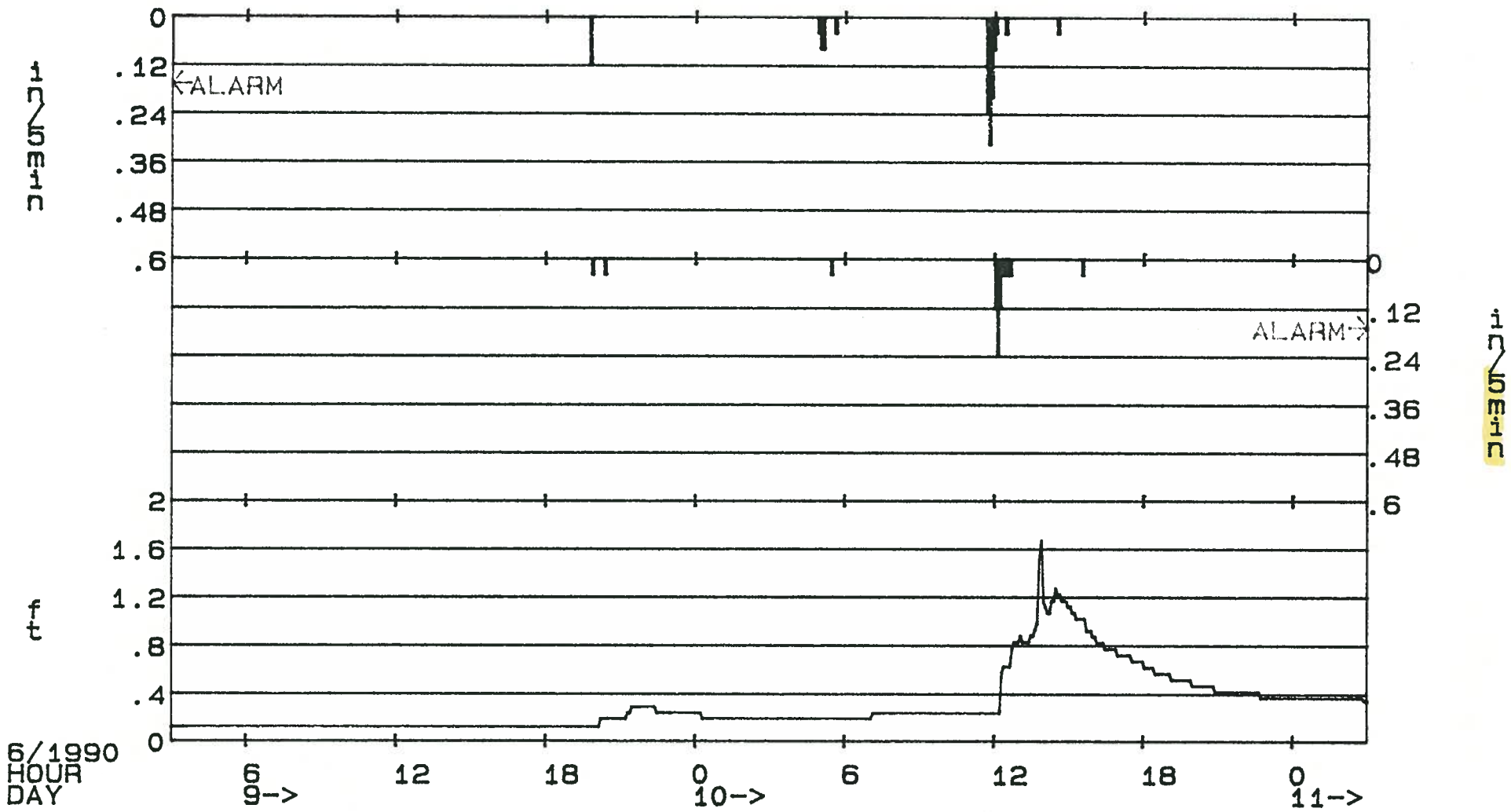


4284 Las Vegas Creek at Lamb Rain and Stream Level

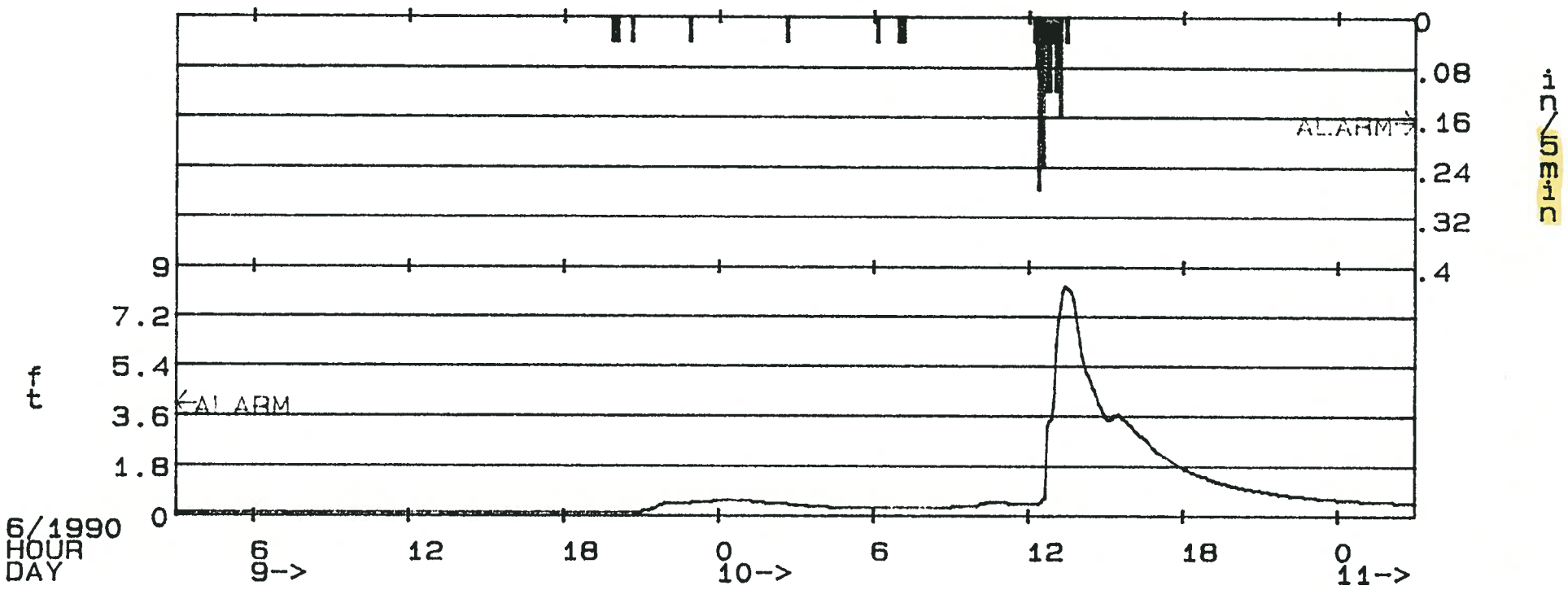


4364 Upper Flamingo Rain

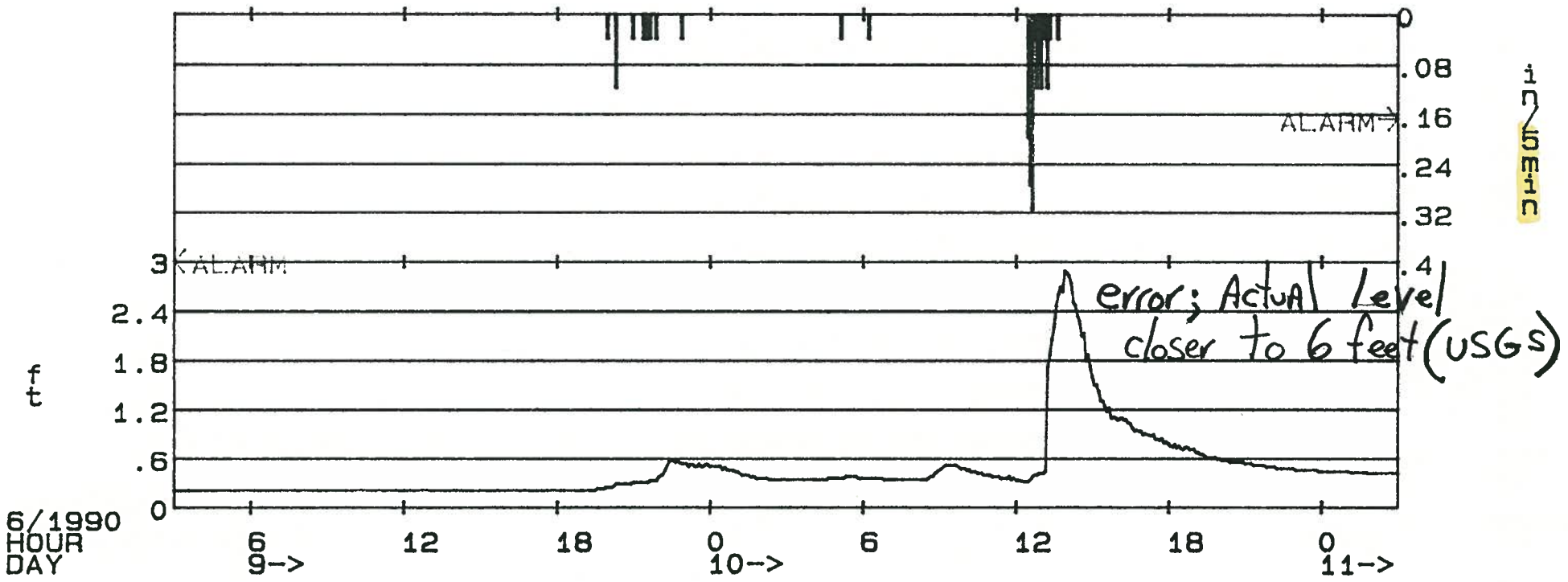
4334 Flamingo Wash at Torrey Pines Rain and Stream Level



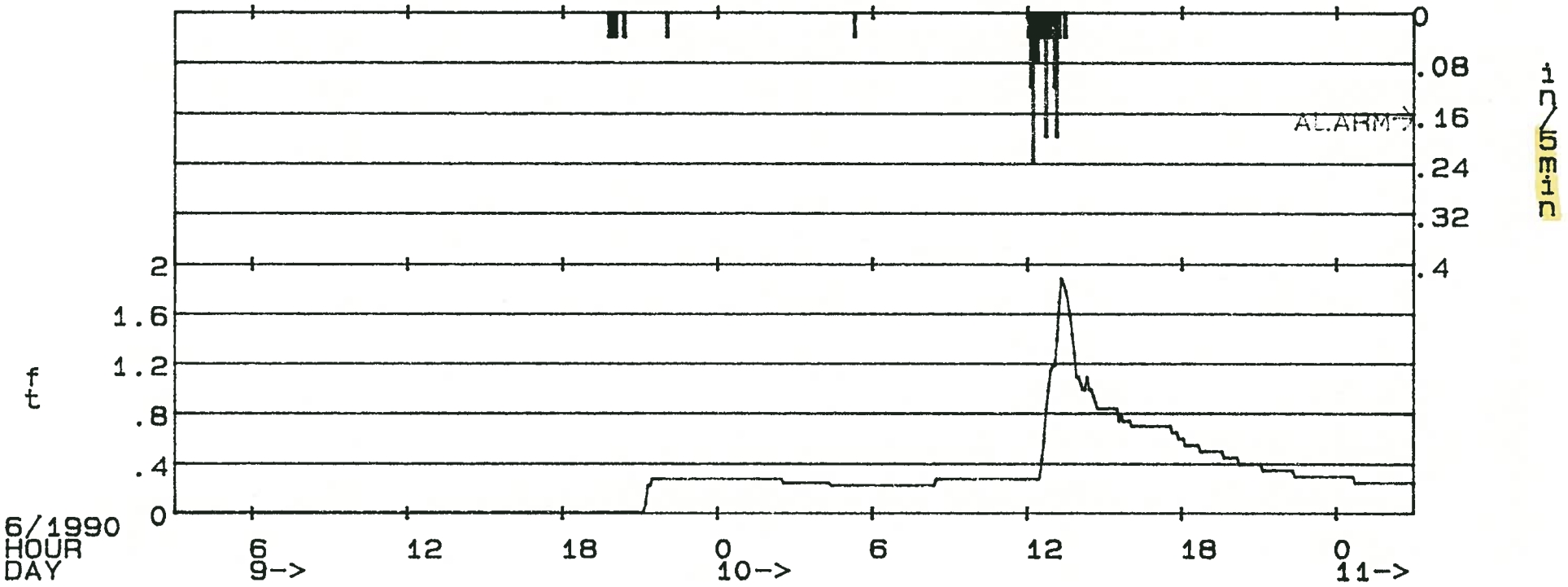
4374 Flamingo Wash at Eastern Avenue Rain and Stream Level

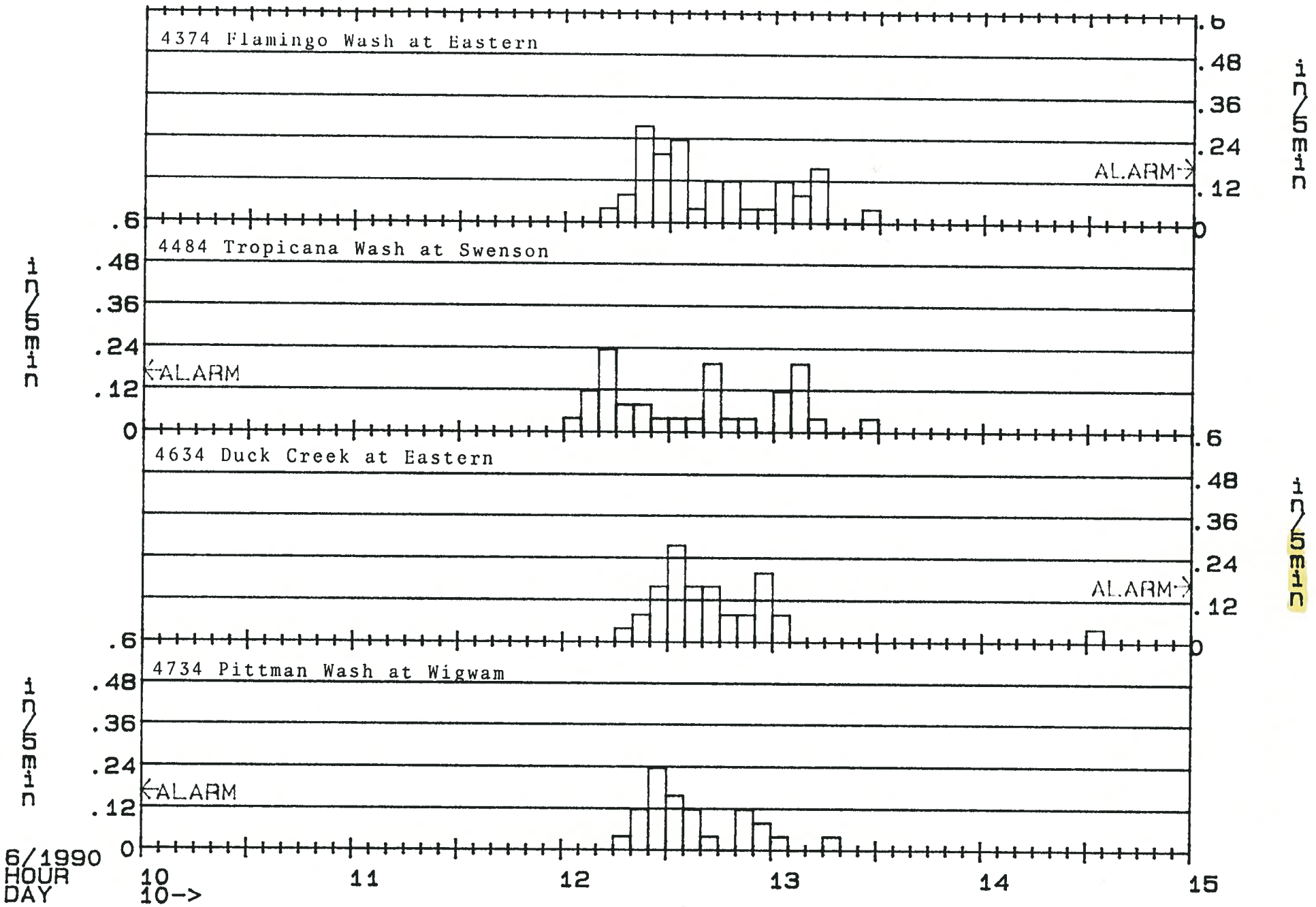


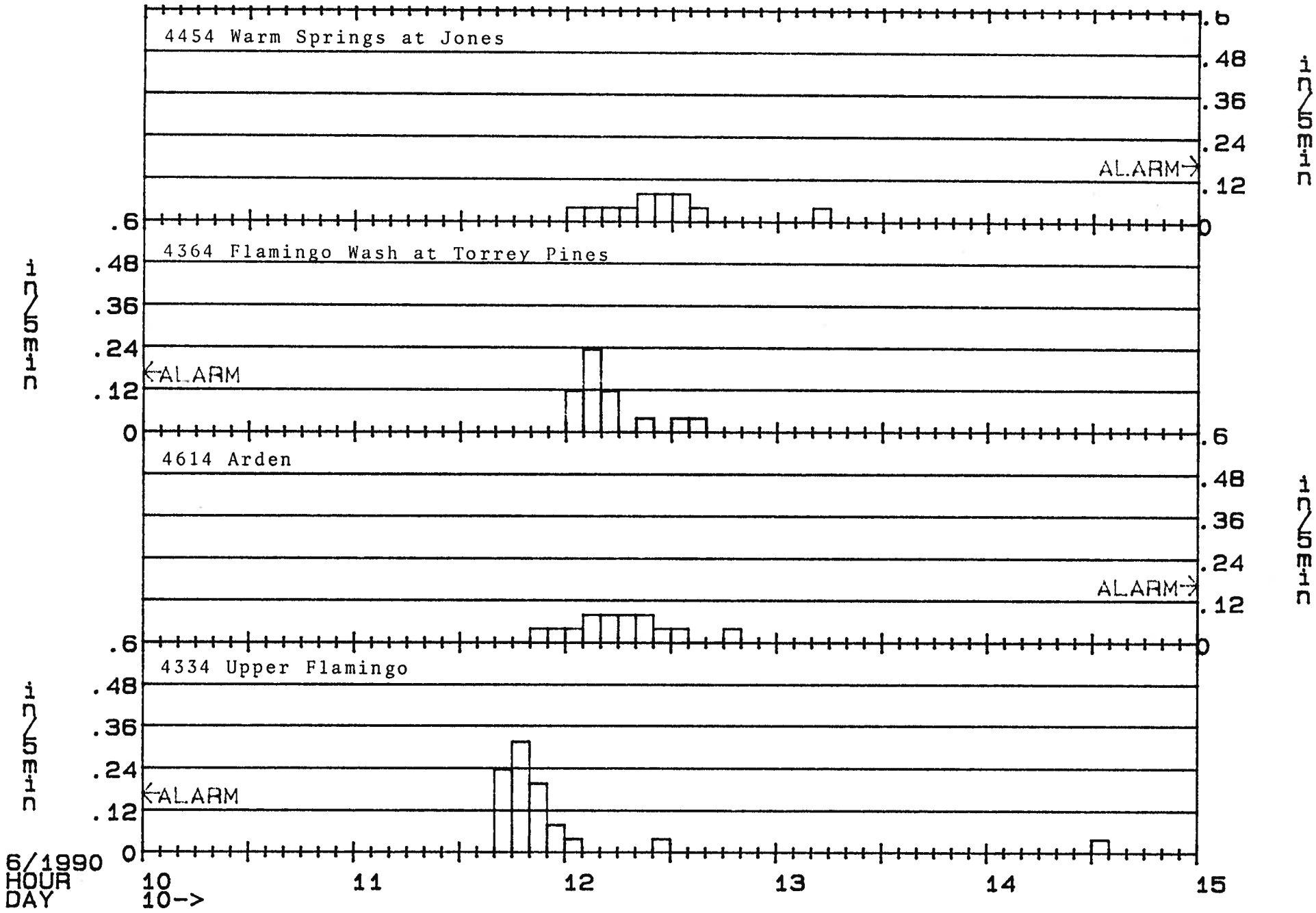
4394 Flamingo Wash at Nellis Boulevard Rain and Stream Level

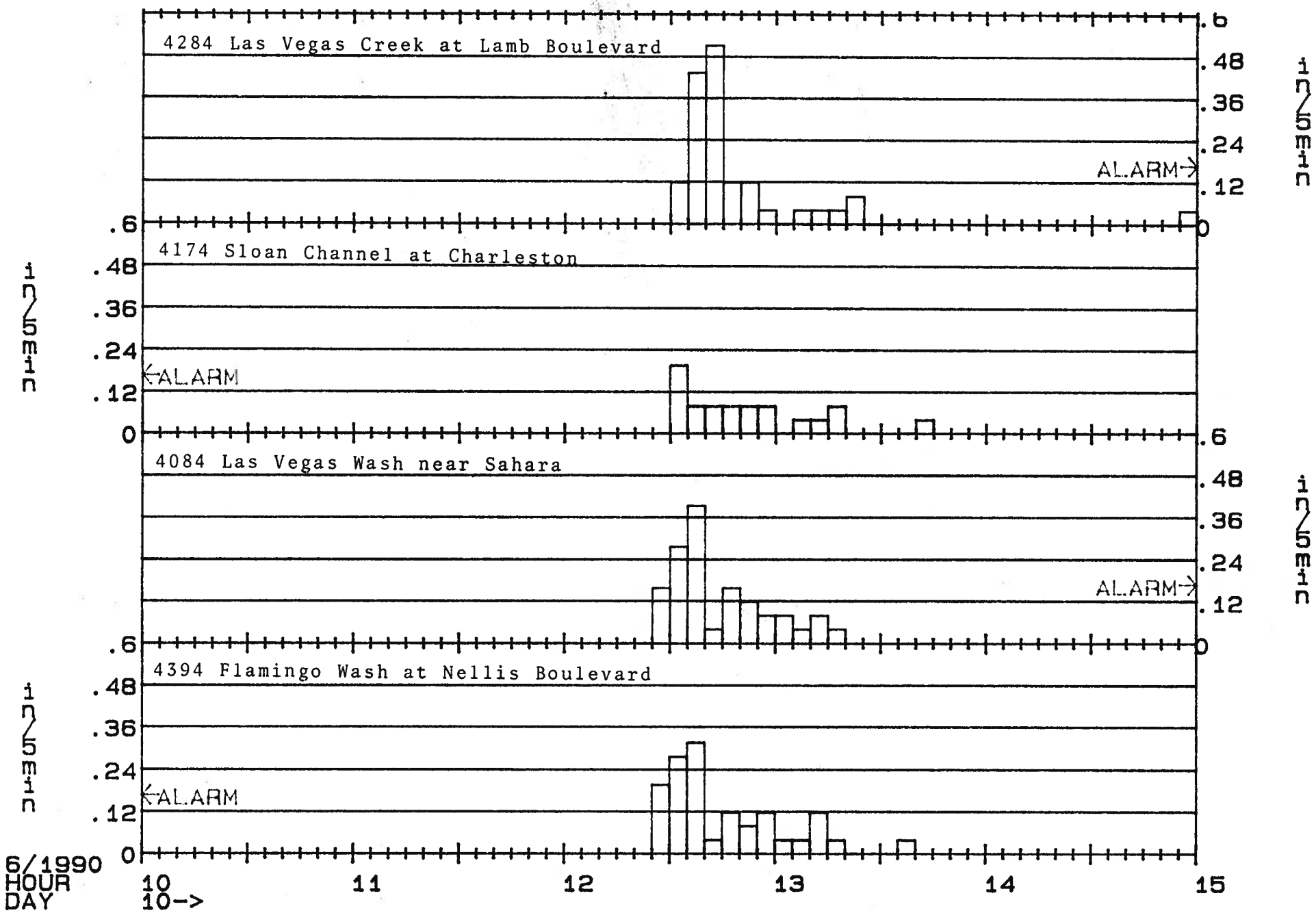


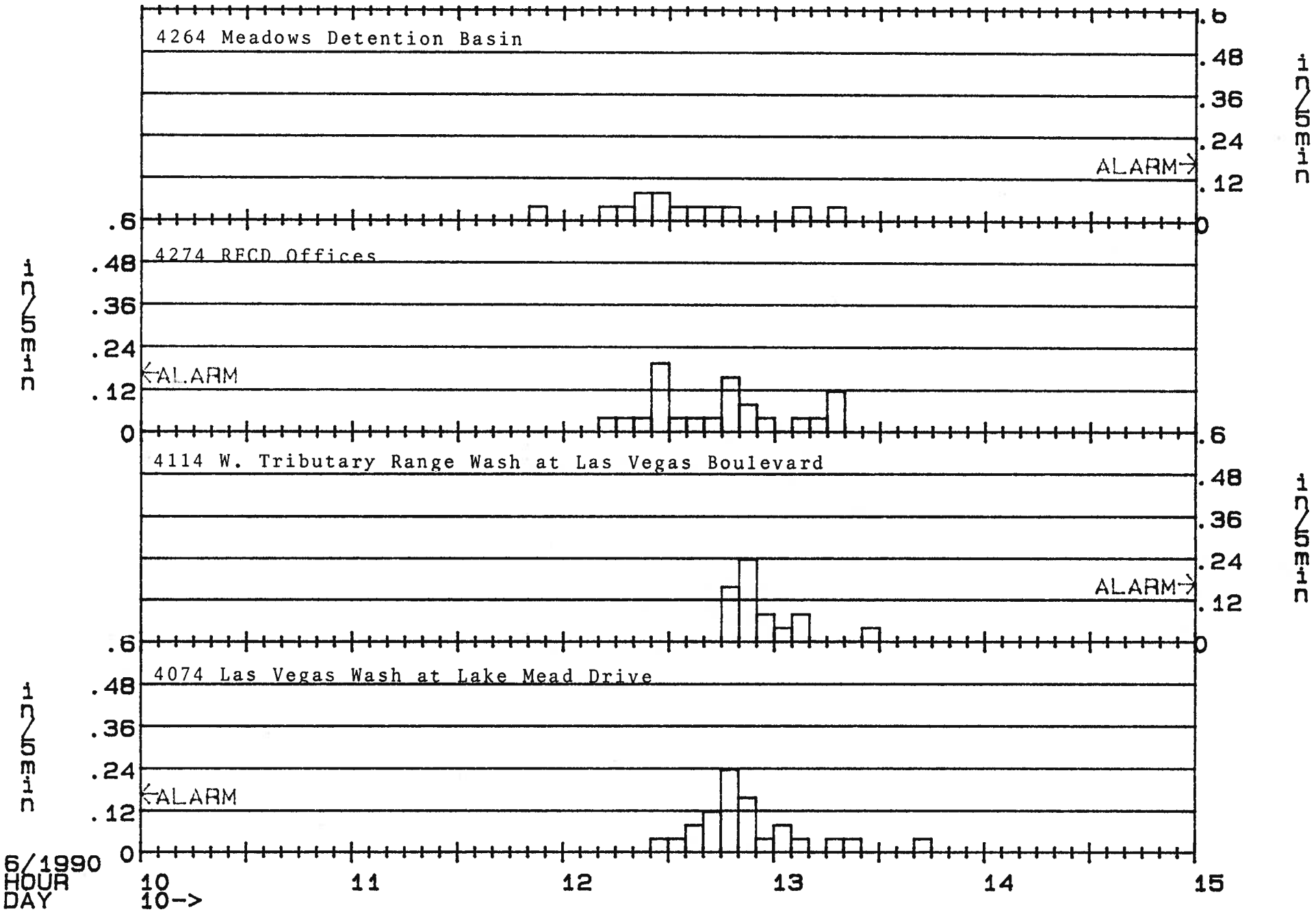
4484 Tropicana Wash at Swenson Rain and Stream Level

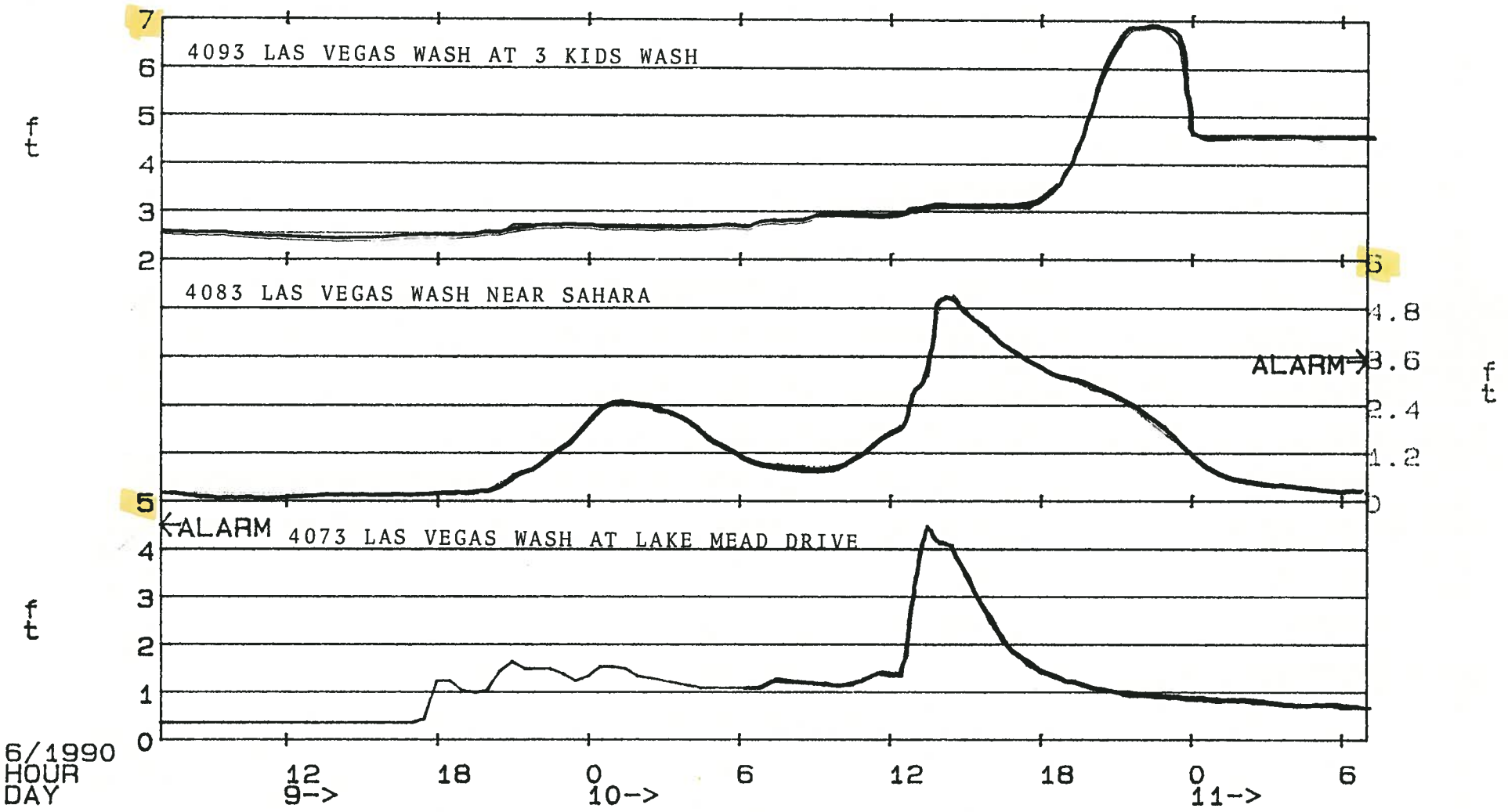


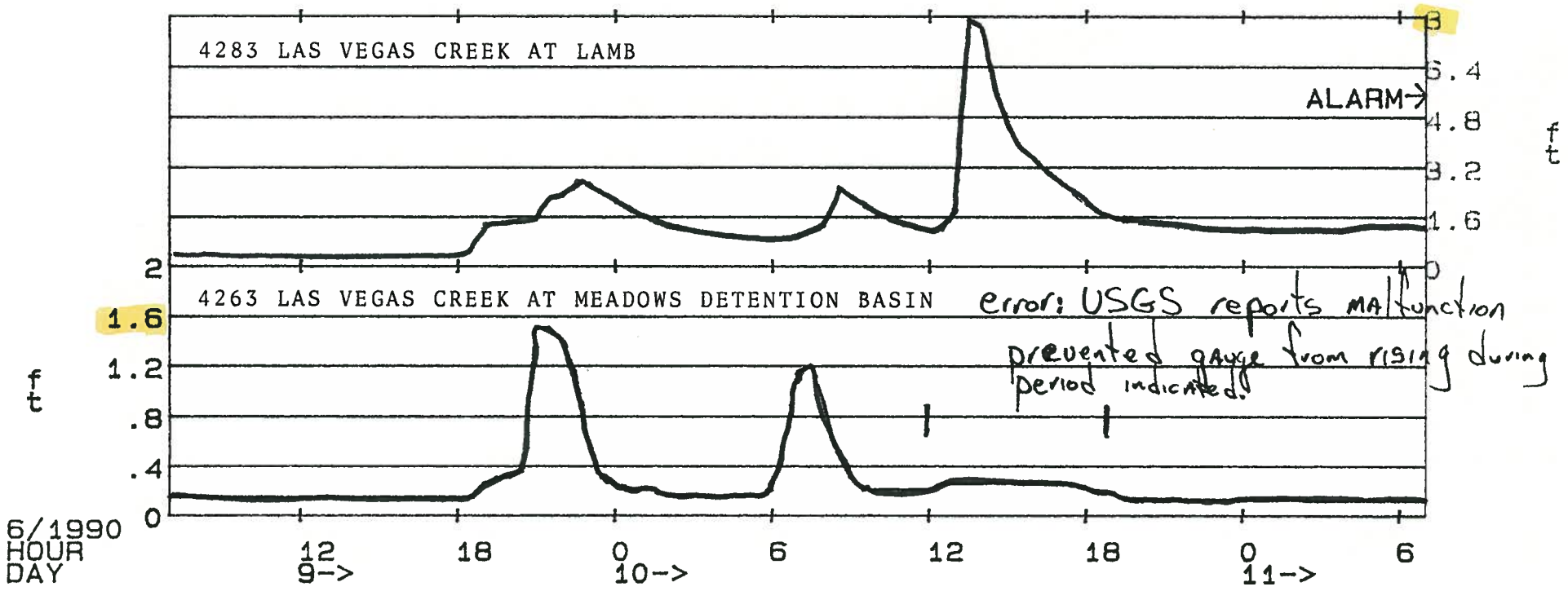

4374 Flamingo Wash at Eastern
ALARM
4484 Tropicana Wash at Swenson
ALARM
4634 Duck Creek at Eastern
ALARM
4734 Pittman Wash at Wigwam
ALARM
in/5min
.6
.48
.36
.24
.12
0
6/1990
HOUR
DAY
10
10->
11
12
13
14
15

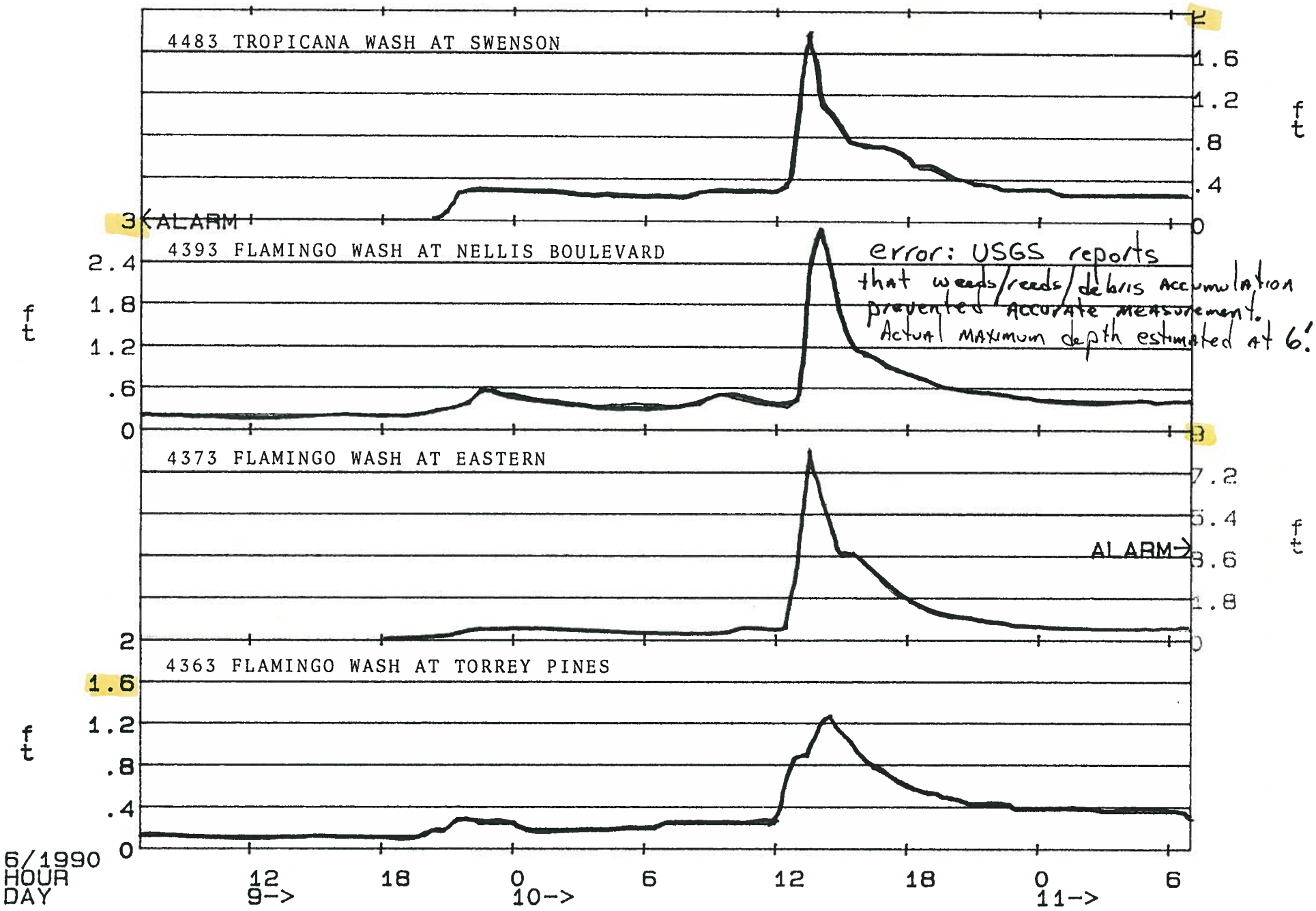

4454 Warm Springs at Jones
ALARM
4364 Flamingo Wash at Torrey Pines
ALARM
4614 Arden
ALARM
4334 Upper Flamingo
ALARM
in/5min
.6
.48
.36
.24
.12
0
6/1990
HOUR
DAY
10
11
12
13
14
15
10->
10

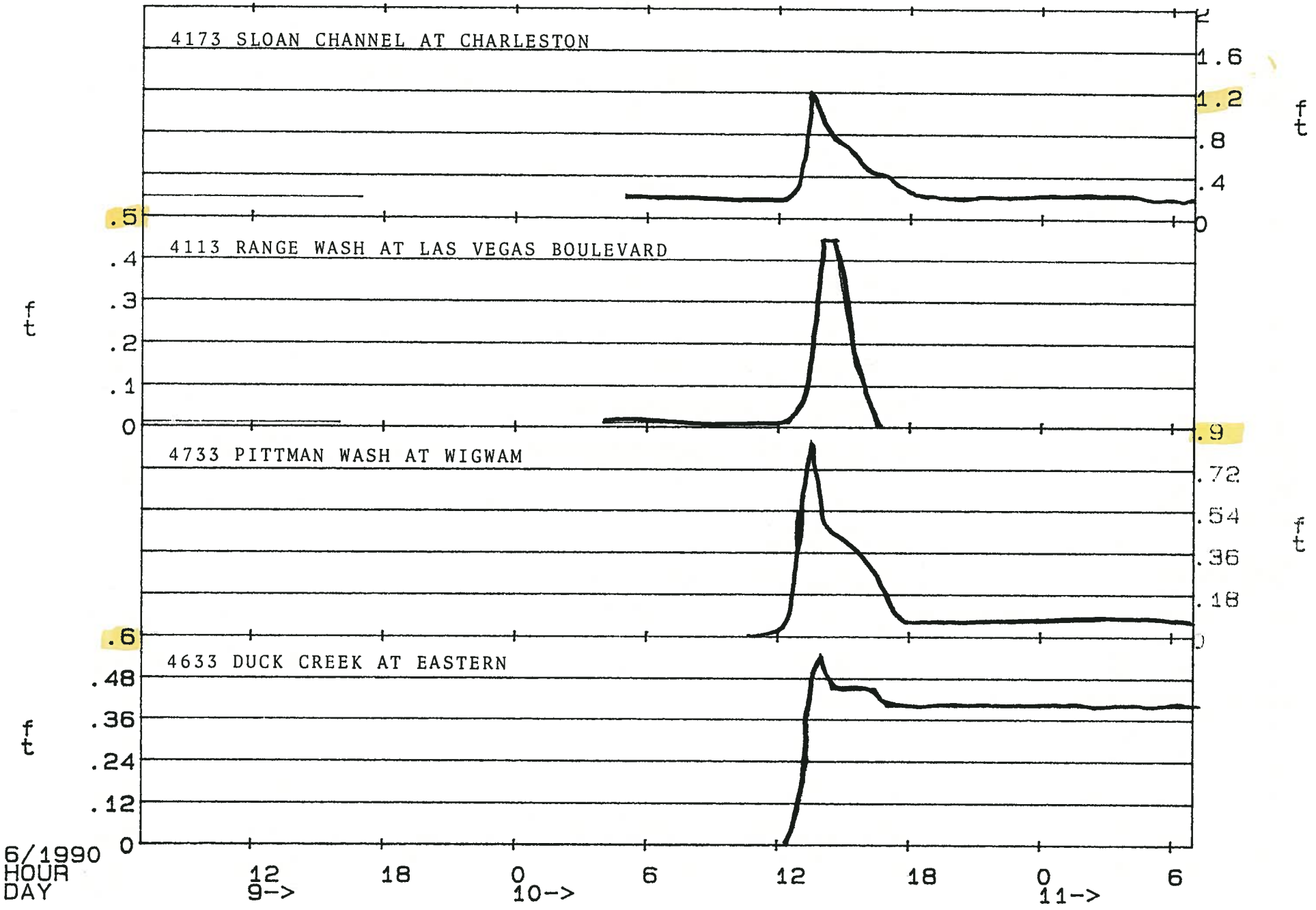

4284 Las Vegas Creek at Lamb Boulevard
ALARM
4174 Sloan Channel at Charleston
ALARM
4084 Las Vegas Wash near Sahara
ALARM
4394 Flamingo Wash at Nellis Boulevard
ALARM
inches
.6
.48
.36
.24
.12
0
6/1990
HOUR
DAY
10
11
12
13
14
15
10->
inches


4264 Meadows Detention Basin
ALARM
4274 RFCD Offices
ALARM
4114 W. Tributary Range Wash at Las Vegas Boulevard
ALARM
4074 Las Vegas Wash at Lake Mead Drive
ALARM
INCHES
.6
.48
.36
.24
.12
0
6/1990
HOUR
DAY
10
10->
11
12
13
14
15


4093 LAS VEGAS WASH AT 3 KIDS WASH
4083 LAS VEGAS WASH NEAR SAHARA
ALARM
4073 LAS VEGAS WASH AT LAKE MEAD DRIVE
ALARM
ft
ft
ft
7
6
5
4
3
2
5
4.8
4.6
4.4
4.2
0
5
4
3
2
1
0
6/1990
HOUR
DAY
12
18
0
6
12
18
0
6
9->
10->
11->


4283 LAS VEGAS CREEK AT LAMB
ALARM→
8
6.4
4.8
3.2
1.6
0
ft
4263 LAS VEGAS CREEK AT MEADOWS DETENTION BASIN
error: USGS reports MALfunction prevented gauge from rising during period indicated.
2
1.6
1.2
.8
.4
0
ft
6/1990
HOUR
DAY
12
9->
18
0
10->
6
12
18
0
11->
6


4483 TROPICANA WASH AT SWENSON
ALARM
4393 FLAMINGO WASH AT NELLIS BOULEVARD
error: USGS reports
that weeds/reeds/debris accumulation
prevented accurate measurement.
Actual maximum depth estimated at 6'
4373 FLAMINGO WASH AT EASTERN
ALARM
4363 FLAMINGO WASH AT TORREY PINES
ft
6/1990
HOUR
DAY
12
18
0
6
12
18
0
6
9->
10->
11->


4173 SLOAN CHANNEL AT CHARLESTON
1.6
1.2
.8
.4
0
ft
.5
.4
.3
.2
.1
0
4113 RANGE WASH AT LAS VEGAS BOULEVARD
ft
.9
.72
.54
.36
.18
0
4733 PITTMAN WASH AT WIGWAM
ft
.6
.48
.36
.24
.12
0
4633 DUCK CREEK AT EASTERN
ft
6/1990
HOUR
DAY
12
9->
18
0
10->
6
12
18
0
11->
6

EMERGENCY RESPONSE LOG

Date	Time	Initials	Action/Response/Situation
8/11/89	7:55A	TS	NPS gauges (#11, #12 & #14) indicate over .50" rain within 15 min between 6:30-6:45 A.M.
			Notified Dick Brennan @ P.W.
6/10/90	1:15p	TS	Left office in response to Alarm @ Upper Flamingo & Jean
6/10/90	1:25	TS	Notified Dick Brennan of Severe rainfall
	1:40	TS	Notified Mark Calhoun of Severe rainfall along Duck Creek / Pittman Wash
	1:50	TS	Notified Dick Gocke of Severe rainfall on Eastside (After calling L. Haugness unsuccessfully)
	~~1:55~~	TS	L. Haugeness — informed him of rain on eastside
	2:05	TS	CD radio report of mudslide on ~~I-15~~ old CA Hwy @ Mile Marker 16 — called Dick Brennan; also reported 5+ feet in Flamingo Wash.

FC2:LOG-1:dks

EMERGENCY RESPONSE LOG

Date	Time	Initials	Action/Response/Situation
	2:12	TS	request for sandbags @ 3244 Mel (DI + Paradise)
	2:15	TS	6.5' in LV Creek @ Lamb; called Hargeness
	2:18	TS	8.0' Flamingo @ Eastern; called Brennan
	2:22	TS	request for sandbags @ Warm Springs / Robindale directed call to Public Works
	2:35	TS	Report of flooding Mtn Vista / Tropicana; PW
	3:46	TS	Report of flooding off of Bl Hwy @ Tuscan / Indios; directed call to PW
	4:15	TS	Ch 13 request for ppt/flow info; provided info
	4:30	TS	Imperial Police request for rain/flow info to be expected; After call to NWS passed along info that still chance of rain, locally heavy showers but worst probably over.

FC2:LOG-1:dks

June 10, 1990
Technician's Report of Events and Activities

1:30 Sahara Avenue at I-15 one lane each direction flows 8-10"
Sahara on-ramp to I-15 inpassible. Most flow traveled east on Sahara and turned north and south in the vicinity of Industrial. Heavy runoff from I-15 south of intersection. Flows west to east heavy at Oakey and Rancho, Alta and Rancho. Water on Rancho curb height x 20' W from Alta south.

2:00± Left office
Gas in truck

North on I-95
Home to pick up camera

East on Craig Road
Low flow in channel 4 to 5" at LV Wash

South on I-15
East on Lake Mead Boulevard

Heard on Radio:

2:50 Warm Springs Road and Duck Creek overtopped

2:57 County 6 checked in
Manhole cover lost at Reno

3:07 Warm Springs Road - Windmill washout

3:09 Tomiyasu and Duck Creek impassible
(Brennan?)

3:10 Dick report to Marty (Manning?)
Mentioned Tim's report pinpointing areas of heavy rainfall. I got the impression that this knowledge allowed County to concentrate men and equipment in southeast portion of Valley.

3:17 Tropicana Wash flowing bank to bank
Washout at Templeton

3:29 Flamingo flowing waist deep
LV Wash at Vegas Valley Drive over bridge

3:30 Problem at Bronco

3:41 L.V. Wash at Pecos - picture
Reported 2' freeboard water receded 6"

3:47 Washington and Mojave - picture
Culvert full

3:52 Washington Channel and Lamb
Flow 6' deep

Proceeded east on Charleston

3:58 E. Charleston flowing water
2' of water at Arden - picture

3:59 Flash flood warning extended to 5:15 p.m.

4:03 Las Vegas Wash at Charleston - picture
Fire Rescue in the process of just completing rescue of child caught in culvert at bridge-1' freeboard

4:08 Call on radio for blade to remove 3' of debris on Russell Road

South on Hollywood

4:14 Vegas Valley Drive and LV Wash - picture
Water 2' over bridge

West on AWT Service Road

No water on this crossing

4:24 County maint. at Flamingo Road - picture
Flows throughout area 18" to 24" deep
High velocity flows south of County yard moving southeasterly
Stranded cars asking how to get out

4:25 Horsemans Park - picture
Sheet flow 18" deep

4:35 Flamingo Road at Sam's Town - pictures
Flows 18" deep - Most flow turned into subdivision north of Sam's Town
Pictures of Nellis and Boulder Highway
Nellis impassible from Flamingo north as far as I could see

South on Boulder Highway

4:41 Pittman and Boulder Highway - picture
Strong flows across Highway mostly from Duck Creek
Large 12" x 12" x 8' platform floated
from Emerald Avenue to Boulder Highway south lane

West on Russell - North on Stephanie

4:51 Duck Creek Village - picture
Stephanie Street closed - picture

South on Stephanie

4:56 Stephanie Street bridge
Flows over wingwall from south

5:02 Alerted Henderson maintenance to flows at Stephanie Bridge. Crews at Sunset East of Stephanie working to open road

5:12 Returned to Stephanie Bridge from south side
Flows over wingwall abated - picture

Checked Warm Springs Road Bridge - Non critical flows

Bonanza sand and gravel - content of gravel pit storage
5' deep - picture

West on Warm Springs Road
Crossed Duck Creek
± 18" of water confined to channel
Evidence of flow through Equestrain Estates but not in progress at time of crossing

5:58 Threat of flash flooding ended by NWS

North on Las Vegas Boulevard
East on Tropicana
North on Koval
East on Harmon
Tropicana Wash flows at Pacific Harbors - flows 8 to 10"

Koval at Winnick - road closed - mop up in progress

6:10 Returned to office

6:30 Out