MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

CARMEL RIVER BASIN

SURFACE WATER RESOURCES DATA REPORT
WATER YEARS 1992 - 1995

for O.D. file

Prepared By

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OCTOBER 1996

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October 1996

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SECTION I - INTRODUCTION

The Monterey Peninsula Water Management District (District) is a special District created by the California legislature in 1977 and ratified by voters in 1978. Its mission is to "manage, augment and protect water resources for the benefit of the community and environment" of the greater Monterey Peninsula area. The District is responsible for regional water supply planning within a 170-square mile area consisting of the Monterey Peninsula and Carmel Valley **(Figure I-1)**. The Monterey Peninsula relies entirely on local water resources to meet its water supply needs, primarily surface and ground water from the Carmel River Basin. Hydrologic data pertaining to surface and ground water quantity and quality is an essential tool to effectively manage these water resources.

Such information is obtained through the District's Hydrologic Monitoring Program (HMP), which provides an objective basis for developing rational decisions regarding management of the Monterey Peninsula Water Resources System. This report presents surface water data, particularly Carmel River Basin streamflow, and serves as a compilation of these data from Water Years 1992 through 1995. The scope of this report is limited to documentation of rainfall and streamflow data within the Carmel River Basin, and Carmel River Lagoon water levels, and does not provide a detailed analysis of these data. Other types of water resources related data collected by the District (e.g., ground water levels, surface and ground water quality, production, fisheries, vegetation and climatic data) are available in separate District documents or databases.

Since its inception, the District has collected streamflow measurements at approximately 15 mainstem sites on the Carmel River and at 16 Carmel River tributary sites. The data are used for water supply project planning, development of improved rainfall/runoff relationships, and quantification of tributary inflows to the Carmel River. In addition, the data support current District mitigation activities affected by streamflow such as fishery and erosion control programs. Additional information on the District's mitigation programs is available in the report entitled, "Evaluation of the MPWMD Five-Year Mitigation Program 1991-1996" (MPWMD, 1996).

Due to funding constraints and program modifications designed to improve efficiency, the District has reduced the number of streamflow measuring sites over time. Currently, the District maintains continuous recording streamflow gaging stations (gaging stations) at three mainstem and eight tributary sites within the Carmel River Basin **(Figure I-2)**. In addition the District collects instantaneous, monthly streamflow measurements on the Carmel River mainstem above Los Padres Reservoir, and on San Jose Creek, which is not a tributary to the Carmel River.

Prior to October 1991 (i.e., the beginning of Water Year 1992), District streamflow monitoring primarily consisted of instantaneous measurements made by the "current meter" method. At the beginning of Water Year 1992, a concerted effort was undertaken to upgrade the streamflow monitoring network by gradually replacing non-recording sites (i.e., sites consisting of a staff gage only) with continuous recording sites (i.e., sites that include automatic recording equipment). This upgrade effort significantly improved program efficiency and effectiveness as continuous records of streamflow replaced the former "spot" measurement methodology at the gaging stations.

Figure I-1

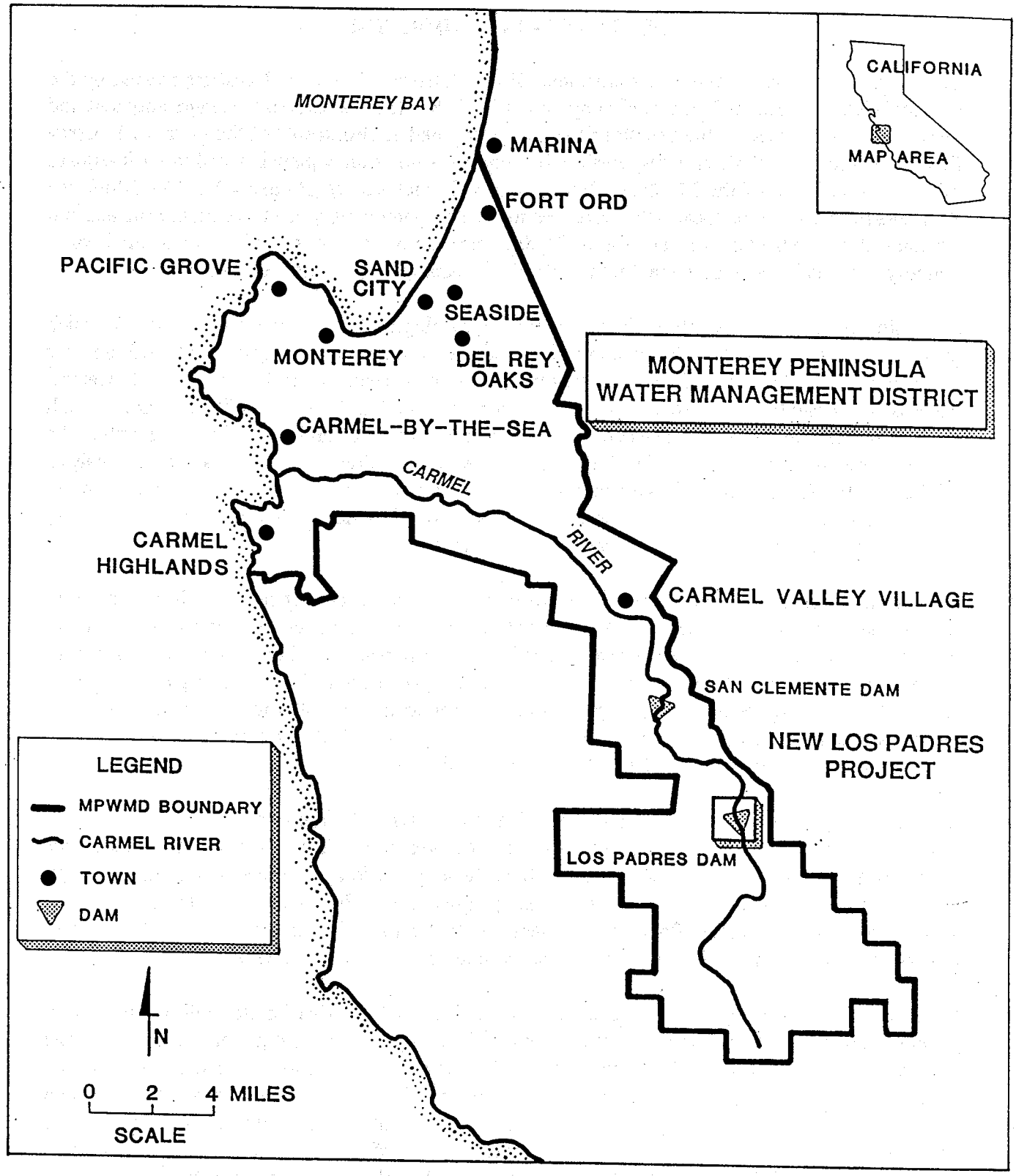
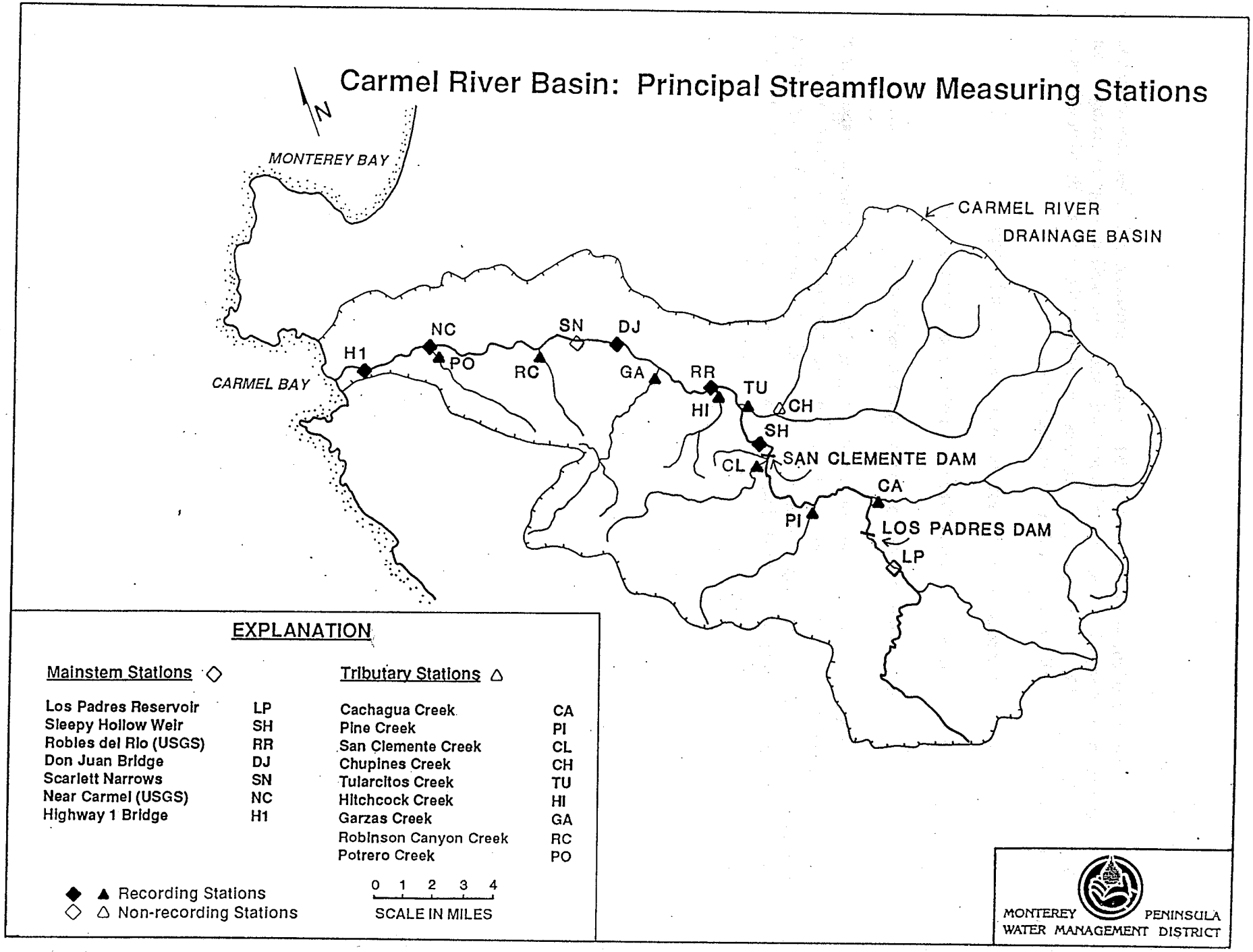

CALIFORNIA
MAP AREA
MONTEREY BAY
MARINA
FORT ORD
PACIFIC GROVE
SAND CITY
SEASIDE
MONTEREY
DEL REY OAKS
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CARMEL-BY-THE-SEA
CARMEL
RIVER
CARMEL HIGHLANDS
CARMEL VALLEY VILLAGE
SAN CLEMENTE DAM
NEW LOS PADRES PROJECT
LOS PADRES DAM
LEGEND
MPWMD BOUNDARY
CARMEL RIVER
TOWN
DAM
N
0 2 4 MILES
SCALE

Figure I-2


Carmel River Basin: Principal Streamflow Measuring Stations
N
MONTEREY BAY
CARMEL BAY
CARMEL RIVER
DRAINAGE BASIN
H1
NC
PO
SN
RC
DJ
GA
RR
HI
TU
CH
SH
CL
SAN CLEMENTE DAM
CA
PI
LOS PADRES DAM
LP
EXPLANATION
Mainstem Stations
Los Padres Reservoir LP
Sleepy Hollow Weir SH
Robles del Rio (USGS) RR
Don Juan Bridge DJ
Scarlett Narrows SN
Near Carmel (USGS) NC
Highway 1 Bridge H1
Tributary Stations
Cachagua Creek CA
Pine Creek PI
San Clemente Creek CL
Chupines Creek CH
Tularcitos Creek TU
Hitchcock Creek HI
Garzas Creek GA
Robinson Canyon Creek RC
Potrero Creek PO
Recording Stations
Non-recording Stations
0 1 2 3 4
SCALE IN MILES
MONTEREY PENINSULA
WATER MANAGEMENT DISTRICT
AHF 2/93

OBJECTIVE

A significant amount of surface water quantity data (primarily streamflow) has been collected and processed by the District within the Carmel River Basin and Carmel River Lagoon during Water Years 1992 through 1995. This report consolidates and finalizes these data collection efforts in summary form for the following uses related to surface water:

1. provides necessary information for current studies and programs,

2. allows further evaluation of the results of completed studies, and

3. provides baseline information to aid future investigations.

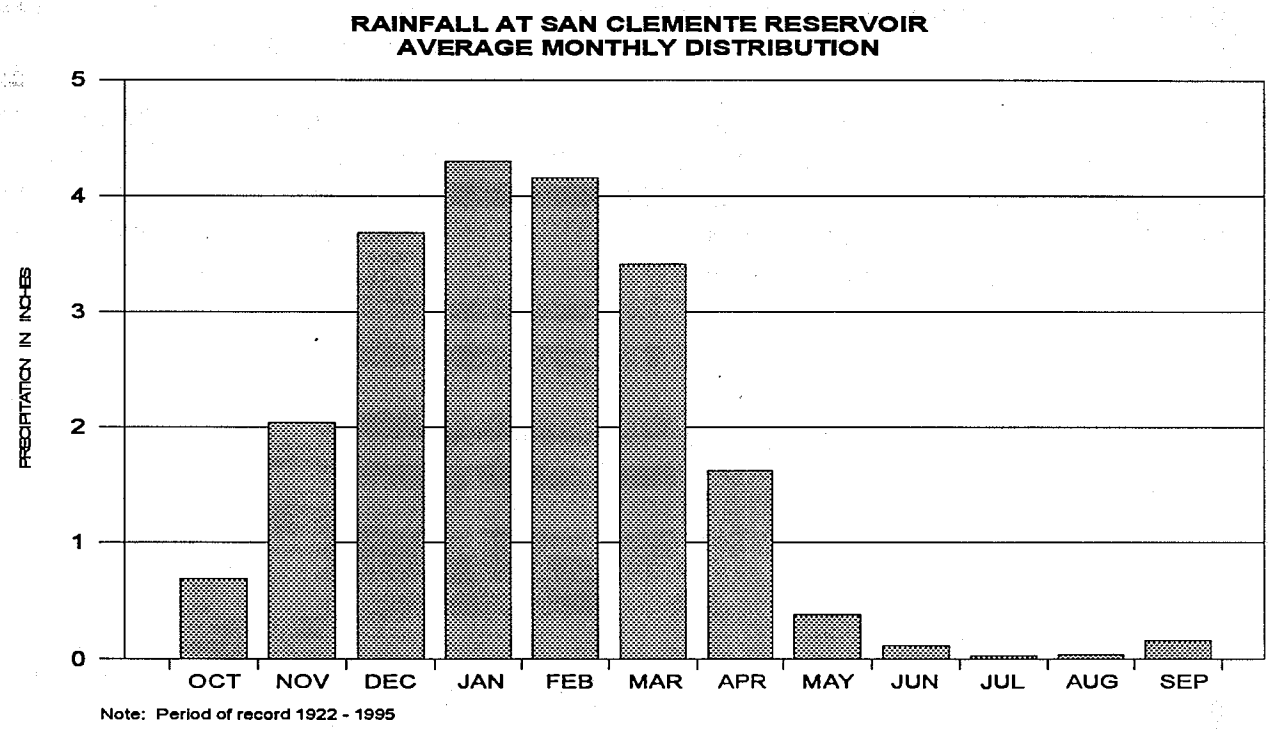
This report is divided into three major sections: Rainfall, Carmel River Basin streamflow and Carmel River Lagoon water levels. Each section provides a brief description of the data collection methods used, along with key information regarding its presentation within the appendices. This report does not include hydrologic information related to surface water quality or ground water quantity and quality. These HMP elements are available in separate documents or will be documented in future reports as additional District staff time becomes available.

SECTION II - RAINFALL

RAINFALL

The Mediterranean climate of the Carmel River Basin (basin) is generally mild, with warm, dry summers and cool, wet winters. Mean annual rainfall varies from about 16 inches at sea level to over 40 inches in the high peaks of the southern part of the basin. Rainfall occurs over the watershed primarily between November and April as illustrated **Figure II-1**. In addition, annual rainfall totals can vary significantly from year to year **(Figure II-2)**.

Figure II-1



Rainfall values included in this report and in **Appendix A** were obtained from the following non-recording (i.e., manual daily rainfall readings only) precipitation measuring sites:

1. Los Padres Reservoir
2. San Clemente Reservoir
3. Forest Lake Reservoir
4. Pacific Grove Reservoir

These sites are operated and maintained by the California-American Water Company (Cal-Am), and were selected for this report because they are readily available and reliable. It should be noted that two of these sites, Forest Lake and Pacific Grove Reservoirs are located on the Monterey Peninsula and not in Carmel Valley, and therefore do not represent rainfall conditions in the Carmel River Basin, which is the focus of this report. However, these sites are useful for comparative purposes.

Overall, rainfall over the Carmel River basin for the Water Year 1992 - 1995 period was above average. Within this period, 1992 was slightly below average, 1994 was below average, and 1993 and 1995 were above average. The chart in **Figure II-2** below illustrates this condition for the San Clemente Reservoir site, and compares these recent years to historic annual rainfall data collected at this site during the 1922 - 1995 period. Charts showing rainfall for the other three sites for the 1992 - 1995 period are provided in **Appendix A**.

It should be noted that the 1987 - 1991 period preceding this report period received below average rainfall for five consecutive years **(Figure II-2)**. The mean (average) annual rainfall index shown in this figure is 20.62 inches, which represents an average of recorded values over the 1922 - 1995 period. The District uses the San Clemente Reservoir precipitation gage to determine average rainfall figures because of its reliable long term record, and centralized location. A numerical summary of San Clemente Reservoir rainfall for the 1922 - 1995 period is presented as **Table II-1**.

Notable among monthly rainfall totals at San Clemente Reservoir is January 1995, which received 16.05 inches of rain **(see Appendix A)**. This was the highest monthly rainfall total since record keeping began at San Clemente Reservoir in 1922, and contributed to the locally severe flooding of January 10, 1995. Two months later, during the third wettest March on record, another severe flooding event occurred on March 10, 1995.

Figure II-2

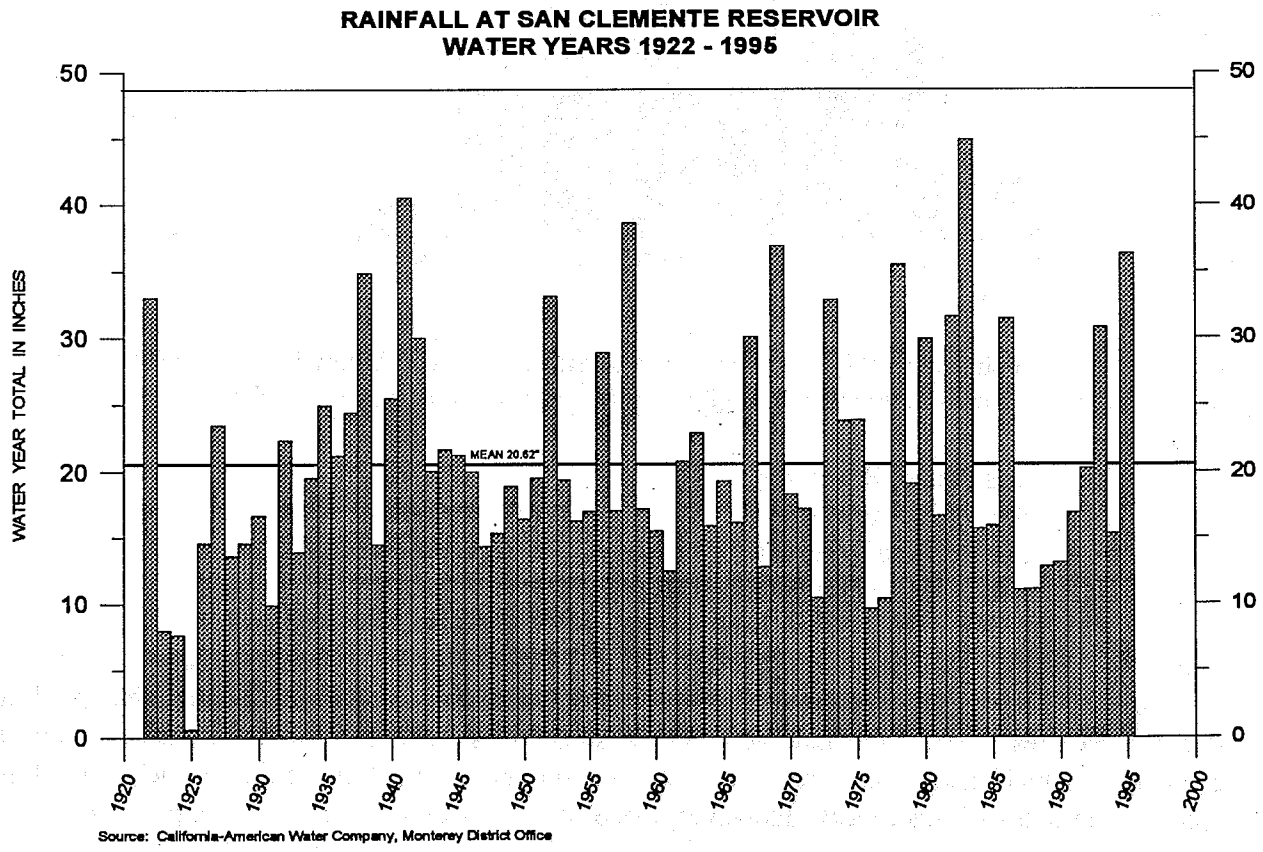


Table II-1

RAINFALL AT SAN CLEMENTE RESERVOIR: WATER YEARS 1922 - 1995
(All Values in Inches)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1922	0.00	2.60	13.55	5.45	7.65	2.75	0.60	0.45	0.00	0.00	0.00	0.00	33.05
1923	0.00	0.00	0.00	3.01	1.45	0.00	2.70	0.00	0.20	0.00	0.00	0.60	7.96
1924	0.30	0.45	1.10	2.85	0.25	2.51	0.00	0.20	0.00	0.00	0.00	0.00	7.66
1925	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
1926	0.00	0.00	0.00	3.60	6.00	0.60	4.40	0.00	0.00	0.00	0.00	0.00	14.60
1927	0.42	8.36	1.64	2.44	7.58	1.39	1.07	0.28	0.10	0.00	0.00	0.15	23.43
1928	0.80	2.10	2.83	0.88	2.43	3.58	0.96	0.05	0.00	0.00	0.00	0.00	13.63
1929	0.02	3.12	3.41	1.26	1.37	2.89	1.29	0.00	1.23	0.00	0.00	0.00	14.59
1930	0.00	0.00	0.83	5.37	3.26	4.25	1.33	1.61	0.00	0.00	0.00	0.03	16.68
1931	0.05	1.48	0.05	4.26	1.56	0.92	0.49	0.66	0.40	0.00	0.00	0.00	9.87
1932	0.02	1.75	10.26	4.32	4.69	0.80	0.14	0.36	0.00	0.00	0.00	0.00	22.34
1933	0.00	0.18	3.12	6.92	0.92	1.57	0.33	0.82	0.04	0.00	0.00	0.00	13.90
1934	1.12	0.00	8.25	3.15	5.29	0.00	0.13	0.85	0.72	0.00	0.00	0.06	19.57
1935	0.15	2.89	2.69	7.00	0.77	4.88	5.91	0.00	0.00	0.00	0.65	0.00	24.94
1936	0.37	0.81	2.01	2.66	9.97	1.68	2.46	0.48	0.34	0.43	0.00	0.00	21.21
1937	0.43	0.00	4.16	4.62	6.77	7.78	0.52	0.00	0.13	0.00	0.00	0.00	24.41
1938	0.06	1.01	6.59	3.44	13.02	8.09	2.63	0.00	0.00	0.00	0.00	0.00	34.84
1939	0.81	1.04	2.48	3.54	2.70	3.08	0.42	0.22	0.10	0.00	0.00	0.10	14.49
1940	1.04	0.37	2.38	9.20	8.96	2.32	0.60	0.27	0.00	0.00	0.00	0.31	25.45
1941	0.45	0.33	9.45	5.18	10.42	8.92	5.08	0.61	0.10	0.00	0.00	0.00	40.54
1942	1.13	1.04	10.49	5.71	2.46	3.28	4.91	1.01	0.00	0.00	0.00	0.00	30.03
1943	0.74	1.96	1.63	8.40	2.42	3.74	1.07	0.00	0.09	0.00	0.00	0.00	20.05
1944	0.74	0.36	3.33	3.94	9.28	1.00	1.94	0.75	0.32	0.00	0.00	0.00	21.66
1945	1.08	3.24	2.39	1.33	7.61	4.88	0.28	0.20	0.00	0.00	0.24	0.00	21.25
1946	2.80	2.05	7.69	0.85	2.77	3.28	0.00	0.43	0.00	0.00	0.00	0.11	19.98
1947	0.31	5.16	2.24	1.19	2.42	1.58	1.00	0.23	0.22	0.00	0.00	0.00	14.35
1948	0.79	0.67	2.36	0.05	2.48	4.38	3.86	0.62	0.15	0.00	0.00	0.00	15.36
1949	1.74	0.15	6.11	1.18	3.04	5.96	0.15	0.51	0.00	0.02	0.03	0.00	18.89
1950	0.19	1.47	1.69	6.09	2.97	2.23	1.47	0.26	0.00	0.00	0.05	0.00	16.42
1951	2.72	6.33	3.04	2.95	1.94	1.04	1.37	0.07	0.05	0.00	0.00	0.03	19.54
1952	1.44	4.01	8.36	9.80	1.61	6.82	0.80	0.22	0.00	0.00	0.00	0.07	33.13
1953	0.07	3.00	8.76	2.68	0.00	2.09	1.89	0.62	0.10	0.06	0.09	0.00	19.36
1954	0.30	2.16	0.49	4.37	3.28	4.68	0.53	0.19	0.25	0.00	0.00	0.00	16.25
1955	0.00	1.98	2.98	5.53	1.99	0.31	2.84	1.36	0.00	0.00	0.00	0.00	16.99
1956	0.03	2.24	14.94	6.59	2.25	0.51	1.60	0.48	0.00	0.00	0.00	0.21	28.85
1957	0.79	0.02	0.53	5.21	5.11	1.57	1.72	1.93	0.09	0.00	0.00	0.07	17.04
1958	1.47	0.93	3.99	4.63	9.78	7.82	8.50	0.56	0.14	0.00	0.00	0.78	38.60
1959	0.03	1.01	0.27	6.35	6.92	0.23	0.11	0.09	0.00	0.00	0.09	2.10	17.20
1960	0.00	0.00	0.64	5.12	6.64	0.83	1.91	0.33	0.00	0.00	0.00	0.05	15.52
1961	0.05	3.53	2.14	1.91	0.91	2.49	0.86	0.49	0.10	0.00	0.00	0.00	12.48
1962	0.17	2.19	1.73	2.00	11.29	2.96	0.11	0.34	0.00	0.00	0.00	0.00	20.79
1963	1.81	0.10	2.29	5.37	4.53	4.27	4.14	0.23	0.05	0.00	0.00	0.09	22.88

Table II-1 (Continued)

RAINFALL AT SAN CLEMENTE RESERVOIR: WATER YEARS 1922 - 1995
(All Values in Inches)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1964	1.32	4.33	0.46	4.00	0.46	2.70	0.77	1.38	0.17	0.00	0.00	0.30	15.89
1965	0.87	3.89	4.77	2.92	1.05	2.45	2.92	0.14	0.02	0.00	0.25	0.00	19.28
1966	0.07	6.63	4.43	2.04	1.47	0.68	0.27	0.00	0.08	0.27	0.00	0.18	16.12
1967	0.00	3.74	6.41	5.99	0.53	5.82	6.75	0.19	0.52	0.00	0.00	0.13	30.08
1968	0.27	1.13	2.49	3.36	1.01	3.15	0.81	0.43	0.12	0.00	0.02	0.00	12.79
1969	0.33	1.77	4.24	15.13	11.10	1.92	2.14	0.12	0.10	0.00	0.00	0.00	36.85
1970	0.34	0.79	3.11	7.00	2.30	3.80	0.81	0.07	0.04	0.00	0.00	0.00	18.26
1971	0.11	5.68	6.62	1.20	0.53	1.49	1.21	0.15	0.00	0.00	0.04	0.17	17.20
1972	0.24	1.43	5.56	1.19	0.98	0.01	0.89	0.08	0.02	0.00	0.00	0.03	10.43
1973	2.85	5.79	2.66	7.59	9.20	4.38	0.29	0.02	0.00	0.00	0.00	0.07	32.85
1974	1.81	3.92	4.31	4.80	0.40	6.34	2.03	0.00	0.11	0.07	0.00	0.00	23.79
1975	1.79	0.81	3.57	0.65	6.88	8.20	1.66	0.02	0.04	0.07	0.12	0.00	23.81
1976	1.31	0.73	0.33	0.08	1.26	2.54	1.46	0.05	0.18	0.00	1.05	0.63	9.62
1977	1.57	0.60	1.85	2.45	0.41	1.85	0.00	1.11	0.08	0.00	0.00	0.48	10.40
1978	0.02	0.40	5.68	9.99	8.36	7.06	3.59	0.09	0.00	0.00	0.00	0.29	35.48
1979	0.00	2.51	1.41	5.72	4.32	4.35	0.38	0.26	0.00	0.12	0.03	0.00	19.10
1980	1.01	2.14	3.87	5.22	10.89	2.89	2.55	0.42	0.00	0.95	0.00	0.00	29.94
1981	0.02	0.04	2.76	7.09	1.29	4.95	0.49	0.00	0.00	0.00	0.00	0.00	16.64
1982	2.91	5.65	2.20	7.45	1.72	5.19	4.58	0.03	0.42	0.00	0.00	1.45	31.60
1983	1.96	5.15	6.69	8.10	5.86	11.16	4.11	0.21	0.25	0.00	0.17	1.25	44.91
1984	0.41	4.46	7.69	0.12	1.63	0.81	0.52	0.00	0.03	0.00	0.00	0.00	15.67
1985	0.98	5.77	1.86	0.75	1.72	4.20	0.51	0.09	0.01	0.00	0.00	0.03	15.92
1986	0.72	4.41	1.36	2.61	11.46	8.10	1.42	0.25	0.00	0.05	0.00	1.09	31.47
1987	0.00	0.53	0.98	2.19	4.05	2.65	0.36	0.26	0.00	0.00	0.00	0.00	11.02
1988	1.13	0.76	4.37	1.87	0.58	0.11	1.64	0.51	0.10	0.00	0.00	0.00	11.07
1989	0.00	1.42	4.18	1.37	1.84	2.24	0.60	0.35	0.00	0.00	0.00	0.80	12.80
1990	1.17	1.23	0.08	3.19	3.61	1.82	0.58	1.06	0.00	0.00	0.00	0.35	13.09
1991	0.00	0.42	1.99	0.18	2.11	11.38	0.30	0.45	0.01	0.00	0.03	0.00	16.87
1992	1.03	0.37	4.36	2.69	9.04	2.76	0.01	0.00	0.00	0.00	0.00	0.00	20.26
1993	0.72	0.05	5.75	12.12	8.58	2.19	0.45	0.37	0.55	0.00	0.00	0.00	30.78
1994	0.11	2.15	1.46	2.41	5.58	0.49	1.99	1.06	0.04	0.00	0.00	0.28	15.57
1995	0.83	2.15	1.57	16.05	0.67	10.88	1.53	1.44	0.97	0.20	0.00	0.00	36.29

SUMMARY STATISTICS FOR WATER YEARS 1922 -1995

MEAN	0.69	2.04	3.68	4.30	4.16	3.41	1.62	0.38	0.12	0.03	0.04	0.17	20.62
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
MAX	2.91	8.36	14.94	16.05	13.02	11.38	8.50	1.93	1.23	0.95	1.05	2.10	44.91
STDEV	0.76	1.97	3.15	3.26	3.54	2.79	1.72	0.43	0.22	0.13	0.15	0.37	8.79

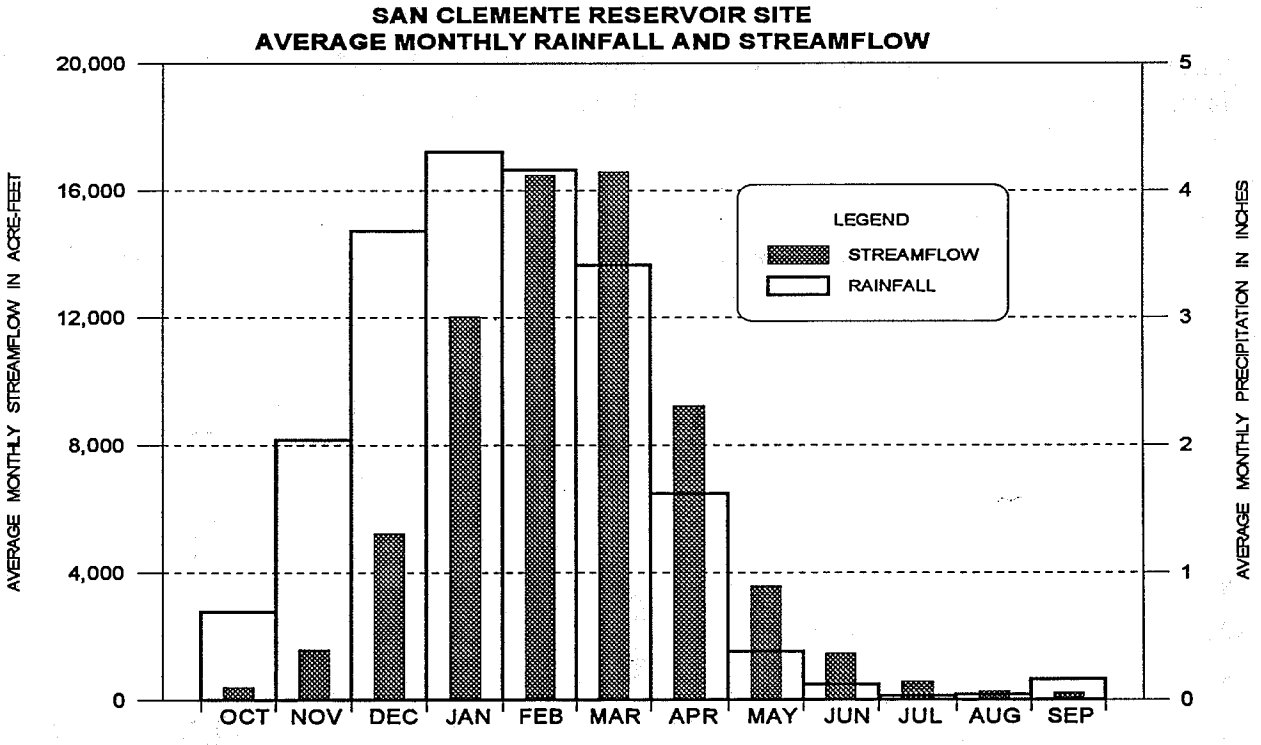
SOURCE: CALIFORNIA-AMERICAN WATER COMPANY

SECTION III - CARMEL RIVER BASIN STREAMFLOW

GENERAL

Although the first significant rains of the season typically begin in November, streamflow resulting from these rains normally does not occur until December or January. Fall rains replenish soils that have dried out during the summer, and consequently little runoff occurs during this period. During the fall of each year, most of the Carmel River tributaries are dry at their confluence with the river. In addition, the lower reaches of the Carmel River are dry at this time. By December or January, winter rains begin to run off saturated soils and basin streamflow significantly increases. Monthly streamflow is typically the highest during the January through March period, as soils are wet and rainstorms pass through the region on a consistent basis. **Figure III-1** relates rainfall to streamflow and illustrates fall rains (October - December), having a minimal effect on streamflow as rains soak into dry soil. Later in the season (February - May), saturated soil conditions reverse this pattern, as a higher percentage of rain runs off into the river enhancing streamflow. In addition, water stored in the soil from winter rains seeps back into the river, also contributing to streamflow.

Figure III-1



Note: Rainfall averages obtained from Table II-1.
Streamflow averages based on unimpaired flows for the 1902-1992 period simulated by MPWMD.

OVERVIEW: WATER YEARS 1992 - 1995

Overall, streamflow within the Carmel River Basin for the Water Year 1992 - 1995 period was above average. Within this period, 1992 and 1994 were below average and 1993 and 1995 were above

average. **Table III-1** highlights the runoff classification for Water Years 1992 - 1995. In addition, this above average four-year period, immediately followed a drought period consisting of five consecutive "dry" or "critically dry" years (i.e., significantly below average; see **Table III-2)**. Refer to **Table III-2** for a more complete tabulation of historic runoff classification at the San Clemente Reservoir site.

Table III-1

CLASSIFICATION OF UNIMPAIRED CARMEL RIVER FLOWS AT SAN CLEMENTE DAM SITE: WATER YEARS 1992 - 1995

Water Year	Runoff (acre-feet)	Classification
1992	41,777	Below Normal
1993	114,725	Wet
1994	17,925	Dry
1995	155,334	Extremely Wet
	68,700	Average (1902 - 1995)

The runoff classifications are based on selected exceedence frequency values computed for the long-term reconstructed flow record at the San Clemente Reservoir site for Water Years 1902 - 1992. **Figure III-2** illustrates the runoff values presented in **Table III-2**.

Figure III-2

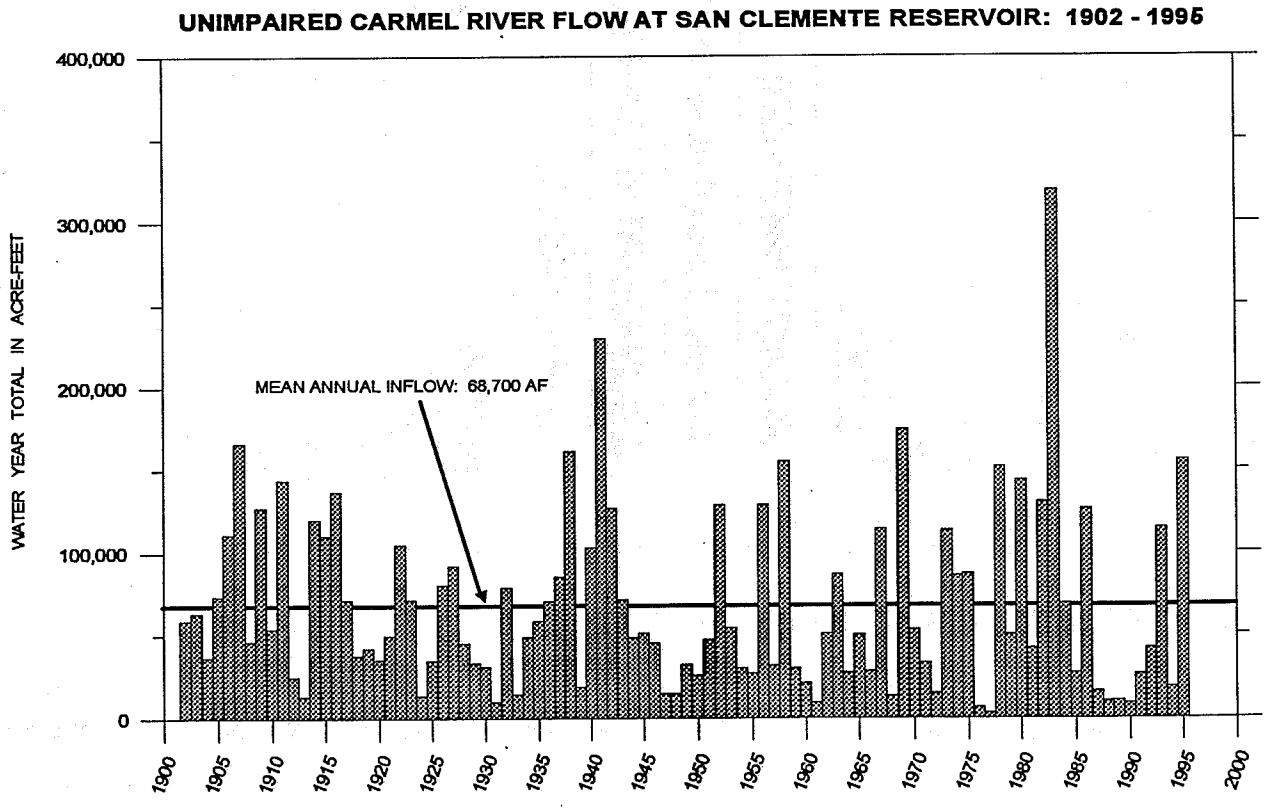


Table III-2

Monterey Peninsula Water Management District

CLASSIFICATION OF UNIMPAIRED CARMEL RIVER FLOWS AT SAN CLEMENTE DAM SITE (RUNOFF IN ACRE-FEET)

Water Year	Runoff	Classification
1902	58,872	Above Normal
1903	63,516	Above Normal
1904	36,704	Below Normal
1905	73,489	Above Normal
1906	111,242	Wet
1907	166,057	Extremely Wet
1908	46,177	Below Normal
1909	127,394	Wet
1910	53,977	Above Normal
1911	143,892	Extremely Wet
1912	24,611	Dry
1913	12,933	Critically Dry
1914	120,075	Wet
1915	110,110	Wet
1916	136,932	Extremely Wet
1917	71,580	Above Normal
1918	37,917	Below Normal
1919	42,107	Below Normal
1920	35,198	Below Normal
1921	49,583	Below Normal
1922	104,977	Wet
1923	71,493	Above Normal
1924	13,304	Critically Dry
1925	34,626	Below Normal
1926	80,608	Above Normal
1927	92,274	Above Normal
1928	45,261	Below Normal
1929	33,188	Below Normal
1930	30,988	Below Normal
1931	9,988	Critically Dry
1932	79,097	Above Normal
1933	14,383	Critically Dry
1934	49,058	Below Normal
1935	58,486	Above Normal
1936	70,684	Above Normal
1937	85,456	Above Normal
1938	161,366	Extremely Wet
1939	18,297	Dry
1940	102,907	Above Normal
1941	229,468	Extremely Wet
1942	126,930	Wet
1943	71,489	Above Normal
1944	48,730	Below Normal
1945	51,264	Above Normal
1946	44,886	Below Normal
1947	14,743	Critically Dry
1948	14,703	Critically Dry
1949	31,955	Below Normal
1950	25,543	Dry
1951	47,061	Below Normal
1952	128,995	Wet
1953	54,446	Above Normal
1954	29,467	Below Normal
1955	26,496	Dry
1956	128,805	Wet
1957	31,002	Below Normal
1958	154,843	Extremely Wet
1959	29,702	Below Normal
1960	20,780	Dry
1961	9,278	Critically Dry
1962	50,942	Above Normal
1963	86,582	Above Normal
1964	26,977	Dry
1965	49,941	Below Normal
1966	27,892	Below Normal
1967	114,304	Wet
1968	13,177	Critically Dry
1969	174,213	Extremely Wet
1970	53,112	Above Normal
1971	32,707	Below Normal
1972	14,680	Critically Dry
1973	113,269	Wet
1974	86,102	Above Normal
1975	87,211	Above Normal
1976	6,358	Critically Dry
1977	2,855	Critically Dry
1978	151,421	Extremely Wet
1979	50,087	Above Normal
1980	143,395	Extremely Wet
1981	41,445	Below Normal
1982	130,522	Extremely Wet
1983	318,987	Extremely Wet
1984	69,179	Above Normal
1985	26,611	Dry
1986	125,911	Wet
1987	15,551	Dry
1988	10,083	Critically Dry
1989	10,248	Critically Dry
1990	8,606	Critically Dry
1991	25,965	Dry
1992	41,777	Below Normal
1993	114,725	Wet
1994	17,925	Dry
1995	155,334	Extremely Wet

Notes:

1. Runoff classifications are based on selected exceedence frequency values computed for the long-term reconstructed flow record at the San Clemente Dam site for Water Years 1902-1992. "Extremely Wet" refers to flows exceeded 12.5% of the time, "Wet" refers to flows exceeded between 12.5% and 25% of the time; "Above Normal" refers to flows exceeded between 25% and 50% of the time; "Below Normal" refers to flows exceeded between 50% and 75% of the time; "Dry" refers to flows exceeded between 75% and 87.5% of the time; and "Critically Dry" refers to flows exceeded less than 87.5% percent of the time.
2. Outlined cells indicate two or more consecutive dry or critically-dry years and are defined as hydrologic droughts.
3. Runoff values for Water Years 1902-1992 were reconstructed by the Monterey Peninsula Water Management District; runoff values for Water Years 1993-1995 were computed by the California-American Water Company.

STATION DESCRIPTIONS

This section describes the 15 recording and non-recording gaging stations that are presented in the discharge measurement summary portion of this report. The station descriptions are provided in **Appendix B**, and are arranged in downstream order. Station descriptions consolidate key, site specific information relevant to a particular gaging station, and allow an overview of the site.

The station descriptions are based on the United States Geological Survey (USGS) Water Resources Division Form 9-277. Items which have been left blank on the station descriptions were either not available at the time of this publication or are not applicable.

DISCHARGE MEASUREMENT SUMMARIES

To compute continuous records of streamflow or document instantaneous flow conditions, it is necessary to collect streamflow measurements and stage readings. District streamflow measurements are collected by the "current meter" method using either a "pygmy" meter for low flows, or a "AA" meter for moderate to high flows. Both of these meters meet USGS meter specifications. A summary of these measurements at each station are contained in **Appendix C**, and are listed in downstream order.

Streamflow measurements are obtained at the gage site either by attaching the meter to a wading rod and wading the stream, or in flows too swift to wade, measurements are obtained by suspending the current meter off a bridge using a bridge crane or bridge board. In general, the "0.6 method" of velocity measurement is used which involves setting meter six-tenths of the total measured depth below the water surface, before recording velocities. The streamflow measurement methodology used by the District is described in various technical documents, most importantly in Techniques of Water-Resources Investigations (TWI) of the U.S. Geological Survey, TWI 3 A8, Discharge Measurements at Gaging Stations (USGS, 1969).

Discharge measurements obtained in the field are computed at the District office using spreadsheet software, and are input into the District's streamflow measurement database which produces the summary reports included in this document. With a few exceptions explained below, most of the headings in these reports are self-explanatory. The "time" column of the summary sheet represents the beginning time of the streamflow measurement. The "rating" of the measurement is designated good, fair or poor. These ratings are somewhat qualitative, but in general, a 25-section measurement with fairly uniform flow, where the highest partial section flow is approximately five percent of the total measured flow is considered "good". A "poor" rating is given to a measurement obtained with irregular velocities within the cross section, with the highest partial section of flow being greater than 10 percent of the total flow. A low flow measurement when only several sections were obtained would be considered "poor". Most of the District's streamflow measurements were rated "fair to good".

COMPUTED MEAN-DAILY DISCHARGE TABLES AND PLOTS

Computed mean daily discharge tables and plots are presented in **Appendix D**, and are arranged in downstream order. Daily discharge figures in cubic feet per second (cfs) in these tables represent the average flow rate for the day indicated. The daily discharge tables indicate a continuous record of streamflow at a station for all days of the year. This complete record is much more useful than merely obtaining instantaneous measurements, because there are no gaps in the flow records.

In order to compute daily streamflow records at a gaging station, a continuous record of stage at the site must be collected. In addition, individual measurements of discharge over a range of stages as well as notations of factors that may affect the stage-discharge relationship must be collected. Continuous records of stage at District gaging stations are obtained using pressure transducer and data recorder systems or graphic recorder and float systems as indicated in **Table III-3**.

Table III-3

CONTINUOUS WATER LEVEL RECORDING TECHNOLOGY USED AT DISTRICT GAGING STATIONS

Cachagua Creek	Pressure Transducer/Datalogger
Pine Creek	Pressure Transducer/Datalogger
San Clemente Creek	Pressure Transducer/Datalogger
Carmel River at Sleepy Hollow Weir	Float/Graphic Recorder
Tularcitos Creek	Float/Graphic Recorder
Hitchcock Creek	Pressure Transducer/Datalogger
Garzas Creek	Float/Graphic Recorder
Carmel River at Don Juan Bridge	Float/Graphic Recorder
Robinson Creek	Pressure Transducer/Datalogger
Potrero Creek	Pressure Transducer/Datalogger
Carmel River at Highway 1 Bridge	Pressure Transducer/Datalogger
Carmel River Lagoon	Pressure Transducer/Datalogger

In computing discharge records, results of individual measurements (stage and discharge) are plotted on logarithmic paper and a stage-discharge relation curve is constructed. From these curves, rating tables are produced which indicate the approximate discharge for any given stage within the range of measurements. Mean daily discharges are then computed by applying the daily mean stages (gage heights) to the stage-discharge tables. Typically, the stage-discharge relation varies due to changes in the channel at the gage from scour, deposition, aquatic vegetation growth, channel clearing, etc. These changes are accounted for by using the "shifting control" method prior to final record computation. These "shift" adjustments are applied to the gage heights before discharge figures are determined from the curves or tables. Other adjustments to the continuous-stage data include "datum adjustments" that are used to correct recorded-stage values to stage values observed at the staff gage.

The District utilizes a specialized software program to process continuous streamflow records (Western Hydrologic Systems, 1991).

For some gaging stations, there are periods when no continuous gage height record was obtained, and it is necessary to estimate (e) the daily discharge. Stage record is lost when a recorder malfunctions, when intakes are plugged, or for various other reasons. When this occurs, daily discharges are estimated using, comparison with other station records from nearby sub-basins, weather records, discharge measurements, stage readings, or other methods.

Accompanying each daily discharge record included in **Appendix D**, is a hydrograph based on daily values in the associated table. These hydrographs are plotted using a logarithmic (log) Y-axis and a linear X-axis. This is a standard procedure for plotting discharge hydrographs as it allows a wide range of discharge values (i.e. 0.10 to 1,000 cfs) to be plotted and still show definition throughout the range of flow. Because the number zero cannot be plotted on a log scale, periods of no flow must plot as 0.01, the lowest discharge value indicated in these reports. If the reader has uncertainty whether a plotted value is zero or 0.01 cfs, the associated daily discharge table should be referenced.

It should be noted that, in addition to the District gaging stations, there are two USGS stations where continuous streamflow records are maintained:

1. Carmel River at Robles del Rio, and
2. Carmel River near Carmel.

These data are available in separate USGS reports titled: USGS Water Resources Data - California, Volume 2, Surface Water. The period of record for the "Robles del Rio" site is 1958 - present, and 1963 - present for the "near Carmel" site. Refer to **Figure I-2** for the location of these sites. In addition, suspended and bedload sediment data are available in these reports for the "near Carmel" site beginning with Water Year 1992 through the present.

SUMMARY OF ANNUAL FLOWS

An annual summary of streamflow for the 1992 - 1995 period at both District and USGS stations is provided in **Table III-4**. As indicated in the table, San Clemente Creek consistently contributed the highest volume of tributary inflow to the Carmel River over the period. Also, it is evident that tributary inflow to the river is not necessarily a function of drainage area. For example, Tularcitos Creek, the largest tributary, ranked fifth in flow contribution to the Carmel River, over the period. In contrast, Pine Creek with a relatively small drainage area, is one of the major contributors of flow to the river. Notable among the mainstem sites, are the streamflow losses that occur during a dry year such as 1994, downstream of the "Don Juan Bridge" site.

Table III-4

CARMEL RIVER BASIN - ANNUAL STREAMFLOW SUMMARY
WATER YEARS 1992 - 1995
(Values in Acre-Feet)

TRIBUTARY SITES	DRAINAGE AREA (Square Miles)	WY 1992	WY 1993	WY 1994	WY 1995
CACHAGUA CREEK	46.3	1,780	7,340	560	16,320
PINE CREEK	7.8	3,750	9,800	1,230	11,110
SAN CLEMENTE CREEK	15.6	5,450	17,070	1,820	20,580
TULARCITOS CREEK	56.3	635	3,220	444	5,100
HITCHCOCK CREEK	4.6	*	*	52	1,820
GARZAS CREEK	13.2	3,700	11,170	746	12,140
ROBINSON CANYON CREEK	5.4	619	2,360	89	2,230
POTRERO CREEK	5.2	*	*	30	1,790
MAINSTEM SITES	DRAINAGE AREA (Square Miles)	WY 1992	WY 1993	WY 1994	WY 1995
CARMEL RIVER AT ROBLES DEL RIO	193	38,240	109,000	11,800	155,000
CARMEL RIVER AT DON JUAN BRIDGE	216	*	122,000	12,760	173,600
CARMEL RIVER NEAR CARMEL	246	35,570	123,400	8,200	177,400
CARMEL RIVER AT HIGHWAY 1 BRIDGE	252	*	123,000	7,410	179,500

Notes: 1. (*) No continuous stage data collected.
2. Streamflow sites listed in downstream order.

SUMMARY OF PEAK FLOWS

A summary of peak flows at the District's gaging stations for the report period is provided in **Table III-5**. The instantaneous peak flow or discharge (Q) corresponds to the highest stage (GHT) that occurred during a given storm. It is equivalent to "crest" stage of a flood event. While daily discharge values represent the mean (average) discharge over a 24 hour period, the instantaneous peak is the moment in time during a stormflow when the stream reached its highest level (and discharge) before receding.

Peak flows reported in **Table III-5** are obtained from the "primary computation of gage height and discharge" reports generated using the Western Hydrologic Systems software program. The peak stage during a stormflow may be obtained by the recorder, crest stage gage or survey of high water marks at the gaging station. Peak flow rates can be determined by either extending the station rating curve beyond the high flow range of measurements, or by a slope-area channel survey after the event to indirectly determine the peak flow. It is rare to obtain an actual discharge measurement at the peak stage.

SUMMARY OF INSTANTANEOUS PEAK FLOWS
AT DISTRICT STREAMFLOW GAGING STATIONS
WATER YEARS 1992 - 1995

WATER YEAR 1992

STATION	DATE	TIME	GHT	Q
CACHAGUA CREEK	February 12, 1992	0315	6.34	353
	February 15, 1992	0035	5.98	257
PINE CREEK	February 12, 1992	1100	2.12	119
	February 15, 1992	0000	2.55	193
SAN CLEMENTE CREEK	February 12, 1992	0830	4.01	210
	February 14, 1992	2300	5.60	674
TULARCITOS CREEK	February 15, 1992	0245	5.78	220
GARZAS CREEK	February 12, 1992	0210	4.40	343
	February 14, 1992	2200	5.72	701
ROBINSON CANYON CREEK	February 14, 1992	2345	2.68	336

WATER YEAR 1993

CACHAGUA CREEK	January 13, 1993	2230	7.02	641
	January 17, 1993	1130	6.10	311
	February 1993	*	*	*
PINE CREEK	January 13, 1993	0500	2.66	213
	January 14, 1993	0400	3.29	372
SAN CLEMENTE CREEK	January 13, 1993	0630	4.68	402
	January 14, 1993	0430	6.71	1,010
	February 19, 1993	0815	5.38	606
TULARCITOS CREEK	January 13, 1993	0440	5.29	160
	January 17, 1993	1205	5.28	158
	February 19, 1993	2335	5.82	244
	February 25, 1993	2125	5.28	151
GARZAS CREEK	January 13, 1993	0425	5.36	590
	January 14, 1993	0435	5.56	650
	February 19, 1993	0800	4.80	437

* Data not available

SUMMARY OF INSTANTANEOUS PEAK FLOWS
AT DISTRICT STREAMFLOW GAGING STATIONS
WATER YEARS 1992 - 1995

WATER YEAR 1993

STATION	DATE	TIME	GHT	Q
ROBINSON CANYON CREEK	January 13, 1993	0440	2.78	391
	January 14, 1993	0505	2.52	309
	January 17, 1993	1020	2.62	336
	February 19, 1993	0550	3.40	*
CARMEL RIVER AT DON JUAN BRIDGE	January 13, 1993	0845	11.74	4,730
	January 14, 1993	0710	12.35	5,650
	Febuary 19, 1993	1035	10.30	3,210
CARMEL RIVER AT HIGHWAY 1 BRIDGE	January 13, 1993	1245	10.26	3,790
	January 14, 1993	1000	11.74	5,130
	February 19, 1993	1300	9.45	3,140

WATER YEAR 1994

CACHAGUA CREEK	February 19, 1994	2100	5.02	41
PINE CREEK	February 19, 1994	2200	1.68	64
SAN CLEMENTE CREEK	February 19, 1994	2145	3.70	146
TULARCITOS CREEK	February 19, 1994	2315	3.46	7
HITCHCOCK CREEK	February 19, 1994	2030	0.93	20
GARZAS CREEK	February 19, 1994	2055	3.60	168
ROBINSON CANYON CREEK	February 19, 1994	1930	4.05	65
POTRERO CREEK	February 19, 1994	2030	2.27	17
CARMEL RIVER AT DON JUAN BRIDGE	February 20, 1994	0425	7.51	693
CARMEL RIVER AT HIGHWAY 1 BRIDGE	February 20, 1994	0845	4.90	614

* Data not available

SUMMARY OF INSTANTANEOUS PEAK FLOWS
AT DISTRICT STREAMFLOW GAGING STATIONS
WATER YEARS 1992 - 1995

WATER YEAR 1995

STATION	DATE	TIME	GHT	Q
CACHAGUA CREEK	January 10, 1995	0100	8.61	1,310
	March 10, 1995	*	12.00	4,991
PINE CREEK	January 9, 1995	2330	4.09	656
	March 10, 1995	1115	4.10	990
	March 23, 1995	0145	2.37	130
SAN CLEMENTE CREEK	January 9, 1995	2330	7.92	1,470
	March 10, 1995	1200	7.82	1,430
	March 23, 1995	0000	4.79	434
TULARCITOS CREEK	January 10, 1995	1855	6.57	245
	March 10, 1995	1230	9.94	967
	March 23, 1995	0120	5.98	206
HITCHCOCK CREEK	January 9, 1995	2215	4.86	170
	January 10, 1995	1615	4.81	167
	March 10, 1995	1415	7.05	543
GARZAS CREEK	January 10, 1995	0355	7.98	1,270
	January 24, 1995	0800	4.04	279
	March 10, 1995	1355	9.28	1,640
	March 23, 1995	0000	4.39	307
ROBINSON CANYON CREEK	January 9, 1995	2200	6.14	388
	March 10, 1995	1515	6.91	617
	March 22, 1995	2230	5.42	227
POTRERO CREEK	January 9, 1995	2345	3.44	218
	March 10, 1995	1600	4.85	490
	March 23, 1995	0030	3.38	211
CARMEL RIVER AT DON JUAN BRIDGE	January 10, 1995	0500	14.80	10,400
	January 24, 1995	1125	9.66	2,520
	March 10, 1995	1710	16.86	15,800
	March 23, 1995	0205	10.50	3,220
CARMEL RIVER AT HIGHWAY 1 BRIDGE	January 10, 1995	0845	15.83	9,810
	January 24, 1995	1330	7.94	2,520
	March 10, 1995	*	*	*
	March 23, 1995	*	*	*

* Data not available

SECTION IV - CARMEL RIVER LAGOON

Data plots presented in this section have been completed as part of the District's Five-Year Mitigation Program, which encompasses the Lagoon Vegetation and Wildlife Program. The primary goal of the Lagoon Vegetation and Wildlife Program is to identify feasible measures to quantify and understand changes to the vegetation and wildlife at the lagoon. Ongoing, data collection efforts related to this goal include monitoring of lagoon vegetation and wildlife, water quality, topography, sediment transport, river inflow and water surface elevation. This section presents data specific to lagoon water surface elevation and lagoon bathymetry at established cross sections.

LAGOON WATER SURFACE ELEVATION PLOTS

Continuous lagoon water surface elevation plots are presented in **Appendix E**. These data have been collected using a pressure transducer/data recorder system that was initially installed November 1987 in the south arm of the lagoon to measure water level fluctuations **(Figure IV-1)**. The original instrumentation and installation was upgraded in November 1993, and was added to the Monterey County Water Resources Agency's (MCWRA) ALERT system in November 1995 to enhance flood warning for residents located along the northern margin of the lagoon and wetland. Accuracy of recorded data is verified by manual staff gage readings taken at the site. Data collected at the site are downloaded by laptop computer on a monthly basis and monthly plots are constructed using spreadsheet software.

The plots in **Appendix E** cover the period August 7, 1991 through September 30, 1995, except for one period of lost record between February 20 - May 7, 1992, after an unusually high lagoon level (approximately 10 feet) inundated the recorder. The date of this inundation is unknown, and recording equipment was not reinstated until May 8, 1992. Other than this one period, the record is complete.

As may be noted in some of the plots, the lowest lagoon levels are truncated in the plots at approximately 2.3 feet. This occurs when the lagoon level drops below the elevation of the pressure transducer (i.e., the water level sensor). It is believed that the lagoon level during this reporting period rarely dropped below 2.3 feet, since the lowest staff gage reading ever obtained during the period was approximately 2.4 feet. This hydraulic communication problem at the gage was corrected in June 1996 by lowering the sensor.

Most of the lagoon water level fluctuations shown in **Appendix E** result from the interaction of natural phenomena including ocean tides, river inflow, lagoon mouth closures/openings, evapo-transpiration, seepage, etc. However, in years when significant streamflow reaches the lagoon for the first time each rainy season, the Monterey County Public Works Department must artificially breach the lagoon mouth using bulldozers, to avoid flooding of homes bordering the north side of the lagoon. **Table IV-1** summarizes these emergency breaching events, and where they appear in **Appendix E**. For additional information regarding the interpretation of these plots, the reader is referred to District Technical Memorandum 94-05, Surface Water Dynamics at the Carmel River Lagoon Water Years 1991 through 1994 (James, 1994).

Table IV-1

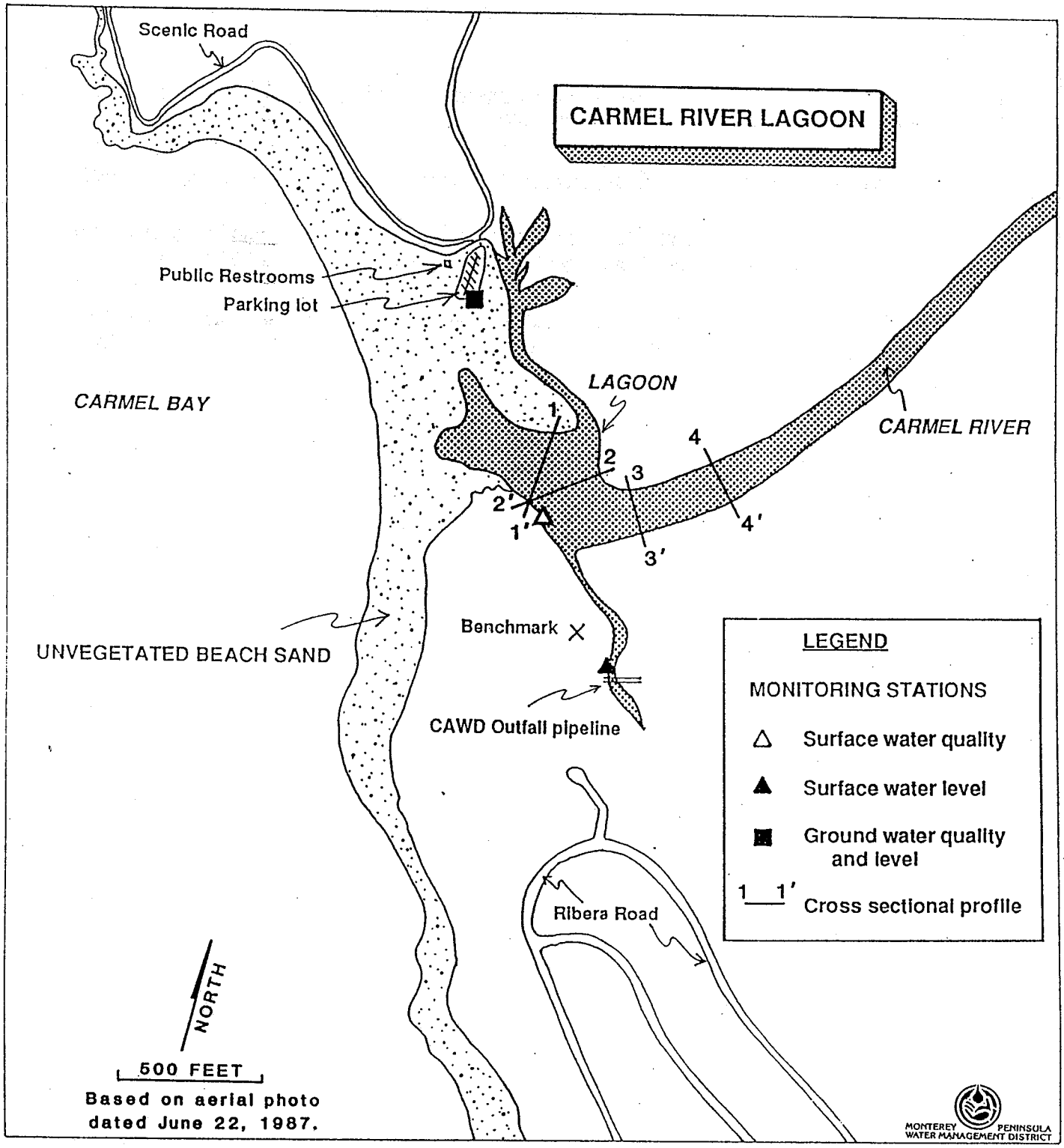
EMERGENCY BREACHING OF THE CARMEL RIVER LAGOON MOUTH BY THE MONTEREY COUNTY PUBLIC WORKS DEPARTMENT

Water Year	Date of Breaching	Figure in Appendix E
1992	February 11, 1992	Figure E-2
1993	January 3, 1993	Figure E-5
1994	February 17, 1994	Figure E-10
1995	January 9, 1995	Figure E-14

LAGOON CROSS SECTIONAL PLOTS

Lagoon cross sectional plots are presented in **Appendix E**. In January 1988, District staff selected four cross section sites at the lagoon to monitor changes in the substrate **(Figure IV-1)**. During a lagoon topographic survey by District staff in Fall 1994, these cross sections were re-surveyed using a total station surveying instrument, and established on the California Coordinate System, Zone 3 to facilitate consistency in future surveys. Between September 1994, when the cross sections were surveyed for the second time, and June 1995, the most recent survey, approximately 175,000 acre-feet of water flowed over these cross sections. This flow included two major floods on January and March 10, 1995. The plots clearly indicate significant scour of sand at all four of the cross sections, presumably due to the high flows that occurred during this extremely wet year **(Appendix E)**. It is planned that these cross sections will be surveyed at least annually to identify long term changes in lagoon volume.

Figure IV-1


Scenic Road
CARMEL RIVER LAGOON
Public Restrooms
Parking lot
CARMEL BAY
LAGOON
CARMEL RIVER
1
2
3
4
2'
1'
3'
4'
Benchmark
UNVEGETATED BEACH SAND
CAWD Outfall pipeline
LEGEND
MONITORING STATIONS
Surface water quality
Surface water level
Ground water quality and level
1 1' Cross sectional profile
Ribera Road
NORTH
500 FEET
Based on aerial photo dated June 22, 1987.
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

SECTION V - REFERENCES CITED

1. Monterey Peninsula Water Management District, Evaluation of MPWMD Five-Year Mitigation Program 1991-1996, October 1996.

2. U. S. Geological Survey, Discharge Measurements at Gaging Stations, Techniques of Water-Resources Investigations, Book 3, Chapter A-8, 1969.

3. Western Hydrologic Systems, Computation of Surface Water Records, Auburn, CA, 1991.

4. U. S. Geological Survey, Water Resources Data, California, Volume 2, Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley, Water Years 1958 - 1995.

5. G. W. James, Surface Water Dynamics at the Carmel River Lagoon Water Years 1991 through 1994, Technical Memorandum 94-05, Monterey Peninsula Water Management District, May 1994.

APPENDIX A

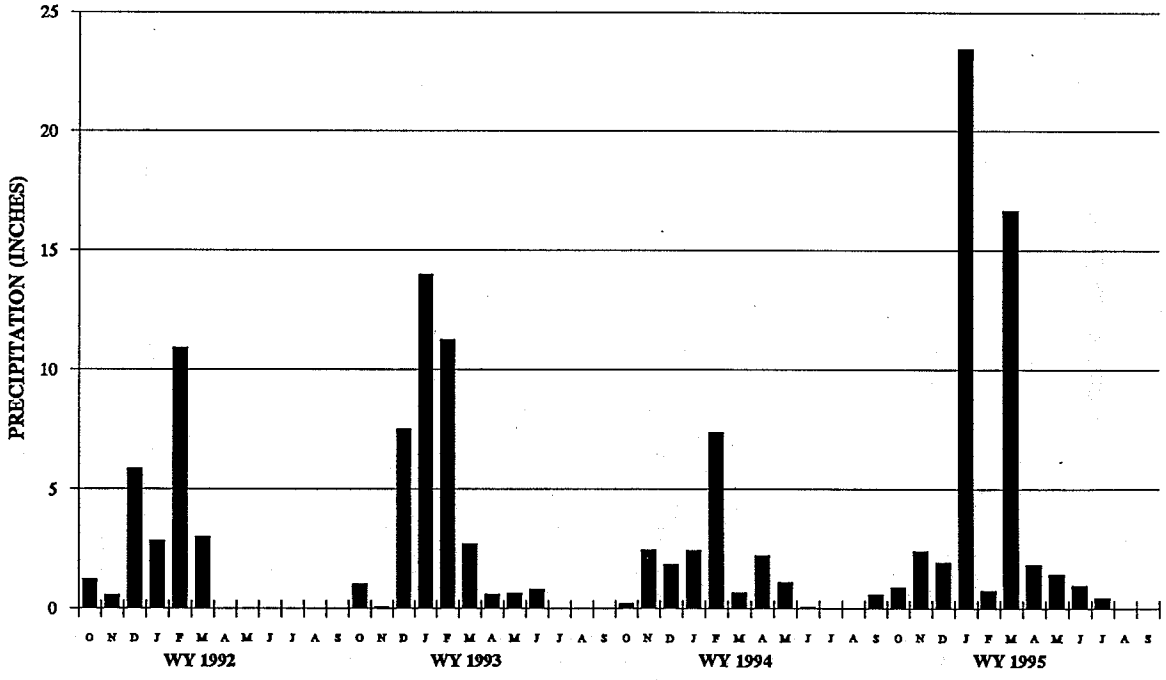
Table A-1

LOS PADRES RESERVOIR RAINFALL
WATER YEARS 1992 - 1995

(Values in Inches)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1992	1.25	0.58	5.87	2.85	10.92	3.00	0.00	0.00	0.00	0.00	0.00	0.00	24.47
1993	1.02	0.06	7.52	14.00	11.25	2.72	0.60	0.64	0.82	0.00	0.00	0.00	38.63
1994	0.23	2.47	1.86	2.44	7.39	0.68	2.24	1.10	0.06	0.00	0.00	0.60	19.07
1995	0.88	2.42	1.93	23.44	0.76	16.65	1.84	1.45	0.98	0.46	0.00	0.00	50.81

Figure A-1



Source: California-American Water Company, Monterey Division

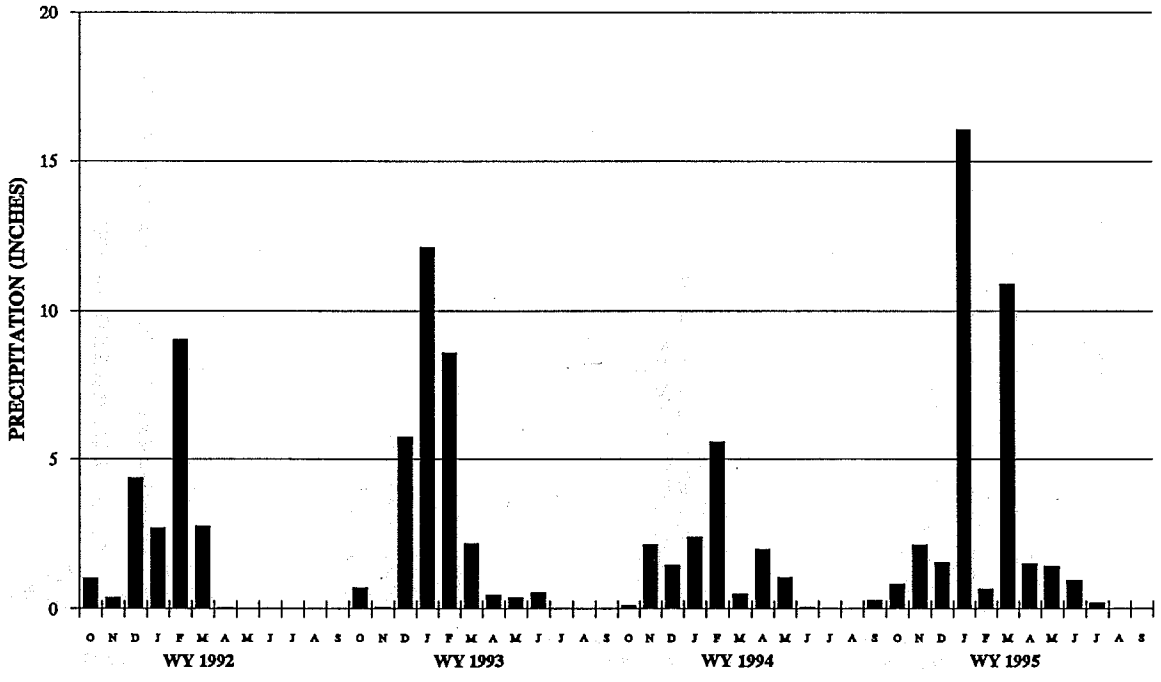
Table A-2

SAN CLEMENTE RESERVOIR RAINFALL
WATER YEARS 1992 - 1995

(Values in Inches)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1992	1.03	0.37	4.36	2.69	9.04	2.76	0.01	0.00	0.00	0.00	0.00	0.00	20.26
1993	0.72	0.05	5.75	12.12	8.58	2.19	0.45	0.37	0.55	0.00	0.00	0.00	30.78
1994	0.11	2.15	1.46	2.41	5.58	0.49	1.99	1.06	0.04	0.00	0.00	0.28	15.57
1995	0.83	2.15	1.57	16.05	0.67	10.88	1.53	1.44	0.97	0.20	0.00	0.00	36.29

Figure A-2



Source: California-American Water Company, Monterey Division

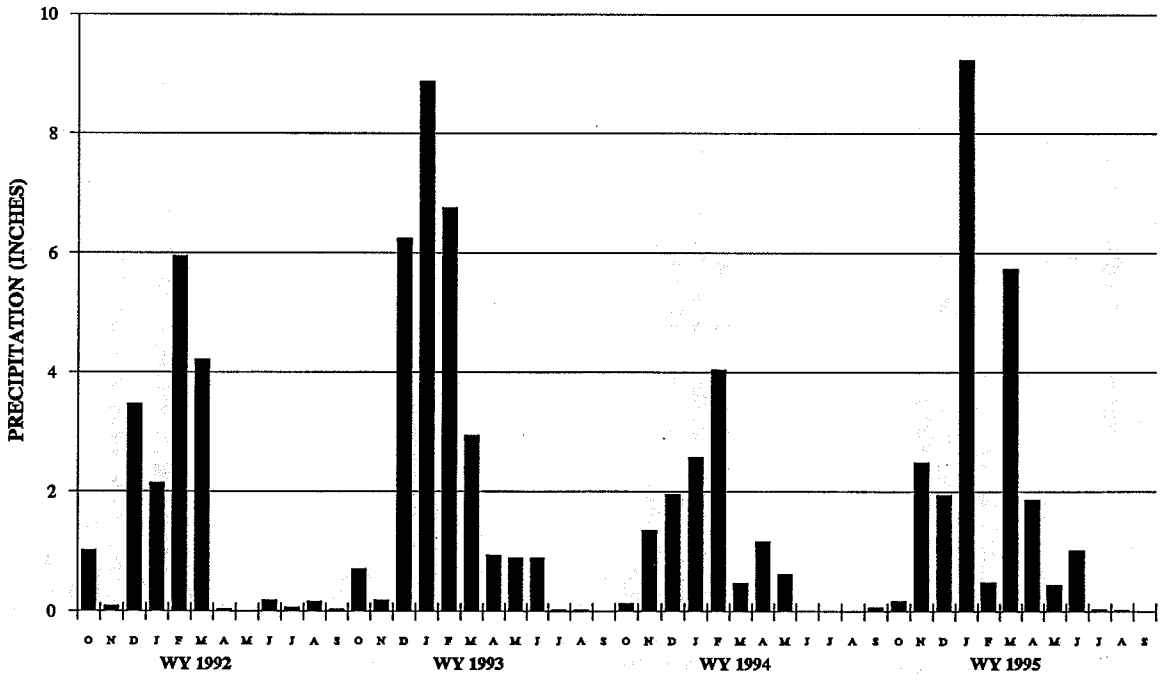
Table A-3

FOREST LAKE RESERVOIR RAINFALL
WATER YEARS 1992 - 1995

(Values in Inches)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1992	1.02	0.09	3.47	2.14	5.95	4.22	0.04	0.00	0.18	0.07	0.16	0.04	17.38
1993	0.71	0.19	6.25	8.86	6.76	2.93	0.93	0.89	0.89	0.02	0.01	0.00	28.44
1994	0.13	1.35	1.96	2.57	4.04	0.47	1.17	0.62	0.00	0.00	0.00	0.07	12.38
1995	0.17	2.48	1.95	9.23	0.48	5.73	1.86	0.44	1.02	0.04	0.02	0.00	23.42

Figure A-3



Source: California-American Water Company, Monterey Division

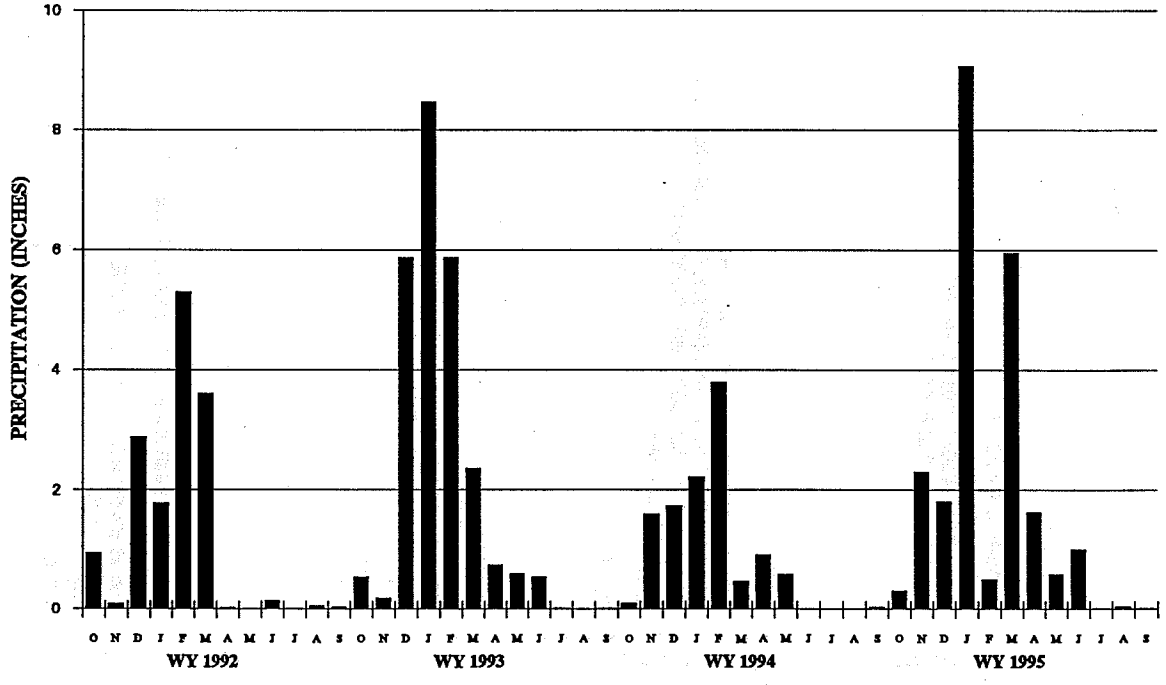
Table A-4

PACIFIC GROVE RESERVOIR RAINFALL
WATER YEARS 1992 - 1995

(Values in Inches)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1992	0.95	0.09	2.88	1.78	5.29	3.60	0.02	0.00	0.14	0.01	0.06	0.03	14.85
1993	0.55	0.18	5.87	8.47	5.87	2.36	0.75	0.60	0.55	0.01	0.00	0.01	25.22
1994	0.10	1.60	1.74	2.22	3.79	0.47	0.92	0.59	0.00	0.00	0.00	0.03	11.46
1995	0.31	2.30	1.81	9.06	0.50	5.94	1.63	0.59	1.01	0.01	0.05	0.01	23.22

Figure A-4



Source: California-American Water Company, Monterey Division

APPENDIX B

DESCRIPTION OF GAGING STATION ON
CARMEL RIVER ABOVE LOS PADRES RESERVOIR

Location - Immediately upstream of Los Padres Reservoir and downstream of the Carmel River/Danish Creek confluence.

Establishment - Streamflow measuring station established Sept. 25, 1985 by G. Matthews.

Drainage area - 44.8 sq. mi. (drainage area at Los Padres Dam).

Gage - Gage heights are obtained at Los Padres Spillway and are reservoir elevations. No staff gage exists at measuring site.

History - Beginning in Sept. 1985, MPWMD has obtained 'dry season' monthly discharge measurements at this site to define the inflow to Los Padres Reservoir, which provides a basis for scheduling of reservoir operations at Los Padres and San Clemente Dams.

California-American Water Company maintains a water level recorder at Los Padres Reservoir.

Reference and benchmarks - Reservoir elevations are based on National Geodetic Vertical Datum (NGVD) of 1929.

Channel - Channel along measuring reach is composed primarily of cobble.

Control -

Discharge measurements - Obtained downstream of Danish Creek by wading. At flows above 100 cfs (i.e. during Winter flows), discharge measurements normally are not collected.

Floods -

Point of zero flow -

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Discharge measurements are fair to good.

Cooperation -

DESCRIPTION OF GAGING STATION ON CACHAGUA CREEK

Location - 50 feet upstream (right bank) of Nason Rd. Bridge in Princes Camp, Cachagua.

Establishment - Staff gage station established December 30, 1981 by G. Matthews. Re-established as a recording station Oct. 24, 1991 by G. W. James.

Drainage area - 46.3 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter supported by 3-inch galvanized pipe. Two-inch pipe (conduit) runs approx. 40 ft. down right bank to active channel. Two enameled staff gages are staggered up the right bank along conduit and range from 3.33 -10.0 ft.

History - No other gages have been operated on this stream. This station, previously located on a bridge support, was non-recording until Water Year 1992 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer system was installed. This system was upgraded and replaced with the current equipment Oct. 13, 1994. The gage was inundated and destroyed during the March 10, 1995 flood when the creek flowed over the bridge and through the community of Princes Camp. The gage was re-activated at the current site located approx. 50 ft. upstream of the bridge Apr. 28,1995.

A new gage datum was established at the current site 2.2 ft lower than the previous datum (current datum + 2.2 ft. = old datum). This difference was determined by levels at the station.

Reference and benchmarks - Two inch galvanized coupler at base of recorder shelter riser is elevation 11.20 ft. gage datum.

Channel - One channel to stage 8 ft. (approximately) at which point creek flows over bank and becomes braided. Channel bed is composed of poorly sorted alluvial material.

Control - Low and medium stage control is gravel/cobble riffle approx. 20 ft. downstream from gage. Channel control at high flows.

Discharge measurements - Low and medium stage measurements are made by wading within 300 ft. upstream or downstream of the gage. High flow measurements are taken from the downstream side of Nason Bridge or determined by the slope area method.

Maximum wading flow is approximately 150 cfs. The high flow measuring section at the bridge is poor due to turbulence and bridge skew.

Floods - Flood of March 10, 1995 reached a stage of 9.8 ft., gage datum as indicated by high water marks surveyed at the gage (this stage is 12.0 ft. referenced to old datum at bridge).

Point of zero flow - 3.20 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.
Regulation -
Diversion -

Accuracy - Stage records at old gage site were poor due to severe turbulence at the gage caused by high velocity flow. Stage records the current site are good. Computed flows above 150 cfs are fair to poor due to un-favorable high flow measuring conditions off the bridge. Bridge piers in channel snag debris at high flows which can affect accuracy of record computation during periods of high flow.

Cooperation -

DESCRIPTION OF GAGING STATION ON PINE CREEK

Location - 565 feet upstream of the Pine Creek/Carmel River confluence, or approximately one mile downstream of Syndicate Camp, Cachagua, along the Carmel River.

Establishment - Staff gage station established February 1987 by G. Matthews. Re-established as a recording station Sept. 19, 1991 by G. W. James.

Drainage area - 7.8 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter with two-inch galvanized pipe used as conduit and intake.

Enameled staff gage ranges from 0.00 to 3.33 ft. Crest stage gage attached to staff gage (pin elevation = 0.15 ft. gage datum).

History - No other gages have been operated on this stream. Station was non-recording until Water Year 1992 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer was installed. This system was upgraded and replaced with the current equipment July 6, 1994.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 100 ft. upstream and 200 ft downstream from gage. Banks are steep and are covered with light to moderate vegetation. Streambed is composed primarily of boulders and large cobble.

Control - Low and medium stage control is boulder riffle 10 to 15 ft. downstream from gage. Channel control at high flows.

Discharge measurements - Low and medium stage measurements are made by wading within 300 ft. upstream or downstream of the gage. Gage is inaccessible at high flows and measurements are obtained by the slope-area method.

Floods - Flood of March 10, 1995 reached a stage of 4.10 ft., gage datum as indicated by crest stage gage and recorder.

Point of zero flow - 0.0 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage discharge relationship is fairly stable and shifts during extreme flow events. Leafy build-up during Fall months results in backwater at gage, first storm flow eliminates build-up. Records of stage are fair and measuring conditions are fair. High flows are defined by the slope-area method and computed records above 50 cfs are considered poor.

Cooperation -

DESCRIPTION OF GAGING STATION ON SAN CLEMENTE CREEK

Location - Approximately one quarter mile upstream of San Clemente Reservoir.

Establishment - Staff gage station established November 23, 1981 by G. Matthews. Re-established as a recording station Sept.19, 1991 by G. W. James.

Drainage area - 15.6 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter supported by 3-inch galvanized pipe. Two-inch pipe (conduit) runs approx. 30 ft. down left bank to active channel. A low flow enameled staff gage is located at the right bank. A high flow staff gage is attached to a 4X6 inch post at the base of the left bank and ranges from 3.33 - 6.66 ft.

History - No other gages have been operated on this stream. This station was non-recording until Water Year 1992 when an Environmental Monitoring Systems (ENMOS) recorder an pressure transducer system was installed. This system was upgraded and replaced with the current equipment Sept. 25, 1992, and the former installation located at the right bank was removed.

On Dec. 5, 1991 gage datum was permanently changed by lowering the staff gage 1.50 ft. This was done to prevent negative stage readings which occurred at low flows at the previous datum.

Reference and benchmarks - The top of the 3-inch galvanized 'T' at the base of the recorder shelter riser is elevation 8.05 ft. gage datum.

Channel - One channel at all stages. Right bank is steep and rocky, left bank is gently sloping with moderate vegetal cover. Channel bed is composed of boulder and cobble.

Control - Low and medium stage control is a cobble riffle approx. 80 ft. downstream from gage. Channel control at high flows.

Discharge measurements - Low and medium stage measurements are normally made by wading 300 ft. upstream of the gage. High flow measurements obtained by the slope area method as there is no high flow measuring facility. Maximum wading flow is approx. 140 cfs or stage 3.7 ft.

Floods - Flood of January 9, 1995 reached a stage of 7.92 ft., gage datum as indicated by high water marks (HWM) surveyed at the gage. The Flood of March 10, 1995 reached a stage of 7.82 ft. based on HWMs.

Point of zero flow - Approx. 1.20 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are good. Computed flows are fair to good below 150 cfs and are poor above 150 cfs as flows are determined indirectly by channel survey.

Cooperation -

DESCRIPTION OF GAGING STATION ON CARMEL RIVER AT SLEEPY HOLLOW WEIR

Location - Approximately one mile downstream of San Clemente Dam.

Establishment - Weir installed June 1988 by the California-American Water Company (Cal-Am). Established as a continuous recording station Oct. 1 1989 by MPWMD.

Drainage area - 126 sq. mi.

Gage - Stevens Type-F water level recorder/float system inside 24-inch CMP stilling well located approximately 40 ft. upstream of weir.

Enameled staff gage at well ranges from 0.00 - 6.66 ft.

History - Water level recorder operated at San Clemente Dam by Cal-Am measures and records level of San Clemente Reservoir. Water level recorder operated at Old Carmel Dam 3/4 miles upstream of the weir operated by Cal-Am and MPWMD was discontinued Oct. 1991.

Reference and benchmarks - Low point in V-notch of weir is elevation 0.00 gage datum.

Channel - One channel at all stages. Right bank is steep and rocky, left bank is gently sloping with moderate to heavy vegetal cover. Channel bed is composed of boulder and cobble.

Control - Broad Crested V-notch weir located approx. 40 ft. downstream gage. V-notch is designed to carry 5 cfs of flow when full, rectangular notch above V-notch is designed to carry 16 cfs when full.

Discharge measurements - Low and medium stage measurements are normally made by wading within 1/4 mile of the gage. Maximum wading stage is approx. 3.5 ft. gage datum, high-end wading measurements usually taken immediately upstream of the Sleepy Hollow Ford located several hundred feet downstream of gage.

Purpose of gaging station is to monitor low flow releases from San Clemente Reservoir, therefore flow measurements above wading stage are not obtained.

Floods - Gage not intended to measure flood flows.

Point of zero flow - 0.00 ft., gage datum (i.e. bottom of V-notch)

Winter flow - No ice.

Regulation - Flows regulated at San Clemente Dam one mile upstream of gage.

Diversion - Surface diversion through the Carmel Valley Filter Plant diversion pipeline. Flows also affected by flashboard installation and removal at the dam.

Accuracy - Stage records are good. Computed flows are good below 20 cfs and are fair to good above 20 cfs. Recorder is removed most winters to avoid inundation at high flows, and record is incomplete during these periods.

Cooperation - Weir installation was a cooperative effort between Cal-Am, MPWMD and California Department Fish and Game, in order to accurately comply with release schedules established by these three agencies. MPWMD operates and maintains the gage.

DESCRIPTION OF GAGING STATION ON TULARCITOS CREEK

Location - Beneath bridge at San Clemente Drive, Carmel Valley, or approximately one half mile upstream from the Carmel River/Tularcitos Creek confluence.

Establishment - Staff gage station established January 8, 1982 by G. Matthews. Re-established as a recording station Oct. 8, 1991 by G. W. James.

Drainage area - 56.3 sq. mi.

Gage - Stevens Type-F water level recorder/float system housed inside 1/8-inch steel recorder shelter attached to 12-inch CMP stilling well. Access door at base of well for silt removal. Two enameled staff gages at well attached to right bridge abutment range from 2.20 - 6.60 ft.

History - No other gages have been operated on this stream. This station was non-recording until Water Year 1992 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer system was installed. This system was upgraded and replaced with the existing float gage (stilling well) Aug. 18, 1992, and the former installation, also located at the right bank was removed.

Prior to the flood of March 10, 1995, a remnant bridge pier (5 ft. high by 15 ft. long by 18 in. wide) split high flows at the gage. Following this flood, the pier fell over at the gage site and created single channel flow at the gage.

Reference and benchmarks - staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Right bank is vertical concrete bridge abutment, left bank moderately slopes to left concrete bridge abutment. Prior to March 10, 1995, channel at gage was split by mid-channel bridge pier at high flows. Channel bed is composed of mud and sand and remnant bridge pier that was deposited horizontally at gage.

Control - Low and medium stage control is a riffle approx. 15 to 20 ft. downstream from gage, which is stabilized by fallen pier in channel. High flow control is channel.

Discharge measurements - Low and medium stage measurements are normally made by wading 300 ft. upstream of the gage, or at the gage. High flow measurements obtained using a bridge board off the downstream side of the bridge at the gage, or by the slope area method. Maximum wading stage is 4.5 ft. gage datum, or 80 to 100 cfs.

Floods - Flood of March 10, 1995 reached a stage 9.94 ft based on survey of high water marks at the gage, and recorded stage.

Point of zero flow - Approx. 2.7 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are good. Computed flows are fair to good.

Cooperation -

DESCRIPTION OF GAGING STATION ON HITCHCOCK CREEK

Location - One quarter mile southwest along Esquiline Road, Carmel Valley at second foot bridge crossing creek, or approximately 250 ft. upstream from the Carmel River/Hitchcock Creek confluence.

Establishment - Staff gage station established Apr. 2, 1986 by T. Lindberg. Re-established as a recording station Oct. 17, 1991 by G. W. James.

Drainage area - 4.6 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter with two-inch galvanized pipe used as conduit and intake.

Enameled staff gage ranges from 0.00 to 6.66 ft.

History - No other gages have been operated on this stream. Station was non-recording until Water Year (WY)1992 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer was installed. Due to technical difficulty with this recording equipment, continuous records of flow were not computed until WY 1994. The gage was relocated to the foot bridge immediately upstream from the former site, and was upgraded with the existing equipment Dec. 8, 1995.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 100 ft. upstream and 100 ft downstream from gage. Banks are steep and rocky. Streambed is composed primarily of cobble.

Control - Low and medium stage control is the channel at the gage. High flow control is the bridge immediately downstream from the gage.

Discharge measurements - Low and medium stage measurements are made by wading within 100 ft. upstream or downstream of the gage. High flow measurements are taken off the upstream side of the bridge at gage.

Floods - Flood of March 10, 1995 reached a stage of 7.05 ft based on gage datum at the former location. During this event the creek flowed out of its banks. The equivalent peak stage reached at the current site during this event is unknown.

Point of zero flow -2.20 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are fair. Stage discharge relationship should be fairly stable due to presence of bridge immediately downstream from gage. Computed flow records at the former gage site are poor to fair due to a mid-channel bridge pier immediately downstream from the gage that caused major debris snags during high flows.

Cooperation -

DESCRIPTION OF GAGING STATION ON GARZAS CREEK

Location - At West Garzas Road, Carmel Valley on left bank, downstream side of bridge. Located approximately 300 ft. upstream from the Carmel River/Garzas Creek confluence.

Establishment - Continuous recording station established Oct. 1968 by the Monterey County Water Resources Agency (MCWRA) was maintained through September 1978. Established as a staff gage station Nov. 30, 1981 by G. Matthews. Re-established as a recording station Sept. 20, 1991 by G. W. James.

Drainage area - 13.2 sq. mi.

Gage -Stevens Type-F water level recorder/float system housed inside 1/8-inch steel recorder shelter attached to 12-inch CMP stilling well. Access door at base of well for silt removal.

Enameled staff gage ranges from 0.00 to 10.0 ft.

History - Gage formerly operated as a continuous recording station by MCWRA 1968 - 1978. Operated by MPWMD as a non-recording station 1981 - 1991. Re-established as a continuous recording station by MPWMD Sept. 1991, which used an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer system. This system was upgraded and replaced by the existing stilling well Jan. 17, 1992.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 200 ft. upstream and 200 ft downstream from gage. Channel at gage is split by center bridge pier, with vertical, concrete bridge abutments as banks. Downstream from gage, banks are moderately sloped and vegetated. Streambed is composed primarily of pebble and cobble.

Control - Low and medium stage control is a cobble riffle 10 to 20 ft. downstream from gage. High flow control is the natural channel downstream from the gage.

Discharge measurements - Low and medium stage measurements are made by wading within 200 ft. upstream or downstream of the gage. High flow measurements are taken off the downstream side of the bridge at gage.

Floods - Flood of March 10, 1995 reached a stage of 9.28 ft based on recorded stage in the stilling well. The flood of January 10, 1995 reached a stage of 7.98 ft. also based on recorded stage.

Point of zero flow - Approximately 1.20 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are good. Computed records are fair due to downstream channel conditions that shift in response to vegetation growth and scour and fill.

Cooperation -

DESCRIPTION OF GAGING STATION ON HITCHCOCK CREEK

Location - One quarter mile southwest along Esquiline Road, Carmel Valley at second foot bridge crossing creek, or approximately 250 ft. upstream from the Carmel River/Hitchcock Creek confluence.

Establishment - Staff gage station established Apr. 2, 1986 by T. Lindberg. Re-established as a recording station Oct. 17, 1991 by G. W. James.

Drainage area - 4.6 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter with two-inch galvanized pipe used as conduit and intake.

Enameled staff gage ranges from 0.00 to 6.66 ft.

History - No other gages have been operated on this stream. Station was non-recording until Water Year (WY)1992 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer was installed. Due to technical difficulty with this recording equipment, continuous records of flow were not computed until WY 1994. The gage was relocated to the foot bridge immediately upstream from the former site, and was upgraded with the existing equipment Dec. 8, 1995.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 100 ft. upstream and 100 ft downstream from gage. Banks are steep and rocky. Streambed is composed primarily of cobble.

Control - Low and medium stage control is the channel at the gage. High flow control is the bridge immediately downstream from the gage.

Discharge measurements - Low and medium stage measurements are made by wading within 100 ft. upstream or downstream of the gage. High flow measurements are taken off the upstream side of the bridge at gage.

Floods - Flood of March 10, 1995 reached a stage of 7.05 ft based on gage datum at the former location. During this event the creek flowed out of its banks. The equivalent peak stage reached at the current site during this event is unknown.

Point of zero flow -2.20 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are fair. Stage discharge relationship should be fairly stable due to presence of bridge immediately downstream from gage. Computed flow records at the former gage site are poor to fair due to a mid-channel bridge pier immediately downstream from the gage that caused major debris snags during high flows.

Cooperation -

DESCRIPTION OF GAGING STATION ON HITCHCOCK CREEK

Location - One quarter mile southwest along Esquiline Road, Carmel Valley at second foot bridge crossing creek, or approximately 250 ft. upstream from the Carmel River/Hitchcock Creek confluence.

Establishment - Staff gage station established Apr. 2, 1986 by T. Lindberg. Re-established as a recording station Oct. 17, 1991 by G. W. James.

Drainage area - 4.6 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter with two-inch galvanized pipe used as conduit and intake.

Enameled staff gage ranges from 0.00 to 6.66 ft.

History - No other gages have been operated on this stream. Station was non-recording until Water Year (WY)1992 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer was installed. Due to technical difficulty with this recording equipment, continuous records of flow were not computed until WY 1994. The gage was relocated to the foot bridge immediately upstream from the former site, and was upgraded with the existing equipment Dec. 8, 1995.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 100 ft. upstream and 100 ft downstream from gage. Banks are steep and rocky. Streambed is composed primarily of cobble.

Control - Low and medium stage control is the channel at the gage. High flow control is the bridge immediately downstream from the gage.

Discharge measurements - Low and medium stage measurements are made by wading within 100 ft. upstream or downstream of the gage. High flow measurements are taken off the upstream side of the bridge at gage.

Floods - Flood of March 10, 1995 reached a stage of 7.05 ft based on gage datum at the former location. During this event the creek flowed out of its banks. The equivalent peak stage reached at the current site during this event is unknown.

Point of zero flow -2.20 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are fair. Stage discharge relationship should be fairly stable due to presence of bridge immediately downstream from gage. Computed flow records at the former gage site are poor to fair due to a mid-channel bridge pier immediately downstream from the gage that caused major debris snags during high flows.

Cooperation -

DESCRIPTION OF GAGING STATION ON GARZAS CREEK

Location - At West Garzas Road, Carmel Valley on left bank, downstream side of bridge. Located approximately 300 ft. upstream from the Carmel River/Garzas Creek confluence.

Establishment - Continuous recording station established Oct. 1968 by the Monterey County Water Resources Agency (MCWRA) was maintained through September 1978. Established as a staff gage station Nov. 30, 1981 by G. Matthews. Re-established as a recording station Sept. 20, 1991 by G. W. James.

Drainage area - 13.2 sq. mi.

Gage -Stevens Type-F water level recorder/float system housed inside 1/8-inch steel recorder shelter attached to 12-inch CMP stilling well. Access door at base of well for silt removal.

Enameled staff gage ranges from 0.00 to 10.0 ft.

History - Gage formerly operated as a continuous recording station by MCWRA 1968 - 1978. Operated by MPWMD as a non-recording station 1981 - 1991. Re-established as a continuous recording station by MPWMD Sept. 1991, which used an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer system. This system was upgraded and replaced by the existing stilling well Jan. 17, 1992.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 200 ft. upstream and 200 ft downstream from gage. Channel at gage is split by center bridge pier, with vertical, concrete bridge abutments as banks. Downstream from gage, banks are moderately sloped and vegetated. Streambed is composed primarily of pebble and cobble.

Control - Low and medium stage control is a cobble riffle 10 to 20 ft. downstream from gage. High flow control is the natural channel downstream from the gage.

Discharge measurements - Low and medium stage measurements are made by wading within 200 ft. upstream or downstream of the gage. High flow measurements are taken off the downstream side of the bridge at gage.

Floods - Flood of March 10, 1995 reached a stage of 9.28 ft based on recorded stage in the stilling well. The flood of January 10, 1995 reached a stage of 7.98 ft. also based on recorded stage.

Point of zero flow - Approximately 1.20 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are good. Computed records are fair due to downstream channel conditions that shift in response to vegetation growth and scour and fill.

Cooperation -

DESCRIPTION OF GAGING STATION ON CARMEL RIVER AT DON JUAN BRIDGE

Location - At the Don Juan Bridge off Carmel Valley Road (authorized vehicle entrance to Garland Park), or river mile 10.8. Gage attached to north face of central bridge pier.

Establishment - Staff gage station established in 1982 by MPWMD staff. Re-established as a recording station Sept. 15, 1992 by G. W. James.

Drainage area - 216 sq. mi.

Gage - Stevens Type-F water level recorder/float system housed inside a steel recorder shelter attached to a 12-inch CMP stilling well (26 ft. long). Half-inch lexan windows within recorder shelter allow park visitors to observe instrumentation.

Enameled staff gage attached to south face of central bridge pier ranges from 3.33 to 6.66 ft. Staff gages located on the left concrete bridge abutment range from 6.66 to 13.3 and are read during high flows when turbulence preclude readings at the central pier staff.

History - Two USGS gaging stations located 3.6 miles upstream and 7.2 miles downstream are Carmel River at Robles del Rio and Carmel River near Carmel, respectively.

Reference and benchmarks - Brass tablet located at the left bank staff gages is elevation 8.55 ft. gage datum.

Channel - During extreme flood events channel upstream of gage will over-top the left bank and spread across the Garland Park floodplain. Channel is confined by bridge abutments at gage. Downstream of gage, right bank is steep, vegetated rip-rap. Left bank is gently sloped covered by moderately dense riparian forest. Channel bed material is sand upstream of the gage, and sand and cobble downstream of the gage.

Control - Cobble riffle approx. 100 ft. downstream from gage, stabilized by several large willow root balls.

Discharge measurements - Low and medium stage measurements are normally made by wading within 1/4 mile of the gage. Maximum wading stage is approximately 6.7 ft. gage datum (approx. 500 cfs). High flow measurements are taken off the downstream side of the bridge.

Floods - Flood of March 10, 1995 reached a stage of 16.9 ft., gage datum as indicated by an average of several high water marks (HWM) surveyed at the gage. Flood of Jan. 10, 1995 reached a stage of 14.8 ft based on HWMs surveyed.

Point of zero flow - 3.40 ft. gage datum, varies due to scour and fill.

Winter flow - No ice.

Regulation - Flows regulated at San Clemente Dam approximately eight miles upstream.

Diversion - Surface diversion through the Carmel Valley Filter Plant diversion pipeline from San Clemente Reservoir. Flows also affected by flash board installation and removal at San Clemente Dam.

Accuracy - Stage records are good below 1,000 cfs and fair below 5,000 cfs. Above 5,000 cfs stage records become poor due to drawdown at the stilling well from high velocity flow. Stage records at high flows are rectified when necessary using staff gage readings and surveyed HWMs. Stage discharge relationship is fairly stable due to willow root balls in channel 100 ft downstream from gage and regular, annual channel clearing downstream of gage.

Cooperation -

DESCRIPTION OF GAGING STATION ON CARMEL RIVER AT SCARLETT NARROWS

Location - River mile 9.6 or approx. one mile upstream of Robinson Canyon Road bridge.

Establishment - Staff gage station established Apr. 17,1986 by T. Lindberg.

Drainage area - Not known

Gage - Currently inactive. Enameled staff gage (range not known) washed out during the floods of 1995 and was not replaced.

History - Discharge measurements at this site were discontinued indefinitely Oct. 1994 as MPWMD staff determined through comparative analysis that continuous streamflow data collected at the Carmel River at Don Juan Bridge site approx. one mile upstream adequately defined flows at the Scarlett Narrows.

Reference and benchmarks -

Channel -

Control -

Discharge measurements -

Floods -

Point of zero flow -

Winter flow - No ice.

Regulation -

Diversion -

Accuracy -

Cooperation -

DESCRIPTION OF GAGING STATION ON ROBINSON CANYON CREEK

Location - On left bridge abutment of downstream-most bridge on Robinson Canyon Road, Carmel Valley.

Establishment - Staff gage station established Jan. 6, 1982 by G.M. Kondolf, cooperating with MPWMD. Re-established as a recording station Oct. 18, 1991 by G. W. James.

Drainage area - 5.4 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter with two-inch galvanized pipe used as conduit and intake.

Enameled staff gage ranges from 0.00 to 6.66 ft. Crest stage gage (CSG) five ft. downstream from staff with 'pin' elevation of 3.43 ft. gage datum.

History - No other gages have been operated on this stream. Station was non-recording until Water Year 1992 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer was installed. High flows in January & February 1993 severely scoured the control at the gage and prompted relocation of the gage to the current site upstream at the bridge on Mar. 11, 1993. A new gage datum was established as a result of this relocation.

Oct. 26, 1993 the former ENMOS instrumentation was upgraded and replaced with the current recording equipment.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 100 ft. upstream and 100 ft downstream from gage. Banks at gage are vertical, concrete bridge abutments. Streambed is composed primarily of cobble.

Control - Low and medium stage control is a riffle 5 to 10 ft. downstream from gage. High flow control is the natural channel downstream of the gage.

Discharge measurements - Low and medium stage measurements are normally made by wading within 100 ft. downstream of the gage. Station lacks a high flow measuring facility. Bridge at gage is not ideal due to horizontal skew, and traffic concerns. High flows defined by the slope area method. Maximum wading stage is 4.0 ft. gage datum (approx. 60 cfs).

Floods - Flood of March 10, 1995 reached a stage of 6.91 ft. gage datum. The flood of Jan. 9, 1995 reached a stage of 6.14 ft. These elevations are based on recorded elevations verified by the CSG at the site.

Point of zero flow -2.60 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are fair to good at current gage location. Stage discharge relationship is fairly stable, but will shift during high flow events due to scour. Records computed for January & February 1993 are poor due to poor stage data and shifting control (scour).

Cooperation -

DESCRIPTION OF GAGING STATION ON POTRERO CREEK

Location - At Valley Greens Road, Carmel Valley upstream of culvert on right bank.

Establishment - Staff gage station established Jan. 4, 1982 by G. Matthews. Re-established as a recording station Nov. 30, 1993 by G. W. James.

Drainage area - 5.2 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter with two-inch galvanized pipe used as conduit and intake.

Enameled staff gage ranges from 0.00 to 4.10 ft.

History - Station was non-recording until Water Year 1994 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer was installed. The gage was relocated to the opposite (right) bank and upgraded with the existing equipment Nov. 28, 1995. The previous gage datum was maintained despite the gage relocation.

Temporary gaging station operated by consultants approximately one mile upstream for hydrological studies related to proposed Rancho San Carlos development.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 100 ft. upstream and 100 ft downstream from gage. Banks are steep composed of mud and clay. Streambed is sandy.

Control - Control at all stages is a rip-rap riffle 15 ft. downstream from gage.

Discharge measurements - Low and medium stage measurements are made by wading within 100 ft. upstream of the gage. High flow measurements are taken off the upstream side of the golf cart bridge 200 ft. upstream of gage. Maximum wading stage is 1.7 ft. gage datum (approximately 50 cfs).

Floods - Flood of March 10, 1995 reached a stage of 4.85 ft. gage datum based on recorder stage verified by high water marks.

Point of zero flow - 0.60 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Stage records are fair. Stability of stage discharge relationship depends on condition of rip-rap riffle 15 ft. downstream of gage as it stabilizes sands at the gage.

Cooperation -

DESCRIPTION OF GAGING STATION ON CARMEL RIVER AT HIGHWAY 1 BRIDGE

Location - 50 feet upstream of Highway 1 bridge at top of right bank levee.

Establishment - Staff gage station established in 1982 by MPWMD. Re-established as a recording station Dec. 10, 1992 by G. W. James.

Drainage area - 252 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter with two-inch galvanized pipe used as conduit and intake. Conduit runs approximately 70 ft. down right bank to river. Nov. 29, 1995, MCWRA co-located its ALERT transmitter and pressure transducer at this installation to provide remote access to river levels.

Four enameled staff gages staggered up the right bank range from 2.20 to 17.1 ft.

History - Station was non-recording until Water Year 1993 when the continuous recording equipment was installed. Initially, gage was located on a mid-channel bridge pier at the former Highway 1 Bridge. This bridge collapsed in the aftermath of the March 10, 1995 flood and the gage was destroyed. A temporary gage was installed on the right bank at the damaged bridge site Apr. 7, 1995 at the former gage datum, and was relocated 400 ft. upstream May 8, 1995 at a new, arbitrary datum. This temporary station was removed Nov. 22, 1995. The current installation became operational Nov. 29, 1995 and a new datum was established.

USGS maintains Carmel River near Carmel gage 2.5 miles upstream.

Reference and benchmarks - Brass disc on northeast corner of new bridge is elevation 35.89 ft. North American Vertical Datum (NAVD) 1988. Gage datum has been established exactly 10.00 ft. less than this reference elevation.

Channel - One channel at all stages. Channel is straight for at least 500 ft. upstream and 500 ft downstream from gage. Banks are moderately sloped and covered with thick vegetation. Streambed is coarse sand.

Control - Low and medium stage control is the sand channel. High flow control is channel at bridge 50 ft. downstream.

Discharge measurements - Low and medium stage measurements are made by wading within 500 ft. upstream or downstream of the gage. High flow measurements are taken off the upstream side of the bridge. Maximum wading stage is 5.4 ft. gage datum (approx 600 cfs).

Floods - Flood of Jan. 10, 1995 reached a stage of 15.8 ft. based on gage datum maintained at the former Highway 1 bridge site. The flood of March 10, 1995 was not recorded at this site and the peak stage is not known.

Point of zero flow - 2.5 ft., gage datum. Varies due to scour and fill of sands downstream of gage.

Winter flow - No ice.

Regulation -

Diversion - Surface diversion from San Clemente Dam 17.5 river miles upstream, production wells upstream of gage.

Accuracy - Stage records are good. Stability of stage discharge relationship depends on sand accumulation in gage reach. Shifting sand channel warrants frequent streamflow measurements during and between storms. Computed records are considered fair.

Cooperation -

DESCRIPTION OF GAGING STATION ON CARMEL RIVER LAGOON

Location - South arm of Carmel River Lagoon, Carmel, at the CAWD effluent pipeline.

Establishment - Continuous recording station established November 1987 by MPWMD.

Drainage area - 255 sq. mi.

Gage - Campbell Scientific BDR-320 data recorder linked to Druck 5 psi pressure transducer. Gage housing consists of steel recorder shelter with two-inch galvanized pipe used as conduit and intake. Conduit runs approximately 50 ft. down west bank of south arm to lagoon. Nov. 28, 1995, MCWRA co-located its ALERT transmitter and pressure transducer at this installation to provide remote access to lagoon levels.

Enameled staff gage at orifice ranges from 2.00 to 10.0 ft. Additional staff gage at west bank ranges from 10.0 to 13.3 feet.

History - No other gages have been operated at the Carmel River Lagoon. Reliable continuous water level data begins April 1991. Initially, recorder was located on the CAWD effluent pipeline and utilized an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer system. Nov. 5, 1993 the station was upgraded by relocating the recorder site to the west bank of the gage site, and the current equipment was installed.

Reference and benchmarks - Brass disc at top of knoll above gage is elevation 59.34 ft. National Geodetic Vertical Datum (NGVD) of 1929. Gage datum is NGVD.

Channel -

Control -.

Discharge measurements -

Floods -

Point of zero flow -

Winter flow -

Regulation -

Diversion -

Accuracy - Stage records are good.

Cooperation -

DESCRIPTION OF GAGING STATION ON SAN JOSE CREEK

Location - Approximately 1/4 mile upstream from Highway 1 at Monastery Beach, Carmel.

Establishment - Staff gage station established 1985 by MPWMD.

Drainage area - 14.2 sq. mi.

Gage - Enameled staff gage attached to 4 x 6 inch post ranges from 0.00 to 6.66 ft.

Crest stage gage attached to upstream side of 4 x 6 inch post, 'pin' elevation of 1.84 ft. gage datum.

History - Staff gage site previously located approximately 50 ft. downstream of current site until staff washed out in February 1992. Replacement staff gage installed Nov. 16, 1993 at new, arbitrary gage datum.

Reference and benchmarks - Staff gage is only datum reference (gage datum).

Channel - One channel at all stages. Channel is straight for approximately 100 ft. upstream of gage and 30 ft. downstream of gage. Banks are moderately sloped and heavily vegetated. Channel bed is composed of sand and pebbles.

Control - Low and medium stage control is riffle 15 ft. downstream of gage. High flow control is natural channel.

Discharge measurements - Low and medium stage measurements are obtained within 50 ft. of gage. High flow measurements could potentially be obtained off the Highway 1 bridge at Monastery Beach at low tide (i.e. none have been obtained).

Floods -

Point of zero flow - 0.90 ft. gage datum. Varies due to scour and fill.

Winter flow - No ice.

Regulation -

Diversion -

Accuracy - Discharge measurements are fair to good.

Cooperation -

APPENDIX C

TABLE C-1

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

MAINSTEM STATION: Above Los Padres Reservoir
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/03/91	1100	TLL	Pygmy	Fair	27.5	15.5	1026.84	0.39	4.8	0.3	1.35	0.29
11/01/91	1100	TLL	Pygmy	Good	19.0	11.0	1017.93	1.86	9.7	0.3	3.17	0.59
12/02/91	1023	GDH	Pygmy	Poor	8.5	9.0	1009.65	2.63	21.7	1.1	24.32	0.11
12/31/91	1035	GWJ	AA	Good	8.0	7.0	1024.83	45.16	21.9	1.1	24.11	1.87
01/31/92	1020	BH	AA	Good	11.5	6.5	1040.01	10.40	11.8	0.7	8.83	1.18
05/04/92	1155	GDH	AA	Fair	26.5	16.0	1040.05	29.13	21.8	1.1	24.04	1.21
06/02/92	1100	TLL	AA	Good	20.0	17.0	1039.96	14.29	31.5	0.9	27.54	0.52
07/01/92	1040	GDH	Pygmy	Fair	23.0	17.0	1039.62	7.94	9.0	0.7	6.30	1.26
08/03/92	1038	GDH	Pygmy	Fair	24.0	18.0	1037.54	1.57	4.1	0.4	1.67	0.94
09/01/92	1058	GDH	Pygmy	Poor	24.0	17.5	1033.34	1.40	3.3	0.5	1.51	0.93
10/01/92	1130	GWJ	Pygmy	Fair	22.5	16.0	1021.60	0.90	3.5	0.3	1.12	0.81
11/02/92	1205	GWJ	Pygmy	Fair	22.5	13.5	1011.69	3.79	12.7	0.4	4.53	0.84
12/01/92	1140	TLL	Pygmy	Fair	17.0	10.0	1002.06	3.14	9.0	0.6	5.26	0.60
06/01/93	1050	GWJ	AA	Good	20.5	14.0	1040.13	33.29	25.1	1.4	34.03	0.98
07/02/93	1415	GWJ	AA	Good	22.5	17.5	1040.01	16.18	24.5	1.2	29.40	0.55
08/03/93	1050	TLL	Pygmy	Fair	24.0	19.0	1039.82	7.41	10.1	0.5	4.55	1.63
09/01/93	1145	GWJ	Pygmy	Fair	35.5	17.0	1038.80	5.16	7.3	0.8	5.65	0.91
10/01/93	1100	TLL	Pygmy	Fair	20.0	15.0	1036.94	3.42	9.5	0.4	3.56	0.96
11/01/93	1120	GWJ	Pygmy	Fair	23.5	12.0	1030.00	5.07	9.4	0.5	4.48	1.13
12/01/93	1200	TLL	Pygmy	Good	--	--	1027.15	9.73	24.0	0.5	12.59	0.77
01/03/94	1200	TLL	Pygmy	Fair	--	--	1037.29	12.12	25.2	0.5	13.23	0.92
02/01/94	1200	TLL	AA	Fair	--	--	1040.06	17.48	24.6	1.1	27.05	0.65
03/02/94	1555	GWJ	AA	Good	19.5	11.0	1040.13	46.44	29.9	1.2	35.38	1.31
04/05/94	1140	TLL	AA	Fair	--	--	1039.94	19.64	25.0	1.1	27.23	0.72
05/02/94	1200	GWJ	AA	Good	20.0	11.5	1040.00	17.90	23.8	1.1	26.55	0.67
06/01/94	1110	GWJ	AA	Good	24.0	15.0	1039.66	9.90	24.0	1.0	24.60	0.40
07/01/94	1055	GWJ	Pygmy	Good	28.0	17.0	1037.52	2.69	6.6	0.5	3.30	0.82
08/01/94	1045	GWJ	Pygmy	Fair	20.0	16.0	1033.88	0.88	5.3	0.4	2.05	0.43
09/01/94	1105	GWJ	Pygmy	Fair	21.0	15.5	1028.64	0.31	3.5	0.2	0.66	0.47
10/03/94	1055	GWJ	Pygmy	Fair	--	--	1016.45	0.62	5.3	0.3	1.67	0.37
11/01/94	1435	GWJ	Pygmy	Fair	18.5	12.0	1003.60	1.59	5.4	0.4	2.32	0.68
12/02/94	1115	GWJ	Pygmy	Good	11.5	8.0	999.87	5.85	9.2	0.5	4.38	1.34
01/03/95	1305	GWJ	AA	Good	12.5	9.0	1014.11	52.68	26.2	1.5	38.68	1.36
06/01/95	1045	GWJ	AA	Good	23.0	14.5	1040.34	66.11	33.1	1.2	40.15	1.65
07/03/95	1115	TLL	AA	Good	19.0	16.0	1040.18	34.50	24.1	0.8	18.92	1.82
08/01/95	1100	GWJ	Pygmy	Good	30.5	19.5	1040.00	18.59	18.8	0.7	13.90	1.34
09/01/95	1235	TLL	Pygmy	Fair	28.0	17.5	1039.00	7.78	18.0	0.5	9.36	0.83

TABLE C-2

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: Cachagua Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/07/91	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/24/91	1345	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/02/91	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/31/91	1225	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/15/92	1145	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/31/92	1245	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/10/92	0950	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/12/92	1300	GWJ	AA	Poor	--	--	5.37	101.05	32.0	1.1	36.59	2.76
02/14/92	1330	GWJ	AA	Fair	--	--	4.51	24.48	20.0	1.1	21.90	1.12
02/26/92	1025	TLL	Pygmy	Fair	--	--	4.21	5.48	11.5	0.5	6.19	0.89
03/10/92	1400	GWJ	AA	Fair	--	--	4.17	7.42	17.7	0.7	12.26	0.61
04/01/92	1335	GWJ	AA	Good	23.0	18.5	4.07	4.88	16.5	0.7	10.84	0.45
05/05/92	1455	GWJ	Pygmy	Fair	26.0	24.0	3.78	0.52	3.1	0.3	0.85	0.61
06/01/92	1125	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/01/92	1010	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/92	1400	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/30/92	1400	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/08/93	1430	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/13/93	1540	GWJ	AA	Fair	--	--	6.00	204.07	42.0	1.3	52.60	3.88
01/18/93	1300	TLL	AA	Fair	14.0	11.0	5.41	97.91	25.2	1.3	32.88	2.98
01/22/93	1220	TLL	AA	Fair	14.0	11.5	4.62	27.36	21.6	0.9	18.42	1.49
02/03/93	1120	GWJ	AA	Fair	16.0	9.0	4.20	6.94	12.6	0.6	7.39	0.94
03/02/93	1215	GWJ	AA	Good	24.5	10.5	4.60	49.29	22.4	1.2	26.92	1.83
03/16/93	1255	GWJ	AA	Good	26.0	14.5	4.37	15.34	18.9	0.8	15.15	1.01
03/23/93	1340	GWJ	AA	Good	--	--	4.32	11.71	18.9	0.7	13.86	0.84
04/01/93	1420	GWJ	AA	Good	15.5	14.0	4.40	16.39	18.9	0.9	17.40	0.94
05/04/93	1535	GWJ	Pygmy	Good	21.5	18.5	4.22	5.50	17.6	0.6	11.36	0.48
06/03/93	1005	TLL	Pygmy	Good	19.5	15.5	4.14	3.05	16.7	0.6	10.76	0.28
07/02/93	1600	GWJ	Pygmy	Poor	21.0	25.5	3.75	0.05	1.4	0.1	0.19	0.28
09/01/93	1330	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/01/93	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/01/93	1355	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/93	1040	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/03/94	1330	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/02/94	1310	GWJ	Pygmy	Fair	11.0	8.5	4.00	0.76	4.8	0.5	2.40	0.32
02/08/94	1130	GWJ	AA	Good	13.0	9.5	4.36	8.03	17.5	0.9	15.03	0.53
03/02/94	1705	GWJ	Pygmy	Good	16.5	14.5	4.14	3.15	17.1	0.6	9.70	0.32
04/05/94	1340	TLL	Pygmy	Fair	--	--	3.96	1.17	5.5	0.3	1.91	0.61
04/21/94	1100	GWJ	Pygmy	Fair	20.0	14.5	3.89	0.68	4.2	0.3	1.14	0.60
05/02/94	1400	GWJ	Pygmy	Fair	21.0	18.5	3.96	1.47	4.5	0.4	1.72	0.85
06/01/94	1325	GWJ	Pygmy	Fair	27.0	23.5	3.82	0.35	3.0	0.3	0.75	0.47
06/14/94	1530	GWJ	na	na	--	--	--	No Flow	--	--	--	--
08/01/94	1200	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-2 (CONTINUED)

TRIBUTARY STATION: Cachagua Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
09/01/94	1000	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/03/94	0945	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/01/94	1600	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/02/94	1300	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/03/95	1135	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/08/95	1435	GWJ	Pygmy	Fair	14.5	12.0	3.95	0.98	3.6	0.3	1.13	0.87
01/11/95	1310	GWJ	AA	Fair	--	--	5.35	87.45	24.0	1.6	37.21	2.35
01/19/95	1350	GWJ	AA	Fair	16.0	9.0	4.69	19.75	10.6	1.0	10.35	1.91
02/01/95	1510	GWJ	AA	Fair	24.0	14.0	4.52	20.51	18.9	0.7	13.80	1.49
02/10/95	1355	GWJ	AA	Fair	19.5	11.5	4.39	10.54	9.3	0.7	6.81	1.55
03/01/95	1115	TLL	Pygmy	Fair	16.0	12.5	4.26	5.29	11.5	0.4	5.14	1.03
03/11/95	1200	GWJ	AA	Poor	--	--	--	610.93	59.0	1.9	113.58	5.38
03/20/95	0945	GWJ	AA	Fair	--	--	--	45.29	24.1	0.5	11.07	4.09
03/24/95	1400	TLL	AA	Fair	--	--	--	164.92	39.5	0.8	30.38	5.43
04/06/95	1415	GWJ	AA	Fair	21.5	16.5	--	32.30	15.7	0.7	10.48	3.08
04/13/95	1530	GWJ	AA	Fair	--	--	--	26.99	13.2	0.7	9.21	2.93
04/21/95	1500	GWJ	AA	Fair	--	--	--	19.46	14.6	0.6	8.70	2.24
04/28/95	1145	GWJ	Pygmy	Fair	--	--	4.17	17.14	15.2	0.5	7.70	2.23
05/11/95	1655	GWJ	AA	Fair	14.0	17.5	4.09	11.66	11.3	0.5	5.90	1.98
05/22/95	1300	GWJ	Pygmy	Fair	--	--	4.10	13.49	12.9	0.5	6.85	1.97
06/01/95	1315	GWJ	Pygmy	Fair	24.0	20.5	3.95	8.55	11.9	0.4	5.14	1.66
06/09/95	1140	GWJ	Pygmy	Good	--	--	3.90	8.07	12.6	0.5	5.69	1.42
06/21/95	1140	GWJ	Pygmy	Fair	--	--	3.89	6.69	12.4	0.5	5.64	1.19
07/03/95	1345	TLL	Pygmy	Fair	23.0	24.0	3.79	3.99	7.7	0.6	4.60	0.87
07/17/95	1005	GWJ	Pygmy	Fair	--	--	3.71	2.47	5.1	0.6	3.07	0.80
08/01/95	1400	TLL	Pygmy	Fair	33.5	28.0	3.60	1.44	6.8	0.4	2.93	0.49
08/18/95	1415	GWJ	Pygmy	Fair	--	--	3.47	0.51	2.8	0.2	0.68	0.75
08/28/95	1145	GWJ	Pygmy	Poor	--	--	3.36	0.05	.7	0.1	0.10	0.48
09/06/95	1230	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-3

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: Pine Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
12/02/91	1300	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/31/91	1415	GWJ	Pygmy	Fair	9.0	9.0	0.52	4.15	8.6	0.8	6.72	0.62
01/15/92	1320	GWJ	Pygmy	Fair	10.5	8.0	0.44	2.94	8.7	0.7	5.66	0.52
01/31/92	1450	GWJ	Pygmy	Fair	10.0	8.5	0.29	1.61	4.0	0.6	2.28	0.71
02/27/92	1100	GWJ	AA	Fair	19.0	11.0	0.99	16.08	9.3	1.3	12.03	1.34
04/01/92	1115	GWJ	AA	Fair	18.5	12.0	0.79	10.92	9.0	1.2	10.65	1.03
05/04/92	1230	TLL	Pygmy	Fair	15.5	14.5	0.48	5.12	9.7	0.8	7.72	0.66
06/02/92	1110	GWJ	Pygmy	Fair	19.5	14.5	0.30	1.59	4.4	0.6	2.48	0.64
07/01/92	1045	GWJ	Pygmy	Fair	18.5	14.5	0.21	0.77	3.7	0.5	1.76	0.44
08/03/92	1045	GWJ	Pygmy	Poor	22.5	15.0	-0.02	0.10	1.3	0.3	0.38	0.25
09/01/92	1100	GWJ	Estimate	na	20.0	15.0	-0.13	0.01	--	--	--	--
11/30/92	1230	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/02/93	1240	GWJ	Gage	na	--	--	1.18	--	--	--	--	--
04/02/93	1215	GWJ	AA	Fair	15.5	12.0	0.95	12.24	9.7	0.9	8.30	1.47
05/05/93	1320	TLL	Pygmy	Fair	25.0	14.5	0.68	7.68	9.1	0.9	8.36	0.92
06/01/93	1115	TLL	Pygmy	Fair	21.5	19.0	0.62	4.90	8.7	0.8	7.14	0.69
07/02/93	1125	GWJ	Pygmy	Fair	19.5	15.5	0.47	2.14	4.0	0.7	2.73	0.78
08/03/93	1040	GWJ	Pygmy	Fair	22.5	16.5	0.29	0.56	2.4	0.7	1.60	0.35
09/01/93	1130	TLL	Pygmy	Fair	19.0	17.5	0.19	0.45	3.5	0.3	1.20	0.37
10/01/93	1120	GWJ	Pygmy	Poor	21.0	15.0	0.09	0.06	1.3	0.2	0.26	0.23
11/01/93	1130	TLL	Pygmy	Poor	--	--	0.13	0.12	2.0	0.4	0.81	0.15
12/01/93	1210	GWJ	Pygmy	Fair	10.0	9.0	0.57	0.78	3.5	0.7	2.38	0.33
12/09/93	1310	TLL	Pygmy	Fair	15.0	12.0	0.37	0.85	4.1	0.4	1.53	0.56
01/03/94	1200	GWJ	Pygmy	Fair	16.0	9.5	0.43	1.06	3.8	0.8	2.90	0.37
02/02/94	1110	GWJ	Pygmy	Fair	9.0	7.5	0.51	1.78	4.0	0.9	3.47	0.51
03/02/94	1325	GWJ	Pygmy	Fair	21.0	12.0	0.66	6.22	8.9	0.9	7.61	0.82
04/07/94	1145	GWJ	Pygmy	Fair	14.5	11.0	0.44	2.08	4.3	0.7	2.97	0.70
05/02/94	1230	TLL	Pygmy	Fair	--	--	0.50	2.61	8.4	0.6	5.21	0.50
05/20/94	1140	GWJ	Pygmy	Fair	15.0	12.5	0.45	2.22	4.4	0.7	3.06	0.73
06/14/94	1320	GWJ	Pygmy	Fair	23.5	15.5	0.33	0.71	3.2	0.6	1.92	0.37
07/06/94	1345	GWJ	Pygmy	Poor	24.0	16.0	0.22	0.15	1.7	0.3	0.54	0.29
08/04/94	1130	GWJ	Pygmy	Poor	21.5	16.0	0.08	0.04	.7	0.2	0.12	0.31
08/31/94	1130	GWJ	Estimate	na	--	--	-0.12	0.01	--	--	--	--
11/01/94	1100	GWJ	Estimate	na	17.0	11.0	-0.12	0.01	--	--	--	--
12/05/94	1210	GWJ	Pygmy	Poor	14.5	10.0	0.04	0.04	.7	0.2	0.12	0.31
01/18/95	1400	GWJ	AA	Fair	11.0	10.0	1.54	44.64	15.7	1.4	21.99	2.03
02/10/95	1120	GWJ	AA	Fair	10.5	10.0	1.20	20.72	10.0	1.3	12.65	1.64
03/02/95	1120	GWJ	AA	Fair	14.0	12.0	0.90	9.34	11.5	1.1	12.30	0.76
04/06/95	1115	GWJ	AA	Fair	17.5	12.5	1.56	28.94	14.7	1.2	18.29	1.58
05/11/95	1330	GWJ	AA	Fair	19.0	13.5	1.35	14.80	12.5	1.1	13.97	1.06
06/05/95	1225	GWJ	AA	Fair	15.5	13.5	1.21	9.35	11.6	1.1	12.34	0.76
07/06/95	1410	GWJ	Pygmy	Fair	25.0	16.5	0.95	4.24	9.5	0.9	8.29	0.51
08/01/95	1200	TLL	Pygmy	Fair	24.0	17.5	0.70	1.81	6.0	0.6	3.82	0.47

TABLE C-3 (CONTINUED)

TRIBUTARY STATION: Pine Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
09/06/95	1055	GWJ	Pygmy	Fair	26.5	14.5	0.36	0.80	3.2	0.6	1.93	0.41

TABLE C-4

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: San Clemente Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/08/91	1435	GWJ	Pygmy	poor	31.0	15.0	-0.14	0.05	1.1	0.2	0.23	0.22
11/01/91	1345	GWJ	Pygmy	Fair	20.0	9.5	-0.05	0.28	2.1	0.3	0.72	0.30
11/07/91	1110	GWJ	Pygmy	Fair	21.0	11.0	-0.07	0.19	2.1	0.3	0.67	0.29
11/18/91	1055	GWJ	Pygmy	Poor	11.0	9.5	-0.10	0.04	.7	0.2	0.15	0.29
12/02/91	1500	GWJ	Pygmy	Poor	12.0	6.0	-0.16	0.04	1.4	0.2	0.28	0.14
12/29/91	0925	GWJ	AA	Fair	--	--	2.77	21.11	11.9	1.2	14.13	1.49
12/30/91	1315	GWJ	AA	Good	11.0	9.0	2.26	7.90	9.9	0.7	6.63	1.19
01/03/92	1015	GWJ	Pygmy	Good	10.0	7.5	1.92	2.65	7.3	0.6	4.40	0.60
02/03/92	1045	GWJ	Pygmy	Good	9.0	5.5	1.85	1.83	7.2	0.5	3.91	0.47
02/10/92	1140	GWJ	AA	Good	16.0	10.0	2.79	24.53	17.3	1.1	19.89	1.23
02/14/92	1050	GWJ	AA	Fair	13.5	10.0	3.16	52.55	18.7	1.5	28.78	1.83
03/02/92	1615	GWJ	AA	Good	13.0	12.0	2.56	17.76	16.3	1.1	17.40	1.02
04/01/92	1555	GWJ	AA	Good	17.0	14.5	2.44	13.44	15.4	1.0	14.98	0.90
05/01/92	1000	GDH	Pygmy	Fair	22.0	13.5	2.14	6.60	9.9	0.6	5.52	1.19
06/02/92	1415	GWJ	Pygmy	Fair	24.0	18.0	1.82	1.89	6.9	0.6	4.44	0.43
07/01/92	1335	GWJ	Pygmy	Fair	18.5	16.5	1.65	0.71	5.6	0.7	3.76	0.19
08/03/92	1310	GWJ	Pygmy	Poor	22.5	16.5	1.41	0.08	1.4	0.2	0.24	0.32
09/22/92	1305	GWJ	Pygmy	Poor	25.0	14.5	1.41	0.03	1.5	0.2	0.28	0.12
10/02/92	1415	GWJ	Pygmy	Poor	21.0	14.0	1.40	0.04	1.4	0.2	0.26	0.15
11/02/92	1525	GWJ	Pygmy	Poor	21.0	14.0	1.39	0.04	1.5	0.2	0.26	0.17
12/03/92	1200	GWJ	Pygmy	Fair	14.5	7.5	1.78	0.46	2.2	0.4	0.88	0.52
12/11/92	1015	GWJ	Pygmy	Good	11.5	10.5	2.18	3.57	8.0	0.7	5.85	0.61
01/04/93	1550	GWJ	AA	Good	--	--	2.34	9.86	12.2	1.0	11.83	0.83
01/11/93	1115	TLL	AA	Good	9.0	8.0	2.94	37.75	16.0	1.9	30.07	1.26
01/20/93	1210	GWJ	AA	Fair	--	--	3.69	120.89	21.0	1.9	39.75	3.04
02/03/93	1405	GWJ	AA	Good	11.5	9.5	2.86	32.48	14.4	1.3	19.41	1.67
03/02/93	1530	GWJ	AA	Fair	14.0	10.5	3.54	92.03	20.5	1.7	35.84	2.57
04/02/93	1515	GWJ	AA	Good	16.5	13.0	2.79	26.06	18.3	1.1	19.66	1.33
05/04/93	1235	GWJ	AA	Good	18.0	14.0	2.40	12.65	13.7	1.0	13.48	0.94
06/01/93	1410	GWJ	Pygmy	Fair	22.0	16.5	2.22	7.74	11.0	0.7	7.96	0.97
07/08/93	1130	GWJ	Pygmy	Fair	20.0	17.0	1.82	2.20	7.9	0.7	5.37	0.41
08/03/93	1350	GWJ	Pygmy	Poor	24.5	19.0	1.60	0.87	3.6	0.4	1.50	0.58
09/02/93	1130	GWJ	Pygmy	Fair	26.0	16.5	1.49	0.42	1.8	0.4	0.64	0.66
10/01/93	1455	GWJ	Pygmy	Fair	19.5	16.0	1.41	0.17	1.7	0.3	0.44	0.39
11/02/93	1100	GWJ	Pygmy	Fair	--	--	1.56	0.55	2.7	0.5	1.47	0.38
12/02/93	1425	GWJ	Pygmy	Fair	11.0	8.5	1.67	1.07	2.8	0.5	1.53	0.70
01/03/94	1600	GWJ	Pygmy	Fair	15.0	9.0	1.73	1.22	6.4	0.5	2.88	0.42
01/24/94	1140	GWJ	AA	Fair	10.5	8.5	2.29	8.67	13.8	1.0	13.80	0.63
02/01/94	1230	GWJ	Pygmy	Fair	13.5	6.5	1.89	2.63	7.5	0.6	4.21	0.62
03/01/94	1100	GWJ	AA	Good	21.0	10.0	2.29	9.16	13.9	1.0	13.56	0.68
04/07/94	1520	GWJ	Pygmy	Fair	15.0	13.0	1.79	1.81	5.8	0.7	4.33	0.42
05/03/94	1230	GWJ	Pygmy	Fair	20.0	14.0	1.93	3.99	10.7	0.6	6.83	0.58
06/02/94	1140	GWJ	Pygmy	Fair	23.0	15.0	1.71	1.56	6.9	0.6	4.03	0.39

TABLE C-4 (CONTINUED)

TRIBUTARY STATION: San Clemente Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
07/05/94	1210	GWJ	Pygmy	Fair	19.0	14.5	1.46	0.35	2.5	0.4	1.04	0.33
08/02/94	1225	GWJ	Pygmy	Poor	--	--	1.34	0.07	1.1	0.2	0.17	0.38
09/02/94	1110	GWJ	Pygmy	Poor	19.0	13.5	1.27	0.03	1.1	0.1	0.14	0.25
10/04/94	1125	GWJ	Pygmy	Poor	--	--	1.21	0.03	.7	0.2	0.11	0.24
11/02/94	1120	GWJ	Pygmy	Poor	13.5	10.0	1.36	0.21	1.7	0.2	0.38	0.54
12/01/94	1245	GWJ	Pygmy	Fair	18.0	6.5	1.38	0.20	1.7	0.2	0.39	0.52
01/04/95	1425	GWJ	AA	Fair	12.0	9.5	2.31	9.11	13.3	1.1	14.59	0.62
01/05/95	1320	GWJ	AA	Fair	9.5	9.5	2.92	34.99	17.1	1.5	24.96	1.40
01/12/95	1300	GWJ	AA	Fair	--	--	3.45	85.05	21.1	1.7	36.18	2.35
02/01/95	1130	GWJ	AA	Fair	21.5	12.5	3.23	62.11	19.0	1.5	29.19	2.13
03/02/95	1425	GWJ	AA	Fair	15.0	13.0	2.44	15.63	16.5	1.0	16.20	0.96
03/15/95	1150	GWJ	AA	Fair	23.0	13.0	3.62	119.04	22.3	1.9	41.39	2.88
04/04/95	1250	GWJ	AA	Fair	23.0	12.5	3.14	59.94	19.4	1.6	30.09	1.99
05/02/95	1125	GWJ	AA	Fair	15.5	13.5	2.78	29.66	19.6	1.5	29.77	1.00
06/02/95	1045	GWJ	AA	Good	13.0	14.0	2.44	16.40	17.2	1.4	23.33	0.70
07/07/95	1130	GWJ	Pygmy	Fair	28.0	18.5	2.09	7.51	17.3	1.0	18.08	0.42
08/02/95	1110	GWJ	Pygmy	Fair	23.0	19.5	1.79	3.27	10.3	0.9	9.00	0.36
09/01/95	1220	GWJ	Pygmy	Fair	20.0	14.5	1.52	0.92	3.9	0.6	2.39	0.38

TABLE C-5

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

MAINSTEM STATION: Sleepy Hollow Weir
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
12/30/91	1045	GWJ	AA	Good	14.0	8.5	2.03	25.57	23.4	1.4	33.39	0.77
02/24/92	1035	GWJ	AA	Good	25.0	--	3.14	202.02	60.3	2.9	172.75	1.17
03/16/92	1135	GWJ	AA	Good	--	--	2.78	125.58	37.5	2.0	75.92	1.65
04/06/92	1255	GWJ	AA	Fair	--	--	2.39	63.18	35.5	1.7	61.17	1.03
05/11/92	1205	GWJ	AA	Good	--	--	1.88	17.26	30.2	1.2	35.67	0.48
06/25/92	1535	GWJ	AA	Fair	--	--	1.36	4.87	16.0	1.0	15.25	0.32
07/02/92	1130	GWJ	AA	Good	--	--	1.37	4.41	17.0	0.9	16.13	0.27
07/08/92	0950	GWJ	AA	Good	--	--	1.32	3.90	17.1	0.9	15.41	0.25
07/10/92	1235	GWJ	AA	Fair	--	--	1.30	3.66	7.6	1.0	7.39	0.50
07/16/92	1000	GWJ	Pygmy	Good	--	--	1.34	4.31	17.0	0.9	16.00	0.27
07/16/92	1120	GWJ	Pygmy	Good	--	--	1.35	4.22	7.6	1.0	7.55	0.56
07/30/92	1400	TLL	Pygmy	Fair	24.0	22.0	1.32	4.15	10.8	0.6	6.28	0.66
07/30/92	1500	TLL	Pygmy	Fair	--	--	1.31	3.47	7.6	1.0	7.24	0.48
04/22/93	1400	GWJ	AA	Fair	16.0	14.0	2.50	83.77	35.5	1.8	62.64	1.34
05/03/93	1000	TLL	AA	Fair	--	--	2.32	68.31	57.7	1.9	112.46	0.61
05/06/93	1220	GWJ	AA	Fair	--	--	2.30	58.08	35.2	1.6	55.17	1.05
06/10/93	1015	GWJ	AA	Fair	19.0	17.5	2.00	26.09	31.5	1.3	39.67	0.66
06/24/93	1400	TLL	AA	Fair	32.0	22.0	1.96	23.86	34.8	1.4	49.23	0.48
08/02/93	1005	TLL	Pygmy	Poor	23.0	21.0	1.45	6.05	34.5	1.1	36.25	0.17
12/02/93	1550	GWJ	Pygmy	Fair	10.0	10.0	1.40	4.74	10.9	1.1	12.23	0.39
03/01/94	1355	GWJ	AA	Fair	20.0	11.5	2.39	58.48	34.8	1.6	56.57	1.03
03/08/94	1255	GWJ	AA	Good	21.5	12.5	2.18	40.22	28.8	1.4	40.23	1.00
04/06/94	1015	GWJ	AA	Fair	16.0	14.0	1.75	13.70	24.4	1.1	25.67	0.53
05/03/94	1420	GWJ	AA	Fair	21.0	17.0	1.67	10.76	26.6	0.9	24.08	0.45
06/10/94	1505	GWJ	Pygmy	Good	33.0	21.0	1.49	6.50	23.6	0.8	18.53	0.35
07/01/94	1335	GWJ	Pygmy	Good	20.0	20.0	1.13	2.78	7.8	0.7	5.10	0.55
08/02/94	1450	TLL	Pygmy	Fair	22.5	20.0	1.18	3.48	10.7	0.9	9.41	0.37
08/02/94	1510	GWJ	Pygmy	Fair	--	--	1.18	3.26	8.8	0.6	5.51	0.59
09/02/94	1245	GWJ	Pygmy	Good	20.0	19.0	1.19	3.31	9.0	0.6	5.78	0.57
10/04/94	1325	GWJ	Pygmy	Fair	--	--	1.21	3.46	7.9	0.7	5.87	0.59
02/28/95	1325	GWJ	AA	Fair	15.0	12.5	2.58	86.92	36.0	2.0	72.22	1.20
04/18/95	1035	GWJ	AA	Fair	14.5	11.0	3.30	195.90	44.0	2.3	99.27	1.97
05/01/95	1430	GWJ	AA	Fair	18.0	15.0	3.45	237.11	65.8	2.4	158.93	1.49
05/18/95	1205	GWJ	AA	Fair	--	--	3.07	139.22	39.5	2.2	87.69	1.59
06/01/95	1105	TLL	AA	Fair	18.5	16.5	2.76	85.69	27.0	2.5	68.18	1.26
06/13/95	1315	GWJ	AA	Fair	--	--	2.56	67.30	36.2	1.4	50.69	1.33
07/03/95	1000	GWJ	AA	Fair	19.0	20.0	2.28	40.11	33.8	1.1	37.70	1.06
07/17/95	1150	GWJ	AA	Fair	--	--	2.03	18.58	17.5	1.2	21.77	0.85
07/25/95	1110	GWJ	AA	Good	--	--	1.96	15.83	21.2	1.4	30.34	0.52
08/02/95	0900	GWJ	AA	Fair	21.0	22.0	1.86	12.05	21.4	1.4	29.09	0.41
08/14/95	1145	GWJ	AA	Fair	--	--	1.72	7.86	20.8	1.2	24.56	0.32
08/21/95	1045	GWJ	AA	Good	--	--	1.77	9.42	20.8	1.2	24.91	0.38
09/01/95	0955	GWJ	AA	Fair	20.0	19.5	1.72	7.73	21.1	1.1	24.16	0.32

TABLE C-6

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: Tularcitos Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/08/91	1330	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/01/91	1500	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/18/91	1150	GWJ	Pygmy	Fair	14.5	12.0	2.94	0.17	1.3	0.3	0.44	0.39
12/02/91	1605	GWJ	Pygmy	Fair	12.0	8.5	2.98	0.28	2.3	0.2	0.49	0.58
12/29/91	0755	GWJ	Pygmy	Fair	--	--	3.19	3.66	8.4	0.4	3.55	1.03
12/30/91	1505	GWJ	Pygmy	Fair	12.5	9.5	3.02	0.81	3.4	0.3	0.99	0.82
02/03/92	1210	GWJ	Pygmy	Fair	13.0	7.5	2.99	0.56	3.5	0.3	0.94	0.60
02/12/92	1125	GWJ	AA	Fair	14.5	11.5	3.43	14.13	14.0	0.8	10.99	1.29
02/21/92	1200	GWJ	Pygmy	Fair	--	--	3.12	3.28	6.8	0.3	2.13	1.54
03/03/92	1345	GWJ	Pygmy	Good	15.0	14.0	3.04	1.41	5.2	0.2	1.17	1.21
03/19/92	1120	GWJ	Pygmy	Good	--	--	3.02	1.20	5.3	0.2	1.20	1.00
04/01/92	1130	GDH	Pygmy	Fair	17.0	15.5	3.04	1.15	5.1	0.2	1.08	1.06
05/01/92	1205	GDH	Pygmy	Fair	18.5	16.0	2.98	0.56	5.0	0.2	0.76	0.74
06/01/92	1235	GWJ	Pygmy	Fair	25.0	18.0	2.95	0.22	2.2	0.2	0.43	0.51
07/02/92	1250	GWJ	Pygmy	Fair	--	--	2.91	0.07	1.2	0.2	0.21	0.31
08/12/92	1330	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/01/92	1230	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/02/92	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/92	1630	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/92	1200	GWJ	Pygmy	Fair	16.0	8.5	2.94	0.09	1.1	0.3	0.30	0.30
12/11/92	1310	GWJ	Pygmy	Fair	11.0	11.5	3.01	0.39	1.9	0.3	0.60	0.66
01/01/93	1400	GWJ	Pygmy	Fair	12.0	9.0	3.18	3.39	6.6	0.3	2.15	1.58
01/13/93	1000	GWJ	AA	Poor	--	--	4.51	88.08	20.5	1.2	24.68	3.57
01/14/93	1335	GWJ	AA	Fair	--	--	4.06	43.06	15.6	1.0	15.25	2.82
01/18/93	1355	GWJ	AA	Good	--	--	3.88	38.76	13.8	0.8	11.43	3.39
01/25/93	1045	GWJ	Pygmy	Fair	--	--	3.14	3.28	7.4	0.3	2.50	1.31
02/01/93	1500	GWJ	Pygmy	Fair	15.5	10.5	3.05	1.81	5.7	0.3	1.54	1.18
02/19/93	1005	GWJ	AA	Poor	--	--	5.09	154.54	10.7	2.3	24.44	6.32
03/01/93	1335	GWJ	AA	Fair	15.0	13.5	3.90	26.60	14.0	0.7	10.08	2.64
03/12/93	1545	GWJ	Pygmy	Fair	--	--	3.45	5.75	8.0	0.5	4.22	1.36
04/01/93	1600	GWJ	Pygmy	Fair	13.0	15.0	3.56	8.05	7.8	0.6	4.69	1.72
05/03/93	1120	TLL	Pygmy	Fair	--	--	3.25	1.61	6.2	0.4	2.78	0.58
06/03/93	1610	GWJ	Pygmy	Fair	17.5	17.0	3.15	1.10	3.6	0.2	0.81	1.35
07/01/93	1115	GWJ	Pygmy	Fair	25.0	17.0	3.11	0.65	3.0	0.2	0.62	1.05
08/02/93	1120	TLL	Pygmy	Fair	22.5	21.0	3.10	0.18	3.7	0.1	0.39	0.48
09/02/93	1345	GWJ	Pygmy	Fair	21.0	19.0	3.13	0.17	1.7	0.3	0.49	0.35
10/04/93	1040	GWJ	Pygmy	Fair	15.5	14.5	3.16	0.24	1.8	0.2	0.27	0.88
11/02/93	1220	GWJ	Pygmy	Fair	--	--	3.15	0.22	1.9	0.2	0.33	0.66
12/01/93	1440	GWJ	Pygmy	Fair	12.5	10.0	3.19	0.58	3.4	0.3	0.86	0.68
01/04/94	1210	GWJ	Pygmy	Fair	13.0	10.0	3.21	0.77	3.4	0.3	0.95	0.82
01/24/94	1330	GWJ	Pygmy	Fair	11.0	10.0	3.36	3.73	5.7	0.4	2.30	1.62
02/02/94	1230	TLL	Pygmy	Fair	--	--	3.21	1.20	4.8	0.3	1.38	0.86
03/02/94	1215	TLL	Pygmy	Fair	--	--	3.23	1.29	5.1	0.3	1.40	0.92

TABLE C-6 (CONTINUED)

TRIBUTARY STATION: Tularcitos Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
04/06/94	1135	GWJ	Pygmy	Fair	16.0	13.5	3.20	0.96	4.8	0.2	1.17	0.82
05/04/94	0930	GWJ	Pygmy	Good	15.0	12.0	3.20	0.89	4.8	0.2	1.09	0.81
06/02/94	1325	GWJ	Pygmy	Fair	22.5	17.0	3.20	0.52	3.9	0.2	0.80	0.65
07/01/94	1450	GWJ	Pygmy	Fair	19.5	18.0	3.16	0.11	1.2	0.2	0.23	0.48
08/01/94	1235	GWJ	Pygmy	Poor	19.0	16.5	3.16	0.09	1.2	0.2	0.20	0.47
09/02/94	1350	GWJ	Pygmy	Poor	21.0	17.0	3.12	0.01	.4	0.1	0.03	0.28
10/04/94	1425	GWJ	Pygmy	Poor	--	--	3.14	0.02	.6	0.1	0.07	0.26
11/02/94	1305	GWJ	Pygmy	Poor	13.5	12.0	3.21	0.15	1.9	0.2	0.39	0.38
12/01/94	1400	GWJ	Pygmy	Fair	16.0	9.5	3.26	0.45	3.8	0.2	0.90	0.50
01/04/95	1605	GWJ	Pygmy	Fair	12.5	11.0	3.41	4.39	7.1	0.5	3.53	1.24
01/10/95	1310	TLL	AA	Fair	14.0	13.5	4.38	40.14	14.7	0.9	12.57	3.19
01/12/95	1455	GWJ	AA	Fair	--	--	3.62	7.84	8.4	0.5	4.02	1.95
01/19/95	1550	GWJ	Pygmy	Good	11.5	10.5	3.56	7.44	10.0	0.5	4.78	1.56
01/24/95	1300	GWJ	AA	Poor	--	--	4.97	82.54	9.6	1.7	16.48	5.01
01/27/95	1330	GWJ	AA	Fair	--	--	3.85	17.28	10.3	0.7	6.99	2.47
02/02/95	1125	TLL	Pygmy	Good	15.5	12.0	3.50	7.75	9.3	0.4	3.79	2.05
03/01/95	1250	TLL	Pygmy	Good	16.5	14.0	3.23	2.88	7.2	0.3	2.15	1.34
03/10/95	1100	GWJ	AA/Est.	Poor	--	--	9.77	890.23	31.5	4.8	150.30	5.92
03/11/95	1045	GWJ	AA	Fair	--	--	5.61	169.99	18.0	2.3	40.80	4.17
03/20/95	1115	GWJ	Pygmy	Fair	--	--	3.34	9.60	8.5	0.5	4.35	2.21
03/24/95	1225	GWJ	AA	Fair	--	--	4.46	61.73	18.0	0.9	15.50	3.98
04/04/95	1505	GWJ	Pygmy	Fair	23.0	19.0	3.49	9.09	8.6	0.4	3.13	2.90
05/02/95	1500	GWJ	Pygmy	Fair	17.0	19.0	3.27	4.25	5.7	0.3	1.78	2.38
06/01/95	1225	TLL	Pygmy	Fair	16.0	17.5	3.15	3.47	4.3	0.4	1.69	2.05
07/03/95	1145	GWJ	Pygmy	Fair	19.0	18.5	3.06	2.57	5.2	0.3	1.75	1.47
08/02/95	1300	GWJ	Pygmy	Fair	24.0	22.0	2.95	1.11	2.7	0.3	0.81	1.36
09/01/95	1400	GWJ	Pygmy	Fair	22.0	19.0	2.95	0.94	2.8	0.3	0.92	1.02

TABLE C-7

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: Hitchcock Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/26/91	1220	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/07/91	1200	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/03/91	1345	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/05/92	1230	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/03/92	1245	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/10/92	1410	GWJ	Pygmy	Fair	16.0	11.0	0.22	0.62	2.6	0.3	0.70	0.88
02/11/92	1110	GWJ	AA	Fair	--	--	0.64	7.86	8.8	0.6	5.30	1.48
02/12/92	1505	GWJ	AA	Fair	--	--	0.95	20.67	9.8	0.7	6.65	3.11
03/03/92	1455	GWJ	Pygmy	Fair	15.5	13.5	0.19	0.30	1.9	0.3	0.55	0.55
04/01/92	1234	GDH	Pygmy	Fair	17.5	17.0	0.16	0.19	2.8	0.3	0.73	0.26
04/14/92	1120	GWJ	Pygmy	Poor	--	--	0.10	0.02	.8	0.1	0.10	0.17
04/20/92	1515	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/31/92	1030	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/01/92	1325	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/03/92	1120	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/92	1245	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/01/93	1450	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/14/93	1530	GWJ	AA	Fair	--	--	1.32	35.06	10.7	1.0	10.77	3.25
01/22/93	1345	TLL	AA	Fair	13.5	11.0	0.48	5.83	7.2	0.5	3.87	1.51
02/03/93	1205	TLL	Pygmy	Fair	--	--	0.21	0.62	4.9	0.2	1.01	0.62
02/22/93	0930	GWJ	AA	Fair	--	--	0.80	15.34	9.7	0.9	8.64	1.77
03/03/93	0955	GWJ	Pygmy	Good	15.0	10.5	0.52	5.69	9.0	0.6	5.67	1.00
04/01/93	0950	TLL	Pygmy	Poor	--	--	0.31	1.34	5.6	0.4	2.09	0.64
05/03/93	1200	TLL	Estimate	na	--	--	0.04	0.10	--	--	--	--
05/20/93	1510	GWJ	na	na	--	--	--	No Flow	--	--	--	--
06/03/93	1540	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/01/93	1150	GWJ	na	na	--	--	--	No Flow	--	--	--	--
08/02/93	1030	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/02/93	1420	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/01/93	1325	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/93	0915	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/02/93	1300	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/04/94	1255	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/02/94	1400	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/08/94	1000	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/18/94	1500	TLL	Pygmy	Fair	--	--	0.32	1.34	5.0	0.3	1.59	0.84
03/02/94	1030	GWJ	na	na	--	--	--	No Flow	--	--	--	--
04/07/94	0920	GWJ	na	na	--	--	--	No Flow	--	--	--	--
05/04/94	0905	GWJ	na	na	--	--	--	No Flow	--	--	--	--
06/01/94	1435	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/01/94	1520	GWJ	na	na	--	--	--	No Flow	--	--	--	--
08/01/94	1300	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/01/94	1240	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-7 (CONTINUED)

TRIBUTARY STATION: Hitchcock Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/03/94	1245	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/94	1345	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/94	1435	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/05/95	1440	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/08/95	1520	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/10/95	1350	TLL	AA	Fair	15.5	13.0	2.48	51.68	16.1	0.9	14.51	3.56
01/12/95	1545	GWJ	AA	Fair	--	--	0.70	5.86	7.6	0.5	3.89	1.51
01/19/95	1315	TLL	Pygmy	Good	13.0	10.0	0.58	3.90	11.5	0.4	4.50	0.87
02/02/95	1210	TLL	Pygmy	Fair	16.0	13.0	0.46	2.34	5.2	0.4	1.97	1.19
02/07/95	1045	GWJ	Pygmy	Fair	--	--	0.36	1.22	3.1	0.4	1.15	1.06
02/14/95	1055	GWJ	Pygmy	Fair	--	--	0.49	1.00	3.0	0.4	1.12	0.89
03/01/95	1340	GWJ	Pygmy	Fair	16.5	14.0	0.32	0.19	2.9	0.3	0.73	0.26
03/12/95	1355	GWJ	AA	Fair	--	--	2.30	24.14	8.2	1.0	8.12	2.97
03/20/95	1200	GWJ	Pygmy	Fair	--	--	1.15	3.66	5.9	0.6	3.33	1.10
03/24/95	1200	TLL	AA	Good	15.5	10.0	1.73	19.82	10.3	0.7	6.97	2.84
04/03/95	1250	TLL	Pygmy	Fair	17.5	13.0	0.70	3.12	6.0	0.4	2.57	1.21
05/01/95	1335	TLL	Pygmy	Fair	19.0	16.5	0.46	0.74	2.7	0.3	0.72	1.03
06/02/95	1245	GWJ	Pygmy	Poor	14.0	14.5	0.31	0.07	1.1	0.3	0.33	0.21
07/03/95	1230	GWJ	na	na	--	--	--	No Flow	--	--	--	--
08/01/95	1330	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/01/95	1430	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-8

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: Garzas Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/26/91	1210	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/07/91	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/03/91	1400	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/05/92	1130	GWJ	AA	Fair	17.0	9.0	1.63	6.04	7.8	0.8	6.28	0.96
01/06/92	1550	TLL	AA	Fair	--	--	2.53	49.42	32.5	0.9	30.82	1.60
01/07/92	0925	GWJ	AA	Fair	--	--	2.13	23.09	13.6	1.3	17.49	1.32
01/09/92	1125	GWJ	AA	Good	18.5	6.5	1.59	6.09	7.8	0.8	6.58	0.93
01/17/92	1445	GWJ	Pygmy	Poor	--	--	1.00	0.49	3.4	0.2	0.68	0.72
01/24/92	1200	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/31/92	1255	TLL	na	na	--	--	--	No Flow	--	--	--	--
02/03/92	0930	GWJ	Pygmy	Poor	--	--	0.90	0.14	1.4	0.2	0.22	0.62
02/10/92	1230	TLL	AA	Good	--	--	2.37	41.48	23.0	1.5	34.76	1.19
02/11/92	0950	GWJ	AA	Good	--	--	2.74	85.56	26.5	1.9	51.01	1.68
02/12/92	1000	GWJ	AA	Fair	--	--	3.92	278.49	27.8	2.5	70.10	3.97
02/21/92	1000	GWJ	AA	Good	16.5	12.0	2.07	25.86	22.1	1.0	21.56	1.20
03/03/92	1140	GWJ	AA	Good	18.5	12.5	1.74	7.74	13.9	1.1	15.05	0.51
03/06/92	1035	GWJ	AA	Good	--	--	2.32	48.51	23.8	1.2	27.50	1.76
03/19/92	1250	GWJ	AA	Good	--	--	1.76	9.02	13.9	1.1	15.75	0.57
04/01/92	1740	GWJ	AA	Good	--	--	1.66	5.36	13.1	1.0	12.83	0.42
05/01/92	1240	TLL	Pygmy	Fair	--	--	1.43	0.72	15.5	0.3	4.60	0.16
05/11/92	1355	GWJ	Pygmy	Fair	--	--	1.27	0.10	1.4	0.2	0.26	0.37
06/01/92	1340	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/02/92	1010	GWJ	na	na	--	--	--	No Flow	--	--	--	--
08/06/92	1230	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/01/92	1300	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/02/92	1220	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/92	1700	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/92	1315	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/29/92	1055	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/30/92	1245	GWJ	Pygmy	Good	--	--	1.59	0.86	4.7	0.4	1.95	0.44
01/01/93	1520	GWJ	AA	Fair	--	--	2.59	46.83	23.9	1.4	32.41	1.44
01/04/93	1330	TLL	Pygmy	Good	8.0	6.0	1.65	4.27	12.5	0.6	7.90	0.54
01/11/93	1210	GWJ	AA	Good	16.0	8.5	2.21	29.81	15.5	1.4	21.07	1.41
01/13/93	1120	GWJ	AA	Fair	--	--	4.56	287.93	29.6	2.7	79.63	3.61
01/18/93	1220	GWJ	AA	Good	--	--	3.23	144.80	27.7	1.9	53.36	2.71
02/01/93	1605	GWJ	AA	Good	12.0	9.5	2.10	15.65	20.0	0.9	18.97	0.83
02/22/93	1020	GWJ	AA	Good	--	--	2.90	95.19	27.0	1.7	46.20	2.06
02/26/93	1345	GWJ	AA	Good	--	--	3.35	158.96	29.5	2.0	59.67	2.66
03/02/93	1015	TLL	AA	Good	--	--	2.58	59.42	26.5	1.3	34.60	1.72
03/23/93	1450	GWJ	AA	Fair	--	--	1.96	10.57	23.9	0.8	19.97	0.53
04/01/93	1305	GWJ	AA	Good	15.5	13.5	2.15	22.09	20.6	1.2	23.89	0.92
05/03/93	1330	TLL	Pygmy	Fair	--	--	1.82	8.03	12.0	0.4	5.34	1.50
06/03/93	1450	GWJ	Pygmy	Fair	18.0	18.5	1.63	2.29	7.4	0.7	5.23	0.44

TABLE C-8 (CONTINUED)

TRIBUTARY STATION: Garzas Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
07/01/93	1235	GWJ	Pygmy	Poor	20.0	19.0	1.24	0.11	1.0	0.3	0.27	0.40
07/09/93	1320	GWJ	na	na	--	--	--	No Flow	--	--	--	--
08/02/93	1040	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/02/93	1445	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/30/93	1620	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/93	1315	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/02/93	1215	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/04/94	1035	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/25/94	1515	GWJ	Pygmy	Fair	14.0	8.5	1.64	1.55	5.4	0.4	2.05	0.76
02/01/94	1515	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/08/94	1330	GWJ	AA	Good	15.0	10.0	2.06	11.64	13.6	1.4	18.42	0.63
02/22/94	1250	GWJ	AA	Good	13.0	9.0	2.08	17.02	16.8	0.8	14.21	1.20
03/02/94	1300	TLL	Pygmy	Good	--	--	1.70	3.57	15.5	0.4	6.73	0.53
04/06/94	1235	GWJ	Pygmy	Poor	17.0	15.0	1.30	0.21	1.9	0.2	0.46	0.46
04/19/94	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
04/27/94	1115	GWJ	Pygmy	Good	11.5	12.5	1.67	2.73	11.0	0.5	4.98	0.55
05/04/94	1025	GWJ	Pygmy	Fair	19.0	13.5	1.39	0.53	3.0	0.3	0.92	0.58
06/02/94	1400	TLL	na	na	--	--	--	No Flow	--	--	--	--
07/01/94	1540	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/01/94	1300	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/03/94	1305	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/94	1415	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/94	1520	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/03/95	1615	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/05/95	1120	GWJ	AA	Fair	12.5	10.0	2.27	24.61	19.5	1.1	22.09	1.11
01/10/95	1445	GWJ	AA	Poor	--	--	4.83	288.43	35.0	2.2	77.55	3.72
01/13/95	0950	TLL	AA	Fair	15.5	13.5	2.29	32.96	24.7	1.0	25.69	1.28
01/17/95	1415	GWJ	AA	Good	13.5	10.0	2.54	55.04	25.8	1.3	34.03	1.62
01/24/95	1100	GWJ	AA	Good	--	--	3.45	179.49	28.5	2.2	62.20	2.89
02/01/95	1000	TLL	AA	Good	14.5	12.0	2.20	27.44	24.7	1.1	26.91	1.02
03/01/95	1420	TLL	Pygmy	Fair	17.0	14.0	1.82	5.08	15.0	0.8	12.48	0.41
03/11/95	1410	GWJ	AA	Fair	--	--	4.04	195.10	30.0	1.8	54.19	3.60
03/20/95	1040	TLL	AA	Good	17.5	14.5	2.42	30.64	23.0	0.9	21.84	1.40
03/24/95	1100	GWJ	AA	Good	15.0	11.0	3.17	119.38	26.0	2.0	51.07	2.34
04/04/95	1610	GWJ	AA	Good	20.0	16.0	2.26	23.65	23.5	1.0	24.34	0.97
05/01/95	1410	TLL	AA	Good	17.0	19.0	2.18	22.89	23.5	1.0	22.99	1.00
06/02/95	1320	GWJ	Pygmy	Good	15.5	15.5	1.95	7.33	20.7	0.7	15.42	0.48
07/07/95	1330	GWJ	Pygmy	Fair	26.0	22.0	1.84	2.18	8.8	0.8	6.97	0.31
08/01/95	1410	GWJ	Pygmy	Poor	26.5	23.5	1.51	0.24	1.8	0.2	0.42	0.58
08/14/95	1400	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/01/95	1435	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-9

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

MAINSTEM STATION: Don Juan Bridge
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/21/91	0925	GWJ	Pygmy	Fair	--	--	3.70	1.16	9.0	0.6	5.42	0.21
10/21/91	1640	GWJ	Pygmy	Fair	--	--	3.67	1.01	8.9	0.6	4.98	0.20
04/14/92	1210	GWJ	AA	Good	--	--	4.84	59.40	34.6	1.2	42.19	1.41
05/15/92	1025	GWJ	AA	Good	24.0	15.5	4.22	16.75	25.0	1.1	26.41	0.63
06/01/92	1420	GWJ	AA	Good	19.5	19.5	4.07	10.19	19.5	0.9	16.70	0.61
07/02/92	1355	GWJ	AA	Fair	--	--	3.84	3.04	10.9	0.7	7.73	0.39
07/31/92	1540	GWJ	Pygmy	Fair	19.5	20.0	3.77	1.95	8.3	0.6	4.73	0.41
09/02/92	1530	GWJ	Pygmy	Fair	19.5	19.0	3.78	1.59	7.1	0.6	4.09	0.39
10/01/92	1430	GWJ	Pygmy	Fair	17.0	18.0	3.75	1.63	7.4	0.6	4.27	0.38
11/03/92	1355	GWJ	Pygmy	Fair	22.5	15.5	3.83	2.34	7.5	0.6	4.67	0.50
12/01/92	1415	GWJ	Pygmy	Fair	16.5	11.5	3.84	1.92	7.5	0.7	4.90	0.39
12/29/92	1050	TLL	AA	Good	12.0	11.0	4.82	45.35	33.2	1.2	38.80	1.17
12/30/92	1420	TLL	AA	Good	10.0	11.5	5.95	189.82	78.0	2.3	181.70	1.04
01/07/93	1035	GWJ	AA	Poor	--	--	8.53	1206.44	47.3	6.6	313.48	3.85
01/26/93	1430	GWJ	AA	Good	28.0	11.0	6.74	515.30	71.5	3.0	214.84	2.40
02/01/93	1330	TLL	AA	Good	--	--	6.11	252.58	77.0	2.1	162.70	1.55
02/16/93	1050	GWJ	AA	Good	12.0	10.0	6.01	225.03	57.5	2.6	149.91	1.50
02/19/93	1200	GWJ	AA	Poor	--	--	10.14	3030.17	97.0	6.8	661.04	4.58
03/05/93	1500	GWJ	AA	Good	22.5	12.5	6.66	507.97	72.0	2.9	211.89	2.40
03/22/93	1200	GWJ	AA	Good	--	--	5.72	178.68	63.0	2.1	135.41	1.32
04/01/93	1130	GWJ	AA	Fair	19.0	14.0	5.84	213.06	63.5	2.3	143.33	1.49
05/03/93	1145	GWJ	AA	Fair	24.0	17.0	4.98	69.97	61.3	1.7	103.46	0.68
06/03/93	1245	GWJ	AA	Good	20.5	18.0	4.73	38.90	23.6	1.7	40.23	0.97
07/01/93	1330	GWJ	AA	Fair	17.5	18.5	4.43	15.29	11.6	1.2	14.20	1.08
08/02/93	1235	GWJ	Pygmy	Fair	23.5	20.0	4.16	4.79	11.0	1.0	10.64	0.45
09/01/93	1450	GWJ	Pygmy	Fair	22.0	19.0	4.10	3.42	6.8	0.6	4.32	0.79
10/04/93	1400	GWJ	Pygmy	Fair	18.0	17.0	4.13	3.57	6.2	0.6	3.92	0.91
11/01/93	1455	GWJ	Pygmy	Fair	20.0	15.5	4.14	3.45	6.1	0.6	3.85	0.90
12/01/93	1540	GWJ	Pygmy	Good	11.5	13.0	4.25	5.32	11.3	1.1	12.09	0.44
01/04/94	1335	GWJ	AA	Good	12.5	12.5	4.30	6.38	10.8	1.1	12.39	0.52
01/27/94	0920	GWJ	AA	Good	12.0	10.0	4.87	37.85	24.7	1.8	45.13	0.84
02/01/94	1545	GWJ	AA	Fair	13.5	11.0	4.56	18.97	24.7	1.5	38.23	0.50
02/08/94	1515	GWJ	AA	Fair	13.5	11.0	5.86	155.27	70.2	2.3	159.03	0.98
03/01/94	1705	GWJ	AA	Fair	14.0	14.5	5.19	79.31	37.8	1.4	54.79	1.45
03/15/94	1335	GWJ	AA	Good	15.5	14.5	4.69	29.72	20.5	1.5	29.87	1.00
04/06/94	1320	GWJ	AA	Good	18.0	15.5	4.48	17.04	19.6	1.2	24.42	0.70
05/02/94	1530	TLL	AA	Fair	21.0	15.5	4.44	13.80	19.0	1.3	24.48	0.56
06/01/94	1515	GWJ	AA	Good	21.0	18.0	4.39	9.14	19.3	1.1	22.04	0.41
07/01/94	1620	GWJ	Pygmy	Fair	16.0	18.0	4.10	2.06	6.4	0.4	2.63	0.78
08/01/94	1505	GWJ	Pygmy	Fair	18.0	18.0	4.06	1.17	5.0	0.3	1.68	0.70
09/01/94	1430	GWJ	Pygmy	Fair	19.0	18.0	4.04	1.05	4.2	0.3	1.40	0.75
10/03/94	1345	GWJ	Pygmy	Fair	--	--	4.08	1.13	3.3	0.4	1.36	0.83
11/02/94	0925	GWJ	Pygmy	Fair	10.5	13.0	4.16	1.41	3.4	0.4	1.46	0.96

TABLE C-9 (CONTINUED)

MAINSTEM STATION: Don Juan Bridge
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
11/08/94	1530	GWJ	Pygmy	Fair	14.0	14.0	4.12	1.59	3.6	0.6	2.15	0.74
12/01/94	1545	GWJ	Pygmy	Fair	13.0	12.0	4.21	1.95	3.3	0.5	1.75	1.12
01/05/95	0945	GWJ	AA	Fair	13.0	10.0	5.52	103.65	42.0	3.0	126.72	0.82
01/08/95	1245	GWJ	AA	Fair	16.5	11.0	6.22	270.34	49.5	3.0	147.59	1.83
01/10/95	1015	GWJ	AA	Fair	--	--	12.35	5702.00	101.0	9.6	967.00	5.90
01/13/95	1550	GWJ	AA	Fair	--	--	6.87	718.00	54.6	6.4	348.84	2.06
01/20/95	0945	GWJ	AA	Good	--	--	6.27	436.40	72.0	2.5	177.40	2.46
01/24/95	1415	GWJ	AA	Fair	--	--	9.38	2246.00	93.0	5.8	536.90	4.18
02/02/95	1415	GWJ	AA	Fair	28.5	14.0	6.15	394.79	71.5	2.5	178.97	2.21
02/17/95	1420	GWJ	AA	Fair	18.0	12.5	5.12	163.78	50.8	2.6	132.10	1.24
03/01/95	1430	GWJ	AA	Good	17.0	14.0	4.78	103.11	38.7	1.5	59.66	1.73
03/12/95	1130	GWJ	AA	Fair	--	--	9.72	2346.14	91.1	8.3	758.62	3.09
03/24/95	1010	GWJ	AA	Fair	--	--	8.74	1581.63	84.0	6.1	512.68	3.09
04/03/95	1320	GWJ	AA	Fair	25.5	14.5	6.62	458.56	82.4	2.6	215.70	2.13
04/18/95	1410	GWJ	AA	Good	12.5	13.0	5.72	229.79	49.3	2.2	108.10	2.13
05/01/95	1720	GWJ	AA	Fair	15.5	16.5	5.91	270.81	49.2	2.3	113.51	2.39
05/18/95	1425	GWJ	AA	Good	--	--	5.39	169.33	48.5	1.9	93.32	1.81
06/01/95	1520	GWJ	AA	Good	15.0	19.0	5.03	97.51	45.9	1.6	72.88	1.34
06/21/95	1320	GWJ	AA	Fair	--	--	4.80	67.28	43.6	1.3	55.43	1.21
07/03/95	1450	GWJ	AA	Fair	19.0	21.5	4.59	42.40	41.0	1.1	45.85	0.92
07/17/95	1350	GWJ	AA	Fair	--	--	4.36	22.84	34.7	1.2	42.21	0.54
08/01/95	1510	GWJ	AA	Good	22.0	22.5	4.19	13.37	22.6	0.9	21.27	0.63
09/01/95	1520	GWJ	AA	Fair	19.0	20.5	4.08	7.87	20.0	0.9	17.99	0.44

TABLE C-10

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

MAINSTEM STATION: Scarlett Narrows
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
10/10/91	1520	GWJ	Pygmy	Fair	23.5	17.0	1.48	1.83	8.8	0.4	3.56	0.51
10/21/91	1120	GWJ	Pygmy	Fair	18.0	15.5	1.56	1.83	14.8	0.7	11.05	0.17
11/14/91	1525	GWJ	AA	Fair	15.0	12.5	1.24	2.43	14.7	0.8	11.49	0.21
11/27/91	1050	GWJ	Pygmy	Good	14.0	12.0	1.11	0.95	5.2	0.5	2.60	0.36
01/27/92	1005	TLL	AA	Fair	14.5	10.5	1.75	20.19	24.0	1.4	32.67	0.62
02/10/92	1345	TLL	AA	Fair	--	--	2.46	99.10	46.0	1.4	64.46	1.54
02/24/92	1525	GWJ	AA	Good	--	--	3.29	239.77	78.0	2.4	189.05	1.27
03/03/92	1155	TLL	AA	Fair	17.0	14.0	2.77	146.12	52.0	1.5	78.20	1.87
03/06/92	1145	GWJ	AA	Good	--	--	3.78	380.68	88.0	2.7	239.21	1.59
03/30/92	1345	GWJ	AA	Fair	--	--	2.65	106.20	79.0	1.7	137.20	0.77
04/14/92	1400	GWJ	AA	Fair	--	--	2.28	57.77	51.5	1.9	95.61	0.60
05/01/92	1335	TLL	AA	Fair	--	--	1.89	22.65	25.9	0.8	21.06	1.08
05/15/92	1145	GWJ	AA	Good	17.0	17.0	1.84	17.21	28.0	1.1	31.29	0.55
06/01/92	1540	GWJ	AA	Fair	19.5	21.0	1.66	10.66	26.5	1.0	26.60	0.40
07/02/92	1500	GWJ	Pygmy	Good	--	--	1.38	3.92	7.3	0.6	4.61	0.85
07/31/92	1135	GWJ	Pygmy	Fair	29.0	19.5	1.31	2.84	7.3	0.6	4.14	0.68
09/02/92	1630	GWJ	Pygmy	Good	18.0	19.5	1.26	2.17	7.3	0.5	4.01	0.54
10/01/92	1545	GWJ	Pygmy	Good	18.0	18.0	1.30	2.33	7.3	0.6	4.47	0.52
11/03/92	1455	GWJ	Pygmy	Good	19.5	15.5	1.38	3.20	7.4	0.7	5.12	0.63
12/01/92	1410	TLL	Pygmy	Fair	14.5	11.0	1.37	2.61	7.1	0.6	4.55	0.57
02/01/93	1425	TLL	AA	Good	--	--	3.10	249.47	76.0	1.5	117.76	2.12
04/01/93	1245	TLL	AA	Good	--	--	2.49	207.54	71.0	1.7	120.88	1.72
05/03/93	1500	TLL	AA	Fair	--	--	1.73	69.24	72.0	1.1	77.03	0.90
06/03/93	1425	TLL	AA	Good	22.0	19.0	1.51	39.57	53.2	1.2	64.26	0.62
07/01/93	1450	GWJ	AA	Fair	16.0	20.0	1.15	18.39	10.7	0.8	8.07	2.28
08/02/93	1230	TLL	Pygmy	Fair	24.0	21.0	0.78	5.97	10.2	0.4	3.69	1.61
09/01/93	1400	TLL	Pygmy	Fair	21.5	19.5	0.70	3.36	9.4	0.5	4.88	0.69
10/04/93	1500	GWJ	Pygmy	Good	18.5	17.0	0.70	3.66	6.6	0.5	3.04	1.20
11/01/93	1130	TLL	Pygmy	Fair	--	--	0.70	3.33	7.5	0.5	3.47	0.96
12/01/93	1410	TLL	Pygmy	Fair	--	--	0.80	5.73	10.5	0.6	6.30	0.91
01/04/94	1315	TLL	Pygmy	Fair	--	--	0.89	6.91	7.1	0.6	4.09	1.69
02/01/94	1430	TLL	AA	Good	--	--	1.08	21.77	11.4	0.8	8.94	2.44
03/01/94	0940	TLL	AA	Good	--	--	1.43	83.06	32.0	1.4	44.42	1.87
04/06/94	1100	TLL	AA	Good	--	--	0.63	19.16	21.3	0.7	15.74	1.22
05/02/94	1550	GWJ	AA	Fair	16.5	17.0	0.59	15.15	18.4	0.8	14.50	1.04
06/01/94	1130	TLL	Pygmy	Fair	25.0	18.5	0.54	11.32	18.0	0.7	12.77	0.89
07/05/94	1455	GWJ	Pygmy	Fair	18.0	18.5	0.34	2.53	5.7	0.6	3.40	0.74
08/01/94	1600	GWJ	Pygmy	Fair	15.5	17.5	0.29	1.78	5.6	0.5	3.05	0.58
09/01/94	1520	GWJ	Pygmy	Fair	18.0	18.0	0.29	1.38	5.2	0.5	2.57	0.54
10/03/94	1510	GWJ	Pygmy	Fair	--	--	0.32	1.49	5.2	0.5	2.66	0.56

TABLE C-11

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: Robinson Canyon Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
11/01/91	1540	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/03/91	1430	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/29/91	1440	GWJ	Pygmy	Good	--	--	0.65	3.09	6.5	0.6	3.62	0.85
01/03/92	1300	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/15/92	1545	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/03/92	1300	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/11/92	1200	TLL	AA	Fair	--	--	0.74	7.27	8.4	0.6	5.15	1.41
02/12/92	1015	TLL	AA	Fair	--	--	1.22	37.18	13.4	0.9	12.35	3.01
02/27/92	1410	GWJ	Pygmy	Fair	--	--	0.17	0.67	1.7	0.4	0.68	0.98
03/03/92	1540	GWJ	Pygmy	Fair	14.0	12.5	0.10	0.49	1.7	0.3	0.53	0.94
03/06/92	1325	GWJ	AA	Fair	--	--	0.69	7.66	9.1	0.5	4.77	1.61
03/19/92	1345	GWJ	Pygmy	Fair	--	--	0.14	0.73	2.4	0.3	0.74	0.99
04/01/92	1346	GDH	Pygmy	Fair	18.5	15.0	0.06	0.47	3.4	0.3	1.02	0.46
04/14/92	1515	GWJ	Pygmy	Fair	--	--	0.15	0.16	1.3	0.1	0.18	0.94
06/01/92	1655	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/02/92	1550	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/02/92	1545	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/03/92	1610	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/03/92	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/29/92	0940	TLL	Pygmy	Fair	13.0	8.0	0.40	1.39	7.6	0.4	2.71	0.51
01/01/93	1650	GWJ	AA	Good	--	--	0.73	6.90	7.9	0.6	4.59	1.50
01/08/93	1245	GWJ	AA	Fair	--	--	0.86	10.53	9.5	0.7	7.05	1.49
01/14/93	1535	TLL	AA	Fair	--	--	1.25	48.39	9.5	1.2	10.96	4.41
01/18/93	1525	GWJ	AA	Good	--	--	1.04	27.36	12.8	1.1	14.57	1.88
01/27/93	1345	TLL	Pygmy	Fair	--	--	0.11	2.95	7.2	0.5	3.30	0.90
02/03/93	1250	TLL	Pygmy	Fair	--	--	0.13	1.41	7.7	0.3	2.43	0.58
02/16/93	1250	GWJ	Pygmy	Good	--	--	0.35	2.16	5.8	0.4	2.14	1.01
02/22/93	1140	GWJ	AA	Fair	--	--	0.27	20.06	10.9	1.1	11.97	1.68
02/26/93	1530	GWJ	AA	Fair	--	--	3.95	50.76	8.7	1.3	11.44	4.44
03/02/93	1120	TLL	AA	Fair	--	--	3.40	8.62	10.0	0.9	9.17	0.94
03/10/93	1600	GWJ	Pygmy	Fair	--	--	3.15	2.86	6.7	0.5	3.26	0.88
03/16/93	1500	GWJ	Pygmy	Fair	--	--	3.05	1.74	6.5	0.4	2.62	0.66
03/27/93	1130	GWJ	AA	Fair	--	--	3.44	15.44	10.9	1.0	10.68	1.45
04/01/93	1120	TLL	Pygmy	Good	--	--	3.19	4.83	8.6	0.7	6.20	0.78
05/03/93	1310	GWJ	Pygmy	Fair	19.5	14.5	2.94	0.40	2.5	0.4	0.91	0.44
06/03/93	1045	GWJ	Pygmy	Fair	19.5	14.0	2.88	0.13	1.8	0.3	0.59	0.22
07/01/93	1555	GWJ	Estimate	na	--	--	--	0.01	--	--	--	--
07/29/93	1245	GWJ	na	na	--	--	--	No Flow	--	--	--	--
08/12/93	1150	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/02/93	1645	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/18/93	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/02/93	1140	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/04/94	0935	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-11 (CONTINUED)

TRIBUTARY STATION: Robinson Canyon Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
01/24/94	1500	GWJ	Pygmy	Fair	11.0	9.5	2.96	0.48	3.2	0.4	1.27	0.38
02/02/94	1435	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/18/94	1510	GWJ	Pygmy	Fair	8.5	8.0	3.17	3.24	8.0	0.8	6.30	0.51
03/02/94	1400	TLL	Pygmy	Fair	--	--	2.90	0.28	3.4	0.3	1.01	0.28
05/04/94	1055	GWJ	Estimate	na	--	--	2.81	0.03	--	--	--	--
06/02/94	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/01/94	1700	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/02/94	1425	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/04/94	1500	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/94	1450	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/94	1620	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/03/95	1100	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/05/95	1525	GWJ	Pygmy	Fair	11.0	10.5	3.03	1.12	4.9	0.5	2.28	0.49
01/11/95	1120	TLL	AA	Fair	13.0	11.0	3.55	19.89	13.7	1.1	14.39	1.38
01/19/95	1415	TLL	Pygmy	Good	11.0	9.5	3.18	4.80	10.0	0.7	6.60	0.73
02/01/95	1240	TLL	Pygmy	Fair	15.5	13.0	3.03	3.04	9.8	0.5	4.49	0.68
03/01/95	1300	GWJ	Pygmy	Fair	15.5	13.0	2.80	0.48	2.8	0.3	0.86	0.56
03/12/95	1450	GWJ	AA	Fair	--	--	3.82	22.92	10.9	0.8	9.23	2.48
03/20/95	1150	TLL	AA	Fair	--	--	3.46	4.37	9.6	0.5	4.99	0.88
03/23/95	1540	GWJ	AA	Fair	--	--	3.91	57.98	10.6	1.7	17.75	3.27
04/04/95	1745	GWJ	Pygmy	Good	15.0	12.5	3.01	2.74	5.1	0.5	2.65	1.03
05/01/95	1235	TLL	Pygmy	Fair	18.0	15.0	2.89	0.90	3.9	0.5	1.77	0.51
06/02/95	1425	GWJ	Pygmy	Fair	14.0	14.0	2.78	0.26	2.0	0.2	0.47	0.55
07/07/95	1425	GWJ	Pygmy	Poor	23.5	19.0	2.70	0.09	1.0	0.2	0.21	0.41
08/02/95	1400	GWJ	Estimate	na	--	--	2.49	0.01	--	--	--	--
09/06/95	1400	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-12

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: Potrero Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
12/29/91	1605	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/15/92	1615	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/03/92	1310	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/10/92	0940	TLL	na	na	--	--	--	No Flow	--	--	--	--
02/11/92	1000	TLL	AA	Fair	--	--	1.17	6.18	6.4	1.1	6.79	0.91
02/12/92	1105	TLL	AA	Good	--	--	1.82	31.65	7.3	1.7	12.32	2.57
02/27/92	1435	GWJ	Pygmy	Fair	--	14.0	0.72	0.73	2.3	0.4	0.99	0.73
03/06/92	1420	GWJ	AA	Good	--	--	1.12	13.20	7.2	0.8	6.02	2.19
03/19/92	1420	GWJ	Pygmy	Good	--	--	0.75	0.95	6.1	0.4	2.73	0.35
04/01/92	1440	GDH	Pygmy	Fair	--	--	0.68	0.44	5.6	0.4	2.20	0.20
04/20/92	1610	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/02/92	1600	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/03/92	1045	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/01/93	1730	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/05/93	1200	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/08/93	1410	TLL	Pygmy	Fair	11.0	9.0	1.40	11.79	7.4	1.2	8.82	1.34
01/14/93	1620	TLL	AA	Fair	--	--	3.46	39.24	14.4	1.7	24.68	1.59
01/27/93	1435	TLL	Pygmy	Fair	--	--	1.44	3.41	6.2	0.4	2.58	1.32
02/03/93	1425	TLL	Pygmy	Fair	--	--	1.17	1.63	5.0	0.3	1.30	1.25
02/16/93	1250	GWJ	Pygmy	Fair	--	--	1.47	2.25	6.3	0.2	1.51	1.49
02/22/93	1245	GWJ	AA	Good	--	--	2.86	20.50	10.5	0.9	9.22	2.22
03/02/93	1320	TLL	AA	Fair	--	--	2.54	11.45	10.1	0.5	5.46	2.10
04/01/93	1405	TLL	Pygmy	Fair	--	--	2.52	4.76	9.4	0.4	3.54	1.34
05/03/93	1350	GWJ	Pygmy	Fair	14.5	14.5	1.72	0.29	2.6	0.2	0.58	0.49
06/03/93	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/18/93	1115	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/02/93	1110	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/04/94	0935	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/02/94	1500	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/09/94	1020	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/17/94	1430	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/18/94	1430	GWJ	Pygmy	Poor	12.0	9.5	1.35	0.09	1.9	0.2	0.31	0.29
02/22/94	0945	GWJ	Pygmy	Good	10.0	7.5	1.00	1.91	4.7	0.4	1.97	0.97
03/02/94	0940	GWJ	na	na	--	--	--	No Flow	--	--	--	--
04/05/94	1110	GWJ	na	na	--	--	--	No Flow	--	--	--	--
05/17/94	1020	GWJ	na	na	--	--	--	No Flow	--	--	--	--
06/02/94	1435	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/01/94	1710	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/02/94	1430	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/04/94	1510	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/94	1505	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/94	1640	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/06/95	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-12 (CONTINUED)

TRIBUTARY STATION: Potrero Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
01/11/95	1215	TLL	AA	Fair	14.0	11.5	1.42	15.68	7.4	1.1	8.38	1.87
01/19/95	1515	TLL	Pygmy	Good	11.0	10.0	1.08	3.76	6.2	0.8	4.80	0.78
01/27/95	1520	GWJ	AA	Fair	--	--	1.10	6.78	6.8	0.7	4.80	1.41
02/01/95	1340	TLL	Pygmy	Good	16.5	13.0	0.90	2.52	5.4	0.4	2.20	1.15
03/01/95	1535	GWJ	Pygmy	Fair	16.5	14.0	0.70	0.31	2.6	0.2	0.59	0.53
03/10/95	1430	GWJ	AA	Fair	--	--	3.50	225.03	19.3	2.5	47.77	4.71
03/20/95	1245	TLL	AA	Fair	--	--	1.07	4.83	6.8	1.0	7.07	0.68
03/23/95	1445	GWJ	AA	Fair	--	--	1.74	54.31	9.0	1.8	15.77	3.44
04/03/95	1330	TLL	Pygmy	Good	14.0	18.0	0.93	4.67	7.0	0.4	2.55	1.84
05/01/95	1200	TLL	Pygmy	Fair	19.0	17.0	0.80	0.84	4.7	0.3	1.28	0.66
06/02/95	1515	GWJ	Pygmy	Poor	14.0	15.0	0.66	0.07	1.4	0.2	0.25	0.27
06/20/95	1510	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/07/95	1500	GWJ	na	na	--	--	--	No Flow	--	--	--	--
08/02/95	1415	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/01/95	1620	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-13

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

MAINSTEM STATION: Highway 1 Bridge
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
02/11/92	1050	TLL	AA	Fair	--	--	3.36	156.87	73.0	1.2	88.13	1.78
02/11/92	1305	GWJ	AA	Fair	--	--	4.06	348.89	73.0	1.8	129.88	2.69
02/13/92	1420	GWJ	AA	Fair	--	--	5.70	975.59	119.3	2.6	304.60	3.20
02/15/92	0940	GWJ	AA	Fair	--	--	9.28	3148.00	144.0	5.5	786.35	4.00
02/24/92	1700	GWJ	AA	Good	--	--	3.66	261.91	66.0	1.6	103.86	2.52
03/03/92	1455	TLL	AA	Fair	20.0	16.0	3.27	141.08	63.0	1.0	65.28	2.16
03/16/92	1510	GWJ	AA	Good	--	--	3.18	171.96	64.5	1.2	78.81	2.18
03/30/92	1515	GWJ	AA	Fair	--	--	2.94	111.49	63.7	0.9	57.52	1.94
04/14/92	1610	GWJ	AA	Good	--	--	2.59	62.28	43.0	0.7	31.94	1.95
05/01/92	1440	TLL	Pygmy	Fair	--	--	2.24	15.56	21.4	0.5	11.22	1.39
05/15/92	1405	GWJ	Pygmy	Good	16.5	23.0	2.11	7.90	11.6	0.6	6.89	1.15
06/01/92	1810	GWJ	Pygmy	Fair	17.0	18.0	1.78	0.46	2.8	0.2	0.67	0.69
07/02/92	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/02/92	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/92	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/02/93	1350	GWJ	AA	Good	--	--	2.73	61.90	39.9	0.8	33.63	1.84
01/05/93	1040	GWJ	Pygmy	Good	--	--	2.30	17.79	25.7	0.6	14.31	1.24
01/07/93	1325	GWJ	AA	Poor	--	--	5.95	914.90	119.0	2.7	326.30	2.80
01/11/93	1500	GWJ	AA	Good	--	--	4.09	342.18	65.5	2.0	133.43	2.56
01/13/93	1315	GWJ	AA	Fair	--	--	10.18	3603.73	120.0	6.9	828.15	4.35
01/14/93	1050	GWJ	AA	Poor	--	--	11.43	4689.12	104.0	9.7	1009.85	4.64
01/20/93	1545	TLL	AA	Good	--	--	5.40	990.39	110.0	2.6	285.00	3.48
01/25/93	1430	GWJ	AA	Good	--	--	4.58	619.35	106.3	2.0	210.46	2.94
02/01/93	1230	GWJ	AA	Good	15.5	10.0	3.46	275.99	66.1	1.7	109.74	2.52
02/16/93	1420	GWJ	AA	Fair	--	--	3.42	242.05	65.8	1.6	103.90	2.33
02/19/93	1520	GWJ	AA	Fair	--	--	9.21	2950.56	112.0	6.1	678.23	4.35
03/01/93	1525	GWJ	AA	Good	--	--	5.37	844.47	110.5	2.2	248.33	3.40
03/22/93	1030	GWJ	AA	Good	--	--	3.46	208.74	65.5	1.3	87.71	2.38
04/01/93	1000	GWJ	AA	Good	--	--	3.60	250.40	64.5	1.5	97.04	2.58
05/03/93	1555	GWJ	AA	Good	14.5	18.0	2.84	73.63	33.5	1.1	36.38	2.02
06/02/93	1515	GWJ	AA	Good	19.5	22.5	2.61	49.72	30.2	0.9	26.78	1.86
06/22/93	1400	GWJ	Pygmy	Good	--	--	2.14	17.33	16.0	0.7	11.19	1.55
07/01/93	1635	GWJ	Pygmy	Fair	17.5	21.0	1.77	4.37	14.1	0.4	5.90	0.74
07/08/93	1625	GWJ	Pygmy	Poor	--	--	1.54	0.52	2.0	0.2	0.43	1.20
08/02/93	1520	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/03/93	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/05/93	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/18/93	1000	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/04/94	0930	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/26/94	1055	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/02/94	1600	GWJ	na	na	--	--	--	No Flow	--	--	--	--
02/09/94	1125	GWJ	Pygmy	Fair	15.0	10.5	2.23	22.07	23.3	0.7	16.27	1.36
02/18/94	1640	GWJ	AA	Fair	9.5	10.0	3.48	213.06	63.9	1.5	98.48	2.16

TABLE C-13 (CONTINUED)

MAINSTEM STATION: Highway 1 Bridge
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
03/01/94	1115	TLL	AA	Good	--	--	2.80	77.00	56.0	0.7	40.77	1.89
03/15/94	1115	GWJ	AA	Good	16.5	15.5	2.31	28.19	19.0	0.8	16.05	1.76
04/06/94	1210	TLL	Pygmy	Good	--	--	1.90	6.05	15.2	0.4	5.88	1.03
04/15/94	1450	GWJ	Pygmy	Good	18.0	21.0	1.81	3.81	9.4	0.6	5.26	0.72
04/21/94	1440	GWJ	Pygmy	Good	17.5	20.5	1.63	0.82	4.4	0.3	1.26	0.65
04/27/94	1610	GWJ	Pygmy	Fair	15.0	19.0	1.96	7.90	7.0	0.8	5.88	1.34
05/04/94	1440	GWJ	Pygmy	Good	17.0	20.5	1.64	1.00	4.7	0.3	1.52	0.66
05/12/94	1045	GWJ	Pygmy	Good	14.0	17.0	1.90	5.83	7.5	0.7	5.30	1.10
06/01/94	1640	GWJ	Pygmy	Poor	16.0	21.5	1.62	0.24	2.5	0.2	0.44	0.53
06/10/94	1645	GWJ	na	na	--	--	--	No Flow	--	--	--	--
07/05/94	1710	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/02/94	1440	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/94	1515	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/94	1130	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/05/95	1715	GWJ	na	na	--	--	--	No Flow	--	--	--	--
01/08/95	1600	GWJ	AA	Fair	--	--	2.37	24.34	21.3	0.9	19.45	1.25
01/11/95	1535	GWJ	AA	Fair	--	--	6.51	1876.55	113.5	4.0	457.13	4.11
01/13/95	1400	GWJ	AA	Fair	--	--	4.19	627.47	96.5	1.9	184.13	3.41
01/20/95	1120	GWJ	AA	Good	--	--	3.59	443.92	67.3	1.9	128.81	3.45
01/24/95	1645	GWJ	AA	Fair	--	--	7.51	2221.70	125.0	4.4	550.55	4.04
02/02/95	1030	GWJ	AA	Fair	22.0	12.5	3.76	409.84	68.1	2.1	145.72	2.81
02/17/95	1550	GWJ	AA	Good	15.0	13.0	2.68	176.08	62.0	1.3	78.86	2.23
03/01/95	1020	GWJ	AA	Good	18.5	14.0	2.37	108.07	37.7	1.4	51.16	2.11
04/03/95	1110	GWJ	AA	Fair	24.5	13.5	3.43	508.47	76.0	2.3	176.51	2.88
04/18/95	1625	GWJ	AA	Fair	12.0	14.5	2.80	260.23	71.5	1.4	103.50	2.51
05/01/95	1155	GWJ	AA	Fair	21.5	18.0	3.06	299.82	68.5	1.8	119.88	2.50
05/08/95	1330	GWJ	AA	Fair	--	--	4.75	211.86	68.9	1.3	92.98	2.28
05/18/95	1600	GWJ	AA	Good	--	--	4.71	188.49	67.9	1.3	88.79	2.12
05/26/95	1415	GWJ	AA	Fair	--	--	4.51	137.46	64.8	1.1	71.29	1.93
06/01/95	1335	TLL	AA	Fair	18.0	19.5	4.35	118.97	58.0	1.0	57.55	2.07
06/09/95	0935	GWJ	AA	Fair	--	--	4.26	94.24	43.9	1.0	43.68	2.16
06/21/95	1535	GWJ	AA	Fair	--	--	4.16	77.41	43.1	1.0	42.49	1.82
07/03/95	1620	GWJ	Pygmy	Fair	18.0	22.5	3.98	49.07	42.4	0.7	28.86	1.70
07/17/95	1530	GWJ	Pygmy	Fair	--	--	3.71	20.63	23.7	0.5	12.92	1.60
08/01/95	1645	GWJ	Pygmy	Fair	17.0	24.0	3.50	9.64	17.9	0.4	7.20	1.34
08/14/95	1545	GWJ	Pygmy	Fair	--	--	3.32	1.72	6.1	0.3	1.65	1.04
08/18/95	1130	GWJ	Pygmy	Poor	--	--	3.24	0.50	2.3	0.3	0.65	0.78
09/06/95	1500	GWJ	Pygmy	Poor	--	--	3.20	0.04	.6	0.1	0.09	0.44
09/19/95	1215	GWJ	na	na	--	--	--	No Flow	--	--	--	--
09/26/95	1645	GWJ	na	na	--	--	--	No Flow	--	--	--	--

TABLE C-14

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
DISCHARGE MEASUREMENT SUMMARY SHEET

TRIBUTARY STATION: San Jose Creek
Water Years: 1992-95

DATE	TIME	MADE BY	INSTRUMENT	RATING	AIR TEMP. (deg C)	WATER TEMP. (deg C)	GAGE HEIGHT (feet)	DISCHARGE (CFS)	SECTION WIDTH (feet)	MEAN DEPTH (feet)	AREA (sqft)	MEAN VELOCITY (ft/sec)
02/19/92	1425	GWJ	AA	Fair	19.0	12.5	--	37.17	14.8	1.0	15.54	2.39
04/01/92	1520	GDH	Pygmy	Fair	--	14.0	--	6.45	9.2	0.5	4.27	1.51
06/11/92	1425	GWJ	Pygmy	Fair	19.0	16.0	--	0.59	3.1	0.3	0.96	0.61
01/06/93	1500	TLL	Pygmy	Good	13.0	9.5	--	1.89	8.0	0.3	2.74	0.69
02/01/93	1540	TLL	AA	Good	--	--	--	16.27	12.4	0.8	10.23	1.59
02/22/93	1405	GWJ	AA	Fair	--	--	--	82.98	17.5	1.7	29.57	2.81
03/02/93	1420	TLL	AA	Fair	--	--	--	59.72	16.0	1.4	23.16	2.58
04/01/93	1518	TLL	AA	Fair	--	--	--	21.44	13.2	0.9	11.67	1.84
05/03/93	1435	GWJ	Pygmy	Good	13.5	13.5	--	5.81	10.5	0.6	6.04	0.96
06/03/93	1540	TLL	Pygmy	Fair	21.0	19.0	--	2.47	10.2	0.4	3.83	0.64
07/08/93	1535	GWJ	Pygmy	Fair	--	--	--	1.50	5.9	0.3	1.80	0.83
08/02/93	1400	TLL	Pygmy	Fair	24.0	19.0	--	1.14	7.2	0.4	3.13	0.36
09/01/93	1505	TLL	Pygmy	Fair	20.5	19.0	--	1.15	7.4	0.4	3.22	0.36
10/05/93	1610	GWJ	Pygmy	Poor	16.5	15.0	--	0.20	3.6	0.5	1.92	0.11
11/10/93	1345	GWJ	Pygmy	Fair	16.5	13.5	--	0.10	1.6	0.2	0.38	0.26
11/18/93	0930	GWJ	Pygmy	Fair	15.0	10.5	1.02	0.44	1.8	0.3	0.51	0.86
12/01/93	1510	TLL	Pygmy	Fair	--	--	1.07	0.51	4.2	0.5	2.25	0.23
01/03/94	1430	TLL	Pygmy	Fair	--	--	1.06	0.46	4.5	0.5	2.25	0.21
01/24/94	1555	GWJ	AA	Fair	11.5	9.5	1.32	4.81	8.0	1.1	8.86	0.54
02/01/94	1540	TLL	Pygmy	Fair	--	--	1.10	1.19	10.0	0.5	5.30	0.23
03/01/94	1315	TLL	Pygmy	Good	--	--	1.25	4.63	12.2	0.3	3.66	1.26
04/06/94	1340	TLL	Pygmy	Fair	--	--	1.07	1.25	5.4	0.4	2.28	0.55
05/03/94	1115	TLL	Pygmy	Fair	15.0	12.5	1.08	1.51	5.3	0.5	2.51	0.60
06/07/94	1640	GWJ	Pygmy	Fair	17.0	15.0	1.03	0.76	4.0	0.5	2.14	0.35
07/05/94	1615	GWJ	Pygmy	Fair	16.0	14.5	0.97	0.26	2.5	0.2	0.59	0.43
08/04/94	1610	GWJ	Pygmy	Poor	18.0	15.0	0.93	0.06	1.3	0.2	0.21	0.27
09/02/94	--	GWJ	na	na	--	--	--	No Flow	--	--	--	--
10/11/94	1410	GWJ	na	na	--	--	--	No Flow	--	--	--	--
11/02/94	1600	GWJ	na	na	--	--	--	No Flow	--	--	--	--
12/01/94	0930	GWJ	Pygmy	Poor	14.0	10.5	0.98	0.12	2.2	0.3	0.58	0.20
01/05/95	1625	GWJ	AA	Fair	12.0	10.0	1.31	5.25	7.2	1.2	8.64	0.61
01/13/95	1245	TLL	AA	Good	--	--	1.81	29.18	15.2	0.9	13.11	2.23
02/01/95	1425	TLL	AA	Good	18.0	13.0	1.73	24.11	15.2	0.9	14.05	1.72
03/01/95	1140	GWJ	Pygmy	Fair	18.0	12.5	1.32	6.43	10.0	0.8	8.10	0.79
04/03/95	1430	TLL	AA	Fair	18.0	13.0	1.70	24.13	15.5	0.9	13.41	1.80
05/03/95	1040	GWJ	AA	Fair	15.0	12.0	1.42	11.80	12.3	0.7	8.74	1.35
06/01/95	1440	TLL	AA	Fair	--	--	1.28	6.38	11.8	0.6	7.27	0.88
07/07/95	1535	GWJ	Pygmy	Fair	19.0	17.0	1.19	3.32	11.4	0.5	6.25	0.53
08/02/95	1510	GWJ	Pygmy	Good	17.0	16.0	1.13	2.30	4.5	0.7	2.98	0.77
09/11/95	1325	TLL	Pygmy	Fair	--	--	1.08	0.86	9.3	0.3	2.44	0.35

APPENDIX D

FIGURE D-1

CACHAGUA CREEK – WY 1992

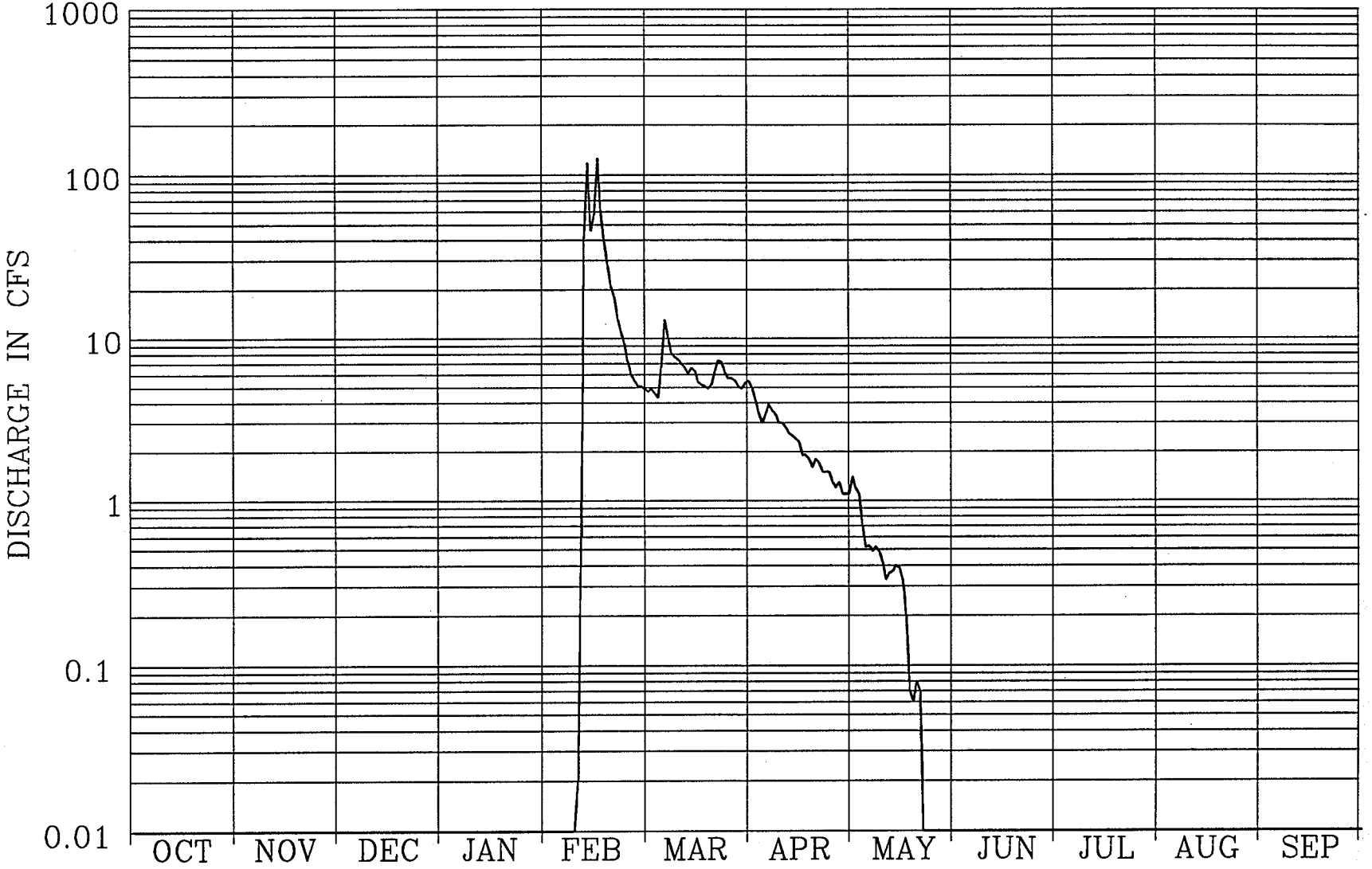


TABLE D-1

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CACHAGUA CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1991 TO Sep 1992

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	0	4.7	5.0	1.4	0	0	0	0
2	0	0	0	0	0	4.9	4.2	1.2	0	0	0	0
3	0	0	0	0	0	4.6	3.5	1.1	0	0	0	0
4	0	0	0	0	0	4.3	3.0	.70	0	0	0	0
5	0	0	0	0	0	6.7	3.4	.52	0	0	0	0
6	0	0	0	0	0	13	3.9	.53	0	0	0	0
7	0	0	0	0	0	10	3.6	.49	0	0	0	0
8	0	0	0	0	0	8.1	3.4	.52	0	0	0	0
9	0	0	0	0	.02	7.7	3.0	.49	0	0	0	0
10	0	0	0	0	.60	7.4	3.0	.42	0	0	0	0
11	0	0	0	0	41	7.0	2.8	.33	0	0	0	0
12	0	0	0	0	118	6.6	2.6	.36	0	0	0	0
13	0	0	0	0	46	6.1	2.5	.37	0	0	0	0
14	0	0	0	0	57	6.6	2.4	.40	0	0	0	0
15	0	0	0	0	126	6.3	2.3	.39	0	0	0	0
16	0	0	0	0	61	5.4	1.9	.33	0	0	0	0
17	0	0	0	0	39	5.2	1.9	.20	0	0	0	0
18	0	0	0	0	28	5.1	1.8	.07	0	0	0	0
19	0	0	0	0	21	4.9	1.6	.06	0	0	0	0
20	0	0	0	0	18	5.2	1.8	.08	0	0	0	0
21	0	0	0	0	13	6.3	1.7	.07	0	0	0	0
22	0	0	0	0	11	7.3	1.5	0	0	0	0	0
23	0	0	0	0	9.3	7.2	1.5	0	0	0	0	0
24	0	0	0	0	7.2	6.2	1.5	0	0	0	0	0
25	0	0	0	0	6.0	5.7	1.3	0	0	0	0	0
26	0	0	0	0	5.5	5.7	1.2	0	0	0	0	0
27	0	0	0	0	5.1	5.5	1.3	0	0	0	0	0
28	0	0	0	0	5.1	5.1	1.1	0	0	0	0	0
29	0	0	0	0	4.9	4.9	1.1	0	0	0	0	0
30	0	0	0	0	------	5.3	1.1	0	0	0	0	0
31	0	------	0	0	------	5.5	------	0	------	0	0	------
TOTAL	0	0	0	0	622.72	194.5	70.9	10.03	0	0	0	0
MEAN	0	0	0	0	21.5	6.27	2.36	.32	0	0	0	0
MAX	0	0	0	0	126	13	5.0	1.4	0	0	0	0
MIN	0	0	0	0	0	4.3	1.1	0	0	0	0	0
AC-FT	0	0	0	0	1,240	386	141	20	0	0	0	0

CAL YEAR 1991	TOTAL*	0.00	MEAN	0	MAX	0	MIN	0	AC-FT	0
WTR YEAR 1992	TOTAL	898.15	MEAN	2.45	MAX	126	MIN	0	AC-FT	1,780

FIGURE D-2

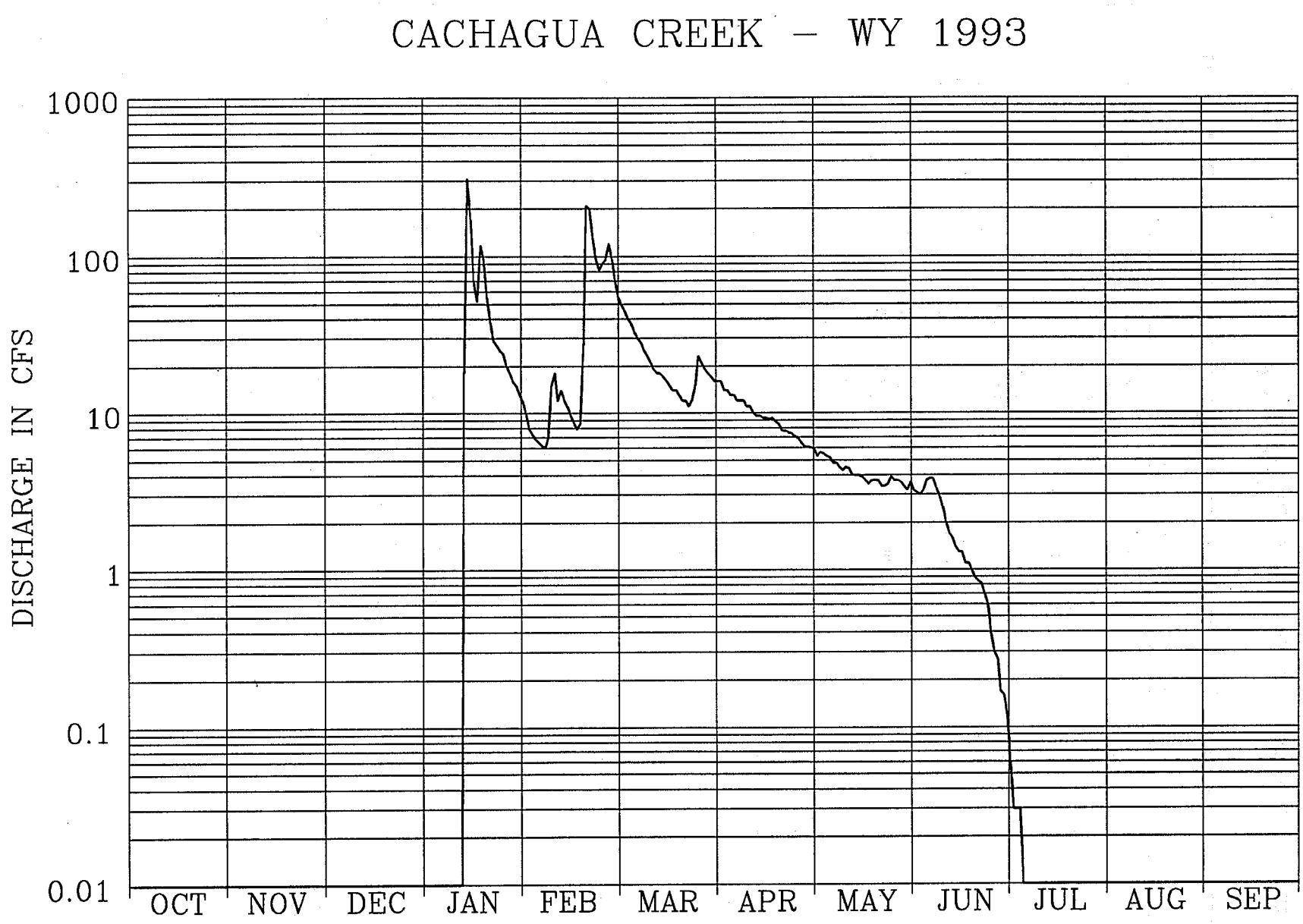

CACHAGUA CREEK – WY 1993
DISCHARGE IN CFS
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-2

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CACHAGUA CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	7.9e	55e	16	5.9	3.2	.06	0	0
2	0	0	0	0	7.4e	49e	16	5.3	3.1	.03	0	0
3	0	0	0	0	6.8e	45e	14	5.6	3.0	.03	0	0
4	0	0	0	0	6.5e	40e	14	5.5	3.2	.03	0	0
5	0	0	0	0	6.2e	37e	13	5.3	3.7	.01	0	0
6	0	0	0	0	6.0e	33e	13	5.2	3.8	0	0	0
7	0	0	0	0	6.9e	30e	12	4.8	3.8	0	0	0
8	0	0	0	0	15 e	28e	12	4.8	3.3	0	0	0
9	0	0	0	0	18 e	25e	12	4.5	2.9	0	0	0
10	0	0	0	0	12 e	23e	11	4.3	2.5	0	0	0
11	0	0	0	0	14 e	21e	11	4.5	2.0	0	0	0
12	0	0	0	18	12 e	19	10	4.4	1.7	0	0	0
13	0	0	0	309	11 e	18	9.6	4.0	1.6	0	0	0
14	0	0	0	171	9.7e	18	9.6	4.0	1.4	0	0	0
15	0	0	0	70	8.7e	17	9.3	4.0	1.3	0	0	0
16	0	0	0	52	7.9e	16	9.3	3.9	1.3	0	0	0
17	0	0	0	117	8.5e	15	9.1	3.7	1.1	0	0	0
18	0	0	0	98	27 e	14	9.3	3.5	1.1	0	0	0
19	0	0	0	55	210 e	14	8.8	3.7	1.0	0	0	0
20	0	0	0	38	200 e	13	8.5	3.7	.89	0	0	0
21	0	0	0	29	130 e	12	7.7	3.7	.85	0	0	0
22	0	0	0	27	97 e	12	7.7	3.4	.82	0	0	0
23	0	0	0	25	82 e	11	7.5	3.4	.70	0	0	0
24	0	0	0	24	90 e	12	7.4	3.5	.59	0	0	0
25	0	0	0	20e	95 e	15	7.1	3.9	.39	0	0	0
26	0	0	0	18e	120 e	23	6.9	3.7	.30	0	0	0
27	0	0	0	16e	96 e	21	6.5	3.7	.27	0	0	0
28	0	0	0	15e	70 e	19	6.1	3.6	.17	0	0	0
29	0	0	0	13e	------	18	6.1	3.4	.16	0	0	0
30	0	0	0	12e	------	17	6.0	3.2	.12	0	0	0
31	0	------	0	10e	------	16	------	3.6	------	0	0	------
TOTAL	0	0	0	1,137	1,381.5	706	296.5	129.7	50.26	0.16	0	0
MEAN	0	0	0	36.7	49.3	22.8	9.88	4.18	1.68	.005	0	0
MAX	0	0	0	309	210	55	16	5.9	3.8	.06	0	0
MIN	0	0	0	0	6.0	11	6.0	3.2	.12	0	0	0
AC-FT	0	0	0	2,260	2,740	1,400	588	257	100	.3	0	0

CAL YEAR 1992	TOTAL*	0.00	MEAN	0	MAX	0	MIN	0	AC-FT	0
WTR YEAR 1993	TOTAL	3,701.12	MEAN	10.1	MAX	309	MIN	0	AC-FT	7,340

FIGURE D-3

CACHAGUA CREEK – WY 1994

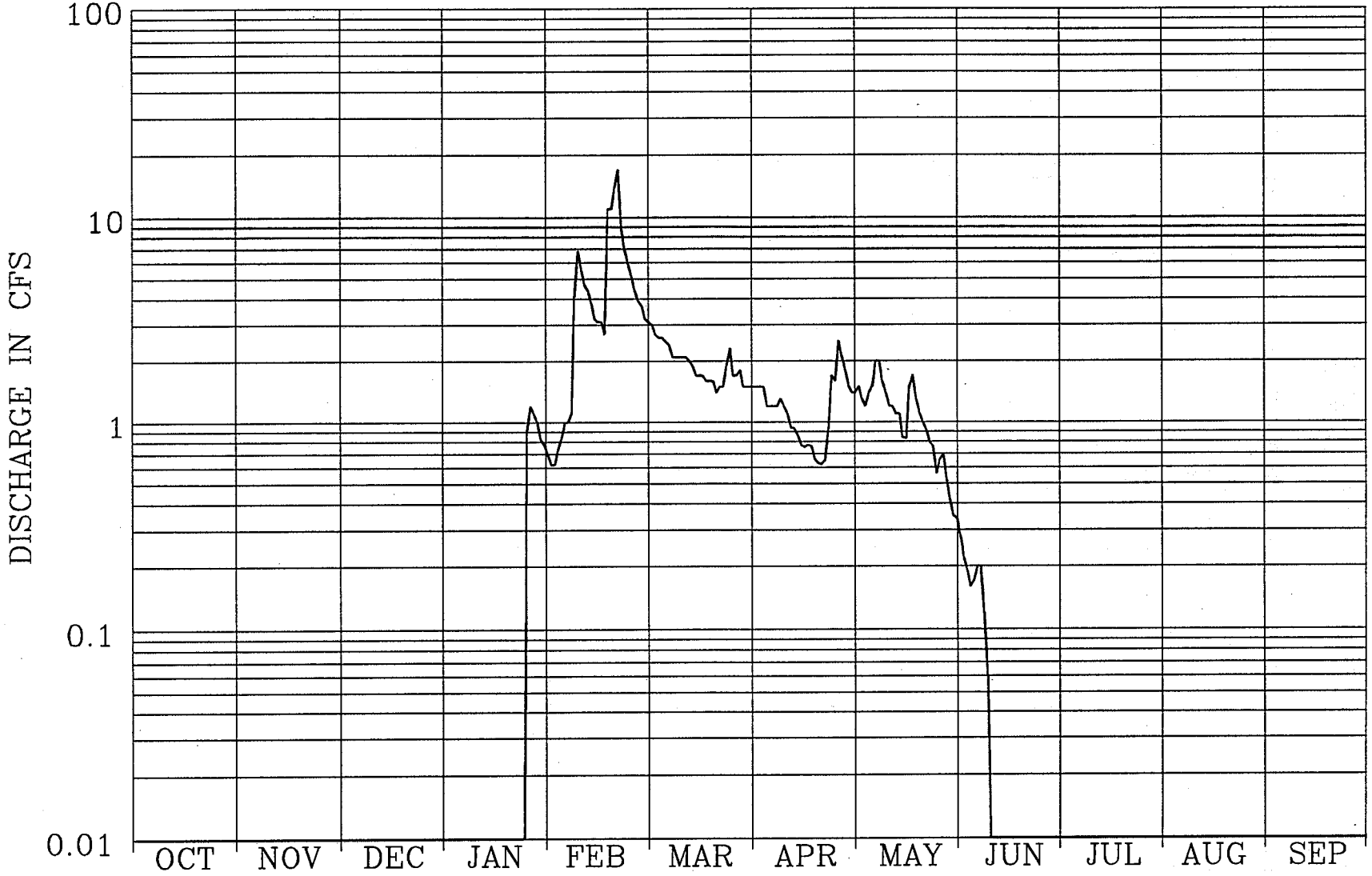


TABLE D-3

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CACHAGUA CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	.62	3.1	1.5	1.4	.28	0	0	0
2	0	0	0	0	.73	3.0	1.5	1.5	.22	0	0	0
3	0	0	0	0	.83	2.7	1.5	1.3	.19	0	0	0
4	0	0	0	0	1.0	2.6	1.5	1.2	.16	0	0	0
5	0	0	0	0	1.0	2.6	1.2	1.4	.17	0	0	0
6	0	0	0	0	1.1	2.5	1.2	1.5	.20	0	0	0
7	0	0	0	0	4.1	2.4	1.2	2.0	.20	0	0	0
8	0	0	0	0	6.8	2.1	1.2	2.0	.12	0	0	0
9	0	0	0	0	5.5	2.1	1.3	1.6	.06	0	0	0
10	0	0	0	0	4.7	2.1	1.2	1.4	0	0	0	0
11	0	0	0	0	4.4	2.1	1.1	1.2	0	0	0	0
12	0	0	0	0	3.8	2.1	.94	1.2	0	0	0	0
13	0	0	0	0	3.2	2.0	.93	1.1	0	0	0	0
14	0	0	0	0	3.1	1.9	.86	1.1	0	0	0	0
15	0	0	0	0	3.1	1.7	.77	.84	0	0	0	0
16	0	0	0	0	2.7	1.7	.75	.83	0	0	0	0
17	0	0	0	0	11	1.7	.77	1.5	0	0	0	0
18	0	0	0	0	11	1.6	.76	1.7	0	0	0	0
19	0	0	0	0	14	1.6	.66	1.3	0	0	0	0
20	0	0	0	0	17	1.6	.63	1.1	0	0	0	0
21	0	0	0	0	8.8	1.4	.62	1.0	0	0	0	0
22	0	0	0	0	6.9	1.5	.65	.91	0	0	0	0
23	0	0	0	0	5.9	1.5	.93	.79	0	0	0	0
24	0	0	0	.91	5.1	1.9	1.7	.76	0	0	0	0
25	0	0	0	1.2	4.4	2.3	1.6	.56	0	0	0	0
26	0	0	0	1.1	3.9	1.7	2.5	.65	0	0	0	0
27	0	0	0	1.0	3.7	1.7	2.1	.70	0	0	0	0
28	0	0	0	.82	3.2	1.8	1.8	.52	0	0	0	0
29	0	0	0	.77	------	1.5	1.5	.42	0	0	0	0
30	0	0	0	.70	------	1.5	1.4	.35	0	0	0	0
31	0	------	0	.62	------	1.5	------	.34	------	0	0	------
TOTAL	0	0	0	7.12	141.58	61.5	36.27	34.17	1.60	0	0	0
MEAN	0	0	0	.23	5.06	1.98	1.21	1.10	.053	0	0	0
MAX	0	0	0	1.2	17	3.1	2.5	2.0	.28	0	0	0
MIN	0	0	0	0	.62	1.4	.62	.34	0	0	0	0
AC-FT	0	0	0	14	281	122	72	68	3.2	0	0	0

CAL YEAR 1993	TOTAL	2,385.60	MEAN	6.54	MAX	264	MIN	0	AC-FT	4,730
WTR YEAR 1994	TOTAL	282.24	MEAN	.77	MAX	17	MIN	0	AC-FT	560

FIGURE D-4

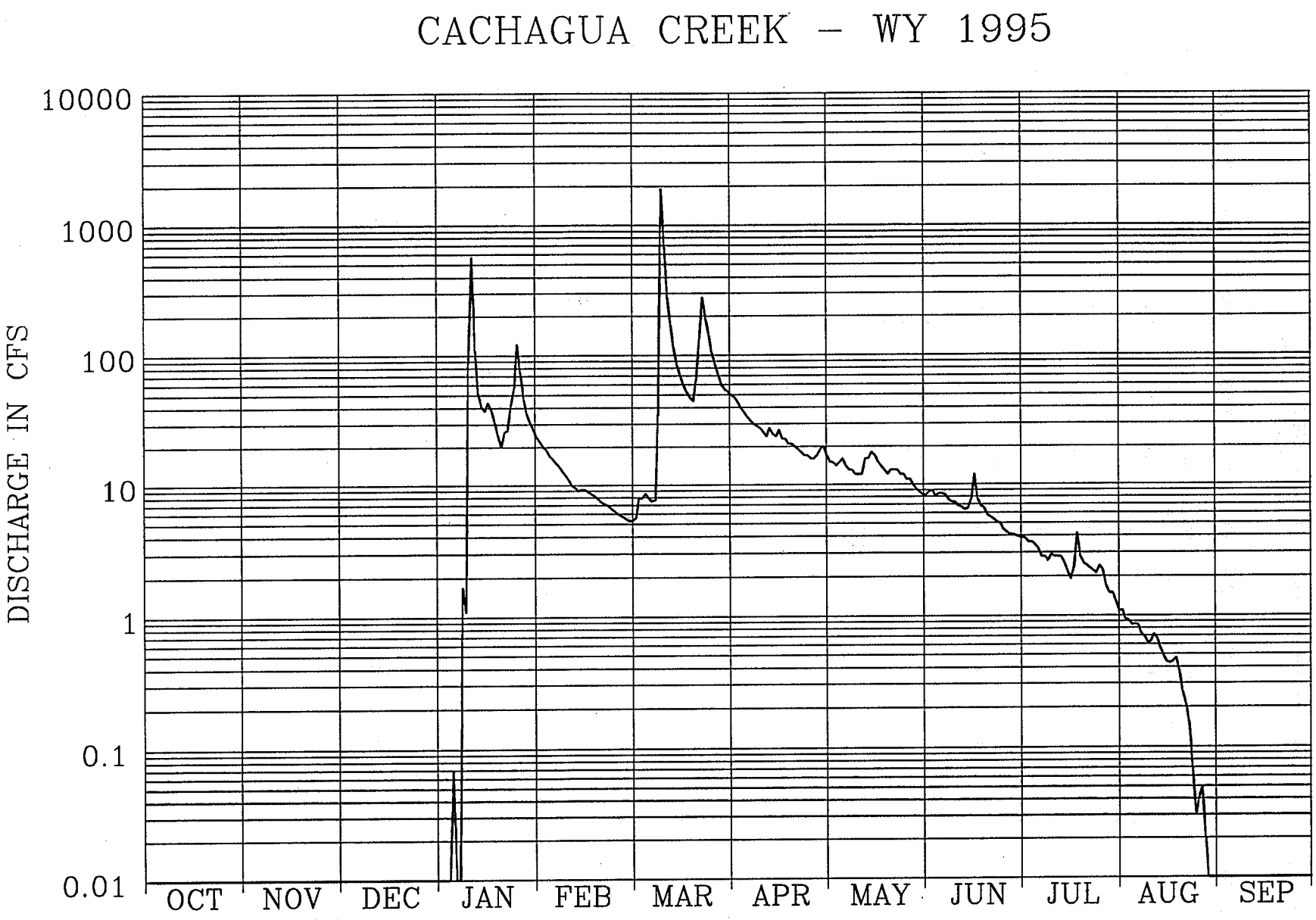

CACHAGUA CREEK - WY 1995
DISCHARGE IN CFS
10000
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-4

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CACHAGUA CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	20 e	5.3e	50e	17	8.2	3.9	1.1	0
2	0	0	0	0	19 e	5.6e	48e	15	8.8	3.8	.94	0
3	0	0	0	0	17 e	7.9e	44e	15	8.9	3.6	.92	0
4	0	0	0	.07	16 e	7.9e	40e	14	8.1	3.6	.85	0
5	0	0	0	0	15 e	8.6e	37e	15	8.5	3.4	.86	0
6	0	0	0	.01	14 e	8.0e	34e	16	8.5	3.2	.85	0
7	0	0	0	1.7	13 e	7.5e	32e	14	8.3	2.8	.73	0
8	0	0	0	1.1	12 e	7.6e	30e	13	7.6	2.8	.69	0
9	0	0	0	88	11 e	35 e	29e	13	7.3	2.6	.62	0
10	0	0	0	569	10 e	1,920 e	28e	12	7.3	2.9	.63	0
11	0	0	0	109	9.6e	680 e	26e	12	6.8	2.8	.72	0
12	0	0	0	52	9.0e	280 e	24e	12	6.7	2.8	.67	0
13	0	0	0	41	9.3e	170 e	28e	16	6.4	2.8	.56	0
14	0	0	0	38	9.3e	115 e	25e	16	6.5	2.5	.49	0
15	0	0	0	44	8.9e	85 e	24e	18	7.7	2.2	.44	0
16	0	0	0	39	8.6e	70 e	27e	17	12	1.9	.43	0
17	0	0	0	31	8.3e	60 e	23e	15	7.7	2.3	.44	0
18	0	0	0	25	7.9e	53 e	23e	14	6.8	4.2	.47	0
19	0	0	0	20	7.5e	48 e	21e	13	6.6	2.8	.38	0
20	0	0	0	26	7.2e	45 e	21e	12	5.8	2.5	.26	0
21	0	0	0	27	7.0e	65 e	20e	13	5.6	2.4	.21	0
22	0	0	0	42	6.7e	135 e	19e	13	5.4	2.3	.15	0
23	0	0	0	57	6.4e	280 e	18e	13	5.1	2.2	.07	0
24	0	0	0	122	6.1e	190 e	17e	12	5.0	2.1	.03	0
25	0	0	0	74	5.9e	140 e	17e	12	4.5	2.4	.04	0
26	0	0	0	46	5.7e	105 e	16e	11	4.3	2.2	.05	0
27	0	0	0	36	5.5e	85 e	16e	11	4.1	1.7	.02	0
28	0	0	0	31	5.3e	70 e	17e	9.9	4.1	1.5	.01	0
29	0	0	0	27	------	60 e	19	9.2	4.0	1.5	.01	0
30	0	0	0	24	------	55 e	20	8.7	3.9	1.3	0	0
31	0	------	0	22	------	53 e	------	8.3	------	1.1	0	------
TOTAL	0	0	0	1,592.88	281.2	4,857.4	793	410.1	200.5	80.1	13.64	0
MEAN	0	0	0	51.4	10.0	157	26.4	13.2	6.68	2.58	.44	0
MAX	0	0	0	569	20	1,920	50	18	12	4.2	1.1	0
MIN	0	0	0	0	5.3	5.3	16	8.3	3.9	1.1	0	0
AC-FT	0	0	0	3,160	558	9,630	1,570	813	398	159	27	0

CAL YEAR 1994	TOTAL	282.19	MEAN	.77	MAX	17	MIN	0	AC-FT	560
WTR YEAR 1995	TOTAL	8,228.82	MEAN	22.5	MAX	1,920	MIN	0	AC-FT	16,320

FIGURE D-5

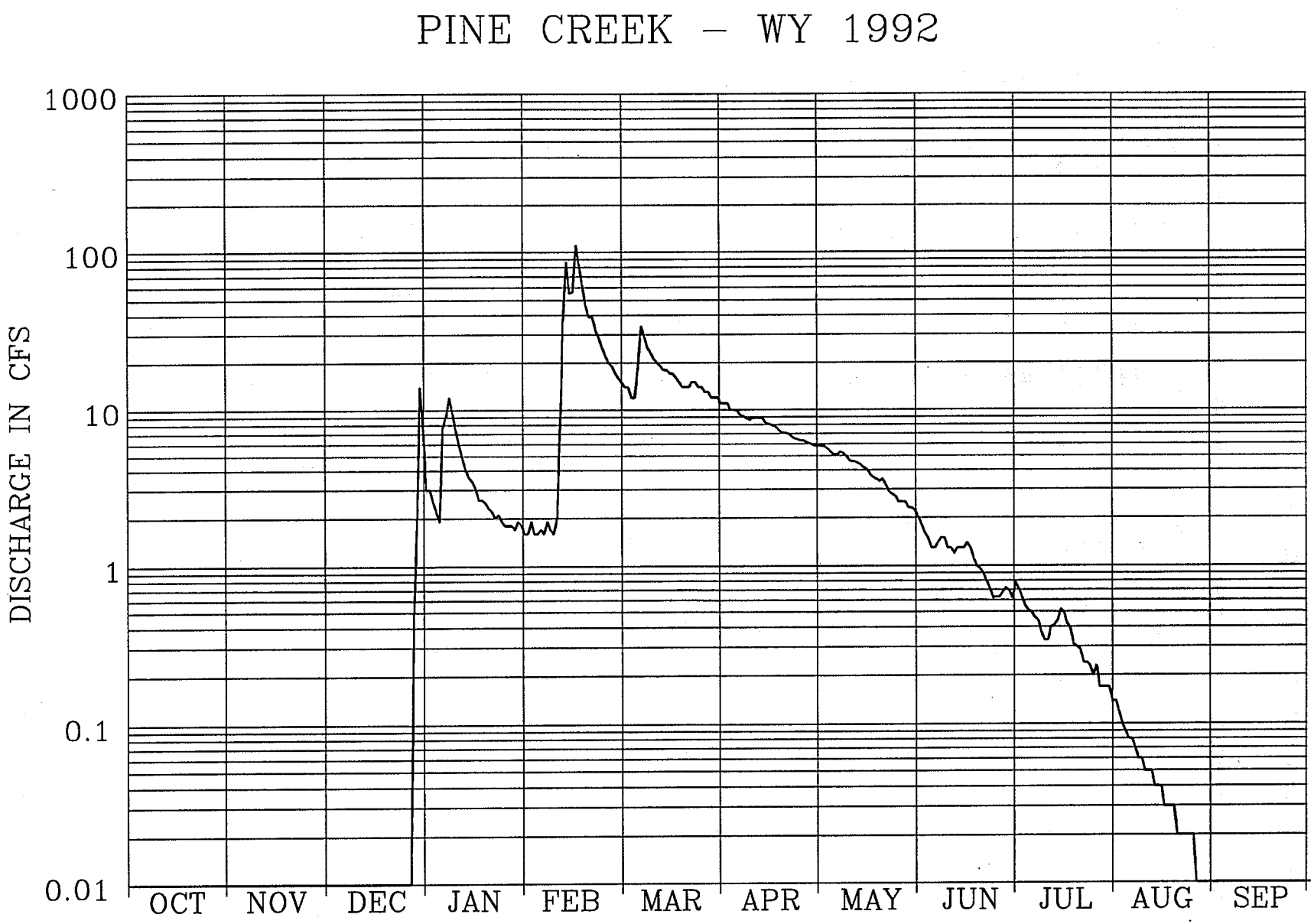

PINE CREEK - WY 1992
DISCHARGE IN CFS
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-5

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
PINE CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1991 TO Sep 1992

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	3.0	1.9	14	11	5.8	1.8	.71	.12e	.01e
2	0	0	0	2.5	1.6	14	11	5.8	1.6	.63	.10e	.01e
3	0	0	0	2.2	1.6	12	10	5.6	1.5	.55	.09e	.01e
4	0	0	0	1.9	1.7	12	10	5.3	1.3	.51	.08e	.01e
5	0	0	0	7.7	1.6	18	9.9	5.1	1.3	.50	.08e	.01e
6	0	0	0	9.0	1.9	34	9.3	5.1	1.4	.46	.07e	.01e
7	0	0	0	12	1.7	29	9.1	5.3	1.5	.44	.06e	.01e
8	0	0	0	9.5	1.6	25	8.8	5.2	1.5	.37	.06e	.01e
9	0	0	0	7.5	2.0	23	8.6	4.9	1.3	.33	.05e	.01e
10	0	0	0	5.9	7.5	21	8.9	4.6	1.3	.33	.05e	.01e
11	0	0	0	4.8	37	20	8.9	4.6	1.2	.40	.05e	0
12	0	0	0	4.1	87	19	8.9	4.5	1.3	.41	.04e	0
13	0	0	0	3.6	55	18	8.8	4.4	1.3	.44	.04e	0
14	0	0	0	3.4	56	18	8.2	4.2	1.3	.52	.04e	0
15	0	0	0	3.1	110	17	8.1	4.1	1.4	.50	.03e	0
16	0	0	0	2.6	84	17	7.9	3.8	1.3	.42	.03e	0
17	0	0	0	2.6	62	16	7.8	3.6	1.1	.39	.03e	0
18	0	0	0	2.5	46	15	7.4	3.5	1.0	.31	.03e	0
19	0	0	0	2.3	39	14	7.1	3.4	.96	.30	.02e	0
20	0	0	0	2.2	39	14	7.1	3.5	.89	.29	.02e	0
21	0	0	0	2.0	32	14	7.0	3.2	.80	.24	.02e	0
22	0	0	0	2.1	29	15	6.7	2.9	.71	.24	.02e	0
23	0	0	0	1.9	25	15	6.5	2.8	.62	.23	.02e	0
24	0	0	0	1.8	22	14	6.4	2.7	.63	.20	.02e	0
25	0	0	0	1.8	20	14	6.3	2.5	.63	.23	.01e	0
26	0	0	0	1.8	19	13	6.3	2.5	.68	.17e	.01e	0
27	0	0	.50e	1.7	17	13	6.1	2.5	.72	.17e	.01e	0
28	0	0	2.0 e	1.9	16	12	6.0	2.3	.69	.17e	.01e	0
29	0	0	14 e	1.8	15	12	5.8	2.3	.62	.17	.01e	0
30	0	0	7.0 e	1.6	------	12	5.8	2.2	.78	.14	.01e	0
31	0	------	3.0 e	1.6	------	11	------	2.0	------	.14	.01e	------
TOTAL	0	0	26.50	112.4	833.1	515	239.7	120.2	33.13	10.91	1.24	0.10
MEAN	0	0	.85	3.63	28.7	16.6	7.99	3.88	1.10	.35	.040	.003
MAX	0	0	14	12	110	34	11	5.8	1.8	.71	.12	.01
MIN	0	0	0	1.6	1.6	11	5.8	2.0	.62	.14	.01	0
AC-FT	0	0	53	223	1,650	1,020	475	238	66	22	2.5	.2

CAL YEAR 1991	TOTAL*	26.50	MEAN	.29	MAX	14	MIN	0	AC-FT	53
WTR YEAR 1992	TOTAL	1,892.28	MEAN	5.17	MAX	110	MIN	0	AC-FT	3,750

FIGURE D-6

PINE CREEK – WY 1993

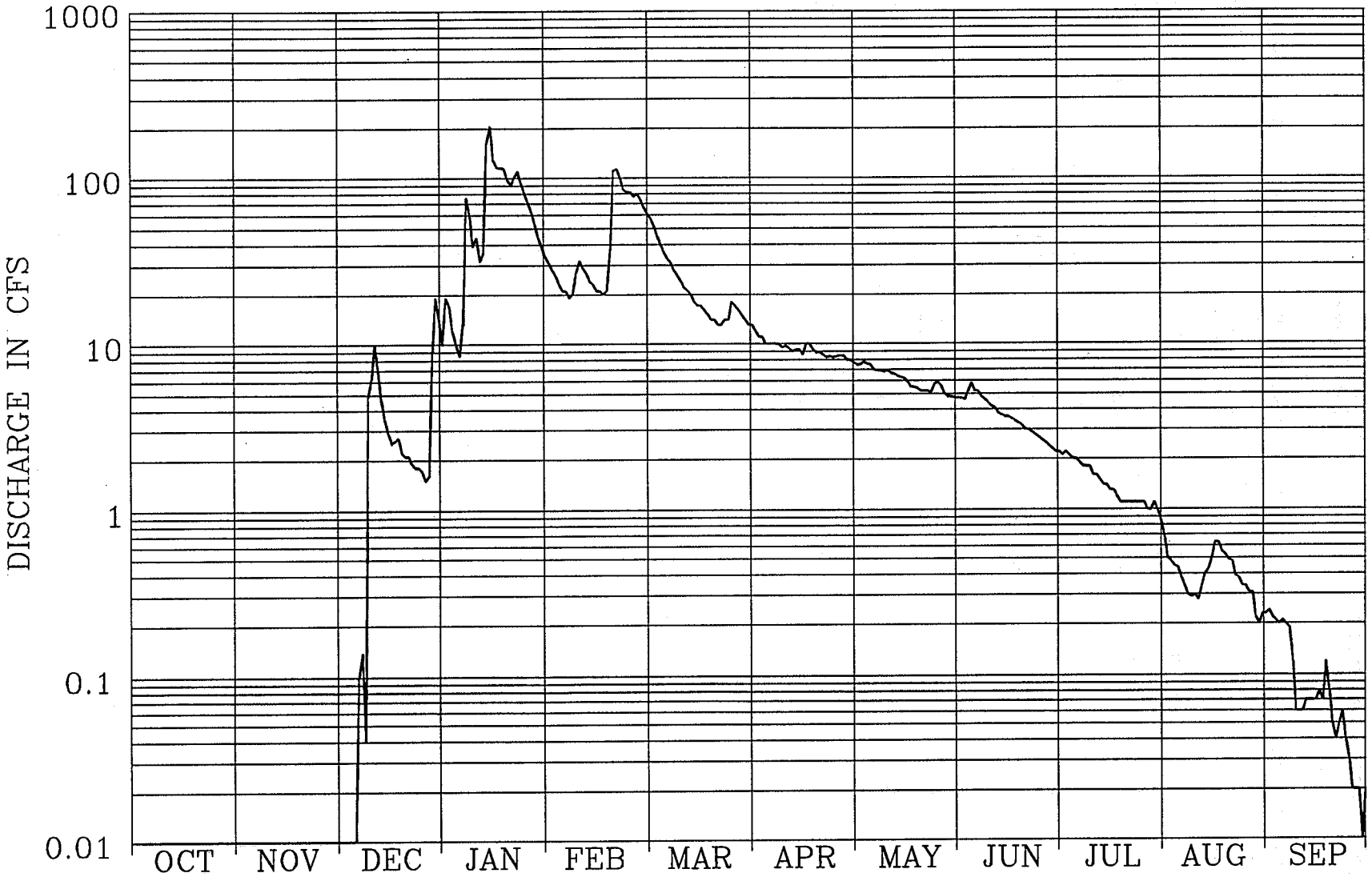


TABLE D-6

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
PINE CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	19	28	61	13	7.7	4.7	2.2	.69	.24
2	0	0	0	17	26	57	12	7.5	4.7	2.1	.51	.22
3	0	0	0	12	23	52	11	7.5	4.6	2.2	.48	.21
4	0	0	0	10	21	45	11	7.8	5.1	2.1	.45	.20
5	0	0	0	8.5	21	40	10	7.6	5.8	2.0	.44	.21
6	0	0	.10	13	19	36	10	7.5	5.2	2.0	.38	.20
7	0	0	.14	76	20	33	10	7.0	5.2	1.9	.34	.19
8	0	0	.04	59	27	31	10	6.9	4.8	1.8	.30	.12
9	0	0	4.9	39	32	28	9.9	6.9	4.6	1.8	.29	.06
10	0	0	6.2	44	29	26	9.5	6.8	4.4	1.8	.30	.06
11	0	0	10	32	27	24	9.7	6.9	4.2	1.6	.28	.06
12	0	0	6.9	35	24	22	9.4	6.7	4.1	1.6	.34	.07
13	0	0	4.6	163	23	21	9.0	6.6	3.8	1.5	.40	.07
14	0	0	3.5	207	21	20	9.2	6.4	3.7	1.4	.43	.07
15	0	0	2.9	129	21	18	9.2	6.3	3.6	1.4	.51	.07
16	0	0	2.5	116	20	17	8.6	6.2	3.6	1.3	.63	.08
17	0	0	2.6	115	21	17	10	5.9	3.5	1.3	.63	.07
18	0	0	2.7	115	37	16	10	5.5	3.4	1.2	.55	.12
19	0	0	2.2	98	111	15	9.3	5.5	3.3	1.1	.53	.08
20	0	0	2.1	90	113	14	8.8	5.4	3.2	1.1	.49	.05
21	0	0	2.1	100	99	14	8.9	5.2	3.0	1.1	.48	.04
22	0	0	1.9	110	85	13	8.6	5.2	3.0	1.1	.39	.05
23	0	0	1.8	93	82	13	8.3	5.2	2.9	1.1	.38	.06
24	0	0	1.8	81	82	14	8.4	5.1	2.8	1.1	.34	.04
25	0	0	1.7	71	77	14	8.3	5.7	2.7	1.1	.34	.03
26	0	0	1.5	62	80	18	8.4	5.9	2.6	1.1	.31	.02
27	0	0	1.6	53	74	17	8.5	5.6	2.5	1.0	.31	.02
28	0	0	9.0	44	67	16	8.5	5.0	2.4	.99	.22	.02
29	0	0	19	38	------	15	8.0	4.8	2.3	1.1	.20	.01
30	0	0	14	34	------	14	8.0	4.8	2.2	1.0	.23	.02
31	0	------	9.9	31	------	13	------	4.7	------	.86	.23	------
TOTAL	0	0	115.68	2,114.5	1,310	754	283.5	191.8	111.9	44.95	12.40	2.76
MEAN	0	0	3.73	68.2	46.8	24.3	9.45	6.19	3.73	1.45	.40	.092
MAX	0	0	19	207	113	61	13	7.8	5.8	2.2	.69	.24
MIN	0	0	0	8.5	19	13	8.0	4.7	2.2	.86	.20	.01
AC-FT	0	0	229	4,190	2,600	1,500	562	380	222	89	25	5.5

CAL YEAR 1992	TOTAL*	115.68	MEAN	1.26	MAX	19	MIN	0	AC-FT	229
WTR YEAR 1993	TOTAL	4,941.49	MEAN	13.5	MAX	207	MIN	0	AC-FT	9,800

FIGURE D-7

PINE CREEK – WY 1994

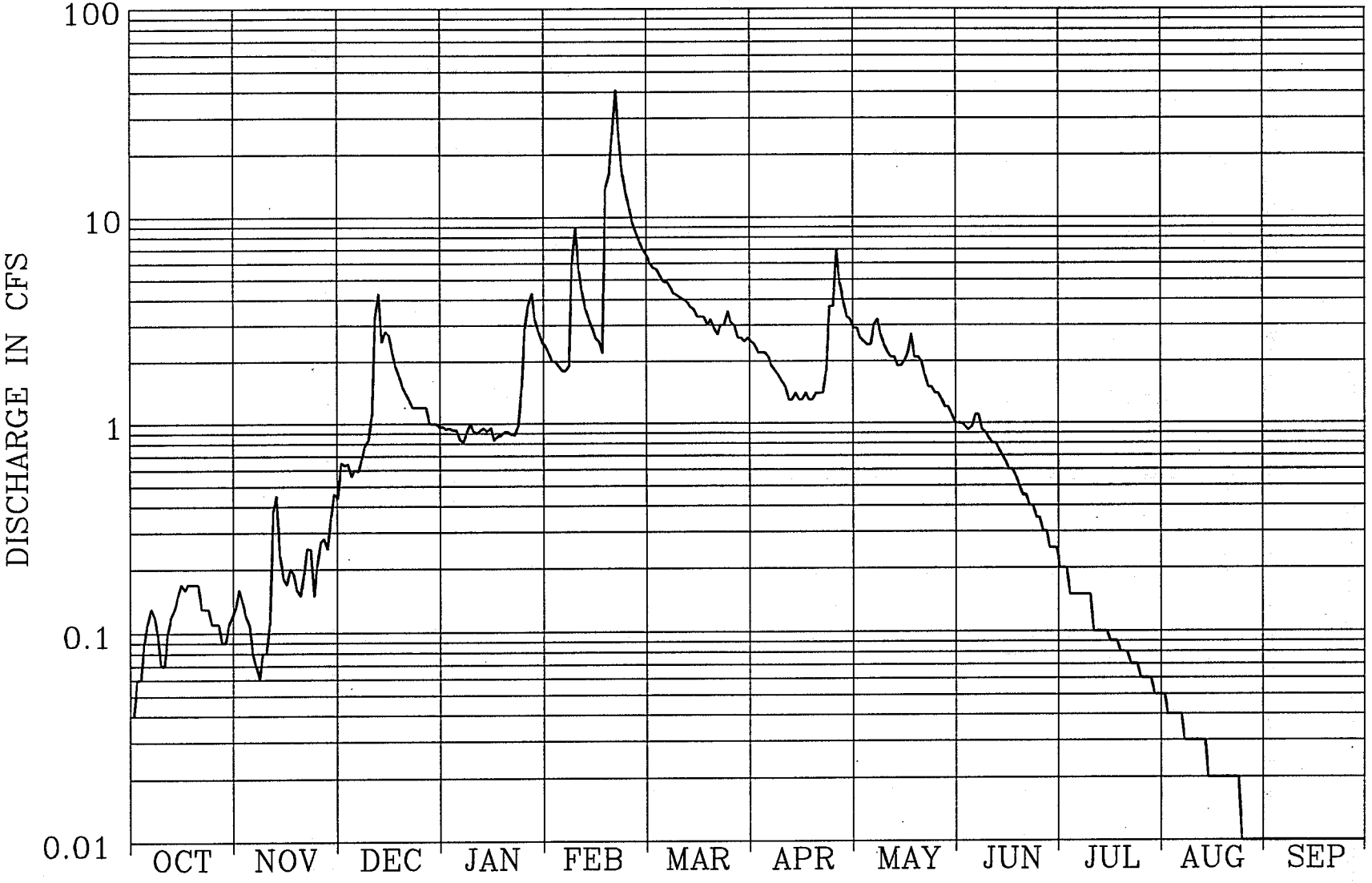


TABLE D-7

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
PINE CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.16	.65	.94	2.0	6.6	2.5	2.9e	1.0	.20e	.05e	.01e
2	.06	.14	.63	.95	2.0	6.0	2.4	2.9e	1.0	.20e	.04e	.01e
3	.06	.12	.64	.93	1.9	5.7	2.2	2.6e	.96	.20e	.04e	.01e
4	.09	.11	.56	.93	1.8	5.6	2.2	2.5e	.93	.15e	.04e	.01e
5	.11	.08	.60	.84	1.8	5.2	2.2	2.4e	.96	.15e	.04e	.01e
6	.13	.07	.59	.81	1.9	4.9	2.1	2.4e	1.1	.15e	.04e	.01e
7	.12	.06	.68	.91	6.0	4.9	1.9e	3.0e	1.1	.15e	.03e	.01e
8	.10	.08	.78	1.0	9.0	4.6	1.8e	3.2e	.93	.15e	.03e	.01e
9	.07	.08	.83	.92	5.5	4.3	1.7e	2.7e	.90e	.15e	.03e	.01e
10	.07	.11	1.1	.90	4.4	4.2	1.6e	2.4e	.85e	.15e	.03e	.01e
11	.10	.38	3.3	.93	3.6	4.1	1.5e	2.2e	.80e	.10e	.03e	.01e
12	.12	.45	4.3	.95	3.2	4.0	1.3e	2.1e	.80e	.10e	.03e	.01e
13	.13	.23	2.5	.92	2.9	3.9	1.3e	2.1e	.75e	.10e	.03e	.01e
14	.15	.18	2.8	.96	2.6	3.7	1.4e	1.9e	.70e	.10e	.02e	.01e
15	.17	.17	2.7	.83	2.5	3.6	1.3e	1.9e	.65e	.10e	.02e	.01e
16	.16	.20	2.2	.87	2.2	3.3	1.3e	2.0e	.60e	.09e	.02e	.01e
17	.17	.19	1.9	.88	14	3.3	1.4e	2.2e	.60e	.09e	.02e	.01e
18	.17	.16	1.7	.91	16	3.3	1.3e	2.7e	.55e	.09e	.02e	.01e
19	.17	.15	1.5	.91	25	3.0	1.3e	2.1e	.50e	.08e	.02e	.01e
20	.17	.19	1.4	.89	41	3.2	1.4e	2.1e	.45e	.08e	.02e	.01e
21	.13	.25	1.3	.88	23	2.9	1.4e	2.0	.45e	.08e	.02e	.01e
22	.13	.25	1.2	.97	16	2.7	1.4e	1.7	.40e	.07e	.02e	.01e
23	.13	.15	1.2	1.5	13	3.0	1.8e	1.5	.40e	.07e	.02e	.01e
24	.11	.21	1.2	2.9	11	3.0	3.7e	1.5	.35e	.07e	.01e	.01e
25	.11	.27	1.2	3.8	9.4	3.5	3.7e	1.4	.35e	.06e	.01e	.01e
26	.11	.28	1.2	4.3	8.4	3.1	7.0e	1.4	.30e	.06e	.01e	.01e
27	.09	.25	1.0	3.2	7.6	3.0	4.8e	1.3	.30e	.06e	.01e	.01e
28	.09	.36	1.0	2.8	7.0	2.6	3.9e	1.2	.25e	.06e	.01e	.01e
29	.11	.46	1.0	2.5	------	2.6	3.3e	1.2	.25e	.05e	.01e	.01e
30	.12	.44	.96	2.4	------	2.5	3.2e	1.1	.25e	.05e	.01e	.01e
31	.13	------	.97	2.2	------	2.6	------	1.0	------	.05e	.01e	------
TOTAL	3.62	6.23	43.59	45.63	244.7	118.9	68.3	63.6	19.43	3.26	0.74	0.30
MEAN	.12	.21	1.41	1.47	8.74	3.84	2.28	2.05	.65	.11	.024	.010
MAX	.17	.46	4.3	4.3	41	6.6	7.0	3.2	1.1	.20	.05	.01
MIN	.04	.06	.56	.81	1.8	2.5	1.3	1.0	.25	.05	.01	.01
AC-FT	7.2	12	86	91	485	236	135	126	39	6.5	1.5	.6

CAL YEAR 1993	TOTAL	4,020.59	MEAN	11.0	MAX	119	MIN	.04	AC-FT	7,970
WTR YEAR 1994	TOTAL	618.30	MEAN	1.69	MAX	41	MIN	.01	AC-FT	1,230

FIGURE D-8

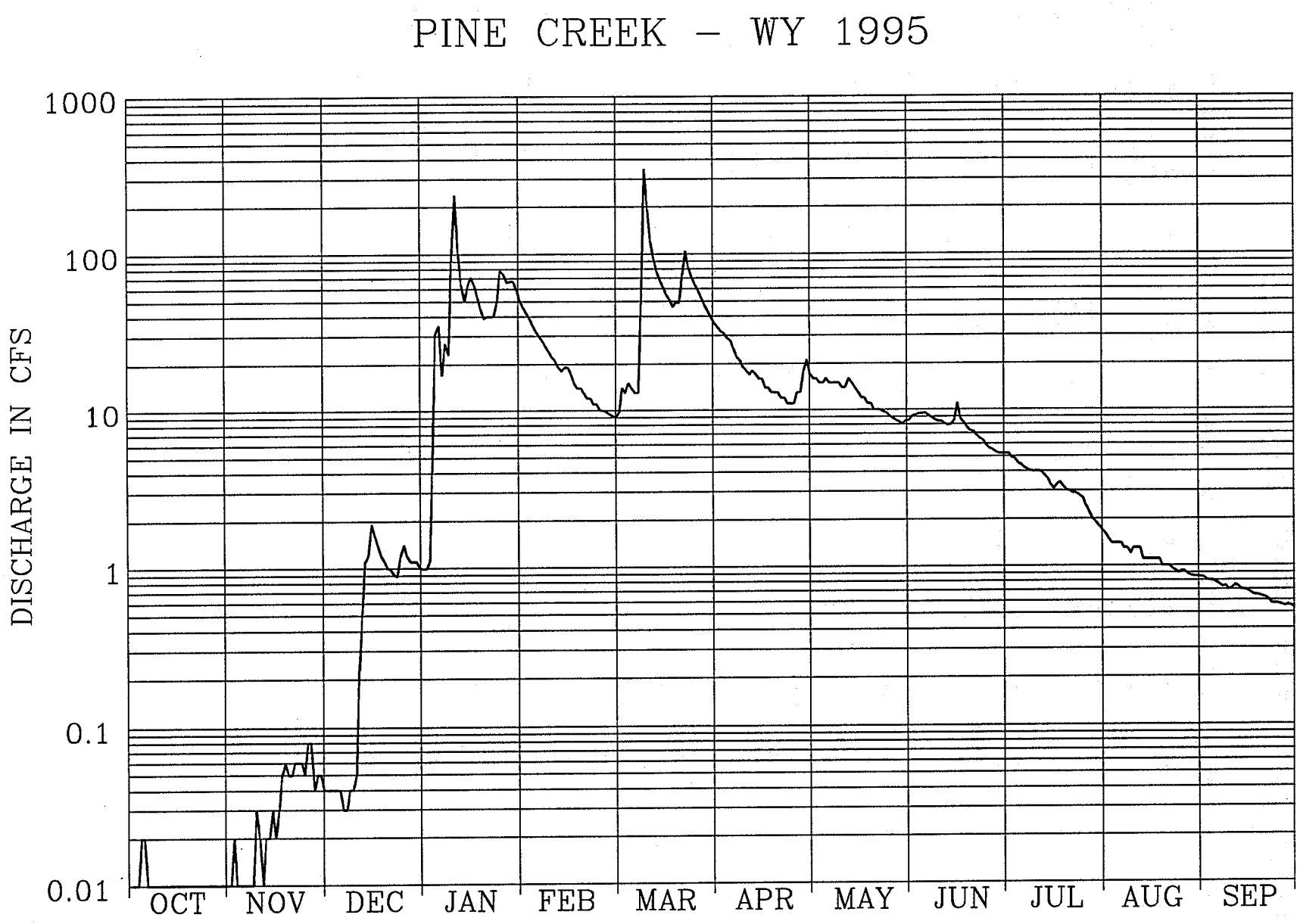

PINE CREEK – WY 1995
DISCHARGE IN CFS
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-8

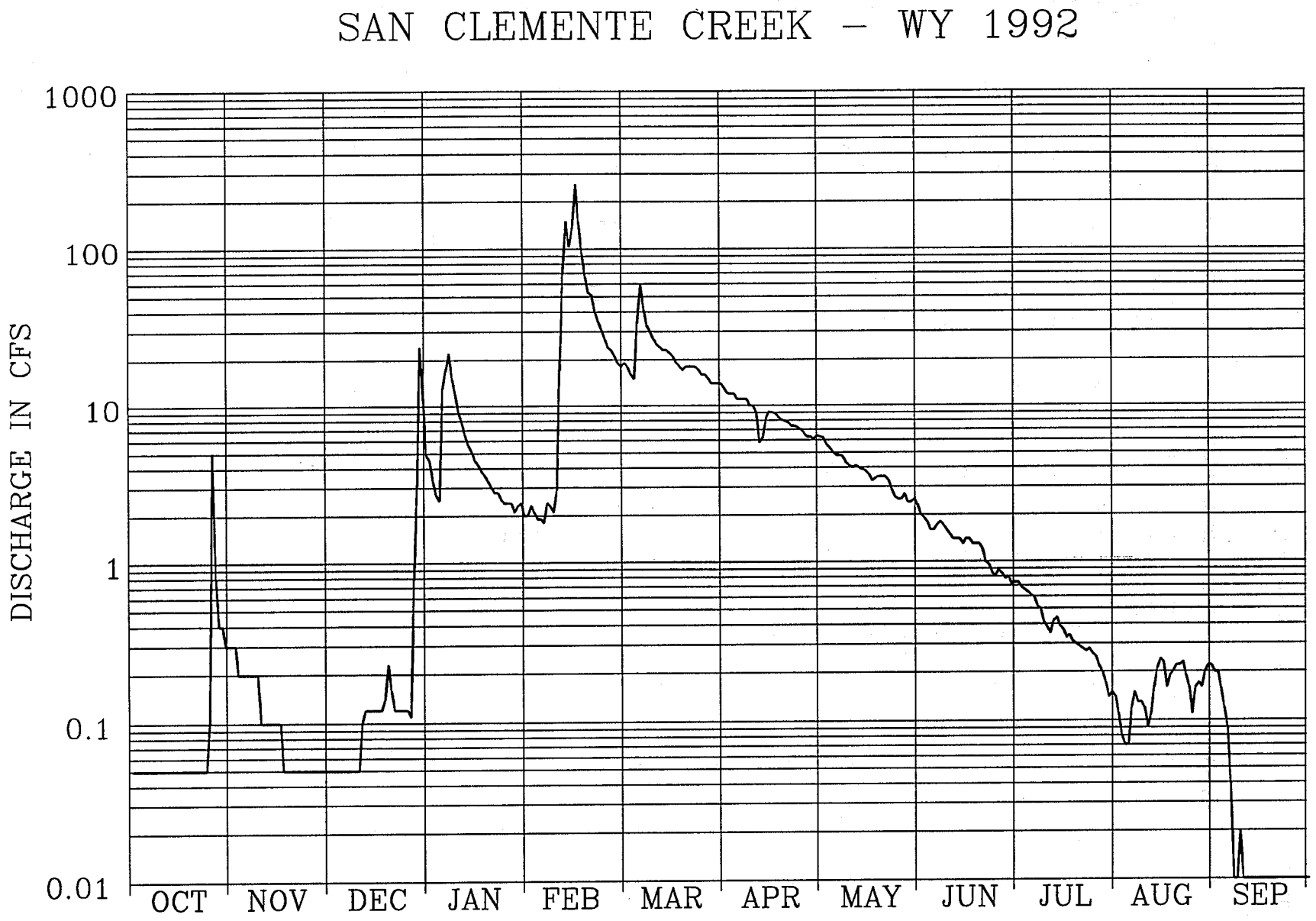
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
PINE CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.01	.04	.99	42	9.0	36	17	8.5	5.2	1.6	.84
2	0	.02	.04	1.1	39	9.7	34	16	9.1	5.2	1.5	.81
3	0	.01	.04	4.1	35	14	32	16	9.2	4.9	1.4	.80
4	.02	.01	.04	31	32	13	31	15	9.4	4.8	1.4	.80
5	.02	0	.04	35	30	15	29	15	9.4	4.5	1.4	.78
6	0	0	.03	17	28	14	28	16	9.5	4.4	1.4	.76
7	0	.01	.03	27	26	13	25	15	9.2	4.2	1.3	.73
8	0	0	.04	23	24	13	22	15	8.9	4.1	1.3	.74
9	0	.03	.04	90	22	48	21	15	8.6	4.0	1.2	.70
10	0	.02	.05	237	21	347	19	15	8.4	4.0	1.3	.71
11	0	.01	.23	101	19	192	18	14	8.4	4.0	1.3	.75
12	0	.02	.52	64	18	120	17	14	8.1	4.0	1.3	.74
13	0	.02	1.1	50	19	92	18	16	7.9	3.8	1.1	.70
14	0	.03	1.2	63	19	77	17	15	8.0	3.6	1.1	.70
15	0	.02	1.9	71	17	68	16	14	8.5	3.3	1.1	.69
16	0	.03	1.6	64	15	61	16	13	11	3.1	1.1	.67
17	0	.05	1.4	53	14	55	14	12	8.7	3.3	1.1	.65
18	0	.06	1.2	45	14	51	14	12	8.2	3.4	1.1	.65
19	0	.05	1.1	39	13	46	13	11	7.7	3.2	1.0	.64
20	0	.05	1.0	40	12	49	13	11	7.3	3.0	1.0	.63
21	0	.06	.98	40	12	49	13	10	7.2	3.0	1.0	.62
22	0	.06	.91	40	11	74	12	10	6.8	2.9	.96	.60
23	0	.06	.89	50	11	104	12	10	6.5	2.9	.93	.57
24	0	.05	1.2	78	10	81	11	9.7	6.3	2.8	.90	.57
25	.01	.08	1.4	75	10	70	11	9.5	5.9	2.7	.92	.57
26	.01	.08	1.2	66	9.8	64	11	9.1	5.6	2.4	.92	.56
27	.01	.04	1.1	67	9.5	58	13	8.8	5.5	2.2	.88	.55
28	.01	.05	1.1	67	9.2	52	13	8.5	5.3	2.0	.86	.56
29	.01	.05	1.1	59	------	47	18	8.3	5.2	1.9	.85	.55
30	.01	.04	1.0	51	------	43	21	8.1	5.2	1.8	.85	.54
31	.01	------	.99	46	------	39	------	8.5	------	1.7	.85	------
TOTAL	0.11	1.02	23.51	1,695.19	541.5	1,987.7	568	387.5	233.5	106.3	34.92	20.18
MEAN	.004	.034	.76	54.7	19.3	64.1	18.9	12.5	7.78	3.43	1.13	.67
MAX	.02	.08	1.9	237	42	347	36	17	11	5.2	1.6	.84
MIN	0	0	.03	.99	9.2	9.0	11	8.1	5.2	1.7	.85	.54
AC-FT	.2	2.0	47	3,360	1,070	3,940	1,130	769	463	211	69	40

CAL YEAR 1994	TOTAL	589.00	MEAN	1.61	MAX	41	MIN	0	AC-FT	1,170
WTR YEAR 1995	TOTAL	5,599.43	MEAN	15.3	MAX	347	MIN	0	AC-FT	11,110

FIGURE D-9


SAN CLEMENTE CREEK – WY 1992
DISCHARGE IN CFS
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0.1
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JUN
JUL
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TABLE D-9

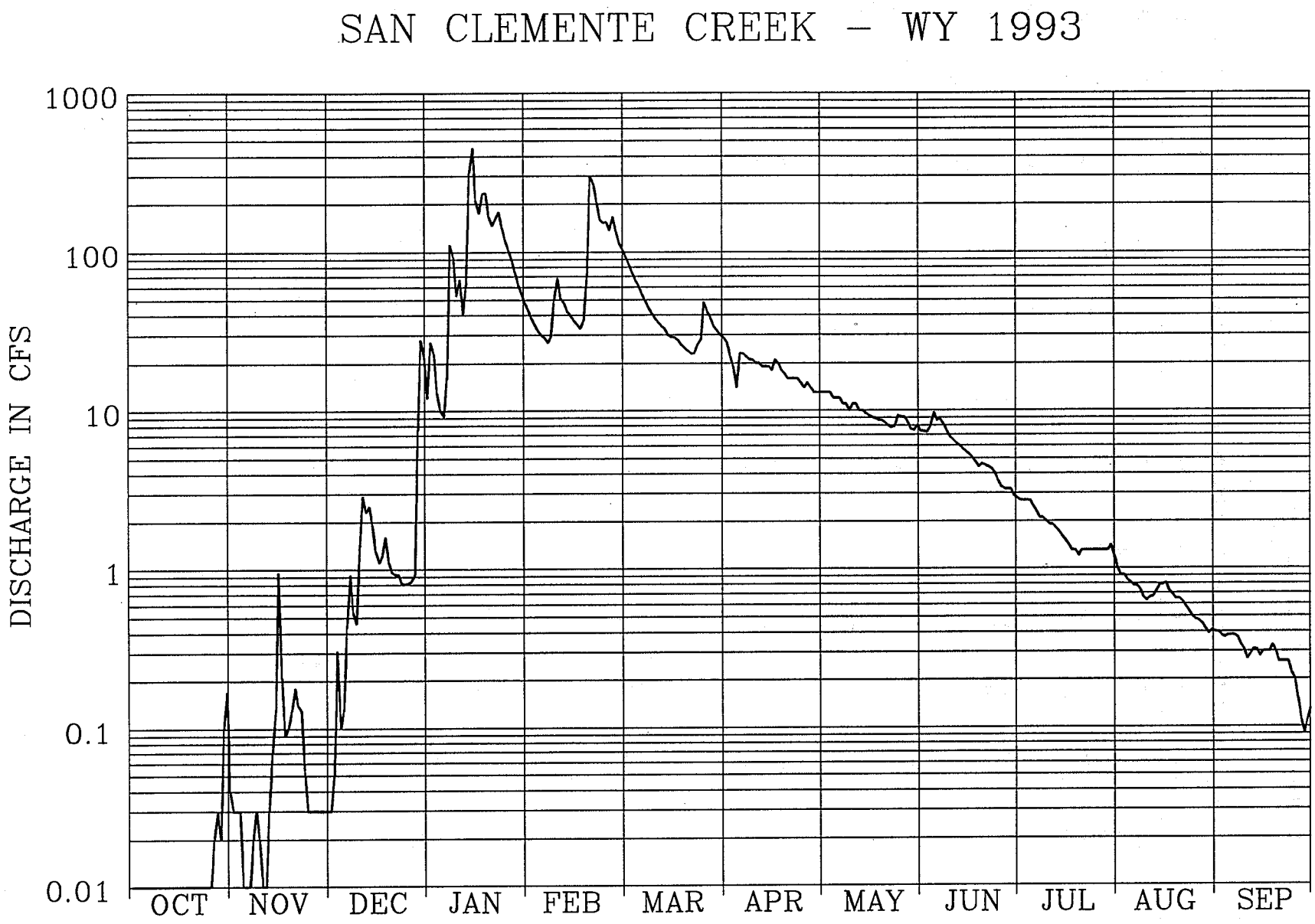
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SAN CLEMENTE CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1991 TO Sep 1992

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	.05e	.30e	.05e	4.5	2.3	19	13	6.3	2.0	.74	.11	.20
2	.05e	.30e	.05e	3.3	2.1	18	12	6.2	1.9	.69	.08	.16
3	.05e	.20e	.05e	2.7	1.9	16	12	5.6	1.8	.66	.07	.12
4	.05e	.20e	.05e	2.5	1.9	15	12	5.3	1.6	.64	.07	.09
5	.05e	.20e	.05e	13	1.8	34	11	5.0	1.6	.61	.12	.04
6	.05e	.20e	.05e	17	2.4	59	11	4.8	1.7	.59	.15	.01
7	.05e	.20e	.05e	22	2.3	41	11	4.8	1.8	.52	.13	.01
8	.05e	.20e	.05e	15	2.1	33	11	4.7	1.7	.50	.13	.02
9	.05e	.20e	.05e	12	2.9	30	10	4.3	1.6	.41	.12	.01
10	.05e	.10e	.05e	9.1	17	27	10	4.1	1.5	.38	.09	.01
11	.05e	.10e	.10e	7.7	69	25	9.0	4.0	1.4	.35	.11	.01
12	.05e	.10e	.12	6.5	150	24	5.8	4.1	1.4	.42	.16	.01
13	.05e	.10e	.12	5.6	104	23	6.2	4.0	1.4	.44	.21	.01
14	.05e	.10e	.12	5.1	135	23	8.3	3.9	1.3	.39	.24	.01
15	.05e	.10e	.12	4.5	257	22	9.1	3.8	1.4	.37	.23	.01
16	.05e	.10e	.12	4.2	149	21	9.0	3.6	1.4	.33	.16	.01
17	.05e	.05e	.12	3.8	93	19	8.9	3.3	1.3	.34	.19	.01
18	.05e	.05e	.14	3.6	66	18	8.4	3.4	1.3	.31	.20	.01
19	.05e	.05e	.23	3.3	53	17	8.1	3.5	1.3	.30	.22	.01
20	.05e	.05e	.16	3.0	51	18	7.9	3.5	1.2	.29	.22	.01
21	.05e	.05e	.12	2.8	40	18	7.8	3.5	1.0	.28	.23	.01
22	.05e	.05e	.12	2.8	35	18	7.4	3.3	.96	.27	.19	.01
23	.05e	.05e	.12	2.5	31	18	7.4	2.9	.85	.28	.16	.01
24	.05e	.05e	.12	2.4	27	17	7.2	2.6	.81	.26	.11	.01
25	.10e	.05e	.12	2.4	24	16	7.0	2.5	.88	.25	.16	.01
26	5.0 e	.05e	.11	2.4	23	16	6.6	2.5	.84	.22	.17	.01
27	.80e	.05e	.79	2.1	21	15	6.3	2.7	.78	.20	.16	.01
28	.40e	.05e	3.1	2.3	19	14	6.3	2.4	.80	.17	.20	.01
29	.40e	.05e	24	2.4	18	14	6.1	2.4	.72	.14	.22	.01
30	.30e	.05e	11	2.0	------	14	6.4	2.5	.74	.15	.22	.01
31	.30e	------	4.9	2.0	------	14	------	2.3	------	.14	.20	------
TOTAL	8.50	3.40	46.35	174.5	1,401.7	676	262.2	117.8	38.98	11.64	5.03	0.87
MEAN	.27	.11	1.50	5.63	48.3	21.8	8.74	3.80	1.30	.38	.16	.029
MAX	5.0	.30	24	22	257	59	13	6.3	2.0	.74	.24	.20
MIN	.05	.05	.05	2.0	1.8	14	5.8	2.3	.72	.14	.07	.01
AC-FT	17	6.7	92	346	2,780	1,340	520	234	77	23	10	1.7

CAL YEAR 1991	TOTAL*	58.25	MEAN	.63	MAX	24	MIN	.05	AC-FT	116
WTR YEAR 1992	TOTAL	2,746.97	MEAN	7.51	MAX	257	MIN	.01	AC-FT	5,450

FIGURE D-10


SAN CLEMENTE CREEK - WY 1993
DISCHARGE IN CFS
1000
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0.01
OCT
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JAN
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MAY
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JUL
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SEP

TABLE D-10

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SAN CLEMENTE CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	.01e	.03	.03	27	38	104	29	13	7.4	2.8	1.0	.40
2	.01e	.03	.05	23	35	93	27	13	7.4	2.7	.91	.38
3	.01e	.03	.31	13	32	84	22	13	7.3	2.7	.91	.37
4	.01e	.01	.10	10	30	74	19	13	7.9	2.7	.85	.38
5	.01e	.01	.13	9.2	29	66	14	12	9.7	2.7	.82	.38
6	.01e	.01	.44	16	27	61	23	12	8.6	2.5	.78	.38
7	.01e	.02	.92	111	29	54	23	12	8.8	2.3	.78	.37
8	.01e	.03	.54	93	50	49	22	11	8.2	2.1	.74	.33
9	.01e	.02	.46	53	68	45	21	11	7.4	2.1	.66	.31
10	.01e	.01	1.4	67	51	41	21	10	6.8	2.0	.63	.27
11	.01e	.01	2.9	41	48	38	20	11	6.5	1.9	.66	.29
12	.01e	.03	2.3	61	42	36	20	11	6.2	1.9	.67	.31
13	.01e	.07	2.5	317	40	34	19	10	6.0	1.8	.72	.31
14	.01e	.13	1.9	450	37	33	19	10	5.7	1.7	.78	.28
15	.01e	.96	1.3	209	35	30	19	9.6	5.5	1.6	.79	.30
16	.01e	.21	1.1	176	33	29	18	9.3	5.3	1.5	.81	.30
17	.01e	.09	1.2	232	37	29	21	9.1	5.0	1.4	.72	.30
18	.01e	.10	1.6	235	71	28	20	8.9	4.7	1.3	.68	.33
19	.01e	.13	1.1	168	301	26	18	8.7	4.4	1.3	.65	.30
20	.01e	.18	.96	147	269	25	17	8.7	4.6	1.2	.65	.26
21	.01e	.14	.93	161	204	24	16	8.4	4.5	1.3	.62	.26
22	.01e	.13	.93	178	161	23	16	8.0	4.4	1.3	.58	.26
23	.01e	.05	.82	142	153	23	16	7.8	4.3	1.3	.54	.26
24	.01e	.03	.81	120	154	26	16	7.9	4.0	1.3	.50	.22
25	.01e	.03	.82	103	138	28	15	9.3	3.6	1.3	.48	.20
26	.02	.03	.84	89	166	48	14	9.1	3.3	1.3	.47	.15
27	.03	.03	.92	75	133	42	15	9.1	3.2	1.3	.45	.11
28	.02	.03	7.6	62	114	38	14	8.4	3.2	1.3	.42	.09
29	.10	.03	28	54	------	34	13	7.6	3.2	1.3	.39	.11
30	.17	.03	22	48	------	32	13	7.5	2.9	1.4	.41	.13
31	.04	------	12	43	------	30	------	8.1	------	1.2	.40	------
TOTAL	0.63	2.64	96.91	3,533.2	2,525	1,327	560	307.5	170.0	54.5	20.47	8.34
MEAN	.020	.088	3.13	114	90.2	42.8	18.7	9.92	5.67	1.76	.66	.28
MAX	.17	.96	28	450	301	104	29	13	9.7	2.8	1.0	.40
MIN	.01	.01	.03	9.2	27	23	13	7.5	2.9	1.2	.39	.09
AC-FT	1.2	5.2	192	7,010	5,010	2,630	1,110	610	337	108	41	17

CAL YEAR 1992	TOTAL*	100.18	MEAN	1.09	MAX	28	MIN	.01	AC-FT	199
WTR YEAR 1993	TOTAL	8,606.19	MEAN	23.6	MAX	450	MIN	.01	AC-FT	17,070

FIGURE D-11

SAN CLEMENTE CREEK - WY 1994

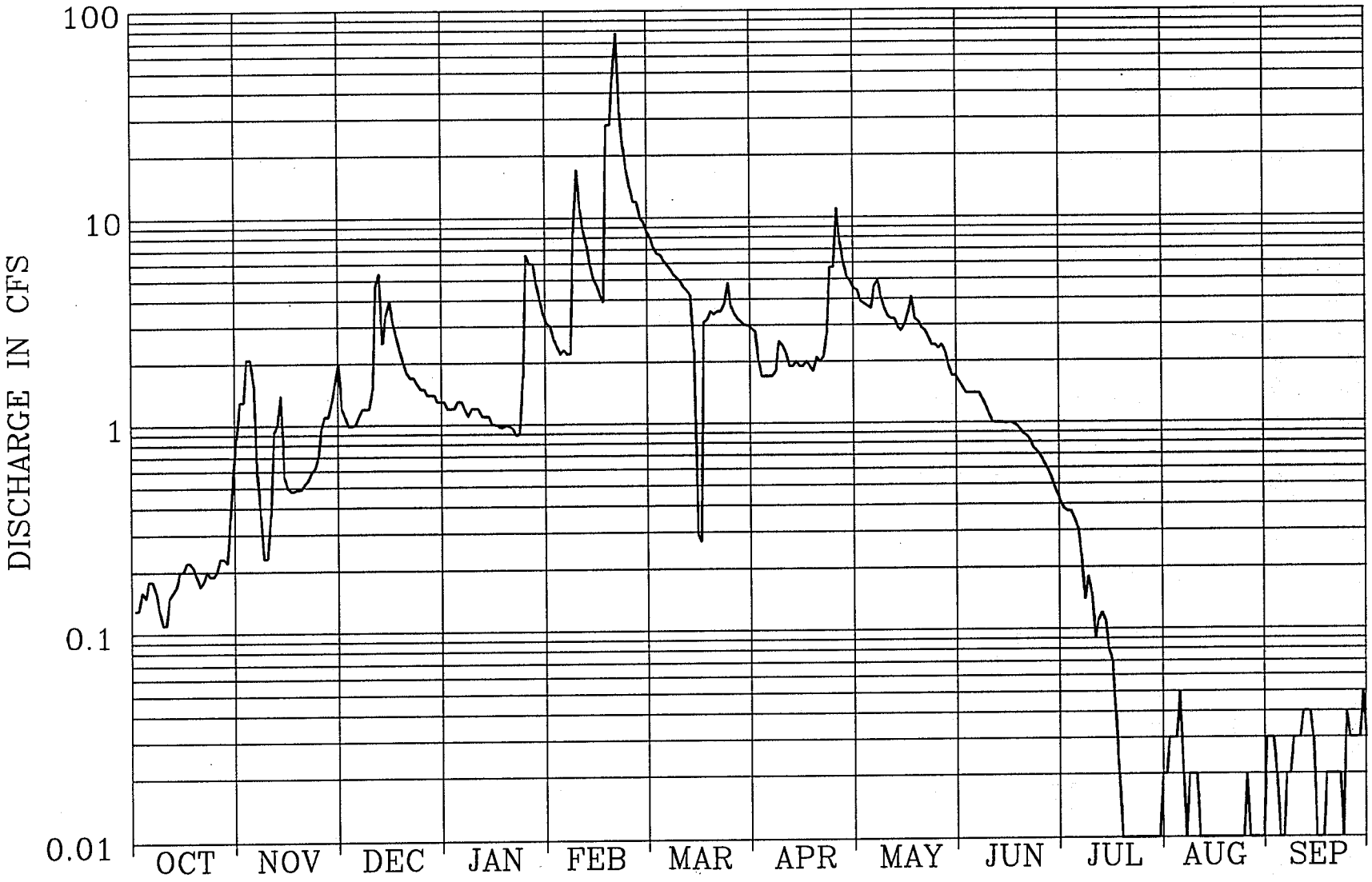

TABLE D-11

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SAN CLEMENTE CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	1.3	1.2	1.2	2.6	8.6	2.9	4.5	1.6	.41	.02	.03
2	.13	1.3	1.1	1.2	2.4	8.0	2.8	4.4	1.5	.38	.03	.03
3	.16	2.1	.99	1.2	2.2	7.2	2.0	3.9	1.4	.37	.03	.02
4	.15	2.1	.99	1.3	2.3	6.7	1.7	3.8	1.4	.37	.03	.01
5	.18	1.6	1.0	1.3	2.2	6.6	1.7	3.7	1.4	.34	.05	.01
6	.18	.58	1.1	1.2	2.2	6.2	1.7	3.6	1.4	.31	.02	.02
7	.16	.37	1.2	1.1	8.5	5.9	1.7	4.6	1.4	.23	.01	.02
8	.13	.23	1.2	1.2	17	5.6	1.8	4.9	1.3	.14	.02	.03
9	.11	.23	1.2	1.2	11	5.3	2.5	4.1	1.2	.18	.02	.03
10	.11	.37	1.5	1.2	8.7	5.1	2.4	3.6	1.1	.15	.02	.03
11	.15	.93	4.7	1.1	7.4	4.9	2.2	3.3	1.0	.09	.01	.04
12	.16	1.0	5.4	1.1	5.9	4.6	1.9	3.2	1.0	.11	.01e	.04
13	.17	1.4	2.5	1.1	5.1	4.4	1.9	3.2	1.0	.12	.01e	.04
14	.20	.56	3.4	1.0	4.7	4.2	2.0	2.9	1.0	.11	.01e	.03
15	.20	.50	4.0	1.0	4.2	2.3	1.9	2.8	.99	.08	.01e	.01
16	.22	.48	3.1	.98	3.9	.29	1.9	3.0	1.0	.07	.01e	.01
17	.22	.48	2.7	.97	28	.27	2.0	3.4	.99	.04	.01e	.01
18	.21	.49	2.3	.99	28	3.1	1.9	4.1	.97	.02	.01e	.02
19	.19	.49	2.0	.98	48	3.2	1.8	3.2	.93	.01	.01e	.02
20	.17	.52	1.8	.96	78	3.5	2.1	3.1	.88	.01	.01	.02
21	.18	.54	1.7	.89	32	3.4	2.0	2.9	.86	.01	.01	.02
22	.20	.59	1.7	.90	22	3.5	2.1	2.8	.82	.01	.01	.02
23	.19	.62	1.6	1.7	17	3.5	2.7	2.6	.75	.01	.01	.01
24	.19	.70	1.5	6.6	14	3.8	5.7	2.4	.72	.01	.01	.04
25	.20	.98	1.5	6.0	12	4.8	5.7	2.4	.69	.01e	.02	.03
26	.23	1.1	1.4	6.0	12	3.7	11	2.3	.64	.01e	.01	.03
27	.23	1.1	1.4	4.8	10	3.4	7.5	2.4	.59	.01e	.01	.03
28	.22	1.3	1.4	4.0	9.6	3.2	6.0	2.2	.55	.01e	.01	.03
29	.36	1.6	1.3	3.4	------	3.1	5.1	1.9	.49	.01	.01	.05
30	.62	2.0	1.3	3.1	------	3.0	4.9	1.7	.45	.01	.01	.03
31	.87	------	1.3	3.0	------	3.0	------	1.7	------	.02	.03	------
TOTAL	6.82	27.56	59.48	62.67	400.9	134.36	93.5	98.6	30.02	3.66	0.49	0.76
MEAN	.22	.92	1.92	2.02	14.3	4.33	3.12	3.18	1.00	.12	.016	.025
MAX	.87	2.1	5.4	6.6	78	8.6	11	4.9	1.6	.41	.05	.05
MIN	.11	.23	.99	.89	2.2	.27	1.7	1.7	.45	.01	.01	.01
AC-FT	14	55	118	124	795	267	185	196	60	7.3	1.0	1.5

CAL YEAR 1993	TOTAL	8,600.37	MEAN	23.6	MAX	450	MIN	.09	AC-FT	17,060
WTR YEAR 1994	TOTAL	918.82	MEAN	2.52	MAX	78	MIN	.01	AC-FT	1,820

FIGURE D-12

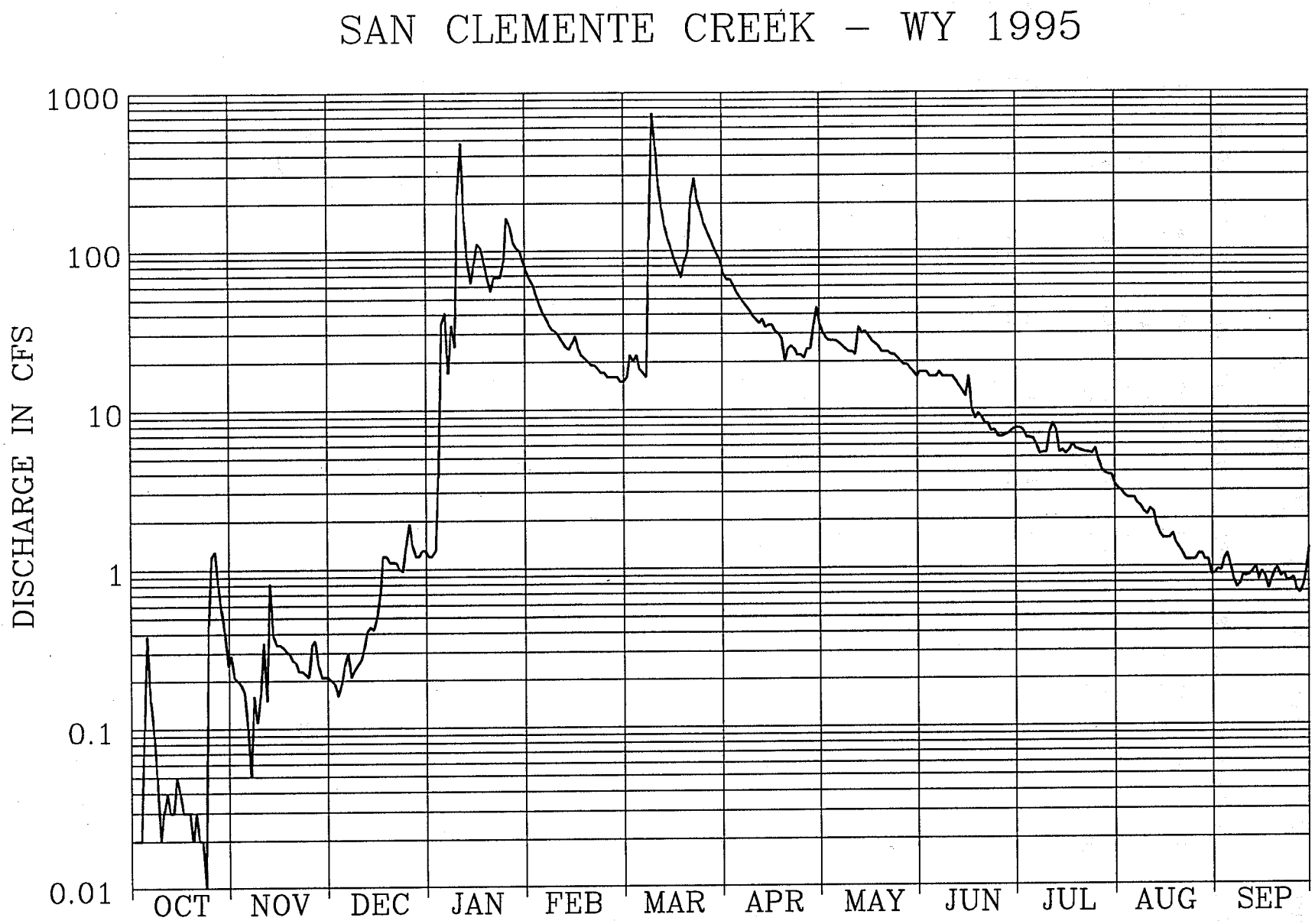
SAN CLEMENTE CREEK – WY 1995
DISCHARGE IN CFS
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TABLE D-12

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SAN CLEMENTE CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.21	.20	1.2	61	15	72	34	17	7.6	3.1	.96
2	.02	.20	.19	1.3	53	16	66	30	17	7.6	3.0	.94
3	.02	.19	.16	3.8	46	22	66	28	17	7.3	2.8	1.1
4	.10	.17	.19	35	41	20	61	27	16	6.6	2.7	1.2
5	.39	.10	.25	41	38	22	55	27	16	6.6	2.7	1.0
6	.15	.05	.30	17	34	18	51	27	16	6.5	2.7	.83
7	.09	.16	.21	34	32	17	48	26	17	5.9	2.5	.74
8	.05	.11	.23	25	31	16	45	25	16	5.2	2.4	.78
9	.02	.16	.25	232	29	118	42	24	16	5.3	2.2	.89
10	.03	.35	.27	481	27	735	39	23	16	5.3	2.1	.87
11	.04	.15	.32	154	25	448	37	23	16	7.2	2.3	.88
12	.03	.82	.41	87	24	258	35	22	15	8.1	2.2	.93
13	.03	.39	.44	63	26	183	37	33	14	7.4	1.8	1.0
14	.05	.34	.42	85	29	144	33	30	13	5.3	1.6	.83
15	.04	.34	.50	111	24	118	34	31	12	5.5	1.5	.93
16	.03	.33	.71	105	22	101	34	29	16	5.2	1.5	.86
17	.03	.31	1.2	84	21	88	31	27	10	5.5	1.5	.73
18	.03	.30	1.2	69	20	77	30	26	8.7	6.0	1.6	.82
19	.02	.27	1.1	56	19	68	28	25	9.4	5.6	1.4	.93
20	.03	.26	1.1	68	19	85	20	23	8.9	5.5	1.3	.97
21	.02	.23	1.1	68	18	98	24	23	8.1	5.4	1.2	.86
22	.02	.23	1.0	68	17	224	25	23	8.1	5.3	1.1	.90
23	.01	.22	.97	86	17	290	24	22	7.3	5.3	1.1	.81
24	.46	.21	1.4	162	16	210	22	22	7.4	5.2	1.1	.82
25	1.2	.34	1.9	143	16	177	22	21	6.8	5.6	1.1	.85
26	1.3	.36	1.4	113	16	150	21	20	6.7	4.7	1.2	.72
27	.80	.25	1.2	105	16	132	24	19	6.8	4.1	1.2	.68
28	.56	.21	1.2	100	15	118	24	19	6.9	3.9	1.1	.75
29	.41	.21	1.3	85	------	106	34	18	7.2	3.8	1.1	.92
30	.25	.21	1.3	75	------	95	44	17	7.5	3.8	.89	1.3
31	.29	------	1.2	67	------	86	------	16	------	3.3	.90	------
TOTAL	6.54	7.68	23.62	2,825.3	752	4,255	1,128	760	359.8	175.6	54.89	26.80
MEAN	.21	.26	.76	91.1	26.9	137	37.6	24.5	12.0	5.66	1.77	.89
MAX	1.3	.82	1.9	481	61	735	72	34	17	8.1	3.1	1.3
MIN	.01	.05	.16	1.2	15	15	20	16	6.7	3.3	.89	.68
AC-FT	13	15	47	5,600	1,490	8,440	2,240	1,510	714	348	109	53

CAL YEAR 1994	TOTAL	865.55	MEAN	2.37	MAX	78	MIN	.01	AC-FT	1,720
WTR YEAR 1995	TOTAL	10,375.23	MEAN	28.4	MAX	735	MIN	.01	AC-FT	20,580

FIGURE D-13

CARMEL RIVER AT SLEEPY HOLLOW WEIR – WY 1992

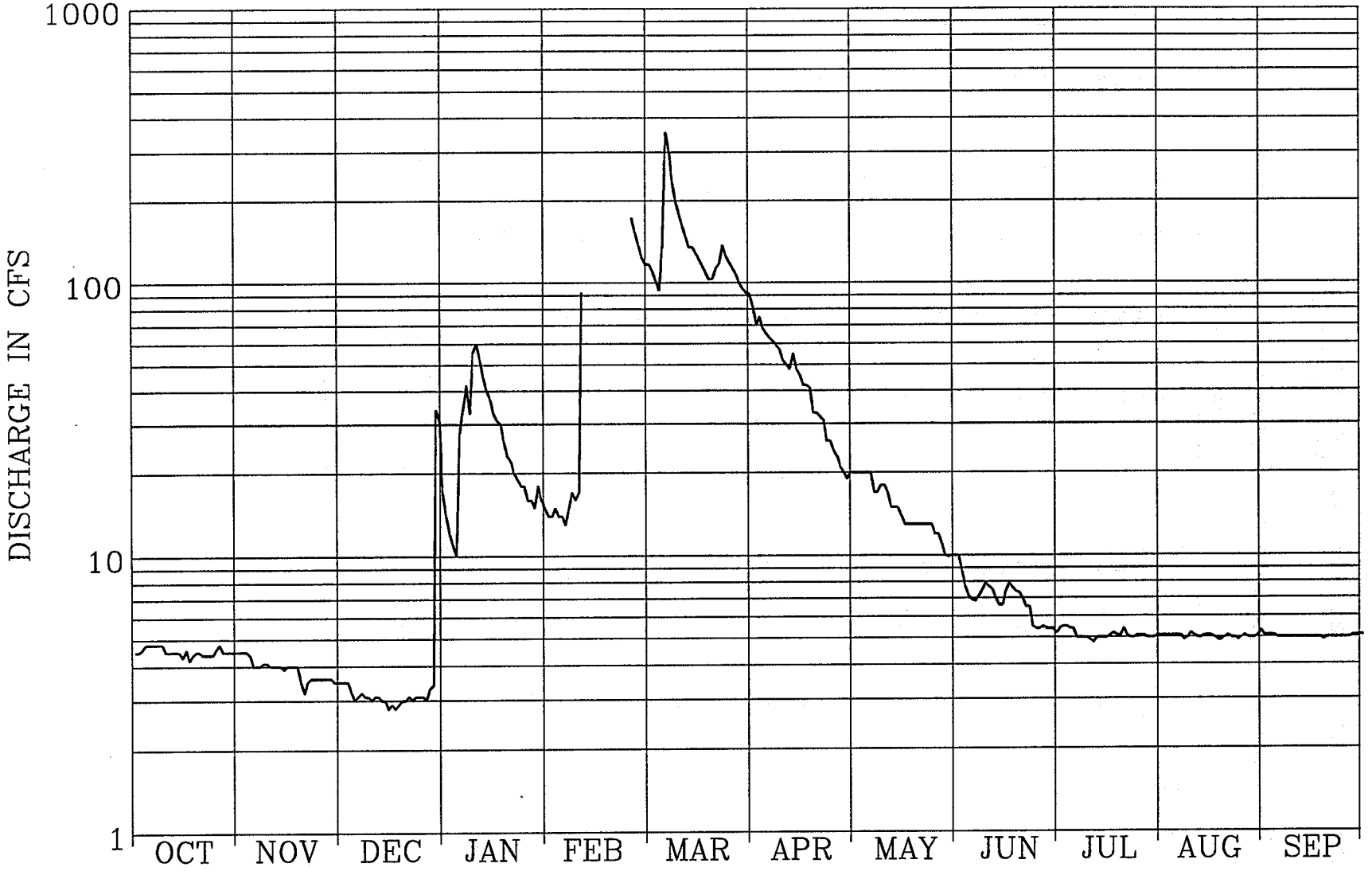


TABLE D-13

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW WEIR

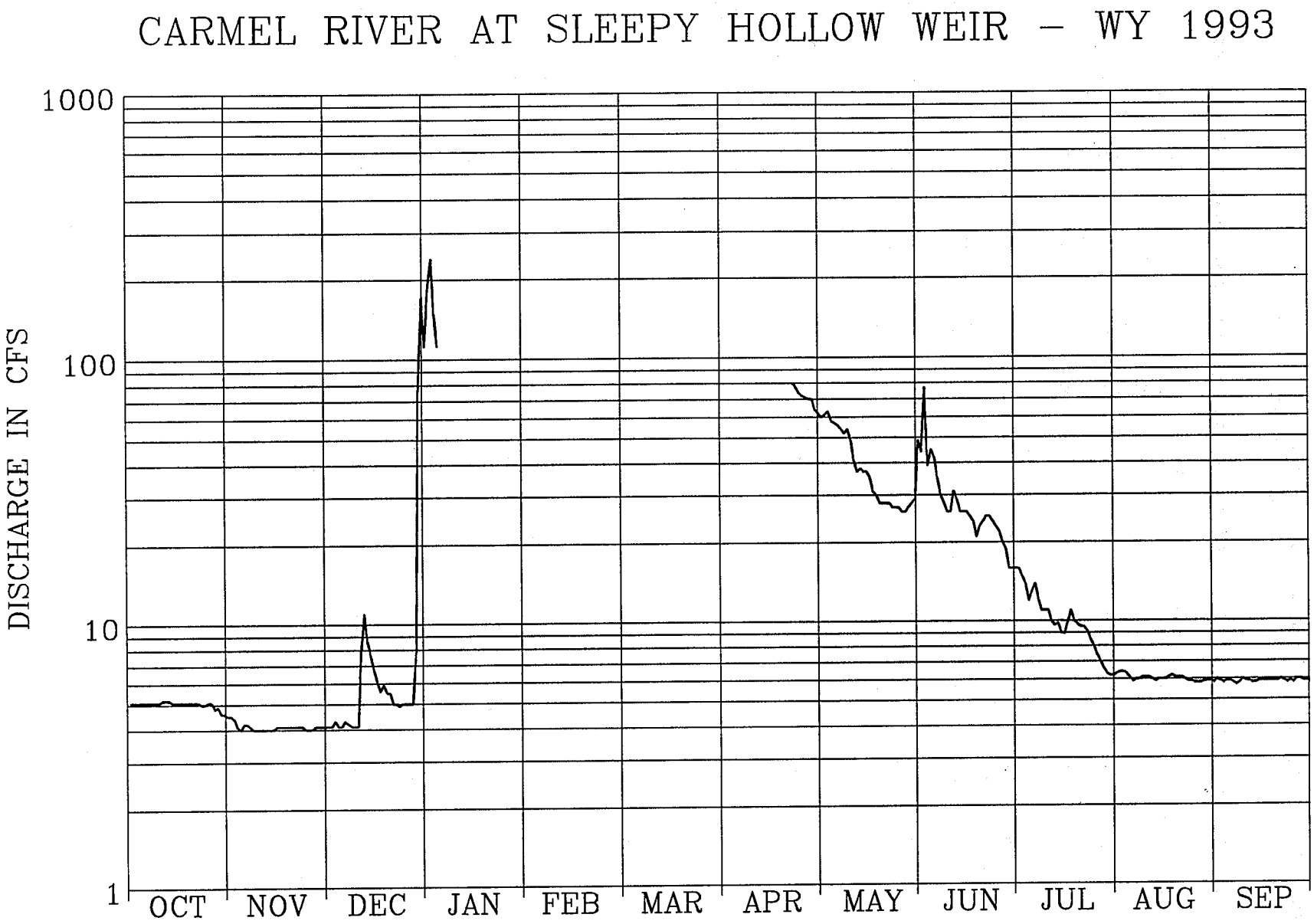
DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1991 TO Sep 1992

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4.5	4.5	3.5	14	14	117	82	20	10	5.4	5.1	5.1
2	4.5	4.5	3.5	12	15	111	70	20	8.7	5.5	5.1	5.1
3	4.6	4.5	3.5	11	14	102	75	20	7.7	5.5	5.1	5.1
4	4.8	4.4	3.2	10	14	94	68	20	7.1	5.4	5.1	5.0
5	4.8	4.0	3.0	28	13	134e	65	20	6.9	5.4	5.1	5.0
6	4.8	4.0	3.1	34	15	353e	63	20	6.8	5.0	5.1	5.0
7	4.8	4.0	3.2	42	17	297e	61	17	7.1	5.0	4.9	5.0
8	4.8	4.1	3.1	33	16	232e	59	17	7.5	5.0	5.0	5.0
9	4.8	4.1	3.1	56	17	196e	57	18	7.9	5.0	5.2	5.0
10	4.5	4.0	3.0	60	92	176	52	18	7.7	4.9	5.1	5.0
11	4.5	4.0	3.1	52		161	50	17	7.5	4.8	5.0	5.0
12	4.5	4.0	3.1	45		147	48	15	7.0	5.0	5.0	5.0
13	4.5	4.0	3.0	40		135	55	15	6.6	5.0	5.1	5.0
14	4.5	3.9	3.0	37		135	48	15	6.6	5.0	5.1	5.0
15	4.3	4.0	2.8	33		128	46	14	7.4	5.0	5.1	5.0
16	4.6	4.0	2.9	31		122	42	13	7.9	5.1	5.0	5.0
17	4.2	4.0	2.8	30		115	42	13	7.6	5.2	4.9	5.0
18	4.4	4.0	2.9	26		108	41	13	7.4	5.1	4.9	4.9
19	4.5	3.5	3.0	23		103	33	13	7.3	5.1	5.0	5.0
20	4.5	3.2	3.0	22		103	33	13	6.9	5.4	5.1	5.0
21	4.4	3.5	3.1	20		113	32	13	6.5	5.1	5.0	5.0
22	4.4	3.6	3.0	19		117	31	13	6.5	5.0	5.0	5.0
23	4.4	3.6	3.1	18		137	26	13	5.5	5.0	4.9	5.0
24	4.4	3.6	3.1	18		125	26	13	5.4	5.1	5.0	5.0
25	4.6	3.6	3.1	16	173	119	24	12	5.4	5.1	5.1	5.0
26	4.8	3.6	3.0	16	153	113	23	12	5.5	5.1	5.0	5.0
27	4.5	3.6	3.3	15	137	107	21	11	5.4	5.0	5.0	5.1
28	4.5	3.6	3.4	18	124	100	20	10	5.4	5.0	5.0	5.1
29	4.5	3.5	34	16	117	95	19	9.9	5.4	5.0	5.1	5.1
30	4.5	3.5	31	15	------	92	20	10	5.2	5.1	5.3	5.1
31	4.5	------	17	14	------	91	------	10	------	5.1	5.1	------
TOTAL	140.9	116.4	168.9	824	931	4,278	1,332	457.9	205.8	158.4	156.5	150.6
MEAN	4.55	3.88	5.45	26.6	62.1	138	44.4	14.8	6.86	5.11	5.05	5.02
MAX	4.8	4.5	34	60	173	353	82	20	10	5.5	5.3	5.1
MIN	4.2	3.2	2.8	10	13	91	19	9.9	5.2	4.8	4.9	4.9
AC-FT	279	231	335	1,630	1,850	8,490	2,640	908	408	314	310	299

CAL YEAR 1991	TOTAL*	426.2	MEAN	4.63	MAX	34	MIN	2.8	AC-FT	845
WTR YEAR 1992	TOTAL*	8,920.4	MEAN	25.3	MAX	353	MIN	2.8	AC-FT	17,690

* Incomplete Record

FIGURE D-14


CARMEL RIVER AT SLEEPY HOLLOW WEIR - WY 1993
DISCHARGE IN CFS
1000
100
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1
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NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-14

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW WEIR

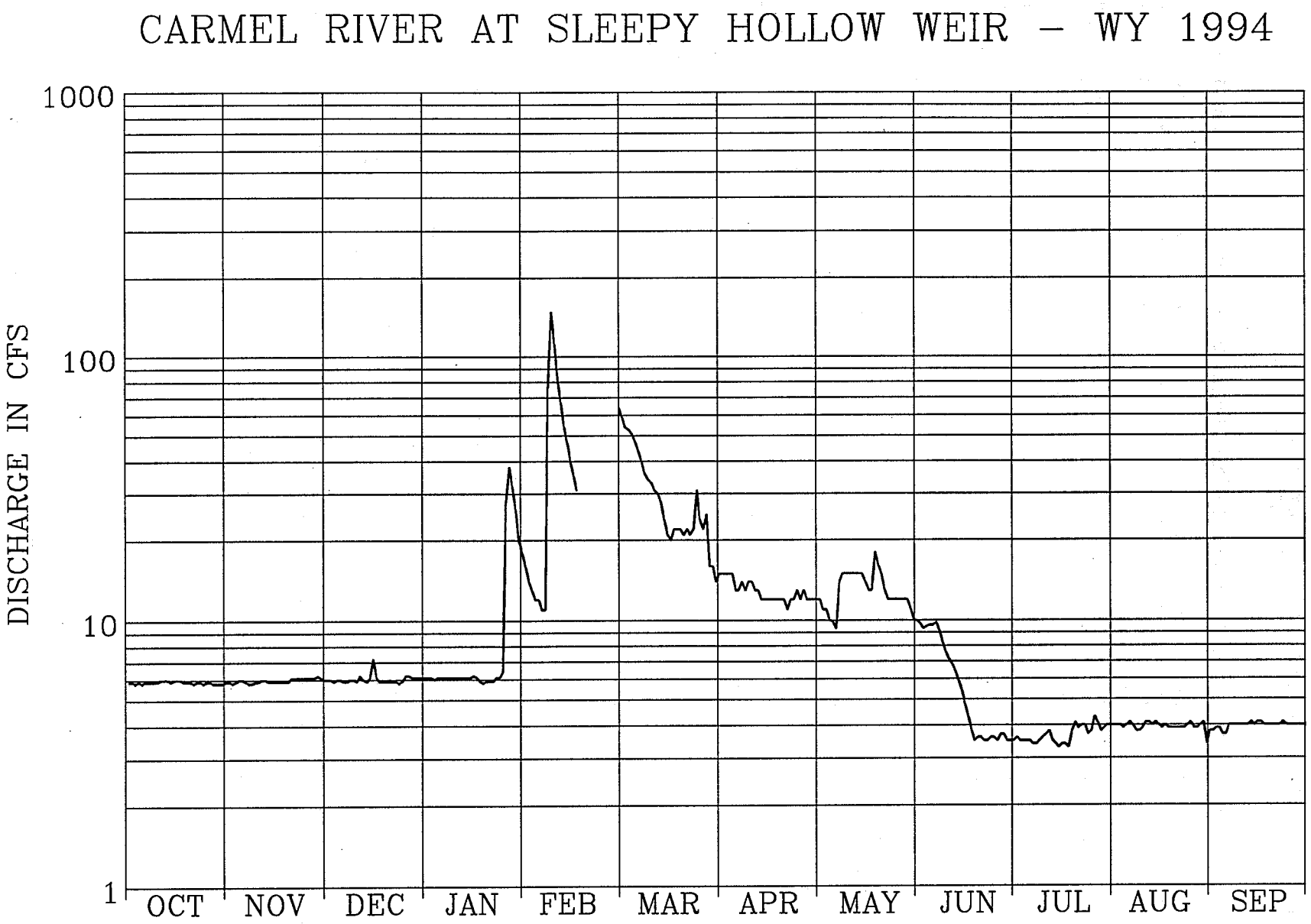
DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.1	4.5	4.1	183				62	49	16	6.3	6.0
2	5.1	4.4	4.1	239				60	44	16	6.4	5.9
3	5.1	4.1	4.3	149				61	77	15	6.4	5.8
4	5.1	4.0	4.1	112				63	39	14	6.3	5.9
5	5.1	4.2	4.1					58	45	12	6.1	5.9
6	5.1	4.2	4.3					57	42	13	5.9	5.8
7	5.1	4.1	4.2					56	35	14	6.0	5.7
8	5.1	4.0	4.1					54	30	12	6.0	5.8
9	5.1	4.0	4.1					52	28	11	6.1	6.0
10	5.1	4.0	4.1					54	26	11	6.1	5.9
11	5.2	4.0	8.0					49	26	11	6.1	5.9
12	5.2	4.0	11					41	31	10	6.0	5.8
13	5.2	4.0	8.6					37	29	9.6	5.9	5.8
14	5.1	4.0	7.6					38	26	9.8	6.0	5.9
15	5.1	4.1	6.7					37	26	9.0	6.0	5.9
16	5.1	4.1	6.0					37	26	8.9	6.0	5.9
17	5.1	4.1	5.6					35	25	9.9	6.1	5.9
18	5.1	4.1	5.9					31	24	11	6.2	5.9
19	5.1	4.1	5.5					30	21	10	6.1	5.9
20	5.1	4.1	5.5					28	23	9.7	6.1	5.9
21	5.1	4.1	5.0					28	24	9.5	6.1	6.0
22	5.1	4.1	5.0					28	25	9.5	6.0	5.9
23	5.0	4.1	4.9				80	28	25	9.1	5.9	5.8
24	5.0	4.0	5.0				78	27	24	8.5	5.9	5.9
25	5.1	4.0	5.0				74	27	23	8.0	5.8	5.8
26	5.1	4.0	5.0				72	27	22	7.4	5.8	6.0
27	4.8	4.1	5.0				71	26	20	7.0	5.8	6.0
28	4.9	4.1	7.8				70	26	19	6.6	5.9	5.9
29	4.6	4.1	76		------		70	27	16	6.3	5.9	5.9
30	4.6	4.1	171		------		64	28	16	6.2	5.9	5.9
31	4.5	------	112		------		------	29	------	6.2	5.8	------
TOTAL	156.1	122.8	513.6	683			579	1,241	886	317.2	186.9	176.6
MEAN	5.04	4.09	16.6	171			72.4	40.0	29.5	10.2	6.03	5.89
MAX	5.2	4.5	171	239			80	63	77	16	6.4	6.0
MIN	4.5	4.0	4.1	112			64	26	16	6.2	5.8	5.7
AC-FT	310	244	1,020	1,350			1,150	2,460	1,760	629	371	350
				*	*	*	*					

CAL YEAR 1992	TOTAL*	792.5	MEAN	8.61	MAX	171	MIN	4.0	AC-FT	1,570
WTR YEAR 1993	TOTAL*	4,862.2	MEAN	18.9	MAX	239	MIN	4.0	AC-FT	9,640

* Incomplete Record

FIGURE D-15


CARMEL RIVER AT SLEEPY HOLLOW WEIR – WY 1994
DISCHARGE IN CFS
1000
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JUL
AUG
SEP

TABLE D-15

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW WEIR

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.9	6.0	6.1	14	64	15	12	10	3.5	4.0	3.8
2	5.9	5.8	6.0	6.1	13	59	15	12	9.7	3.6	4.0	3.9
3	5.8	5.9	5.9	6.0	12	54	15	11	9.3	3.5	4.0	3.9
4	5.9	6.0	6.0	6.1	12	53	15	11	9.5	3.5	3.9	3.7
5	5.8	6.0	6.0	6.1	11	51	15	10	9.6	3.5	4.0	3.7
6	5.9	5.9	5.9	6.1	11	48	13	9.9	9.6	3.5	4.1	4.0
7	5.9	5.8	5.9	6.1	76	44	13	9.3	9.8	3.4	4.0	4.0
8	5.9	5.8	6.0	6.1	148	40	14	14	9.1	3.4	3.8	4.0
9	5.9	5.9	6.0	6.1	111	36	13	15	8.2	3.5	3.8	4.0
10	5.9	5.9	5.9	6.1	83	34	14	15	7.6	3.6	3.9	4.0
11	6.0	6.0	6.2	6.1	67	33	14	15	7.1	3.7	4.1	4.0
12	6.0	6.0	6.0	6.1	54	31	13	15	6.8	3.8	4.1	4.0
13	6.0	5.9	5.9	6.1	47	30	13	15	6.4	3.5	4.0	4.1
14	5.9	5.9	6.1	6.1	40	28	12	15	5.9	3.4	4.1	4.0
15	6.0	5.9	7.2	6.2	35	24	12	15	5.4	3.3	4.0	4.1
16	6.0	5.9	6.1	6.1	31	21	12	14	4.8	3.4	3.9	4.1
17	6.0	5.9	5.9	5.9		20	12	13	4.3	3.4	4.0	4.0
18	5.9	5.9	5.9	5.8		22	12	13	3.8	3.3	3.9	4.0
19	5.9	5.9	5.9	5.9		22	12	18	3.5	3.8	3.9	4.0
20	5.9	6.1	5.9	5.9		22	12	16	3.6	4.1	3.9	4.0
21	5.8	6.1	5.9	5.9		21	12	15	3.6	3.9	3.9	4.0
22	5.9	6.1	5.9	6.1		22	11	13	3.5	4.0	3.9	4.0
23	5.9	6.1	5.8	6.1		21	12	12	3.5	4.0	3.9	4.1
24	5.8	6.1	5.9	6.4		22	12	12	3.6	3.7	4.0	4.0
25	5.9	6.1	6.2	28		31	13	12	3.6	3.8	4.1	4.0
26	5.9	6.1	6.2	38		24	12	12	3.5	4.3	3.9	4.0
27	5.8	6.1	6.1	32		22	13	12	3.7	4.1	3.9	4.0
28	5.8	6.2	6.1	26		25	12	12	3.7	3.8	4.0	4.0
29	5.8	6.1	6.1	20	------	16	12	12	3.5	3.9	4.1	4.0
30	5.8	6.0	6.1	18	------	16	12	11	3.5	4.0	3.4	4.0
31	5.9	------	6.1	16	------	14	------	10	------	4.0	3.8	------
TOTAL	182.7	179.3	187.1	323.6	765	970	387	401.2	179.7	114.2	122.3	119.4
MEAN	5.89	5.98	6.04	10.4	47.8	31.3	12.9	12.9	5.99	3.68	3.95	3.98
MAX	6.0	6.2	7.2	38	148	64	15	18	10	4.3	4.1	4.1
MIN	5.8	5.8	5.8	5.8	11	14	11	9.3	3.5	3.3	3.4	3.7
AC-FT	362	356	371	642	1,520	1,920	768	796	356	227	243	237

*

CAL YEAR 1993	TOTAL	4,620.1	MEAN	12.7	MAX	239	MIN	5.7	AC-FT	9,160
WTR YEAR 1994	TOTAL*	3,931.5	MEAN	11.1	MAX	148	MIN	3.3	AC-FT	7,800

* Incomplete Record

FIGURE D-16

CARMEL RIVER AT SLEEPY HOLLOW WEIR – WY 1995

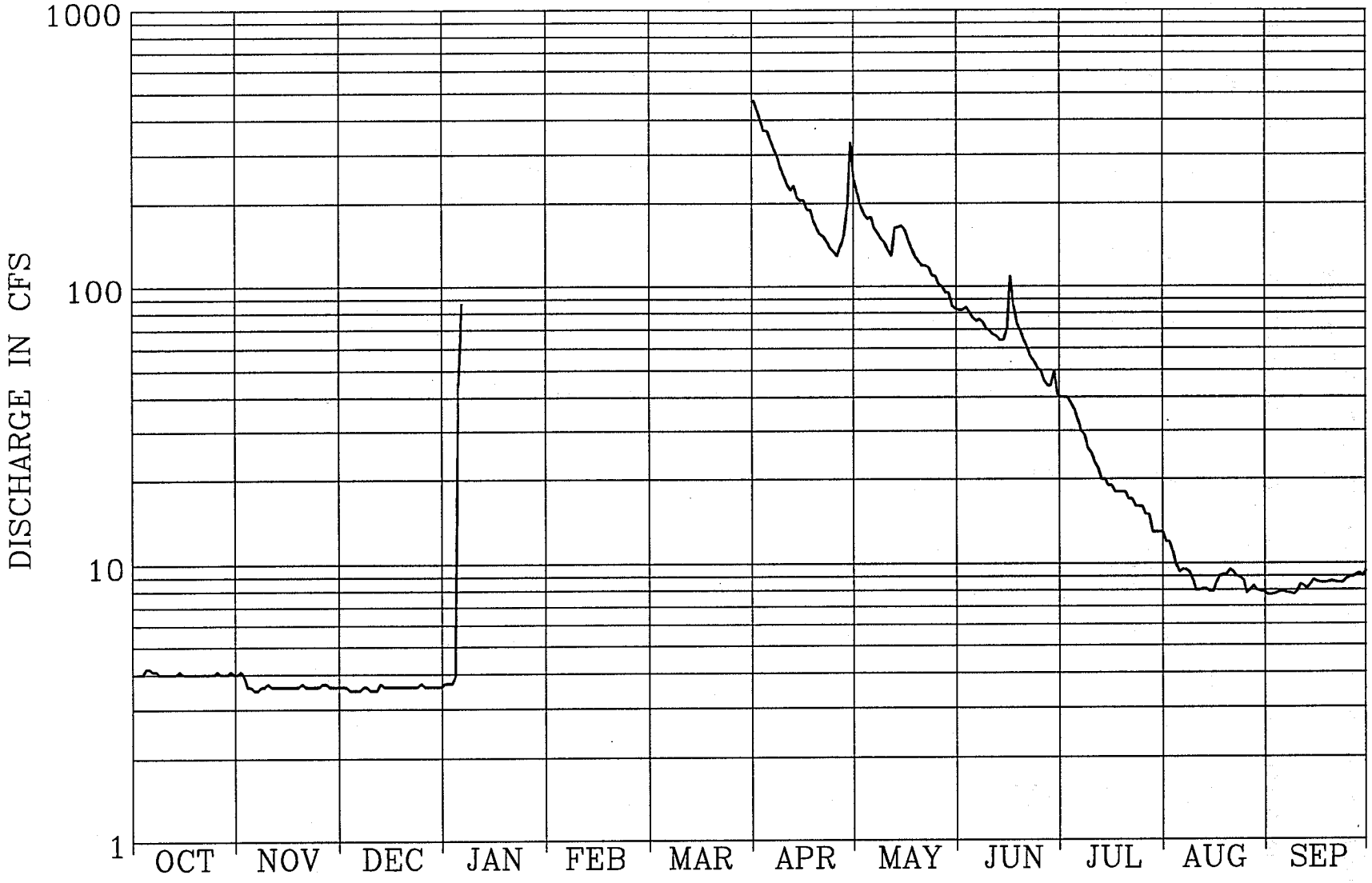


TABLE D-16

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW WEIR

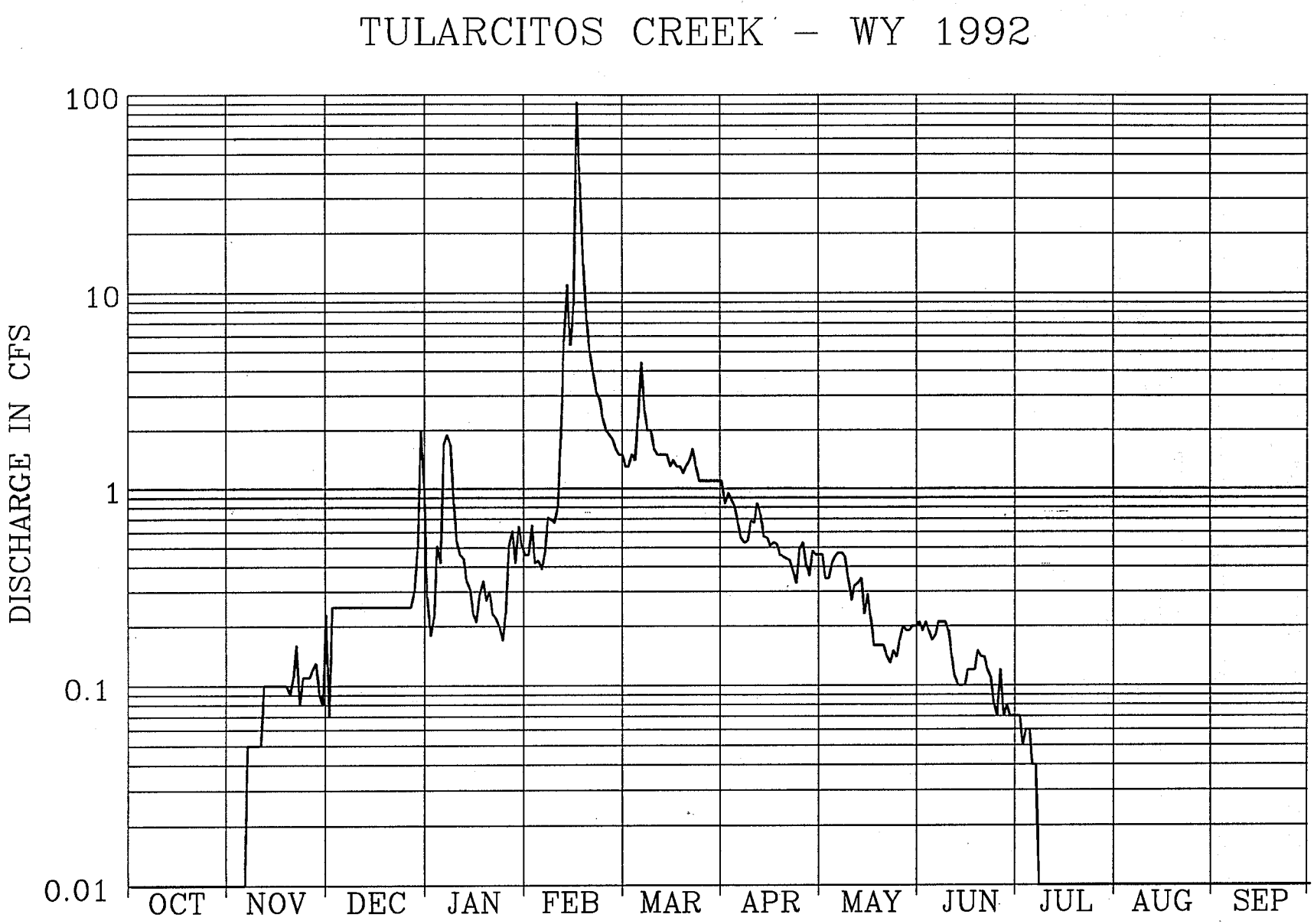
DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.1	3.6	3.7			471e	242	82	40	12	7.7
2	4.0	3.9	3.6	3.7			435e	217	82	40	12	7.7
3	4.0	3.6	3.5	3.9			397e	196	84	40	11	7.8
4	4.2	3.6	3.5	45			366e	183	81	38	9.9	7.9
5	4.2	3.5	3.5	87			365	176	77	36	9.3	7.9
6	4.1	3.5	3.5				337	178	75	33	9.5	7.8
7	4.1	3.6	3.6				316	163	76	30	9.5	7.8
8	4.0	3.6	3.6				296	156	74	29	9.3	7.7
9	4.0	3.7	3.5				269	149	70	26	8.7	7.9
10	4.0	3.6	3.5				252	144	69	25	8.0	8.4
11	4.0	3.6	3.5				234	135	67	23	8.0	8.3
12	4.0	3.6	3.7				223	129	66	22	8.1	8.1
13	4.0	3.6	3.6				231	163	64	20	8.1	8.4
14	4.1	3.6	3.6				210	164	64	20	7.9	8.7
15	4.0	3.6	3.6				204	166	70	19	7.9	8.6
16	4.0	3.6	3.6				205	160	109	19	8.5	8.5
17	4.0	3.6	3.6				190	146	85	18	9.0	8.5
18	4.0	3.6	3.6				189	137	73	18	9.1	8.5
19	4.0	3.7	3.6				173	128	69	18	9.1	8.6
20	4.0	3.6	3.6				162	123	64	18	9.5	8.6
21	4.0	3.6	3.6				155	119	60	17	9.3	8.5
22	4.0	3.6	3.6				152	119	56	17	9.0	8.5
23	4.0	3.6	3.6				145	117	54	16	8.9	8.5
24	4.0	3.6	3.7				138	110	51	16	8.7	8.8
25	4.1	3.7	3.6				134	109	50	16	7.8	8.9
26	4.0	3.7	3.6				129	102	46	15	8.0	8.9
27	4.0	3.6	3.6				140	100	44	15	8.3	9.1
28	4.0	3.6	3.6				152	95	44	13	8.0	9.2
29	4.1	3.6	3.6		------		192	95	50	13	7.9	9.0
30	4.0	3.6	3.6		------		332	85	41	13	7.9	9.4
31	4.0	------	3.7		------		------	83	------	13	7.7	------
TOTAL	124.9	109.0	111.2	143.3			7,194	4,389	1,997	696	275.9	252.2
MEAN	4.03	3.63	3.59	28.7			240	142	66.6	22.5	8.90	8.41
MAX	4.2	4.1	3.7	87			471	242	109	40	12	9.4
MIN	4.0	3.5	3.5	3.7			129	83	41	13	7.7	7.7
AC-FT	248	216	221	284			14,270	8,710	3,960	1,380	547	500
				*	*	*						

CAL YEAR 1994	TOTAL	3,723.3	MEAN	10.2	MAX	148	MIN	3.3	AC-FT	7,390
WTR YEAR 1995	TOTAL*	15,292.5	MEAN	54.6	MAX	471	MIN	3.5	AC-FT	30,330

* Incomplete Record

FIGURE D-17


TULARCITOS CREEK - WY 1992
DISCHARGE IN CFS
100
10
1
0.1
0.01
OCT
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JUL
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SEP

TABLE D-17

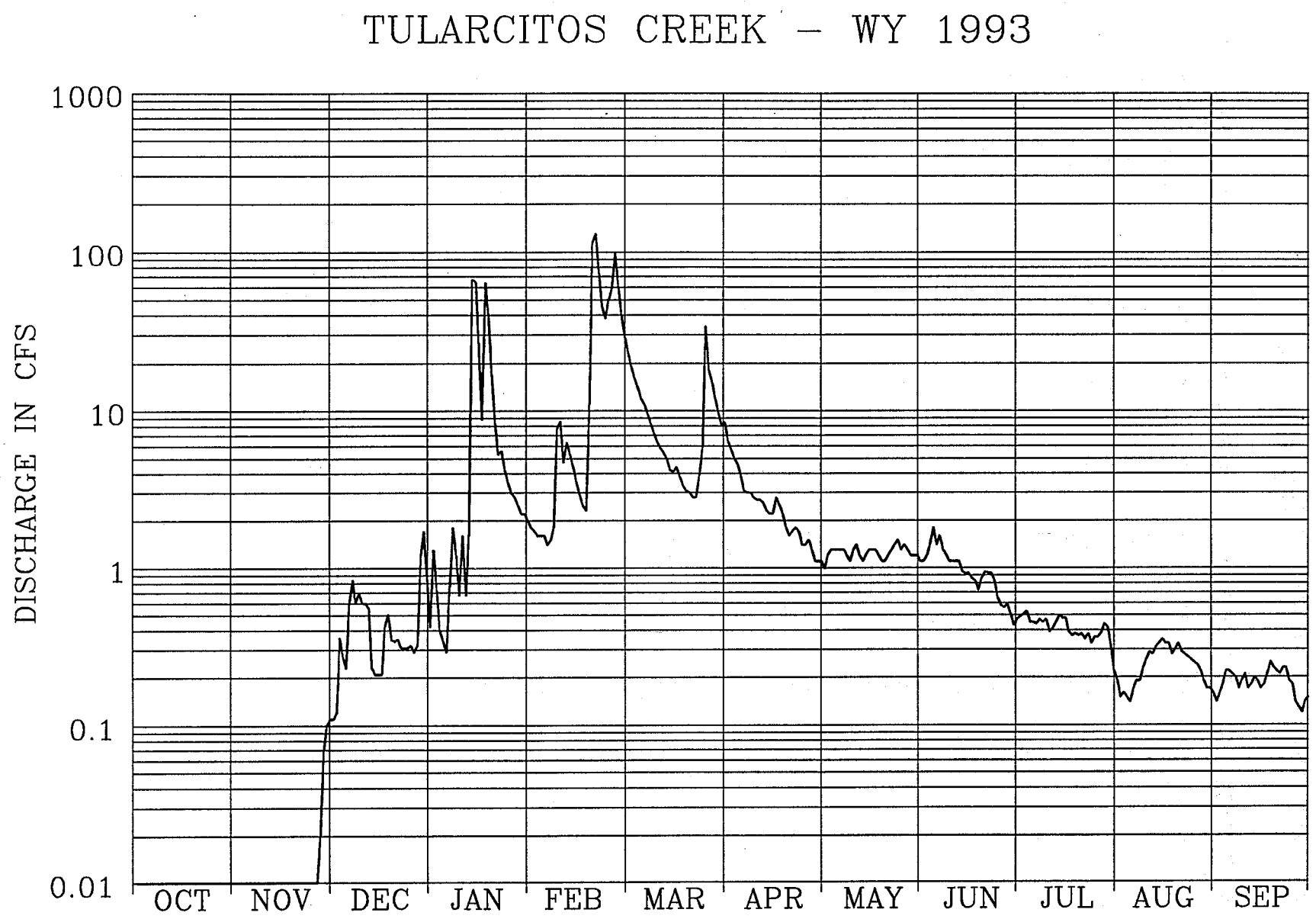
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
TULARCITOS CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1991 TO Sep 1992

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	.07	.18	.65	1.3	.84	.46	.19	.07	0	0
2	0	0 e	.25e	.22	.42	1.3	.95	.35	.21	.05	0	0
3	0	0 e	.25e	.51	.43	1.5	.88	.35	.19	.06	0	0
4	0	0 e	.25e	.42	.39	1.4	.81	.42	.17	.06	0	0
5	0	0 e	.25e	1.7	.46	2.3	.66	.45	.18	.04	0	0
6	0	.05e	.25e	1.9	.71	4.4	.56	.47	.21	.04	0	0
7	0	.05e	.25e	1.7	.69	2.5	.53	.47	.21	0 e	0	0
8	0	.05e	.25e	.84	.67	2.0	.54	.45	.21	0	0	0
9	0	.05e	.25e	.54	.80	2.0	.68	.35	.19	0	0	0
10	0	.05e	.25e	.46	1.8	1.6	.67	.27	.14	0	0	0
11	0	.10e	.25e	.44	5.7	1.5	.84	.32	.11	0	0	0
12	0	.10e	.25e	.34	11	1.5	.74	.33	.10	0	0	0
13	0	.10e	.25e	.31	5.4	1.5	.57	.35	.10	0	0	0
14	0	.10e	.25e	.23	8.6	1.5	.56	.23	.10	0	0	0
15	0	.10e	.25e	.21	92	1.3	.51	.29	.12	0	0	0
16	0	.10e	.25e	.29	36	1.4	.53	.22	.12	0	0	0
17	0	.10e	.25e	.34	14	1.3	.52	.16	.12	0	0	0
18	0	.10e	.25e	.27	7.2	1.3	.46	.16	.15	0	0	0
19	0	.09	.25e	.30	5.0	1.2	.45	.16	.14	0	0	0
20	0	.11	.25e	.23	3.9	1.3	.44	.16	.14	0	0	0
21	0	.16	.25e	.22	3.1	1.4	.43	.14	.12	0	0	0
22	0	.08	.25e	.20	2.9	1.6	.38	.13	.11	0	0	0
23	0	.11	.25e	.17	2.3	1.3	.33	.15	.08	0	0	0
24	0	.11	.25e	.23	2.0	1.1	.49	.14	.07	0	0	0
25	0	.11	.25e	.51	1.9	1.1	.53	.17	.12	0	0	0
26	0	.12	.25e	.61	1.8	1.1e	.41	.20	.07	0	0	0
27	0	.13	.30e	.42	1.6	1.1e	.36	.19	.08	0	0	0
28	0	.09	.50e	.64	1.5	1.1e	.48	.19	.07	0	0	0
29	0	.08	2.0 e	.51	1.5	1.1e	.46	.20	.07	0	0	0
30	0	.23	1.0 e	.46	------	1.1e	.46	.20	.07	0	0	0
31	0	------	.28	.46	------	1.1e	------	.21	------	0	0	------
TOTAL	0	2.47	10.40	15.86	214.42	47.2	17.07	8.34	3.96	0.32	0	0
MEAN	0	.082	.34	.51	7.39	1.52	.57	.27	.13	.010	0	0
MAX	0	.23	2.0	1.9	92	4.4	.95	.47	.21	.07	0	0
MIN	0	0	.07	.17	.39	1.1	.33	.13	.07	0	0	0
AC-FT	0	4.9	21	31	425	94	34	17	7.9	.6	0	0

CAL YEAR 1991	TOTAL*	12.87	MEAN	.14	MAX	2.0	MIN	0	AC-FT	26
WTR YEAR 1992	TOTAL	320.04	MEAN	.87	MAX	92	MIN	0	AC-FT	635

FIGURE D-18


TULARCITOS CREEK – WY 1993
DISCHARGE IN CFS
1000
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10
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0.1
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TABLE D-18

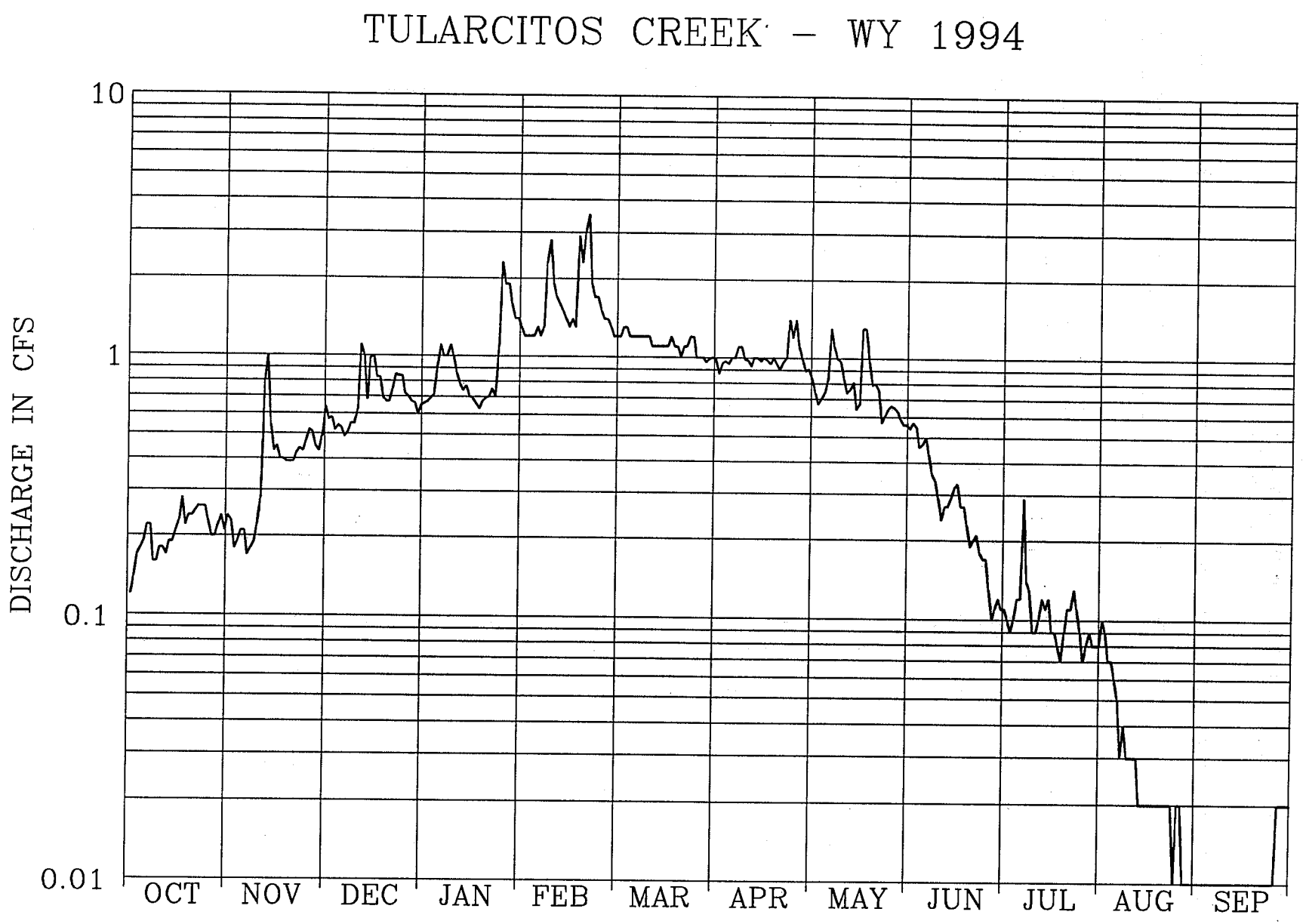
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
TULARCITOS CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	.11	1.3	1.7	29	8.5	1.1	1.1	.47	.19	.14
2	0	0	.12	.72	1.6	23	6.4	.99	1.1	.49	.15	.16
3	0	0	.36	.40	1.6	19	5.6	1.2	1.2	.51	.16	.18
4	0	0	.27	.34	1.6	16	5.0	1.3	1.4	.53	.15	.22
5	0	0	.23	.29	1.4	14	4.6	1.3	1.8	.45	.14	.22
6	0	0	.59	.77	1.5	12	3.8	1.3	1.4	.45	.17	.21
7	0	0	.84	1.8	1.8	11	3.1	1.3	1.6	.44	.19	.20
8	0	0	.60e	1.2	7.7	9.5	3.0	1.3	1.3	.47	.19	.17
9	0	0	.70e	.67	8.6	8.3	3.0	1.2	1.2	.45	.23	.19
10	0	0	.60e	1.6	4.7	7.2	2.8	1.1	1.1	.47	.26	.21
11	0	0	.60e	.67	6.3	6.3	2.7	1.3	1.1	.39	.29	.17
12	0	0	.56	1.6	5.3	5.8	2.7	1.4	1.1	.41	.28	.18
13	0	0	.23	67	4.4	5.4	2.6	1.2	1.1	.45	.31	.20
14	0	0	.21	65	3.5	5.0	2.3	1.1	.95	.50	.33	.19
15	0	0	.21	27	2.9	4.2	2.2	1.2	.92	.48	.35	.17
16	0	0	.21	8.8	2.5	4.1	2.2	1.3	.93	.48	.33	.18
17	0	0	.42	64	2.3	4.4	2.8	1.3	.86	.39	.33	.21
18	0	0	.51	41	11	3.8	2.5	1.3	.83	.37	.28	.25
19	0	0	.35	17	115	3.3	2.2	1.2	.72	.38	.30	.23
20	0	0	.34	8.3	131	3.1	1.8	1.1	.86	.37	.33	.22
21	0	0	.35	5.3	73	3.0	1.6	1.1	.94	.38	.29	.21
22	0	0	.31	5.6	45	2.8	1.7	1.2	.93	.35	.28	.23
23	0	0	.31	4.2	38	2.8	1.8	1.3	.93	.38	.27	.23
24	0	0	.31	3.5	50	3.9	1.7	1.4	.83	.33	.26	.19
25	0	0	.32	3.0	59	5.9	1.4	1.5	.65	.36	.25	.18
26	0	0	.29	2.8	98	34	1.4	1.3	.58	.36	.24	.14
27	0	.02	.32	2.5	59	18	1.5	1.4	.56	.38	.22	.13
28	0	.07	1.2	2.2	40	15	1.3	1.3	.59	.44	.19	.12
29	0	.10	1.7	2.2	------	12	1.1	1.2	.51	.42	.17	.14
30	0	.11	.83	2.0	------	9.6	1.1	1.2	.43	.32	.17	.15
31	0	------	.42	1.8	------	8.1	------	1.2	------	.22	.16	------
TOTAL	0	0.30	14.42	344.56	778.4	309.5	84.4	38.59	29.52	12.89	7.46	5.62
MEAN	0	.010	.47	11.1	27.8	9.98	2.81	1.24	.98	.42	.24	.19
MAX	0	.11	1.7	67	131	34	8.5	1.5	1.8	.53	.35	.25
MIN	0	0	.11	.29	1.4	2.8	1.1	.99	.43	.22	.14	.12
AC-FT	0	.6	29	683	1,540	614	167	77	59	26	15	11

CAL YEAR 1992	TOTAL*	14.72	MEAN	.16	MAX	1.7	MIN	0	AC-FT	29
WTR YEAR 1993	TOTAL	1,625.66	MEAN	4.45	MAX	131	MIN	0	AC-FT	3,220

FIGURE D-19


TULARCITOS CREEK - WY 1994
DISCHARGE IN CFS
10
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JUN
JUL
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SEP

TABLE D-19

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
TULARCITOS CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.23	.57	.67	1.2	1.2	.99	.84	.54	.11	.10	.01
2	.14	.18	.58	.69	1.2	1.2	.87	.74	.57	.10	.09	.01
3	.17	.19	.52	.71	1.2	1.3	.95	.67	.55	.09	.07	.01
4	.18	.21	.54	.91	1.3	1.3	.97	.70	.46	.10	.07	.01
5	.19	.21	.53	1.1	1.2	1.2	.95	.74	.47	.12	.06	.01
6	.22	.17	.49	1.0	1.3	1.2	1.0	.83	.50	.12	.05	.01
7	.22	.18	.51	1.0	2.3	1.2	1.0	1.3	.43	.29	.03	.01
8	.16	.19	.55	1.1	2.8	1.2	1.1	1.1	.36	.14	.04	.01
9	.16	.22	.55	1.0	1.9	1.2	1.1	1.0	.34	.13	.03	.01
10	.18	.28	.62	.86	1.7	1.2	.99	.97	.29	.09	.03	.01
11	.18	.80	1.1	.78	1.6	1.2	.98	.83	.24	.09	.03	.01
12	.17	1.0	1.0	.74	1.5	1.1	.93	.74	.27	.10	.03	.01
13	.19	.54	.68	.77	1.4	1.1	1.0	.76	.27	.12	.02	.01
14	.19	.43	.98	.70	1.3	1.1	1.0	.81	.29	.11	.02	.01
15	.21	.45	1.0	.69	1.4	1.1	.97	.64	.32	.12	.02	.01
16	.23	.40	.83	.66	1.3	1.1	1.0	.67	.33	.09	.02	.01
17	.28	.40	.83	.63	2.9	1.1	.98	1.3	.27	.09	.02	.01
18	.22	.39	.69	.67	2.3	1.2	.95	1.3	.27	.08	.02	.01
19	.24	.39	.67	.69	3.0	1.1	1.0	.97	.23	.07	.02	.01
20	.24	.39	.67	.70	3.5	1.1	.95	.79	.19	.09	.02	.01
21	.25	.42	.75	.75	1.9	1.0	.90	.80	.20	.11	.02	.01
22	.26	.44	.85	.70	1.7	1.1	.96	.76	.21	.11	.02	.01
23	.26	.43	.84	1.1	1.7	1.1	1.0	.57	.18	.13	.02	.01
24	.26	.47	.84	2.3	1.5	1.2	1.4	.60	.17	.11	.01	.01
25	.23	.52	.72	1.9	1.4	1.2	1.2	.64	.17	.09	.02	.01
26	.20	.51	.70	1.9	1.4	1.0	1.4	.66	.13	.07	.02	.02
27	.20	.45	.67	1.6	1.3	1.0	1.1	.65	.10	.08	.01	.02
28	.22	.43	.66	1.4	1.2	1.0	.99	.63	.11	.09	.01	.02
29	.24	.49	.60	1.4	------	.96	.89	.59	.12	.08	.01	.02
30	.21	.64	.65	1.3	------	.99	.91	.56	.11	.08	.01	.02
31	.24	------	.66	1.2	------	1.0	------	.56e	------	.08	.01	------
TOTAL	6.46	12.05	21.85	31.62	48.4	34.95	30.43	24.72	8.69	3.28	0.95	0.35
MEAN	.21	.40	.70	1.02	1.73	1.13	1.01	.80	.29	.11	.031	.012
MAX	.28	1.0	1.1	2.3	3.5	1.3	1.4	1.3	.57	.29	.10	.02
MIN	.12	.17	.49	.63	1.2	.96	.87	.56	.10	.07	.01	.01
AC-FT	13	24	43	63	96	69	60	49	17	6.5	1.9	.7

CAL YEAR 1993	TOTAL	1,650.95	MEAN	4.52	MAX	131	MIN	.12	AC-FT	3,270
WTR YEAR 1994	TOTAL	223.75	MEAN	.61	MAX	3.5	MIN	.01	AC-FT	444

FIGURE D-20

TULARCITOS CREEK – WY 1995

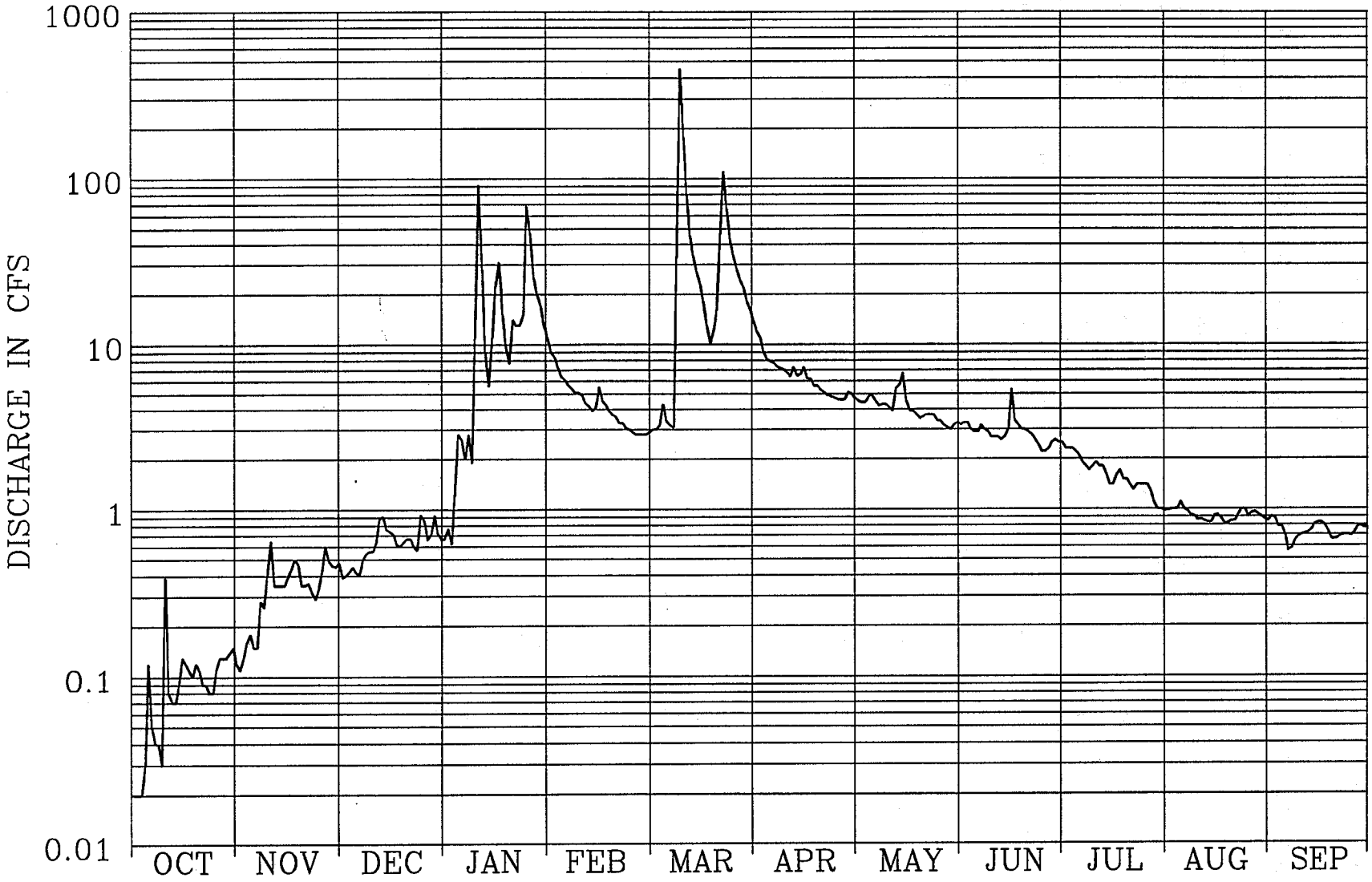


TABLE D-20

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
TULARCITOS CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.11	.39	.77	8.4	2.9	14	4.7	3.2	2.5	.98	.90
2	.02	.13	.40	.62	7.3	3.0	12	4.5	3.3	2.3	.99	.88
3	.02	.16	.42	1.2	6.4	3.0	11	4.4	3.3	2.3	1.0	.79
4	.03	.18	.45	2.8	6.1	3.2	9.1	4.4	3.0	2.3	1.0	.79
5	.12	.15	.42	2.6	5.7	4.3	8.2	4.8	2.9	2.2	1.1	.70
6	.05	.15	.40	2.0	5.4	3.4	7.9	4.9	2.9	2.1	1.0	.56
7	.04	.28	.50	2.8	5.1	3.2	7.8	4.5	3.2	1.9	.98	.58
8	.04	.26	.54	1.9	5.1	3.1	7.4	4.2	3.0	1.8	.92	.65
9	.03	.40	.56	11	4.9	33	7.2	4.3	2.9	1.7	.91	.68
10	.39	.65	.56	91	4.4	452	7.1	4.3	2.7	1.8	.86	.70
11	.08	.35	.63	28	4.2	178	6.8	4.1	2.7	1.9	.87	.71
12	.07	.35	.89	9.0	3.9	80	6.4	3.9	2.7	1.8	.85	.72
13	.07	.35	.91	5.6	4.1	45	7.3	5.4	2.6	1.8	.83	.75
14	.09	.35	.76	11	5.5	34	6.5	5.7	2.7	1.6	.83	.81
15	.13	.39	.74	22	4.5	27	6.6	6.7	3.0	1.4	.91	.83
16	.12	.44	.71	31	4.3	23	7.3	4.5	5.3	1.4	.92	.83
17	.11	.50	.62	15	3.9	18	6.2	3.9	3.4	1.6	.88	.80
18	.10	.47	.60	9.8	3.7	13	6.2	3.9	3.2	1.7	.81	.74
19	.12	.35	.64	7.7	3.6	10	5.6	3.7	3.0	1.5	.82	.66
20	.11	.35	.67	14	3.3	12	5.6	3.5	3.0	1.5	.85	.66
21	.09	.36	.67	13	3.3	16	5.3	3.6	2.9	1.4	.85	.67
22	.09	.32	.60	13	3.1	46	5.1	3.7	2.8	1.3	.92	.69
23	.08	.29	.57	15	3.0	110	4.9	3.7	2.6	1.4	1.0	.70
24	.08	.33	.93	68	2.9	66	4.8	3.7	2.4	1.4	1.0	.70
25	.11	.43	.86	47	2.8	42 e	4.7	3.4	2.2	1.4	.90	.69
26	.13	.60	.66	25	2.8	34 e	4.6	3.4	2.2	1.4	.95	.72
27	.13	.49	.71	20	2.8	28 e	4.6	3.2	2.3	1.3	.96	.78
28	.13	.46	.92	17	2.8	24 e	4.6	3.1	2.5	1.1	.93	.79
29	.14	.45	.72	13	------	22	5.1	3.0	2.6	1.0	.90	.77
30	.15	.48	.66	11	------	18	5.0	3.2	2.5	1.0	.87	.77
31	.12	------	.67	9.0	------	16	------	3.3	------	.98	.85	------
TOTAL	3.01	10.58	19.78	520.79	123.3	1,373.1	204.9	127.6	87.0	50.78	28.44	22.02
MEAN	.097	.35	.64	16.8	4.40	44.3	6.83	4.12	2.90	1.64	.92	.73
MAX	.39	.65	.93	91	8.4	452	14	6.7	5.3	2.5	1.1	.90
MIN	.02	.11	.39	.62	2.8	2.9	4.6	3.0	2.2	.98	.81	.56
AC-FT	6.0	21	39	1,030	245	2,720	406	253	173	101	56	44

CAL YEAR 1994	TOTAL	217.15	MEAN	.59	MAX	3.5	MIN	.01	AC-FT	431
WTR YEAR 1995	TOTAL	2,571.30	MEAN	7.04	MAX	452	MIN	.02	AC-FT	5,100

FIGURE D-21

HITCHCOCK CREEK – WY 1994

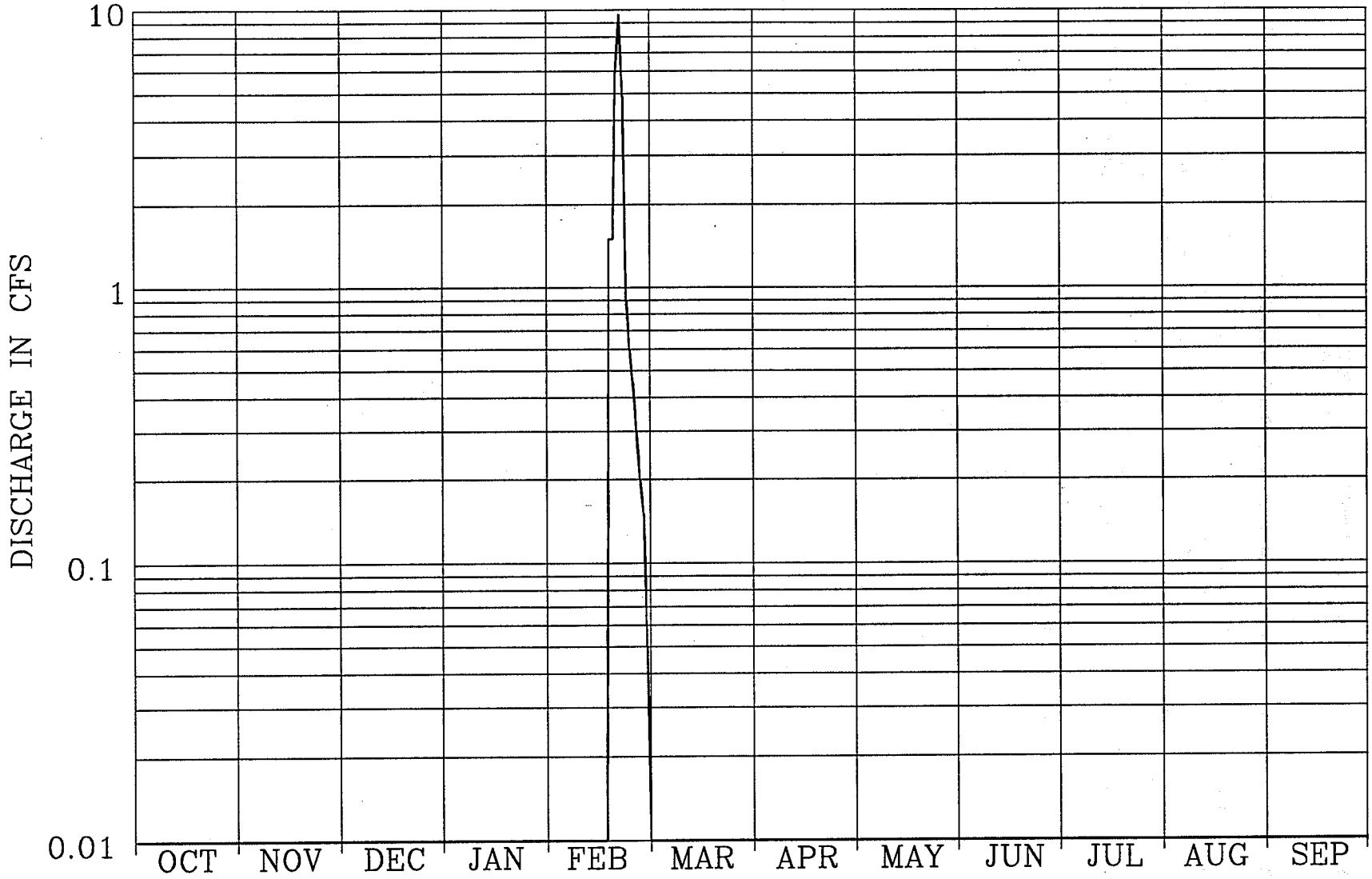


TABLE D-21

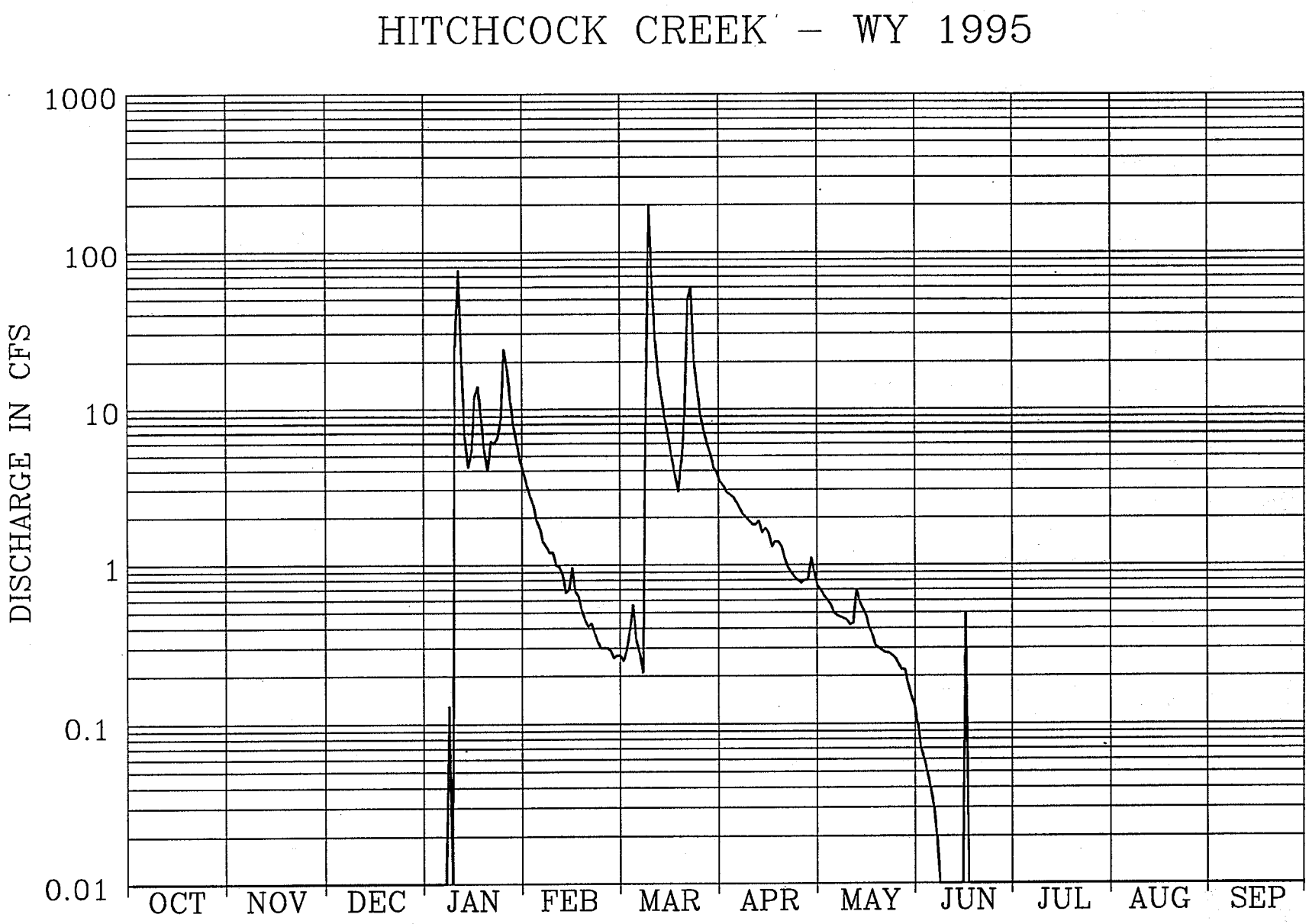
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
HITCHCOCK CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	1.5 e	0	0	0	0	0	0	0
18	0	0	0	0	1.5 e	0	0	0	0	0	0	0
19	0	0	0	0	5.9 e	0	0	0	0	0	0	0
20	0	0	0	0	9.6	0	0	0	0	0	0	0
21	0	0	0	0	4.9	0	0	0	0	0	0	0
22	0	0	0	0	.90e	0	0	0	0	0	0	0
23	0	0	0	0	.60e	0	0	0	0	0	0	0
24	0	0	0	0	.45e	0	0	0	0	0	0	0
25	0	0	0	0	.30e	0	0	0	0	0	0	0
26	0	0	0	0	.20e	0	0	0	0	0	0	0
27	0	0	0	0	.15e	0	0	0	0	0	0	0
28	0	0	0	0	.05e	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
TOTAL	0	0	0	0	26.05	0	0	0	0	0	0	0
MEAN	0	0	0	0	.93	0	0	0	0	0	0	0
MAX	0	0	0	0	9.6	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	52	0	0	0	0	0	0	0

CAL YEAR 1993	TOTAL*	0.00	MEAN	0	MAX	0	MIN	0	AC-FT	0
WTR YEAR 1994	TOTAL	26.05	MEAN	.071	MAX	9.6	MIN	0	AC-FT	52

FIGURE D-22


HITCHCOCK CREEK – WY 1995
DISCHARGE IN CFS
1000
100
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0.1
0.01
OCT
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TABLE D-22

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
HITCHCOCK CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	2.7	.27	3.4	.74e	.10e	0	0	0
2	0	0	0	0	2.4	.25	3.2	.69e	.07e	0	0	0
3	0	0	0	0	1.9	.29	2.9	.64e	.06e	0	0	0
4	0	0	0	0	1.7	.39	2.8	.60e	.05e	0	0	0
5	0	0	0	0	1.4	.56	2.7 e	.56e	.04e	0	0	0
6	0	0	0	0	1.3	.34	2.5 e	.50e	.03e	0	0	0
7	0	0	0	.13	1.2	.28	2.3 e	.48e	.02e	0	0	0
8	0	0	0	0	1.2	.21	2.1 e	.47e	.01e	0	0	0
9	0	0	0	25	1.0	8.1	2.0 e	.46e	0 e	0	0	0
10	0	0	0	77	.98	199	1.9 e	.45e	0 e	0	0	0
11	0	0	0	19	.88	59	1.8 e	.42e	0 e	0	0	0
12	0	0	0	6.6	.67	27 e	1.8 e	.43e	0 e	0	0	0
13	0	0	0	4.2	.70	16 e	1.9 e	.70e	0 e	0	0	0
14	0	0	0	5.3	.96	12 e	1.6 e	.58e	0 e	0	0	0
15	0	0	0	12	.68	8.5 e	1.7 e	.53e	0 e	0	0	0
16	0	0	0	14	.64	6.5 e	1.6 e	.48e	.50e	0	0	0
17	0	0	0	8.6	.52	5.0 e	1.3 e	.40e	0 e	0	0	0
18	0	0	0	5.4	.45	3.8 e	1.4 e	.36e	0 e	0	0	0
19	0	0	0	4.0	.41	2.9 e	1.4 e	.31e	0 e	0	0	0
20	0	0	0	6.2	.43	4.5 e	1.3 e	.30e	0	0	0	0
21	0	0	0	6.0	.37	9.0 e	1.1 e	.29e	0	0	0	0
22	0	0	0	6.5	.33	50 e	.96e	.28e	0	0	0	0
23	0	0	0	8.7	.30	60 e	.89e	.28e	0	0	0	0
24	0	0	0	24	.30	20	.84e	.27e	0	0	0	0
25	0	0	0	18	.30	13	.80e	.26e	0	0	0	0
26	0	0	0	11	.29	9.1	.77e	.24e	0	0	0	0
27	0	0	0	7.7	.26	7.2	.80e	.22e	0	0	0	0
28	0	0	0	5.9	.27	5.9	.80e	.22e	0	0	0	0
29	0	0	0	4.6	------	5.2	1.1 e	.18e	0	0	0	0
30	0	0	0	3.9	------	4.2	.90e	.15e	0	0	0	0
31	0	------	0	3.2	------	3.8	------	.13e	------	0	0	------
TOTAL	0	0	0	286.93	24.54	542.29	50.56	12.62	0.88	0	0	0
MEAN	0	0	0	9.26	.88	17.5	1.69	.41	.029	0	0	0
MAX	0	0	0	77	2.7	199	3.4	.74	.50	0	0	0
MIN	0	0	0	0	.26	.21	.77	.13	0	0	0	0
AC-FT	0	0	0	569	49	1,080	100	25	1.7	0	0	0

CAL YEAR 1994	TOTAL	26.07	MEAN	.071	MAX	9.6	MIN	0	AC-FT	52
WTR YEAR 1995	TOTAL	917.82	MEAN	2.51	MAX	199	MIN	0	AC-FT	1,820

FIGURE D-23

GARZAS CREEK – WY 1992

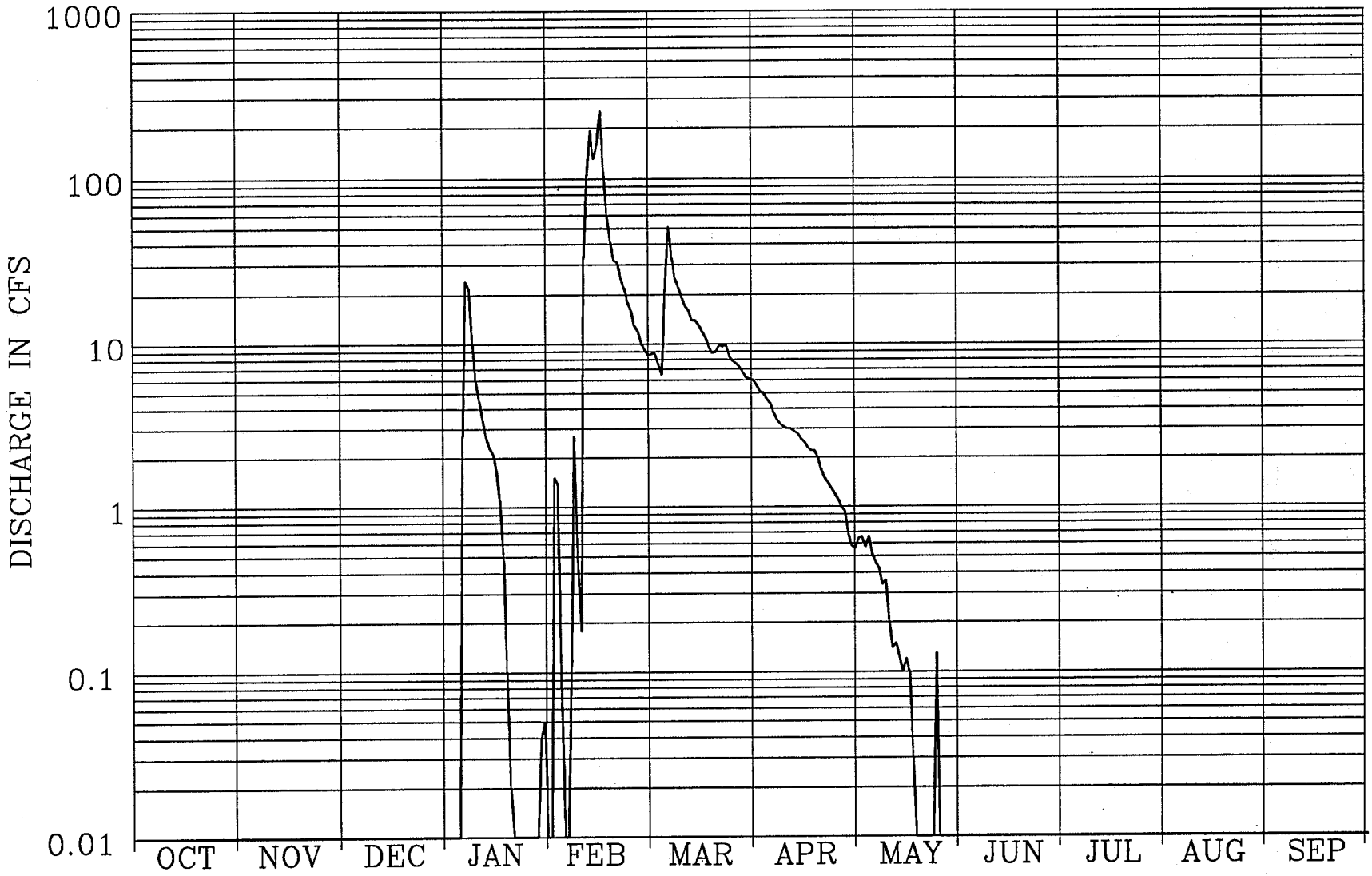


TABLE D-23

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
GARZAS CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1991 TO Sep 1992

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	1.5	8.7	5.6	.64	0	0	0	0
2	0	0	0	0	1.4	8.8	5.1	.66	0	0	0	0
3	0	0	0	0	.08	7.5	5.0	.57	0	0	0	0
4	0	0	0	0	0	6.5	4.6	.66	0	0	0	0
5	0	0	0	2.7	0	21	4.3	.52	0	0	0	0
6	0	0	0	24	.11	51	3.8	.46	0	0	0	0
7	0	0	0	22	2.7	33	3.4	.42	0	0	0	0
8	0	0	0	10	.47	25	3.2	.34	0	0	0	0
9	0	0	0	6.0	.18	22	3.1	.36	0	0	0	0
10	0	0	0	4.5 e	33	19	3.0	.20	0	0	0	0
11	0	0	0	3.4 e	104	17	3.0	.14	0	0	0	0
12	0	0	0	2.7 e	193	16	2.9	.15	0	0	0	0
13	0	0	0	2.3 e	132	14	2.8	.12	0	0	0	0
14	0	0	0	2.1 e	158	14	2.6	.10	0	0	0	0
15	0	0	0	1.7 e	254	13	2.5	.12	0	0	0	0
16	0	0	0	1.1 e	111	12	2.3	.10	0	0	0	0
17	0	0	0	.48e	59	11	2.2	.03	0	0	0	0
18	0	0	0	.10	41	9.6	2.2	0	0	0	0	0
19	0	0	0	.02	32	8.8	2.0	0	0	0	0	0
20	0	0	0	0	31	8.9	1.7	0	0	0	0	0
21	0	0	0	0	25	9.8	1.5	0	0	0	0	0
22	0	0	0	0	22	9.6	1.4	0	0	0	0	0
23	0	0	0	0	18	9.9	1.3	0	0	0	0	0
24	0	0	0	0	16	8.4	1.2	.13	0	0	0	0
25	0	0	0	0	13	7.9	1.1	0	0	0	0	0
26	0	0	0	0	12	7.6	1.0	0	0	0	0	0
27	0	0	0	0	10	7.2	.94	0	0	0	0	0
28	0	0	0	.04	9.3	6.7	.68	0	0	0	0	0
29	0	0	0	.05	8.5	6.2	.58	0	0	0	0	0
30	0	0	0	0	------	6.1	.56	0	0	0	0	0
31	0	------	0	0	------	6.0	------	0	------	0	0	------
TOTAL	0	0	0	83.19	1,288.24	412.2	75.56	5.72	0	0	0	0
MEAN	0	0	0	2.68	44.4	13.3	2.52	.18	0	0	0	0
MAX	0	0	0	24	254	51	5.6	.66	0	0	0	0
MIN	0	0	0	0	0	6.0	.56	0	0	0	0	0
AC-FT	0	0	0	165	2,560	818	150	11	0	0	0	0

CAL YEAR 1991	TOTAL*	0.00	MEAN	0	MAX	0	MIN	0	AC-FT	0
WTR YEAR 1992	TOTAL	1,864.91	MEAN	5.10	MAX	254	MIN	0	AC-FT	3,700

FIGURE D-24

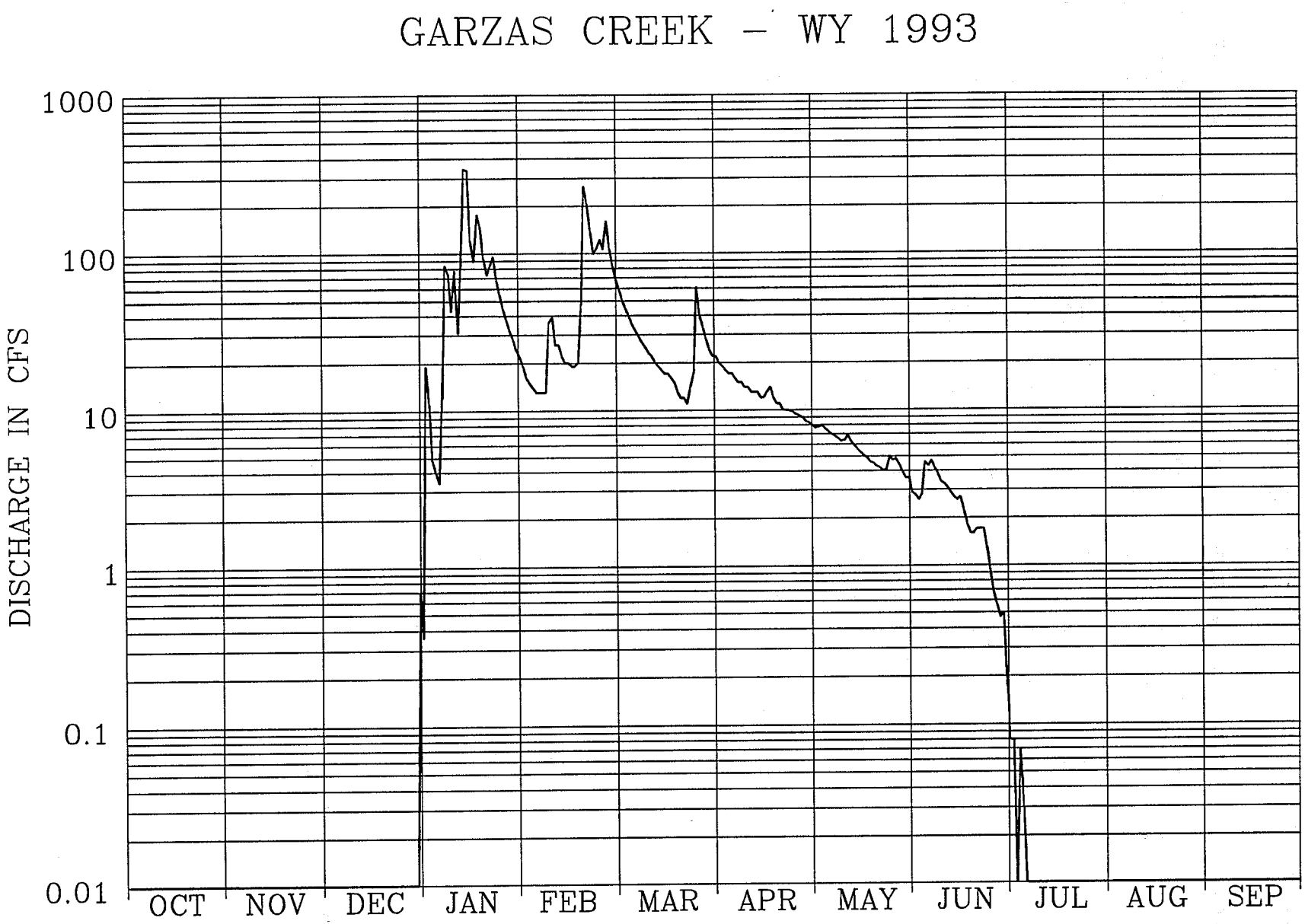

GARZAS CREEK - WY 1993
DISCHARGE IN CFS
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-24

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
GARZAS CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	19	16	68	22	8.0	2.9	.08	0	0
2	0	0	0	11	15	58	20	7.7	2.8	.08	0	0
3	.0	0	0	4.8	14	50	19	7.8	2.6	.01	0	0
4	0	0	0	4.0	13	44	18	8.0	2.8	.07	0	0
5	0	0	0	3.4	13	39	17	7.6	4.6	.03	0	0
6	0	0	0	12	13	35	17	7.3	4.3	.01	0	0
7	0	0	0	84	13	32	16	7.0	4.7	0	0	0
8	0	0	0	75	36	29	15	6.8	4.2	0	0	0
9	0	0	0	43	39	27	15	6.6	3.8	0	0	0
10	0	0	0	78	26	25	14	6.3	3.4	0	0	0
11	0	0	0	31	26	23	14	6.4	3.3	0	0	0
12	0	0	0	82	22	22	13	6.9	3.1	0	0	0
13	0	0	0	343	20	20	13	6.3	2.9	0	0	0
14	0	0	0	339	20	19	13	5.9	2.7	0	0	0
15	0	0	0	121	19	18	12	5.6	2.6	0	0	0
16	0	0	0	89	19	17	12	5.3	2.7	0	0	0
17	0	0	0	177	20	17	13	5.1	2.2	0	0	0
18	0	0	0	149	47	16	14	4.9	1.8	0	0	0
19	0	0	0	93	267	15	12	4.6	1.6	0	0	0
20	0	0	0	73	208	13	11	4.5	1.6	0	0	0
21	0	0	0	83	138	12	11	4.3	1.7	0	0	0
22	0	0	0	96	99	12	10	4.2	1.7	0	0	0
23	0	0	0	67	107	11	10	4.0	1.7	0	0	0
24	0	0	0	55	123	14	9.9	4.1	1.3	0	0	0
25	0	0	0	44	106	17	9.7	5.0	.94	0	0	0
26	0	0	0	37	161	61	9.4	4.7	.68	0	0	0
27	0	0	0	32	106	40	9.2	4.8	.56	0	0	0
28	0	0	0	28	83	33	9.0	4.4	.47	0	0	0
29	0	0	0	24	------	28	8.5	4.0	.50	0	0	0
30	0	0	.69	22	------	24	8.3	3.6	.20	0	0	0
31	0	------	.36	19	------	22	------	3.6	------	0	0	------
TOTAL	0	0	1.05	2,338.2	1,789	861	395.0	175.3	70.35	0.28	0	0
MEAN	0	0	.034	75.4	63.9	27.8	13.2	5.65	2.35	.009	0	0
MAX	0	0	.69	343	267	68	22	8.0	4.7	.08	0	0
MIN	0	0	0	3.4	13	11	8.3	3.6	.20	0	0	0
AC-FT	0	0	2.1	4,640	3,550	1,710	783	348	140	.6	0	0

CAL YEAR 1992	TOTAL*	1.05	MEAN	.011	MAX	.69	MIN	0	AC-FT	2.1
WTR YEAR 1993	TOTAL	5,630.18	MEAN	15.4	MAX	343	MIN	0	AC-FT	11,170

FIGURE D-25

GARZAS CREEK – WY 1994

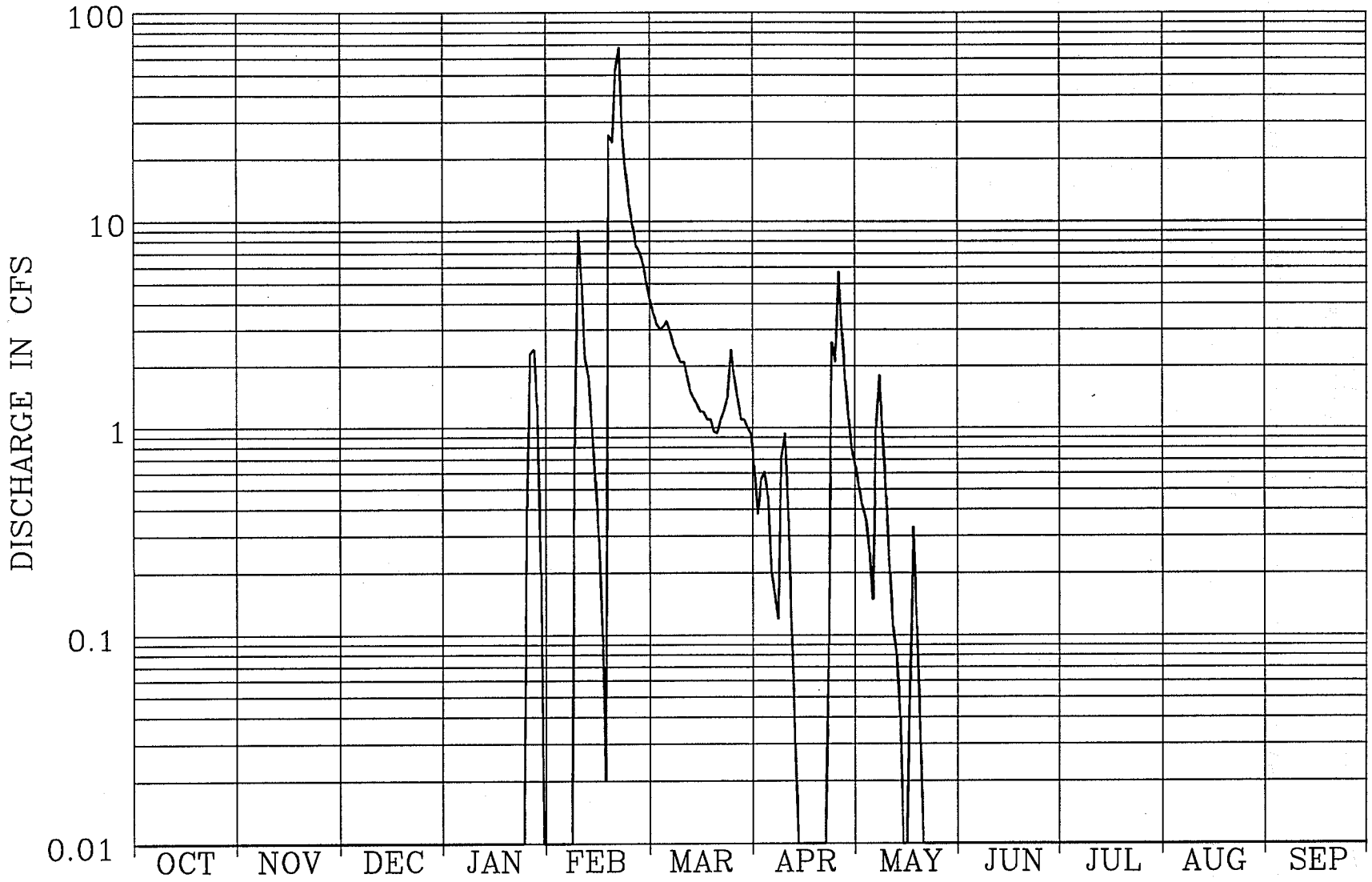


TABLE D-25

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
GARZAS CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	4.2	.65	.65	0	0	0	0
2	0	0	0	0	0	3.6	.38	.51	0	0	0	0
3	0	0	0	0	0	3.2	.56	.42	0	0	0	0
4	0	0	0	0	0	3.0	.61	.36	0	0	0	0
5	0	0	0	0	0	3.1	.46	.25	0	0	0	0
6	0	0	0	0	0	3.3	.20	.15	0	0	0	0
7	0	0	0	0	.82	2.9	.16	1.0	0	0	0	0
8	0	0	0	0	9.1	2.5	.12	1.8	0	0	0	0
9	0	0	0	0	5.0	2.3	.72	.94	0	0	0	0
10	0	0	0	0	2.2	2.1	.94	.46	0	0	0	0
11	0	0	0	0	1.8	2.1	.36	.20	0	0	0	0
12	0	0	0	0	1.0	1.8	.10	.11	0	0	0	0
13	0	0	0	0	.55	1.5	.03	.08	0	0	0	0
14	0	0	0	0	.29	1.4	.01	.04	0	0	0	0
15	0	0	0	0	.10	1.3	0	0	0	0	0	0
16	0	0	0	0	.02	1.2	0	0	0	0	0	0
17	0	0	0	0	26	1.2	0	.06	0	0	0	0
18	0	0	0	0	24	1.1	0	.33	0	0	0	0
19	0	0	0	0	53	1.1	0	.11	0	0	0	0
20	0	0	0	0	68	.96	0	.03	0	0	0	0
21	0	0	0	0	25	.94	0	.01	0	0	0	0
22	0	0	0	0	17	1.1	0	0	0	0	0	0
23	0	0	0	0	12	1.2	.09	0	0	0	0	0
24	0	0	0	.41	9.5	1.4	2.6	0	0	0	0	0
25	0	0	0	2.3	7.6	2.4	2.1	0	0	0	0	0
26	0	0	0	2.4	7.1	1.8	5.7	0	0	0	0	0
27	0	0	0	1.3	6.2	1.4	2.9	0	0	0	0	0
28	0	0	0	.20	5.1	1.1	1.7	0	0	0	0	0
29	0	0	0	0	------	1.1	1.1	0	0	0	0	0
30	0	0	0	0	------	1.0	.78	0	0	0	0	0
31	0	------	0	0	------	.93	------	0	------	0	0	------
TOTAL	0	0	0	6.61	281.38	58.23	22.27	7.51	0	0	0	0
MEAN	0	0	0	.21	10.0	1.88	.74	.24	0	0	0	0
MAX	0	0	0	2.4	68	4.2	5.7	1.8	0	0	0	0
MIN	0	0	0	0	0	.93	0	0	0	0	0	0
AC-FT	0	0	0	13	558	115	44	15	0	0	0	0

CAL YEAR 1993	TOTAL	5,629.33	MEAN	15.4	MAX	343	MIN	0	AC-FT	11,170
WTR YEAR 1994	TOTAL	376.00	MEAN	1.03	MAX	68	MIN	0	AC-FT	746

FIGURE D-26

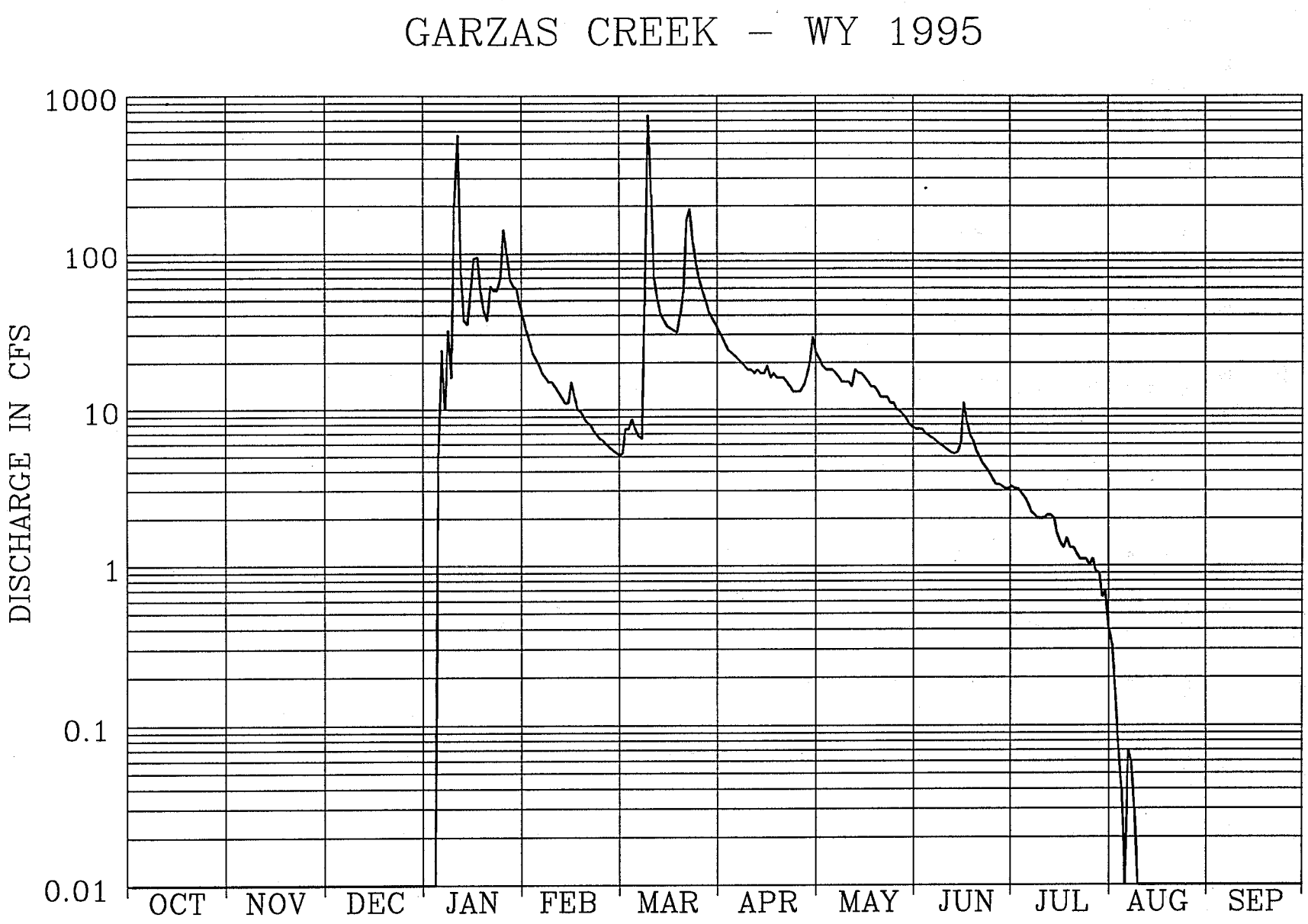

GARZAS CREEK – WY 1995
DISCHARGE IN CFS
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-26

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
GARZAS CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	27	5.1	32	23	7.5	3.2	.32	0
2	0	0	0	0	23	5.2	29	21	7.5	3.1	.17	0
3	0	0	0	0	21	7.5	26	19	7.5	3.1	.07	0
4	0	0	0	5.2	19	7.5	24	18	7.0	2.9	.04	0
5	0	0	0	24	17	8.7	23	18	6.8	2.7	.01	0
6	0	0	0	10	16	7.6	22	18	6.6	2.5	.07	0
7	0	0	0	32	15	6.8	21	17	6.4	2.2	.06	0
8	0	0	0	16	15	6.5	20	16	6.1	2.1	.03	0
9	0	0	0	203	14	46	19	15	5.9	2.0	0	0
10	0	0	0	566	13	759	18	15	5.7	2.0	0	0
11	0	0	0	73	12	236	18	15	5.5	2.0	0	0
12	0	0	0	37	11	69	17	14	5.3	2.1	0	0
13	0	0	0	35	11	50	18	18	5.2	2.1	0	0
14	0	0	0	59	15	41	17	17	5.3	2.0	0	0
15	0	0	0	93	12	37	17	17	6.1	1.6	0	0
16	0	0	0	95	10	34	19	16	11	1.4	0	0
17	0	0	0	57	9.7	33	16	15	8.3	1.3	0	0
18	0	0	0	43	8.8	32	17	14	6.8	1.5	0	0
19	0	0	0	37	8.3	31	16	14	6.3	1.3	0	0
20	0	0	0	62	8.0	40	16	13	5.4	1.3	0	0
21	0	0	0	58	7.3	56	16	12	4.9	1.2	0	0
22	0	0	0	58	6.9	164	15	12	4.5	1.1	0	0
23	0	0	0	69	6.5	192	14	12	4.2	1.1	0	0
24	0	0	0	142	6.3	117	13	11	3.9	1.1	0	0
25	0	0	0	101	6.0	84	13	11	3.6	1.0	0	0
26	0	0	0	68	5.7	68	13	10	3.3	1.1	0	0
27	0	0	0	62	5.5	57	14	9.8	3.3	.92	0	0
28	0	0	0	60	5.3	49	16	9.2	3.2	.90	0	0
29	0	0	0	47	------	42	20	8.8	3.1	.64	0	0
30	0	0	0	39	------	38	29	8.0	3.1	.69	0	0
31	0	------	0	32	------	35	------	7.7	------	.40	0	------
TOTAL	0	0	0	2,183.2	335.3	2,364.9	568	444.5	169.3	52.55	0.77	0
MEAN	0	0	0	70.4	12.0	76.3	18.9	14.3	5.64	1.70	.025	0
MAX	0	0	0	566	27	759	32	23	11	3.2	.32	0
MIN	0	0	0	0	5.3	5.1	13	7.7	3.1	.40	0	0
AC-FT	0	0	0	4,330	665	4,690	1,130	882	336	104	1.5	0

CAL YEAR 1994	TOTAL	374.98	MEAN	1.03	MAX	68	MIN	0	AC-FT	744
WTR YEAR 1995	TOTAL	6,118.52	MEAN	16.8	MAX	759	MIN	0	AC-FT	12,140

FIGURE D-27

CARMEL RIVER AT DON JUAN BRIDGE - WY 1993

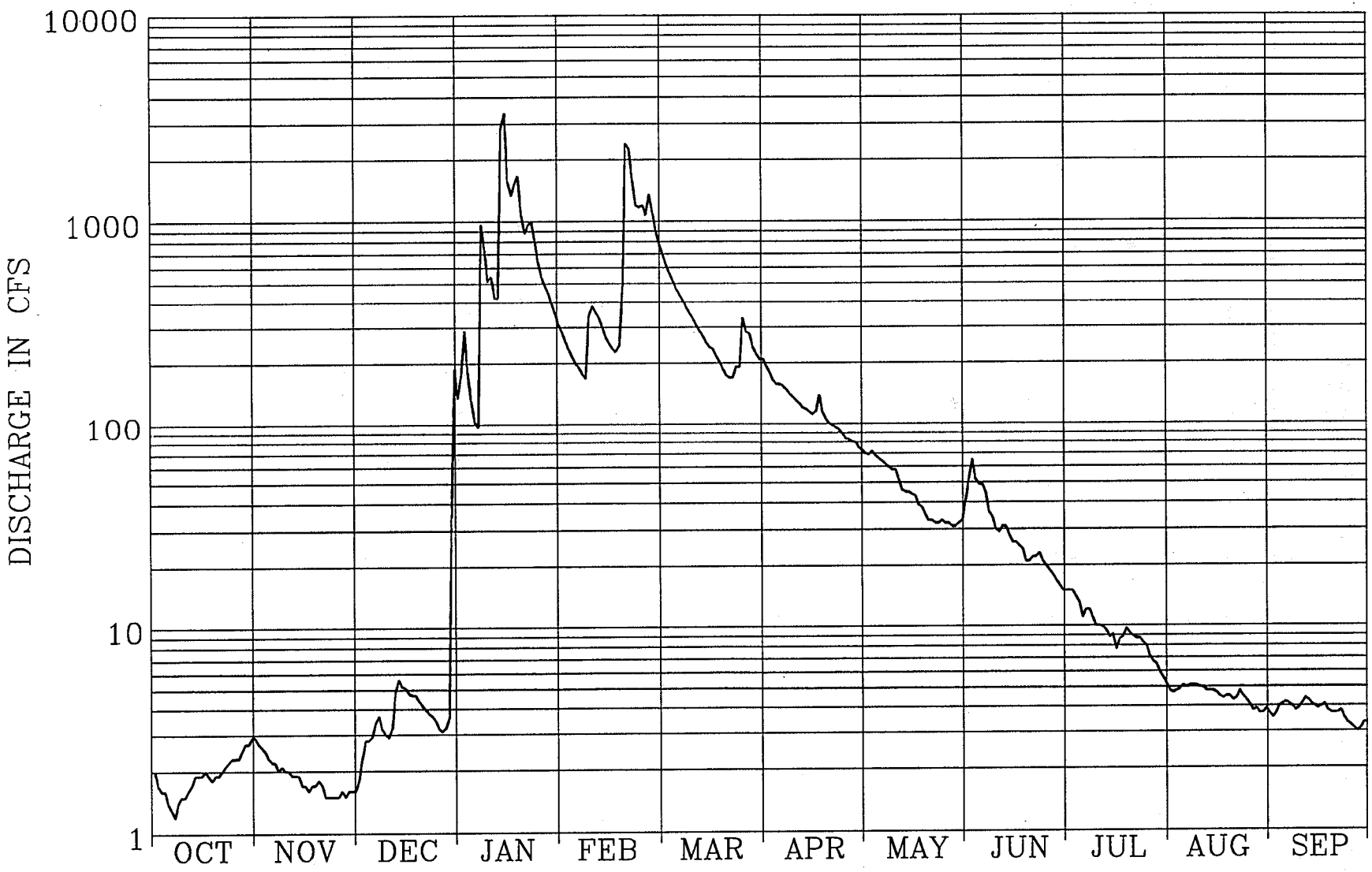


TABLE D-27

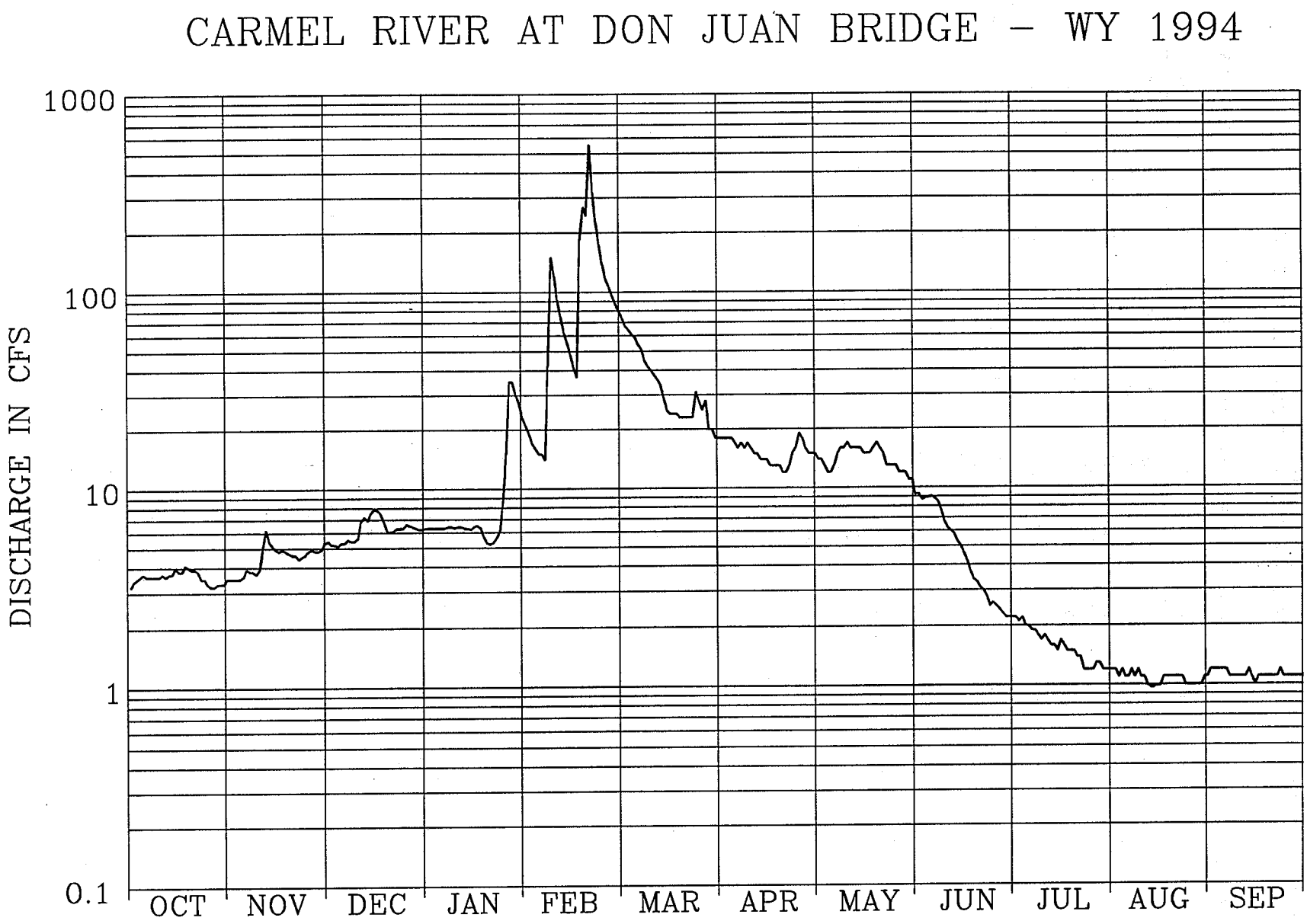
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CARMEL RIVER AT DON JUAN BRIDGE

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2.0	2.7	1.8	173	253	778	210	73	41	15	4.8	3.5
2	1.7	2.6	2.3	288	234	690	193	70	52	15	4.7	3.7
3	1.6	2.5	2.8	182	215	622	179	69	65	15	4.8	4.0
4	1.6	2.3	2.8	131	198	564	166	72	52	14	4.9	4.1
5	1.4	2.2	2.9	103	191	516	158	68	49	13	5.1	4.2
6	1.3	2.2	3.4	97	177	471	158	66	49	11	5.0	4.1
7	1.2	2.0	3.7	965	169	437	155	64	45	12	5.1	4.0
8	1.4	2.1	3.2	730	343	409	149	62	36	12	5.1	3.8
9	1.5	2.0	3.0	515	385	379	142	60	34	11	5.1	3.9
10	1.5	2.0	2.9	540	357	353	137	58	30	10	5.0	4.1
11	1.6	1.9	3.2	422	334	329	131	58	29	10	5.0	4.4
12	1.7	1.9	4.9	418	298	307	127	52	31	9.9	4.8	4.3
13	1.9	1.9	5.6	2,850	269	286	121	46	31	9.5	4.8	4.1
14	1.9	1.7	5.2	3,380	250	272	119	45	28	8.8	4.8	4.0
15	1.9	1.7	5.1	1,560	235	252	115	45	26	9.1	4.7	3.9
16	2.0	1.6	4.8	1,330	227	239	112	44	26	7.7	4.5	4.0
17	1.9	1.7	4.7	1,530	243	234	116	43	25	8.6	4.4	4.1
18	1.8	1.7	4.7	1,660	481	216	139	39	24	8.8	4.5	3.8
19	1.9	1.8	4.4	1,070	2,400	202	115	38	21	9.7	4.5	3.7
20	1.9	1.7	4.2	881	2,270	188	106	35	21	9.2	4.3	3.7
21	2.0	1.5	4.0	958	1,570	174	101	33	22	8.9	4.4	3.7
22	2.1	1.5	3.8	993	1,190	170	98	33	22	8.7	4.8	3.8
23	2.2	1.5	3.7	800	1,170	170	96	32	23	8.7	4.5	3.5
24	2.3	1.5	3.5	641	1,190	192	94	32	21	8.3	4.3	3.3
25	2.3	1.5	3.2	538	1,070	192	89	33	20	8.0	4.1	3.2
26	2.3	1.6	3.1	484	1,340	334	84	32	19	7.1	3.8	3.1
27	2.5	1.5	3.2	447	1,090	283	83	32	18	6.7	3.9	3.0
28	2.7	1.6	3.6	392	899	278	81	31	17	6.5	3.7	3.1
29	2.7	1.6	35	348	------	240	80	31	16	5.9	3.7	3.3
30	2.9	1.6	188	311	------	221	75	32	15	5.6	3.9	3.3
31	2.9	------	136	284	------	208	------	33	------	5.2	3.7	------
TOTAL	60.6	55.6	462.7	25,021	19,048	10,206	3,729	1,461	908	298.9	140.7	112.7
MEAN	1.95	1.85	14.9	807	680	329	124	47.1	30.3	9.64	4.54	3.76
MAX	2.9	2.7	188	3,380	2,400	778	210	73	65	15	5.1	4.4
MIN	1.2	1.5	1.8	97	169	170	75	31	15	5.2	3.7	3.0
AC-FT	120	110	918	49,630	37,780	20,240	7,400	2,900	1,800	593	279	224

CAL YEAR 1992	TOTAL*	578.9	MEAN	6.29	MAX	188	MIN	1.2	AC-FT	1,150
WTR YEAR 1993	TOTAL	61,504.2	MEAN	169	MAX	3,380	MIN	1.2	AC-FT	122,000

FIGURE D-28


CARMEL RIVER AT DON JUAN BRIDGE – WY 1994
DISCHARGE IN CFS
1000
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JUL
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TABLE D-28

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CARMEL RIVER AT DON JUAN BRIDGE

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.5	5.4	6.3	19	80	18	15	9.2	2.2	1.2	1.2
2	3.4	3.5	5.2	6.3	17	73	18	14	9.3	2.2	1.2	1.2
3	3.5	3.5	5.2	6.3	16	67	18	14	8.7	2.1	1.1	1.2
4	3.6	3.5	5.1	6.3	15	64	18	13	8.8	2.2	1.2	1.2
5	3.7	3.6	5.3	6.3	15	61	18	12	8.9	2.0	1.1	1.2
6	3.6	3.9	5.3	6.3	14	59	17	12	9.0	2.0	1.1	1.2
7	3.6	3.8	5.5	6.4	42	54	16	13	8.8	1.9	1.2	1.1
8	3.6	3.8	5.4	6.4	150	51	17	15	8.5	1.9	1.1	1.1
9	3.6	3.7	5.4	6.3	121	45	16	16	7.6	1.8	1.2	1.1
10	3.6	3.9	5.6	6.4	91	42	17	16	6.7	1.7	1.1	1.1
11	3.7	5.1	6.8	6.4	75	40	16	17	6.2	1.8	1.1	1.1
12	3.6	6.2	7.2	6.3	62	38	15	16	6.0	1.7	1.0	1.1
13	3.7	5.4	6.9	6.3	55	36	15	16	5.8	1.6	.97	1.2
14	3.7	5.1	7.5	6.2	48	34	14	16	5.3	1.6	.97	1.1
15	4.0	4.9	7.9	6.4	41	29	14	16	5.0	1.5	.99	1.0
16	3.8	4.8	7.8	6.5	37	25	14	15	4.6	1.7	.99	1.1
17	3.8	4.9	7.5	6.3	184	24	13	15	4.2	1.6	1.1	1.1
18	4.1	4.8	6.8	5.7	268	24	13	15	3.7	1.5	1.1	1.1
19	4.0	4.7	6.1	5.3	243	24	13	16	3.4	1.5	1.1	1.1
20	3.9	4.6	6.0	5.2	554	23	13	17	3.3	1.5	1.1	1.1
21	3.9	4.6	6.1	5.3	316	23	12	16	3.1	1.4	1.1	1.1
22	3.8	4.4	6.3	5.6	224	23	12	15	3.0	1.4	1.1	1.1
23	3.5	4.5	6.3	6.1	173	23	13	13	2.8	1.2	1.1	1.2
24	3.5	4.6	6.3	8.5	138	23	15	13	2.5	1.2	1.0	1.1
25	3.3	4.8	6.6	15	117	31	16	13	2.6	1.2	1.0	1.1
26	3.2	4.9	6.5	35	106	28	19	13	2.5	1.2	1.0	1.1
27	3.2	4.8	6.4	35	95	25	18	12	2.4	1.3	1.0	1.1e
28	3.3	4.8	6.3	30	87	28	16	12	2.3	1.3	1.0	1.1e
29	3.3	4.9	6.2	27	------	20	15	12	2.2	1.2	1.0	1.1
30	3.3	5.3	6.2	23	------	20	15	11	2.2	1.2	1.1	1.1
31	3.5	------	6.3	21	------	18	------	11e	------	1.2	1.1	------
TOTAL	111.5	134.8	193.4	335.4	3,323	1,155	464	440	158.6	49.8	33.42	33.7
MEAN	3.60	4.49	6.24	10.8	119	37.3	15.5	14.2	5.29	1.61	1.08	1.12
MAX	4.1	6.2	7.9	35	554	80	19	17	9.3	2.2	1.2	1.2
MIN	3.2	3.5	5.1	5.2	14	18	12	11	2.2	1.2	.97	1.0
AC-FT	221	267	384	665	6,590	2,290	920	873	315	99	66	67

CAL YEAR 1993	TOTAL	61,376.31	MEAN	168	MAX	3,380	MIN	3.0	AC-FT	121,700
WTR YEAR 1994	TOTAL	6,432.62	MEAN	17.6	MAX	554	MIN	.97	AC-FT	12,760

FIGURE D-29

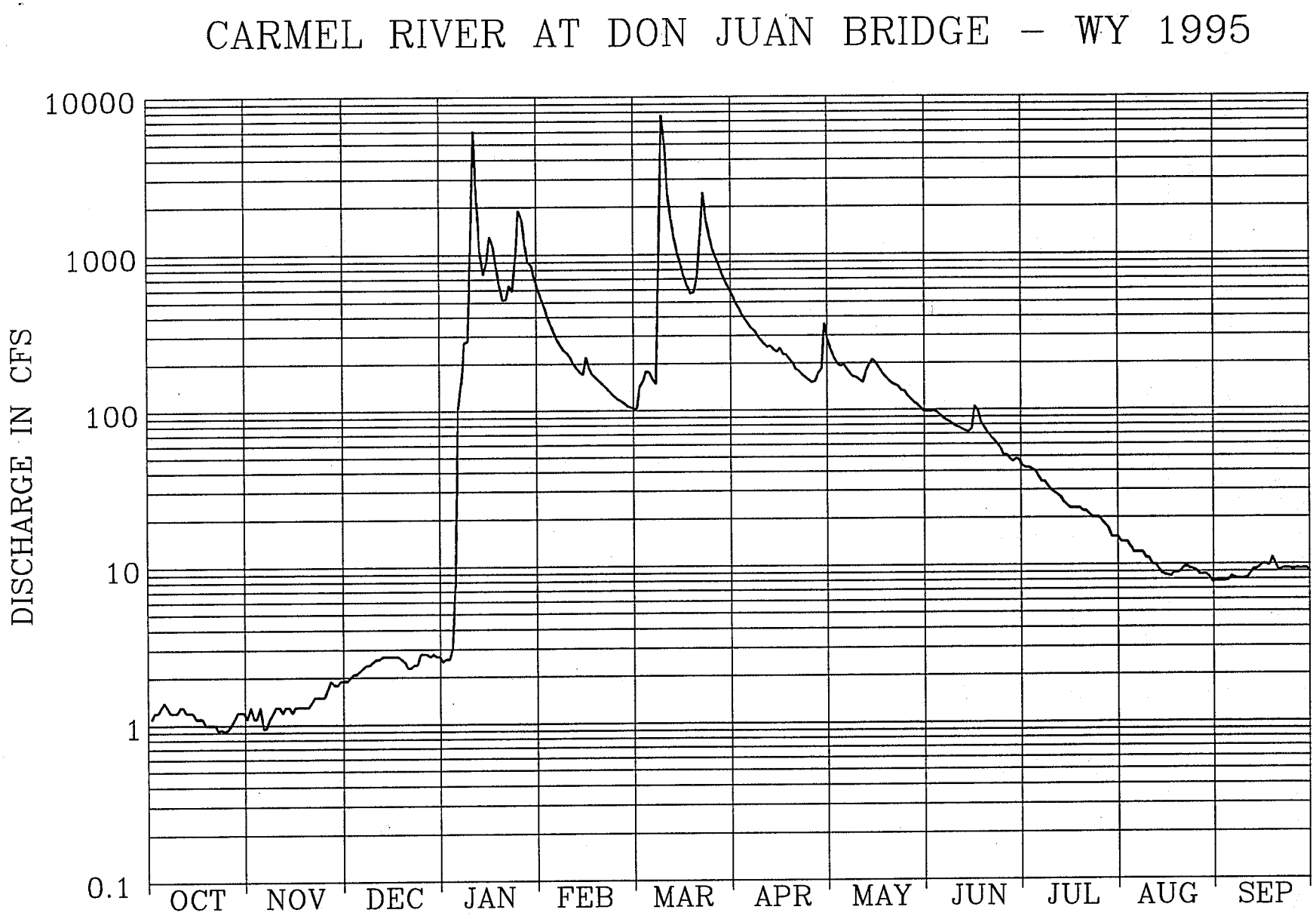
CARMEL RIVER AT DON JUAN BRIDGE – WY 1995
DISCHARGE IN CFS
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TABLE D-29

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CARMEL RIVER AT DON JUAN BRIDGE

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.3	1.9	2.6	462	103	558	281	97	43	14	7.8
2	1.2	1.1	2.0	2.6	401	103	496	242	97	42	14	7.8
3	1.2	1.1	2.1	3.0	354	141	455	216	98	42	14	7.8
4	1.3	1.3	2.1	7.5	315	154	416	198	97	41	13	7.9
5	1.4	.95	2.2	104	285	177	385	190	93	40	12	8.4
6	1.3	.96	2.3	149	262	176	358	196	89	37	12	8.2
7	1.2	1.1	2.4	275	245	159	337	182	86	34	12	8.1
8	1.2	1.2	2.4	280	235	148	324	170	84	34	12	8.1
9	1.2	1.3	2.5	1,020	221	782	299	163	81	32	11	8.1
10	1.3	1.3	2.6	6,100	201	7,630e	282	161	78	30	11	8.2
11	1.3	1.2	2.6	2,160	188	4,960	267	155	77	29	10	8.7
12	1.2	1.3	2.7	1,040	176	2,400	254	150	75	28	10	9.3
13	1.2	1.3	2.7	754	170	1,660	258	179	73	27	9.4	9.3
14	1.2	1.2	2.7	890	220	1,280	245	197	72	25	8.8	9.6
15	1.1	1.3	2.7	1,300	187	1,020	236	210	75	24	8.6	10
16	1.1	1.3	2.7	1,150	171	861	250	199	105	23	8.5	10
17	1.1	1.3	2.7	837	163	736	228	184	98	23	8.4	9.8
18	1.0	1.3	2.6	648	155	638	226	172	82	23	8.9	11
19	1.0	1.3	2.5	518	149	568	212	162	77	23	8.8	10
20	1.0	1.4	2.3	523	142	574	201	154	71	22	9.0	9.1
21	1.0	1.5	2.3	641	135	710	183	148	67	22	9.6	9.3
22	.92	1.5	2.4	591	129	1,300	177	144	64	21	9.7	9.4
23	.94	1.5	2.4	963	123	2,460	168	141	60	20	9.4	9.4
24	.91	1.5	2.8	1,910	118	1,620	162	133	56	20	9.3	9.3
25	.94	1.7	2.8	1,680	115	1,280	156	131	51	20	9.1	9.3
26	1.0	1.9	2.8	1,140	112	1,080	150	123	51	19	8.6	9.4
27	1.1	1.8	2.7	903	107	946	152	117	48	18	8.6	9.3
28	1.2	1.8	2.8	858	105	840	171	111	46	17	8.7	9.4
29	1.2	1.9	2.7	708	------	746	183	108	48	15	8.3	9.4
30	1.2	1.9	2.7	608	------	666	358	103	47	15	7.7	8.9
31	1.1	------	2.5	528	------	602	------	98	------	15	7.8	------
TOTAL	35.11	41.51	77.6	28,293.7	5,646	36,520	8,147	5,118	2,243	824	312.2	270.3
MEAN	1.13	1.38	2.50	913	202	1,178	272	165	74.8	26.6	10.1	9.01
MAX	1.4	1.9	2.8	6,100	462	7,630	558	281	105	43	14	11
MIN	.91	.95	1.9	2.6	105	103	150	98	46	15	7.7	7.8
AC-FT	70	82	154	56,120	11,200	72,440	16,160	10,150	4,450	1,630	619	536

CAL YEAR 1994	TOTAL	6,201.36	MEAN	17.0	MAX	581	MIN	.91	AC-FT	12,300
WTR YEAR 1995	TOTAL	87,528.42	MEAN	240	MAX	7,630	MIN	.91	AC-FT	173,600

FIGURE D-30

ROBINSON CANYON CREEK - WY 1992

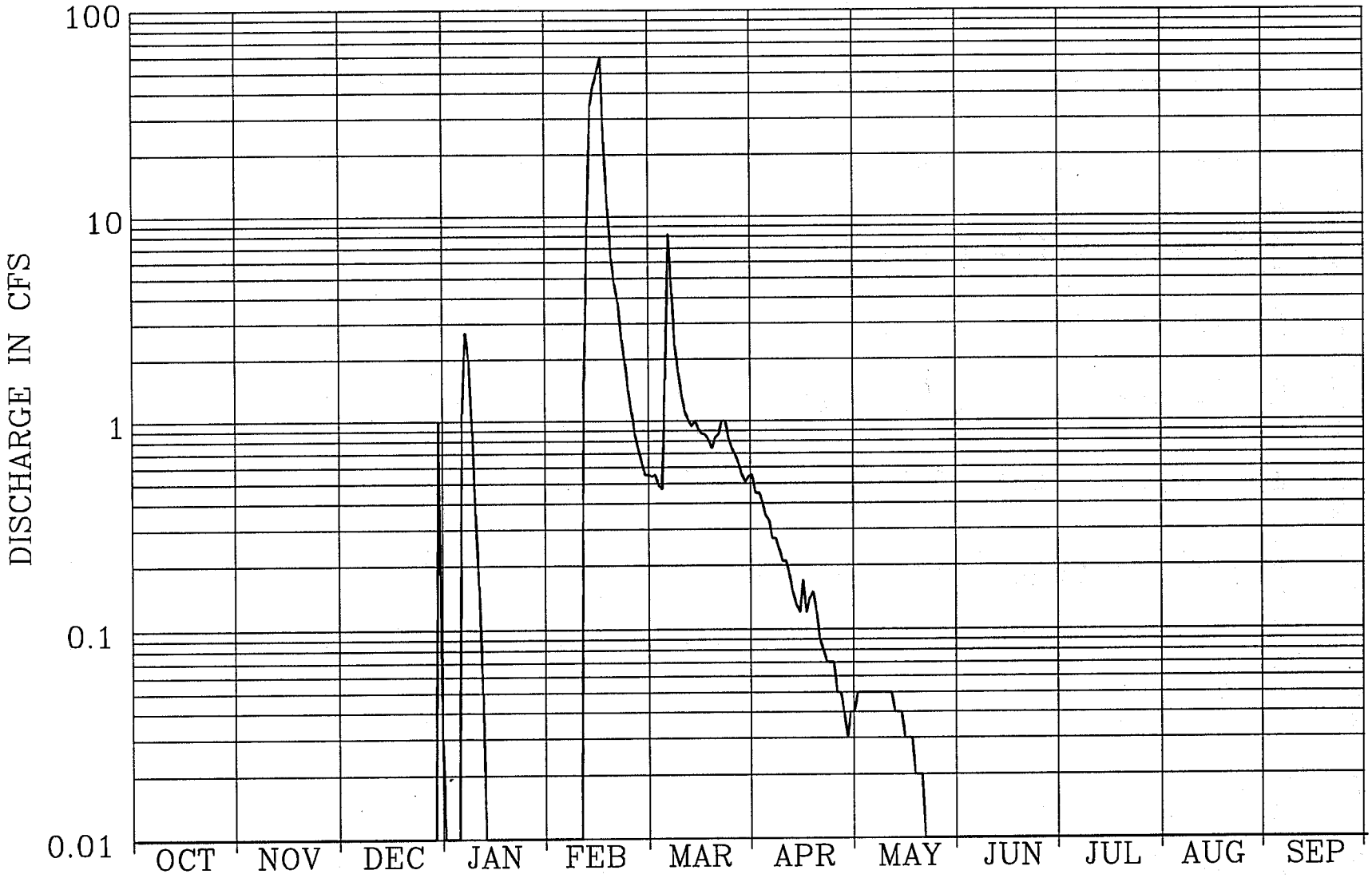

TABLE D-30

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
ROBINSON CANYON CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1991 TO Sep 1992

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	0	0	.54	.45	.05e	0	0	0	0
2	0	0	0	0	0	.55	.45	.05e	0	0	0	0
3	0	0	0	0	0	.49	.41	.05e	0	0	0	0
4	0	0	0	0	0	.47	.35	.05e	0	0	0	0
5	0	0	0	1.1	0	1.6	.33	.05e	0	0	0	0
6	0	0	0	2.7	0	8.2	.27	.05e	0	0	0	0
7	0	0	0	2.0	0	4.2	.27	.05e	0	0	0	0
8	0	0	0	.89	0	2.3	.24	.05e	0	0	0	0
9	0	0	0	.36	0	1.7	.21	.05e	0	0	0	0
10	0	0	0	.16	1.6	1.3	.21	.05e	0	0	0	0
11	0	0	0	.05	9.2	1.1	.18	.05e	0	0	0	0
12	0	0	0	.01	35	1.0	.15	.04e	0	0	0	0
13	0	0	0	0	44	.94	.13	.04e	0	0	0	0
14	0	0	0	0	51	1.0	.12	.04e	0	0	0	0
15	0	0	0	0	60	.91	.17	.03e	0	0	0	0
16	0	0	0	0	23	.87	.12	.03e	0	0	0	0
17	0	0	0	0	11	.86	.14	.03e	0	0	0	0
18	0	0	0	0	6.2	.81	.15	.02e	0	0	0	0
19	0	0	0	0	4.7	.74	.12	.02e	0	0	0	0
20	0	0	0	0	3.8	.83	.09	.02e	0	0	0	0
21	0	0	0	0	2.5	.86	.08	.01e	0	0	0	0
22	0	0	0	0	1.9	1.0	.07	.01e	0	0	0	0
23	0	0	0	0	1.4	1.0	.07	.01e	0	0	0	0
24	0	0	0	0	1.1	.82	.07	.01e	0	0	0	0
25	0	0	0	0	.86	.74	.05	.01e	0	0	0	0
26	0	0	0	0	.73	.69	.05	0	0	0	0	0
27	0	0	0	0	.62	.62	.04	0	0	0	0	0
28	0	0	0	0	.55	.55	.03	0	0	0	0	0
29	0	0	1.0 e	0	.55	.51	.04	0	0	0	0	0
30	0	0	.03e	0	------	.54	.04	0	0	0	0	0
31	0	------	0 e	0	------	.55	------	0	------	0	0	------
TOTAL	0	0	1.03	7.27	259.71	38.29	5.10	0.87	0	0	0	0
MEAN	0	0	.033	.23	8.96	1.24	.17	.028	0	0	0	0
MAX	0	0	1.0	2.7	60	8.2	.45	.05	0	0	0	0
MIN	0	0	0	0	0	.47	.03	0	0	0	0	0
AC-FT	0	0	2.0	14	515	76	10	1.7	0	0	0	0

CAL YEAR 1991	TOTAL*	1.03	MEAN	.011	MAX	1.0	MIN	0	AC-FT	2.0
WTR YEAR 1992	TOTAL	312.27	MEAN	.85	MAX	60	MIN	0	AC-FT	619

FIGURE D-31

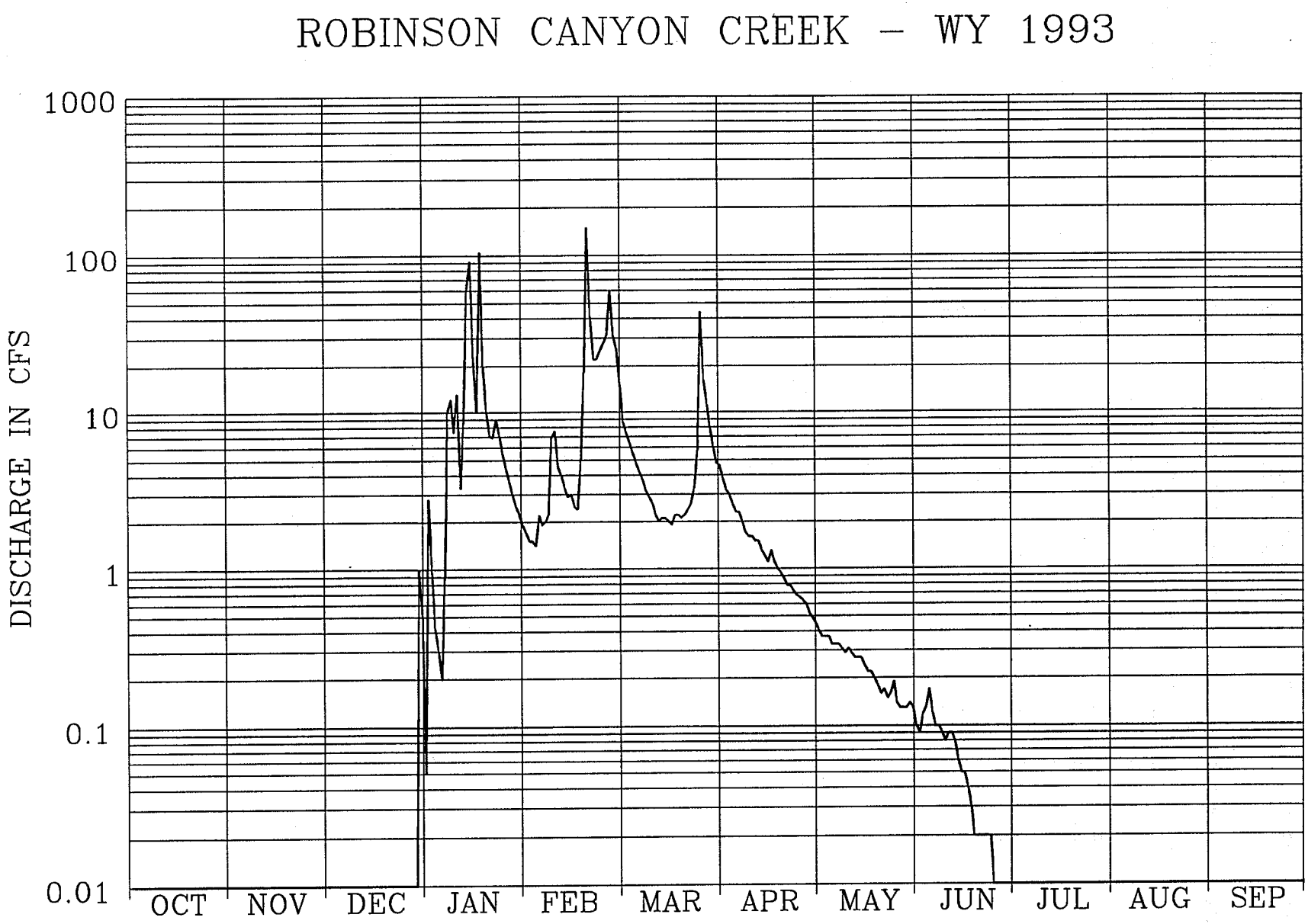
ROBINSON CANYON CREEK - WY 1993
DISCHARGE IN CFS
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TABLE D-31

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
ROBINSON CANYON CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	2.8 e	1.5e	15 e	4.6	.45	.10	.01	0	0
2	0	0	0	.96e	1.5e	8.6e	3.8	.40	.09	.01	0	0
3	0	0	0	.42e	1.4e	7.4e	3.2	.37	.12	.01	0	0
4	0	0	0	.30e	2.2	6.4e	3.0	.37	.13	.01	0	0
5	0	0	0	.20e	1.9	5.5e	2.6	.37	.17	0	0	0
6	0	0	0	.89	2.0	4.8e	2.3	.33	.12	0	0	0
7	0	0	0	10	2.2	4.2e	2.3	.33	.10	0	0	0
8	0	0	0	12	6.9	3.7e	2.0	.33	.10	0	0	0
9	0	0	0	7.5	7.6	3.2e	1.7	.31	.09	0	0	0
10	0	0	0	13	4.5	2.9e	1.6	.29	.08	0	0	0
11	0	0	0	3.3	4.0	2.6e	1.6	.31	.09	0	0	0
12	0	0	0	8.5	3.3	2.2	1.5	.29	.09	0	0	0
13	0	0	0	60	2.9	2.0	1.5	.27	.08	0	0	0
14	0	0	0	92	3.0	2.1	1.3	.27	.06	0	0	0
15	0	0	0	23	2.5	2.1	1.2	.27	.05	0	0	0
16	0	0	0	10	2.4	2.0	1.1	.24	.05	0	0	0
17	0	0	0	105	5.0	1.9	1.3	.22	.04	0	0	0
18	0	0	0	20	18	2.2	1.1	.22	.03	0	0	0
19	0	0	0	10	150 e	2.2	1.0	.20	.02	0	0	0
20	0	0	0	7.1	41	2.1	.94	.18	.02	0	0	0
21	0	0	0	6.9	22	2.2	.88	.16	.02	0	0	0
22	0	0	0	9.0 e	22	2.4	.79	.17	.02	0	0	0
23	0	0	0	7.0 e	25	2.6	.78	.15	.02	0	0	0
24	0	0	0	5.5 e	28	3.3	.73	.16	.02	0	0	0
25	0	0	0	4.4 e	31	5.7	.68	.19	.01	0	0	0
26	0	0	0	3.6 e	60	44	.66	.14	.01	0	0	0
27	0	0	0	3.0 e	31	16	.63	.13	.01	0	0	0
28	0	0	0	2.5 e	26	11	.60	.13	.01	0	0	0
29	0	0	1.0 e	2.2 e	------	8.0	.52	.13	.01	0	0	0
30	0	0	.50e	1.9 e	------	6.0	.49	.14	.01	0	0	0
31	0	------	.05e	1.7 e	------	4.8	------	.13	------	0	0	------
TOTAL	0	0	1.55	434.67	508.8	189.1	46.40	7.65	1.77	0.04	0	0
MEAN	0	0	.050	14.0	18.2	6.10	1.55	.25	.059	.001	0	0
MAX	0	0	1.0	105	150	44	4.6	.45	.17	.01	0	0
MIN	0	0	0	.20	1.4	1.9	.49	.13	.01	0	0	0
AC-FT	0	0	3.1	862	1,010	375	92	15	3.5	.08	0	0

CAL YEAR 1992	TOTAL*	1.55	MEAN	.017	MAX	1.0	MIN	0	AC-FT	3.1
WTR YEAR 1993	TOTAL	1,189.98	MEAN	3.26	MAX	150	MIN	0	AC-FT	2,360

FIGURE D-32

ROBINSON CANYON CREEK - WY 1994

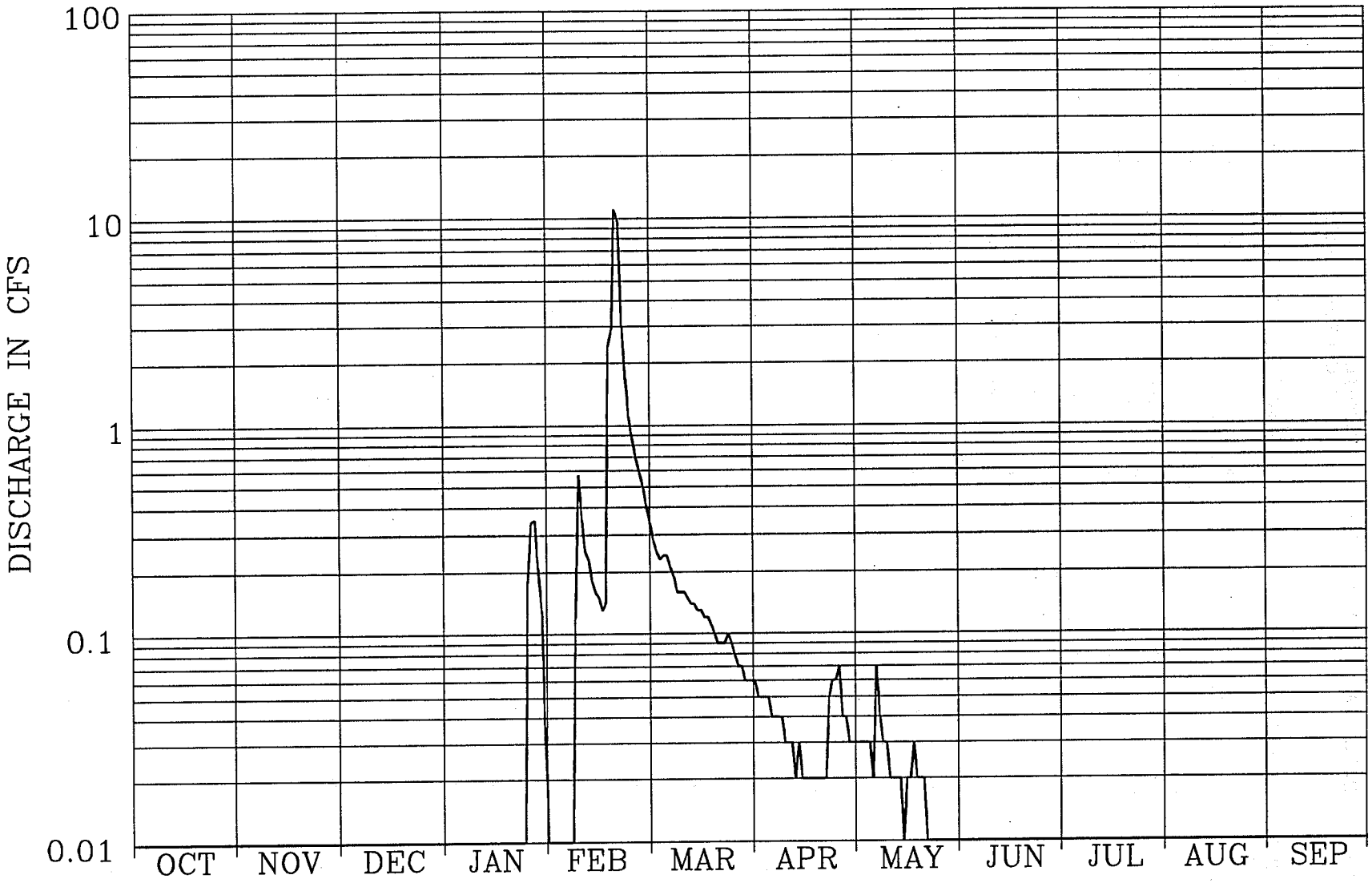


TABLE D-32

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
ROBINSON CANYON CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	.34	.06	.03	0	0	0	0
2	0	0	0	0	0	.28	.05	.03	0	0	0	0
3	0	0	0	0	0	.25	.05	.03	0	0	0	0
4	0	0	0	0	0	.23	.05	.03	0	0	0	0
5	0	0	0	0	0	.24	.05	.03	0	0	0	0
6	0	0	0	0	0	.24	.04	.02	0	0	0	0
7	0	0	0	0	.12	.21	.04	.07	0	0	0	0
8	0	0	0	0	.57	.19	.04	.04	0	0	0	0
9	0	0	0	0	.35	.16	.04	.03	0	0	0	0
10	0	0	0	0	.25	.16	.03	.03	0	0	0	0
11	0	0	0	0	.23	.16	.03	.02	0	0	0	0
12	0	0	0	0	.18	.15	.03	.02	0	0	0	0
13	0	0	0	0	.16	.14	.02	.02	0	0	0	0
14	0	0	0	0	.15	.14	.03	.02	0	0	0	0
15	0	0	0	0	.13	.13	.02	.01	0	0	0	0
16	0	0	0	0	.14	.13	.02	.02	0	0	0	0
17	0	0	0	0	2.4	.12	.02	.02	0	0	0	0
18	0	0	0	0	2.9	.12	.02	.03	0	0	0	0
19	0	0	0	0	11	.11	.02	.02	0	0	0	0
20	0	0	0	0	9.8	.10	.02	.02	0	0	0	0
21	0	0	0	0	3.0	.09	.02	.02	0	0	0	0
22	0	0	0	0	1.7	.09	.02	.01	0	0	0	0
23	0	0	0	0	1.1	.09	.05	.01	0	0	0	0
24	0	0	0	.18	.86	.10	.06	.01	0	0	0	0
25	0	0	0	.34	.69	.09	.06	.01	0	0	0	0
26	0	0	0	.35	.59	.08	.07	.01	0	0	0	0
27	0	0	0	.21	.50	.07	.04	.01	0	0	0	0
28	0	0	0	.13	.41	.07	.04	0	0	0	0	0
29	0	0	0	.03	------	.06	.03	0	0	0	0	0
30	0	0	0	0	------	.06	.03	0	0	0	0	0
31	0	------	0	0	------	.06	------	0	------	0	0	------
TOTAL	0	0	0	1.24	37.23	4.46	1.10	0.62	0	0	0	0
MEAN	0	0	0	.040	1.33	.14	.037	.020	0	0	0	0
MAX	0	0	0	.35	11	.34	.07	.07	0	0	0	0
MIN	0	0	0	0	0	.06	.02	0	0	0	0	0
AC-FT	0	0	0	2.5	74	8.8	2.2	1.2	0	0	0	0

CAL YEAR 1993	TOTAL	1,216.15	MEAN	3.33	MAX	150	MIN	0	AC-FT	2,410
WTR YEAR 1994	TOTAL	44.65	MEAN	.12	MAX	11	MIN	0	AC-FT	89

FIGURE D-33

ROBINSON CANYON CREEK - WY 1995

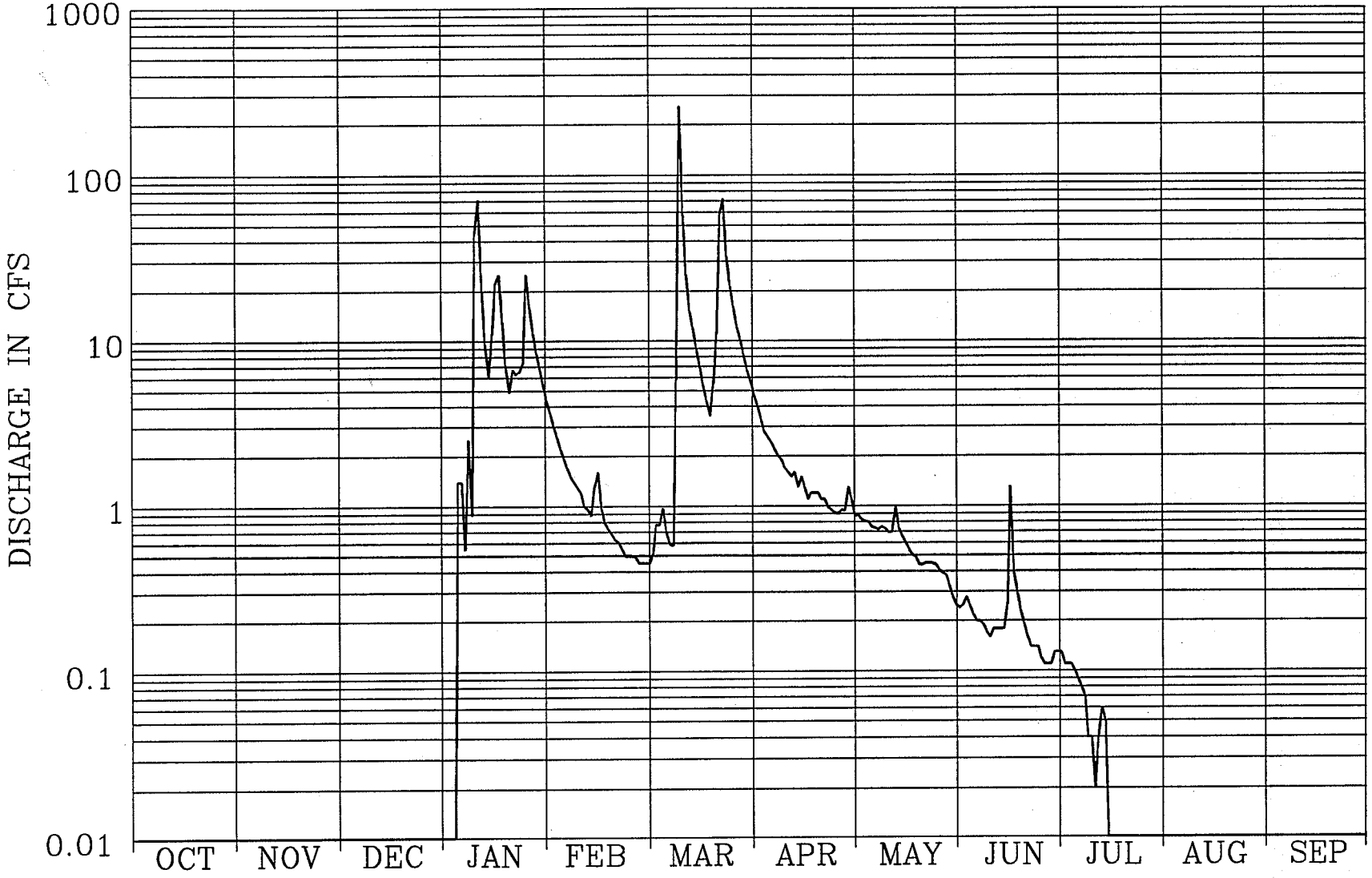


TABLE D-33

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
ROBINSON CANYON CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	3.0	.45	4.7	.87	.24	.13	.01	0
2	0	0	0	0	2.6	.51	4.0	.88	.25	.11	.01	0
3	0	0	0	0	2.2	.77	3.3	.83	.28	.11	.01	0
4	0	0	0	1.4	1.9	.77	2.8	.81	.25	.11	.01	0
5	0	0	0	1.4	1.7	.97	2.6	.80	.22	.10	.01	0
6	0	0	0	.55	1.5	.70	2.4	.75	.20	.09	.01	0
7	0	0	0	2.5	1.4	.59	2.2	.74	.20	.08	0	0
8	0	0	0	.89	1.3	.58	2.0	.72	.19	.07	0	0
9	0	0	0	45	1.2	5.8	1.9	.75	.17	.04	0	0
10	0	0	0	71	1.0	258	1.7	.73	.16	.04	0	0
11	0	0	0	20	.96	58	1.6	.69	.18	.02	0	0
12	0	0	0	9.6	.88	25	1.5	.70	.18	.04	0	0
13	0	0	0	6.1	1.3	15	1.6	.99	.18	.06	0	0
14	0	0	0	11	1.6	12	1.3	.73	.18	.05	0	0
15	0	0	0	22	.96	9.0	1.5	.66	.25	.01	0	0
16	0	0	0	25	.80	6.9	1.3	.60	1.3	.01	0	0
17	0	0	0	13	.73	5.4	1.1	.54	.39	.01	0	0
18	0	0	0	7.1	.68	4.3	1.2	.51	.29	.01	0	0
19	0	0	0	4.9	.63	3.5	1.2	.49	.23	.01	0	0
20	0	0	0	6.7	.61	5.5	1.2	.44	.19	.01	0	0
21	0	0	0	6.3	.55	11	1.1	.44	.16	.01	0	0
22	0	0	0	6.5	.50	59	1.1	.45	.14	.01	0	0
23	0	0	0	7.3	.50	72	.98	.45	.14	.01	0	0
24	0	0	0	25	.50	32	.95	.45	.14	.01	0	0
25	0	0	0	16	.49	21	.91	.44	.12	.01	0	0
26	0	0	0	11	.45	16	.90	.41	.11	.01	0	0
27	0	0	0	8.5	.45	12	.95	.39	.11	.01	0	0
28	0	0	0	6.7	.45	10	.94	.38	.11	.01	0	0
29	0	0	0	5.3	------	8.2	1.3	.33	.13	.01	0	0
30	0	0	0	4.3	------	6.6	1.1	.28	.13	.01	0	0
31	0	------	0	3.6	------	5.7	------	.25	------	.01	0	------
TOTAL	0	0	0	348.64	30.84	667.24	51.33	18.50	6.82	1.22	0.06	0
MEAN	0	0	0	11.2	1.10	21.5	1.71	.60	.23	.039	.002	0
MAX	0	0	0	71	3.0	258	4.7	.99	1.3	.13	.01	0
MIN	0	0	0	0	.45	.45	.90	.25	.11	.01	0	0
AC-FT	0	0	0	692	61	1,320	102	37	14	2.4	.1	0

CAL YEAR 1994	TOTAL	44.68	MEAN	.12	MAX	11	MIN	0	AC-FT	89
WTR YEAR 1995	TOTAL	1,124.65	MEAN	3.08	MAX	258	MIN	0	AC-FT	2,230

FIGURE D-34

POTRERO CREEK – WY 1994

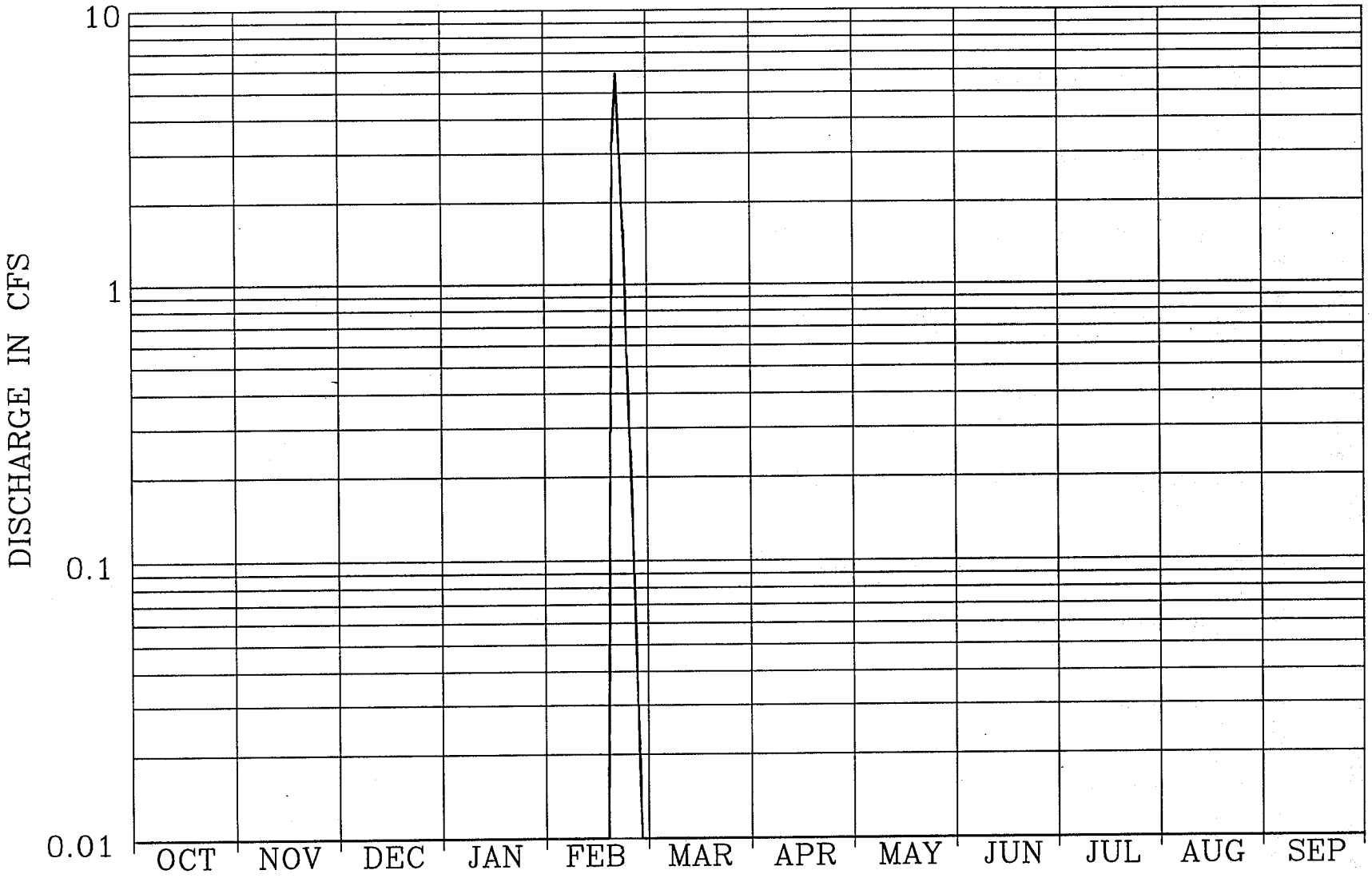


TABLE D-34

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
POTRERO CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	.29	0	0	0	0	0	0	0
19	0	0	0	0	3.3	0	0	0	0	0	0	0
20	0	0	0	0	5.9	0	0	0	0	0	0	0
21	0	0	0	0	3.0	0	0	0	0	0	0	0
22	0	0	0	0	1.6	0	0	0	0	0	0	0
23	0	0	0	0	.55	0	0	0	0	0	0	0
24	0	0	0	0	.25	0	0	0	0	0	0	0
25	0	0	0	0	.09	0	0	0	0	0	0	0
26	0	0	0	0	.03	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	------	0	0	0	0	0	0	0
30	0	0	0	0	------	0	0	0	0	0	0	0
31	0	------	0	0	------	0	------	0	------	0	0	------
TOTAL	0	0	0	0	15.01	0	0	0	0	0	0	0
MEAN	0	0	0	0	.54	0	0	0	0	0	0	0
MAX	0	0	0	0	5.9	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	30	0	0	0	0	0	0	0

CAL YEAR 1993	TOTAL*	0.00	MEAN	0	MAX	0	MIN	0	AC-FT	0
WTR YEAR 1994	TOTAL	15.01	MEAN	.041	MAX	5.9	MIN	0	AC-FT	30

FIGURE D-35

POTRERO CREEK – WY 1995

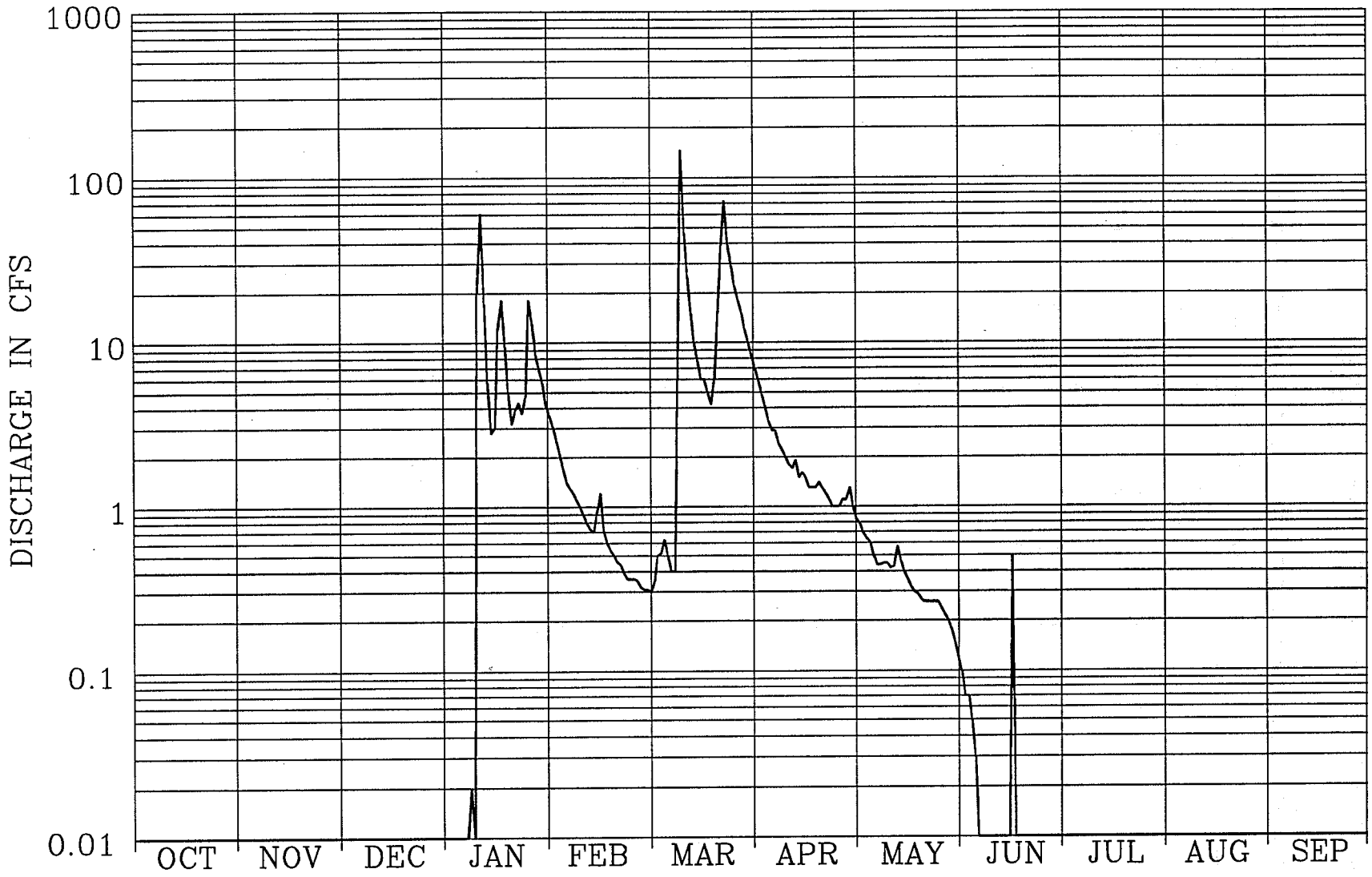


TABLE D-35

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
POTRERO CREEK

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	2.5 e	.30e	7.0	.84e	.10e	0	0	0
2	0	0	0	0	2.1 e	.35e	5.9	.78e	.07e	0	0	0
3	0	0	0	0	1.7 e	.50e	4.8	.69e	.07e	0	0	0
4	0	0	0	0	1.4 e	.52e	4.1	.64e	.05e	0	0	0
5	0	0	0	0	1.3 e	.63e	3.3	.60e	.03e	0	0	0
6	0	0	0	0	1.2 e	.50e	2.9	.50e	.01e	0	0	0
7	0	0	0	.02	1.1 e	.40e	2.9	.44e	0 e	0	0	0
8	0	0	0	0	1.0 e	.40e	2.4	.44e	0 e	0	0	0
9	0	0	0	20	.89e	5.9	2.2	.45e	0 e	0	0	0
10	0	0	0	61	.80e	147	2.0e	.45e	0 e	0	0	0
11	0	0	0	17	.73e	46	1.8e	.42e	0 e	0	0	0
12	0	0	0	5.8	.70e	25 e	1.7e	.43e	0 e	0	0	0
13	0	0	0	2.8	.93e	15 e	1.9e	.57e	0 e	0	0	0
14	0	0	0	3.0	1.2 e	10 e	1.5e	.46e	0 e	0	0	0
15	0	0	0	12	.71e	7.8	1.6e	.40e	0 e	0	0	0
16	0	0	0	18	.60e	6.0	1.5e	.36e	.50e	0	0	0
17	0	0	0	9.5	.54e	6.0	1.3e	.32e	0 e	0	0	0
18	0	0	0	5.0	.50e	5.0	1.3e	.30e	0 e	0	0	0
19	0	0	0	3.2	.46e	4.2	1.3e	.29e	0 e	0	0	0
20	0	0	0	3.9	.44e	6.0	1.4e	.27e	0	0	0	0
21	0	0	0	4.3	.39e	15	1.3e	.26e	0	0	0	0
22	0	0	0	3.7	.36e	39	1.2e	.26e	0	0	0	0
23	0	0	0	4.7	.36e	72	1.1e	.26e	0	0	0	0
24	0	0	0	18	.36e	39	1.0e	.26e	0	0	0	0
25	0	0	0	13	.35e	29	1.0e	.26e	0	0	0	0
26	0	0	0	8.4	.32e	22	1.0e	.24e	0	0	0	0
27	0	0	0	6.9	.31e	18	1.1e	.22e	0	0	0	0
28	0	0	0	5.7	.31e	15	1.1e	.20e	0	0	0	0
29	0	0	0	4.2	------	12	1.3e	.18e	0	0	0	0
30	0	0	0	3.6	------	10	1.0e	.15e	0	0	0	0
31	0	------	0	3.1	------	8.3	------	.12e	------	0	0	------
TOTAL	0	0	0	236.82	23.56	566.80	63.9	12.06	0.83	0	0	0
MEAN	0	0	0	7.64	.84	18.3	2.13	.39	.028	0	0	0
MAX	0	0	0	61	2.5	147	7.0	.84	.50	0	0	0
MIN	0	0	0	0	.31	.30	1.0	.12	0	0	0	0
AC-FT	0	0	0	470	47	1,120	127	24	1.6	0	0	0

CAL YEAR 1994	TOTAL	14.99	MEAN	.041	MAX	5.9	MIN	0	AC-FT	30
WTR YEAR 1995	TOTAL	903.97	MEAN	2.48	MAX	147	MIN	0	AC-FT	1,790

FIGURE D-36

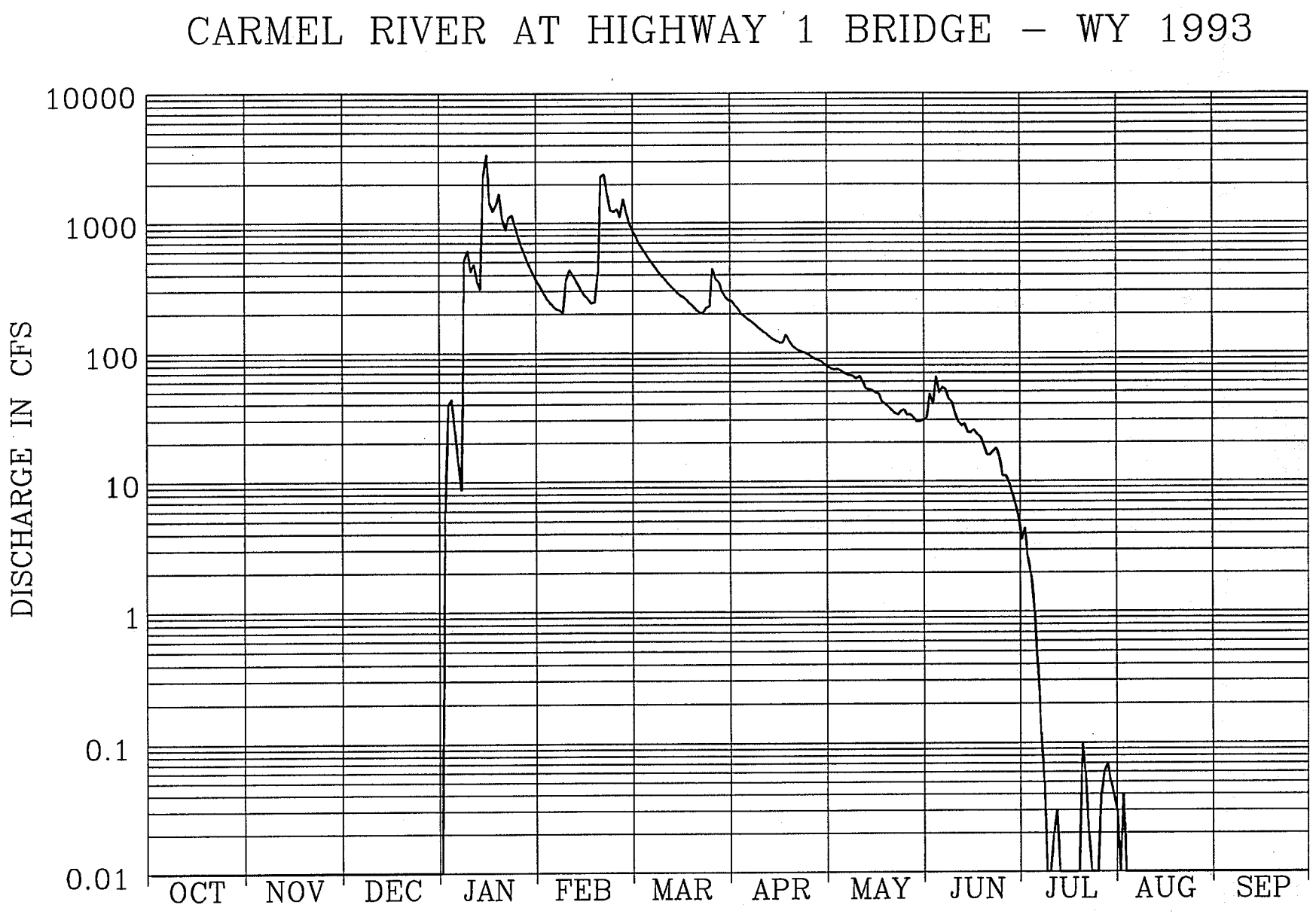

CARMEL RIVER AT HIGHWAY 1 BRIDGE – WY 1993
DISCHARGE IN CFS
10000
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-36

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CARMEL RIVER AT HIGHWAY 1 BRIDGE

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR Oct 1992 TO Sep 1993

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0	0	0	6.0	285	868	251	78	31	3.6	0	0
2	0	0	0	40	261	775	231	76	48	4.4	.04	0
3	0	0	0	44	243	697	217	74	40	2.6	0	0
4	0	0	0	25	228	633	200	75	65	1.9	0	0
5	0	0	0	14	218	579	191	73	49	1.0	0	0
6	0	0	0	8.7	214	533	181	70	54	.39	0	0
7	0	0	0	519	202	492	176	68	52	.12	0	0
8	0	0	0	615	363	455	167	67	44	.05	0	0
9	0	0	0	422	433	423	159	66	41	0	0	0
10	0	0	0	483	403	391	152	63	34	.01	0	0
11	0	0	0	355	363	369	145	66	29	.02	0	0
12	0	0	0	310	328	345	139	60	27	.03	0	0
13	0	0	0	2,360	296	325	132	53	28	0	0	0
14	0	0	0	3,420	276	308	127	52	24	0	0	0
15	0	0	0	1,440	258	290	123	51	24	0	0	0
16	0	0	0	1,230	242	276	119	49	25	0	0	0
17	0	0	0	1,380	245	269	120	48	23	0	0	0
18	0	0	0	1,690	409	255	137	42	22	0	0	0
19	0	0	0	1,070	2,300	239	123	40	19	0	0	0
20	0	0	0	884	2,410	227	113	38	16	.10	0	0
21	0	0	0	1,100	1,650	213	108	36	16	.06	0	0
22	0	0	0	1,150	1,250	204	104	34	17	.02	0	0
23	0	0	0	948	1,220	202	102	33	18	0	0	0
24	0	0	0	779	1,280	221	100	35	15	0	0	0
25	0	0	0	657	1,110	227	97	36	11	0	0	0
26	0	0	0	568	1,530	441	93	33	11	.04	0	0
27	0	0	0	495	1,180	370	90	33	9.7	.06	0	0
28	0	0	0	437	994	346	88	31	8.2	.07	0	0
29	0	0	0	386	------	297	86	29	6.7	.05	0	0
30	0	0		350	------	269	82	29	5.4	.04	0	0
31	0	------	0	317	------	254	------	30	------	.03	0	------
TOTAL	0	0	0	23,502.7	20,191	11,793	4,153	1,568	813.0	14.59	0.04	0
MEAN	0	0	0	758	721	380	138	50.6	27.1	.47	.001	0
MAX	0	0	0	3,420	2,410	868	251	78	65	4.4	.04	0
MIN	0	0	0	6.0	202	202	82	29	5.4	0	0	0
AC-FT	0	0	0	46,620	40,050	23,390	8,240	3,110	1,610	29	.08	0

*

CAL YEAR 1992	TOTAL*	0.00	MEAN	0	MAX	0	MIN	0	AC-FT	0
WTR YEAR 1993	TOTAL*	62,035.33	MEAN	170	MAX	3,420	MIN	0	AC-FT	123,000

FIGURE D-37

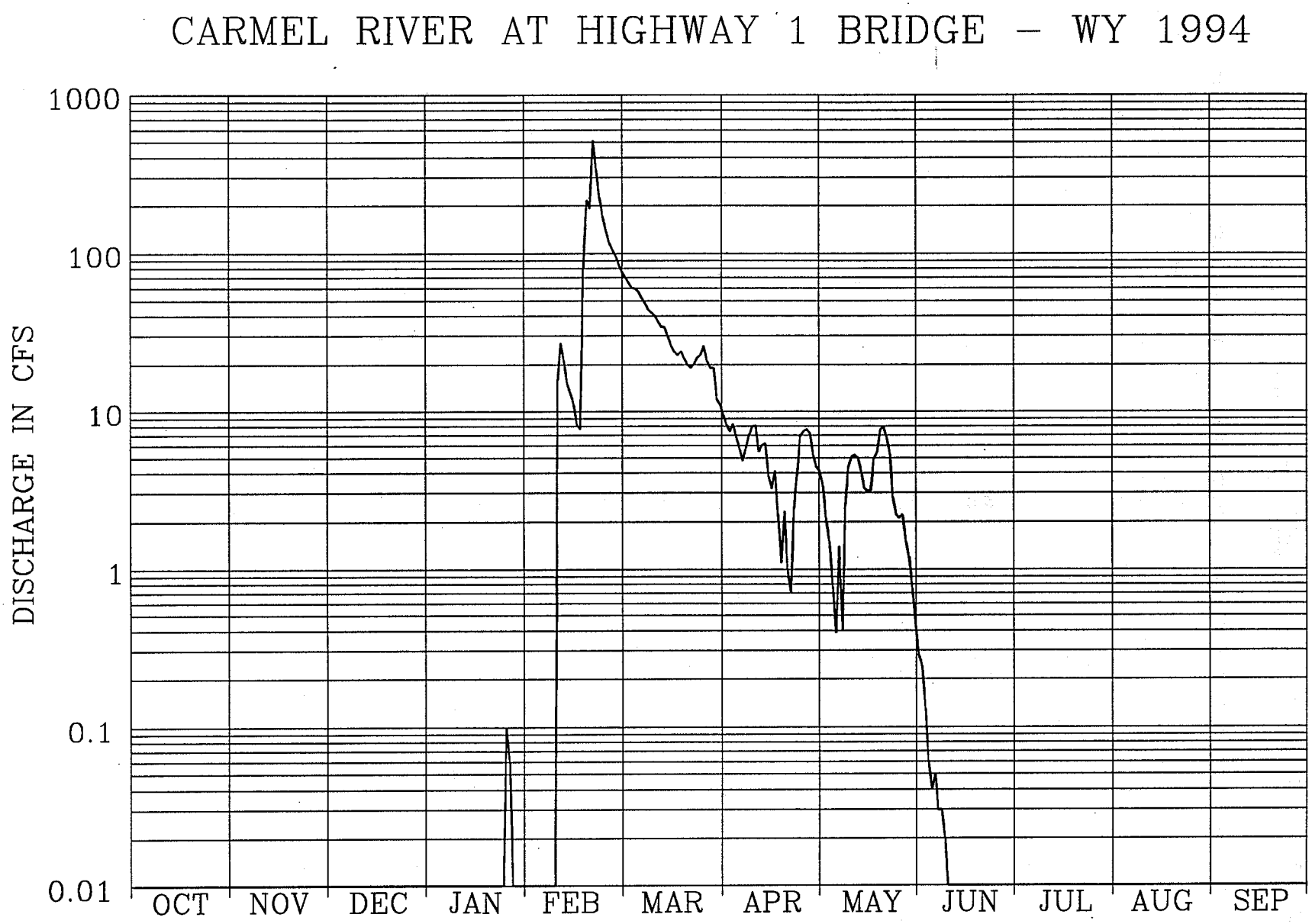

CARMEL RIVER AT HIGHWAY 1 BRIDGE – WY 1994
DISCHARGE IN CFS
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-37

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CARMEL RIVER AT HIGHWAY 1 BRIDGE

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1993 TO SEP 1994

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	76	9.6	4.1	.28	0	0	0
2	0	0	0	0	0	70	8.2	3.3	.24	0	0	0
3	0	0	0	0	0	65	7.4	2.1	.13	0	0	0
4	0	0	0	0	0	60	8.3	1.5	.06	0	0	0
5	0	0	0	0	0	60	6.8	.77	.04	0	0	0
6	0	0	0	0	0	57	5.7	.39	.05	0	0	0
7	0	0	0	0	0	52	4.8	1.4	.03	0	0	0
8	0	0	0	0	0	48	5.8	.40	.03	0	0	0
9	0	0	0	0	16	44	7.0	2.5	.02	0	0	0
10	0	0	0	0	27	42	8.0	4.4	.01	0	0	0
11	0	0	0	0	21	40	8.1	5.1	0	0	0	0
12	0	0	0	0	15	37	5.5	5.2	0	0	0	0
13	0	0	0	0	13	34	6.0	5.0	0	0	0	0
14	0	0	0	0	11	34	6.2	4.0	0	0	0	0
15	0	0	0	0	8.2	30	3.8	3.2	0	0	0	0
16	0	0	0	0	7.7	26	3.2	3.1	0	0	0	0
17	0	0	0	0	80	24	4.1	3.1	0	0	0	0
18	0	0	0	0	217	23	2.2	4.9	0	0	0	0
19	0	0	0	0	193	24	1.1	5.4	0	0	0	0
20	0	0	0	0	511	22	2.3	7.6	0	0	0	0
21	0	0	0	0	333	20	1.0	8.0	0	0	0	0
22	0	0	0	0	224	19	.70	6.8	0	0	0	0
23	0	0	0	0	171	20	2.4	5.3	0	0	0	0
24	0	0	0	.10	139	22	3.9	2.8	0	0	0	0
25	0	0	0	.06	118	23	6.9	2.2	0	0	0	0
26	0	0	0	0	106	26	7.4	2.1	0	0	0	0
27	0	0	0	0	96	21	7.7	2.2	0	0	0	0
28	0	0	0	0	85	19	7.2	1.5	0	0	0	0
29	0	0	0	0	------	19	5.2	1.2	0	0	0	0
30	0	0	0	0	------	12	4.4	.75	0	0	0	0
31	0	------	0	0	------	11	------	.42	------	0	0	------
TOTAL	0	0	0	0.16	2,391.9	1,080	160.90	100.73	0.89	0	0	0
MEAN	0	0	0	.005	85.4	34.8	5.36	3.25	.030	0	0	0
MAX	0	0	0	.10	511	76	9.6	8.0	.28	0	0	0
MIN	0	0	0	0	0	11	.70	.39	0	0	0	0
AC-FT	0	0	0	.3	4,740	2,140	319	200	1.8	0	0	0

CAL YEAR 1993	TOTAL	62,017.94	MEAN	170	MAX	3,420	MIN	0	AC-FT	123,000
WTR YEAR 1994	TOTAL	3,734.58	MEAN	10.2	MAX	511	MIN	0	AC-FT	7,410

FIGURE D-38

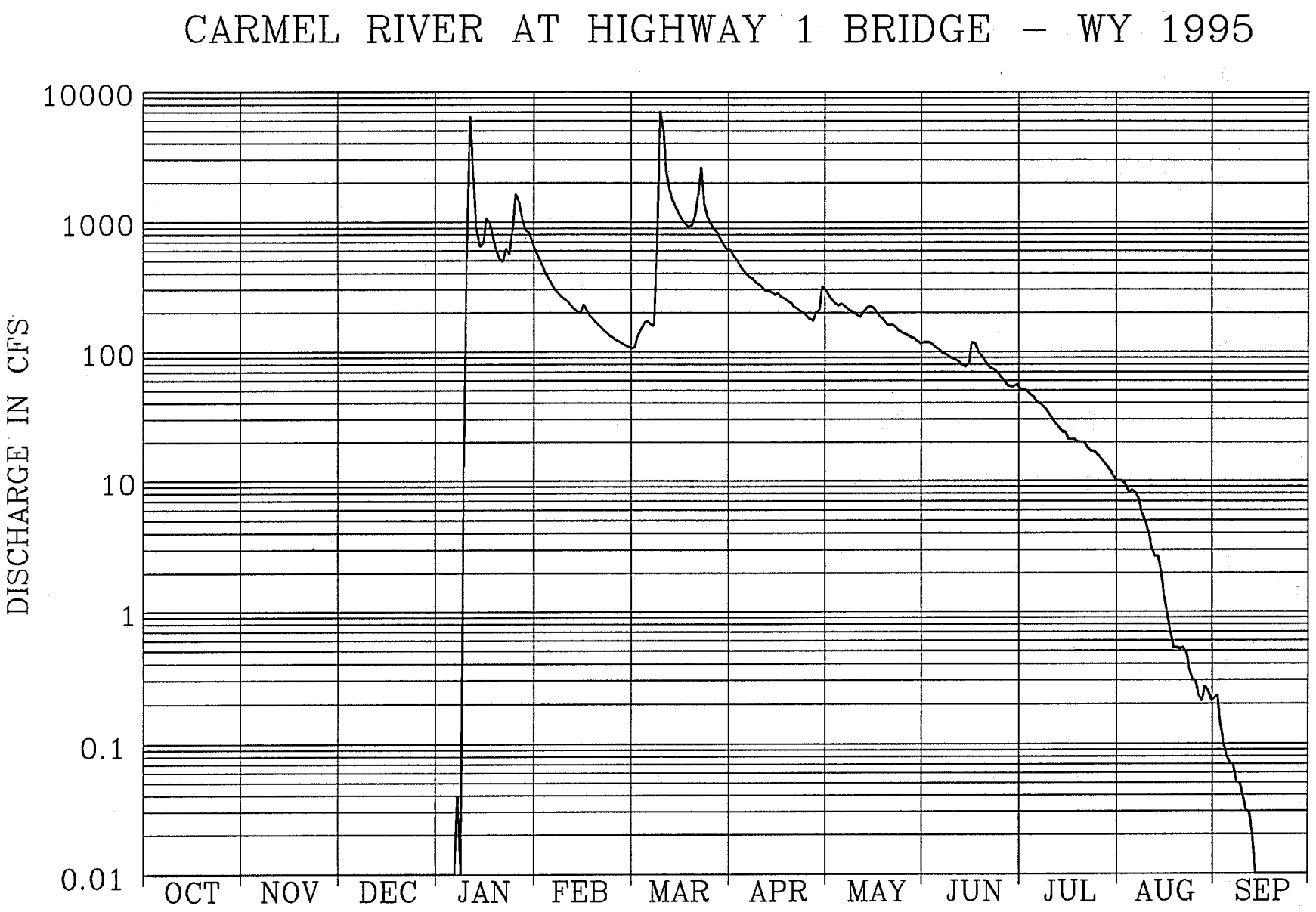

CARMEL RIVER AT HIGHWAY 1 BRIDGE - WY 1995
DISCHARGE IN CFS
10000
1000
100
10
1
0.1
0.01
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP

TABLE D-38

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
CARMEL RIVER AT HIGHWAY 1 BRIDGE

DAILY DISCHARGE IN CUBIC FEET PER SECOND WATER YEAR OCT 1994 TO SEP 1995

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	465	107	600e	300	119	52	10	.23
2	0	0	0	0	410	106	550e	271	118	51	10	.14
3	0	0	0	0	366	127	510e	252	118	50	9.2	.10
4	0	0	0	0	330	142	465e	234	113	47	8.1	.08
5	0	0	0	0	303	157	430e	227	107	45	8.5	.07
6	0	0	0	.04	284	163	400e	232	103	41	8.1	.07
7	0	0	0	.01	266	152	375e	224	97	40	7.4	.05
8	0	0	0	12	255	145	365	210	96	38	5.7	.05
9	0	0	0	315	245	537	341	197	92	36	5.0	.04
10	0	0	0	6,350	228	7,960e	329	193	89	33	4.2	.03
11	0	0	0	2,490	215	5,280e	312	186	87	30	3.2	.03
12	0	0	0	1,050	205	2,440e	295	178	84	28	2.7	.02
13	0	0	0	676	198	1,760e	294	198	80	26	2.7	0
14	0	0	0	715	231	1,470e	286	214	77	24	2.1	.01
15	0	0	0	1,150	209	1,310e	274	220	81	24	1.3	0
16	0	0	0	1,090	190	1,160e	283	214	118	21	.98	0
17	0	0	0	810	178	1,060e	261	201	116	21	.70	0
18	0	0	0	630	167	981e	257	187	100	21	.53	0
19	0	0	0	517	159	919e	246	177	94	20	.53	0
20	0	0	0	485	150	936e	240	165	86	20	.52	0
21	0	0	0	622	142	1,100e	222	157	79	20	.53	0
22	0	0	0	534	135	1,610e	215	159	75	18	.49	0
23	0	0	0	863	130	2,630e	206	155	73	17	.36	0
24	0	0	0	1,780	124	1,370e	199	145	69	17	.30	0
25	0	0	0	1,560	121	1,080e	189	141	64	16	.30	0
26	0	0	0	1,110	117	975e	179	137	60	15	.23	0
27	0	0	0	921	113	885e	173	134	55	14	.21	0
28	0	0	0	883	110	828e	200	129	54	13	.27	0
29	0	0	0	737	------	748e	208	127	54	12	.25	0
30	0	0	0	627	------	672e	317	121	56	11	.21	0
31	0	------	0	539	------	611e	------	115	------	10	.22	------
TOTAL	0	0	0	26,466.05	6,046	39,421	9,221	5,800	2,614	831	94.83	0.92
MEAN	0	0	0	854	216	1,272	307	187	87.1	26.8	3.06	.031
MAX	0	0	0	6,350	465	7,960	600	300	119	52	10	.23
MIN	0	0	0	0	110	106	173	115	54	10	.21	0
AC-FT	0	0	0	52,500	11,990	78,190	18,290	11,500	5,180	1,650	188	1.8

CAL YEAR 1994	TOTAL	3,733.01	MEAN	10.2	MAX	511	MIN	0	AC-FT	7,400
WTR YEAR 1995	TOTAL	90,494.80	MEAN	248	MAX	7,960	MIN	0	AC-FT	179,500

APPENDIX E

FIGURE E-1

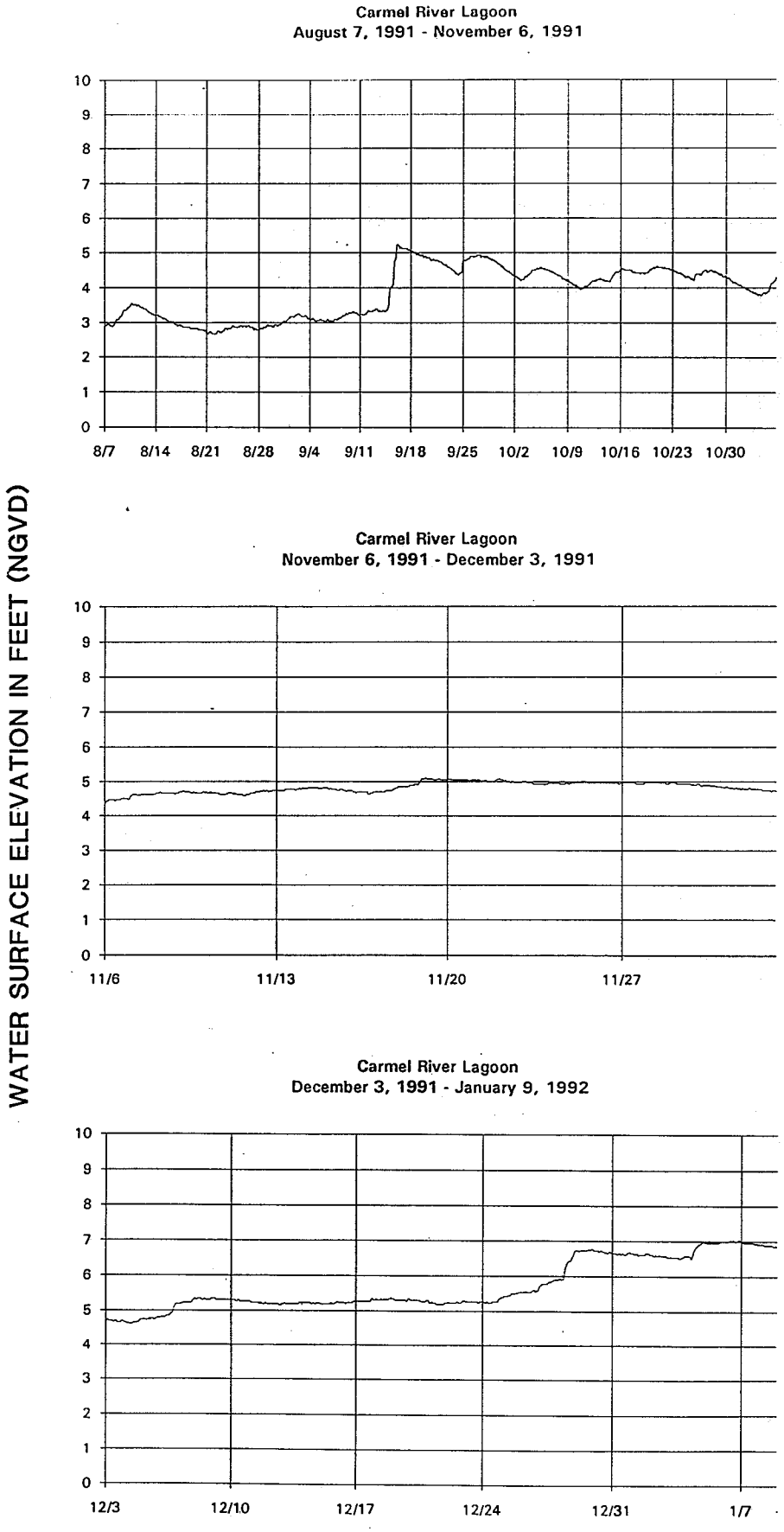
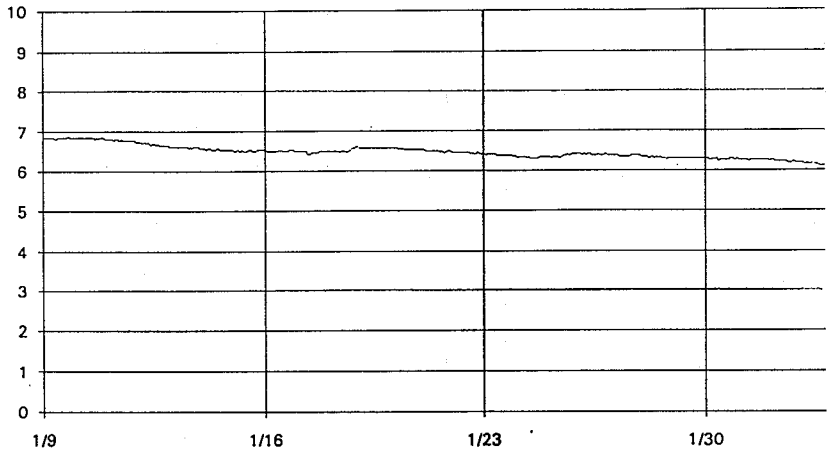
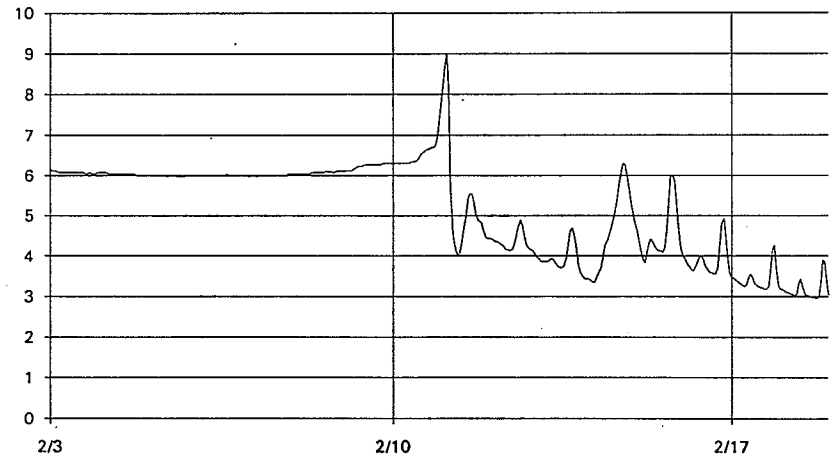

Carmel River Lagoon
August 7, 1991 - November 6, 1991
10
9
8
7
6
5
4
3
2
1
0
8/7
8/14
8/21
8/28
9/4
9/11
9/18
9/25
10/2
10/9
10/16
10/23
10/30
WATER SURFACE ELEVATION IN FEET (NGVD)
Carmel River Lagoon
November 6, 1991 - December 3, 1991
10
9
8
7
6
5
4
3
2
1
0
11/6
11/13
11/20
11/27
Carmel River Lagoon
December 3, 1991 - January 9, 1992
10
9
8
7
6
5
4
3
2
1
0
12/3
12/10
12/17
12/24
12/31
1/7

FIGURE E-2

Carmel River Lagoon
January 9, 1992 - February 3, 1992



Carmel River Lagoon
February 3, 1992 - February 19, 1992



WATER SURFACE ELEVATION IN FEET (NGVD)

Carmel River Lagoon
May 8, 1992 - May 27, 1992

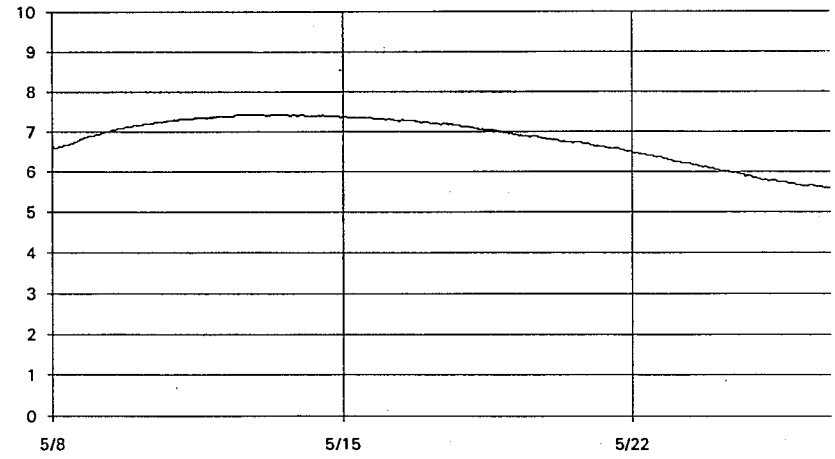


FIGURE E-3

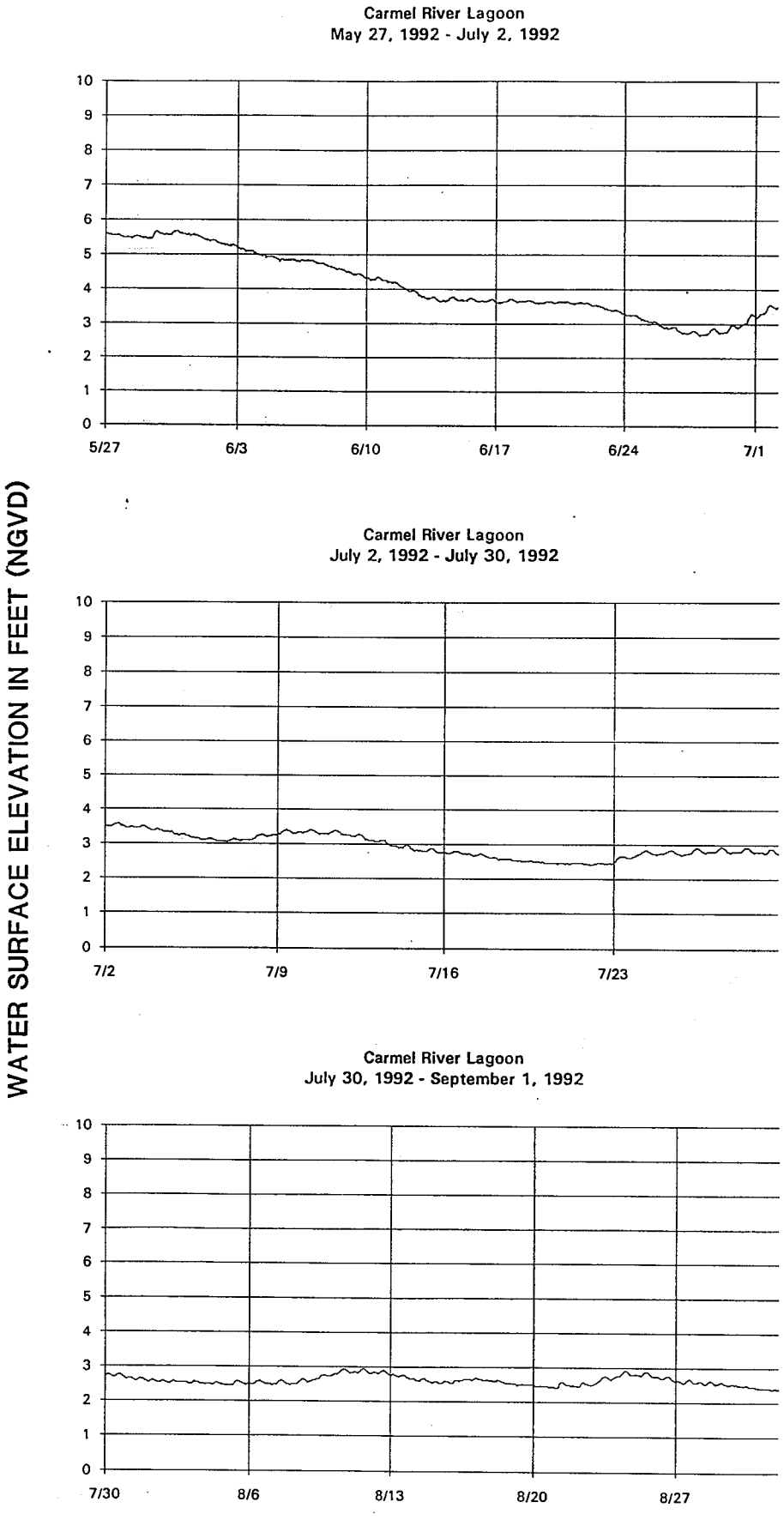

Carmel River Lagoon
May 27, 1992 - July 2, 1992
Carmel River Lagoon
July 2, 1992 - July 30, 1992
Carmel River Lagoon
July 30, 1992 - September 1, 1992
WATER SURFACE ELEVATION IN FEET (NGVD)
10
9
8
7
6
5
4
3
2
1
0
5/27
6/3
6/10
6/17
6/24
7/1
7/2
7/9
7/16
7/23
7/30
8/6
8/13
8/20
8/27

FIGURE E-4

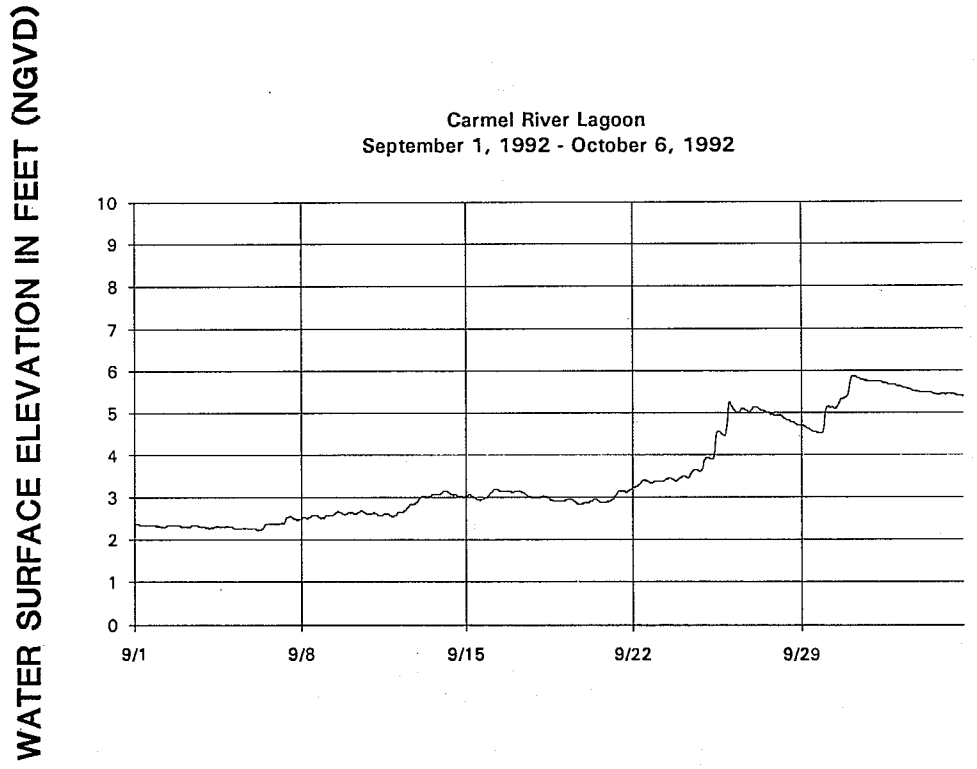
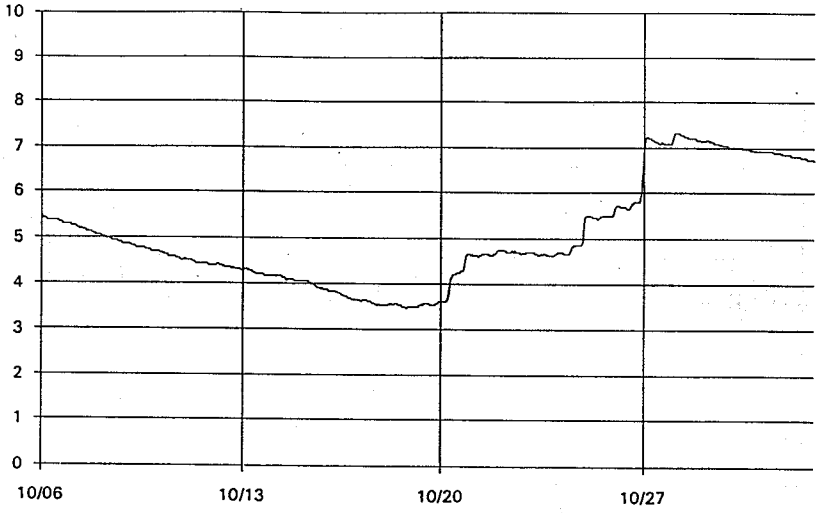
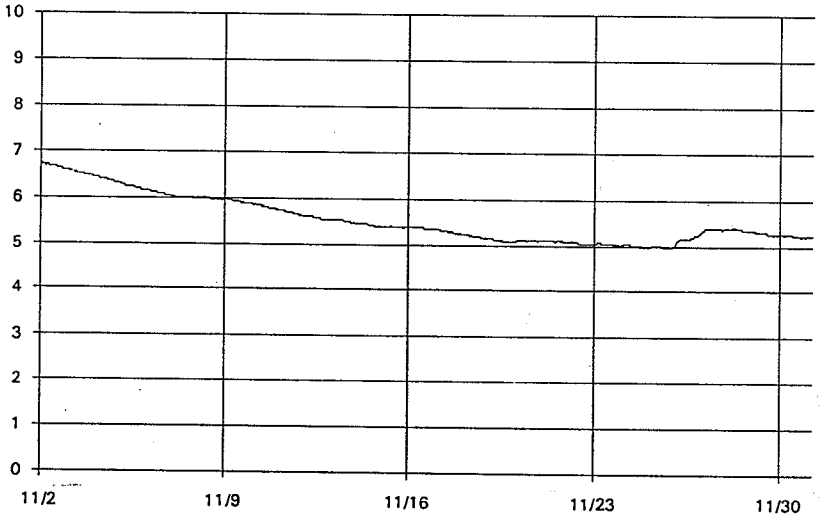

WATER SURFACE ELEVATION IN FEET (NGVD)
Carmel River Lagoon
September 1, 1992 - October 6, 1992
10
9
8
7
6
5
4
3
2
1
0
9/1
9/8
9/15
9/22
9/29

FIGURE E-5

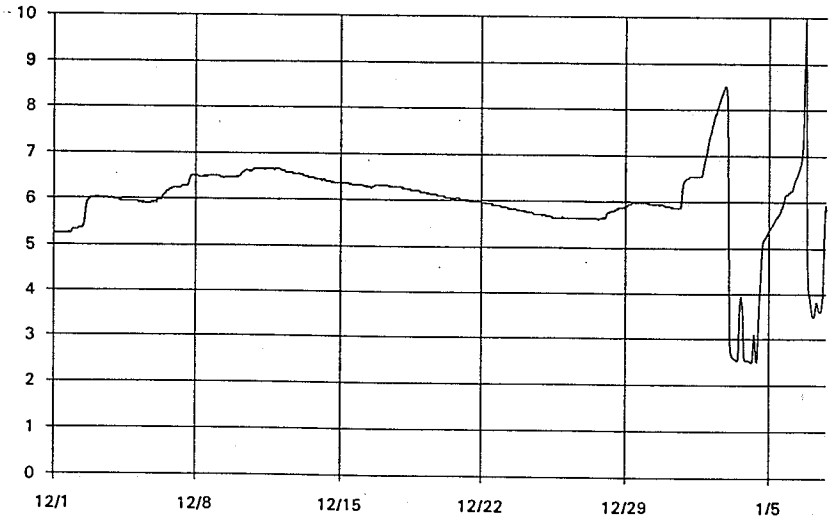
Carmel River Lagoon
October 6, 1992 - November 2, 1992



Carmel River Lagoon
November 2, 1992 - December 1, 1992



Carmel River Lagoon
December 1, 1992 - January 8, 1993

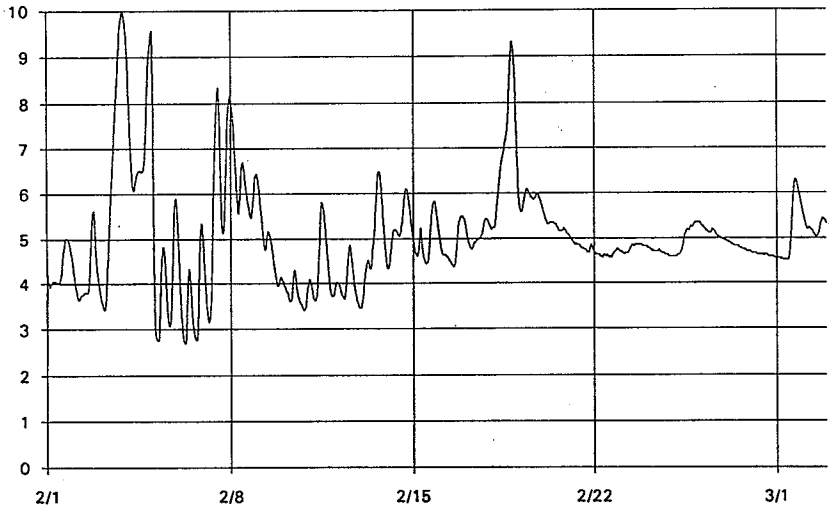


WATER SURFACE ELEVATION IN FEET (NGVD)

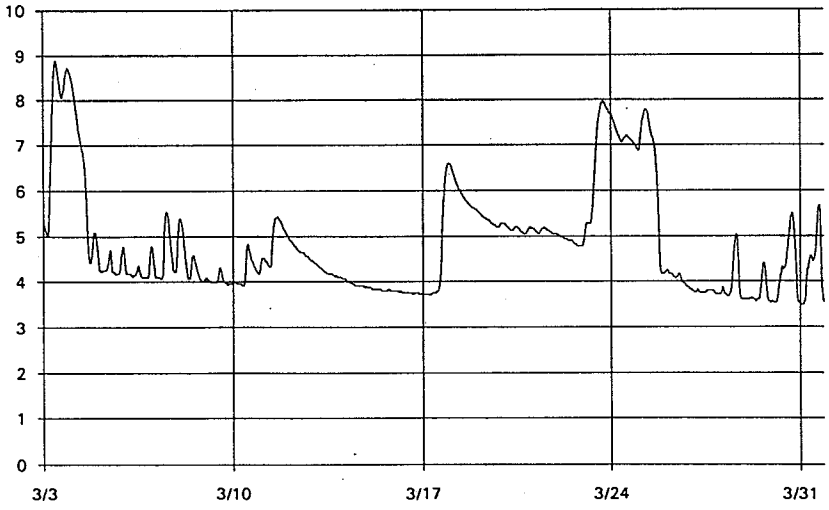
FIGURE E-6

Carmel River Lagoon
January 8, 1993 - February 1, 1993

Carmel River Lagoon
February 1, 1993 - March 3, 1993



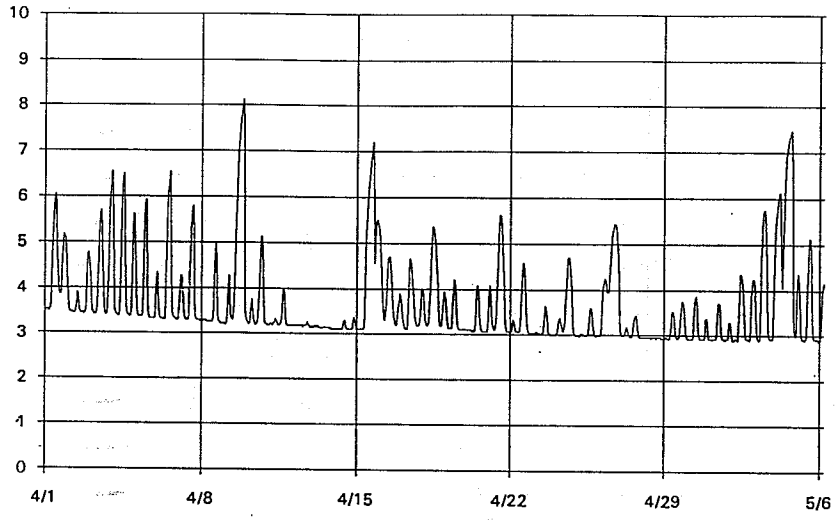
Carmel River Lagoon
March 3, 1993 - April 1, 1993



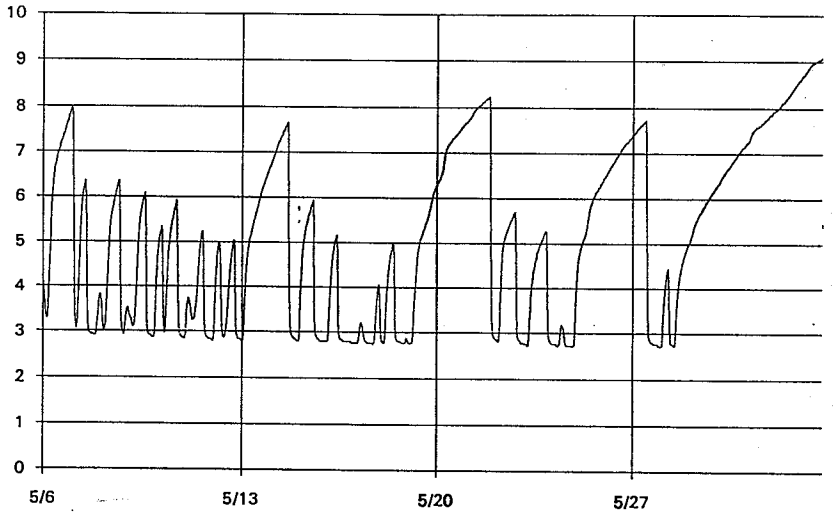
WATER SURFACE ELEVATION IN FEET (NGVD)

FIGURE E-7

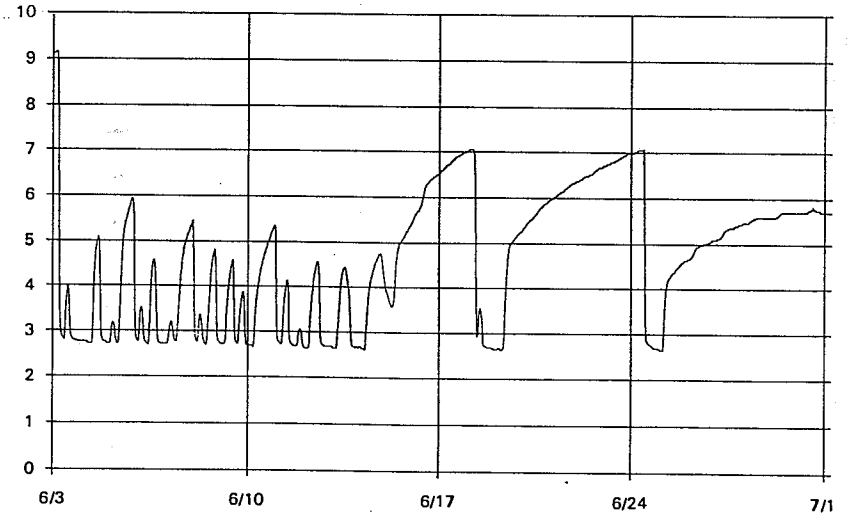
Carmel River Lagoon
April 1, 1993 - May 6, 1993



Carmel River Lagoon
May 6, 1993 - June 3, 1993



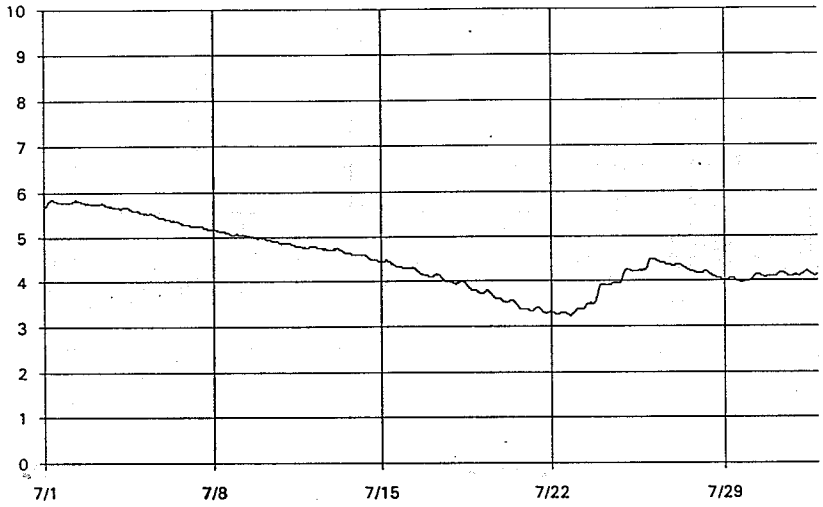
Carmel River Lagoon
June 3, 1993 - July 1, 1993



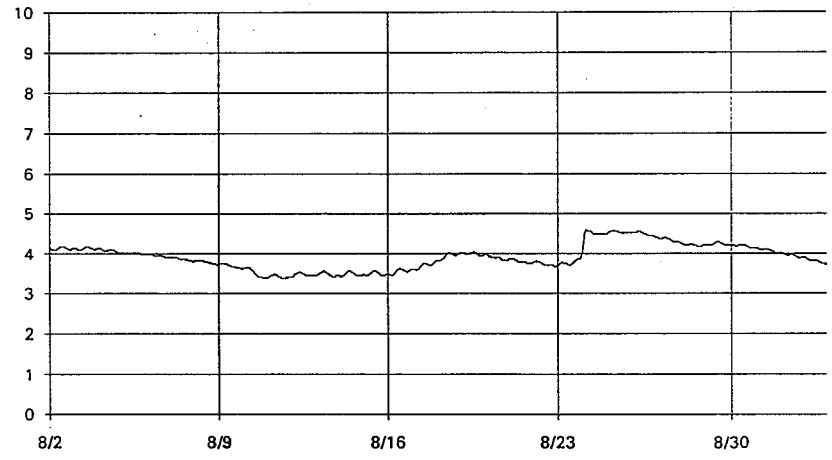
WATER SURFACE ELEVATION IN FEET (NGVD)

FIGURE E-8

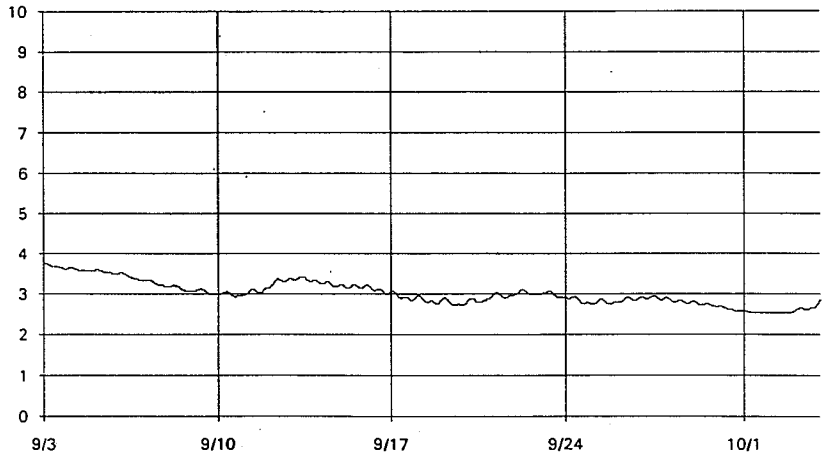
Carmel River Lagoon
July 1, 1993 - August 2, 1993



Carmel River Lagoon
August 2, 1993 - September 3, 1993



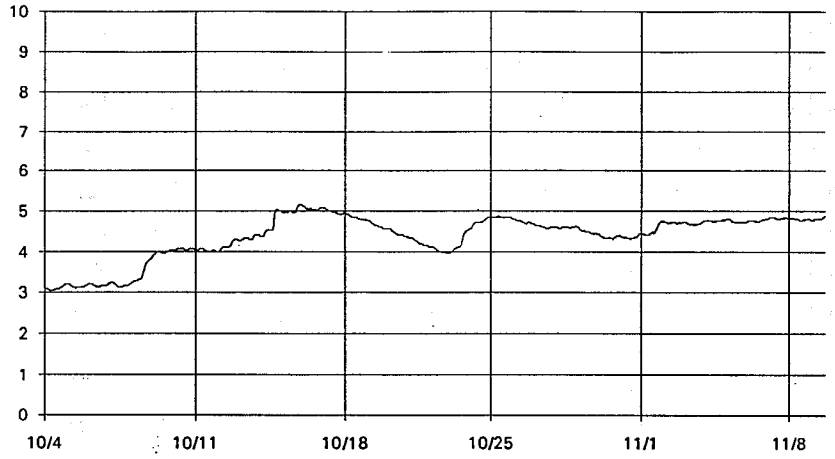
Carmel River Lagoon
September 3, 1993 - October 4, 1993



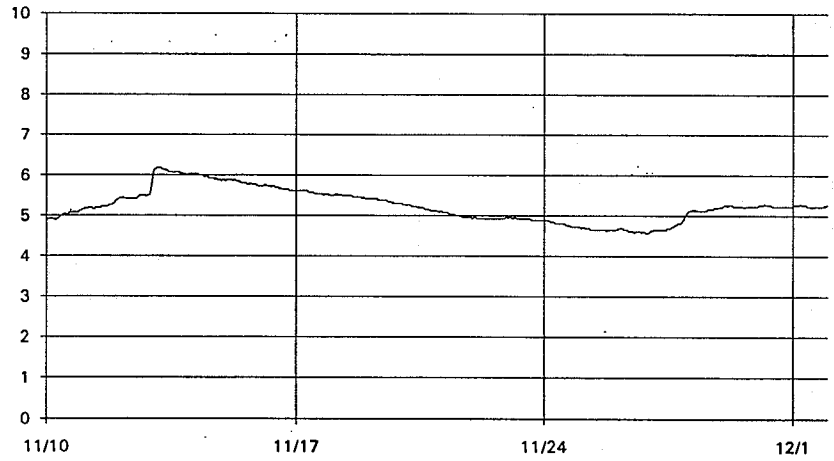
WATER SURFACE ELEVATION IN FEET (NGVD)

FIGURE E-9

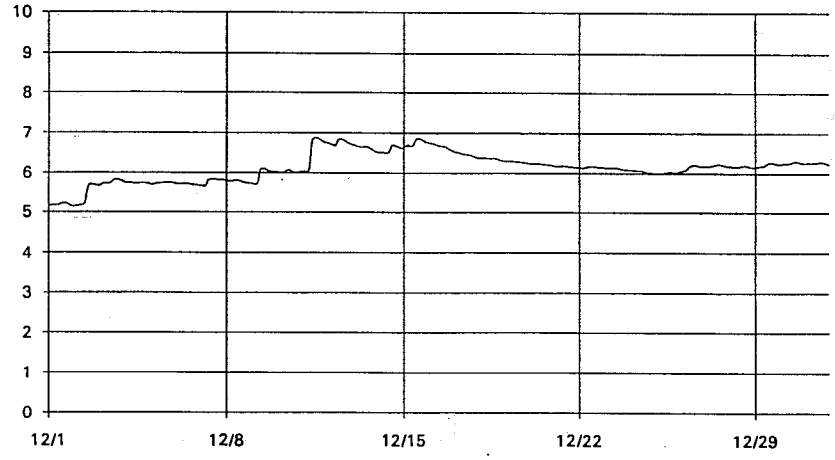
Carmel River Lagoon
October 4, 1993 - November 10, 1993



Carmel River Lagoon
November 10, 1993 - December 2, 1993



Carmel River Lagoon
December 1993



WATER SURFACE ELEVATION IN FEET (NGVD)

FIGURE E-10

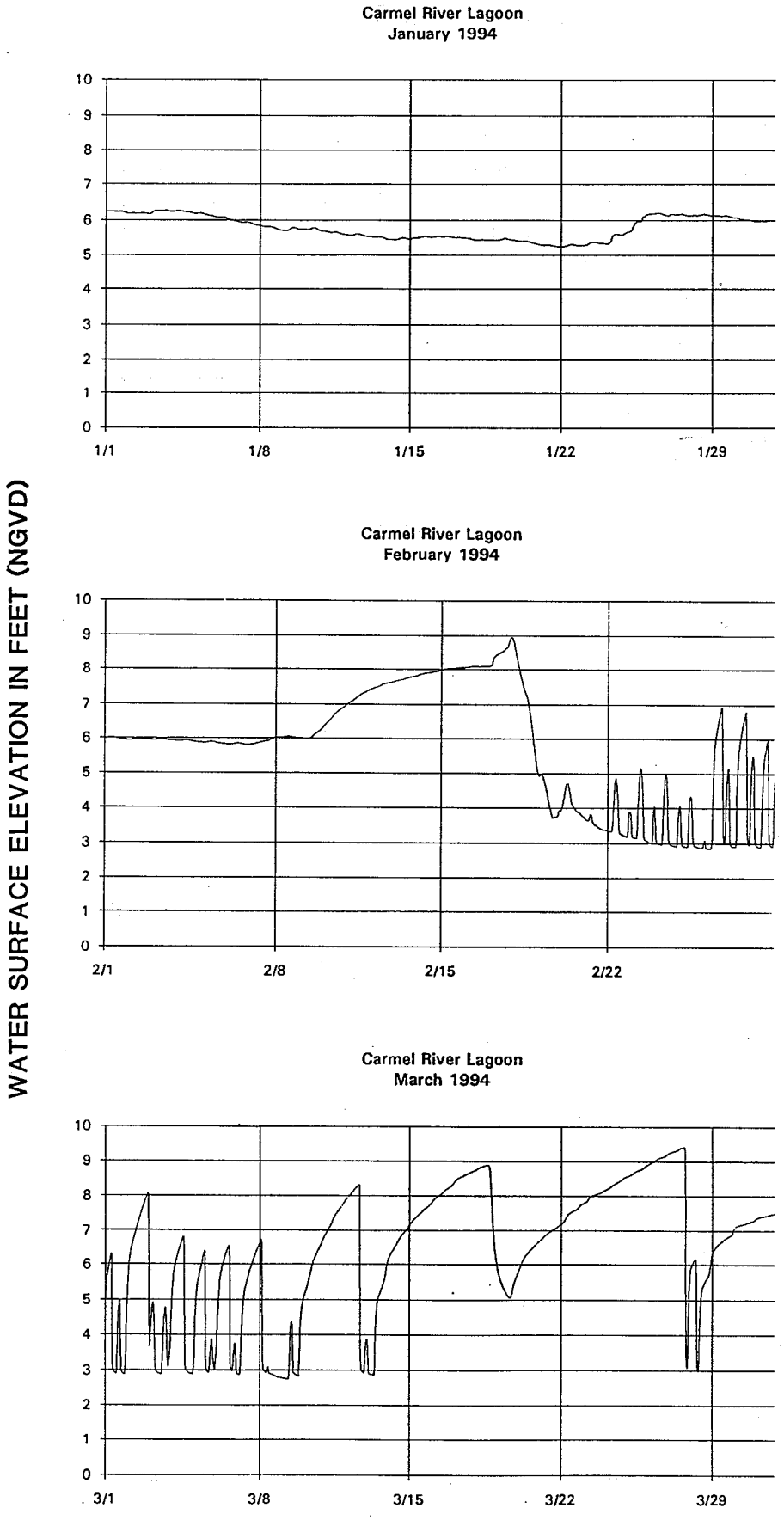

Carmel River Lagoon
January 1994
Carmel River Lagoon
February 1994
Carmel River Lagoon
March 1994
WATER SURFACE ELEVATION IN FEET (NGVD)
10
9
8
7
6
5
4
3
2
1
0
1/1
1/8
1/15
1/22
1/29
2/1
2/8
2/15
2/22
3/1
3/8
3/15
3/22
3/29

FIGURE E-11

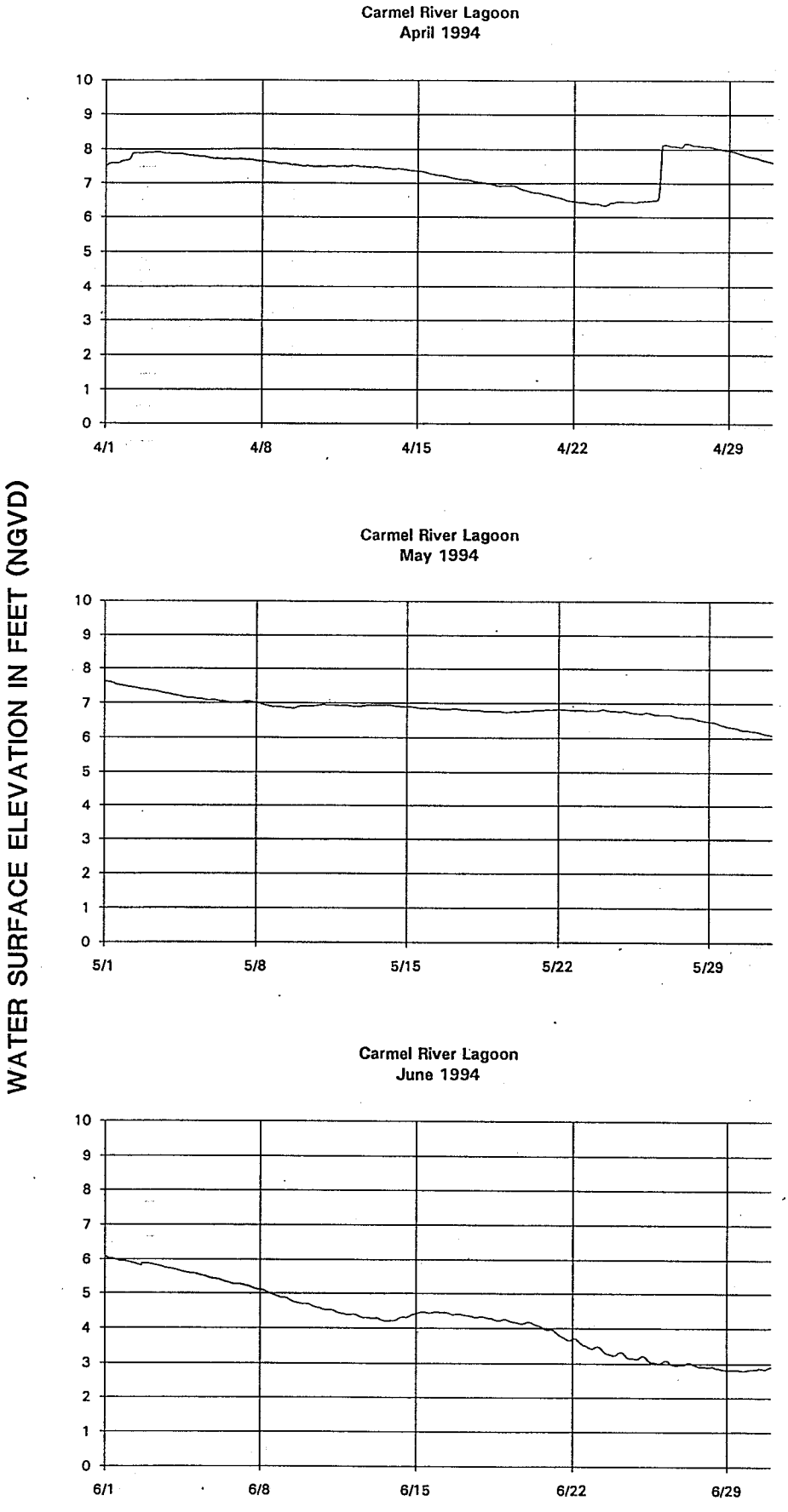

Carmel River Lagoon
April 1994
Carmel River Lagoon
May 1994
Carmel River Lagoon
June 1994
WATER SURFACE ELEVATION IN FEET (NGVD)
10
9
8
7
6
5
4
3
2
1
0
4/1
4/8
4/15
4/22
4/29
5/1
5/8
5/15
5/22
5/29
6/1
6/8
6/15
6/22
6/29

FIGURE E-12

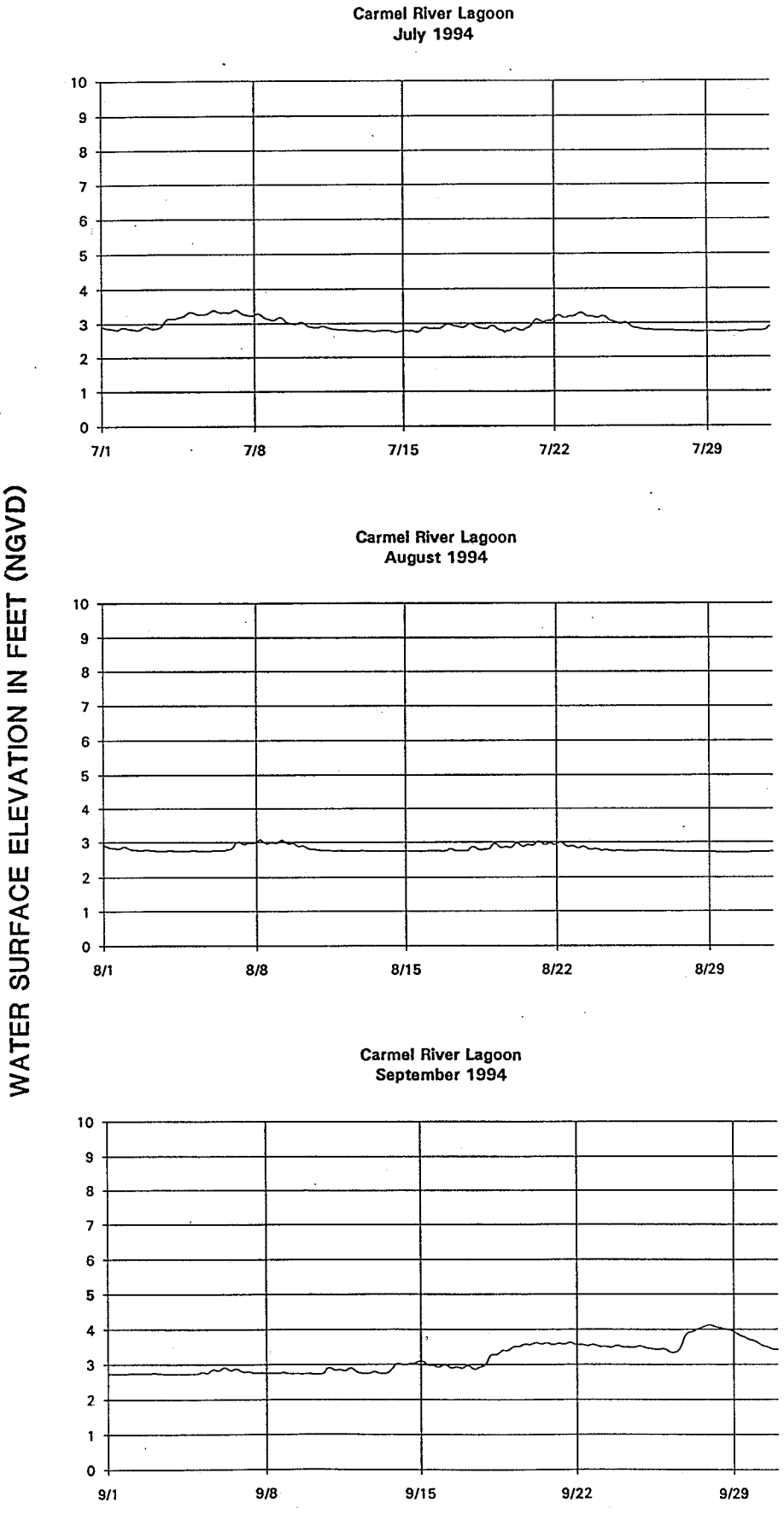

Carmel River Lagoon
July 1994
Carmel River Lagoon
August 1994
Carmel River Lagoon
September 1994
WATER SURFACE ELEVATION IN FEET (NGVD)
10
9
8
7
6
5
4
3
2
1
0
7/1
7/8
7/15
7/22
7/29
8/1
8/8
8/15
8/22
8/29
9/1
9/8
9/15
9/22
9/29

FIGURE E-13

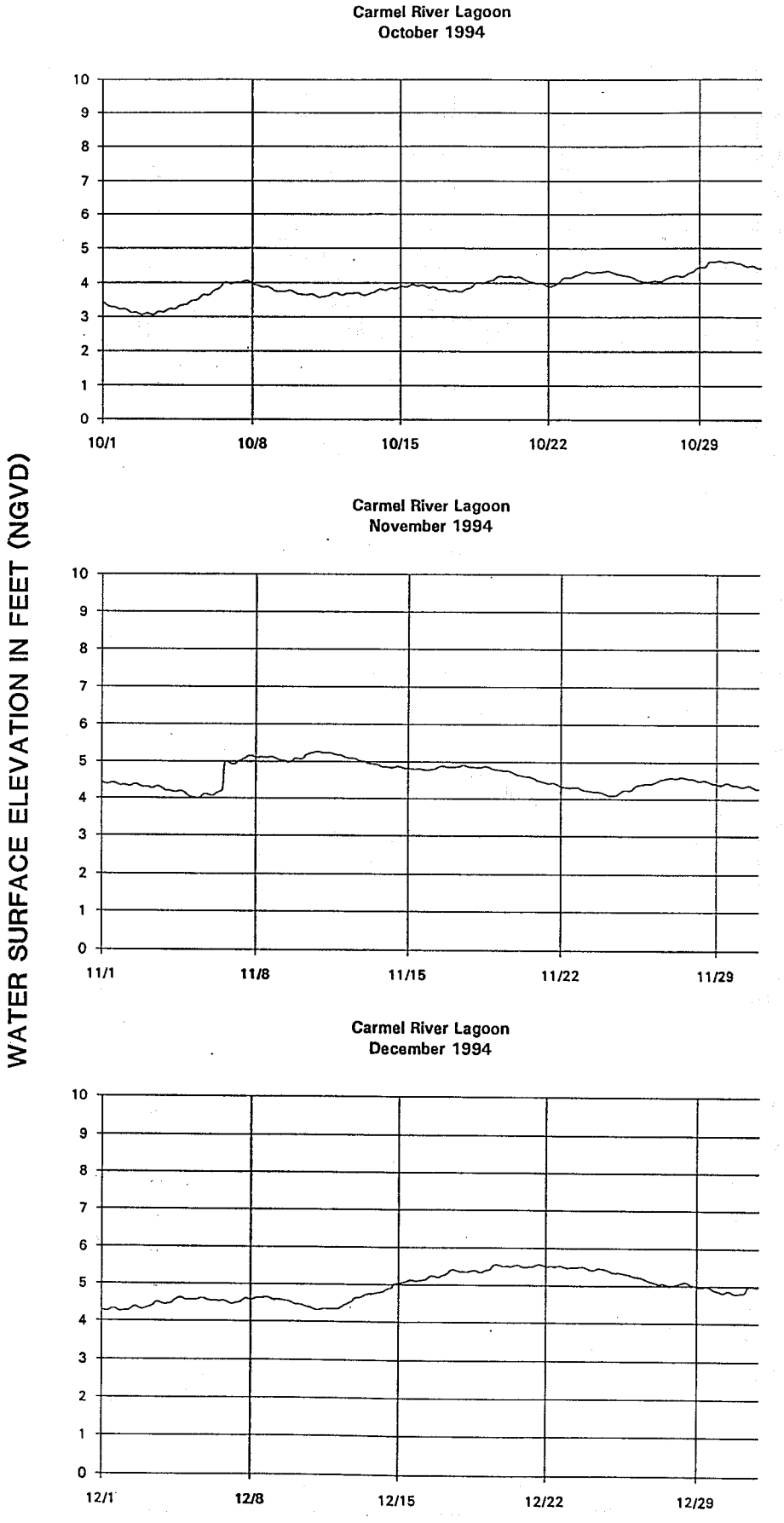

Carmel River Lagoon
October 1994
Carmel River Lagoon
November 1994
Carmel River Lagoon
December 1994
WATER SURFACE ELEVATION IN FEET (NGVD)
10
9
8
7
6
5
4
3
2
1
0
10/1
10/8
10/15
10/22
10/29
11/1
11/8
11/15
11/22
11/29
12/1
12/8
12/15
12/22
12/29

FIGURE E-14

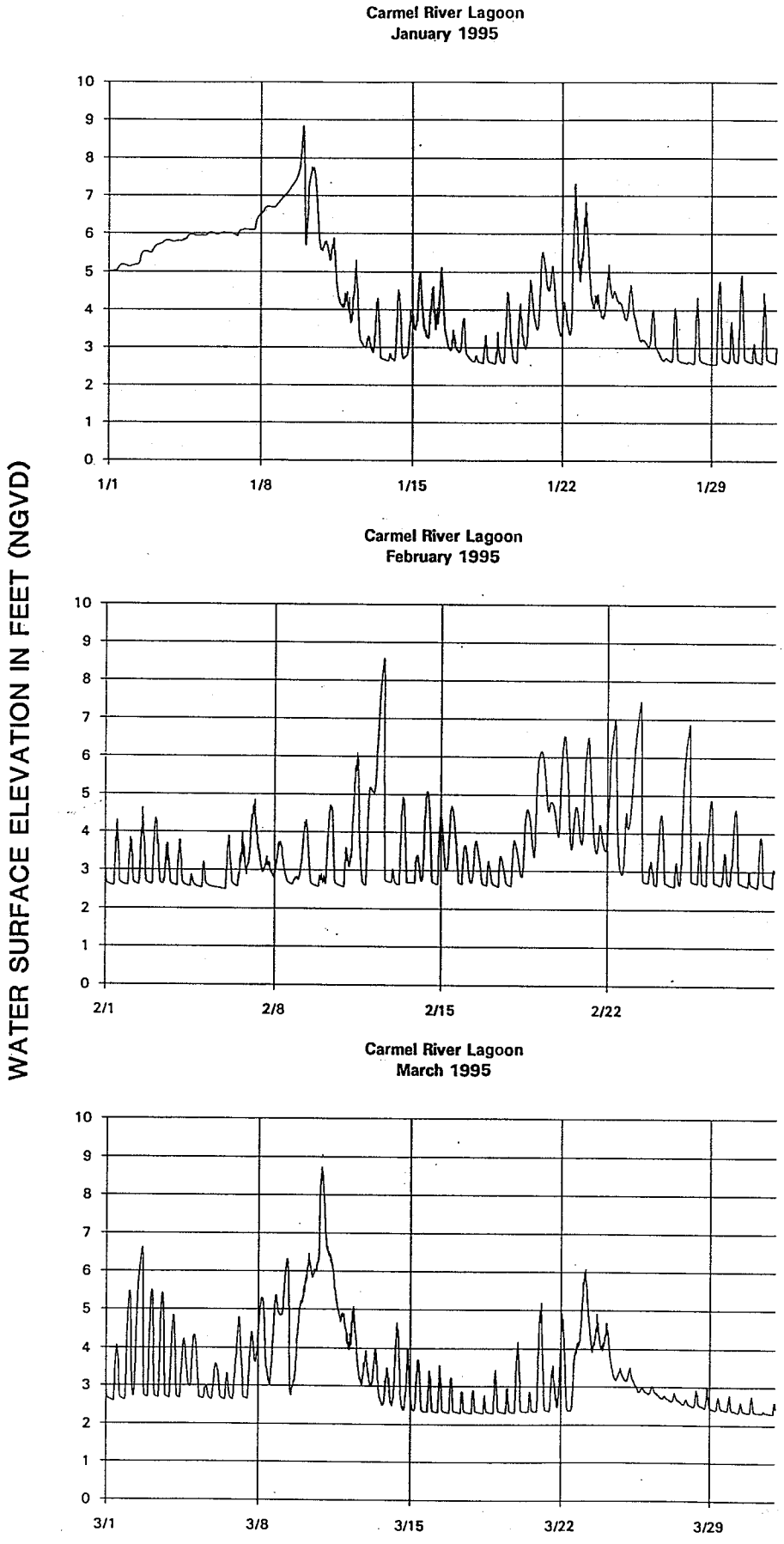

Carmel River Lagoon
January 1995
10
9
8
7
6
5
4
3
2
1
0
1/1
1/8
1/15
1/22
1/29
Carmel River Lagoon
February 1995
2/1
2/8
2/15
2/22
Carmel River Lagoon
March 1995
3/1
3/8
3/15
3/22
3/29
WATER SURFACE ELEVATION IN FEET (NGVD)

FIGURE E-15

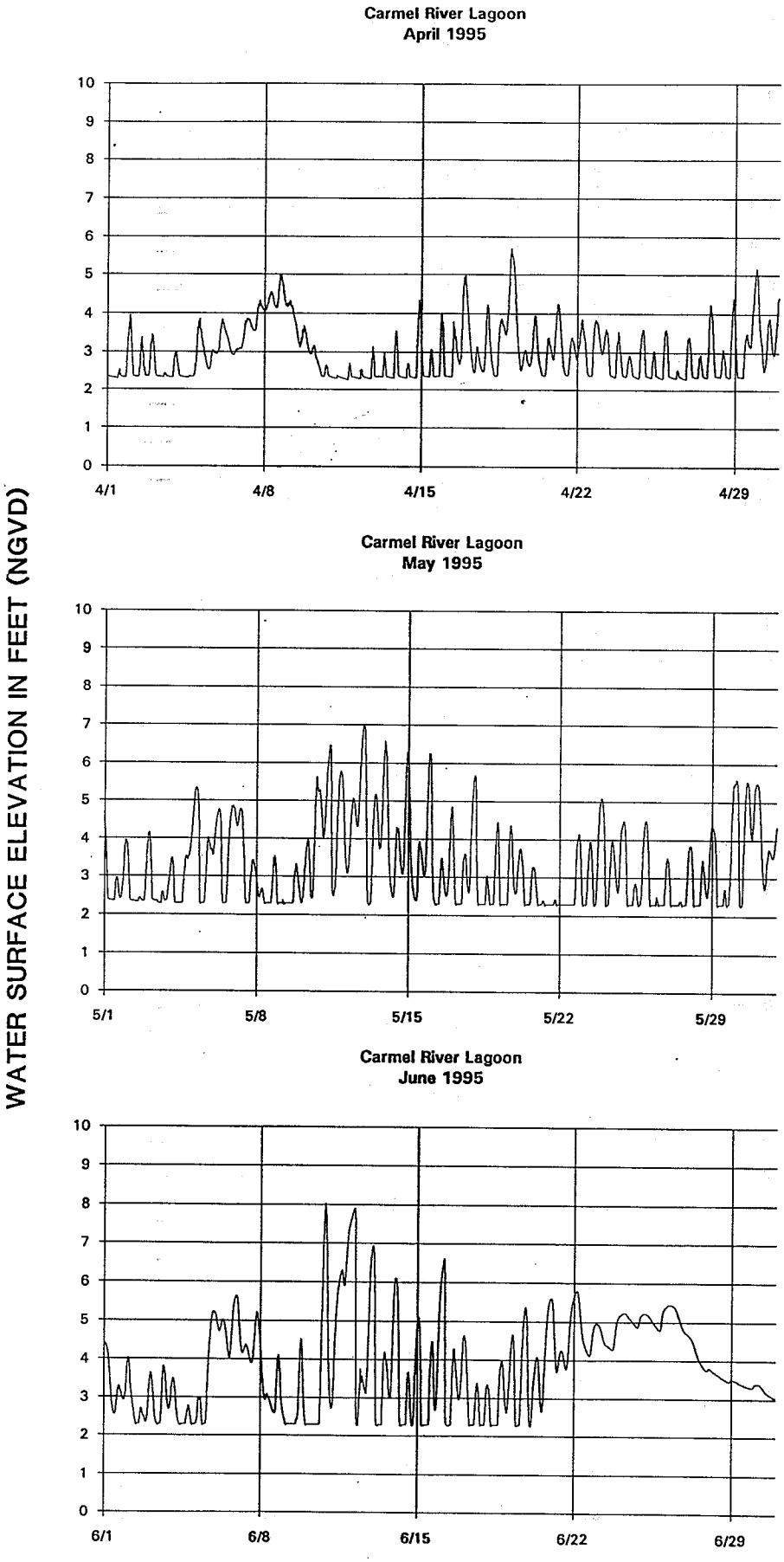

Carmel River Lagoon
April 1995
10
9
8
7
6
5
4
3
2
1
0
4/1
4/8
4/15
4/22
4/29
Carmel River Lagoon
May 1995
5/1
5/8
5/15
5/22
5/29
Carmel River Lagoon
June 1995
6/1
6/8
6/15
6/22
6/29
WATER SURFACE ELEVATION IN FEET (NGVD)

FIGURE E-16

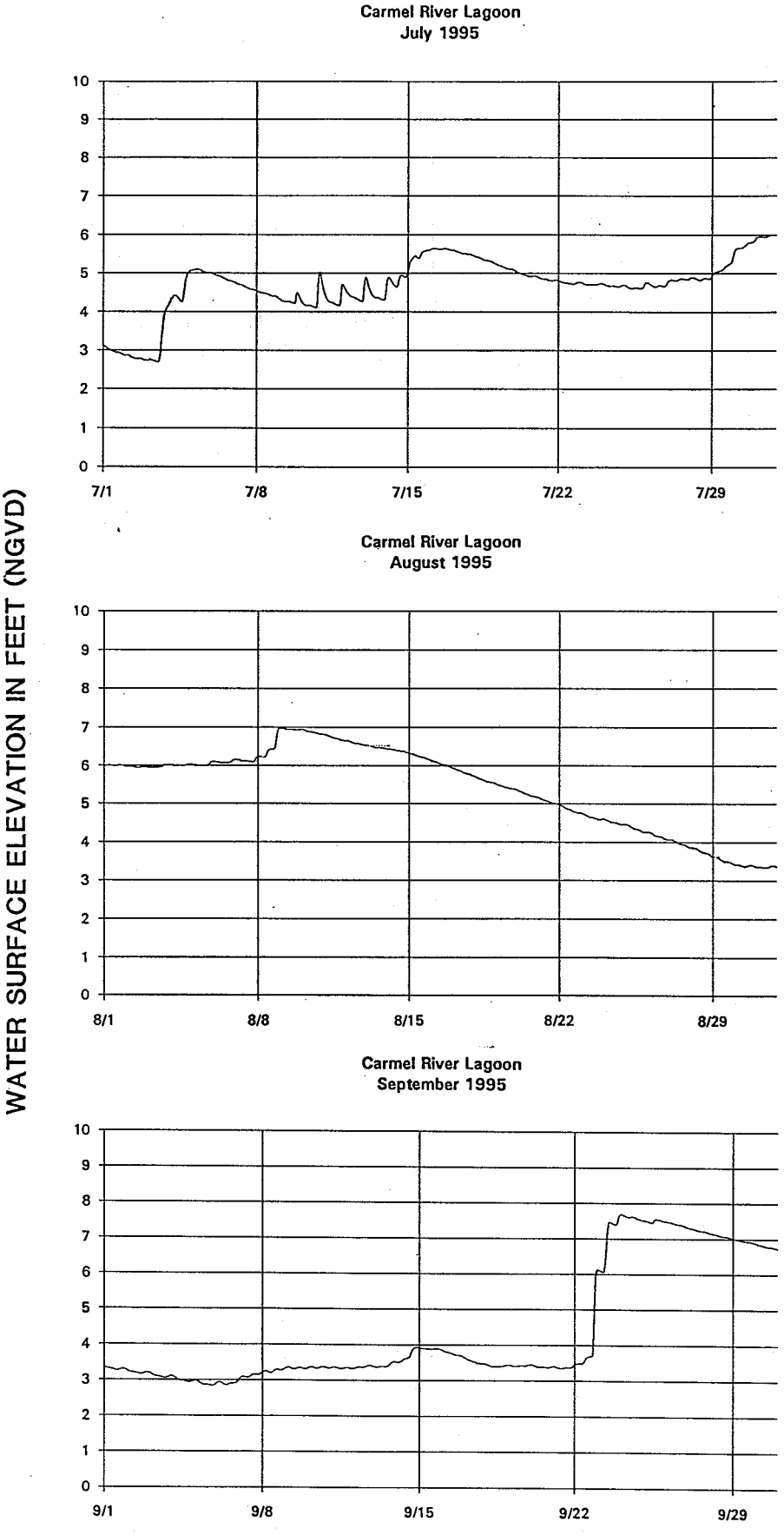

Carmel River Lagoon
July 1995
Carmel River Lagoon
August 1995
Carmel River Lagoon
September 1995
WATER SURFACE ELEVATION IN FEET (NGVD)
10
9
8
7
6
5
4
3
2
1
0
7/1
7/8
7/15
7/22
7/29
8/1
8/8
8/15
8/22
8/29
9/1
9/8
9/15
9/22
9/29

FIGURE E-17

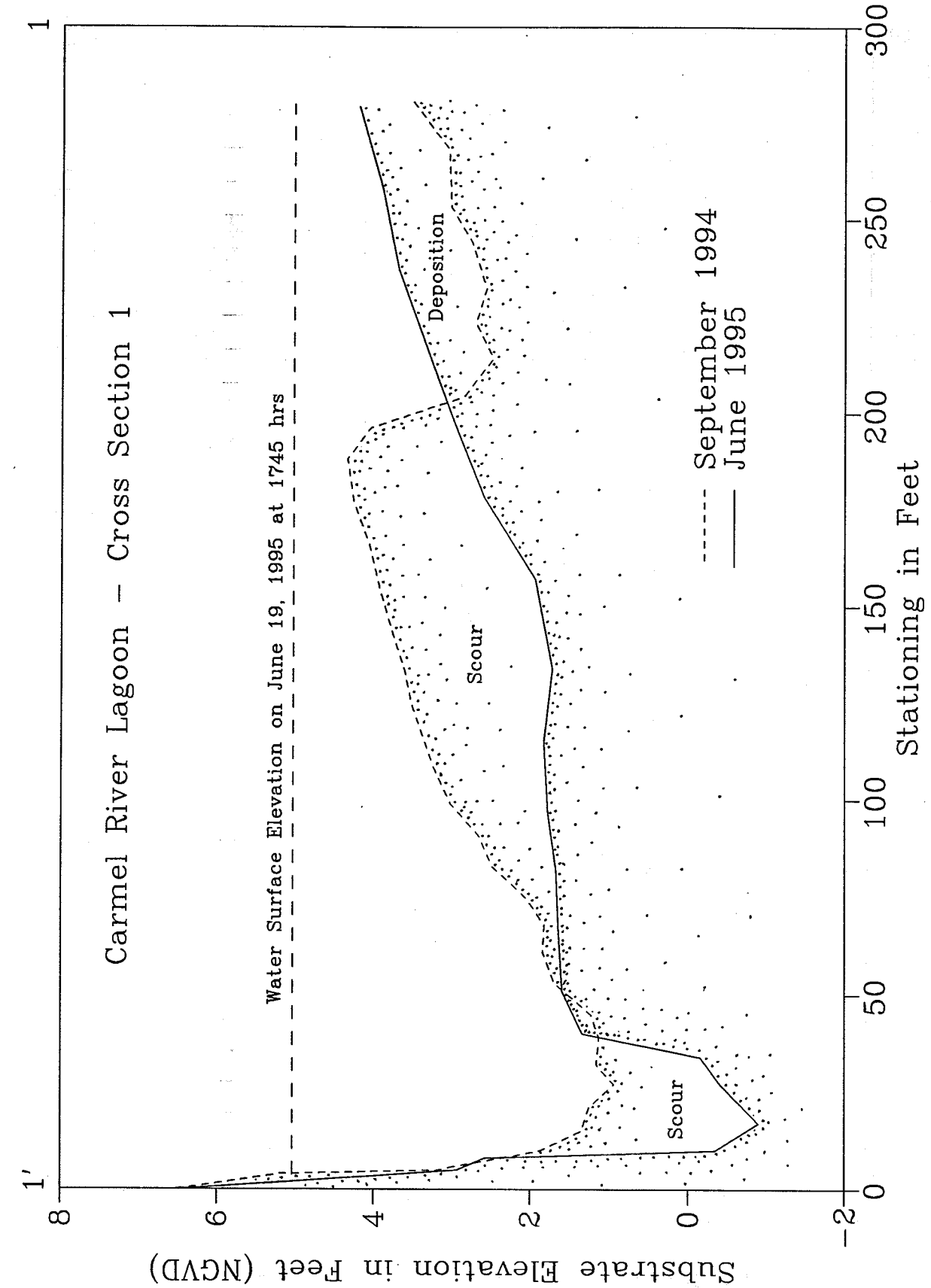

Carmel River Lagoon - Cross Section 1
Water Surface Elevation on June 19, 1995 at 1745 hrs
Deposition
Scour
Scour
September 1994
June 1995
Substrate Elevation in Feet (NGVD)
Stationing in Feet
1'
1
8
6
4
2
0
-2
0
50
100
150
200
250
300

FIGURE E-18

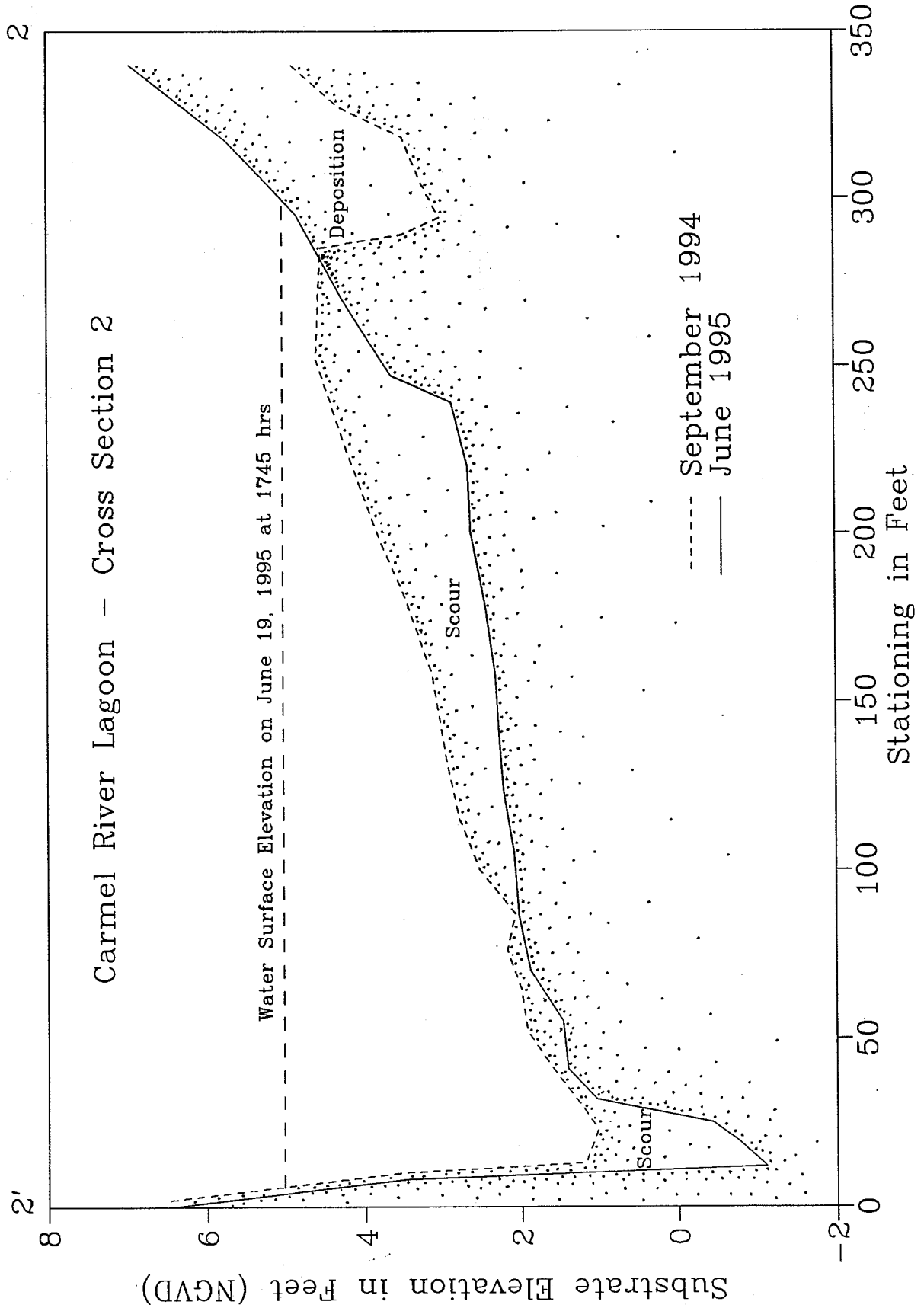

Carmel River Lagoon - Cross Section 2
Water Surface Elevation on June 19, 1995 at 1745 hrs
Deposition
Scour
Scour
September 1994
June 1995
Substrate Elevation in Feet (NGVD)
Stationing in Feet
2'
2
8
6
4
2
0
-2
0
50
100
150
200
250
300
350

FIGURE E-19

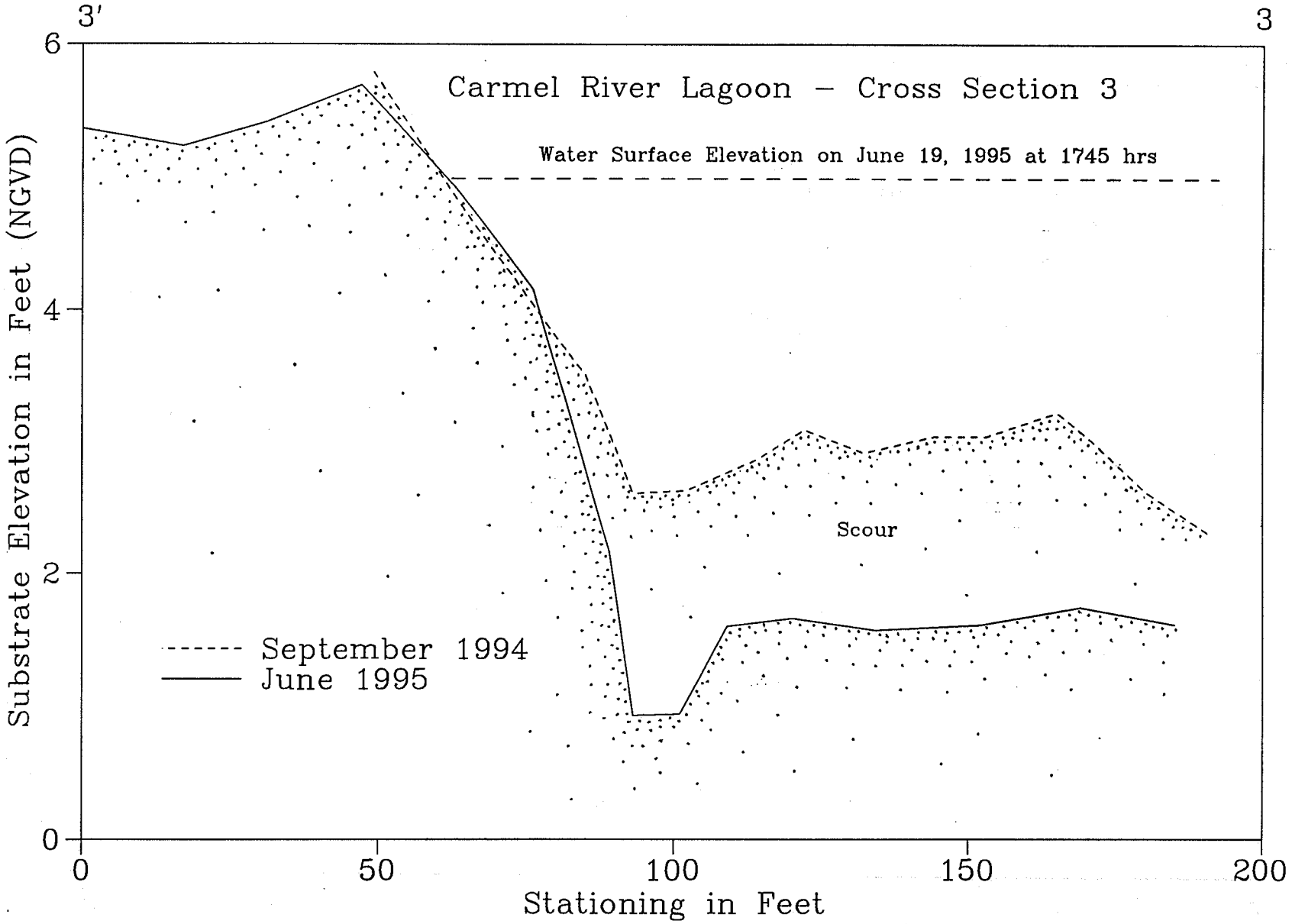
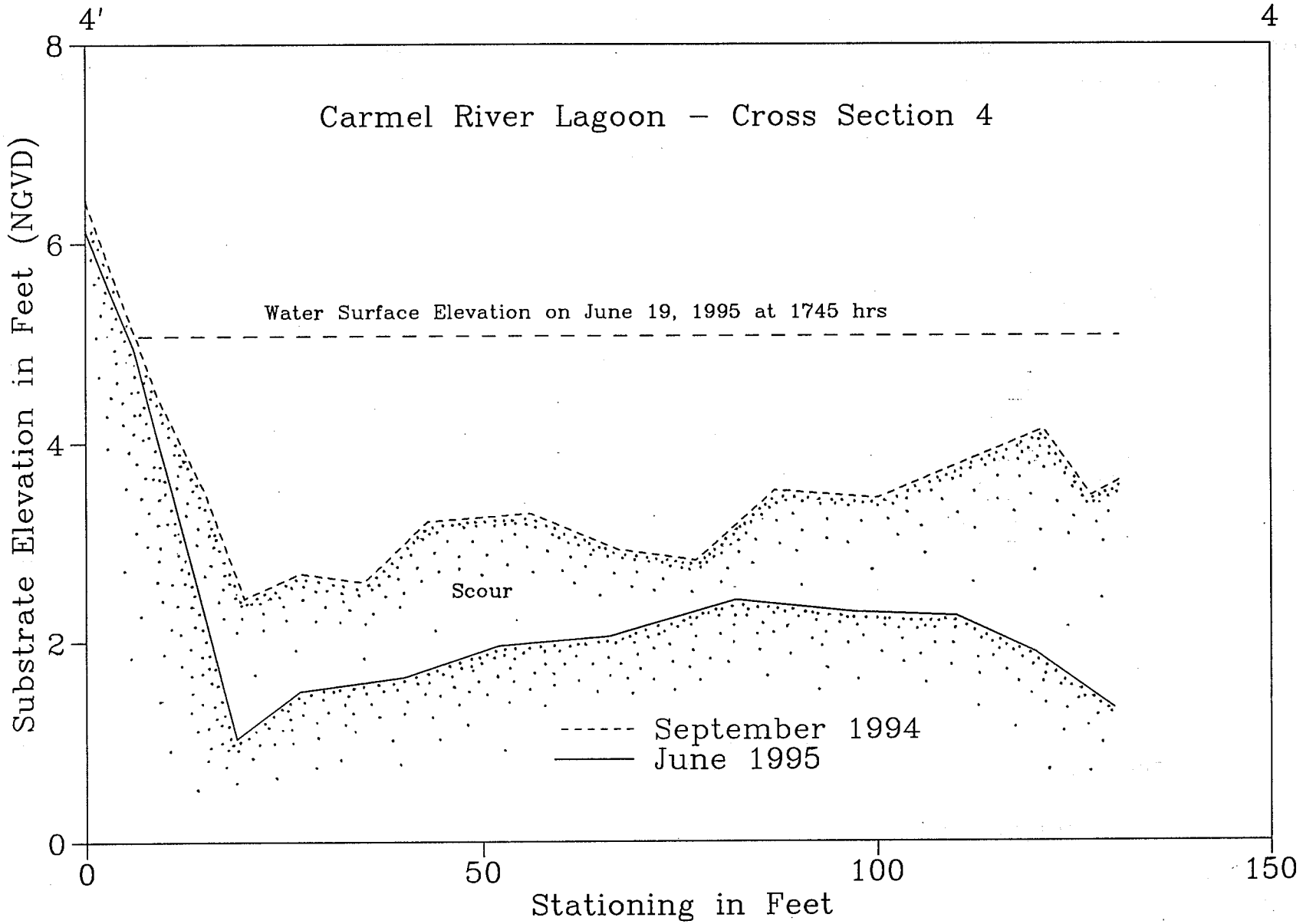

3'
3
Carmel River Lagoon – Cross Section 3
Water Surface Elevation on June 19, 1995 at 1745 hrs
Scour
September 1994
June 1995
Substrate Elevation in Feet (NGVD)
Stationing in Feet
0
2
4
6
0
50
100
150
200

FIGURE E-20


4'
4
Carmel River Lagoon – Cross Section 4
Water Surface Elevation on June 19, 1995 at 1745 hrs
Scour
September 1994
June 1995
Substrate Elevation in Feet (NGVD)
Stationing in Feet
0
2
4
6
8
0
50
100
150