State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

01 MAY 24 P3:09

PETITION TO AMEND INTERIM INSTREAM FLOW STANDARDS

HANAWĪ STREAM, EAST MAUI

Instructions: Please print in ink or type and send completed petition with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Petition must be accompanied by a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 587-0225.

1. PETITIONER

Firm/Name: Na Moku 'Aupuni o Ko'olau Hui c/o Native Hawaiian Legal Corporation
Contact Person: Alan Murakami, Attorney Ph: 521-2302
Address: 1164 Bishop Street, Honolulu, Hawai'i 96813

2. STREAMFLOW DATA

USGS stream gaging station: 16508000, 16509000 Period of Record: SEE ATTACHED.
Location/Reach: SEE ATTACHED
(Attach a USGS map, scale 1"=2000', and a property tax map showing diversion location referenced to established property boundaries.)

TABLE 1. PERIOD OF RECORD AVERAGE MONTHLY STREAMFLOW WITHIN THE AFFECTED STREAM REACH, IN CFS

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
STREAMFLOW DATA TABLES TO FOLLOW.												

Annual Median flow in cfs =

TABLE 2. PROPOSED AVERAGE MONTHLY STREAMFLOW DIVERSION FROM AFFECTED STREAM REACH, IN CFS

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
UNDETERMINED; SUFFICIENT FOR TARO FARMING AND/OR GATHERING.												

Annual Median flow in cfs =

TABLE 3. AVERAGE MONTHLY STREAMFLOW IN AFFECTED STREAM REACH AFTER RESTORATION (min release flow), IN CFS

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
NATURAL STREAMFLOW EXCEPT FOR EXERCISE OF APPURTENANT WATER RIGHTS.												

Annual Median flow in cfs =

3. EXISTING INSTREAM AND OFFSTREAM WATER USES FOR ENTIRE STREAM REACH

TMK	OWNER	USE
RESEARCH IN PROGRESS.		

(If more space is necessary, attach an extended list following above format)

4. ANTICIPATED IMPACTS ON STREAM AND BASIS FOR SUCH IMPACTS:

RESTORATION OF INSTREAM NATURAL HABITAT AND BIOTA, AND BENEFICIAL APPURTENANT AND GATHERING USES.

(Attach supporting documentation, plans, letters, etc.)

May 24, 2001
Date

NATIVE HAWAIIAN LEGAL CORPORATION
Signature
Alan Murakami Petitioner
Attorney for Na Moku 'Aupuni o Ko'olau Hui

For Official Use
Date Received
Date Accepted

Hanawi Stream

The Hanawi Stream basin has been evaluated more thoroughly than any of the other subbasins in the study area (Meyer, in press). The stream is headed at 7,400 ft altitude 6.8 mi inland (plate 1). The stream rises steeply from sea level to 600 ft altitude 0.8 mi from the coast (a gradient of 770 ft/mi) and at this altitude the stream valley is incised 240 ft below the upland surface. The stream has eroded into the Honomanu Basalt for 2,000 ft from the coast and in Kula Volcanics to 5,000 ft from the coast (Stearns and Macdonald, 1942) The contact between the two geologic units has been arbitrarily located because in the Nahiku area, the exposed rocks of the Honomanu Basalt are petrographically transitional to the overlying Kula Volcanics and are more like the Kula Volcanics than the typical rocks of the Honomanu Basalt (Stearns and Macdonald, 1942). Hana Volcanics are found further upstream. Base flow is diverted by the Koolau Ditch at about 1,300 ft altitude (table 4).

Two surface-water gaging stations have been operated on Hanawi Stream by the USGS (table 2, plate 1). The upstream gaging station (5080), that records flow upstream of the Koolau Ditch, had a minimum flow of 0.58 Mgal/d and an average annual base flow of 3.66 Mgal/d (table 2, fig. 15R). The downstream gaging station (5090) records streamflow at 500 ft altitude. Streamflow at this altitude includes water discharging at Big Springs, and Hanawi Springs 1 and 2 (plate 1). The lowest recorded streamflow during the 17 years that the gaging station was operated was 8.21 Mgal/d (table 2). The estimate of average annual base flow is by far the largest in the study area, about 12.99 Mgal/d. All of this base flow is gained between the Koolau Ditch at 1,300 ft altitude and the gaging station at 500 ft altitude.

Independent sets of streamflow measurements were made five times, twice as part of this study (table 19). The measurements show flow during extended dry periods as high as 2,120 ft altitude in the stream channel. On the days of measurement, flow at the upstream gaging station ranged from about 1 to 6 Mgal/d. Between 1,300 ft and 1,000 ft altitude, the stream had small gains (1 Mgal/d) and then gained substantially (6 to 7 Mgal/d) downstream to 620 ft altitude. Between 620 ft and 550 ft altitude, additional gains of 4 to 8 Mgal/d were measured. Downstream to about 50 ft altitude, an additional 1 to 2 Mgal/d of flow was gained, but two sections that lost flow were measured in this reach. Between 420 ft and 190 ft altitude, the streamflow decreased by about 6 percent and between 120 ft and 50 ft altitude streamflow decreased by about 2 percent. The downstream measurement site for each respective stream section was considered only fair by the USGS personnel making the measurements because the streambed consisted of cobbly alluvium that probably allowed a part of the streamflow to bypass the measurement site (R.A. Fontaine, USGS, oral commun., 1998). Therefore, the apparent loss of streamflow in these sections is probably not related to actual ground-water/surface-water interaction but may instead be attributed to the difficulty in measuring all of the water flowing in the stream channel.The total flow in Hanawi Stream on July 26, 1994 was estimated to be 19.6 Mgal/d, all of which is assumed to be base flow (table 19).

A water budget for the entire Hanawi Stream drainage basin to the coast has been estimated (Shade, 1999). Water-budget estimates for the other stream subbasins in the study area included only the area upstream of the upstream gaging station on each respective stream. Total recharge to the basin was estimated to be 38.1 Mgal/d, 61 percent of which discharges into the stream or the Koolau Ditch crossing the basin (fig. 20); the remaining 39 percent discharges to the ocean. Sixty-two percent of the ground-water discharge to the stream is estimated to be between the altitudes of 1,300 ft and 550 ft where the stream channel is the most deeply incised.

HAWAII, ISLAND OF MAUI

16508000 HANAWI STREAM NEAR NAHIKU

LOCATION.--Lat 20°48'37", long 156°07'00", Hydrologic Unit 20020000, on left bank 200 ft upstream from Koolau ditch intake and trail, 1.9 mi southwest of Nahiku, and 4.5 mi southeast of Keanae.

DRAINAGE AREA.--3.49 mi^2.

PERIOD OF RECORD.--January 1914 to January 1916, November 1921 to current year. Monthly discharge only April to June 1915, published in WSP 1319.

REVISED RECORDS.--WSP 1045: 1922-43(M). WSP 1569: Drainage area. WSP 1719: 1915(M), 1922, 1924-25, 1927, 1930-35, 1937, 1939-40, 1942-43.

GAGE.--Water-stage recorder. Datum of gage is 1,318 ft above mean sea level (by vertical angles). Prior to November 1, 1921, at site 50 ft downstream of gage at datum 0.12 ft lower.

REMARKS.--Records computed by Matt Wong. Records good. No diversion upstream of station.

AVERAGE DISCHARGE.--77 years (water years 1923-99), 24.0 ft^3/s (17,400 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 5,570 ft^3/s, January 18, 1916, gage height, 11.6 ft, present site and datum, from rating curve extended above 814 ft^3/s by physical model of station site; minimum, 0.90 ft^3/s, October 28 to November 1, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 31	0445	*2,030	*7.08	No other peak greater than base discharge.			

Minimum discharge, 2.0 ft^3/s, July 4, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	7.6	66	6.3	128	6.8	27	6.6	2.7	2.7	3.1	12
2	18	7.5	16	5.9	137	6.5	23	6.2	2.7	2.4	2.9	4.9
3	33	7.6	97	5.5	85	6.3	15	5.9	2.7	2.3	2.8	6.6
4	10	10	184	5.2	131	6.1	13	5.7	2.7	2.2	2.7	6.1
5	13	7.2	283	4.9	50	5.9	13	5.4	2.6	2.2	2.8	4.1
6	11	6.5	65	4.7	46	5.9	33	5.2	2.7	2.4	2.5	3.2
7	8.1	6.1	40	4.5	11	5.6	22	5.1	3.4	2.2	7.2	2.9
8	70	5.6	21	4.4	12	5.4	54	4.8	5.0	2.8	4.0	2.8
9	28	5.6	21	5.2	11	5.6	43	4.6	3.5	3.4	3.4	2.7
10	28	5.2	19	4.9	10	6.3	102	4.5	2.8	3.7	3.7	2.6
11	17	5.0	19	5.5	11	7.7	121	4.3	2.6	4.1	3.9	2.6
12	145	4.6	41	4.2	132	12	62	4.2	2.5	3.7	13	2.6
13	115	4.5	22	4.0	16	57	24	4.1	2.5	4.3	71	2.5
14	36	50	15	3.9	15	14	14	4.0	2.4	3.2	16	2.6
15	47	31	14	4.3	12	19	49	3.9	2.4	3.0	39	2.8
16	42	20	19	4.2	11	15	22	3.9	2.3	3.2	34	5.2
17	39	123	13	4.2	10	96	24	3.9	2.3	2.9	9.7	4.9
18	63	144	12	3.7	13	61	17	3.8	2.3	2.9	5.9	3.5
19	17	193	11	3.5	134	48	12	3.6	2.3	12	4.8	3.8
20	13	201	10	3.4	325	401	11	3.7	2.3	8.4	4.1	3.5
21	10	85	11	3.3	151	352	10	3.4	2.3	3.9	3.6	12
22	9.1	37	9.4	166	164	194	9.4	3.3	2.2	6.4	3.2	18
23	8.3	15	10	41	29	41	8.8	3.2	2.2	20	3.2	5.2
24	7.9	8.6	14	185	13	13	13	3.2	3.8	11	3.0	4.0
25	8.2	7.2	40	93	10	9.2	16	3.4	4.8	6.8	2.9	3.4
26	7.7	6.2	12	181	8.9	8.4	10	3.2	6.8	7.8	4.2	4.7
27	7.6	6.4	10	32	7.9	185	8.9	3.1	4.1	16	11	3.3
28	8.3	30	8.4	71	7.2	123	7.9	3.0	3.5	11	4.1	3.0
29	12	58	8.9	123	---	110	7.3	2.9	3.3	5.4	3.1	2.9
30	9.0	34	7.3	188	---	37	6.9	2.8	3.4	4.1	3.0	3.1
31	9.3	---	6.7	480	---	42	---	2.8	---	3.5	23	---
TOTAL	871.5	1132.4	1125.7	1655.7	1691.0	1905.7	799.2	127.7	91.1	169.9	300.8	141.5
MEAN	28.1	37.7	36.3	53.4	60.4	61.5	26.6	4.12	3.04	5.48	9.70	4.72
MAX	145	201	283	480	325	401	121	6.6	6.8	20	71	18
MIN	7.6	4.5	6.7	3.3	7.2	5.4	6.9	2.8	2.2	2.2	2.5	2.5
AC-FT	1730	2250	2230	3280	3350	3780	1590	253	181	337	597	281

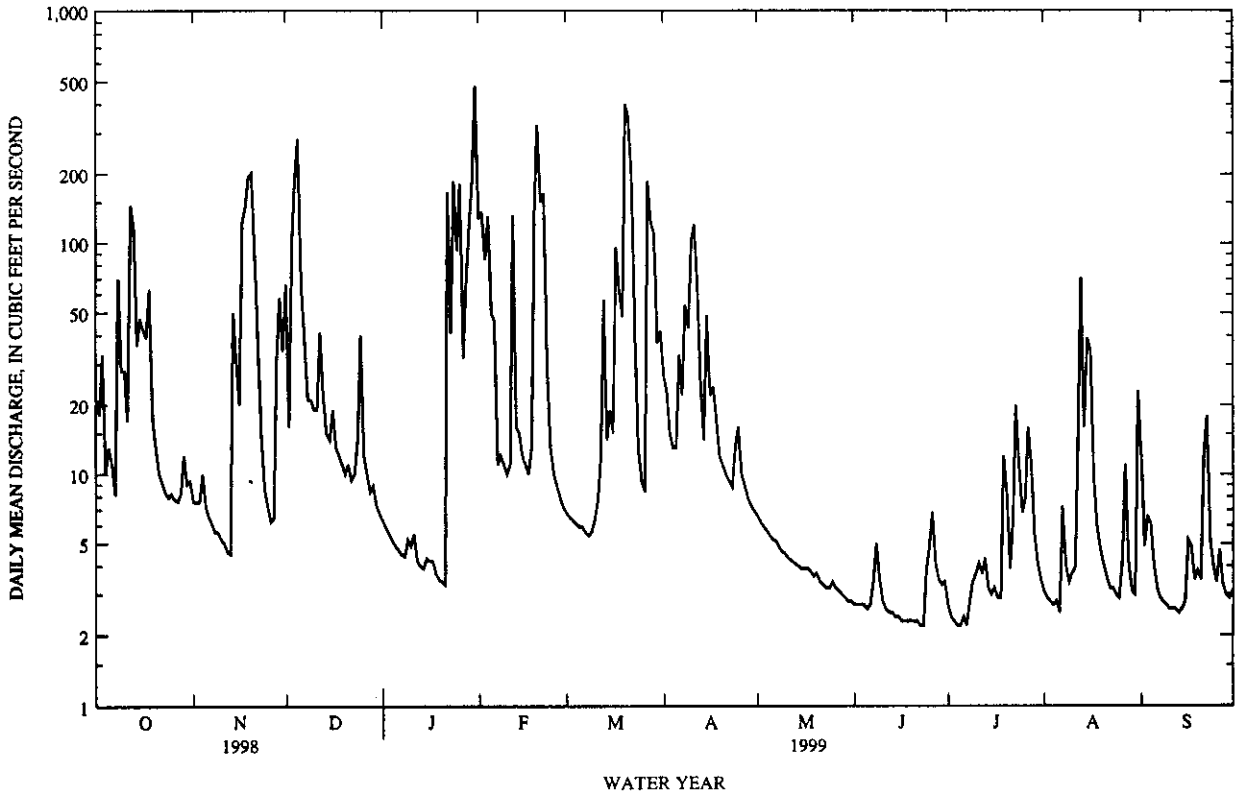
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1999, BY WATER YEAR (WY)

MEAN	14.9	30.0	32.2	30.3	31.0	41.4	36.5	20.3	11.4	16.2	16.9	11.7
MAX	101	110	129	123	182	235	161	68.2	61.2	62.0	66.2	52.3
(WY)	1942	1991	1947	1979	1969	1980	1989	1987	1997	1997	1957	1914
MIN	1.15	2.99	2.71	1.87	2.25	2.10	2.75	2.82	2.16	2.42	2.40	1.88
(WY)	1985	1990	1981	1977	1983	1983	1992	1945	1981	1926	1973	1974

HAWAII, ISLAND OF MAUI

16508000 HANAWI STREAM NEAR NAHIKU--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1914 - 1999	
ANNUAL TOTAL	7678.6		10012.2			
ANNUAL MEAN	21.0		27.4		24.0	
HIGHEST ANNUAL MEAN					52.6	1969
LOWEST ANNUAL MEAN					7.59	1926
HIGHEST DAILY MEAN	283	Dec 5	480	Jan 31	1610	Jan 25 1948
LOWEST DAILY MEAN	1.9	Mar 20	2.2	Jun 22	.90	Oct 31 1984
ANNUAL SEVEN-DAY MINIMUM	2.0	Mar 16	2.3	Jun 17	.96	Oct 25 1984
ANNUAL RUNOFF (AC-FT)	15230		19860		17400	
10 PERCENT EXCEEDS	49		71		52	
50 PERCENT EXCEEDS	10		7.3		7.2	
90 PERCENT EXCEEDS	2.7		2.8		2.8	



Streamflow

Estimates of streamflow and base flow are based on streamflow records of varying length and from different times. The error associated with comparing these records is not considered significant because the average annual values used in the comparisons are expected to be within about 10 percent of the true value in most cases. A statistical analysis of five streamflow records, each with more than 60 years of record, shows that the average annual discharge for any 10-year period within that record has a standard error of 12 percent when compared with the whole record (Fontaine, 1996). When the length of the subset is increased to a 50-year period, the standard error only improves to 5 percent. Thirty nine of the streamflow records for the study area are equal to or greater than 10 years long.

For this study, the length of the period of record at each gaging station was determined to be unimportant by comparing each record to three reference records from the study area. The three longest streamflow records, 5080 (73 years), 5180 (76 years), and 5870 (85 years) were chosen as reference records. For each other individual record, a time period equal to the length of that record was chosen. A subset of a reference record was then selected from this same time period and the average flow during that time period was compared with the total reference record to estimate the ratio of flow during the subset period to the reference period. This analysis was made for all three reference records and the result was averaged to obtain a period-of-record scale factor for each of the other records. The scale factor ranged from 0.88 to 1.13 (table 2). This variability is consistent with the statistical analysis reported by Fontaine (1996). This range of accuracy is considered sufficient for the type of comparisons made in this study, and therefore, no corrections were made to any of the records to account for differences in length or period of record.

Table 19. Streamflow, temperature, and specific conductance in Hanawi Stream, northeast Maui, Hawaii

[ft, feet; Mgal/d, million gallons per day; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, not determined; <, less than; altitudes estimated from U.S. Geological Survey topographic map, Nahiku quadrangle; 1974 and 1975 data from U.S. Geological Survey (1976); 1985 data from Chinn and others (1986); 1994 daily-discharge data from Matsuoka and others (1995); 1995 daily-discharge data from Fontaine and others (1997); all other data is unpublished in files of U.S. Geological Survey, Hawaii District office; gaging-station number is preceded by 16 and ends in 00]

Station number	Stream name	Altitude (ft)	Date	Stream-flow (Mgal/d)	Cumulative streamflow without diversion, July 26, 1994 (Mgal/d)	Water temperature (°C)	Water specific conductance (µS/cm)	Comments
Hanawi 6	Hanawi	50	7/26/94	--	19.6[a]	--	--	
			2/22/95	14.61	--	17.6	198	
Hanawi 8	Hanawi	120	10/9/74	12.28	--	--	--	
			5/21/75	14.22	--	--	--	
			7/26/94	--	20.0[a]	--	--	
			2/22/95	14.93	--	18.9	197	
Hanawi 10	Hanawi	190	7/26/94	--	17.6[a]	--	--	
			2/22/95	12.54	--	19.2	181	
Hanawi 13	Hanawi	420	10/9/74	11.63	--	--	--	
			5/22/75	12.3	--	--	--	
			7/26/94	--	18.4[a]	--	--	
			2/22/95	13.4	--	--	--	
5090	Hanawi	550	10/9/74	9.0	--	--	--	Daily mean at gaging station
			5/22/75	10.3	--	--	--	
			11/2/84	11.6	--	--	--	
			7/26/94	12.7	17.8	--	--	
			2/22/95	12.8	--	--	--	
Hanawi 23	Hanawi	620	11/2/84	9.7	--	--	--	
			7/26/94	7.5	12.7	--	--	
			2/22/95	7.4	--	--	--	
Hanawi 27a	Hanawi	920	5/21/75	0.36	--	--	--	
Hanawi 27	Hanawi	1,020	7/26/94	1.2	6.3	21.0	40.0	
			2/22/95	0.52	--	19.4	48.7	
Hanawi 29	Hanawi	1,130	7/26/94	0.78	5.9	21.3	40.0	
5080	Hanawi	1,318	10/9/74	0.97	--	--	--	Daily mean at gaging station; upstream of Koolau Ditch diversion
			5/21/75	3.0	--	--	--	
			11/2/84	0.71	--	--	--	
			7/26/94	5.2	5.2	--	--	
			7/28/94	5.8	--	--	--	
			2/22/95	1.5	--	--	--	
Hanawi 38	Hanawi	2,240	7/28/94	1.8	1.8	--	--	Downstream of confluence with tributary
Hanawi 40	Hanawi (east unnamed tributary)	2,280	7/28/94	0.56	0.56	--	--	
Hanawi 45	Hanawi (west branch)	3,500	7/28/94	0.02	0.02	20.9	16	
Hanawi 46	Hanawi (west branch)	3,580	7/28/94	< 0.01	< 0.01	19.5	15	
Hanawi 48	Hanawi (east branch)	3,550	7/28/94	0.06	0.06	21.4	17	
Hanawi 51	Hanawi (west branch)	4,100	7/28/94	0.01	0.01	18.5	12	

[a] Estimated on the basis of February 22, 1995 measurements

HANAWI

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

DURATION TABLE OF DAILY VALUES
FOR PERIOD OCT TO SEP

CLASS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
WATER YEAR RANGE	NUMBER OF DAYS IN CLASS																																		
1923 1923								14	45	67	45	48	35	30	12	14	21	8	2	1	2	5	4	3		9									
1924 1924							11	51	49	45	47	35	25	20	23	10	11	8	7	2	1	5	2	5	1	2	4		2						
1925 1925							14	16	55	30	51	40	38	34	18	10	4	14	13	3	3	5	6	1	4	2	2	1				1			
1926 1926						95	55	47	33	45	26	16	12	4	5	6	8	2	4	2	2		1	2											
1927 1927							28	40	31	44	34	46	52	31	15	5	6	6	6	2	5	8	2	1	1		2								
1928 1928							7	21	36	37	43	48	40	34	26	10	12	12	15	4	4	4	1	5	3	4									
1929 1929							16	30	42	54	51	35	25	21	22	12	4	7	8	9	6	9		4	7		2	1							
1930 1930							25	9	17	15	29	39	50	33	29	17	21	15	12	8	6	8	7	6	9	4	2	1	2	1					
1931 1931								26	66	59	37	50	30	24	12	9	18	9	4	4	1	5	4		4	1	1			1					
1932 1932								6	14	27	40	46	59	37	28	16	18	14	6	6	11	10	10	4	7	3	1	1	2						
1933 1933						28	60	44	44	32	31	29	23	18	9	9	10	8	5	7	3		1	1	1	1				1					
1934 1934				1	62	61	15	16	22	18	27	19	20	25	12	11	9	7	8	5	10	5	3	3	3		1			1			1		
1935 1935								16	47	51	50	33	39	45	25	10	7	9	5	1	4	7	4	3	2	2	1	1		1	1		1		
1936 1936					18	31	44	24	9	12	26	42	32	25	30	11	11	11	15	10	6	6	1	1	1										
1937 1937									12	17	31	22	36	52	36	27	19	19	18	8	15	11	8	12	3	6	6	3	1	1	2				
1938 1938								5	31	37	45	53	46	25	17	15	17	10	13	10	10	7	7	1	2	6	5	1		1	1				
1939 1939								5	11	37	41	61	43	49	15	15	12	15	12	12	9	9	6	5	2	3	1		1			1			
1940 1940						50	48	55	39	30	24	25	20	14	16	10	3	6	4	5	3	4	4	1	3		1			1					
1941 1941						6	16	22	52	50	45	36	35	21	24	9	5	12	8	7	3	4	4			2	2		2						
1942 1942						6	10	20	38	34	37	32	41	28	19	12	14	7	7	4	4	6	7	9	11	5	5	4	1		1	2		1	
1943 1943						18	37	46	47	33	31	31	31	17	14	12	11	6	6	6	5	1	4	1	5	1	1			1					
1944 1944					24	70	31	32	51	40	29	18	17	5	14	6	8	3	5	1	3	3	4	1		1									
1945 1945					8	61	39	35	24	21	27	39	28	16	15	8	7	8	7	7	2	3	2	2	2	2	1		1						
1946 1946						8	39	57	60	35	23	15	14	12	19	12	11	8	12	7	7	7	4	4	4	4			1	1	1				
1947 1947						8	15	32	60	57	32	27	23	24	14	12	11	7	8	4	3	7		4	6	4	3	1		1		1	1		
1948 1948							4	30	41	62	35	32	33	17	12	11	16	14	3	8	7	9	10	4	3	6	1	2	2	2					2
1949 1949							39	50	49	37	35	24	23	17	11	4	11	15	7	9	4	9	3	6	9		2			1					
1950 1950						9	25	44	42	47	32	21	22	17	8	12	18	9	13	12	6	7	7		5	3	1	1	3		1				
1951 1951						3	61	54	44	33	36	30	20	11	5	8	7	8	8	6	5	8	1	2	3	5	2	4	1						
1952 1952						10	20	17	30	55	49	37	31	23	16	11	11	13	7	9	2	3	9	3	5		4		1						
1953 1953					3	38	55	67	36	29	25	20	19	17	7	8	3	4	1	11	5	5	7	1		1	2	1							
1954 1954					10	45	25	36	32	20	32	24	26	20	16	9	12	12	11	6	10	6	5	1	3	2	2								
1955 1955						9	13	10	48	31	41	31	31	28	23	16	13	4	7	11	13	8	4	3	6	3	5	3	2	1		1			

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

DURATION TABLE OF DAILY VALUES

CLASS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
WATER YEAR																																			
1956 1956						9	41	36	18	33	36	31	35	13	24	11	11	14	7	11	8	7	3	3	2	3	3	2		2	2		1		
1957 1957							49	50	51	34	40	25	19	13	18	6	13	3	5	6	6	4	6	5	3	2	2	3	1	1					
1958 1958							11	26	50	37	43	33	22	14	25	10	16	12	15	15	4	6	4	4	10	3	2		2		1				
1959 1959							16	45	41	51	57	26	22	16	11	8	10	10	6	6	7	7	5	7	2	2	5	2	1	1	1				
1960 1960					4	18	34	45	47	42	34	18	13	4	14	14	12	13	8	8	3	13	6	3	4	1	1	2	2			2	1		
1961 1961					5	30	68	63	35	38	20	17	13	10	7	6	12	10	3	4	3	3	2	6	3	1	1	1		1	2		1		
1962 1962					34	30	65	55	32	32	18	8	11	11	9	10	9	9	6	3	1	5	1	6	4	1	2	1	2						
1963 1963				5	69	45	23	22	22	38	19	16	19	15	11	7	8	8	3	9	6	1	6	6	2	2		2	1						
1964 1964							4	36	49	56	48	43	27	18	7	9	14	10	8	7	1	7	4	6	6	1	2	2	1						
1965 1965						16	19	46	71	43	40	23	12	11	13	7	8	10	8	6	4	5	6	1	6	3	1	1	3	2					
1966 1966					21	26	25	33	44	53	30	26	23	15	6	6	13	11	7	3	4	4	3	3	1	5	1	1	1						
1967 1967						8	31	34	49	49	29	35	22	13	14	12	7	12	4	5	9	6	4	7	3	4	3	2	2	1					
1968 1968					5	24	49	50	35	29	20	24	22	17	11	12	6	5	6	5	6	5	7	11	7	2	4	2		1	1				
1969 1969						32	20	29	25	14	20	28	28	25	17	11	12	11	10	8	9	13	12	7	7	7	7	3	1	3	2	1	1	2	
1970 1970						2	50	44	39	38	30	33	22	21	13	11	9	8	10	6	5	6	1	4	3	4	2	1	2			1			
1971 1971					22	36	30	29	30	29	23	26	21	14	14	11	9	8	11	5	4	8	6	6	7	7	3	2	1	1		2			
1972 1972					6	33	67	59	39	36	27	23	12	9	8	8	9	3	5	5	3	2	3	3	2	3		1							
1973 1973					29	22	52	45	39	32	21	18	16	16	9	9	10	9	5	4	10	6	4	2	3	1	1	1		1					
1974 1974				5	30	35	72	42	32	25	20	21	11	6	8	3	7	7	7	3	7	3	3	6	1	2	5	1	2					1	
1975 1975			1	20	2	16	69	34	21	32	34	19	26	16	11	13	9	7	4	5	3	5	4	6	1	1	2	2	1	1					
1976 1976						28	65	57	38	30	21	20	22	12	12	10	13	6	1	10	4	3	4	4	4			1				1			
1977 1977				20	30	20	46	47	40	26	19	19	17	9	15	5	7	6	6	5	2	6	6	4	4	4	1		1						
1978 1978					8	59	41	43	31	29	27	34	17	11	16	10	8	8	4	7	2		4	2	2		2								
1979 1979						19	33	39	46	50	25	22	19	13	13	15	12	7	9	10	3	4	6	3	5		4	1	4	1	2					
1980 1980					1	13	28	37	19	31	29	38	24	13	14	13	14	11	11	8	10	6	6	8	3	5	6	6	2	1	4	4	1		
1981 1981				10	96	79	61	27	27	14	9	8	6	4	2	3	5	2	1	1	1	3		2	2		1				1				
1982 1982							24	23	22	21	44	28	24	21	26	10	16	16	11	10	11	10	9	10	5	6	6	2	3		4	2		1	
1983 1983				4	51	21	19	24	37	46	28	33	21	16	15	10	5	4	6	6	5	3	5	2	3						1				
1984 1984				3	22	34	61	45	37	27	25	22	18	10	10	7	6	6	3	7	6	7	4	4	2										
1985 1985		10	26	10	39	23	27	31	18	23	22	19	16	12	11	9	12	8	5	4	6	5	9	2	6	3	3	3	1	1	1				
1986 1986				7	16	28	30	40	36	25	22	25	27	18	13	13	9	6	14	2	6	5	6	3	4	1		2	1	2	1		2	1	
1987 1987						12	38	32	31	37	32	31	31	12	15	11	8	8	6	12	6	13	4	3	3	8	6	1	2	2	1				
1988 1988					7	23	16	35	34	45	51	31	25	11	10	9	7	8	8	4	7	8	6	8	4	1	3	2	1	1		1			
1989 1989						2	11	19	37	32	33	25	35	19	21	11	17	6	11	13	8	14	4	6	10	8	8	4	4	4	1	1	1		
1990 1990					11	23	21	28	25	23	45	35	31	21	16	7	17	8	4	5	7	10	5	3	7	2	4	3	1	2	1				

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

DURATION TABLE OF DAILY VALUES

CLASS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
WATER YEAR	NUMBER OF DAYS IN CLASS																																		
1991 1991						1	17	33	31	44	32	36	26	18	22	19	14	7	4	9	9	8	4	3	3	8	4	1	1	4	2	4	1		
1992 1992					28	80	54	28	21	19	10	14	26	13	18	7	9	8	4	4	3	2	4	2	4	5	1	2							
1993 1993						30	23	41	43	36	48	36	12	12	13	6	6	9	13	8	5	7	1	3	4	4	2	2	1						
1994 1994						2	9	6	15	34	59	42	40	18	18	16	11	15	12	13	8	11	6	7	5	9	3	2		1	1	1		1	
1995 1995					17	24	33	41	45	39	22	29	14	13	15	8	7	14	9	6	9	10	3	3	1	2				1					
1996 1996						15	48	42	47	56	48	22	17	7	11	11	5	9	5	7	1	5	1			3	1	1	3		1				
1997 1997					16	27	29	28	64	25	19	16	14	15	16	4	18	8	9	12	11	7	9	5	3	2	3	2	2			1			
1998 1998					12	24	29	27	41	21	21	14	44	23	23	14	11	15	10	12	5	4	3	4	2	2	2		2						
1999 1999						26	44	41	26	31	25	19	32	19	14	10	6	10	11	8	8	2	5	10	5	8		2	2	1					
2000 2000					14	46	47	42	43	37	24	20	8	13	15	9	7	6	4	8	3	1	3	3	4	4	2	2		1					

CLASS	VALUE	TOTAL	ACCUM	PERCT	CLASS	VALUE	TOTAL	ACCUM	PERCT	CLASS	VALUE	TOTAL	ACCUM	PERCT
1	0.00	0	28490	100.00	13	10.00	1981	10560	37.07	25	142.00	287	987	3.46
2	0.90	10	28490	100.00	14	13.00	1424	8579	30.11	26	177.00	222	700	2.46
3	1.10	27	28480	99.96	15	16.00	1191	7155	25.11	27	220.00	169	478	1.68
4	1.40	85	28453	99.87	16	20.00	798	5964	20.93	28	274.00	96	309	1.08
5	1.70	720	28368	99.57	17	24.00	823	5166	18.13	29	342.00	76	213	0.75
6	2.20	1597	27648	97.04	18	30.00	701	4343	15.24	30	426.00	52	137	0.48
7	2.70	2401	26051	91.44	19	38.00	586	3642	12.78	31	531.00	37	85	0.30
8	3.40	2656	23650	83.01	20	47.00	522	3056	10.73	32	662.00	27	48	0.17
9	4.20	2880	20994	73.69	21	59.00	429	2534	8.89	33	824.00	12	21	0.07
10	5.20	2783	18114	63.58	22	73.00	464	2105	7.39	34	1030.00	7	9	0.03
11	6.50	2536	15331	53.81	23	91.00	349	1641	5.76	35	1280.00	2	2	0.01
12	8.10	2235	12795	44.91	24	114.00	305	1292	4.53					

DURATION CURVE STATISTICAL CHARACTERISTICS FOR ...
STATION ID: 16508000 Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE = 00060
STATISTIC CODE - 00003 MEAN

DURATION DATA VALUES ARE INTERPOLATED FROM DURATION TABLE:
DATA ARE NOT ANALYTICALLY FITTED TO A PARTICULAR STATISTICAL DISTRIBUTION,
AND THE USER IS RESPONSIBLE FOR ASSESSMENT AND INTERPRETATION.

ADDITIONAL CONDITIONS FOR THIS RUN ARE:
STATISTICS ARE BASED ON LOGARITHMS (BASE 10).
NUMBER OF VALUES IS REDUCED FOR EACH NEAR-ZERO OR ZERO VALUE.

NUMBER OF VALUES = 19 (NUMBER OF NEAR-ZERO VALUES = 0)
LISTING OF DATA FOLLOWS:

PERCENT OF TIME VALUE EQUALED OR EXCEEDED	DATA VALUE	
95.0	2.38	(LOG = 0.37701)
90.0	2.82	(LOG = 0.45018)
85.0	3.23	(LOG = 0.50985)
80.0	3.66	(LOG = 0.56330)
75.0	4.09	(LOG = 0.61146)
70.0	4.56	(LOG = 0.65943)
65.0	5.06	(LOG = 0.70411)
60.0	5.68	(LOG = 0.75408)
55.0	6.34	(LOG = 0.80222)
50.0	7.19	(LOG = 0.85644)
45.0	8.08	(LOG = 0.90762)
40.0	9.29	(LOG = 0.96798)
35.0	10.9	(LOG = 1.03708)
30.0	13.1	(LOG = 1.11619)
25.0	16.1	(LOG = 1.20707)
20.0	21.3	(LOG = 1.32906)
15.0	30.8	(LOG = 1.48845)
10.0	51.8	(LOG = 1.71398)
5.0	105.3	(LOG = 2.02230)

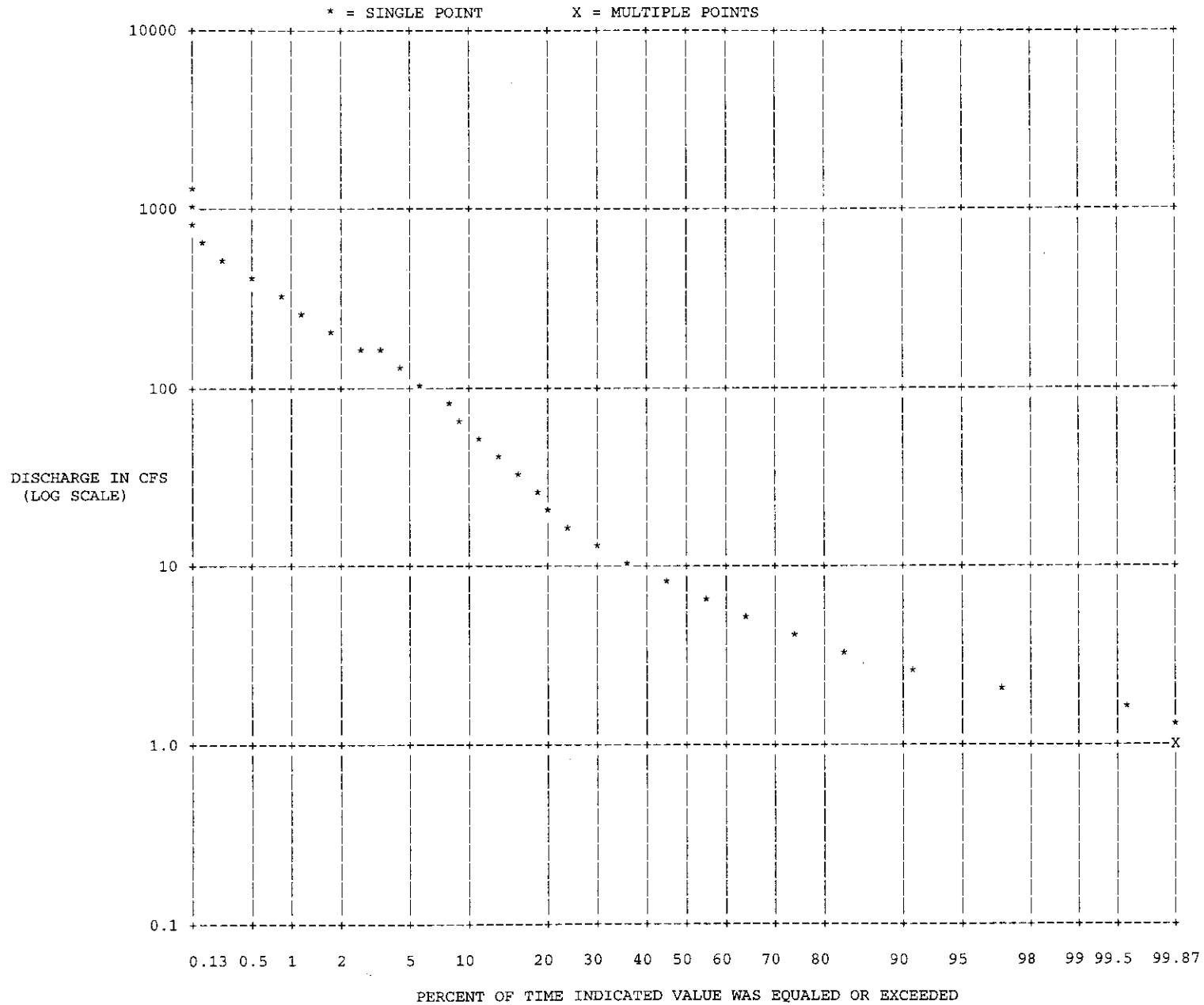
MEAN OF LOGS = 0.95146

STANDARD DEVIATION OF LOGS = 0.44224 (VARIABILITY INDEX - SEE USGS WSP 1542-A)

COEFFICIENT OF VARIATION = 0.46480

COEFFICIENT OF SKEW = 0.96937

LOG-NORMAL DURATION PLOT FOR PERIOD OCT TO SEP (YEARS 1914 - 2001)
STATION ID: 16508000 Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN



DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

LOWEST MEAN VALUE AND RANKING FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS
FOR PERIOD OCT TO SEP

WATER YEAR RANGE	1	3	7	14	30	60	90	120	183
1923 1923	3.40 72	3.77 76	3.89 73	4.06 71	4.95 66	8.72 61	8.92 44	9.15 40	12.7 30
1924 1924	2.90 65	2.97 66	3.13 66	3.29 62	3.64 53	5.26 43	7.63 38	7.12 28	11.0 27
1925 1925	2.90 66	2.90 65	3.31 69	3.41 65	4.54 63	5.43 44	9.21 47	11.6 49	19.3 58
1926 1926	2.20 33	2.20 33	2.23 30	2.34 29	2.41 19	2.68 9	2.84 4	3.57 1	4.31 1
1927 1927	2.80 63	2.80 62	2.91 60	2.99 54	3.43 48	8.24 58	9.05 45	12.8 55	13.6 34
1928 1928	3.10 68	3.23 69	3.27 67	3.49 68	4.30 62	9.98 66	14.0 64	16.2 68	16.2 42
1929 1929	3.10 69	3.23 70	3.31 70	3.41 66	3.94 58	4.93 40	6.32 29	6.81 26	9.69 21
1930 1930	2.80 64	2.80 63	2.81 58	3.01 56	3.12 37	13.1 75	16.9 73	17.8 71	28.3 70
1931 1931	3.70 77	3.70 75	3.80 72	3.86 70	4.54 64	6.87 53	7.01 32	8.34 34	12.9 31
1932 1932	3.60 75	3.67 74	4.04 74	4.31 72	7.78 76	8.20 57	14.1 65	12.7 53	20.4 60
1933 1933	2.30 40	2.30 40	2.60 45	2.64 42	2.83 33	3.85 22	4.69 16	5.09 12	6.81 8
1934 1934	1.60 5	1.70 10	1.70 10	1.76 10	1.92 9	4.11 27	6.79 31	6.25 24	8.70 15
1935 1935	3.40 73	3.40 72	4.13 75	4.74 75	6.35 70	7.47 55	8.37 41	8.70 38	13.2 32
1936 1936	1.90 16	1.90 16	1.90 13	1.93 13	2.27 15	3.86 23	3.73 7	6.67 25	8.63 14
1937 1937	4.20 78	4.23 78	4.41 77	5.11 76	10.9 78	11.9 71	25.7 77	25.7 76	28.3 71
1938 1938	3.60 76	3.80 77	4.17 76	5.91 77	7.00 74	9.47 65	9.65 50	12.9 56	29.0 74
1939 1939	3.40 74	3.40 73	4.60 78	6.49 78	9.77 77	13.0 74	14.1 66	14.5 60	21.9 64
1940 1940	2.20 34	2.20 34	2.33 38	2.46 36	2.86 34	3.99 24	5.01 19	5.10 13	6.62 6
1941 1941	2.60 53	2.60 52	2.70 51	2.94 52	3.27 40	4.53 35	9.87 53	10.6 45	14.1 36
1942 1942	2.50 46	2.57 50	2.61 47	2.86 49	3.36 45	6.29 50	10.3 54	10.6 46	16.6 44
1943 1943	2.30 41	2.30 41	2.46 42	2.68 44	3.63 52	8.83 63	14.7 69	14.1 59	15.3 39
1944 1944	1.90 17	1.90 17	1.94 17	2.04 16	2.20 13	3.32 16	7.65 39	7.69 31	9.21 20
1945 1945	2.00 23	2.00 23	2.09 25	2.20 25	2.54 22	3.25 14	4.11 9	5.79 18	12.3 29
1946 1946	2.60 54	2.60 53	2.76 55	2.94 53	3.34 44	4.52 34	9.80 52	9.31 42	14.2 37
1947 1947	2.50 47	2.53 48	2.63 48	2.89 51	3.81 57	8.77 62	10.3 55	13.5 58	15.7 40
1948 1948	3.20 71	3.33 71	3.59 71	4.35 73	5.29 67	12.3 72	14.6 68	15.0 64	22.9 67
1949 1949	2.70 59	2.83 64	2.97 63	3.22 60	3.42 47	5.17 42	6.08 27	7.67 30	9.19 19
1950 1950	2.50 48	2.53 49	2.70 52	3.14 57	4.20 60	10.3 67	13.6 63	12.7 54	22.0 65
1951 1951	2.60 55	2.63 54	2.71 53	2.88 50	3.75 56	4.31 32	5.14 21	6.10 21	8.55 13
1952 1952	2.50 49	2.50 46	2.63 49	2.69 45	6.05 69	7.21 54	9.49 48	11.3 47	13.8 35
1953 1953	2.10 28	2.13 29	2.16 28	2.20 26	2.47 20	4.17 29	5.69 25	5.80 19	7.89 10
1954 1954	1.90 18	1.97 22	2.03 22	2.11 22	2.78 30	6.68 51	7.16 33	8.42 35	13.3 33
1955 1955	2.30 42	2.40 43	2.49 43	2.66 43	3.69 54	5.68 46	12.8 60	12.0 51	16.9 46
1956 1956	2.50 50	2.57 51	2.63 50	2.79 47	3.37 46	5.97 48	13.0 61	17.2 70	22.4 66
1957 1957	2.70 60	2.73 59	2.87 59	3.17 59	3.33 42	4.68 37	8.39 42	14.8 61	16.3 43

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

LOWEST MEAN VALUE AND RANKING FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS
FOR PERIOD OCT TO SEP

WATER YEAR RANGE	1	3	7	14	30	60	90	120	183
1958 1958	3.00 67	3.03 67	3.11 65	3.38 64	6.65 72	14.1 76	13.2 62	15.3 67	17.9 54
1959 1959	2.70 61	2.73 60	2.91 61	3.31 63	4.94 65	6.70 52	10.5 56	11.9 50	17.0 47
1960 1960	2.10 29	2.13 30	2.23 31	2.41 32	2.72 27	4.21 31	7.26 34	8.85 39	22.9 68
1961 1961	2.10 30	2.13 31	2.23 32	2.56 39	2.96 35	4.90 39	5.02 20	6.17 23	14.5 38
1962 1962	1.80 13	1.87 14	1.93 15	2.01 15	2.33 16	3.55 19	4.86 17	4.58 7	5.94 2
1963 1963	1.60 6	1.63 8	1.69 9	1.74 9	1.87 5	3.32 17	4.36 12	5.22 15	6.03 4
1964 1964	3.10 70	3.10 68	3.29 68	3.83 69	4.21 61	7.92 56	8.14 40	9.30 41	15.9 41
1965 1965	2.20 35	2.20 35	2.27 34	2.41 33	2.80 31	6.27 49	9.10 46	9.70 43	17.9 55
1966 1966	1.70 11	1.70 11	1.80 11	1.88 12	2.09 11	3.30 15	4.60 15	5.53 17	6.49 5
1967 1967	2.50 51	2.50 47	2.54 44	2.71 46	3.53 50	8.40 59	11.5 58	15.2 66	19.7 59
1968 1968	2.00 24	2.00 24	2.09 26	2.21 27	3.70 55	5.71 47	6.09 28	6.16 22	18.5 56
1969 1969	2.20 36	2.23 36	2.29 36	2.34 30	2.56 23	14.9 77	17.4 74	20.4 74	31.9 76
1970 1970	2.50 52	2.63 55	2.74 54	2.79 48	3.61 51	4.63 36	11.8 59	13.3 57	21.2 62
1971 1971	1.90 19	1.93 20	1.97 19	2.08 19	2.72 28	3.16 13	3.40 5	3.60 2	17.6 51
1972 1972	2.00 25	2.03 26	2.16 29	2.45 35	3.01 36	4.20 30	5.70 26	7.39 29	11.9 28
1973 1973	1.70 12	1.73 12	1.84 12	1.86 11	1.94 10	2.35 4	3.45 6	4.25 5	7.97 11
1974 1974	1.60 7	1.60 4	1.63 6	1.68 5	1.88 6	2.64 6	4.41 14	4.76 9	17.7 52
1975 1975	1.30 2	1.37 2	1.41 2	1.48 2	3.19 38	4.00 25	4.15 10	5.12 14	7.75 9
1976 1976	2.20 37	2.27 38	2.31 37	2.42 34	2.82 32	4.40 33	4.86 18	4.63 8	10.7 26
1977 1977	1.40 3	1.40 3	1.49 3	1.51 3	1.63 2	1.85 1	2.49 3	4.95 11	17.5 50
1978 1978	2.10 31	2.10 28	2.11 27	2.24 28	2.50 21	3.61 20	8.39 43	7.90 33	10.2 23
1979 1979	2.30 43	2.30 42	2.37 39	2.53 38	3.23 39	4.86 38	7.51 36	8.67 36	8.78 16
1980 1980	2.10 32	2.17 32	2.26 33	2.62 40	3.98 59	11.7 70	19.1 75	20.3 73	34.9 77
1981 1981	1.60 8	1.60 5	1.61 5	1.66 4	1.81 3	2.16 3	2.48 2	3.66 3	5.96 3
1982 1982	2.70 62	2.77 61	2.94 62	3.14 58	6.49 71	12.4 73	20.1 76	28.1 78	31.7 75
1983 1983	1.50 4	1.60 6	1.66 7	1.70 7	1.83 4	2.01 2	2.30 1	3.78 4	8.52 12
1984 1984	1.60 9	1.63 9	1.67 8	1.69 6	1.90 7	3.45 18	4.20 11	4.36 6	9.87 22
1985 1985	.90 1	.94 1	.96 1	1.02 1	1.12 1	2.63 5	9.73 51	8.68 37	21.5 63
1986 1986	1.60 10	1.60 7	1.60 4	1.71 8	1.91 8	2.66 8	5.59 24	15.0 65	28.7 72
1987 1987	2.40 45	2.40 44	2.44 41	2.63 41	3.32 41	10.3 68	16.5 72	20.6 75	28.7 73
1988 1988	2.00 26	2.03 27	2.06 24	2.17 24	2.56 24	5.50 45	7.46 35	7.05 27	17.3 49
1989 1989	2.60 56	2.63 56	3.10 64	4.67 74	5.65 68	18.5 78	26.0 78	27.4 77	50.7 78
1990 1990	1.90 20	1.90 18	1.97 20	2.10 21	2.67 26	3.07 12	11.3 57	19.5 72	17.7 53
1991 1991	2.60 57	2.67 58	2.77 57	3.00 55	6.66 73	8.98 64	9.57 49	11.5 48	16.6 45
1992 1992	1.80 14	1.87 15	1.93 16	2.04 17	2.36 17	2.74 10	4.40 13	4.93 10	6.69 7
1993 1993	2.20 38	2.27 39	2.43 40	2.52 37	3.45 49	4.16 28	14.5 67	14.9 62	17.1 48
1994 1994	2.60 58	2.63 57	2.76 56	3.46 67	7.38 75	11.5 69	15.2 70	14.9 63	22.9 69

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

LOWEST MEAN VALUE AND RANKING FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS
FOR PERIOD OCT TO SEP

WATER YEAR RANGE	1	3	7	14	30	60	90	120	183
1995 1995	1.80 15	1.83 13	1.91 14	1.99 14	2.15 12	2.65 7	5.35 22	7.82 32	8.80 17
1996 1996	2.30 44	2.40 45	2.60 46	3.24 61	3.33 43	4.96 41	6.46 30	9.79 44	10.2 24
1997 1997	1.90 21	1.90 19	1.94 18	2.08 20	2.26 14	8.60 60	16.4 71	16.6 69	20.7 61
1998 1998	1.90 22	1.93 21	1.97 21	2.04 18	2.59 25	4.05 26	7.53 37	12.6 52	18.9 57
1999 1999	2.20 39	2.23 37	2.27 35	2.39 31	2.75 29	3.04 11	4.01 8	5.45 16	8.91 18
2000 2000	2.00 27	2.00 25	2.04 23	2.11 23	2.40 18	3.74 21	5.35 23	5.92 20	10.6 25

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

HIGHEST MEAN VALUE AND RANKING FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS
FOR PERIOD OCT TO SEP

WATER YEAR RANGE	1	3	7	15	30	60	90	120	183
1923 1923	186 75	186 65	186 31	122 37	69.1 51	43.3 57	35.5 56	31.9 51	26.3 57
1924 1924	404 53	253 47	170 39	97.5 49	60.4 57	46.4 53	35.7 54	34.4 50	27.3 54
1925 1925	811 17	351 28	157 46	91.4 55	76.0 43	46.3 54	35.1 57	29.2 56	27.8 50
1926 1926	128 78	63.0 78	34.9 78	27.0 78	20.7 77	14.5 78	12.3 78	10.9 78	8.60 78
1927 1927	268 71	131 71	69.0 73	41.4 74	28.2 76	24.0 74	21.5 72	20.2 71	17.6 72
1928 1928	196 74	116 73	84.3 71	49.6 71	41.9 66	34.0 64	30.3 60	24.2 64	24.5 60
1929 1929	295 67	207 61	161 44	105 47	80.3 40	52.5 43	43.8 40	38.5 43	32.3 41
1930 1930	438 49	292 37	215 26	129 30	82.1 36	70.4 22	55.6 25	57.1 15	47.6 15
1931 1931	506 39	287 40	138 58	74.0 64	40.8 68	26.2 71	21.5 73	18.3 74	20.0 70
1932 1932	370 61	298 35	198 29	129 31	94.4 26	65.2 30	53.2 27	49.3 21	41.4 24
1933 1933	497 40	263 44	132 60	70.0 65	46.6 63	32.7 65	29.8 62	25.7 62	20.3 68
1934 1934	990 8	372 25	178 34	129 32	84.7 32	53.7 40	45.2 39	38.9 40	29.3 46
1935 1935	937 14	690 7	354 11	175 17	105 17	67.5 26	52.5 28	46.7 29	38.3 30
1936 1936	156 76	78.3 77	52.5 76	37.1 76	30.9 74	27.4 68	25.1 68	22.2 67	21.7 65
1937 1937	656 25	488 18	289 17	199 14	141 8	107 6	91.8 6	79.1 6	63.0 7
1938 1938	588 31	428 19	298 15	151 20	109 16	68.3 24	58.9 21	52.3 19	45.4 19
1939 1939	806 18	367 27	258 19	143 25	79.9 41	64.9 31	51.3 31	48.7 23	39.2 28
1940 1940	439 48	253 48	153 49	96.2 52	61.8 56	37.6 62	27.8 66	21.7 68	17.7 71
1941 1941	356 64	174 68	109 66	64.2 67	38.5 72	28.9 67	26.2 67	25.4 63	23.3 61
1942 1942	1080 5	746 5	556 1	330 2	211 3	128 3	94.8 5	73.2 7	64.7 6
1943 1943	435 50	160 69	71.6 72	46.5 72	39.4 70	26.7 70	22.5 71	21.7 69	20.2 69
1944 1944	206 73	93.3 76	44.1 77	29.5 77	20.6 78	18.6 77	17.2 77	15.2 76	13.5 76
1945 1945	371 60	223 58	111 65	81.5 60	50.9 62	41.0 58	28.4 65	23.3 66	21.8 64
1946 1946	651 27	242 51	134 59	126 34	70.5 49	54.8 37	54.8 26	47.8 26	36.5 33
1947 1947	985 9	630 11	419 6	214 10	139 9	80.7 16	59.3 20	47.8 27	39.2 29
1948 1948	1610 1	982 1	435 4	207 12	112 15	83.3 14	78.4 9	68.0 9	56.4 10
1949 1949	495 41	297 36	170 41	124 35	99.6 23	68.0 25	55.8 24	45.1 31	36.1 35
1950 1950	537 37	277 42	209 28	156 19	100 22	76.2 19	59.4 19	49.2 22	39.3 27
1951 1951	350 65	235 56	178 35	116 38	82.9 33	54.5 39	50.0 33	48.1 25	35.3 39
1952 1952	359 63	191 64	161 43	113 40	72.0 48	44.1 55	39.1 47	38.3 44	32.2 42
1953 1953	285 69	126 72	102 68	56.7 70	51.5 61	40.3 61	29.6 63	23.5 65	21.3 66
1954 1954	269 70	147 70	93.9 70	77.9 62	43.0 65	30.1 66	30.2 61	27.7 60	27.6 51
1955 1955	743 22	497 16	367 9	206 13	135 12	80.7 17	78.9 7	71.0 8	55.6 11
1956 1956	956 11	601 12	317 14	219 9	118 14	84.5 13	69.4 15	61.7 13	50.3 12
1957 1957	467 45	235 55	158 45	89.7 57	67.9 52	41.0 59	35.7 55	31.7 52	26.6 55

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

HIGHEST MEAN VALUE AND RANKING FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS
FOR PERIOD OCT TO SEP

WATER YEAR RANGE	1	3	7	15	30	60	90	120	183
1958 1958	653 26	342 31	174 36	109 44	103 18	66.3 28	51.9 29	44.7 32	36.3 34
1959 1959	616 29	389 21	222 25	150 22	92.5 28	67.4 27	56.5 23	47.0 28	41.6 23
1960 1960	947 13	655 9	380 8	188 15	102 19	68.7 23	66.0 16	55.8 17	50.0 13
1961 1961	927 15	494 17	243 23	173 18	93.7 27	75.4 20	51.4 30	43.6 33	37.0 32
1962 1962	402 54	218 59	153 50	96.3 51	64.1 55	47.0 51	33.9 59	29.2 57	29.1 47
1963 1963	394 55	263 45	140 57	109 43	96.3 25	60.4 33	45.8 38	38.8 41	29.5 45
1964 1964	376 58	212 60	116 63	95.8 53	82.5 34	48.8 47	41.4 45	39.0 39	31.4 43
1965 1965	476 44	373 24	251 20	151 21	91.8 29	53.2 42	39.9 46	35.9 48	35.4 38
1966 1966	367 62	197 63	104 67	93.5 54	70.0 50	52.0 44	46.2 36	40.4 37	29.1 48
1967 1967	478 43	291 38	154 47	106 46	65.6 53	43.4 56	42.2 43	38.6 42	35.8 36
1968 1968	574 34	347 29	172 38	123 36	79.5 42	70.9 21	50.8 32	43.0 34	46.4 18
1969 1969	1150 3	790 3	527 2	252 4	214 2	157 2	138 1	113 1	89.8 1
1970 1970	691 24	346 30	245 22	144 24	86.0 31	53.3 41	37.6 51	42.5 35	35.5 37
1971 1971	768 20	369 26	245 21	142 26	101 21	94.0 10	74.4 11	59.3 14	57.4 8
1972 1972	316 66	205 62	96.1 69	64.9 66	41.0 67	25.3 72	23.5 70	21.3 70	20.7 67
1973 1973	431 52	182 67	141 55	108 45	80.4 39	54.8 38	43.1 41	37.1 47	26.6 56
1974 1974	1100 4	543 13	236 24	146 23	88.7 30	51.0 46	41.5 44	37.6 45	37.7 31
1975 1975	433 51	225 57	181 33	97.3 50	73.7 46	55.4 35	45.9 37	40.4 38	33.2 40
1976 1976	711 23	272 43	123 62	80.1 61	44.4 64	41.0 60	37.7 50	35.5 49	27.5 52
1977 1977	375 59	239 52	153 51	86.1 58	80.9 38	65.7 29	48.2 34	37.3 46	30.1 44
1978 1978	234 72	115 74	68.0 74	40.7 75	30.0 75	21.7 75	19.0 75	17.0 75	15.9 74
1979 1979	642 28	510 14	339 13	238 6	133 13	101 9	75.9 10	67.4 10	48.7 14
1980 1980	963 10	694 6	452 3	398 1	276 1	176 1	126 2	111 2	86.0 2
1981 1981	599 30	286 41	130 61	62.4 68	34.0 73	19.8 76	18.3 76	14.3 77	12.0 77
1982 1982	1170 2	688 8	360 10	237 7	161 7	107 5	99.8 3	84.1 4	71.9 5
1983 1983	582 33	239 53	115 64	59.2 69	39.0 71	26.8 69	24.8 69	19.4 72	15.9 75
1984 1984	156 77	107 75	65.1 75	43.5 73	39.9 69	25.1 73	20.0 74	18.5 73	16.7 73
1985 1985	549 36	323 32	279 18	213 11	135 11	82.0 15	71.9 14	55.9 16	43.0 21
1986 1986	1050 7	636 10	343 12	177 16	168 5	104 7	74.1 12	62.8 11	47.2 17
1987 1987	587 32	386 22	196 30	130 29	82.2 35	59.6 34	47.7 35	45.8 30	40.4 25
1988 1988	781 19	314 34	150 53	91.4 56	73.8 44	48.6 48	42.4 42	41.7 36	40.2 26
1989 1989	927 16	509 15	293 16	227 8	162 6	119 4	95.1 4	95.1 3	78.5 3
1990 1990	572 35	380 23	215 27	132 28	102 20	87.0 11	65.9 17	51.1 20	43.7 20
1991 1991	953 12	762 4	403 7	328 3	178 4	104 8	78.7 8	81.5 5	73.6 4
1992 1992	290 68	238 54	146 54	82.7 59	54.6 60	48.2 49	37.6 52	30.2 55	22.0 63
1993 1993	379 57	290 39	140 56	76.7 63	57.0 59	37.3 63	29.4 64	28.3 59	26.3 58
1994 1994	1060 6	799 2	429 5	238 5	137 10	85.4 12	72.2 13	61.8 12	56.8 9

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

HIGHEST MEAN VALUE AND RANKING FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS
FOR PERIOD OCT TO SEP

WATER YEAR RANGE	1	3	7	15	30	60	90	120	183
1995 1995	451 47	250 50	151 52	98.0 48	73.8 45	46.7 52	36.8 53	29.2 58	22.6 62
1996 1996	537 38	252 49	173 37	128 33	72.2 47	51.3 45	38.5 49	30.6 54	25.6 59
1997 1997	747 21	390 20	170 40	113 41	81.7 37	62.3 32	57.0 22	48.6 24	41.8 22
1998 1998	392 56	183 66	153 48	115 39	64.6 54	47.5 50	34.7 58	27.3 61	28.0 49
1999 1999	480 42	316 33	182 32	139 27	98.9 24	76.5 18	65.2 18	52.8 18	47.3 16
2000 2000	467 46	256 46	166 42	110 42	59.9 58	55.1 36	38.8 48	31.4 53	27.5 53

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

ANNUAL AND/OR SEMI-ANNUAL VALUES

MEAN VALUE AND RANKING FOR
PERIOD INCLUDED IN LOW-VALUE ANALYSIS
(OCT-SEP)

WATER YEAR RANGE			
1923	1923	18.3	26
1924	1924	19.4	32
1925	1925	21.8	39
1926	1926	7.59	1
1927	1927	14.5	9
1928	1928	18.8	30
1929	1929	19.8	33
1930	1930	31.3	66
1931	1931	16.9	17
1932	1932	28.6	59
1933	1933	12.4	4
1934	1934	18.8	29
1935	1935	23.6	46
1936	1936	15.2	13
1937	1937	42.1	73
1938	1938	29.2	62
1939	1939	26.6	53
1940	1940	13.8	8
1941	1941	17.3	20
1942	1942	40.7	72
1943	1943	16.3	14
1944	1944	9.92	3
1945	1945	15.0	12
1946	1946	22.6	44
1947	1947	26.3	51
1948	1948	36.7	70
1949	1949	22.0	40
1950	1950	25.5	49
1951	1951	21.7	38
1952	1952	21.2	36
1953	1953	14.6	10
1954	1954	18.4	27
1955	1955	32.6	69
1956	1956	30.3	64
1957	1957	22.1	41
1958	1958	28.3	58
1959	1959	26.9	54
1960	1960	28.7	61
1961	1961	21.6	37
1962	1962	17.5	22
1963	1963	17.4	21

MEAN VALUE AND RANKING FOR
PERIOD INCLUDED IN HIGH-VALUE ANALYSIS
(OCT-SEP)

WATER YEAR RANGE			
1923	1923	18.3	53
1924	1924	19.4	47
1925	1925	21.8	40
1926	1926	7.59	78
1927	1927	14.5	70
1928	1928	18.8	49
1929	1929	19.8	46
1930	1930	31.3	13
1931	1931	16.9	62
1932	1932	28.6	20
1933	1933	12.4	75
1934	1934	18.8	50
1935	1935	23.6	33
1936	1936	15.2	66
1937	1937	42.1	6
1938	1938	29.2	17
1939	1939	26.6	26
1940	1940	13.8	71
1941	1941	17.3	59
1942	1942	40.7	7
1943	1943	16.3	65
1944	1944	9.92	76
1945	1945	15.0	67
1946	1946	22.6	35
1947	1947	26.3	28
1948	1948	36.7	9
1949	1949	22.0	39
1950	1950	25.5	30
1951	1951	21.7	41
1952	1952	21.2	43
1953	1953	14.6	69
1954	1954	18.4	52
1955	1955	32.6	10
1956	1956	30.3	15
1957	1957	22.1	38
1958	1958	28.3	21
1959	1959	26.9	25
1960	1960	28.7	18
1961	1961	21.6	42
1962	1962	17.5	57
1963	1963	17.4	58

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

ANNUAL AND/OR SEMI-ANNUAL VALUES

MEAN VALUE AND RANKING FOR
PERIOD INCLUDED IN LOW-VALUE ANALYSIS
(OCT-SEP)

WATER YEAR RANGE			
1964	1964	22.3	42
1965	1965	24.1	47
1966	1966	17.6	23
1967	1967	25.9	50
1968	1968	27.0	55
1969	1969	52.6	78
1970	1970	23.3	45
1971	1971	31.9	67
1972	1972	13.6	7
1973	1973	17.1	18
1974	1974	22.4	43
1975	1975	19.2	31
1976	1976	16.8	16
1977	1977	17.7	25
1978	1978	12.6	5
1979	1979	28.7	60
1980	1980	50.9	76
1981	1981	8.91	2
1982	1982	48.5	75
1983	1983	14.7	11
1984	1984	13.2	6
1985	1985	25.1	48
1986	1986	30.5	65
1987	1987	32.4	68
1988	1988	26.4	52
1989	1989	51.5	77
1990	1990	29.7	63
1991	1991	45.2	74
1992	1992	16.7	15
1993	1993	21.2	35
1994	1994	38.5	71
1995	1995	17.3	19
1996	1996	17.6	24
1997	1997	27.7	57
1998	1998	20.8	34
1999	1999	27.4	56
2000	2000	18.4	28

MEAN VALUE AND RANKING FOR
PERIOD INCLUDED IN HIGH-VALUE ANALYSIS
(OCT-SEP)

WATER YEAR RANGE			
1964	1964	22.3	37
1965	1965	24.1	32
1966	1966	17.6	56
1967	1967	25.9	29
1968	1968	27.0	24
1969	1969	52.6	1
1970	1970	23.3	34
1971	1971	31.9	12
1972	1972	13.6	72
1973	1973	17.1	61
1974	1974	22.4	36
1975	1975	19.2	48
1976	1976	16.8	63
1977	1977	17.7	54
1978	1978	12.6	74
1979	1979	28.7	19
1980	1980	50.9	3
1981	1981	8.91	77
1982	1982	48.5	4
1983	1983	14.7	68
1984	1984	13.2	73
1985	1985	25.1	31
1986	1986	30.5	14
1987	1987	32.4	11
1988	1988	26.4	27
1989	1989	51.5	2
1990	1990	29.7	16
1991	1991	45.2	5
1992	1992	16.7	64
1993	1993	21.2	44
1994	1994	38.5	8
1995	1995	17.3	60
1996	1996	17.6	55
1997	1997	27.7	22
1998	1998	20.8	45
1999	1999	27.4	23
2000	2000	18.4	51

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16508000
Hanawi Stream near Nahiku, Maui, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

ANNUAL AND/OR SEMI-ANNUAL VALUES

MEAN VALUE AND RANKING FOR
PERIOD INCLUDED IN LOW-VALUE ANALYSIS
(OCT-SEP)

WATER YEAR
RANGE

MEAN VALUE AND RANKING FOR
PERIOD INCLUDED IN HIGH-VALUE ANALYSIS
(OCT-SEP)

WATER YEAR
RANGE

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16509000
HANAWI STREAM BL GOVT RD NR NAHIKU, MAUI, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

DURATION TABLE OF DAILY VALUES
FOR PERIOD OCT TO SEP

CLASS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
WATER YEAR RANGE	NUMBER OF DAYS IN CLASS																																		
1933 1933					5	2	10	9	4	2	1		2	2	2			1	1	1	1					2			1				1		
1934 1934			4	8	2	7	3	2	1	5	5	3	1	2	2	1	1		2	2	1	2	2		1		1								1
1935 1935			1	1	2	0	1	0	4	1	2	3	5	1	3	2		4	1			2			1		1	1	1						
1936 1936		3	2	2	0	4	6	1	9	5	8	3	1	2	4	1	1	1	2	3						1									
1937 1937			3	9	5	2	6	9	3	0	1	4	5	5	4	1	0	5	3	7	6	3	6	1	4	2	1	4	2	2	4	1	1		1	
1938 1938					4	1	1	9	4	2	8	1	0	7	4	7	2	4	7	2	7		4	3	2	3	1	5	1	2	1	1				1
1939 1939					8	2	1	3	5	4	9	7	6	5	7	5	5	5	2	3	2	2	3	1		1	1	1				1		1		
1940 1940			7	7	5	4	6	7	1	0	2	4	4	2	1	5	1	2	1	1	3	1	2	1		2			1						
1941 1941				8	4	1	6	5	2	1	1			1	3	5	4		3			1	2		2	1	1		1						
1942 1942				9	0	4	6	1	4	1	0	3	5	4	3	6	5	5	4	7	3		1	1	2		1	1	1	2			1	1		
1943 1943					1	7	1	2	5	2	5	3	4	1	2	1	3	1		2	1	1	2								1					
1944 1944				6	4	2	5	1	2	1	6	2	1	2	1	1					1														
1945 1945			2	2	2	8	0	1	9	4	1	4	1	2		1		5				1			1										
1946 1946				8	4	1	6	7	7	8	3	4	8	5	2	2	4	3	2	1	3					1		1	1						
1993 1993				6	5	1	9	8	1	2	5	5	3	3	2	4	1	4	2		3														
1994 1994				7	0	1	4	9	1	1	4	3	1	2	5	2	3	4	8	4	2	1	1		2			1			1				
1995 1995				5	4	1	4	5	1	8	9	1	1	2	3	2	2	1							1										

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16509000
HANAWI STREAM BL GOVT RD NR NAHIKU, MAUI, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

CLASS	VALUE	TOTAL	ACCUM	PERCT	CLASS	VALUE	TOTAL	ACCUM	PERCT	CLASS	VALUE	TOTAL	ACCUM	PERCT
1	0.00	0	6208	100.00	13	71.00	50	464	7.47	25	453.00	12	67	1.08
2	13.00	32	6208	100.00	14	83.00	48	414	6.67	26	528.00	12	55	0.89
3	15.00	1112	6176	99.48	15	97.00	59	366	5.90	27	617.00	12	43	0.69
4	18.00	1976	5064	81.57	16	113.00	42	307	4.95	28	720.00	8	31	0.50
5	21.00	1065	3088	49.74	17	132.00	38	265	4.27	29	840.00	10	23	0.37
6	24.00	845	2023	32.59	18	154.00	48	227	3.66	30	980.00	3	13	0.21
7	28.00	265	1178	18.98	19	179.00	27	179	2.88	31	1140.00	2	10	0.16
8	33.00	115	913	14.71	20	209.00	27	152	2.45	32	1330.00	2	8	0.13
9	38.00	108	798	12.85	21	244.00	16	125	2.01	33	1560.00	3	6	0.10
10	45.00	82	690	11.11	22	285.00	19	109	1.76	34	1820.00	1	3	0.05
11	52.00	69	608	9.79	23	333.00	16	90	1.45	35	2120.00	2	2	0.03
12	61.00	75	539	8.68	24	388.00	7	74	1.19					

DURATION CURVE STATISTICAL CHARACTERISTICS FOR ...
STATION ID: 16509000 HANAWI STREAM BL GOVT RD NR NAHIKU, MAUI, HI
PARAMETER CODE = 00060
STATISTIC CODE - 00003 MEAN

DURATION DATA VALUES ARE INTERPOLATED FROM DURATION TABLE:
DATA ARE NOT ANALYTICALLY FITTED TO A PARTICULAR STATISTICAL DISTRIBUTION,
AND THE USER IS RESPONSIBLE FOR ASSESSMENT AND INTERPRETATION.

ADDITIONAL CONDITIONS FOR THIS RUN ARE:
STATISTICS ARE BASED ON LOGARITHMS (BASE 10).
NUMBER OF VALUES IS REDUCED FOR EACH NEAR-ZERO OR ZERO VALUE.

NUMBER OF VALUES = 19 (NUMBER OF NEAR-ZERO VALUES = 0)
LISTING OF DATA FOLLOWS:

PERCENT OF TIME VALUE EQUALED OR EXCEEDED	DATA VALUE	
95.0	15.8	(LOG = 1.19731)
90.0	16.6	(LOG = 1.21981)
85.0	17.4	(LOG = 1.24120)
80.0	18.1	(LOG = 1.25883)
75.0	18.6	(LOG = 1.26997)
70.0	19.1	(LOG = 1.28082)
65.0	19.6	(LOG = 1.29141)
60.0	20.0	(LOG = 1.30175)
55.0	20.5	(LOG = 1.31185)
50.0	21.0	(LOG = 1.32172)
45.0	21.8	(LOG = 1.33904)
40.0	22.7	(LOG = 1.35610)
35.0	23.6	(LOG = 1.37251)
30.0	24.8	(LOG = 1.39375)
25.0	26.2	(LOG = 1.41879)
20.0	27.7	(LOG = 1.44246)
15.0	32.7	(LOG = 1.51397)
10.0	50.9	(LOG = 1.70678)
5.0	112.1	(LOG = 2.04952)

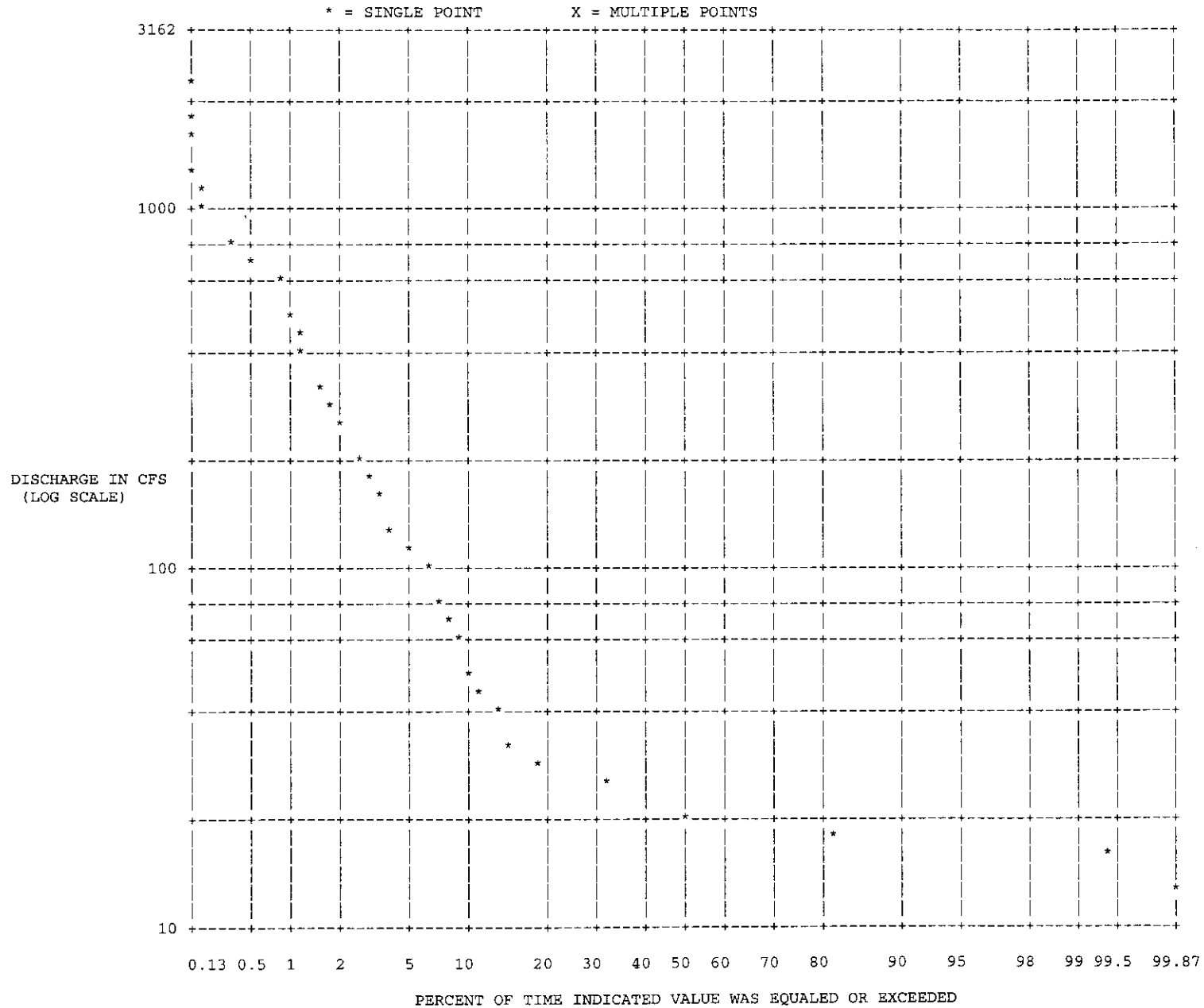
MEAN OF LOGS = 1.38356

STANDARD DEVIATION OF LOGS = 0.19967 (VARIABILITY INDEX - SEE USGS WSP 1542-A)

COEFFICIENT OF VARIATION = 0.14431

COEFFICIENT OF SKEW = 2.42848

LOG-NORMAL DURATION PLOT FOR PERIOD OCT TO SEP (YEARS 1932 - 1995)
STATION ID: 16509000 HANAWI STREAM BL GOVT RD NR NAHIKU, MAUI, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN



DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16509000
HANAWI STREAM BL GOVT RD NR NAHIKU, MAUI, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

LOWEST MEAN VALUE AND RANKING FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS
FOR PERIOD OCT TO SEP

WATER YEAR RANGE	1	3	7	14	30	60	90	120	183
1933 1933	20.0 15	20.0 15	20.3 15	20.6 15	20.8 15	21.2 13	21.4 8	21.4 6	23.5 8
1934 1934	16.0 5	16.0 5	16.0 4	16.0 4	16.3 5	19.1 11	22.8 12	22.0 8	26.7 11
1935 1935	17.0 12	17.0 12	17.4 13	17.4 13	18.8 12	19.1 12	19.6 6	19.7 4	22.4 5
1936 1936	13.0 1	13.0 1	13.0 1	13.4 1	13.8 1	16.6 3	16.5 1	17.5 1	20.7 2
1937 1937	16.0 6	16.0 6	16.1 10	16.6 11	19.4 14	21.6 15	51.2 17	47.2 17	54.0 16
1938 1938	22.0 16	22.0 16	22.0 16	22.4 16	24.0 16	25.6 16	27.7 15	33.1 16	71.5 17
1939 1939	23.0 17	23.0 17	23.1 17	23.5 17	26.5 17	29.8 17	29.9 16	30.1 15	43.1 15
1940 1940	16.0 7	16.0 7	16.0 5	16.0 5	16.2 2	16.5 1	16.9 3	22.5 10	23.1 6
1941 1941	16.0 8	16.0 8	16.0 6	16.1 9	16.4 7	17.1 4	22.2 10	27.5 14	31.1 14
1942 1942	15.0 2	15.7 4	16.0 7	16.0 6	16.2 3	18.1 6	21.0 7	21.5 7	23.4 7
1943 1943	18.0 14	18.7 14	19.0 14	19.0 14	19.3 13	21.5 14	24.2 14	23.9 13	27.0 12
1944 1944	17.0 13	17.0 13	17.0 12	17.0 12	17.0 8	18.3 7	18.7 4	18.7 3	20.1 1
1945 1945	15.0 3	15.0 2	15.0 2	15.4 2	16.3 6	16.5 2	16.6 2	17.5 2	22.1 4
1946 1946	16.0 9	16.0 9	16.0 8	16.0 7	16.2 4	18.7 9	21.8 9	23.4 12	25.1 10
1993 1993	16.0 10	16.0 10	16.0 9	16.0 8	17.0 9	18.5 8	23.9 13	23.1 11	24.7 9
1994 1994	15.0 4	15.0 3	15.0 3	15.5 3	17.7 11	19.0 10	22.2 11	22.1 9	27.4 13
1995 1995	16.0 11	16.0 11	16.1 11	16.4 10	17.2 10	17.9 5	19.3 5	21.2 5	20.9 3

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16509000
HANAWI STREAM BL GOVT RD NR NAHIKU, MAUI, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

HIGHEST MEAN VALUE AND RANKING FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS
FOR PERIOD OCT TO SEP

WATER YEAR RANGE	1	3	7	15	30	60	90	120	183
1933 1933	1780 4	960 4	457 5	232 6	136 7	83.6 6	79.3 5	68.1 5	53.5 5
1934 1934	2120 2	807 6	367 6	245 5	161 5	97.1 5	75.7 6	63.9 6	51.7 6
1935 1935	871 10	632 7	309 9	158 10	96.4 9	76.1 8	64.6 8	58.5 7	49.3 8
1936 1936	579 13	228 14	117 14	69.5 15	47.0 16	36.1 16	31.3 16	28.2 16	28.5 16
1937 1937	1760 5	1277 3	739 3	481 2	317 1	230 1	203 1	165 1	130 2
1938 1938	2320 1	1547 1	928 1	483 1	300 2	206 2	171 2	149 2	131 1
1939 1939	1980 3	925 5	668 4	343 4	193 4	142 4	110 3	99.7 3	79.2 4
1940 1940	959 8	566 9	337 8	219 7	140 6	82.5 7	60.7 10	49.6 10	42.3 10
1941 1941	812 12	360 11	225 10	122 11	70.6 12	53.3 12	48.9 11	44.1 11	41.6 11
1942 1942	1640 6	1279 2	803 2	443 3	259 3	149 3	108 4	85.6 4	79.3 3
1943 1943	1090 7	379 10	174 12	108 12	82.0 11	56.1 11	46.2 12	42.5 12	38.5 12
1944 1944	243 16	108 17	57.4 17	39.1 17	33.5 17	26.6 17	25.2 17	24.8 17	24.0 17
1945 1945	424 14	235 13	112 15	75.5 14	51.9 15	46.0 14	36.1 14	32.0 15	29.6 15
1946 1946	818 11	303 12	180 11	166 9	96.1 10	72.3 9	66.0 7	57.3 8	45.4 9
1993 1993	232 17	196 16	101 16	58.5 16	52.1 14	38.7 15	31.9 15	33.3 14	31.1 14
1994 1994	937 9	621 8	342 7	187 8	111 8	71.7 10	62.6 9	54.6 9	50.2 7
1995 1995	333 15	204 15	132 13	85.9 13	67.8 13	51.3 13	43.2 13	38.5 13	31.7 13

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16509000
HANAWI STREAM BL GOVT RD NR NAHIKU, MAUI, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

ANNUAL AND/OR SEMI-ANNUAL VALUES

MEAN VALUE AND RANKING FOR PERIOD INCLUDED IN LOW-VALUE ANALYSIS (OCT-SEP)

WATER YEAR RANGE			
1933	1933	37.6	11
1934	1934	37.7	12
1935	1935	34.4	9
1936	1936	24.6	3
1937	1937	85.0	17
1938	1938	80.7	16
1939	1939	55.7	15
1940	1940	36.4	10
1941	1941	34.0	8
1942	1942	51.5	14
1943	1943	31.1	6
1944	1944	21.3	1
1945	1945	23.9	2
1946	1946	33.7	7
1993	1993	27.1	4
1994	1994	38.1	13
1995	1995	27.5	5

MEAN VALUE AND RANKING FOR PERIOD INCLUDED IN HIGH-VALUE ANALYSIS (OCT-SEP)

WATER YEAR RANGE			
1933	1933	37.6	7
1934	1934	37.7	6
1935	1935	34.4	9
1936	1936	24.6	15
1937	1937	85.0	1
1938	1938	80.7	2
1939	1939	55.7	3
1940	1940	36.4	8
1941	1941	34.0	10
1942	1942	51.5	4
1943	1943	31.1	12
1944	1944	21.3	17
1945	1945	23.9	16
1946	1946	33.7	11
1993	1993	27.1	14
1994	1994	38.1	5
1995	1995	27.5	13

DVSTAT - DAILY VALUES STATISTICAL PROGRAM

STATION ID - 16509000
HANAWI STREAM BL GOVT RD NR NAHIKU, MAUI, HI
PARAMETER CODE - 00060 DISCHARGE
STATISTIC CODE - 00003 MEAN

ANNUAL AND/OR SEMI-ANNUAL VALUES

MEAN VALUE AND RANKING FOR
PERIOD INCLUDED IN LOW-VALUE ANALYSIS
(OCT-SEP)

WATER YEAR
RANGE

MEAN VALUE AND RANKING FOR
PERIOD INCLUDED IN HIGH-VALUE ANALYSIS
(OCT-SEP)

WATER YEAR
RANGE