

HAWAII, ISLAND OF OAHU

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16330000 KAMANANUI STREAM AT MAUNAWAI

LOCATION.--Lat 21°38'20", long 158°03'27", Hydrologic Unit 20060000, on right bank, 0.5 mi upstream from Kamehameha Highway, 5.9 mi northeast of Waialua School, and 7.4 mi southwest of Kahuku School.

DRAINAGE AREA.--12.36 mi², revised, including that of Elehaha Stream which is mostly diverted into Kamananui Stream since June 14, 1975.

PERIOD OF RECORD.--February 1958 to current year.

REVISED RECORDS.--WSP 1937: 1958-60. WRD Hawaii 1974: 1971(P), 1972-73(M). WDR HI-81-1: Drainage area.

GAGE.--Gage destroyed by flood of November 20, 1990 was restored and water-stage recorder installed on February 25, 1993. Control rebuilt about 75 ft downstream of gage. Elevation of gage is 20 ft above mean sea level (from topographic map). Prior to May 18, 1966, datum 2.00 ft higher.

REMARKS.--Records computed by S.T.M. Young. Records fair. Small diversion upstream of station.

AVERAGE DISCHARGE.--28 years (water years 1975-2002), 18.5 ft³/s (13,430 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s, November 20, 1990, gage height, 15.84 ft, from rating curve extended above 150 ft³/s on basis of slope-area measurements at gage heights 5.68 ft, 11.46 ft, and 15.84 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 27	0500	*2,290	*7.93	Jan 29	0230	1,430	6.82
Jan 28	2215	1,800	7.33	May 6	0930	2,000	7.59

Minimum discharge, 0.05 ft³/s, Sept. 30, gage height, 1.46 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	15	4.7	5.0	60	4.3	3.8	3.5	1.3	3.4	1.00	3.2
2	15	6.4	4.2	4.3	26	4.1	3.2	1.7	1.1	8.9	0.69	1.8
3	3.0	5.0	4.0	4.1	18	4.4	2.9	1.1	1.0	3.8	0.55	1.4
4	50	5.1	3.8	3.8	114	4.4	2.9	17	1.1	1.7	0.27	1.5
5	112	7.1	8.5	3.5	82	15	2.7	10	1.2	0.90	0.13	1.8
6	35	7.6	11	3.2	26	136	2.5	799	1.00	0.55	0.12	0.97
7	9.3	18	8.2	3.1	18	78	2.2	408	1.1	0.48	3.0	0.64
8	5.8	131	5.1	3.0	63	24	2.1	53	0.91	0.57	5.5	0.41
9	3.6	21	4.4	2.6	43	11	1.9	48	0.75	4.4	3.2	0.48
10	2.7	8.9	4.6	2.6	18	32	1.7	24	0.72	3.2	2.4	0.29
11	5.0	5.8	3.6	2.9	14	11	1.6	15	0.82	6.0	2.1	0.08
12	8.6	4.5	3.2	2.7	13	8.2	1.5	11	0.87	2.3	5.7	0.07
13	5.3	4.8	7.0	2.3	31	6.6	1.5	10	0.77	1.2	5.5	0.12
14	9.9	5.6	59	2.1	16	6.8	1.4	8.9	0.51	0.59	3.1	0.17
15	4.6	4.3	28	2.0	14	6.1	1.3	6.9	0.43	0.46	2.2	0.18
16	3.7	3.5	12	2.0	14	7.6	1.2	5.8	0.37	0.42	1.2	0.83
17	9.2	3.0	7.4	1.8	10	62	1.5	5.0	0.34	0.41	0.68	1.2
18	4.0	2.9	5.9	1.9	9.1	19	2.0	4.6	0.35	0.45	0.41	0.83
19	2.5	3.1	6.6	2.8	7.8	10	3.1	9.0	2.5	5.1	0.22	6.4
20	1.9	3.1	16	4.0	7.1	7.2	3.3	6.9	5.2	7.1	0.14	4.9
21	1.7	3.2	16	5.3	6.6	6.0	6.5	4.7	1.7	2.4	0.12	1.9
22	1.7	3.3	8.9	7.3	5.7	5.3	3.8	3.8	16	6.3	0.16	0.92
23	1.6	3.7	63	9.7	5.6	4.8	2.1	3.1	6.6	4.0	0.15	0.34
24	1.3	4.6	70	4.1	5.3	4.5	1.4	2.9	6.1	2.1	0.11	0.10
25	1.3	6.4	21	2.7	5.1	3.8	1.3	2.5	4.7	1.5	0.08	0.08
26	1.5	8.1	13	2.4	5.0	3.8	3.2	2.4	1.6	1.3	0.16	0.08
27	38	359	10	78	4.8	3.6	3.8	2.2	0.74	0.99	0.19	0.07
28	117	23	7.8	328	4.5	3.5	5.3	1.9	0.42	0.72	0.19	0.07
29	22	9.6	7.6	531	---	3.4	12	1.7	0.35	0.89	2.3	0.07
30	6.5	6.0	9.0	124	---	4.1	11	1.6	0.34	2.8	4.1	0.05
31	4.9	--	5.9	121	---	4.3	--	1.4	--	1.7	16	--
TOTAL	541.6	692.6	439.4	1273.2	646.6	504.8	94.7	1476.6	60.89	76.63	61.67	30.95
MEAN	17.5	23.1	14.2	41.1	23.1	16.3	3.16	47.6	2.03	2.47	1.99	1.03
MAX	117	359	70	531	114	136	12	799	16	8.9	16	6.4
MIN	1.3	2.9	3.2	1.8	4.5	3.4	1.2	1.1	0.34	0.41	0.08	0.05
AC-FT	1070	1370	872	2530	1280	1000	188	2930	121	152	122	61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

MEAN	11.7	30.8	21.1	30.5	20.4	30.9	24.9	15.2	8.87	12.5	9.42	6.26
MAX	54.1	168	107	143	96.9	155	168	58.3	52.9	52.7	46.2	19.9
(WY)	1992	1991	1988	1988	1979	1982	1989	1988	1978	1989	1995	1994
MIN	0.006	2.60	0.67	0.094	0.022	0.85	0.64	0.95	0.65	0.98	0.58	0.006
(WY)	1985	1990	1977	1986	1978	1998	1992	1984	2000	1984	1984	1984

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SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1975 - 2002
ANNUAL TOTAL	3720.31	5899.64	
ANNUAL MEAN	10.2	16.2	18.5
HIGHEST ANNUAL MEAN			50.3
LOWEST ANNUAL MEAN			4.81
HIGHEST DAILY MEAN	359 Nov 27	799 May 6	1940 Jan 1 1988
LOWEST DAILY MEAN	0.05 Feb 8	0.05 Sep 30	0.00 Sep 15 1975
ANNUAL SEVEN-DAY MINIMUM	0.11 Feb 2	0.07 Sep 24	0.00 Sep 15 1975
ANNUAL RUNOFF (AC-FT)	7380	11700	13430
10 PERCENT EXCEEDS	20	22	30
50 PERCENT EXCEEDS	3.2	3.8	3.9
90 PERCENT EXCEEDS	0.34	0.42	0.28

