

## 16229300 KALIHI STREAM AT KALIHI

LOCATION.--Lat 21°20'29", long 157°52'36", Old Hawaiian Datum, Hydrologic Unit 20060000, on right bank at Kalihi, 0.4 mi northwest of Bishop Museum, and 2.4 mi northwest of Honolulu Post Office.

DRAINAGE AREA.--5.18 mi<sup>2</sup>.

PERIOD OF RECORD.--Water year 1962 (annual maximum), July 1962 to current year.

CHEMICAL ANALYSES: Water years 1970-74, 1975-93, quarterly.

SUSPENDED-SEDIMENT DISCHARGE: Water years 1969-74, 1975-93, quarterly.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 70 ft above mean sea level (from topographic map). August 28, 1961, to June 30, 1962, crest-stage gage at site 600 ft downstream at different datum.

REMARKS.--Records computed by M.T.J. Ball. Records good.

AVERAGE DISCHARGE.--42 years (water years 1963-2004), 9.79 ft<sup>3</sup>/s (7,090 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft<sup>3</sup>/s, April 19, 1974, gage height, 9.98 ft from rating curve extended above 180 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 9.98 ft; minimum, 0.00 ft<sup>3</sup>/s, October 13-14, 1999.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 14, 1960, reached a stage of 8.0 ft from floodmarks, present site and datum, discharge, 6,350 ft<sup>3</sup>/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 980 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 29	1415	993	4.02	Feb 27	1500	1,390	4.68
Dec 7	2130	*3,580	*7.22	Aug 4	0630	1,030	4.09
Jan 2	1630	987	4.01				

Minimum discharge, 0.68 ft<sup>3</sup>/s, Oct. 2, gage height, 0.57 ft.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	3.8	62	76	8.9	21	23	5.7	4.8	6.6	2.0	3.8
2	1.2	4.5	20	342	8.2	17	21	5.7	5.1	5.2	6.6	3.9
3	1.5	5.1	13	132	7.8	13	29	6.5	4.7	4.4	12	3.8
4	1.9	3.8	52	33	7.4	12	20	13	4.4	4.1	170	3.2
5	1.4	2.7	154	19	9.3	10	16	11	4.0	5.6	14	3.2
6	1.4	3.3	63	14	13	8.9	14	8.2	4.2	4.6	7.0	4.2
7	4.1	3.6	365	12	74	8.7	12	17	4.5	4.0	10	3.4
8	6.4	4.1	97	10	42	9.2	17	7.7	4.7	3.9	6.6	2.7
9	6.0	3.2	32	8.9	15	7.3	11	6.5	8.9	3.6	6.0	2.9
10	2.9	3.4	46	8.1	13	7.8	18	6.1	8.7	3.1	5.1	2.9
11	6.0	3.6	31	7.4	11	7.0	11	59	9.1	5.0	8.2	4.0
12	7.0	2.7	18	7.1	9.6	6.6	15	23	7.2	4.1	7.9	5.3
13	4.3	3.2	15	6.6	7.6	22	11	9.4	6.2	4.9	5.5	3.8
14	7.3	5.3	12	11	7.3	16	10	8.8	5.3	3.2	5.1	6.4
15	4.8	4.5	9.8	7.5	6.8	9.6	16	39	4.5	2.9	4.1	3.7
16	3.5	5.3	8.5	7.2	6.5	7.6	17	14	9.6	4.0	3.8	2.8
17	3.2	4.4	8.0	6.9	6.5	7.1	10	10	8.7	2.8	4.2	2.7
18	3.1	7.9	7.2	6.8	5.9	6.4	9.0	8.5	5.7	2.6	3.5	2.9
19	2.7	7.1	6.4	6.8	5.4	6.0	8.9	7.6	6.0	2.6	3.1	6.0
20	2.2	3.7	5.9	11	5.3	10	20	7.2	9.4	2.4	3.1	2.7
21	2.4	3.5	5.2	7.5	5.2	154	13	6.8	6.7	2.3	6.1	2.6
22	2.5	2.9	4.9	15	5.4	176	9.1	6.4	10	2.1	3.4	3.9
23	2.4	3.7	5.1	39	5.5	108	8.6	6.9	10	2.1	7.3	15
24	2.5	3.4	4.2	10	5.4	42	7.7	6.3	9.0	2.1	5.7	7.1
25	2.3	5.0	4.0	31	5.7	37	7.2	6.2	6.0	2.0	5.8	3.5
26	2.4	3.2	3.7	17	75	59	15	5.4	5.3	2.3	16	3.1
27	2.3	3.1	3.7	9.8	291	35	8.2	5.8	4.8	2.9	9.4	2.8
28	2.9	2.8	7.5	8.2	61	22	7.0	6.1	5.7	4.1	7.2	2.5
29	2.7	116	4.3	7.1	26	42	6.4	7.3	5.5	2.1	6.6	2.8
30	3.4	51	19	8.2	---	121	6.0	5.1	6.9	2.0	4.8	5.9
31	3.5	---	57	10	---	35	---	5.6	---	2.6	4.3	---
TOTAL	101.6	279.8	1,144.4	896.1	750.7	1,044.2	397.1	341.8	195.6	106.2	364.4	123.5
MEAN	3.28	9.33	36.9	28.9	25.9	33.7	13.2	11.0	6.52	3.43	11.8	4.12
MAX	7.3	116	365	342	291	176	29	59	10	6.6	170	15
MIN	1.2	2.7	3.7	6.6	5.2	6.0	6.0	5.1	4.0	2.0	2.0	2.5
AC-FT	202	555	2,270	1,780	1,490	2,070	788	678	388	211	723	245

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2004, BY WATER YEAR (WY)

	6.37	13.0	14.4	13.6	10.8	15.0	12.6	9.13	5.12	7.16	5.78	4.63
MEAN	6.37	13.0	14.4	13.6	10.8	15.0	12.6	9.13	5.12	7.16	5.78	4.63
MAX	22.2	49.2	56.6	45.8	60.3	73.2	57.6	40.9	19.5	29.3	35.7	20.4
(WY)	(1964)	(1966)	(1988)	(1982)	(1969)	(1968)	(1989)	(1965)	(1980)	(1970)	(1982)	(1992)
MIN	0.95	2.07	1.15	0.82	0.78	1.15	1.65	1.17	0.72	0.96	0.68	0.64
(WY)	(1985)	(2003)	(1977)	(1977)	(1978)	(1983)	(1992)	(2003)	(2003)	(2003)	(2003)	(1984)

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## 16229300 KALIHI STREAM AT KALIHI—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1962 - 2004	
ANNUAL TOTAL	2,315.58		5,745.4		9.79	
ANNUAL MEAN	6.34		15.7		21.3 1982	
HIGHEST ANNUAL MEAN					2.67 2003	
LOWEST ANNUAL MEAN					781 Feb 1, 1969	
HIGHEST DAILY MEAN	365	Dec 7	365	Dec 7	0.36 Oct 14, 1984	
LOWEST DAILY MEAN	0.40	Jul 12	1.2	Oct 2	0.05 Oct 14, 1999	
ANNUAL SEVEN-DAY MINIMUM	0.45	Aug 29	1.8	Oct 1	0.36 Oct 14, 1984	
ANNUAL RUNOFF (AC-FT)	4,590		11,400		7,090	
10 PERCENT EXCEEDS	7.1		30		17	
50 PERCENT EXCEEDS	2.1		6.5		3.6	
90 PERCENT EXCEEDS	0.51		2.8		1.2	