

16304200 KALUANUI STREAM NEAR PUNALUU

LOCATION.--Lat 21°35'22", long 157°54'38", Old Hawaiian Datum, Hydrologic Unit 20060000, on right bank, 0.8 mi downstream from Sacred Falls, 1.6 mi west of Punaluu Beach Park, and 1.7 mi south of cemetery in Hauula.

DRAINAGE AREA.--1.11 mi².

PERIOD OF RECORD.--May 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 110 ft above mean sea level (from topographic map).

REMARKS.--Records computed by Heather Jepesen. Records good except for discharges greater than 80 ft³/s, which are poor. No diversion upstream of station.

AVERAGE DISCHARGE.--37 years (water years 1968-2004), 4.33 ft³/s (3,130 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,390 ft³/s, January 6, 1982, gage height, 11.90 ft, from rating curve extended above 14 ft³/s on basis of slope-area measurement at gage height 10.84 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

	Date	Time	Discharge (ft ³ /s)	Gage height (ft)		Date	Time	Discharge (ft ³ /s)	Gage height (ft)
	Nov 29	1430	*920	*8.54		Jul 9	0200	739	8.18
	May 11	1900	526	7.74		Aug 4	0500	598	7.90

Minimum discharge, 0.10 ft³/s, Nov. 1, 2, gage height, 4.61 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	0.24	0.12	21	22	6.4	1.9	3.3	1.4	1.3	2.3	0.60	0.97
2	0.21	1.0	29	52	2.1	100	9.2	1.4	4.2	2.4	18	1.5
3	0.21	0.47	50	18	2.3	6.1	25	1.2	2.2	1.6	22	0.86
4	0.22	0.32	99	2.7	8.6	13	12	2.5	3.6	1.6	128	0.69
5	0.19	0.27	70	1.7	12	3.1	3.4	1.9	1.8	1.9	4.3	0.59
6	0.17	2.0	13	1.3	3.7	2.0	2.5	15	1.4	2.6	2.1	2.1
7	0.16	14	54	1.1	68	9.8	2.0	62	3.6	1.3	14	0.75
8	2.3	5.1	15	1.0	19	6.9	1.7	3.1	3.8	1.9	3.0	0.50
9	3.5	0.83	10	0.80	3.5	1.9	1.5	8.6	11	38	2.0	0.74
10	0.57	0.47	9.5	0.67	2.3	3.7	11	19	12	1.7	4.4	0.83
11	5.3	0.38	6.4	0.56	1.8	11	5.4	75	8.1	3.0	6.3	1.5
12	3.0	0.32	3.3	0.66	1.6	43	23	8.8	4.0	1.6	3.5	1.7
13	1.6	0.31	3.6	0.53	1.3	14	6.5	3.2	3.7	1.9	2.0	0.61
14	5.7	2.0	4.0	8.5	1.1	7.4	2.5	2.8	2.3	1.4	3.1	1.5
15	4.0	1.3	2.0	1.2	1.1	2.1	3.9	32	1.9	1.3	1.7	0.88
16	1.7	0.56	1.7	0.62	1.6	1.6	10	9.6	5.0	1.1	1.4	0.70
17	1.0	1.4	7.8	0.48	0.84	1.6	2.7	3.1	17	0.96	1.3	1.6
18	0.92	4.0	1.6	0.38	0.68	1.3	1.8	2.1	2.3	0.90	1.3	0.61
19	0.56	1.9	1.3	0.34	0.58	1.1	7.7	1.7	4.0	0.86	0.95	4.5
20	0.40	0.77	1.2	0.88	0.49	16	20	1.5	2.7	0.71	0.80	1.0
21	0.33	0.56	1.0	0.72	0.42	78	9.8	1.4	1.9	0.58	4.7	1.2
22	0.31	0.80	0.90	16	0.38	10	5.3	1.2	14	0.49	1.4	1.1
23	0.77	2.2	0.91	5.3	0.37	28	4.8	1.6	3.6	0.43	1.1	2.1
24	0.38	2.6	0.98	2.3	0.31	7.2	2.3	1.3	2.2	0.39	1.8	1.0
25	0.45	1.0	0.75	19	0.29	18	1.9	2.1	1.7	0.37	1.8	1.9
26	0.27	0.78	0.61	11	6.8	25	60	1.2	1.5	0.42	2.1	0.98
27	0.21	0.54	0.51	2.6	99	8.2	4.1	1.2	1.6	0.62	3.0	0.70
28	0.17	1.1	3.6	3.8	6.4	3.3	2.3	4.5	5.4	2.9	2.8	0.72
29	0.15	134	0.75	2.0	1.9	49	1.8	1.6	2.4	0.69	2.4	0.90
30	0.17	109	16	15	---	30	1.5	4.7	2.4	0.37	1.9	0.80
31	0.16	---	12	5.8	---	5.3	---	3.7	---	0.45	1.3	---
TOTAL	35.32	290.10	441.41	198.94	254.86	509.5	248.9	280.4	132.6	76.74	245.05	35.53
MEAN	1.14	9.67	14.2	6.42	8.79	16.4	8.30	9.05	4.42	2.48	7.90	1.18
MAX	5.7	134	99	52	99	100	60	75	17	38	128	4.5
MIN	0.15	0.12	0.51	0.34	0.29	1.1	1.5	1.2	1.3	0.37	0.60	0.50
AC-FT	70	575	876	395	506	1,010	494	556	263	152	486	70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2004, BY WATER YEAR (WY)

MEAN	3.30	5.83	5.05	5.26	4.62	5.56	5.61	3.97	2.77	3.94	3.28	2.91
MAX	7.68	19.0	17.7	17.9	19.7	32.2	19.3	14.6	7.72	11.7	8.37	9.34
(WY)	(1992)	(1991)	(1988)	(1988)	(1979)	(1982)	(1989)	(2002)	(1987)	(1982)	(1991)	(1994)
MIN	0.27	1.66	0.48	0.26	0.37	0.14	0.87	0.52	0.49	0.21	0.53	0.22
(WY)	(1985)	(1981)	(1977)	(1986)	(2000)	(1983)	(1979)	(2000)	(2003)	(1971)	(1984)	(1975)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1967 - 2004
ANNUAL TOTAL	1,589.84	2,749.35	
ANNUAL MEAN	4.36	7.51	4.33
HIGHEST ANNUAL MEAN			9.94
LOWEST ANNUAL MEAN			2.04
HIGHEST DAILY MEAN	134	Nov 29	230 Feb 1, 1969
LOWEST DAILY MEAN	0.00	Jun 11	0.00 Jul 24, 1971
ANNUAL SEVEN-DAY MINIMUM	0.02	Jun 9	0.00 Sep 14, 1975
ANNUAL RUNOFF (AC-FT)	3,150	5,450	3,130
10 PERCENT EXCEEDS	6.4	16	9.4
50 PERCENT EXCEEDS	0.83	1.9	1.4
90 PERCENT EXCEEDS	0.19	0.45	0.26