

## HAWAII, ISLAND OF HAWAII

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16756100 KOHAKOHAU STREAM ABOVE DWS INTAKE, NEAR KAMUELA

LOCATION.--Lat 20°02'58", long 155°41'05", Hydrologic Unit 20010000, on right bank 200 ft upstream of Department of Water Supply dam and intake, 0.85 mi west of Puu Oahu, and 1.85 mi northwest of junction of Highways 19 and 190.

DRAINAGE AREA.--2.40 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,470 ft above mean sea level (from topographic map).

REMARKS.--Records computed by Gary Sanchez. Records fair except for estimated daily discharges, which are poor. Two Parker Ranch 4-in. pipelines divert water upstream at 4,250 ft and lower. Hawaii Department of Water Supply diverts water at dam 200 ft downstream for domestic use in the Kamuela and Kawaihae areas since August 20, 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft<sup>3</sup>/s, February 26, 2002, gage height, 6.81 ft from rating curve developed using flow-over-dam computations and high water marks at gage; minimum, 0.22 ft<sup>3</sup>/s, March 15-17, 2000.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 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)
Oct 28	1045	408	4.90	Jan 3	0315	622	5.45
Dec 12	1600	658	5.53	Feb 26	0030	*1,460	*6.81
Dec 30	2100	428	4.96				

Minimum discharge, 0.39 ft<sup>3</sup>/s, June 1, gage height, 1.54 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	e5.0	41	17	7.9	18	3.8	0.91	2.5	0.39	68	10	2.9
2	e8.0	33	16	3.8	8.0	2.5	0.84	2.1	0.90	21	3.4	2.0
3	e2.0	16	21	97	3.3	3.6	0.80	4.9	1.5	23	3.2	5.6
4	1.6	19	19	6.3	2.2	5.3	0.75	16	0.80	63	33	4.1
5	1.9	50	15	3.3	1.6	61	0.68	3.3	0.63	15	16	7.5
6	1.7	43	3.1	2.4	1.5	24	0.64	3.5	0.88	11	8.8	3.1
7	57	8.4	2.1	2.1	1.3	4.9	0.61	2.6	1.2	18	20	44
8	19	57	20	1.7	1.4	2.8	0.57	6.0	2.1	36	9.1	23
9	26	58	74	1.5	3.1	3.0	0.54	3.9	1.0	110	6.3	19
10	24	24	19	1.8	2.2	2.8	0.50	2.1	1.8	65	4.4	18
11	75	17	29	1.6	6.9	1.9	0.49	1.4	4.2	45	4.0	4.6
12	14	5.5	156	1.4	12	1.6	0.47	1.3	1.9	13	3.7	2.7
13	22	2.9	118	1.3	25	1.4	0.44	2.3	4.9	6.2	2.5	2.5
14	9.5	2.0	35	1.2	17	1.2	0.44	3.4	3.4	3.7	1.9	4.5
15	4.6	2.7	16	1.1	7.1	1.3	0.43	1.8	20	15	1.6	21
16	3.2	1.7	14	1.1	3.8	11	0.44	2.9	5.1	29	1.5	12
17	6.4	1.2	52	32	3.4	85	0.98	5.8	6.6	14	1.6	30
18	9.6	0.98	126	74	2.2	118	1.3	17	21	45	9.2	10
19	6.6	0.83	29	63	1.6	38	0.79	28	19	9.8	25	4.3
20	8.1	0.75	15	10	4.4	9.0	0.66	8.2	7.6	12	28	2.5
21	15	0.68	16	13	2.6	7.0	0.59	3.2	5.7	35	7.9	1.7
22	11	0.62	6.4	6.4	1.7	3.2	0.71	1.8	20	113	3.5	1.4
23	3.9	0.59	4.0	3.4	1.3	2.2	1.00	1.2	15	31	8.7	1.2
24	2.5	0.52	3.1	2.3	197	1.7	1.1	0.99	5.1	14	29	0.98
25	1.9	0.47	2.4	1.8	236	1.4	1.5	0.84	7.4	55	12	0.88
26	1.6	0.49	2.0	6.3	524	1.2	0.92	0.73	66	35	3.9	0.78
27	1.9	11	1.9	17	18	1.2	0.88	0.63	57	19	7.8	0.67
28	97	29	1.9	4.0	6.5	1.2	2.9	0.58	34	8.6	24	0.62
29	70	4.0	1.6	19	---	1.1	10	0.49	11	5.8	14	0.59
30	85	4.6	62	8.0	---	0.97	11	0.45	24	3.4	14	0.63
31	16	---	72	16	---	0.91	---	0.41	---	3.0	5.7	---
TOTAL	611.0	436.93	969.5	411.7	1113.1	404.18	43.88	130.32	350.10	945.5	323.7	232.75
MEAN	19.7	14.6	31.3	13.3	39.8	13.0	1.46	4.20	11.7	30.5	10.4	7.76
MAX	97	58	156	97	524	118	11	28	66	113	33	44
MIN	1.6	0.47	1.6	1.1	1.3	0.91	0.43	0.41	0.39	3.0	1.5	0.59
AC-FT	1210	867	1920	817	2210	802	87	258	694	1880	642	462

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

WY	MEAN	14.8	17.3	15.1	12.7	21.6	18.6	7.65	3.25	5.00	15.5	16.7	9.94
1999	MAX	24.6	21.5	31.3	25.4	39.8	54.8	11.9	4.31	11.7	30.5	23.8	21.7
2000	MIN	3.32	14.6	1.32	0.38	0.52	2.47	1.46	0.50	2.01	6.85	10.4	6.23
2001	AC-FT	1210	867	1920	817	2210	802	87	258	694	1880	642	462

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SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1998 - 2002
ANNUAL TOTAL	4616.99	5972.66	
ANNUAL MEAN	12.6	16.4	12.7
HIGHEST ANNUAL MEAN			16.4
LOWEST ANNUAL MEAN			9.41
HIGHEST DAILY MEAN	284 Feb 15	524 Feb 26	524 Feb 26 2002
LOWEST DAILY MEAN	0.30 Jan 18	0.39 Jun 1	0.22 Mar 16 2000
ANNUAL SEVEN-DAY MINIMUM	0.31 Jan 7	0.46 Apr 10	0.23 Mar 12 2000
ANNUAL RUNOFF (AC-FT)	9160	11850	9200
10 PERCENT EXCEEDS	33	42	32
50 PERCENT EXCEEDS	3.5	4.2	3.0
90 PERCENT EXCEEDS	0.44	0.79	0.48

e Estimated

