

HAWAII, ISLAND OF MAUI

16501200 OHEO GULCH AT DAM NEAR KIPAHULU

LOCATION.--Lat 20° 40'17", long 156° 03'17", Old Hawaiian Datum, Hydrologic Unit 20020000, on right bank 31 ft. upstream from dam, 1,000 ft. downstream from the confluence of Palikea and Pipiwai Streams, 0.8 mi. upstream from mouth, and 1.0 mi. north from Kipahulu Church.

DRAINAGE AREA.--8.06 mi².

PERIOD OF RECORD.--July 1988 to September 1997. Oct. 2001 to Sept 2002 (peak discharge and discharge measurements only), Oct. 2002 to current year.

REVISED RECORDS.--WDR HI-94-1: 1989-93 (P).

GAGE.--Water-stage recorder. Elevation of the gage is 420 ft. above mean sea level (from topographic map).

REMARKS.--Records computed by Matt Wong. Records fair. No diversions upstream of gage.

AVERAGE DISCHARGE.--10 years (water years 1989-97,2003), 53.2 ft³/s (38,530 acre ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s, September 18, 1994 from rating curve extended on the basis of flow over dam computation; no flow, on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge 2,680 ft³/s and maximum (*):

	Date	Time	Discharge (ft ³ /s)	Gage height (ft)		Date	Time	Discharge (ft ³ /s)	Gage height (ft)	
	Oct 15	0745	*5,550	*7.58			Apr 10	1745	5,290	7.45

Minimum discharge, no flow on many days, gage height, 0.23 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.8	1.5	0.04	0.88	1.6	5.9	97	3.4	0.73	2.0	7.9	179
2	e2.7	1.3	0.16	0.54	1.8	6.0	31	3.2	15	1.8	3.6	19
3	e2.2	1.2	0.25	0.49	1.3	3.1	158	2.1	5.7	1.4	5.4	5.4
4	e2.2	1.2	0.17	0.34	0.99	1.8	85	1.9	1.8	1.7	2.0	3.3
5	e5.5	1.1	0.27	0.18	0.74	44	14	2.0	1.4	3.2	5.0	7.5
6	e3.3	1.2	0.37	0.13	0.51	48	135	3.4	1.4	3.8	5.5	19
7	e2.7	0.93	0.32	0.13	0.43	12	40	33	1.2	74	3.7	130
8	e3.0	0.84	0.41	0.25	0.18	4.0	7.8	90	1.1	40	5.0	10
9	e3.6	0.77	0.28	0.15	0.67	3.5	40	81	1.0	215	20	6.9
10	e2.6	0.81	14	0.01	0.57	2.0	444	108	1.1	12	40	6.8
11	2.8	0.60	43	0.00	0.39	1.6	72	13	1.1	6.7	7.1	9.1
12	2.5	0.56	41	0.00	0.23	1.4	76	7.4	1.4	5.5	48	4.9
13	26	0.69	3.8	0.43	1.3	1.2	29	6.6	1.7	20	22	2.8
14	16	0.46	e1.9	0.25	124	0.99	6.1	5.3	1.4	5.5	134	2.6
15	435	0.53	e1.8	12	163	0.82	3.5	58	1.5	3.6	31	2.6
16	216	1.4	e1.9	1.2	13	0.74	7.7	9.2	22	3.9	122	2.5
17	13	0.78	2.1	0.45	4.3	6.7	195	13	6.6	1.9	76	2.3
18	5.7	0.48	0.96	0.31	2.1	1.2	118	9.6	12	1.6	130	2.4
19	3.8	0.52	0.52	0.18	1.5	1.2	114	4.9	27	3.4	72	13
20	2.8	1.0	0.46	1.4	2.9	0.90	359	4.3	8.7	5.8	36	9.1
21	8.8	0.88	0.43	0.15	2.1	1.3	146	3.3	3.7	3.6	24	25
22	3.1	0.45	0.35	0.00	1.1	5.4	211	2.8	2.2	2.7	7.8	6.3
23	4.2	0.51	100	0.00	12	2.0	30	2.3	3.3	1.9	8.4	3.6
24	46	0.64	4.3	118	81	0.83	107	2.0	13	3.6	32	7.0
25	29	0.86	1.6	154	50	0.55	60	1.6	27	5.3	6.8	2.4
26	8.5	0.58	7.9	16	61	2.0	10	1.5	6.1	3.2	4.1	2.3
27	3.5	0.36	57	6.0	19	0.66	12	1.2	4.6	8.7	3.4	3.1
28	2.0	0.12	7.4	2.8	20	9.1	6.2	0.98	3.6	12	2.3	1.8
29	1.7	0.56	67	1.9	---	44	4.2	0.92	2.0	3.1	2.2	1.5
30	1.6	0.27	5.8	1.4	---	21	3.0	0.83	2.3	3.2	2.7	1.4
31	1.5	---	1.9	5.2	---	42	---	0.73	---	3.0	5.6	---
TOTAL	864.1	23.10	367.39	324.77	567.71	275.89	2,621.5	477.46	181.63	463.1	875.5	492.6
MEAN	27.9	0.77	11.9	10.5	20.3	8.90	87.4	15.4	6.05	14.9	28.2	16.4
MAX	435	1.5	100	154	163	48	444	108	27	215	134	179
MIN	1.5	0.12	0.04	0.00	0.18	0.55	3.0	0.73	0.73	1.4	2.0	1.4
AC-FT	1,710	46	729	644	1,130	547	5,200	947	360	919	1,740	977

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	50.7	88.0	82.8	50.2	48.8	83.0	44.9	23.7	33.0	47.0	31.6	41.1
(WY)	(1990)	(1991)	(1993)	(1989)	(1994)	(1991)	(1989)	(1989)	(1997)	(1993)	(1991)	(1994)
MAX	145	334	203	218	163	320	116	99.1	88.8	114	82.4	131
(WY)	(1993)	(2003)	(1990)	(1998)	(1992)	(2003)	(1992)	(1992)	(2003)	(1993)	(1991)	(1997)
MIN	6.03	0.77	5.28	1.94	2.90	8.90	6.56	3.03	6.05	14.9	5.33	5.62
(WY)	(1993)	(2003)	(1990)	(1998)	(1992)	(2003)	(1992)	(1992)	(2003)	(1993)	(1991)	(1997)

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SUMMARY STATISTICS

	FOR 2003 WATER YEAR	WATER YEARS 1988 - 2003
ANNUAL TOTAL	34.75	
ANNUAL MEAN	20.6	
HIGHEST ANNUAL MEAN		53.2
LOWEST ANNUAL MEAN		102
HIGHEST DAILY MEAN	44 Apr 10	20.6
LOWEST DAILY MEAN	0.00 Jan 11	1991
ANNUAL SEVEN-DAY MINIMUM	0.10 Jan 6	2003
ANNUAL RUNOFF (AC-FT)	50	2,220
10 PERCENT EXCEEDS	60	Nov 19, 1990
50 PERCENT EXCEEDS	3.2	Feb 25, 1992
90 PERCENT EXCEEDS	0.46	Feb 25, 1992
		38,530
		139
		6.3
		0.97

e Estimated

