HAWAII, ISLAND OF MOLOKAI

16405500 WAIKOLU STREAM AT ALTITUDE 900 FT, NEAR KALAUPAPA

LOCATION.--Lat 21° 08'43", long 156° 55'18", Old Hawaiian Datum, Hydrologic Unit 20050000, on right bank 1.8 mi southwest of Haupu Bay, 2.3 mi upstream from mouth, and 5.2 mi southeast of Kalaupapa.

DRAINAGE AREA.--1.99 mi^2.

PERIOD OF RECORD.--May 1956 to October 1961, July 1962 to current year. Station discontinued October 2003.

REVISED RECORDS.--WSP 1719: 1959. WSP 2137: 1965(P).

GAGE.--Water-stage recorder. Elevation of gage is 900 ft above mean sea level (from topographic map). Prior to July 1, 1962, at site 200 ft upstream of gage at datum 6.14 ft higher.

REMARKS.--Records computed by Matt Wong. Records fair. Since November 16, 1960, low flow water diverted 400 ft upstream into Molokai tunnel (16405100, 16405300). Hawaii Department of Agriculture diverts flow into transmountain tunnel for irrigation in west central Molokai.

AVERAGE DISCHARGE (since Molokai tunnel diversion began).--42 years (water years 1961, 1963-2003), 5.68 ft^3/s (4,120 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,570 ft^3/s, January 25, 1982, gage height, 6.64 ft, from rating curve extended above 43 ft^3/s on basis of slope-area measurements at gage heights 5.24 ft and 6.64 ft; no flow at times since 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 31, 1961, reached a gage height of 13.62 ft, from floodmarks, former site and datum, discharge, 6,220 ft^3/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 590 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 29	2230	753	4.01	Feb 14	0800	*1,120	*4.55

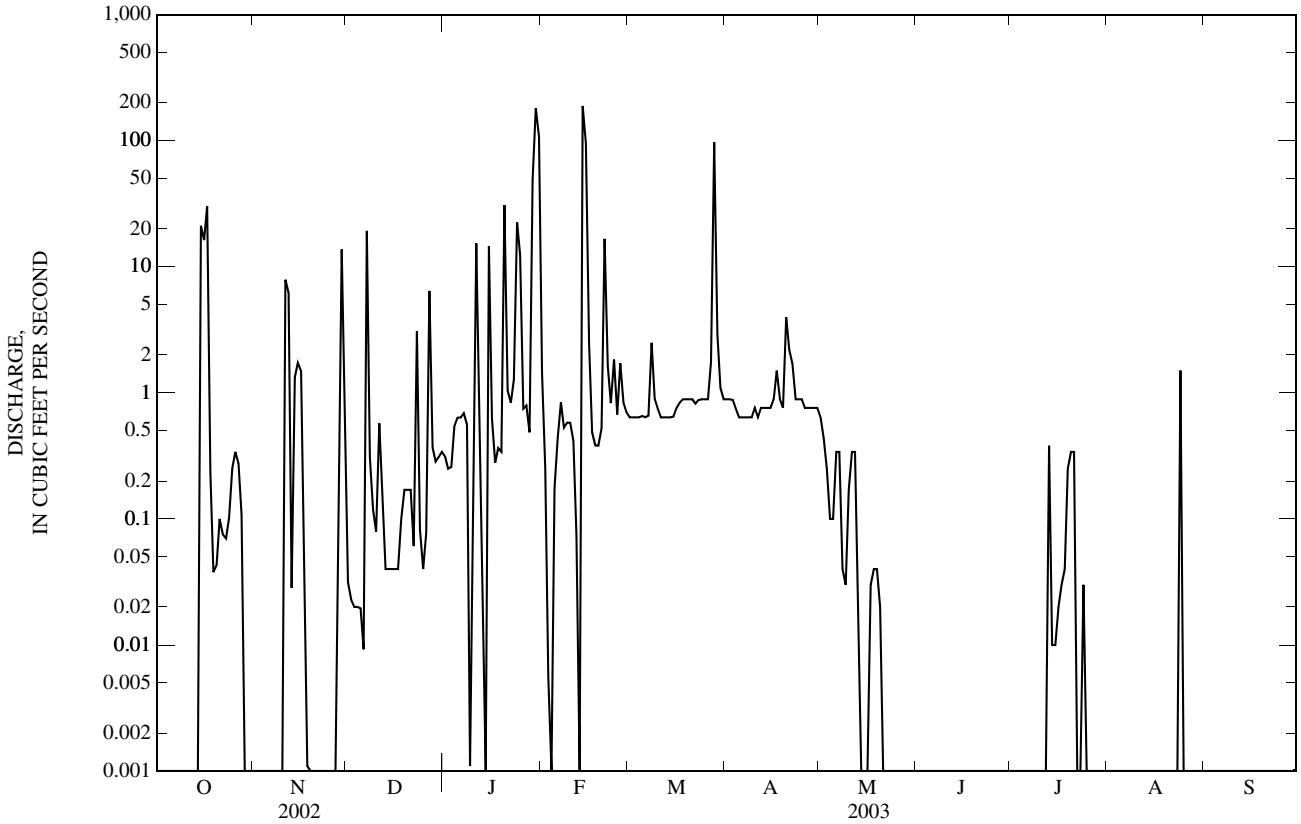
Minimum discharge, 0.00 ft^3/s, on many days, gage height, 0.73 ft.

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	0.00	0.00	0.03	0.31	1.4	0.64	0.89	0.64	0.00	0.00	0.00	0.00
2	0.00	0.00	0.02	0.25	0.25	0.64	0.89	0.43	0.00	0.00	0.00	0.00
3	0.00	0.00	0.02	0.26	0.01	0.64	0.88	0.25	0.00	0.00	0.00	0.00
4	0.00	0.00	0.02	0.54	0.00	0.64	0.74	0.10	0.00	0.00	0.00	0.00
5	0.00	0.00	0.02	0.64	0.17	0.65	0.64	0.10	0.00	0.00	0.00	0.00
6	0.00	0.00	0.01	0.64	0.44	0.64	0.64	0.34	0.00	0.00	0.00	0.00
7	0.00	0.00	19	0.69	0.84	0.66	0.64	0.34	0.00	0.00	0.00	0.00
8	0.00	0.00	0.31	0.56	0.53	2.5	0.64	0.04	0.00	0.00	0.00	0.00
9	0.00	0.00	0.12	0.00	0.58	0.90	0.64	0.03	0.00	0.00	0.00	0.00
10	0.00	0.00	0.08	0.47	0.58	0.75	0.76	0.17	0.00	0.00	0.00	0.00
11	0.00	7.9	0.57	15	0.42	0.64	0.64	0.34	0.00	0.00	0.00	0.00
12	0.00	6.2	0.12	0.20	0.07	0.64	0.76	0.34	0.00	0.00	0.00	0.00
13	0.00	0.03	0.04	0.03	0.00	0.64	0.76	0.03	0.00	0.38	0.00	0.00
14	0.00	1.3	0.04	0.00	189	0.64	0.76	0.00	0.00	0.01	0.00	0.00
15	21	1.7	0.04	15	96	0.65	0.76	0.00	0.00	0.01	0.00	0.00
16	16	1.5	0.04	0.63	2.5	0.76	0.89	0.00	0.00	0.02	0.00	0.00
17	30	0.10	0.04	0.28	0.49	0.84	1.5	0.03	0.00	0.03	0.00	0.00
18	0.24	0.00	0.10	0.36	0.38	0.89	0.89	0.04	0.00	0.04	0.00	0.00
19	0.04	0.00	0.17	0.34	0.38	0.89	0.76	0.04	0.00	0.25	0.00	0.00
20	0.04	0.00	0.17	31	0.52	0.89	4.0	0.02	0.00	0.34	0.00	0.00
21	0.10	0.00	0.17	1.0	17	0.89	2.2	0.00	0.00	0.34	0.00	0.00
22	0.08	0.00	0.06	0.83	1.6	0.82	1.7	0.00	0.00	0.00	0.00	0.00
23	0.07	0.00	3.1	1.3	0.83	0.88	0.89	0.00	0.00	0.00	0.00	0.00
24	0.10	0.00	0.08	23	1.8	0.89	0.89	0.00	0.00	0.03	1.5	0.00
25	0.25	0.00	0.04	12	0.67	0.89	0.89	0.00	0.00	0.00	0.00	0.00
26	0.34	0.00	0.08	0.75	1.7	0.89	0.76	0.00	0.00	0.00	0.00	0.00
27	0.27	0.00	6.4	0.79	0.84	1.8	0.76	0.00	0.00	0.00	0.00	0.00
28	0.11	0.01	0.37	0.49	0.70	97	0.76	0.00	0.00	0.00	0.00	0.00
29	0.00	14	0.29	49	---	2.9	0.76	0.00	0.00	0.00	0.00	0.00
30	0.00	0.21	0.31	182	---	1.1	0.76	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.34	108	---	0.89	---	0.00	---	0.00	0.00	---
TOTAL	68.64	32.95	32.20	446.36	319.70	125.09	29.45	3.28	0.00	1.45	1.50	0.00
MEAN	2.21	1.10	1.04	14.4	11.4	4.04	0.98	0.11	0.000	0.047	0.048	0.000
MAX	30	14	19	182	189	97	4.0	0.64	0.00	0.38	1.5	0.00
MIN	0.00	0.00	0.01	0.00	0.00	0.64	0.64	0.00	0.00	0.00	0.00	0.00
AC-FT	136	65	64	885	634	248	58	6.5	0.00	2.9	3.0	0.00

16405500 WAIKOLU STREAM AT ALTITUDE 900 FT, NEAR KALAUPAPA—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2003, BY WATER YEAR (WY)												
MEAN	3.00	8.13	8.61	10.6	8.43	8.43	8.89	4.27	2.21	2.62	1.92	1.31
MAX	16.7	30.5	31.0	40.5	30.6	22.6	64.8	23.6	10.5	11.0	7.52	6.81
(WY)	(1966)	(1971)	(1966)	(1982)	(1979)	(1968)	(1989)	(1987)	(1961)	(1964)	(1961)	(1963)
MIN	0.000	0.000	0.22	0.15	0.000	0.18	0.36	0.000	0.000	0.000	0.010	0.000
(WY)	(1985)	(2000)	(2001)	(2001)	(2000)	(2001)	(2002)	(2001)	(1985)	(2001)	(1996)	(1996)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1961 - 2003	
ANNUAL TOTAL	1,009.37		1,060.62			
ANNUAL MEAN	2.77		2.91		5.68	
HIGHEST ANNUAL MEAN					11.8	1965
LOWEST ANNUAL MEAN					0.52	2001
HIGHEST DAILY MEAN	219	Mar 17	189	Feb 14	847	Apr 8, 1989
LOWEST DAILY MEAN	0.00	Jan 2	0.00	Oct 1	0.00	Sep 12, 1984
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 9	0.00	Oct 1	0.00	Sep 12, 1984
ANNUAL RUNOFF (AC-FT)	2,000		2,100		4,120	
10 PERCENT EXCEEDS	2.7		1.3		10	
50 PERCENT EXCEEDS	0.38		0.03		1.2	
90 PERCENT EXCEEDS	0.00		0.00		0.00