

## 16294900 WAIKANE STREAM AT ALTITUDE 75 FT, AT WAIKANE

LOCATION.--Lat 21°30'00", long 157°51'54", Hydrologic Unit 20060000, on right bank, 0.3 mi downstream from Waimeeke Stream, 0.7 mi west of Waikane, and 1.2 mi northwest of Waiahole School.

DRAINAGE AREA.--2.22 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1959 to current year.

REVISED RECORDS.--WSP 1937: Drainage area, WDR HI-94-1: 1993 (M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 75 ft above mean sea level (from topographic map).

REMARKS.--Records computed by M.T.J. Ball. Records good except for period of estimated daily discharges, which are poor. Waiahole tunnel diverts ground water from tunnels upstream of station. Elevation of the Waiahole tunnel is 800 ft (from topographic map).

AVERAGE DISCHARGE.--42 years (water years 1961-2002), 8.50 ft<sup>3</sup>/s (6,160 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft<sup>3</sup>/s, February 4, 1965, gage height, 10.76 ft, from rating curve extended above 120 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 4.88 ft, 9.46 ft, and 10.76 ft; minimum, 0.76 ft<sup>3</sup>/s, October 27, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 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)
Mar 7	1645	879	6.09	May 6	unknown	*2,240	*9.12
May 4	0230	1,170	6.92				

Minimum discharge, 1.5 ft<sup>3</sup>/s, Oct. 19, 20, gage height, 1.35 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	6.2	3.5	3.2	2.9	20	3.9	4.9	3.3	e4.7	e4.9	e2.4	e2.7
2	2.4	3.2	3.1	2.8	15	4.1	4.7	3.0	e4.7	e3.8	e2.3	e2.5
3	1.9	3.2	2.9	2.7	11	3.7	4.5	6.6	e4.6	e3.1	e2.2	e3.3
4	2.0	3.0	3.0	2.6	56	3.9	4.6	85	e4.4	e2.7	e2.2	e2.6
5	12	3.4	2.9	2.5	25	3.8	4.2	27	e4.4	e2.6	e4.2	e2.5
6	3.7	6.2	2.7	2.5	15	11	4.0	e700	e4.3	e2.5	e2.6	e2.4
7	2.2	23	2.6	2.5	12	91	3.9	e200	e4.2	e2.7	e2.5	e2.3
8	1.9	16	2.6	2.4	33	19	3.7	e93	e4.0	e2.5	e2.3	e2.3
9	1.8	5.9	2.5	2.5	17	38	3.6	e33	e3.8	e3.0	e2.2	e2.3
10	1.8	4.3	2.4	2.7	12	28	3.5	e24	e5.0	e2.7	e2.5	e2.7
11	1.9	3.8	2.4	2.4	10	13	3.4	e16	e5.8	e2.5	e3.0	e2.3
12	1.8	3.3	2.4	2.4	9.6	11	3.3	e12	e5.0	e2.3	e2.3	e2.3
13	1.9	3.2	2.8	2.3	12	15	3.2	e11	e4.2	e2.3	e15	e2.2
14	1.8	3.1	3.3	2.4	8.5	11	3.2	e17	e4.2	e2.2	e6.0	e2.3
15	1.9	2.8	4.9	2.2	13	9.9	3.2	e11	e4.1	e2.2	e3.3	e2.2
16	1.8	2.7	2.9	2.1	8.5	68	3.1	e9.0	e4.0	e2.2	e2.7	e2.2
17	1.6	2.5	2.5	2.1	7.1	61	3.3	e7.5	e4.2	e2.2	e2.6	e2.2
18	1.6	2.4	2.4	2.5	6.4	27	3.4	e8.5	e4.5	e2.3	e2.4	e2.1
19	1.5	2.3	2.5	2.6	6.0	18	3.2	e13	e6.0	e3.0	e2.4	e2.1
20	1.5	2.2	2.8	3.3	5.5	15	29	e14	e4.0	e2.5	e2.3	e2.5
21	1.6	2.2	2.6	3.9	5.2	12	6.6	e9.0	e4.8	e2.5	e2.3	e2.4
22	1.6	2.1	2.3	3.2	4.9	11	3.8	e7.0	e6.5	e2.3	e2.2	e2.2
23	1.6	2.1	12	2.7	4.7	9.5	3.4	e6.5	e5.0	e2.1	e2.2	e2.1
24	1.6	2.1	26	2.5	4.5	8.5	3.2	e6.0	e4.5	e2.2	e2.5	e2.1
25	1.7	2.1	6.6	2.6	4.4	7.9	3.2	e5.9	e3.8	e2.1	e2.6	e2.0
26	2.3	2.2	4.5	11	4.1	7.0	6.1	e5.8	e3.3	e2.1	e2.7	e2.0
27	16	39	3.8	40	4.0	6.9	4.0	e5.7	e3.1	e2.2	e2.5	e2.1
28	14	6.8	3.5	94	4.0	6.3	3.2	e5.3	e3.0	e2.2	e2.4	e2.0
29	4.0	4.3	3.9	127	---	6.4	5.2	e4.9	e2.9	e2.4	e2.3	e2.1
30	3.2	3.5	3.2	62	---	5.7	4.4	e4.9	e2.8	e8.0	e6.0	e2.0
31	3.6	--	3.1	33	---	5.2	---	e4.7	---	e3.5	e3.5	--
TOTAL	104.4	166.4	128.3	432.3	338.4	541.7	143.0	1359.6	129.8	85.8	98.6	69.0
MEAN	3.37	5.55	4.14	13.9	12.1	17.5	4.77	43.9	4.33	2.77	3.18	2.30
MAX	16	39	26	127	56	91	29	700	6.5	8.0	15	3.3
MIN	1.5	2.1	2.3	2.1	4.0	3.7	3.1	3.0	2.8	2.1	2.2	2.0
AC-FT	207	330	254	857	671	1070	284	2700	257	170	196	137

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

MEAN	6.46	11.0	9.16	11.3	11.5	12.3	9.96	9.02	5.29	6.07	5.18	5.07
MAX	31.0	55.7	44.1	45.6	65.5	53.1	49.3	43.9	16.2	30.2	25.0	22.1
(WY)	1992	1966	1988	1988	1994	1982	1963	2002	1977	1987	1967	1986
MIN	1.55	2.13	2.23	1.67	1.78	2.03	2.65	1.98	1.83	1.76	1.58	1.38
(WY)	1985	1963	1978	1977	1978	1978	1998	2000	1984	1984	1984	1984

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16294900 WAIKANE STREAM AT ALTITUDE 75 FT, AT WAIKANE--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1960 - 2002
ANNUAL TOTAL	1349.6	3597.3	
ANNUAL MEAN	3.70	9.86	8.50
HIGHEST ANNUAL MEAN			16.7 2002
LOWEST ANNUAL MEAN			3.33 1984
HIGHEST DAILY MEAN	56 Jun 5	700 May 6	868 Feb 4 1965
LOWEST DAILY MEAN	1.5 Oct 19	1.5 Oct 19	1.1 Oct 17 1975
ANNUAL SEVEN-DAY MINIMUM	1.6 Oct 17	1.6 Oct 17	1.3 Sep 19 1984
ANNUAL RUNOFF (AC-FT)	2680	7140	6160
10 PERCENT EXCEEDS	5.1	15	13
50 PERCENT EXCEEDS	2.6	3.3	4.0
90 PERCENT EXCEEDS	1.8	2.1	2.1

e Estimated

