

16283200 Kahaluu Stream near Ahuimanu, Oahu, HI

LOCATION.--Lat 21°26'19.4", long 157°50'37.9" referenced to North American Datum of 1983, Honolulu County, HI, Hydrologic Unit 20060000, on left bank, 1.1 mi west of Valley of the Temples Memorial Park, 1.3 mi south of Kahaluu School, and 2.7 mi northwest of Heeiea Elementary School.

DRAINAGE AREA.--0.83 mi², from automated delineation using 10-meter National Elevation Dataset digital elevation model data dated September 2006 and Watershed Boundary Dataset dated May 2008, using UTM Zone 4 projection, NAD 83 horizontal datum.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1983 to current year.

REVISED RECORDS.--WDR HI-01-1: Drainage Area. WDR HI-08-1: 1984-2007 (P). WDR HI-10-1: 2005 (P), Drainage Area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 150 ft above mean sea level (from topographic map).

REMARKS.--Records computed by V.E. Kunishige. Records fair. Honolulu Board of Water Supply has diverted ground water from tunnel in drainage area since 1947. At times, farmers upstream of gage pump and/or divert small amounts of water from the stream.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--29 years (water years 1984-2013), 3.09 ft³/s (2,240 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,530 ft³/s, June 4, 2011, gage height, 7.89 ft; minimum, 0.47 ft³/s on October 20-27, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 199 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 12	1140	*141	*3.01

Minimum discharge, 0.54 ft³/s, on several days.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.77	0.66	0.62	0.68	0.93	0.76	0.99	0.76	1.4	1.1	1.1	1.1
2	0.76	0.62	0.62	0.70	0.86	0.72	0.99	0.76	1.3	1.1	1.1	1.1
3	0.76	0.62	0.62	0.95	0.84	0.69	0.99	0.76	1.3	1.2	1.1	1.1
4	0.76	0.62	0.65	0.74	0.84	0.69	0.97	0.95	1.2	1.1	1.1	1.1
5	0.76	0.62	0.62	0.75	0.80	0.69	0.91	0.90	1.2	1.1	1.1	1.1
6	0.76	0.64	0.62	0.75	0.79	0.69	0.91	0.87	1.2	1.1	1.1	1.0
7	0.76	0.69	0.62	0.69	0.79	0.69	0.91	0.84	1.1	1.1	1.1	1.1
8	0.76	0.69	0.62	0.72	0.76	0.69	0.91	0.81	1.1	1.1	1.0	1.1
9	0.76	0.69	0.62	0.86	0.74	1.4	0.87	0.76	1.1	1.1	1.2	1.1
10	0.76	0.69	0.62	0.76	0.74	6.6	0.84	0.81	1.1	1.1	20	1.1
11	0.72	0.69	0.62	0.76	0.77	2.5	0.84	3.3	1.1	1.1	4.4	1.0
12	0.69	0.70	0.60	0.76	0.73	1.4	0.84	30	1.1	1.1	2.1	1.0
13	0.69	0.73	0.60	0.71	0.69	1.1	0.84	13	1.1	1.1	1.5	1.4
14	0.69	0.69	0.62	0.82	0.69	1.0	0.94	2.6	1.1	1.1	1.3	1.1
15	0.69	0.69	0.60	0.71	0.69	0.95	0.89	1.7	1.1	1.1	1.2	1.1
16	0.73	0.76	0.58	0.69	0.69	0.91	0.84	1.4	1.1	1.1	1.2	1.1
17	0.72	0.69	0.59	0.69	0.69	0.91	0.84	1.3	1.1	1.1	1.1	1.1
18	0.69	0.70	0.64	0.69	0.69	0.90	0.84	1.2	1.1	1.1	1.1	1.1
19	0.69	0.69	0.64	0.67	0.71	1.5	2.5	1.2	1.1	1.1	1.1	1.1
20	0.67	0.69	0.62	0.62	0.70	0.87	1.0	1.1	1.1	1.1	1.1	1.1
21	0.62	0.69	0.54	0.62	0.73	1.5	0.87	1.1	1.2	1.1	1.1	1.1
22	0.62	0.65	0.54	0.62	0.90	0.84	0.87	1.1	1.1	1.3	1.1	1.1
23	0.62	0.62	0.54	0.66	0.83	0.89	0.88	1.1	1.1	1.7	1.1	1.1
24	0.62	0.62	0.54	5.0	0.76	2.6	1.4	1.1	1.1	1.1	1.1	1.1
25	0.62	0.62	0.54	1.5	0.79	1.7	1.1	1.1	1.3	1.1	1.1	1.1
26	0.62	0.62	0.57	1.0	0.77	1.3	1.0	1.0	2.1	1.1	1.1	1.1
27	0.62	0.62	0.62	3.0	0.76	1.2	0.93	0.99	1.3	1.1	1.1	1.1
28	0.62	0.62	0.62	5.6	0.76	1.1	0.87	7.9	1.3	1.1	1.1	1.1
29	0.62	0.62	0.62	2.1	---	1.1	0.84	16	1.2	1.1	1.1	1.0
30	0.62	0.62	0.69	1.3	---	1.1	0.81	3.2	1.2	1.1	1.1	0.99
31	0.69	---	0.64	1.0	---	1.0	---	1.7	---	1.1	1.0	---
Total	21.48	19.87	18.80	37.12	21.44	39.99	29.23	101.31	35.9	35.0	58.0	32.79
Mean	0.69	0.66	0.61	1.20	0.77	1.29	0.97	3.27	1.20	1.13	1.87	1.09
Max	0.77	0.76	0.69	5.6	0.93	6.6	2.5	30	2.1	1.7	20	1.4
Min	0.62	0.62	0.54	0.62	0.69	0.69	0.81	0.76	1.1	1.1	1.0	0.99
Ac-ft	43	39	37	74	43	79	58	201	71	69	115	65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2.75	3.53	3.48	3.32	3.49	4.14	3.19	3.07	2.56	2.51	2.45	2.58
Max	7.05	10.6	9.56	8.65	8.03	12.2	10.6	7.27	5.95	5.89	6.95	5.81
(WY)	(2007)	(1991)	(1988)	(1988)	(2004)	(2006)	(1989)	(2002)	(2011)	(1989)	(2004)	(1992)
Min	0.61	0.66	0.61	0.80	0.77	0.77	0.84	0.85	0.73	0.67	0.67	0.55
(WY)	(2002)	(2013)	(2013)	(2001)	(2013)	(2001)	(2001)	(1984)	(1984)	(2001)	(1984)	(2001)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1984 - 2013	
Annual total	617.67		450.93			
Annual mean	1.69		1.24		3.09	
Highest annual mean					5.97	1991
Lowest annual mean					0.90	2001
Highest daily mean	72	Mar 5	30	May 12	142	May 6, 2002
Lowest daily mean	0.54	Dec 21	0.54	Dec 21	0.47	Oct 21, 2001
Annual seven-day minimum	0.56	Dec 20	0.56	Dec 20	0.47	Oct 20, 2001
Annual runoff (ac-ft)	1,230		894		2,240	
10 percent exceeds	1.5		1.3		4.8	
50 percent exceeds	0.97		0.91		2.3	
90 percent exceeds	0.62		0.62		0.85	

