STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
Stream Protection and Management Branch

FIELD INVESTIGATION REPORT

FI2010062303 (East Maui, Honopou)

Date of Field Investigation: June 24, 2010	**Time** (24-hour)**:** 1500 - 1600
CWRM Staff:	Ken Kawahara, Dean Uyeno, and Chui Ling Cheng
Individuals Present:	DAR Staff – Glenn Higashi USGS Staff - Clarence (Buzz) Edwards, Richard Castro EMI Staff – Garret Hew, Henry Robello
Hydrologic Unit:	Honopou
Stream Name:	Honopou Stream

Findings:

The purpose of this field investigation was to conduct a flow measurement following yesterday's release on Honopou Stream. Prior to the release, discharge on Honopou Stream upstream from the Lowrie Ditch intake was 0.45 cubic feet per second (0.29 million gallons per day).

At 1600 hours, staff arrived at Honopou Stream upstream from the Lowrie Ditch intake to conduct a post-release discharge measurement. USGS staff measured the flow at the same cross section that was used for the pre-release measurement. The post-release measurement was 2.03 cubic feet per second (1.31 million gallons per day), almost five times the pre-release flow measurement. This increase in flow can be attributed to the flow release at Wailoa Ditch and rainfall that occurred the previous night.

Staff concluded the field investigation at 1600 hours.

Image Listing: (Attach PDF of image contact sheet)

File Name:	Brief Description:
20100624056	USGS staff conducting flow measurement on Honopou Stream upstream from Lowrie Ditch intake.

GPS Listing:

Shapefiles: (List file names of all shapefiles created and a brief description of each)

File Name:	Brief Description:

Waypoints: (List all waypoints in decimal degrees and provide a brief description of each)

WP No.	Latitude	Longitude	Brief Description:

Attachments:

Brief Description:

1. Image Contact Sheet
2. Discharge Summary

Recommendations:

Image Contact Sheet

20100624056.jpg

AquaCalc Pro Discharge Summary

◉ Original AquaCalc Values ○ Re-Calculated Values

Gage ID: **LOWRIE** User ID: **RICH** Beg Time: **06/24/10 15:06**

Discharge Summary		Measurement Information				Meter Information	
Vertical Count:	15	End Time:	06/24/10 15:21	Measure time:	40	Meter name:	BUZZMAG
Section Velocity:	1.33	Meas Time:	0.25	Measure standard:	SAE	Meter id:	P05410
Section Width:	2.90	Section Diff:	2.03	Measure equipment:	TopSet Rod	Meter type:	PYGMY
Section Area:	1.53	Beg Gage height:	0.00	Sounding Weight:	NA	Meter Standard:	SAE
Section Q:	2.03	End Gage height:	0.00	Measure ice:	No	Meter Revs/Pulses:	1/1
Section Diff:	2.03	Beg Staff height:	0.00	Flood Measurement:	No	Meter Const.S1:	0.9604
Section Pct Err:	0.00%	End Staff height:	0.00	Flood Coef:	0.00	Meter Const.O1:	0.0312
Section Quality:	na	Estimated Q:	0.00	Max Vertical Q:	5%	Meter Const.C1:	0.0000
Section WetPerim:	3.59	Adjusted Q:	0.00	Percent Slope:	0.00	Meter Const.S2:	0.0000
Section Hyd Rad:	0.43	**AquaCalc**		Measure Start at:	LEW	Meter Const.O2:	0.0000
Section Manning:	0.000	S/N:	000000F2952F			Meter Const.C1:	0.0000
Section Chezy:	0.000	Firmware Version:	AQP-1V1.2.1			Meter Const.S3:	0.0000
		File Version:	V1.5			Meter Const.O3:	0.0000

Vertical Number	Distance	Total Depth	Ice Draft	Effective Depth	Observation Location	Time	Revolutions	Horiz Angle	HC:VF	Method Coef	Clock Tme	Measured Velocity	Obs Velocity	Vertical Velocity	Sub-section Area	Sub-Section Q	Sub-Section % of Total Q
1	0.40	0.00	0.00	0.00	E	0.00	0	0	0.00	0.00	15:06			0.00	0.00	0.00	0.00%
2	0.60	0.40	0.00	0.40	0.6	40.25	69	0	1.00	1.00	15:07	1.68	1.68	1.68	0.08	0.13	6.40%
3	0.80	0.40	0.00	0.40	0.6	40.02	68	0	1.00	1.00	15:08	1.66	1.66	1.66	0.08	0.13	6.40%
4	1.00	0.45	0.00	0.45	0.6	40.04	76	0	1.00	1.00	15:09	1.85	1.85	1.85	0.09	0.17	8.40%
5	1.20	0.50	0.00	0.50	0.6	40.59	73	0	1.00	1.00	15:10	1.76	1.76	1.76	0.10	0.18	8.90%
6	1.40	0.63	0.00	0.63	0.6	40.42	41	0	1.00	1.00	15:11	1.01	1.01	1.01	0.13	0.13	6.40%
7	1.60	0.65	0.00	0.65	0.6	40.01	45	0	1.00	1.00	15:12	1.11	1.11	1.11	0.13	0.14	6.90%
8	1.80	0.70	0.00	0.70	0.6	40.20	59	0	1.00	1.00	15:14	1.44	1.44	1.44	0.14	0.20	9.90%
9	2.00	0.70	0.00	0.70	0.6	40.74	65	0	1.00	1.00	15:15	1.56	1.56	1.56	0.14	0.22	10.80%
10	2.20	0.65	0.00	0.65	0.6	40.30	90	0	1.00	1.00	15:16	2.18	2.18	2.18	0.13	0.28	13.80%
11	2.40	0.62	0.00	0.62	0.6	40.45	75	0	1.00	1.00	15:17	1.81	1.81	1.81	0.12	0.22	10.80%
12	2.60	0.60	0.00	0.60	0.6	40.47	38	0	1.00	1.00	15:18	0.93	0.93	0.93	0.12	0.11	5.40%
13	2.80	0.60	0.00	0.60	0.6	40.84	23	0	1.00	1.00	15:19	0.57	0.57	0.57	0.12	0.07	3.40%
14	3.00	0.60	0.00	0.60	0.6	42.59	13	0	1.00	1.00	15:21	0.32	0.32	0.32	0.15	0.05	2.50%
15	3.30	0.00	0.00	0.00		0.00	0	0	0.00	0.00	15:21			0.00	0.00	0.00	0.00%