

Stream Name	Hirilawe	
Date	Feb - 6, 2006	
Start Time	11:50 am	
GPS reading (0 m)		
GPS reading (100 m)		
Observers	NOPili	
Comments		

N 20.10677
W 155.59640
wpt 78

Transect #	1	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.5	0.5	1.5	0.8	1.5	1.6	2.2	0.7						
Water Speed		S	F	F	F	F	F	F	S						
Substrate Size		sm	sm	ml	sm	m	m	L	S						
Other maj. feat.		SE							SE						

Transect #	2	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.46	1.1	0.2	0	0	0.1								
Water Speed		F	F	F	0	0	F								
Substrate Size		L	M	L	L	L	M								
Other maj. feat.		Stream Edge		Boulder	Boulder	Boulder	SE								

Transect #	3	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.9	0.5	1	0.8	1.1	0.6	0.6	0						
Water Speed		S	F	F	F	F	F	S	S						
Substrate Size		SM	SL	L	L	L	SM	SM	SM						
Other maj. feat.									Stream Edge						

Transect #	4	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.01	0.15	0.4	0.7	1.6	0.165	0.2	0.5	0.9	0.2				
Water Speed		S	S	m	m	m/F	S	m	m	S	S				
Substrate Size		S/m	S/m	S/m	S/m/L	S/m	L	L	S/m	L	S/m				
Other maj. feat.		Stream Edge		Boulder							Stream Edge				

Transect #	5	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.3	0.8	0	0.4	1.0	0.5	0.6	0.4	0.2	0				
Water Speed		S	m	0	F	F	F	M	M	S	S				
Substrate Size		S	S/m	L	L	m	S	L	M	S	L				
Other maj. feat.		Stream Edge		Boulder	Boulder						Stream Edge				

Transect #	6	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.01	0	1.2	1.8	1.7	1.4	1.1	0.2	0	0.1				
Water Speed		S	0	M	M/F	M	F	M	S	0	S				
Substrate Size		S/m	M	S	M	L	L	M	S	L	S				
Other maj. feat.					Boulder					Boulder					

Water Speed (fast, medium, slow)

Substrate Size (small, medium, large)

Filade

Tally

Tally	
Date Collected	2/6/06
Water Speed (0)	1 (16)
Water Speed (Slow)	 (15)
Water Speed (Medium)	 (17)
Water Speed (Fast)	 (12)
Substrate Size (Small)	 (28)
Substrate Size (Medium)	 (33)
Substrate Size (Large)	 (33)

Stream Name	Hillawe	
Date	2/6/2006	
Start Time	2:50	
GPS reading (0 m)		
GPS reading (100 m)		
Observers	Mufasas	
Comments		

Transect #	2	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.45	1.6	1.65	7	0.8	0	0.35	0.45	0.9	0.2	0	0	0.5	0
Water Speed		S	S	m	f	S	0	S	f	f	f	0	0	S	0
Substrate Size		L	S/m	S/m	S/m	S	L	S/m/L	L	L	L	L	S/m/L	S/m	L
Other maj. feat.		stream bank					Boulder	Boulder				Boulder	Boulder	Boulder	Boulder

Transect #	3	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0	0.45	0.4	0	0									
Water Speed		S	S	m	m	0									
Substrate Size		S/m/L	m/L	m	m/L	m/L									
Other maj. feat.		Boulder	Boulder			Stream edge									

Transect #	4	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0	0.6	0	0	0	1.0	1.1	0.4	0.6	1.2	0.9	0	0	0
Water Speed		0	S	0	0	0	m	m	m	f	m	m	0	0	0
Substrate Size		S	S/m	m/L	L	L	m	L	S/m	S/m	S/m	S/m	L	L	L
Other maj. feat.		Stream edge		Boulder	Boulder	Boulder							Boulder	Boulder	Boulder

Transect #	14	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.2	0.7	0.6	0.5	0.1	0.3	0	0						
Water Speed		S	f	m	f	m	m	m							
Substrate Size		m/L	L	L	S/m/L	S/m	m	m							
Other maj. feat.			Boulder	Boulder				Stream bank							

Transect #	5	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.55	7	1.5	1.2	0.8	0.8	0	0.4	0.75	0.1	0	0	0	0.1
Water Speed		S	S	m	f	m	m	0	f	S	S	0	0	0	m
Substrate Size		S/m/L	S/m	L	S/m	S/m	S/m	L	S/m	S	S	L	L	L	L
Other maj. feat.		Stream bank						Boulder					Boulder		

Transect #	15	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.45	0.25	0.1	0.3	0.3	0.1								
Water Speed		m	f	S	S	f	f								
Substrate Size		S/m	S	S/m	S/m	m/L	S/m								
Other maj. feat.							Stream bank								

Water Speed (fast, medium, slow)

Substrate Size (small, medium, large)

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	1.0	1.0	0	1.5	1.2	0.6	0	0	0	0	0.5	1.8	0.8	0.6
Water Speed	m	F	0	F	m	m	0	0	0	0	m	3	m	m
Substrate Size	slm	slm	L	ml	ml	slm	L	3	m	5	slm	slm	slm	slm
Other maj. feat.	Stream	Boulder	Boulder				Boulder			Branch				

14 Bank 15 16 17

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0.1	0.5												
Water Speed	m	5												
Substrate Size	slm	5												
Other maj. feat.		stream edge												

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0.2	1.2	1.0	0.5	0	0.6	0.5	0	0	0.65	0.7	0.1		
Water Speed	5	F	F	F	0	m	m	0	0	m	m	5		
Substrate Size	slm	slm	slm	slm	L	ml	slm	L	L	slm	slm	slm		
Other maj. feat.	stream edge				Boulder			Boulder	Boulder			stream edge		

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

ENDING WYPT #80

N 20.10517

W 155.59566

Water Speed (fast, medium, slow)

Substrate Size (small, medium, large)

lalakea

5/23/06

Tally	
Date Collected	2:7:06
Water Speed (0)	 8
Water Speed (Slow)	 11
Water Speed (Medium)	 16
Water Speed (Fast)	 16
Substrate Size (Small)	 7
Substrate Size (Medium)	 13
Substrate Size (Large)	 33

Stream Name	Lalakea	
Date	Feb 17/2006	
Start Time	1:27pm	
GPS reading (0 m)		
GPS reading (100 m)		
Observers	Kany 2 (Hether)	
Comments	J.R, I'ini, Kaleo, Hilei, Kaulani	

6.05

Transect #	6	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.25	1.2	0.15	1.4	0	0.55	1.0	0.9						
Water Speed		mf	mf	m	m	0	S	S	S						
Substrate Size		L	L	L	L	L	L	ML	MS						
Other maj. feat.		SB		Bolder		rock		side	SB						

Pool 6.2

Transect #	7	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.4	0	0.5	0.35	0	0	0.6	0.05						
Water Speed		m	0	F	F	0	0	mf	mf						
Substrate Size		L	0	L	L	L	L	L	L						
Other maj. feat.		Bank	Rock			Red	Rock	Bank							

Transect #	8	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.2	1.3	0.3	0.6	0.3	0.8	1.35	0	0					
Water Speed		S	S	S	m	sm	mf	m	0	0					
Substrate Size		sm	smL	L	ms	L	SL	L	L	L					
Other maj. feat.		stream bank		big plant					rock	side pool					

4.2

Transect #	9	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		1.35	1.4	0.4	0	0.15	0.25								
Water Speed		L	F	F	0	S	S								
Substrate Size		L	L	L	L	L	L								
Other maj. feat.		stream bank		Big BR			SB								

7.7

Transect #	10	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth		0.05	0	1.0	0.6	0.65	0.7	0.4	0.7	0.6					
Water Speed		S	0	mf	m	m	f	mf	m	S					
Substrate Size		m	L	ML	m	ML	sm	ML	ML	sm					
Other maj. feat.		stream bank	rock							stream bank					

Transect #		0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth															
Water Speed															
Substrate Size															
Other maj. feat.															

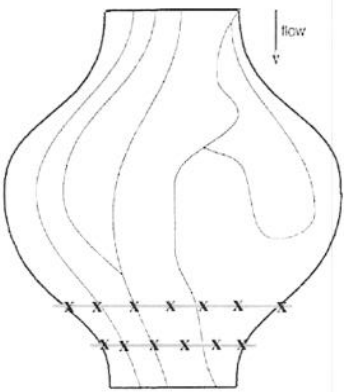
Water Speed (fast, medium, slow)

Substrate Size (small, medium, large)

Lalakee

Tally

Date Collected	2/7/2006
Water Speed (0)	1 (1)
Water Speed (Slow)	28 (28)
Water Speed (Medium)	1 (1)
Water Speed (Fast)	10 (10)
Substrate Size (Small)	16 (16)
Substrate Size (Medium)	9 (9)
Substrate Size (Large)	25 (25)

Stream Name	Lalaka	 WP-82
Date	2/7/06	
Start Time	11:37 am	
GPS reading (0 m)	N-20.09996 W-155.60031	
GPS reading (100 m)		
Observers	Napili - Kaili, Pōlani, Eliana, Honu, Aunty Heather, Aunty Kailani	
Comments	Below diversion gorge.	

Transect # 1	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0.01	0.02	0.1	1.3	0.07	2.5	1.8	2.5	0.9					
Water Speed	S	S	S	S	S	S	S	S	S					
Substrate Size	SM	SM	L	M	L	M	SM	ML	L					
Other maj. feat.	Stream edge		gutter				Boulder plants in front of it							

Transect # 2	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0.02	1.0	2.15	3.4	4.3	4.2	2.5	0.2						
Water Speed	S	S	S	S	S	S	S	S						
Substrate Size	S	S	S	SM	SM	SL	L	L						
Other maj. feat.	SE						SE							

Transect # 3	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	1.25	0.9	1.55	2.75	4.2	5.3	5.35	0.75						
Water Speed	S	S	S	S	S	M	S	S						
Substrate Size	S	S	S	L	SM	S	L	L						
Other maj. feat.								Bed rock						

Transect # 4	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0.5	1.5	2.6	3.6	3.0	0.7	0.6							
Water Speed	S	S	S	F	F	S	S							
Substrate Size	L	S	L	L	L	L	L							
Other maj. feat.	stream edge	boulder		Boulder		side of bed rock	stream edge							

Transect # 5	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0.3	2.4	3.15	1.0	2.2	0.2	0.2	0.3						
Water Speed	F	F	F	F	F	F	F	F						
Substrate Size	SM/L	L	L	L	L	L	L	L						
Other maj. feat.	stream edge	Bed rock	meas-ured in water fall	Bed rock				stream edge						

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Water Speed (fast, medium, slow)

Substrate Size (small, medium, large)

Transect 5 in the middle of a cascade.

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Transect #	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Water Speed (fast, medium, slow)

Substrate Size (small, medium, large)

WPT 363

1

Stream Name	Hillawe	
Date	2/14/2005	
Start Time	11:40	
GPS reading (0 m)	N	
GPS reading (100 m)		
Observers		
Comments		

N 20.08889°

W 155.60025°

Transect # 1	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0	.2 ft	0	.5 ft	1.4 ft	1.5	1.7	1.85	0	0	.04			
Water Speed	0	slow	0	S	M	M	S	S	0	0	S			
Substrate Size	Bank	M/L	Boulder	L	M/L	L	L	S/L	Bank	Boulder	SM L			
Other maj. feat.	Stream Bank		Big Boulder						other	Stream Bank				

Transect # 2	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0.3	0.8	1.05	2.7	3.7	4.0								
Water Speed	S	S	S	S	S	S								
Substrate Size	S	S	M	M/S	M/S	M								
Other maj. feat.	Bank													

Transect # 3	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth	0	0.7	1.0	2.4	4.6	5.3	1.9							
Water Speed	0	S	S	S	S	S	S							
Substrate Size	M	M	M	L	L	L	L							
Other maj. feat.							Bank							

Stream Bank

Transect # 4	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Transect # 5	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Transect # 6	0 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m
Est. Depth														
Water Speed														
Substrate Size														
Other maj. feat.														

Water Speed (fast, medium, slow)

Substrate Size (small, medium, large)