

Lalakea Below Dikeasion

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DTN/MM
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Lalakea ELEVATION: _____ (ft.)
 DATE: 5 12 11 04 TIME: 11:27 AM TO 11:28 AM
Mo. Day Yr. (START) PM (STOP) PM
 SUBSTRATE TYPE (%):
 SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE 40% BOULDERS 60% BEDROCK _____
 DETRITUS _____
 HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 0.3ft
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER
 SPP: SIZE ♂ ♀ ?

One insect collected

wpt 194
 N 20.08965°
 W 155.59885°

starting at wooden footbridge

COMMENTS:

Random No.: 5, 2
 DIVISION OF AQUATIC RESOURCES
 GRH 2/02

Site No.: 1

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: DTN, RE, MCM
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Lalakea ELEVATION: _____ (ft.)
 DATE: 5 12 11 04 TIME: 11:33 AM TO 11:34 AM
Mo. Day Yr. (START) PM (STOP) PM
 SUBSTRATE TYPE (%):
 SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE 50% BOULDERS 50% BEDROCK _____
 DETRITUS _____
 HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 0.3ft
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER
 SPP: SIZE ♂ ♀ ?

Got insects

wpt 195
 N 20.08974°
 W 155.59897°

COMMENTS:

Random No.: 1, 7
 DIVISION OF AQUATIC RESOURCES
 GRH 2/02

Site No.: 2

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE, DJP, MKM
 HSA CODE: - - - TEMPERATURE: - (°C)
 NAME: Lalakea ELEVATION: - (ft.)
 DATE: 5 12 104 TIME: 11:39 AM TO 11:40 AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 25%
 COBBLE 35% BOULDERS 40% BEDROCK -
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 0.5 ft
POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

wpt 196
 N 20.08985°
 W 155.59930°

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE, DJP, MKM
 HSA CODE: - - - TEMPERATURE: - (°C)
 NAME: Lalakea ELEVATION: - (ft.)
 DATE: 5 12 104 TIME: 11:45 AM TO 11:46 AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL -
 COBBLE 50% BOULDERS 50% BEDROCK -
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 1 ft
POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

No Bugs

wpt 197
 N 20.08981°
 W 155.59962°

COMMENTS:

Random No.: 5, 7

Site No.: 3

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

J. L. DARLING CORP.

COMMENTS:

Random No.: 4, 6

Site No.: 4

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE, DJP, MKM
 ISA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Lalakea ELEVATION: _____ (ft.)
 DATE: 5/21/04 TIME: 11:48 AM TO 11:49 AM
Mo. Day Yr. (START) PM (STOP) PM
 SUBSTRATE TYPE (%):
 SEDIMENT _____ SAND _____ GRAVEL 10%
 COBBLE 30% BOULDERS 60% BEDROCK _____
 DETRITUS _____
 HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 0
POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
NO WATER DIRTY WATER
 SPP: SIZE ♂ ♀ ?

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE, DJP, MKM
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Lalakea ELEVATION: _____ (ft.)
 DATE: 5/21/04 TIME: 11:52 AM TO 11:53 AM
Mo. Day Yr. (START) PM (STOP) PM
 SUBSTRATE TYPE (%):
 SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE 20% BOULDERS 80% BEDROCK _____
 DETRITUS _____
 HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 1.1 ft
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER
 SPP: SIZE ♂ ♀ ?

wpt 198
 N 20,08969°
 W 155,59975°

Got insects

Got insects

wpt 199
 N 20,08937°
 W 155,59967°

COMMENTS:

dom No.: 2, 1

DIVISION OF AQUATIC RESOURCES
 7/02

RE

Site No.: 5

J. L. DARLING CORP.
 www.DarlingRain.com

COMMENTS:

Random No.: 7, 7

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

Site No.: 6

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE, DSP, MKM
 SA CODE: - - - - - TEMPERATURE: - (°C)
 NAME: Lalakea ELEVATION: - (ft.)
 DATE: 5 / 12 / 104 TIME: 11:59 AM TO 12:00 PM
 Mo. Day Yr. (START) (STOP)
 SUBSTRATE TYPE (%):
 SEDIMENT - SAND - GRAVEL 20%
 COBBLE 80% BOULDERS - BEDROCK -
 DETRITUS -
 HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 0m
 POOL NO WATER SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 DIRTY WATER
 PP: SIZE ♂ ♀ ?

Got Bugs (Insects)

wpt 200
 N 20.08890°
 W 155.60013°

COMMENTS:

Random No.: 7, 3

Site No.: 7

DIVISION OF AQUATIC RESOURCES
 RH 2/02

J. L. DARLING CORP.

J. L. DARLING CORP.

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE, DSP, MKM
 HSA CODE: - - - - - TEMPERATURE: - (°C)
 NAME: Lalakea ELEVATION: - (ft.)
 DATE: 5 / 12 / 104 TIME: 12:06 AM TO 12:07 PM
 Mo. Day Yr. (START) (STOP)
 SUBSTRATE TYPE (%):
 SEDIMENT - SAND - GRAVEL 5%
 COBBLE 80% BOULDERS 15% BEDROCK -
 DETRITUS -
 HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 0m
 POOL NO WATER SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 DIRTY WATER
 SPP: SIZE ♂ ♀ ?

wpt 201
 N 20.08866°
 W 155.60046°

Got insects

COMMENTS:

Random No.: 6, 1

Site No.: 8

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE DTP MPM
 ISA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Lalakea ELEVATION: _____ (ft.)
 DATE: 5/21/04 TIME: 12:11 AM TO 12:12 AM
Mo. Day Yr. (START) (STOP)
 SUBSTRATE TYPE (%):
 SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE _____ BOULDERS _____ BEDROCK 100%
 DETRITUS _____
 HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 0.2 ft
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER
 SPP: SIZE ♂ ♀ ?

Got insects

Next to stream gage below diversion

wpt 202
 N 20.08865°
 W 155.60040°

COMMENTS:

andom No.: 2, 2

Site No.: 9

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE, DTP, MPM
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Lalakea ELEVATION: _____ (ft.)
 DATE: 5/21/04 TIME: 12:16 AM TO 12:17 AM
Mo. Day Yr. (START) (STOP)
 SUBSTRATE TYPE (%):
 SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE 50% BOULDERS _____ BEDROCK 50%
 DETRITUS _____
 HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 0.3 ft
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER
 SPP: SIZE ♂ ♀ ?

Got insects

wpt 203
 N 20.08812°
 W 155.60052°

Last site below dam

COMMENTS:

Random No.: 7, 2

Site No.: 10

Hillawe Rd Xing - Start

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: NE
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: 54 (ft.)
 DATE: 5/17/04 TIME: 1113 AM TO _____ AM
 (Mo. Day Yr. (START) PM (STOP) PM)

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND 15 GRAVEL 15
 COBBLE 30 BOULDERS 30 BEDROCK _____
 DETRITUS _____

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 1.1A

POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Nypt. 204 N 20.10497
 155.59584

Ø Insect

COMMENTS:

Random No.: 7, 6

Site No.: 1

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: NE
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: 65 (ft.)
 DATE: 5/17/04 TIME: 1126 AM TO _____ AM
 (Mo. Day Yr. (START) PM (STOP) PM)

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE 40 BOULDERS 60 BEDROCK _____
 DETRITUS _____

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1x1x10 inches

POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Nypt. 205 - Rafter of plunge
 N 20.10510 Pool. Boundary
 W 155.59546 end

1 ridge

COMMENTS:

Random No.: 4, 4

Site No.: 2

Hilawe above Rd xing

STREAM SURVEY FORM

RE

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: _____
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hilawe ELEVATION: 80 (ft.)
 DATE: 5/17/07 TIME: 1130 AM TO _____ AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL 10
 COBBLE 10 BOULDERS 80 BEDROCK _____
 DETRITUS _____

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1x1m
 POOL NO WATER SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wyp1. 206
 N20. 10460
 155. 59569

0 Insects

COMMENTS:

Random No.: 23

Site No.: 3

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hilawe ELEVATION: 112 (ft.)
 DATE: 5/17/04 TIME: 1148 AM TO _____ AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE _____ BOULDERS 100 BEDROCK _____
 DETRITUS _____

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 1.83
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Many insects!
 Wyp1. 207
 N20. 10272
 W155. 59541

nr. EKF pipeline over
 Stream (downstream 70m)

COMMENTS:

Random No.: 75

Site No.: 4

Above EKF Diversion

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE
HSA CODE: _____ TEMPERATURE: _____ (°C)
NAME: Hillaw ELEVATION: 149* (ft.)
DATE: 5/17/04 TIME: 1235 AM TO _____ AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL _____
COBBLE _____ BOULDERS 100 BEDROCK _____
DETRITUS _____

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 1.3ft.
POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

N 20.10225
155.59477

W 7pt. 208

Many Insects

Just above EKF diversion, major
waterfalls on this side (left) as you walk upstream
* Good Elevation

COMMENTS:

Random No.: 4, 0

Site No.: 5

DIVISION OF AQUATIC RESOURCES
1/12/02

TRA

J. L. DARLING CORP.
www.RiteintheRain.com

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE
HSA CODE: _____ TEMPERATURE: _____ (°C)
NAME: Hillaw ELEVATION: 163 (ft.)
DATE: 5/17/04 TIME: 1350 AM TO _____ AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL _____
COBBLE _____ BOULDERS 100 BEDROCK _____
DETRITUS _____

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 3ft.
POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

No GPS here
- 10m upstream from staff gage
above EKF diversion

Ø Insects

COMMENTS:

Random No.: 1, 3

Site No.: 6

DIVISION OF AQUATIC RESOURCES
GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RT
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: 178 (ft.)
 DATE: 5/17/04 TIME: 1:35 PM TO _____ AM TO _____ AM
 (Mo. Day Yr. (START) (STOP) PM PM)

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE _____ BOULDERS 100 BEDROCK _____
 DETRITUS _____

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 1.5ft

POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: 1 SIZE ♂ ♀ ?

No GPS - Narrow Slot
 above Staff Gage

Some Insects

COMMENTS:

Random No.: 17

Site No.: 7

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: 196 201 (ft.)
 DATE: 5/17/04 TIME: 1423 PM TO _____ AM TO _____ AM
 (Mo. Day Yr. (START) (STOP) PM PM)

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND 20 GRAVEL 20
 COBBLE 30 BOULDERS 30 BEDROCK _____
 DETRITUS _____

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 2.5

POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: _____ SIZE ♂ ♀ ?

~~No GPS for some time!~~

Ø Insects

N 20.10032
 155.39497

wypt. 209

COMMENTS:

Random No.: 97

Site No.: 8

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE
 SA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: 198 (ft.)
 DATE: 5/17/04 TIME: 1427 AM TO _____ AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE _____ BOULDERS 100 BEDROCK _____
 DETRITUS _____

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 3 inch.
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

PP: SIZE ♂ ♀ ?

Wypyl. 210

N 20.10025
 155.59508

* 1-2 bags

COMMENTS:

andom No.: 5, 0

Site No.: 9

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: 212 (ft.)
 DATE: 5/17/04 TIME: 1438 AM TO _____ AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL _____
 COBBLE _____ BOULDERS _____ BEDROCK _____
 DETRITUS _____

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 0.2 ft
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wypyl. 211

N 20.09993
 155.59515

- Shallow Cascade

COMMENTS:

Random No.: 3, 7

Site No.: 10

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE
 SA CODE: - - - TEMPERATURE: - (°C)
 NAME: Hillawc ELEVATION: 522 (ft.)
 DATE: 5/17/04 TIME: 1454 AM TO - AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 20
 COBBLE 30 BOULDERS 50 BEDROCK -
 DETRITUS -

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x dry

POOL NO WATER SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wyp. 212
 N 20.09977
 155.59506
 0 Insects

COMMENTS:

Random No.: 6, 2

DIVISION OF AQUATIC RESOURCES
 4/12/02

TRA As

Site No.: 11

J. L. DARLING CORP.
 www.RiteintheRain.com

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE
 HSA CODE: - - - TEMPERATURE: - (°C)
 NAME: Hillawc ELEVATION: 524 (ft.)
 DATE: 5/17/04 TIME: 1459 AM TO - AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL -
 COBBLE - BOULDERS - BEDROCK -
 DETRITUS -

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 0.1A

POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Shallow
 Wyp. 213
 N 20.09925
 155.59517
 No Insects

COMMENTS:

Random No.: 9, 0

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

Site No.: 12

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: DJP+MKM+LG
 HSA CODE: - TEMPERATURE: 78°F (°C)
 NAME: Palakoa ELEVATION: 1920 (ft.)
 DATE: 5 / 19 / 104 TIME: 1:56 AM TO 1:58 AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT SAND 5% GRAVEL 5%
 COBBLE 60% BOULDERS 30% BEDROCK
 DETRITUS

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 20 in

POOL SIDE POOL PLUNGE POOL (RUN) RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

wpt 186
 N 20,09139°
 W 155.60201°

Got bugs
 shore flies

COMMENTS:

Random No.: 2, 5

Site No.: 1

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: DJP+MKM
 HSA CODE: - TEMPERATURE: 78°F (°C)
 NAME: Palakoa ELEVATION: 1923 (ft.)
 DATE: 5 / 19 / 104 TIME: 2:07 AM TO 2:09 AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT SAND GRAVEL 15%
 COBBLE 5% BOULDERS BEDROCK 80%
 DETRITUS

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 9 in

POOL SIDE POOL PLUNGE POOL RUN (RIFFLE) CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

wpt 187
 N 20,08842°
 W 155.60027°

No insects

COMMENTS:

Random No.: 4, 3

Site No.: 2

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: DJP+MKM
HSA CODE: - - - TEMPERATURE: 78°F (°C)
NAME: Lalakea ELEVATION: 1929 (ft.)
DATE: 5/19/04 TIME: 2:16 AM TO 2:18 AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT 5% SAND 45% GRAVEL
COBBLE 10% BOULDERS 40% BEDROCK
DETritus

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 2 in

POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
NO WATER DIRTY WATER slow

SPP: SIZE ♂ ♀ ?

Wpt 188
N 20.08779°
W 155.60043°

Got Bugs

mostly shore bugs
pseudomids
long legged flies

COMMENTS:

Random No.: 3, 4

Site No.: 3

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: DJP+MKM
HSA CODE: - - - TEMPERATURE: 78°F (°C)
NAME: Lalakea ELEVATION: 1935 (ft.)
DATE: 5/19/04 TIME: 2:28 AM TO 2:29 AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT SAND 5% GRAVEL 5%
COBBLE 90% BOULDERS BEDROCK
DETritus

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 4 in

POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wpt 189
N 20.08788°
W 155.60075°

Got Bugs
shore flies

COMMENTS:

Random No.: 3, 9

Site No.: 4