

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DJP
 HSA CODE: - - - TEMPERATURE: - (°C)
 NAME: Hillawe Above Rd Xing ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1038 AM TO 1042 AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 70
 COBBLE 30 BOULDERS - BEDROCK -
 DETRITUS -

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

SPP: SIZE ♂ ♀ ?

Wyppt. 181
 N20.11358
 155.61581

- Got Insects
 - Flow quite high due to recent rains

COMMENTS:

Random No.: 9.1

Site No.: 1

DIVISION OF AQUATIC RESOURCES
 4/2/02

TRA

J. L. DARLING CORP.
 www.DarlingCorp.com

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DJP
 HSA CODE: - - - TEMPERATURE: - (°C)
 NAME: Hillawe - above Rd. Xing ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1047 AM TO 1051 AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 30
 COBBLE 70 BOULDERS - BEDROCK -
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 7 inches
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wyppt. 182
 N20.11360
 155.61348

No Insects - Ø

COMMENTS:

Random No.: 4.8

Site No.: 2

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

RVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 A CODE: - TEMPERATURE: - (°C)
 ME: Hillawe ELEVATION: - (ft.)
 TE: 6/21/05 TIME: 10 AM TO - AM
 Mo. Day Yr. (START) PM (STOP) PM

BSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 15
 COBBLE 45 BOULDERS 80 BEDROCK -
 DETRITUS -

BITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 20 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

P: SIZE ♂ ♀ ?

Ø Insects - None

Wgpt. 183 - N20.11438
 155.61179

Stream is unusually deep today

MENTS:

andom No.: 2, 5

Site No.: 3

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hillawe - Above Rd King ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1052 AM TO 1054 AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL -
 COBBLE 10 BOULDERS 90 BEDROCK -
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 10 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wgpt. 184 N20.11472
 155.61038

Got some (one)

MENTS:

Random No.: 6, 9

Site No.: 4

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hilitawe ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1101 AM TO 1103 AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 20
 COBBLE 20 BOULDERS 60 BEDROCK -
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 6 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

No insect

Wgpt. 185

N 20.12443

155.58749

COMMENTS:

Random No.: 1, 9

Site No.: 5

DIVISION OF AQUATIC RESOURCES
 4/2/02

PA RE

J. L. DARLING CORP.
 www.DarlingCorp.com

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hilitawe ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1105 AM TO 1107 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 12 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wgpt. 186

N 20.11554

155.60455

COMMENTS:

Random No.: 5, 4

Site No.: 6

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 SA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hittawe ELEVATION: _____ (ft.)
 DATE: 6/21/05 TIME: 1111 AM TO 1114 AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL 80
 COBBLE 20 BOULDERS _____ BEDROCK _____
 DETRITUS _____

HABITAT TYPE:

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

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

SPP: SIZE ♂ ♀ ?

Wght. 187 N20. 10554
 155.59564

No aquatic insects here

(Dry Island in middle of streambed)
 recently covered w/H₂O

COMMENTS:

Random No.: 1.5

Site No.: 7

DIVISION OF AQUATIC RESOURCES
 2/02

7/2/02

J. L. DARLING CORP.
 www.DarlingCorp.com

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hittawe ELEVATION: _____ (ft.)
 DATE: 6/21/05 TIME: 1122 AM TO _____ 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 20in

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

SPP: SIZE ♂ ♀ ?

Wght. 188 20. 10520
 155.59570

Insects collected

COMMENTS:

Random No.: 6.3

Site No.: 8

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: REIDP
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: _____ (ft.)
 DATE: 6/21/05 TIME: 1133 AM TO 1135 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 2ft
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wypf. 189
 N 20, 10466
 155, 59586

COMMENTS:

Random No.: 2, 6

Site No.: 9

DIVISION OF AQUATIC RESOURCES
 4/2/02

J. L. DARLING CORP.

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: REIDP
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: _____ (ft.)
 DATE: 6/21/05 TIME: 1140 AM TO 1142 AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL 40
 COBBLE 30 BOULDERS 30 BEDROCK _____
 DETRITUS _____

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 2 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER shallow

SPP: SIZE ♂ ♀ ?

Wypf. 190
 N 20, 10506
 155, 59563

COMMENTS:

Random No.: 2, 1

Site No.: 10

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hillawe ELEVATION: - (ft.)
 DATE: 6 12 105 TIME: 1150 AM TO 1155 AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL -
 COBBLE - BOULDERS 70 BEDROCK 30
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 12 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wght. 191 N 20.10445
 155.59557
 - Some Insects at this station

General
 Collections near this point of Doli's

COMMENTS:

Random No.: 9, 7

Site No.: 11

DIVISION OF AQUATIC RESOURCES
 4/2/02

RAA

J. L. DARLING CORP.
 www.DarlingData.com

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: DP/RE
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hillawe - Above Rocky ELEVATION: - (ft.)
 DATE: 6 12 105 TIME: 1205 AM TO - AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND 20 GRAVEL 40
 COBBLE 20 BOULDERS 20 BEDROCK -
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 8 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wght. 192 N 20.10425
 155.59593

No Insects

COMMENTS:

Random No.: 6, 1

Site No.: 12

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: REIDP
 SA CODE: - TEMPERATURE: - (°C)
 NAME: Hilawe ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1208 AM TO 1210 AM
 Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 20 80
 COBBLE 10 BOULDERS 100 BEDROCK -
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 5 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

wypt. 193

N20.10416

155.59599

Ø Insects

COMMENTS:

Random No.: 1, 7

Site No.: 13

DIVISION OF AQUATIC RESOURCES
 H 2/02

J. L. DARLING CORP.

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: REIDP
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hilawe ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1213 AM TO 1215 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 18 inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

wypt. 194

N20.10419

155.59612

No Insects

COMMENTS:

Random No.: 3, 1

Site No.: 14

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hittawa ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1217 AM TO 1219 AM
 (Mo. Day Yr. (START) PM (STOP) PM)

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 80
 COBBLE 20 BOULDERS - BEDROCK -
 DETRITUS -

HABITAT TYPE: - SURVEY AREA (l" x w" x h"): 1m x 1m x 6in.
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wght, 195

N20, 10402

155, 59596

One insect

COMMENTS:

Random No.: 3, 8

Site No.: 15

DIVISION OF AQUATIC RESOURCES
 4/2/02

DA

J. L. DARLING CORP.

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hittawa ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1225 AM TO 1227 AM
 (Mo. Day Yr. (START) PM (STOP) PM)

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL -
 COBBLE 30 BOULDERS 70 BEDROCK -
 DETRITUS -

HABITAT TYPE: - SURVEY AREA (l" x w" x h"): 1m x 1m x 6in.
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wght, 196

N20, 10341

155, 59593

Some insects

COMMENTS:

Random No.: 8, 2

Site No.: 16

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: _____ (ft.)
 DATE: 6/21/05 TIME: 12:34 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"): 1m x 1m x 20 inch

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

SPP: SIZE ♂ ♀ ?

Wyppt. 197

N20.10332

155.59573

No Insects

COMMENTS:

dom No.: 3,3

Site No.: 17

DIVISION OF AQUATIC RESOURCES
 2/02

J. L. DARLING CORP.

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: _____ TEMPERATURE: _____ (°C)
 NAME: Hillawe ELEVATION: _____ (ft.)
 DATE: 6/21/05 TIME: 12:37 AM TO _____ AM
 (Mo. Day Yr. (START) PM (STOP) PM)

SUBSTRATE TYPE (%):

SEDIMENT _____ SAND _____ GRAVEL 30
 COBBLE 40 BOULDERS 30 BEDROCK _____
 DETRITUS _____

HABITAT TYPE:

SURVEY AREA (l" x w" x h"): 1m x 1m x 5m

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

SPP: SIZE ♂ ♀ ?

Wyppt. 198

N20.10326
 155.59581

No Insects

COMMENTS:

Random No.: 2,2

Site No.: 18

DIVISION OF AQUATIC RESOURCES
 GRH 2/02

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 A CODE: - TEMPERATURE: - (°C)
 NAME: Hillawe ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1240 AM TO 1242 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 18inch
 POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

P: SIZE ♂ ♀ ?

Wght. 199

N20.10303

155.59583

collected Insects

Large cascade below EKF Diversion

REMARKS:

Random No.: 73

Site No.: 19

STREAM SURVEY FORM

SURVEY TYPE: RANDOM NONRANDOM OBSERVER: RE/DP
 HSA CODE: - TEMPERATURE: - (°C)
 NAME: Hillawe ELEVATION: - (ft.)
 DATE: 6/21/05 TIME: 1250 AM TO 1252 AM
Mo. Day Yr. (START) PM (STOP) PM

SUBSTRATE TYPE (%):

SEDIMENT - SAND - GRAVEL 25
 COBBLE 25 BOULDERS 50 BEDROCK -
 DETRITUS -

HABITAT TYPE: SURVEY AREA (l" x w" x h"): 1m x 1m x 20m
POOL SIDE POOL PLUNGE POOL RUN RIFFLE CASCADE
 NO WATER DIRTY WATER

SPP: SIZE ♂ ♀ ?

Wght. 200

N20.10257

155.59509

- one insect? aquatic? - kept
 - maybe an Ant?

Pool just below EKF Diversion

M. Blackburni observed here, but outside
 of point-quadrant area

REMARKS:

Random No.: 61

Site No.: 20