

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 6/17/2024 Site Name: Upstream Site Time: 0904

WEATHER CONDITIONS

NOW	Past 24 Hours	Has there been a heavy rain in the past 7 days?
<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/> rain (steady rain)	
<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/> showers (intermittent)	
<u>90</u> % cloud cover	<u>70</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: clear, sediment at the bottom

Water Color: clear

Estimated Depth: <1 inches

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes: Large amounts of leaf litter

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: no waterbirds/shorebirds

Species Observed	# of individuals	Behavior	Notes/Observations
red-crested cardinal	2	foraging	foraging in the streambed
red-vented bulbul	1	flying	flying in canopy above streambed
white-rumped shama	1	flying	flying in canopy above streambed
common waxbill	5	flying	flew over the streambed
warbling white-eye	2	flying	flew over the streambed
red muni	1	flying	flew over the streambed

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Upstream Site
looking
upstream.



Photograph #
2:
Upstream Site
looking
downstream.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 6/17/2024 Site Name: Discharge Site Time: 0842

WEATHER CONDITIONS

NOW	Past 24 Hours	Has there been a heavy rain in the past 7 days?
<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/> rain (steady rain)	
<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/> showers (intermittent)	
<u>40</u> % cloud cover	<u>70</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: clear, sediment at bottom

Water Color: clear

Estimated Depth: <1 inches

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes: No discharge occurring. Large amounts of leaf litter.

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: N/A

Species Observed	# of individuals	Behavior	Notes/Observations
red-vented bulbul	1	foraging	foraging in the streambed
unknown	1	flying	flew over the streambed
red-crested cardinal	1	loafing	loafing at the edge of the streambed
white-rumped shama	2	flying	flew over streambed
mynah	2	loafing	walking in streambed
common waxbill	3	foraging	foraging in the streambed

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 6/17/2024 Site Name: Downstream Site # 1 Time: 0940

WEATHER CONDITIONS

NOW	Past 24 Hours	Has there been a heavy rain in the past 7 days?
<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/> rain (steady rain)	
<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/> showers (intermittent)	
<u>40</u> % cloud cover	<u>70</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: clear, sediment at bottom

Water Color: clear

Estimated Depth: 2 inches

Visibility: 100% to the bottom

Tide (if applicable): N/A

Notes: large mats of algae at bottom of streambed

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: One large blue dragonfly and two medium red dragonflies flew over the algae mats in the streambed.

Species Observed	# of individuals	Behavior	Notes/Observations
scaly-breasted munia	10	flying	flying in the vegetation on the edge of stream
common myna	3	flying	flew over the streambed
red-vented bulbul	1	flying	flew over the streambed

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black-crowned night heron	1	foraging	foraging in the stream
mosquito fish (<2 inch.)	<100	swimming/feeding	swimming in very shallow water
tilapia (1 inch. - 3 inch.)	<10	swimming/feeding	swimming in very shallow water

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Downstream
Site # 1.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 6/17/2024 Site Name: Downstream Site # 2 Time: 0958

WEATHER CONDITIONS

NOW	Past 24 Hours	Has there been a heavy rain in the past 7 days?
<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/> rain (steady rain)	
<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/> showers (intermittent)	
<u>20</u> % cloud cover	<u>70</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: clear, sediment at the bottom

Water Color: clear

Estimated Depth: 4 inches

Visibility: 90%

Tide (if applicable): N/A

Notes: N/A

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: N/A

Species Observed	# of individuals	Behavior	Notes/Observations
tilapia	<300	swimming/feeding	swimming in very shallow water
mullet	<20	swimming/feeding	swimming in stream
mallard/ Hawaiian duck hybrid	1	foraging	foraging in deeper area of stream
spotted dove	3	flying	flew over streambed
red-vented bulbul	1	flying	flew over streambed
common waxbill	13	flying	flying in grass at the edge of the stream
common myna	3	flying	flying in vegetation at the edge of the streambed
black-crowned night heron	1	foraging	foraging at the edge of streambed where water flow is active

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Downstream
Site # 2.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 6/17/2024 Site Name: Estuary Site # 1 Time: 1030

WEATHER CONDITIONS

NOW	Past 24 Hours	Has there been a heavy rain in the past 7 days?
<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/> rain (steady rain)	
<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/> showers (intermittent)	
<u>10</u> % cloud cover	<u>70</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: slightly clear, lighter sediment mixed in water

Water Color: green

Estimated Depth: 4 feet

Visibility: 6 inches

Tide (if applicable): 1.0

Notes: N/A

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes


Fish Abnormal Behavior None Yes

Notes: Loud construction nearby; make-shift fishing boat on edge of stream; no waterbirds/shorebirds.

Species Observed	# of individuals	Behavior	Notes/Observations
red-vented bulbul	4	flying	flying over stream to tree on the edge of stream
spotted dove	1	flying	flying over stream from mangroves near stream
zebra dove	4	flying	flew over the stream
mullet	2	swimming	swimming near edge of stream
tilapia	<40	swimming	swimming near edge of stream

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS

	<p>Photograph # 1:</p> <p>Estuary Site # 1.</p>
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Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 6/17/2024 Site Name: Estuary Site # 2 Time: 1046

WEATHER CONDITIONS

NOW	Past 24 Hours	Has there been a heavy rain in the past 7 days?
<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> storm (heavy rain)	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/> rain (steady rain)	
<input type="checkbox"/> showers (intermittent)	<input type="checkbox"/> showers (intermittent)	
<u>0</u> % cloud cover	<u>70</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: cloudy, lighter sediment mixed in water

Water Color: green

Estimated Depth: 2 ft.

Visibility: 3 inches

Tide (if applicable): 1.0

Notes: N/A

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: No fish observed. No waterbirds or shore birds observed.

Species Observed	# of individuals	Behavior	Notes/Observations
red-vented bulbul	1	flying	flying in vegetation next to the stream
cattle egret	2	flying	flew over the stream
house sparrow	1	foraging	foraging in vegetation next to the stream

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Estuary Site # 2
looking
upstream.



Photograph #
2:
Estuary Site # 2
looking
downstream.

Halawa Stream Monitoring Data Sheet

WATERBIRD SURVEY DATASHEET

WETLAND CONDITION CODES				WEATHER CODES			
Water Level (WL) 0 = dry 1 = lower than normal 2 = normal 3 = higher than normal	Human Impact (HI) 0 = indirect (little garbage, few people) 1 = moderate 2 = heavy (many people present; e.g., wading, boating, fishing, etc)	Rainfall (RF) 0 = no rain 1 = mist or fog 2 = drizzle 3 = light rain 4 = heavy rain 5 = snow or hail	Wind 0 = no wind, < 1 mph 1 = smoke drifts, 1-3 mph 2 = wind felt on face, 4-7 mph 3 = leaves and twigs rustle, 8-12 mph 4 = dust raises, branches stir, 13-18 mph 5 = small trees sway, >19 mph				
Vegetation Cover (VC) 0 = open water (<25% veg) 1 = 26-50% veg cover 2 = 51-75% veg cover 3 = >75% cover	Shoreline Condition of Tidal Wetlands (SC) 0 = water at high tide mark N/A=not applicable 1 = water 25 ft from high tide mark 2 = water 50 ft from high tide mark 3 = water >50 ft from high tide mark	Cloud Cover (CC) = Estimate to the nearest 10%					

Date 06-17-24

REMINDERS: If site is not accessible, include wetland name and write 'no access'

Observers XXXXXXXXXX

If no birds observed, fill out top portion and write 'no birds'

KEEP A COPY FOR YOUR RECORDS

Island O'ahu

Subadult includes juveniles and chicks

Wetland Name	US				DC				DS 1				DS 2			
	WL	VC	HI	SC	WL	VC	HI	SC	WL	VC	HI	SC	WL	VC	HI	SC
Condition	1	0	0	NA	1	0	0	NA	1	0	0	NA	1	0	0	NA
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	90	0	3		40	1	1		40	0	3		20	0	3	
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0904		0909		0842		0847		0940		0945		0958		1003	
COOT adult																
subadult																
GALLINULE/MOORHEN adult																
subadult																
STILT adult																
subadult																
KOLOA adult																
subadult																
Koloa/Mallard Hybrid													1 (adult/loafing)			
Mallard (domestic/feral)																
Other Domestic Duck																
Black-cr. Night Heron									1 (adult/foraging)				1 (adult/foraging)			
Cattle Egret																
Pacific Golden Plover																
Ruddy Turnstone																
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
Comments	no waterbirds/shorebirds				no waterbirds/shorebirds											

