

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 1/13/2025 Site Name: Upstream Site Time: 1018

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 checked="" type="checkbox"/> showers (intermittent)	
<u>10</u> % cloud cover	<u>50</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input checked="" type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: clear

Water Color: clear

Estimated Depth: < 1 inch

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes: Barely flowing water. Stream bed wet. Thick algae.

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
Warbling white-eye	7	Loafing	Calling from the vegetation above the stream.
Red-vented bulbul	5	Foraging	Foraging in the vegetation above the stream.
Scaly-breasted munia	7	Loafing, fly	Calling from the vegetation above the stream.
Common myna	1	Loafing	Calling from the vegetation above the stream.
Zebra dove	1	Loafing	Calling from the vegetation above the stream.

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: 1/13/2025 Site Name: Discharge Site Time: 1000

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>30</u> % cloud cover	<u>50</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input checked="" type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: clear

Water Color: clear

Estimated Depth: 1 inch

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes: Stream flowing slow on both sides. Channel is wet throughout. Black algae growing on bottom. Discharge not open. Was open in the evening and closed at 5am.

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-crested cardinal	2	Foraging	Foraging in the stream channel.
Pacific golden-plover	2	Foraging	Foraging in the stream channel.
Red-vented bulbul	2	Loafing	Calling from the vegetation next to the stream.
Warbling white-eye	3	Loafing	Calling from the vegetation next to the stream.

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Discharge Site
looking
upstream.



Photograph #
2:
Discharge Site
looking
downstream.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 1/13/2025 Site Name: Downstream Site # 1 Time: 1057

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>50</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input checked="" type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: clear water

Water Color: clear

Estimated Depth: 1"

Visibility: 100% to the bottom

Tide (if applicable): N/A

Notes: Flowing only on left and right edge. Algae growing at bottom where water is flowing water and dry algae in the middle of streambed.

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
Scaly-breasted munia	3	Flying	Flew over the stream.
Pacific golden-plover	1	Foraging	Foraging in the streambed.
Zebra dove	2	Foraging	Foraging in the streambed.

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Warbling white-eye	1	Loafing	Calling from the vegetation along the stream bank.
Cattle egret	1	Flying	Flew over the stream.
Red-vented bulbul	1	Loafing	Calling from the vegetation along the stream bank.
Mosquito fish	>80	Swimming	Swimming in the stream.

PHOTOGRAPHS



Photograph #
1:
Downstream
Site # 1.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 1/13/2025 Site Name: Downstream Site # 2 Time: 1042

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>50</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input checked="" type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: mostly clear; deeper areas cloudy with lighter sediment mixed in water

Water Color: green to milky white

Estimated Depth: 3 ft

Visibility: 100% to the bottom

Tide (if applicable): N/A

Notes: Human activity noted on left side of stream in the form of the construction of a small rock diversion. Observed slight modification to stream flow.

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 3

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: 3 medium-size tilapia dead on left side of bank, possibly due to human causes such as catch and discard or due to stranding from the stream diversion.

Species Observed	# of individuals	Behavior	Notes/Observations
Cattle egret	2	Flying	Flew over the stream.
Black-crowned night heron	2	Foraging	water
Pacific golden-plover	1	Foraging	Foraging in the streambed.
Zebra dove	5	Loafing	Loafing in the streambed.
Scaly-breasted munia	3	Foraging	Foraging in the grass next to the streambed.
White tern	1	Flying	Flew over the stream.
Common myna	1	Loafing	Calling from vegetation next to the stream.

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Red-vented bulbul	2	Foraging	Foraging in the vegetation next to the streambed.
Mallard hybrid	1	Loafing	Sitting on rocks in the stream.
tilapia	>100	Foraging	Swimming and foraging in the stream.

PHOTOGRAPHS



Photograph #
1:
Downstream
Site # 2.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 1/13/2025 Site Name: Estuary Site # 1 Time: 0926

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>50</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input checked="" 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: >5'

Visibility: ~3' depth

Tide (if applicable): 0.4 ft

Notes: 2 people fishing off bridge; construction noise.

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes:

Species Observed	# of individuals	Behavior	Notes/Observations
Red-vented bulbul	1	Flying	Flew into vegetation next to the stream.
White tern	1	Flying	Flew into vegetation next to the stream.
Rose-ringed parakeet	2	Loafing	Calling from the trees along the stream.
tilapia	62	Loafing	Swimming at the edge of the stream near trees and near bridge pillars.

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:

Estuary Site #
1.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date 1/13/2024 Site Name: Estuary Site # 2 Time: 0907

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>60</u> % cloud cover	<u>50</u> % cloud cover or less	
<input checked="" type="checkbox"/> clear/sunny	<input checked="" type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: Cloudy, sediment mixed in water (see notes)

Water Color: brown

Estimated Depth: 3'

Visibility: 2'

Tide (if applicable): 0.58 ft

Notes: Sediment disturbance during survey due to tour boat operations. Some debris sticks and branches floating within boom.

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: Some gulping observed along a corner of the shoreline. Likely due to disturbance of sediment by tour boat activity.

Species Observed	# of individuals	Behavior	Notes/Observations
Common myna	6	Foraging	Foraging in the grass next to the stream.
Pacific golden plover	3	Foraging	Foraging in the grass next to the stream.
Zebra dove	2	Foraging	Foraging in the grass next to the stream.
Rose-ringed parakeet	1	Loafing	Calling from trees next to the stream.
Spotted dove	1	Foraging	Foraging in the grass next to the stream.
Java sparrow	1	Loafing	Calling from trees next to the stream.
House sparrow	3	Foraging	Foraging in the grass next to the stream.
tilapia	10	Swim	Swimming along the shoreline.

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Estuary Site # 2
looking
upstream.



Photograph #
2:
Estuary Site # 2
looking
downstream.

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 1-13-25

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

Observers _____

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	1	NA	1	0	1	NA	1	0	1	NA	1	1	1	NA
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	10	0	3		30	0	3		10	0	4		10	0	4	
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	1018		1023		1000		1005		1057		1102		1042		1047	
COOT adult																
subadult																
GALLINULE/MORHEN adult																
subadult																
STILT adult																
subadult																
KOLOA adult																
subadult																
Koloa/Mallard Hybrid													1 (adult/loafing)			
Mallard (domestic/feral)																
Other Domestic Duck																
Black-cr. Night Heron													2 (adult/foraging)			
Cattle Egret									1 (adult/flying)				2 (adult/flying)			
Pacific Golden Plover					2 (adult/foraging)				1 (adult/foraging)				1 (adult/foraging)			
Ruddy Turnstone																
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
White Tern													1 (adult/foraging)			
Comments																
	no waterbirds/shorebirds															

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 1-13-25

REMINDERS: If site is not accessible, include wetland name and write 'no access'
 If no birds observed, fill out top portion and write 'no birds'

Observers ██████████

Island O'ahu

KEEP A COPY FOR YOUR RECORDS
 Subadult includes juveniles and chicks

Wetland Name	ES 1				ES 2											
	WL	VC	HI	SC	WL	VC	HI	SC	WL	VC	HI	SC	WL	VC	HI	SC
Condition	2	0	2	1	2	0	1	1								
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0926		0931		0907		0912									
COOT adult																
subadult																
GALLINULE/MORHEN adult																
subadult																
STILT adult																
subadult																
KOLOA adult																
subadult																
Koloa/Mallard Hybrid																
Mallard (domestic/feral)																
Other Domestic Duck																
Black-cr. Night Heron																
Cattle Egret																
Pacific Golden Plover	3 (adult/foraging)															
Ruddy Turnstone																
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
White Tern	1 (adult/flying)															
Comments																