

Halawa Stream Monitoring Data Sheet

Observer/s: \_\_\_\_\_

Date: 12/2/2024 Site Name: Upstream Site Time: 0929

**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>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, sediment at bottom of streambed

Water Color: clear

Estimated Depth: 3 inches

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes: Fast-flowing water. Fallen tree still in streambed. Algae and debris also noted in 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
White-rumped shama thrush	1	Loafing	Calling from trees next to the stream.
Scaly-breasted munia	13	Flying	Calling from and flying into trees next to the stream.
Spotted dove	1	Loafing	Sitting in trees next to the stream.
Warbling white-eye	8	Foraging	Foraging in the trees next to the stream.
Red-vented bulbul	3	Foraging	Foraging in the trees next to the stream.
Java sparrow	2	Foraging	Calling from and foraging in trees next to the stream and holes in concrete channel wall.
Zebra dove	2	Loafing	Calling from trees next to the stream.
Jungle fowl	1	Foraging	Foraging in the basin downstream.
Cat	1	Loafing	Laying on a downed log.

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: 12/2/2024 Site Name: Discharge Site Time: 0908

**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>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, sediment at bottom of streambed

Water Color: clear

Estimated Depth: 4 inches

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes: Discharge not open. Stream flowing fast and wet on both sides. Black algae growing on bottom.

**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
Warbling white-eye	6	Flying	Flying into and calling from trees next to the stream.
Red-vented bulbul	4	Loafing	Calling from trees next to the stream.
Common myna	2	Foraging	Foraging in trees next to the stream.
Spotted dove	1	Foraging	Foraging in trees next to the stream.
Rose-ringed parakeet	1	Loafing	Calling from trees 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: 12/2/2024 Site Name: Downstream Site # 1 Time: 1016

**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, sediment and black/green algae at bottom of streambed  
 Water Color: clear  
 Estimated Depth: 2 inches  
 Visibility: 100% to the bottom  
 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:

Species Observed	# of individuals	Behavior	Notes/Observations
Black-crowned night heron	1	Foraging	Standing in water under the bridge.
Scaly-breasted munia	7	Foraging	Foraging in the grass next to the stream.
Myna	3	Flying	Flying into trees next to the stream.
Mosquito fish	>50	Loafing	Swimming in the stream.

Halawa Stream Monitoring Data Sheet

**PHOTOGRAPHS**

No photo available	Photograph # 1: Downstream Site # 1.
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Halawa Stream Monitoring Data Sheet

Observer/s: \_\_\_\_\_

Date: 12/2/2024 Site Name: Downstream Site # 2 Time: 0952

**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, sediment at bottom of streambed

Water Color: green

Estimated Depth: 3 ft

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes: Light foam on water surface.

**SPECIES OBSERVATIONS**

Fish Kill? Yes  No # Dead Fish 0

Fish Breathing Stress/Gulping  None  Yes (some, in back corner of the stream where water is still)

Fish Abnormal Behavior  None  Yes

Notes: Dry dead fish still present from last week.

Species Observed	# of individuals	Behavior	Notes/Observations
Mallard hybrid	2	Foraging	Foraging and preening in the streambed.
Wandering tattler	1	Foraging	Foraging in the streambed.
Black-crowned night heron	2	Foraging	Foraging in the streambed.
Common myna	1	Loafing	Calling from trees next to the stream.
Warbling white-eye	1	Loafing	Calling from trees next to the stream.
Zebra dove	1	Foraging	Foraging in trees next to stream.
Scaly-breasted munia	2	Foraging	Foraging in grass next to the stream.
Frigate bird	1	Flying	Circling high above the site.
White fairy tern	3	Flying	Chasing the frigate bird above the site.
Cattle egret	1	Foraging	Foraging in the streambed.
Freshwater turtle	1	Loafing	Basking on log in the distance. Species unknown.
Tilapia	>100	Foraging	Swimming and foraging in the stream.

Halawa Stream Monitoring Data Sheet

**PHOTOGRAPHS**



Photograph #  
1:  
Downstream  
Site # 2.



Halawa Stream Monitoring Data Sheet

Observer/s: \_\_\_\_\_

Date: 12/2/2024 Site Name: Estuary Site # 1 Time: 1055

**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>40%</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, sediment on bottom of stream

Water Color: clear to green

Estimated Depth: 5 feet

Visibility: 4 ft. down.

Tide (if applicable): 0.5 (going low)

Notes: Leaves and debris floating on stream surface. Peoples' stuff on stream bank.

**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	2	Flying	Flying into trees next to the stream.
Spotted dove	1	Loafing	Loafing in trees next to the stream.
Rock pigeon	1	Flying	Flying into trees next to the stream.
barracuda	1	Foraging	Swimming around.
tilapia	>100	Loafing	Swimming in several schools.

Halawa Stream Monitoring Data Sheet

**PHOTOGRAPHS**



Photograph #  
1:

Estuary Site #  
1.

Halawa Stream Monitoring Data Sheet

Observer/s: \_\_\_\_\_

Date 12/2/2024 Site Name: Estuary Site # 2 Time: 1036

**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: slightly cloudy, light sediment mixed in water

Water Color: brown

Estimated Depth: 4 ft.

Visibility: 3 ft.

Tide (if applicable): 0.58 (going low)

Notes: Some sticks and branch debris floating within boom.

**SPECIES OBSERVATIONS**

Fish Kill? Yes  No # Dead Fish 0

Fish Breathing Stress/Gulping  None  Yes (gulping, one corner of shoreline)

Fish Abnormal Behavior  None  Yes

Notes:

Species Observed	# of individuals	Behavior	Notes/Observations
Cattle egret	2	Loafing	Standing in the grass near the stream.
Pacific golden plover	2	Loafing	Standing in the grass near the stream.
warbling white-eye	1	Foraging	Foraging in tree next to the stream.
Scaly-breasted munia	1	Foraging	Foraging in tree next to the stream.
Common myna	3	Loafing	Calling from tree next to the stream.
Red-vented bulbul	2	Flying	Flew into tree next to the stream.
Tilapia	30	Loafing	Swimming next to the shoreline.
Barracuda	1	Foraging	Swimming next to 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			
<b>Water Level (WL)</b> 0 = dry 1 = lower than normal 2 = normal 3 = higher than normal	<b>Human Impact (HI)</b> 0 = indirect (little garbage, few people) 1 = moderate 2 = heavy (many people present; e.g., wading, boating, fishing, etc)	<b>Rainfall (RF)</b> 0 = no rain 1 = mist or fog 2 = drizzle 3 = light rain 4 = heavy rain 5 = snow or hail	<b>Wind</b> 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				
<b>Vegetation Cover (VC)</b> 0 = open water (<25% veg) 1 = 26-50% veg cover 2 = 51-75% veg cover 3 = >75% cover	<b>Shoreline Condition of Tidal Wetlands (SC)</b> 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	<b>Cloud Cover (CC) = Estimate to the nearest 10%</b>					

Date 12-02-24

**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
<b>Condition</b>	2	1	0	NA	2	1	1	NA	2	0	0	NA	2	1	1	NA
<b>Weather</b>	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	20	0	0		40	0	0		10	0	2		10	0	0	
<b>Time</b>	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0929		0934		0908		0914		1016		1021		0952		0959	
COOT adult																
subadult																
GALLINULE/MORHEN adult																
subadult																
STILT adult																
subadult																
KOLOA adult																
subadult																
Koloa/Mallard Hybrid													2 (adult/foraging)			
Mallard (domestic/feral)																
Other Domestic Duck																
Black-cr. Night Heron									1 (adult/foraging)				2 (adult/foraging)			
Cattle Egret																
Pacific Golden Plover																
Ruddy Turnstone																
Sanderling																
Wandering Tattler													1 (adult/foraging)			
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
White fairy tern													3 (adult/flying)			
Frigate bird													1 (adult/flying)			
<b>Comments</b>	no waterbirds/shorebirds				no waterbirds/shorebirds											

### WATERBIRD SURVEY DATASHEET

WETLAND CONDITION CODES				WEATHER CODES			
<b>Water Level (WL)</b> 0 = dry 1 = lower than normal 2 = normal 3 = higher than normal	<b>Human Impact (HI)</b> 0 = indirect (little garbage, few people) 1 = moderate 2 = heavy (many people present; e.g., wading, boating, fishing, etc)	<b>Rainfall (RF)</b> 0 = no rain 1 = mist or fog 2 = drizzle 3 = light rain 4 = heavy rain 5 = snow or hail	<b>Wind</b> 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				
<b>Vegetation Cover (VC)</b> 0 = open water (<25% veg) 1 = 26-50% veg cover 2 = 51-75% veg cover 3 = >75% cover	<b>Shoreline Condition of Tidal Wetlands (SC)</b> 0 = water at high tide mark <span style="float: right;">N/A=not applicable</span> 1 = water 25 ft from high tide mark 2 = water 50 ft from high tide mark 3 = water >50 ft from high tide mark	<b>Cloud Cover (CC) = Estimate to the nearest 10%</b>					

Date 12-02-24

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

Observers [REDACTED]

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	ES 1				ES 2											
	WL	VC	HI	SC	WL	VC	HI	SC	WL	VC	HI	SC	WL	VC	HI	SC
<b>Condition</b>	2	0	1	1	2	0	0	1								
<b>Weather</b>	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
<b>Time</b>	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	1055		1100		1036		1041									
COOT adult																
COOT subadult																
GALLINULE/MOORHEN adult																
GALLINULE/MOORHEN subadult																
STILT adult																
STILT subadult																
KOLOA adult																
KOLOA subadult																
Koloa/Mallard Hybrid																
Mallard (domestic/feral)																
Other Domestic Duck																
Black-cr. Night Heron																
Cattle Egret	2 (adult/foraging)															
Pacific Golden Plover	2 (adult/foraging)															
Ruddy Turnstone																
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
White Tern																
<b>Comments</b>	No waterbirds/shorebirds															