

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 5/06/2024 Site Name: Upstream Site Time: 0840

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>5</u> % cloud cover	<u>15</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, heavy sediment at the bottom

Water Color: clear

Estimated Depth: Less than 1 inch

Visibility: 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: no waterbirds/shorebirds

Species Observed	# of individuals	Behavior	Notes/Observations
red vented bulbul	5	foraging	foraging on the trees above the stream
common myna	3	foraging	foraging at 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: 5/06/2024 Site Name: Discharge Site Time: 0825

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>5</u> % cloud cover	<u>15</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 streambed
 Water Color: clear
 Estimated Depth: ~1 inch
 Visibility: to the bottom, 100%
 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: no waterbirds/shorebirds

Species Observed	# of individuals	Behavior	Notes/Observations
red crested cardinal	1	foraging	walking and foraging at the stream on the left side
red vented bulbul	2	foraging/flying	flying from tree branch to tree branch above the stream
common myna	2	foraging	foraging in the trees on the right side of the stream

PHOTOGRAPHS

Halawa Stream Monitoring Data Sheet



Photograph
1:
Discharge
Site looking
upstream.



Photograph
2:
Discharge
Site looking
downstream.

Halawa Stream Monitoring Data Sheet

Observer/s: [REDACTED]

Date: 5/06/2024 Site Name: Downstream Site # 1 Time: 0915

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>15</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, algae and sediment on the bottom.

Water Color: Clear

Estimated Depth: Less than 1 inch

Visibility: 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: N/A

Species Observed	# of individuals	Behavior	Notes/Observations
unknown fish	<100	foraging	extra small fishes in the current
cattle egret	1	fly over	flew over across the stream
common myna	1	foraging	foraging in trees on the right side
zebra dove	1	foraging	foraging in trees on the left side
mallard/Hawaiian duck hybrid	4	foraging	flew in from under the bridge and landed in the stream

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph
1:
Downstream
Site #1
looking
upstream.

Halawa Stream Monitoring

Observer/s: _____

Date: 5/06/2024 Site Name: Downstream Site #2 Time: 0905

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>5%</u> cloud cover	<u>15 %</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, algae and sediment observed at the bottom

Water Color: clear

Estimated Depth: ~6 inches

Visibility: 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: N/A

Species Observed	# of individuals	Behavior	Notes/Observations
mallard-Hawaiian duck hybrid	1	foraging/ loafing	located almost directly under the bridge, not in water
black-crowned night heron	1	foraging	foraging behind the vegetation in the middle of the stream
red-vented bulbul	1	fly over	flew across the stream into the neighborhood
common myna	3	fly over	flew down stream
unknown fish	>100	foraging	extra small in the current by the middle vegetation

Halawa Stream Monitoring

zebra dove	2	foraging	foraging in the vegetation on the left side
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PHOTOGRAPHS



Halawa Stream Monitoring Data Sheet

Observer/s: [REDACTED]

Date: 5/06/2024 Site Name: Estuary Site #1 Time: 0945

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>80 %</u> cloud cover	<u>15 %</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: murky, sediment present in the water

Water Color: green

Estimated Depth: 5ft.

Visibility: 2 ft.

Tide (if applicable): Rising, -0.4 ft

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 waterbirds/shorebirds

Species Observed	# of individuals	Behavior	Notes/Observations
common myna	2	foraging	foraging in the trees on the left side
red-vented bulbul	1	foraging	foraging down stream in the left side trees
unknown fish	6	foraging	foraging in place next to leaf litter

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph
1:
Estuary Site
#1 looking
upstream.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 5/06/2024 Site Name: Estuary Site #2 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>75</u> % cloud cover	<u>15</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: murky, sediment present in the water

Water Color: dark green

Estimated Depth: over 2ft

Visibility: ~1ft

Tide (if applicable): Rising, -0.4 ft

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 water birds or shore birds

Species Observed	# of individuals	Behavior	Notes/Observations
red-vented bulbul	1	foraging	flew across the water in the trees at the park
common myna	1	fly over	flew into the restricted area

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Estuary Site #2
looking
downstream.



Photograph #
2:
Estuary Site #2
looking
upstream.

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 1 = water 25 ft from high tide mark 2 = water 50 ft from high tide mark 3 = water >50 ft from high tide mark <small>N/A=not applicable</small>	Cloud Cover (CC) = Estimate to the nearest 10%					

REMINDEERS: If site it not accessible, include wetland name and write 'no access'

Observers ██████████

Date 05-06-24

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	2	0	0	NA	2	0	1	NA	2	0	0	NA	2	1	0	NA
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	5	0	2		5	0	2		10	0	3		10	0	3	
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0840		0845		0825		0830		0915		0920		0905		0910	
COOT adult																
subadult																
GALLINULE/MOORHEN adult																
subadult																
STILT adult																
subadult																
KOLOA adult																
subadult																
Koloa/Mallard Hybrid									4 (Adult/Foraging)				1 (Adult/Foraging)			
Mallard (domestic/feral)																
Other Domestic Duck																
Black-cr. Night Heron									1 (Adult/Foraging)							
Cattle Egret									1 (Adult/Fly Over)							
Pacific Golden Plover																
Ruddy Turnstone																
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
Comments	no waterbirds/shorebirds				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 1 = water 25 ft from high tide mark 2 = water 50 ft from high tide mark 3 = water >50 ft from high tide mark	N/A=not applicable					
Cloud Cover (CC) = Estimate to the nearest 10%							

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

Observers Alex Bauer

Date 05-06-24

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
Condition	2	1	1	1	2	0	0	1								
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	80	0	2		75	0	1									
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0945		0950		1000		1005									
COOT adult																
subadult																
GALLINULE/MOORHEN 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																
Ruddy Turnstone																
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
White Tern																
Comments	no waterbirds/shorebirds				no waterbirds/shorebirds											