

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 5/14/2024 Site Name: Upstream Site Time: 0726

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 checked="" type="checkbox"/> yes <input type="checkbox"/> no
<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/> rain (steady rain)	
<input checked="" type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/> showers (intermittent)	
<u>40</u> % cloud cover	<u>80</u> % cloud cover or less	
<input 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: 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: no water birds or shore birds

Species Observed	# of individuals	Behavior	Notes/Observations
red vented bulbul	6	foraging; flying	carrying food; flying from tree to tree near stream
white eye warbler	2	foraging	foraging in trees near stream
red-whiskered bulbul	2	flying	on tree branch

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: 5/14/2024 Site Name: Discharge Site Time: 0700

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 checked="" type="checkbox"/> yes <input type="checkbox"/> no
<input type="checkbox"/> rain (steady rain)	<input type="checkbox"/> rain (steady rain)	
<input checked="" type="checkbox"/> showers (intermittent)	<input checked="" type="checkbox"/> showers (intermittent)	
<u>100</u> % cloud cover	<u>80</u> % cloud cover or less	
<input type="checkbox"/> clear/sunny	<input type="checkbox"/> clear/sunny	

WATER QUALITY

Water level dry wet standing water flowing water sheen visible

Observed Turbidity/Sedimentation: sediment on 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

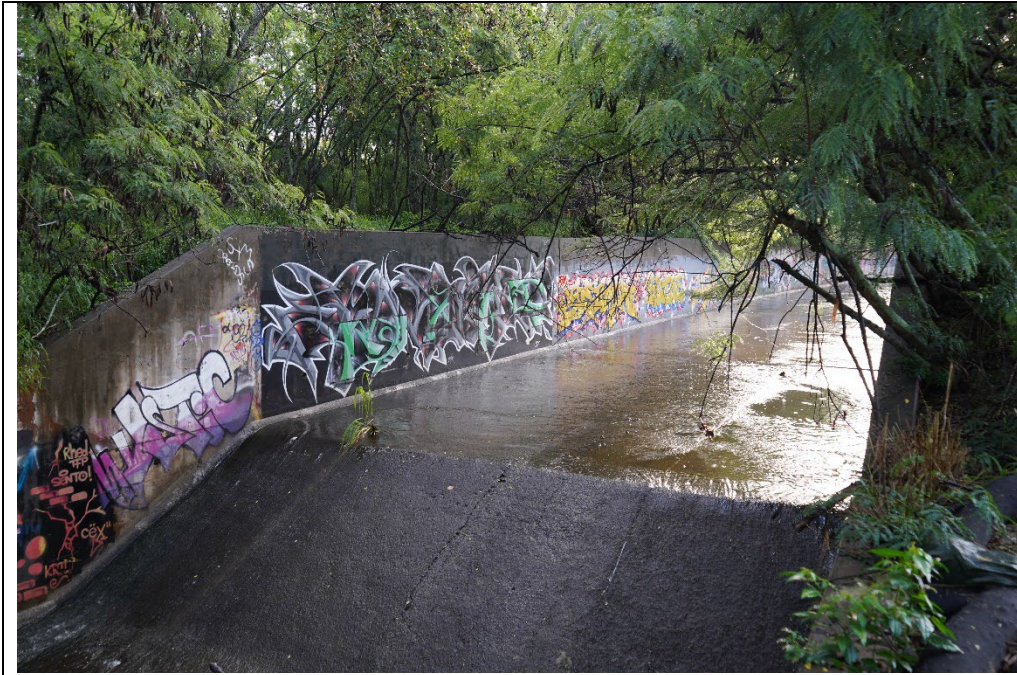
Fish Abnormal Behavior None Yes

Notes: no water birds or shore birds

Species Observed	# of individuals	Behavior	Notes/Observations
red vented bulbul	4	flying	flying over stream from tree to tree
warbling white eye	2	foraging	foraging on tree over stream bed
common myna	4	flying	vocalizing on tree near 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/ 

Date: 5/14/2024 Site Name: Downstream Site # 1 Time: 0831

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 checked="" type="checkbox"/> yes <input 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>80</u> % cloud cover	<u>80</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: brown

Estimated Depth: 6 inches

Visibility: 3 inches

Tide (if applicable): N/A

Notes: debris floating on top of water

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: no fish, water birds, or shore birds

Species Observed	# of individuals	Behavior	Notes/Observations
red vented bulbul	2	flying	flew over streambed
common myna	4	Flying; vocalizing	Flying over stream from tree to tree; vocalizing on trees

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1: Downstream
Site # 1.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 5/14/2024 Site Name: Downstream Site # 2 Time: 0847

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 checked="" type="checkbox"/> yes <input 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>100</u> % cloud cover	<u>80</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: light sediment mixed in water

Water Color: brown

Estimated Depth: 6 inches

Visibility: 3 inches

Tide (if applicable): N/A

Notes: debris floating on top of water

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	4	flying	flying over the streambed to tree near on edge of stream
zebra dove	1	foraging	foraging on dry area in the middle of streambed
common myna	2	flying	flying over streambed to tree near edge of stream
koloa/mallard hybrid	2	loafing	loafing on mudflat in the middle of the stream
black-crowned night heron	1	foraging	foraging at stream edge near tall grass

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1: Downstream
Site # 2.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 5/14/2024 Site Name: Estuary Site # 1 Time: 0930

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 checked="" type="checkbox"/> yes <input 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>80</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 with suspended matter

Water Color: brown

Estimated Depth: 7 feet

Visibility: 1 inch

Tide (if applicable): +0.3

Notes: vegetation debris floating down stream; unattended fishing lines set and attached to bridge

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: no waterbirds or shorebirds

Species Observed	# of individuals	Behavior	Notes/Observations
red vented bulbul	4	flying	flying from tree to tree near edge of stream
rose-ringed parakeet	1	flying	flying over stream to tree
common myna	4	flying	flying over stream to tree
zebra dove	1	loafing	loafing on tree branch
unknown fish	20	foraging	swimming along middle of the stream
tilapia	9	foraging	swimming near debris in the middle of stream
koloa/mallard hybrid	2	swimming	swimming from shrubs at the edge of the stream to the middle of the stream

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1: Estuary Site
#1 looking
upstream.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 5/14/2024 Site Name: Estuary Site # 2 Time: 0930

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 checked="" type="checkbox"/> yes <input 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>50</u> % cloud cover	<u>80</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 with suspended matter

Water Color: brown

Estimated Depth: over 3 ft

Visibility: 1 inch

Tide (if applicable): +0.33

Notes: vegetation debris and trash floating on top of water

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
house sparrow	1	foraging/flying	flying over stream to forage in grass near stream
house finch	2	foraging/flying	flying over stream to forage in grass near stream
zebra dove	1	flying/loafing	flying over stream to loaf on concrete wall on stream edge
red-whiskered bulbul	2	interacting	interacting with other red-whiskered bulbul on tree on the edge of stream

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%			

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

Observers ██████████

Date 05-14-24

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	3	0	0	NA	3	0	1	NA	3	0	0	NA	3	1	0	NA
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	40	2	0		100	2	0		80	0	1		80	0	1	
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0726		0731		0700		0705		0831		0836		0847		0852	
COOT adult																
subadult																
GALLINULE/MORHEN adult																
subadult																
STILT adult																
subadult																
KOLOA adult																
subadult																
Koloa/Mallard Hybrid	2 (adult/loafing)															
Mallard (domestic/feral)																
Other Domestic Duck																
Black-cr. Night Heron	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				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 05-14-24 **Observers** ██████████

Island O'ahu

REMINDEERS: If site it not accessible, include wetland name and write 'no access'
 If no birds observed, fill out top portion and write 'no birds'
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	3	1	1	1	3	0	0	1								
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0913		0918		0930		0935									
COOT adult																
subadult																
GALLINULE/MOORHEN adult																
subadult																
STILT adult																
subadult																
KOLOA adult																
subadult																
Koloa/Mallard Hybrid	2 (adult/swimming)															
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															