

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 11-12-24 Site Name: Upstream Site Time: 0806

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>60</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 of stream
 Water Color: clear
 Estimated Depth: <1"
 Visibility: 100% to the bottom
 Tide (if applicable): N/A

Notes: None

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	2	Loafing	In the vegetation above the stream.
red-crested cardinal	1	Loafing	In the vegetation above the stream.
red-vented bulbul	2	Flying	Flew over the stream.
dragonfly sp.	1	Flying	Flew over the stream.
zebra dove	2	Loafing	In the vegetation above the stream.

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Upstream Site
looking
upstream.

Halawa Stream Monitoring Data Sheet



Photograph #
2:
Upstream Site
looking
downstream.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 11-12-24

Site Name: Discharge Site

Time: 0821

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>40</u> % cloud cover	<u>60</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 of the stream

Water Color: clear

Estimated Depth: 1-2"

Visibility: 100% to the bottom

Tide (if applicable): N/A

Notes: None

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

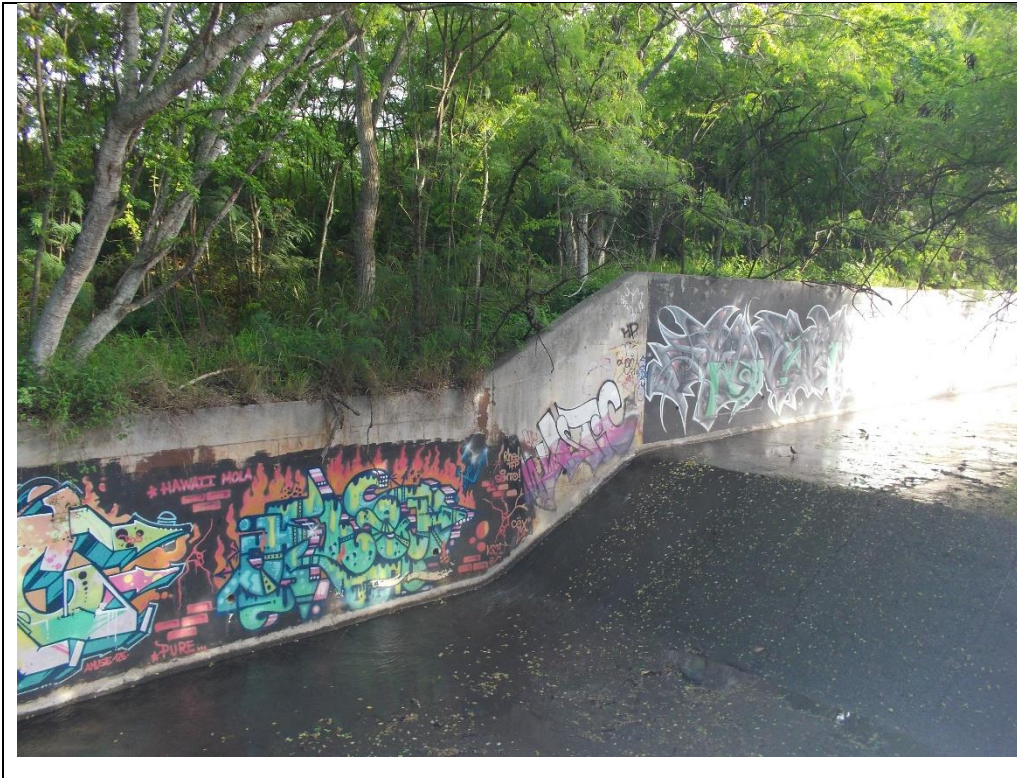
Fish Abnormal Behavior None Yes

Notes: Dogs barking and construction noise.

Species Observed	# of individuals	Behavior	Notes/Observations
common myna	4	Foraging	In the stream bed.
red-crested cardinal	2	Foraging	In the stream bed.

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: 11-12-24 Site Name: Downstream Site 1 Time: 0745

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>60</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: light brown
 Estimated Depth: 1-2"
 Visibility: 100% to the bottom
 Tide (if applicable): N/A

Notes: None.

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
black crown night heron	1	Hunting	In the stream.
spotted dove	2	Flying	Flew into vegetation above the stream.
black crown night heron	1	Flying	Flew over into the stream.
red-vented bulbul	1	Foraging	Foraging in the vegetation along the stream bed.
red-whiskered bulbul	2	Foraging	Foraging in the vegetation along the stream bed.
pacific golden plover	1	Foraging	Foraging in the stream bed.

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ruddy turnstone	2	Foraging	Foraging in the stream bed.
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PHOTOGRAPHS



Photograph #
1:
Downstream
Site 1 looking
upstream.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 11-12-24

Site Name: Downstream Site 2

Time: 0736

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>60</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' - 2'

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: N/A

Species Observed	# of individuals	Behavior	Notes/Observations
rock dove	2	Flying	Flew over the stream.
koloa mallard hybrid	4	Foraging	Foraging in the stream.
common waxbill	7	Flying	Flew over the stream into the vegetation.
spotted dove	4	Flying	Flew over the stream.
ring neck parakeet	2	Loafing	Loafing in the vegetation above the stream.
red-vented bulbul	5	Flying	Flew over the stream.
black-crown night heron	2	Loafing	Loafing in the vegetation above the stream.

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red-whiskered bulbul	1	Loafing	Loafing in the vegetation above the stream.
koloa mallard hybrid	4	Swimming	In the stream.
zebra dove	1	Flying	Flew over the stream.
zebra dove	1	Foraging	Foraging in the dry part of the stream bed.
common myna	2	Flying	Flew over the stream.

PHOTOGRAPHS



Photograph # 1:
Downstream Site 2 looking downstream.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 11-12-24 Site Name: Estuary Site 1 Time: 0709

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>60</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: semi-clear, light sediment mixed in water.

Water Color: green

Estimated Depth: 4-6'

Visibility: 2'

Tide (if applicable): 0.6 ft

Notes: None

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: Active crab trap in the water.

Species Observed	# of individuals	Behavior	Notes/Observations
cattle egret	2	Flying	Flew over the stream.
red-crested cardinal	1	Loafing	Loafing in the vegetation next to the stream.
white tern	5	Flying	Flew over the stream.
common myna	1	Flying	Flew over the stream.
spotted dove	2	Flying	Flew over the stream.
spotted dove	1	Flying	Flew into the vegetation next to the stream.
jungle fowl	1	Loafing	Loafing in the vegetation next to the stream.
dragon fly sp.	1	Flying	Flew over the stream.
tilapia	~100	Loafing	Swimming in the stream.
red-vented bulbul	4	Flying	Flew over the stream.

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rock dove	2	Flying	Flew over the stream.
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PHOTOGRAPHS



Photograph #
1:
Estuary Site 1
looking
upstream.

Halawa Stream Monitoring Data Sheet

Observer/s: _____

Date: 11-12-24

Site Name: Estuary Site 2

Time: 0722

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 type="checkbox"/> showers (intermittent)	
<u>60</u> % cloud cover	<u>60</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, sediment mixed in water.

Water Color: green

Estimated Depth: 3'

Visibility: 1'

Tide (if applicable): 0.6 ft

Notes: Lots of large debris floating on the water.

SPECIES OBSERVATIONS

Fish Kill? Yes No # Dead Fish 0

Fish Breathing Stress/Gulping None Yes

Fish Abnormal Behavior None Yes

Notes: Glare from the sun made it difficult to see any fish.

Species Observed	# of individuals	Behavior	Notes/Observations
ring-neck parakeet	18	Flying	Flew over the stream.
northern cardinal	1	Loafing	In vegetation above the stream.
tilapia	~20	Loafing	Swimming in the stream.
spotted dove	1	Loafing	On cable wire above the stream.
rock dove	2	Flying	Flew over the stream.
common waxbill	6	Flying	Flew over the stream.
pacific golden plover	1	Flying	Flew over the stream.

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #
1:
Estuary Site 2
looking
upstream.

Halawa Stream Monitoring Data Sheet



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 11-12-24

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	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	0	NA	2	0	0	NA	2	0	0	N/A
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	50	0	2		40	0	2		50	0	1		50	0	1	
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0806		0811		0821		0826		0745		0750		0736		0741	
COOT adult																
subadult																
GALLINULE/MOORHEN adult																
subadult																
STILT adult																
subadult																
KOLOA adult																
subadult																
Koloa/Mallard Hybrid													8 (adult/swimming and foraging)			
Mallard (domestic/feral)																
Other Domestic Duck																
Black-cr. Night Heron									2 (adult/foraging and hunting)				1 (adult/ loafing)			
Cattle Egret																
Pacific Golden Plover													1 (adult/foraging)			
Ruddy Turnstone													2 (adult/foraging)			
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
White fairy tern																
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 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 11-12-24

REMINDERS: If site it 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
Condition	2	0	1	0	2	0	1	0								
Weather	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	50	0	1		50	0	1									
Time	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0709		0714		0722		0727									
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	1 (adult/flying)															
Pacific Golden Plover	1 (adult/flying)															
Ruddy Turnstone																
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
White Tern	5 (adult/flying)															
Comments																