

Halawa Stream Monitoring Data Sheet

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

Date: 7/1/2024 Site Name: Upstream Site Time: 0920

**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>0</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, brown algae sediment at bottom; lots of dead leaf vegetation

Water Color: clear

Estimated Depth: 0-1 inches

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes:

**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
Northern cardinal	2	Foraging	Foraging in water downstream
common waxbill	1	Flying	Flying in trees over the stream
warbling white-eye	1	Foraging	Foraging and calling in trees
Zebra dove	4	Foraging	Foraging on dry streambed

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: 7/1/2024 Site Name: Discharge Site Time: 0853

**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>0</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, green algae at bottom

Water Color: clear

Estimated Depth: 1 inch

Visibility: 100%, to the bottom

Tide (if applicable): N/A

Notes: Discharge not flowing. Site staff said water was about to turn on but didn't see water come out of pipes.

**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	1	Foraging	Walking in streambed
common myna	3	foraging	Foraging in lower streambed ponds
red-vented bulbul	1	Foraging	Foraging on top of culvert wall
warbling white-eyed	2	foraging	Foraging in trees above stream

Halawa Stream Monitoring Data Sheet

**PHOTOGRAPHS**



Photograph #  
1:  
Discharge Site  
looking  
upstream.

Halawa Stream Monitoring Data Sheet



Photograph #  
2:

Discharge Site  
looking  
downstream.

Halawa Stream Monitoring Data Sheet

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

Date: 7/1/2024 Site Name: Downstream Site # 1 Time: 0946

**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>0</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, mats of algae

Water Color: clear

Estimated Depth: 1-4 inches

Visibility: 100% to the bottom

Tide (if applicable): N/A

Notes: algae clumps on water edge and exposed to surface.

**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 waxbill	7	flying	flew over the stream
black-crowned night heron	2	foraging	foraging in stream bed catching fish
tilapia	>15	foraging	flowing areas of stream; smaller than 3 inches
mosquito fish	>100	foraging	flowing areas of stream

Halawa Stream Monitoring Data Sheet

**PHOTOGRAPHS**



Photograph #

1:

Downstream

Site # 1.



Halawa Stream Monitoring Data Sheet

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

Date: 7/1/2024 Site Name: Downstream Site # 2 Time: 1003

**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>0</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: semi turbid

Water Color: clear to light brown

Estimated Depth: 2 ft

Visibility: 50%

Tide (if applicable): N/A

Notes: Left side not flowing as much, trickle speed. Drying algae.

**SPECIES OBSERVATIONS**

Fish Kill? Yes  No # Dead Fish 0

Fish Breathing Stress/Gulping  None  Yes

Fish Abnormal Behavior  None  Yes

Notes: Two black and striped tilapia observed jumping out of the water. Fish >2" schooling at deep ledge

Species Observed	# of individuals	Behavior	Notes/Observations
spotted dove	1	forage	Foraging in dry streambed
cattle egret	1	forage	Flew over the stream
black-crowned night heron	1	forage	Foraging in flowing water, actively trying to eat fish
scaly-breasted munia	3	forage	Drinking water in puddle in the streambed
zebra dove	1	forage	Foraging in the dry streambed
tilapia	>170	forage	Swimming and foraging in the stream
Mosquito fish	≥ 500	swimming	Swimming in the stream

Halawa Stream Monitoring Data Sheet

**PHOTOGRAPHS**



Photograph #  
1:  
Downstream  
Site # 2.

Halawa Stream Monitoring Data Sheet

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

Date: 7/1/2024 Site Name: Estuary 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>0</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: murky/turbid, sediment in water

Water Color: green-brown

Estimated Depth: 6 feet

Visibility: 4 ft. down

Tide (if applicable): 1.6

Notes: Loud construction from new building. Pounding and people yelling.

**SPECIES OBSERVATIONS**

Fish Kill? Yes  No # Dead Fish 0

Fish Breathing Stress/Gulping  None  Yes

Fish Abnormal Behavior  None  Yes

Notes: Loud construction nearby; make-shift fishing boat on edge of stream; no waterbirds/shorebirds.

Species Observed	# of individuals	Behavior	Notes/Observations
warbling white-eye	1	flying	Flew over stream into vegetation
zebra dove	1	Flying	Flew over stream into vegetation
red-vented bulbul	1	Flying	Flew over stream into vegetation
tilapia	18	Swimming	Size: >4 in. Swimming at edge of stream near vegetation and near debris clump in the middle of the stream

Halawa Stream Monitoring Data Sheet

**PHOTOGRAPHS**



Photograph #

1:

Estuary Site #

1.

Halawa Stream Monitoring Data Sheet

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

Date: 6/24/2024 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 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>0</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: murky, higher sediment deeper in water

Water Color: brown

Estimated Depth: 1-3 ft.

Visibility: 3 ft.

Tide (if applicable): 1.4

Notes: Vegetation rubbish floating by mangrove and within boom. High sediment suspension from wake of Arizona Memorial ferry. No visibility. Water height high, touching shoreline grass.

**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 individual s	Behavior	Notes/Observations
cattle egret	1	flying	Flew over the stream
warbling white-eye	1	foraging	Foraging on tree trunk and branches
tilapia	6	foraging	Foraging at shelf drop off
Hawaiian anchovy	6	foraging	Foraging near boom edge

Halawa Stream Monitoring Data Sheet

PHOTOGRAPHS



Photograph #  
1:  
Estuary Site # 2  
looking  
upstream.

Not captured this survey.

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 07-1-24

**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>	1	0	0	NA	1	1	0	NA	1	0	0	NA	1	1	0	NA
<b>Weather</b>	CC	RF	Wind		CC	RF	Wind		CC	RF	Wind		CC	RF	Wind	
	0	0	3		0	0	3		0	0	3		0	0	3	
<b>Time</b>	Start		Stop		Start		Stop		Start		Stop		Start		Stop	
	0920		0925		0858		0858		0949		0954		1004		1009	
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	2 (adult/foraging)															
Cattle Egret	1 (adult/foraging)															
Pacific Golden Plover																
Ruddy Turnstone																
Sanderling																
Wandering Tattler																
Northern Pintail																
Mallard (migratory)																
Lesser scaup																
<b>Comments</b>	no waterbirds/shorebirds				no waterbirds/shorebirds											

