



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**  
**COMMISSION ON WATER RESOURCE MANAGEMENT**  
 Stream Protection and Management Branch

**FIELD INVESTIGATION REPORT**  
**FI2008102803 (East Maui, Huelo Haiku Ditch, restore)**

|                                     |   |                        |             |
|-------------------------------------|---|------------------------|-------------|
| <b>Date of Field Investigation:</b> | October 28, 2008  | <b>Time (24-hour):</b> | 1130 - 1200 |
| <b>CWRM Staff:</b>                  | Ed Sakoda, Dean Uyeno, and Chui Ling Cheng  |                        |             |
| <b>Individuals Present:</b>         | Ernie Schupp (Huelo farmer);<br>EMI - Garret Hew (EMI Water Resources Manager) and Henry Robello (Field Superintendent) |                        |             |
| <b>Hydrologic Unit:</b>             | Hanehoi (6037)  |                        |             |
| <b>Stream Name:</b>                 | Puolua (Huelo) Stream   |                        |             |

**Findings:**

At approximately 1130 hours, CWRM staff, Garret Hew and Henry Robello, arrived at the Haiku Ditch diversion on Puolua (Huelo) Stream. CWRM staff took a volumetric measurement of the water flowing through the two 5.4-inch (O.D.) PVC pipes that bypasses Haiku Ditch on Puolua (Huelo) Stream. With a stopwatch, staff recorded the number of seconds each of the pipes took to fill a 2 gallon bucket. This process was repeated 5 times, making a total of 5 measurements per pipe. As computed back in the Honolulu Office, the flow from the pipes was 0.062 cubic feet per second (0.040 million gallons per day).

The purpose of the field visit was to document the flow release at the ditch. Henry Robello proceeded to lift up the Haiku Ditch sluice gate with a metal bar. Once the gate was opened, water from the upstream side of the sluice gate flowed through the gate opening. Water slowly stopped flowing from the two pipes that bypasses Haiku Ditch on Puolua (Huelo) Stream.

CWRM staff videotaped the flow release event.

Staff crew left the Haiku Ditch diversion on Puolua (Huelo) Stream at approximately 1200 hours, and continued to document opening of Haiku Ditch sluice gate on Hanehoi Stream. Refer to Field Investigation Report FI2008102804 (East Maui, Hanehoi Haiku Ditch, restore) for more information.

**Image Listing:** (Attach PDF of image contact sheet)

| <b>File Name:</b> | <b>Brief Description:</b>   |
|-------------------|---|
| 20081028015       | Garret Hew and Henry Robello inspecting the Haiku Ditch sluice gate on Puolua (Huelo) Stream.   |
| 20081028016       | The two PVC pipes that bypasses Haiku Ditch on Puolua (Huelo) Stream.   |
| 20081028017       | Haiku Ditch on Puolua (Huelo) Stream.   |
| 20081028019       | CWRM staff conducting volumetric measurement of the water flowing through the two PVC pipes that bypasses Haiku Ditch on Puolua (Huelo) Stream. |
| 20081028022       | Henry Robello opening the Haiku Ditch sluice gate on Puolua (Huelo) Stream.   |
| 20081028023       | Haiku Ditch on Puolua (Huelo) Stream. Haiku Ditch sluice gate opened.   |
| 20081028025       | Henry Robello opening the Haiku Ditch sluice gate on Puolua (Huelo) Stream.   |
| 20081028026       | Haiku Ditch sluice gate on Puolua (Huelo) Stream opened.  |
| 20081028027       | The two PVC pipes that bypasses Haiku Ditch on Puolua (Huelo) Stream, after the sluice gate was opened.   |
| 20081028028       | Haiku Ditch on Puolua (Huelo) Stream after the sluice gate was opened..   |

**GPS Listing:**

**Shapefiles:** (List file names of all shapefiles created and a brief description of each)

| <b>File Name:</b> | <b>Brief Description:</b>   |
|-------------------|---|
| East_Maui_POI.shp | Points of interest (POI) recorded with the GPS unit during the field visit. The file includes POI recorded from all the East Maui field investigations. |

**Waypoints:** (List all waypoints in decimal degrees and provide a brief description of each)

| <b>WP No.</b> | <b>Latitude</b> | <b>Longitude</b> | <b>Brief Description:</b> |
|---------------|-----------------|------------------|---------------------------|
|---------------|-----------------|------------------|---------------------------|

**Attachments:**

**Brief Description:**

1. Image Contact Sheet

**Recommendations:**

# IMAGE CONTACT SHEET



**20081028015.JPG**



**20081028016.JPG**



**20081028017.JPG**



**20081028019.JPG**



**20081028022.JPG**



**20081028023.JPG**



**20081028025.JPG**



**20081028026.JPG**



**20081028027.JPG**



**20081028028.JPG**