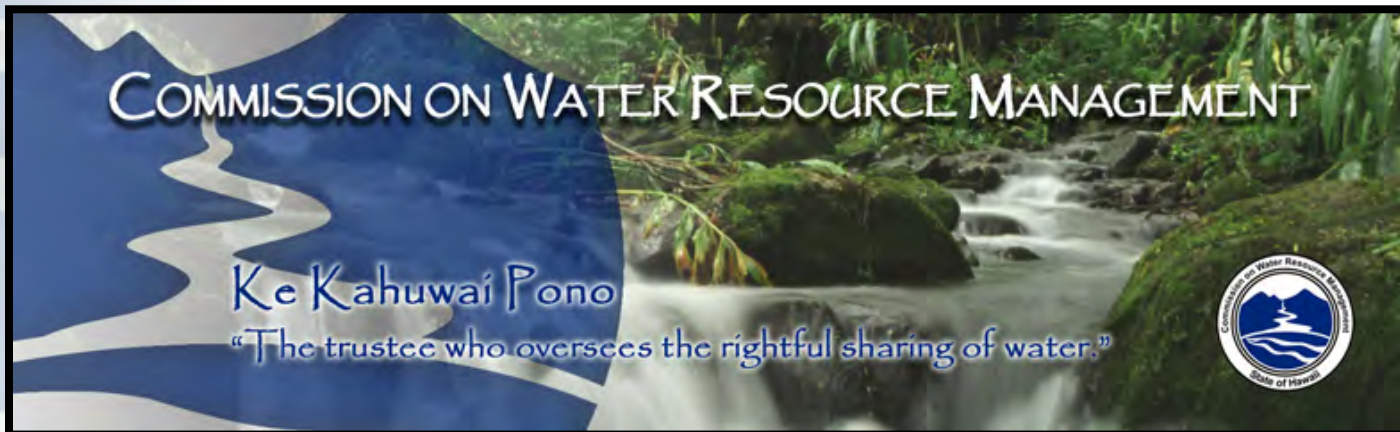
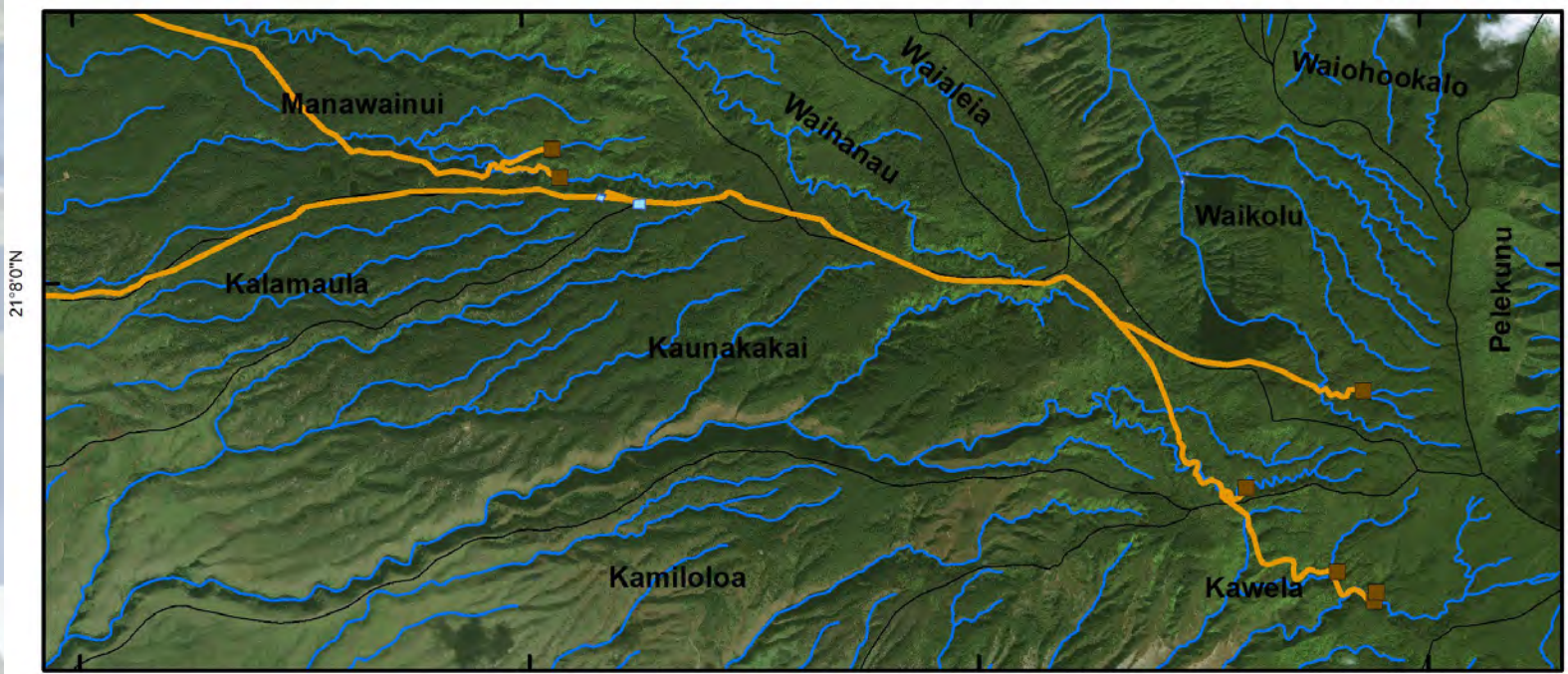


Approve Order to Molokai Properties Limited to Grant U.S. Geological Survey Access to Re-establish USGS Long-Term Monitoring Station 16415000 On East Fork Kawela Stream to Address Top Priority Monitoring Needs for the State and Provide Current Hydrologic Data to Partially Address the Complaint (CDR.5310.4) Filed by Earthjustice on Behalf of Moloka'i Nō Ka Heke, Moloka'i

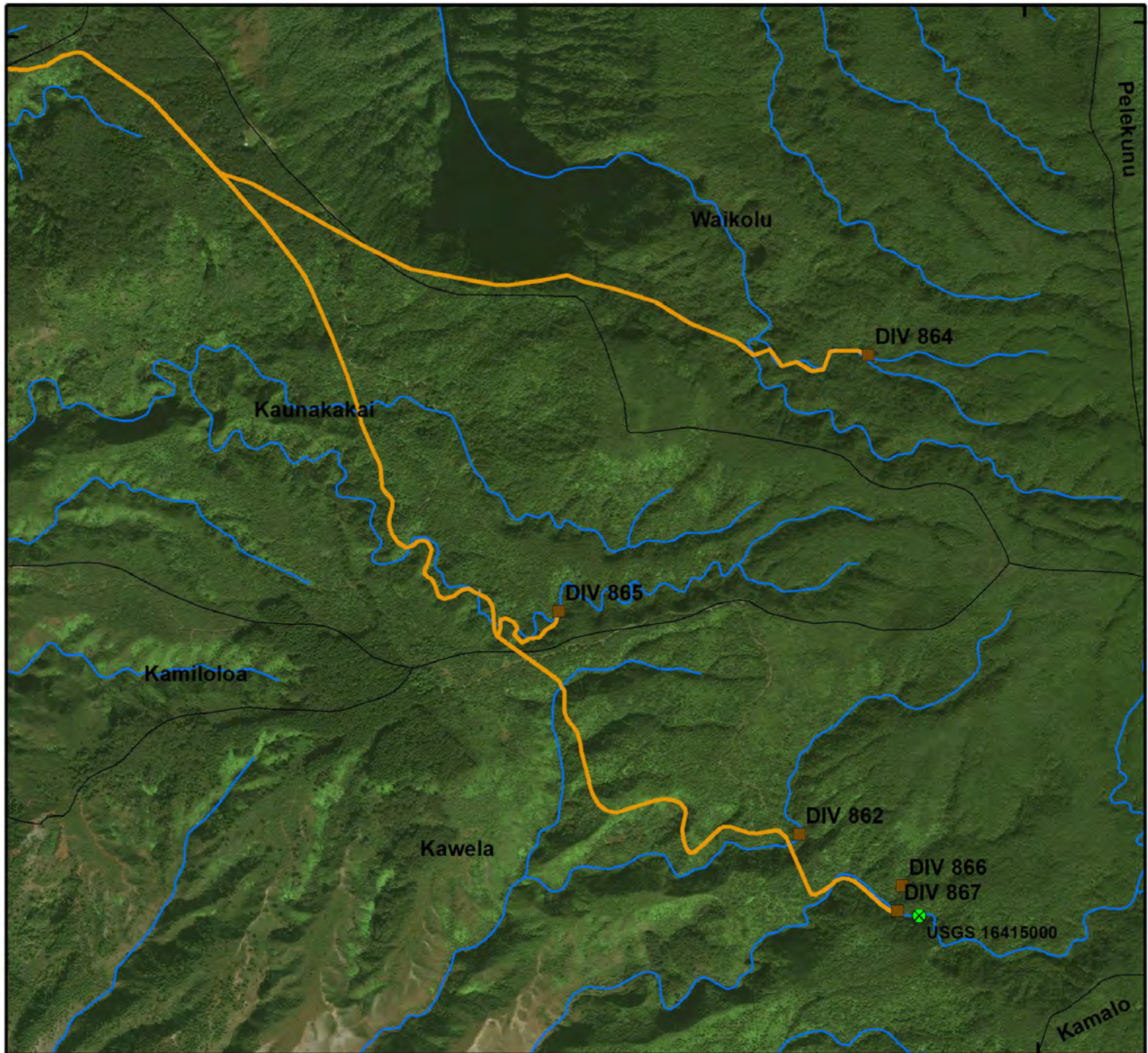
Ayron Strauch, Hydrologist
Stream Protection and Management Branch

June 15, 2021
Item B-5





157°00'W 156°58'0"W 156°56'0"W 156°54'0"W



Kamoku (DIV.865)



West Kawela (DIV.862)



East Kawela Tributary (DIV.866)



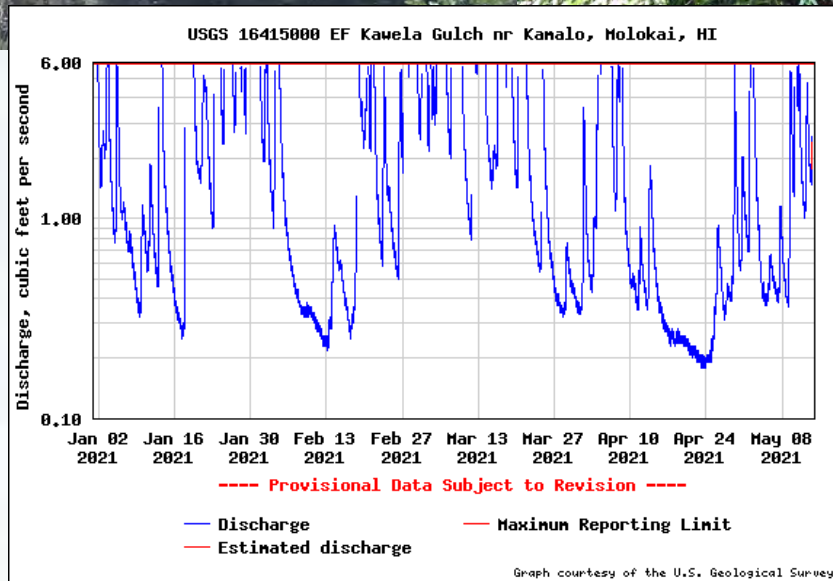
East Kawela (DIV.867)



USGS 16415000

Active from 1946-1971

Currently a temporary continuous monitoring station



EVALUATION OF THE SURFACE-WATER QUANTITY, SURFACE-WATER QUALITY, AND RAINFALL DATA- COLLECTION PROGRAMS IN HAWAII, 1994

By Richard A. Fontaine

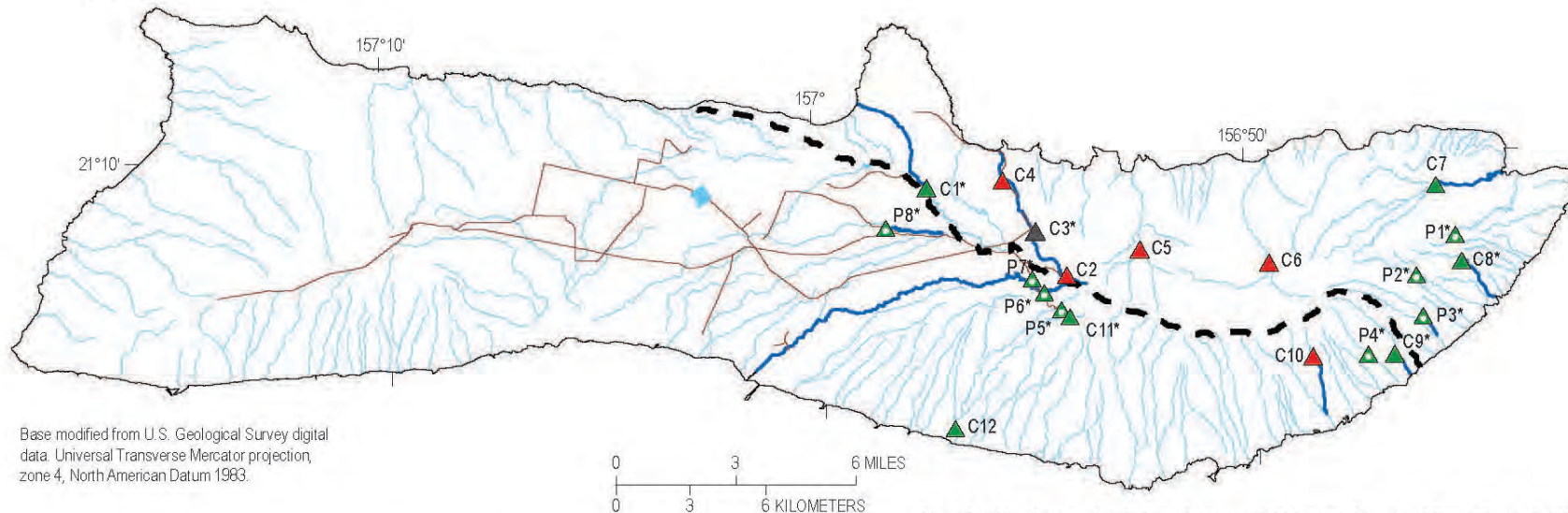
U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 95-4212

Table 14. Adequacy of Hawaii's current (1994) surface-water data-collection program for describing surface runoff in areas of increasing ground-water demands.

| Region | Description of surface runoff | Remarks |
|-----------------------------------|-------------------------------|--|
| Kauai | | |
| Lihue-Anahola | Good | Data lacking for Hanamaulu, Konohiki, and Kaehulua Streams, and near mouth of Kapaa Stream |
| Hanapepe-Lihue | Poor | Data lacking except for Hanapepe River |
| Oahu | | |
| North central (Haleiwa side) | Fair | Data lacking near the mouths of streams |
| North central (Pearl Harbor side) | Fair | Data lacking in upland areas between Kipapa and North Halawa Streams |
| Waimanalo-Hauula | Good | Twenty-seven continuous-record gages operated in area |
| Molokai | | |
| Waikolu Stream | Good | Three active continuous-record gages in watershed |
| Kaulapuu-Kaunakakai-Pokoo | Poor | Inadequate geographic and hydrologic distribution of gages |
| Maui | | |
| Lahaina area | Poor | No active continuous-record gages in area |
| Waihee-Waikapu | Fair | Lack of long-term data and gages near mouths of streams |
| Kahului-Makena | Poor | No continuous-record gages operated in area |
| Hawaii | | |
| North Kohala | Poor | No continuous-record gages operated in area |
| South Kohala | Poor | All gages operated to date in headwaters of Waiulaula Gulch, none in other areas |
| Kailua-Kona | Fair | No active continuous-record gages in area |

MOLOKA'I



Base modified from U.S. Geological Survey digital data. Universal Transverse Mercator projection, zone 4, North American Datum 1983.

EXPLANATION

- Priority area
- Diversion system
- Stream
- Stream reach identified for seepage-run discharge measurements
- Windward-leeward area boundary (modified from Yamanaga, 1972)

- | Active during 2018 | Additional |
|---|---|
| C1 (USGS) | C2 |
| P1 (USGS) | |
| C3 (CWRM) | |
| | Abbreviations |
| | <i>C_n</i> Continuous station |
| | <i>P_n</i> Partial-record station |

Map identification number index—Stream and ditch name (N, natural flow or R, regulated flow); “+” indicates reactivation of an inactive USGS station. For map identification number: “*” indicates station monitors low-flow conditions only. Streamflow measured at stations C2 and C3 combined represents total natural flow in the stream flowing past C3

- | | |
|---------------------------------|--|
| C1* Waihanau Stream (N) | P1* Pāpio Gulch (N) |
| C2 Hanalihilo Ditch (R) | P2* Honouliwai Stream (N) |
| C3* Waikolu Stream (R) | P3* Waialua Stream (N) |
| C4 Waikolu Stream (R) + | P4* Honomuni Gulch (N) |
| C5 Pelekunu Stream (N) + | P5* West Fork Kawela Gulch (N) |
| C6 Pulena Stream (N) + | P6* Left Branch South Fork Kaunakakai Gulch (N) |
| C7 Hālawa Stream (N) | P7* Right Branch South Fork Kaunakakai Gulch (N) |
| C8* Honoulimalo'o Stream (N) | P8* Kuhua'awi Gulch (N) |
| C9* Kainalu Gulch (N) | |
| C10 Puna'ula Gulch (N) + | |
| C11* East Fork Kawela Gulch (N) | |
| C12 Kawela Gulch (R) | |

Figure 13. Map showing the surface-water monitoring program on Moloka'i, Hawaii. Surface-water monitoring stations are listed with their map identification number. Operating agencies include the U.S. Geological Survey (USGS) and the State of Hawaii Commission on Water Resource Management (CWRM).