

STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'OIHANA KUMUWAIWAI 'ĀINA
COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO
P.O. BOX 621
HONOLULU, HAWAII 96809

STAFF SUBMITTAL
for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

October 28, 2025
Honolulu, Hawai'i

Determination and Approval of Draft Agenda by the
Commission on Water Resource Management Under Section 92-3.1, HRS,
for the Commission to Conduct a Site Visit to View the
Important Groundwater and Surface Water Features of the
He'eia Ahupua'a, He'eia, O'ahu, Hawai'i on November 10, 2025, as a Limited Meeting,
Due to the Impracticability of Public Attendance for Reasons of Danger to Health or Safety,
or in the Alternative, that On-Site Inspection is Necessary
for Future Water Management Purposes

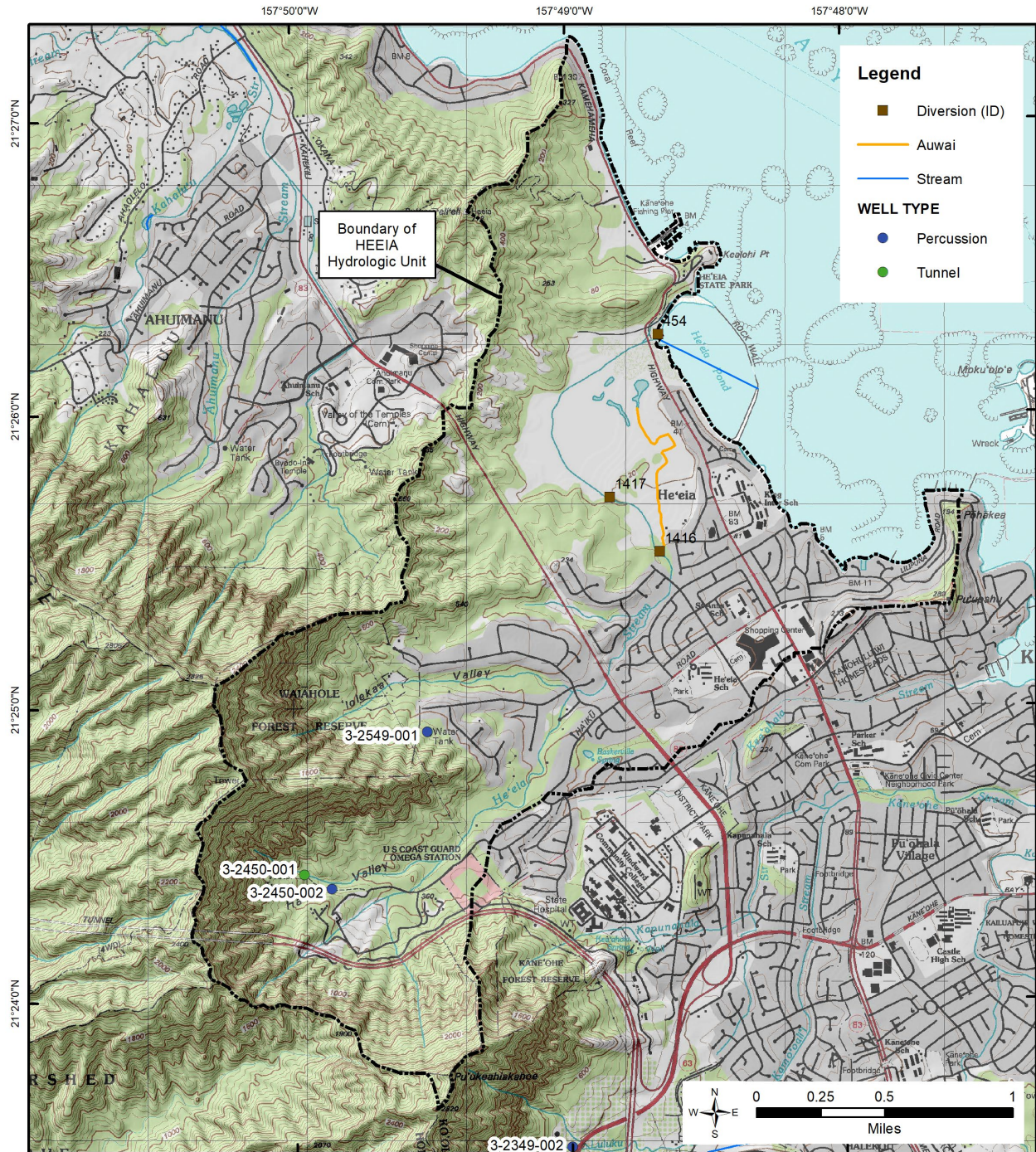
SUMMARY OF REQUEST:

Before it may conduct a site visit as a Sunshine Law limited meeting, the Commission must determine by 2/3 vote the site inspection is necessary to Commission business, and that public attendance is not practicable. The proposed sites in He'eia, O'ahu for viewing includes certain Board of Water Supply groundwater works, stream (kahawai), wetland kalo patches (lo'i kalo) and a fishpond (loko i'a) which were subject to a June 2021 Commission Order. These locations are not accessible to the general public, pose unsafe access challenges, and are not ADA accessible. Therefore, staff requests that the Commission approve a limited meeting.

BACKGROUND

The surface water hydrologic unit of He'eia is in the Ko'olaupoko aquifer system as part of the Windward Aquifer Sector. He'eia is composed of two valleys: Ha'ikū and 'Ioleka'a. The geology of Ha'ikū Valley is a heterogeneous composition of rocks from various volcanic events. In addition to the basal aquifer, composed of Ko'olau Basalt of high permeability, interlaced with low permeable interconnected dikes, Ha'ikū Valley has two higher elevation aquifers: one with a potentiometric surface above ground level in the alluvium or pyroclastics of the Honolulu Volcanics; and a second at 170 feet below ground level (i.e., 155 feet above mean sea level) in

Figure 1. The He'eia hydrologic unit, stream, wells, registered diversions and 'auwai system, windward O'ahu.



the dike compartment of the Ko‘olau Basalt¹. The younger deposits of alluvium, colluvium, and lava flows with higher permeability² are separated from the older alluvium layers by the thick basalt lava flow of the Honolulu Volcanics. The low permeability of certain layers generates substantial lateral movement of groundwater in the valley, particularly at the interface of the Honolulu Volcanics and older alluvium layers, discharging into streams as spring flow (Figure 2). The water accumulated in dike compartments commonly discharges into the stream or as spring flow where incision has exposed the compartment.

In 1940, the suburban water utility for windward O‘ahu built the Ha‘ikū Development Tunnel (“Ha‘ikū Tunnel”; Well No. 2450-001) in Ha‘ikū Valley as a municipal water supply for the growing urban population of the Kāne‘ohe area. Tunnel construction decreased the baseflow in He‘eia Stream³ as well as Kahalu‘u Stream in the neighboring valley⁴. Following the consolidation of all suburban water utilities in 1959, the Honolulu Board of Water Supply (HBWS) assumed operation of the Ha‘ikū Tunnel. The tunnel is bulkheaded 600 feet from the portal (i.e., entrance), restoring a small part of the original storage. However, in 1971, USGS recommended an additional bulkhead to restore more of the storage capacity of the high elevation aquifer⁵. Large quantities of water have been drained from storage by the construction of horizontal tunnels and the current rate of discharge is a fraction of the rate at full storage⁶.

In 1981, the HBWS built the Ha‘ikū Well (Well No. 2450-002) in the basal lens to supplement the water supply of the area with an installed pump capacity of 1.008 mgd.

In 1987, with the passage of the State Water Code (HRS Ch.174C), all wells and stream diversions had to be registered with the Commission on Water Resource Management (Commission) by May 31, 1989. Only one stream diversion in the He‘eia hydrologic unit, for the He‘eia fishpond, was registered by the deadline. In 1992, the Hawai‘i Community Development Authority (HCDA) provided documentation to register a diversion and ‘auwai that had been historically used for taro farming (Table 1). Additional fieldwork has verified the use of a second diversion and ‘auwai (Hop Tuk). These diversions are identified in Figure 1 in relation to HBWS wells in the valley.

In 2011, Act 210 established the He‘eia Community Development District (HCDD), a district under HCDA, consisting of 409 acres of land. Of the total 409 acres, 46 were acquired by the HCDA through a land exchange with Bishop Estate (now known as Kamehameha Schools, KS). HRS § 206E-201. The act established HCDD as the redevelopment authority to facilitate culturally appropriate agriculture, education, and natural-resource restoration and management of

¹ Izuka, S.K., Hill, B.R., Shade, P.J., Tribble, G.W. 1993. Geohydrology and possible transport routes of polychlorinated biphenyls in Haiku Valley, Oahu, Hawaii. U.S. Geological Survey Water-Resources Investigations Report 92-4168.

² Stearns, H.T. Vaksvik, K.N. 1935. Geology and ground-water resources of the island of Oahu, Hawaii. U.S. Geological Survey Division of Hydrography. Bulletin 1.

³ Hirashima, G.T. 1971. Tunnels and dikes of the Koolau Range, Oahu, Hawaii, and their effect on storage depletion and movement of ground water. U.S. Geological Survey Water-Supply Paper 1999-M.

⁴ Hirashima, G.T. 1962. Effect of the Haiku Tunnel on Kahalu Stream, Oahu. U.S. Geological Survey Professional Paper 450-C.

⁵ Hirashima, G.T. 1971.

⁶ Hirashima, G.T. 1971.

the He‘eia wetlands⁷. This arrangement was in alignment with the HBWS’ Ko‘olaupoko Watershed Management Plan and the City and County of Honolulu’s Ko‘olaupoko Sustainable Communities Plan. However, a lack of streamflow has continued to affect instream uses, including traditional and customary gathering practices, the cultivation of taro, estuarine ecosystem services, and the productivity of the fishpond.

Table 1. Registrant, diversion ID, diversion name, stream, and additional information in the He‘eia hydrologic unit, Windward Oahu.

registrant	diversion ID	diversion name	stream name	additional information
HCDA	1416	Wing Wo Tai Intake	He‘eia	‘auwai also captures spring flow
HCDA	1440	Hop Tuk Intake	He‘eia	original ‘auwai restored in 2019
HAW ISLE SEA	454	Fishpond Intakes (x3)	He‘eia	Single registration but three intakes to regulate inflow into He‘eia fishpond

On June 15, 2021, the Commission approved staff’s recommendations ordering the HBWS to reduce their withdrawal from Ha‘ikū Tunnel from approximately 1.0 million gallons per day to 0.3 million gallons per day while studying the feasibility of adding a third bulkhead to the tunnel behind bulkhead #2.

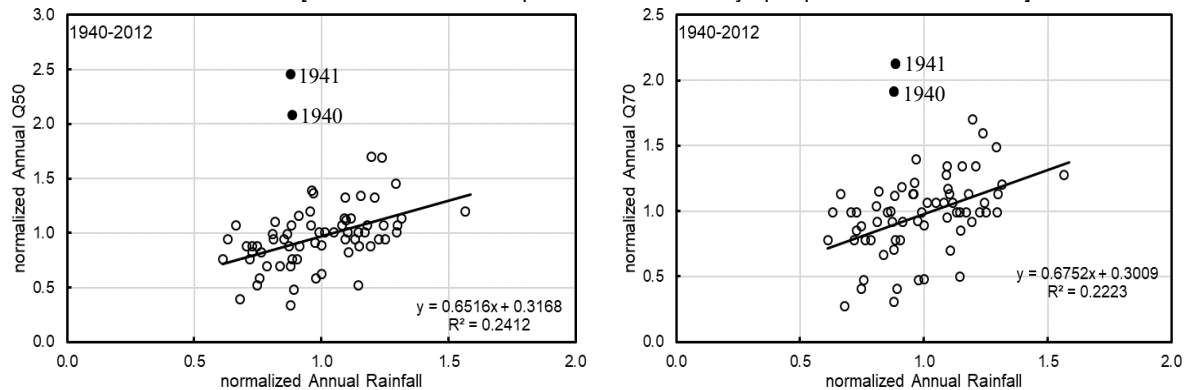
OTHER HYDROLOGIC CONSIDERATIONS

Groundwater-surface water interactions influence the extent of gaining and losing stream reaches. A gaining reach is where the streambed intersects the underlying water table and groundwater contributes to streamflow as seepage or springs. A losing reach is where the streambed is above the water table and surface water infiltrates the streambed recharging the aquifer. In He‘eia, high elevation dike-impounded groundwater and shallow alluvial groundwater contribute to gaining streamflow from mauka to makai. He‘eia streamflow and submarine groundwater discharge along the shoreline are affected by groundwater withdrawals. It is important to view the stream at varying elevations to appreciate the hydrologic changes and their impacts on instream uses.

While overlapping rainfall and streamflow data are sparse prior to the development of Ha‘ikū Tunnel, the years 1940 and 1941 are obvious outliers when normalized annual rainfall is compared to normalized annual Q_{50} or Q_{70} , indicating much greater baseflow relative to rainfall during the construction of the Ha‘ikū Tunnel compared to data from the post-tunnel construction time period (Figure 2).

⁷ He‘eia Community Development District Plan & Rules. Draft Report. October, 2018. Prepared by Townscape, Inc.

Figure 2. Normalized annual rainfall vs normalized annual Q₅₀ (left) and Q₇₀ (right) from 1940-2012. Points for 1940 and 1941 identified in filled black circles. [note: rainfall is for the portion of Ha‘ikū Valley upslope of USGS 16275000]



Restoring sufficient mauka to makai streamflow in this ahupua‘a to protect instream uses, including ceremonial and religious traditions, local food productivity, and the protection of freshwater, wetland, and estuarine habitat for native and endemic species have amplified the need to incorporate a biocultural landscape perspective. Additionally, community awareness of the interconnectivity of the land (‘āina), freshwater (wai) and ocean (kai) resources within an ahupua‘a is pushing resource managers to re-imagine the landscape as an ecologically, economically, and culturally sustainable place. To make a truly informed management decision, Commission staff is requesting that Commissioners participate in a limited meeting site visit to learn from the practitioners and managers of the ahupua‘a.

LEGAL ANALYSIS:

When there is a need for the Commission to understand the physical topography and characteristics of an area, but where it is determined that the public should not attend the site visit because of danger to health or safety, or that public attendance is impracticable due to such factors as accessibility of roads, terrain, lookouts, viewable sites, or logistical considerations (e.g., transportation, parking, where gathering at roadside may be unsafe), the law provides for “limited meetings” in HRS § 92-3.1:

§92-3.1 Limited meetings. (a) If a board determines that it is necessary to meet at a location that is dangerous to health or safety, or if a board determines that it is necessary to conduct an on-site inspection of a location that is related to the board's business at which public attendance is not practicable, and the director of the office of information practices concurs, the board may hold a limited meeting at that location that shall not be open to the public; provided that at a regular meeting of the board prior to the limited meeting:

- (1) The board determines, after sufficient public deliberation, that it is necessary to hold the limited meeting and specifies that the location is dangerous to health or safety or that the on-site inspection is necessary and public attendance is impracticable;
- (2) Two-thirds of all members to which the board is entitled vote to adopt the determinations required by paragraph (1); and

- (3) Notice of the limited meeting is provided in accordance with section 92-7.

...

- (c) At all limited meetings, the board shall:
- (1) Videotape the meeting, unless the requirement is waived by the director of the office of information practices, and comply with all requirements of section 92-9;
 - (2) Make the videotape available at the next regular meeting; and
 - (3) Make no decisions at the meeting

....

[L 1995, c 212, §1; am L 2008, c 20, §1; am L 2014, c 221, §§2, 4; am L 2016, c 56, §§1, 2]

If the Commission staff's request for a limited meeting is approved, the Commission staff will submit a Request for the Office of Information Practices' Concurrence for a Limited Meeting (HRS § 92-3.1). All portions of the site visit will be video recorded and made accessible via the Commission website. The next regular meeting is anticipated to be November 18, 2025.

A two-thirds (2/3) vote of all Commission voting members is required in favor of holding the limited meeting. The failure to obtain the required number of votes will result in cancellation of the site visit.

This limited meeting is necessary because the location of the site visit is on private property, the general public cannot be reasonably accommodated due to uneven terrain and often muddy conditions, and stream water could pose a danger to health or safety.

Therefore, the Commission should approve a "limited meeting" for this site visit in accordance with the provisions of Haw. Rev. Stat. §92-3.1.

RECOMMENDATION:

Staff recommends that the Commission, pursuant to and consistent with Haw. Rev. Stat. §92-3.1:

1. Find that a "limited meeting" to visit portions of the He‘eia hydrologic unit, as described in Exhibit 1, is (1) necessary and the location would be dangerous to the health or safety of the attending public; or (2) the on-site inspection is necessary and public attendance is impracticable.
2. Authorize a limited meeting to visit portions of the ahupua‘a of He‘eia, including wells, stream restoration sites, po‘o wai, lo‘i kalo, wetland restoration, and a loko i‘a, provided it is conducted in accordance with the legal requirements set forth by statute and has obtained the appropriate OIP Concurrence.

Site visit agenda and map will also be available on the CWRM website.

<http://dlnr.hawaii.gov/cwrn/newsevents/meetings/>

Ola i ka wai,



CIARA W.K. KAHAHANE
Deputy Director

- Exhibit (s):
1. Proposed Agenda for the Limited Meeting of the Commission on Water Resource Management to conduct a site visit to locations within the Ahupua‘a of He‘eia.
 2. Map of proposed agenda locations

APPROVED FOR SUBMITTAL:



DAWN N.S. CHANG
Chairperson

JOSH GREEN, M.D.
GOVERNOR | KE KIA‘ĀINA



DAWN N.S. CHANG
CHAIRPERSON

KENNETH S. FINK, M.D., MGA, MPH
AURORA KAGAWA-VIVIANI, PH.D.
WAYNE K. KATAYAMA
LAWRENCE H. MIIKE, M.D., J.D.
HANNAH KIHALANI SPRINGER

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CIARA W.K. KAHANE
DEPUTY DIRECTOR

**AGENDA
FOR THE LIMITED MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT**

DATE: November 10, 2025
TIME: 12:00 pm – 4:00 pm
PLACE: Various Sites along Lower Reach of Punalu‘u Stream

The Commission on Water Resource Management (Commission) will conduct a limited meeting and site visit to the ahupua‘a of He‘eia, O‘ahu, to view certain Board of Water Supply groundwater works, stream (kahawai), wetland kalo patches (lo‘i kalo) and a fishpond (loko i‘a) which were subject to a June 2021 Commission Order.

The November 10, 2025 limited meeting and site visit locations and times are outlined below. The purpose of the site visit is to help educate the Commissioners on the ground and surface water resources in the ahupua‘a of He‘eia, learn about the wells and tunnels managed by the Honolulu Board of Water Supply, and understand current restoration efforts in relation to He‘eia Stream by organizations including Papahana Kuaola, Kāko‘o ‘Ōiwi, and Paepae O He‘eia.

This limited meeting is necessary because the location of the site visit is on private property, the general public cannot be reasonably accommodated due to uneven terrain and often muddy conditions, and stream water could pose a danger to health or safety. While four-wheel drive vehicles will not likely be required, site accessibility may be dependent upon weather and road conditions. The site visit will be recorded on video and the video will be made publicly accessible on the Commission website following the meeting.

- SITE #1** 12:00 pm (45 minutes)
Meet at Site #1: Introductions / Board of Water Supply – Ha‘ikū Tunnel
- SITE #2** 1:00 pm (45 minutes)
Drive to Site #2: Papahana Kuaola – He‘eia Stream restoration site
- SITE #3** 2:00 pm (60 minutes)
Drive to Site #3: Kāko‘o ‘Ōiwi He‘eia – Wetlands loi restoration site
- SITE #4** 3:15 pm (45 minutes)
Drive to Site #4: Paepae O He‘eia Loko I‘a – Fishpond restoration site / Closing

Limited Meeting Agenda
Page 2

For further information, please contact the Commission on Water Resource Management.

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Site visit agenda is also available on the Commission website.
<http://dlnr.hawaii.gov/cwrn/newsevents/meetings/>

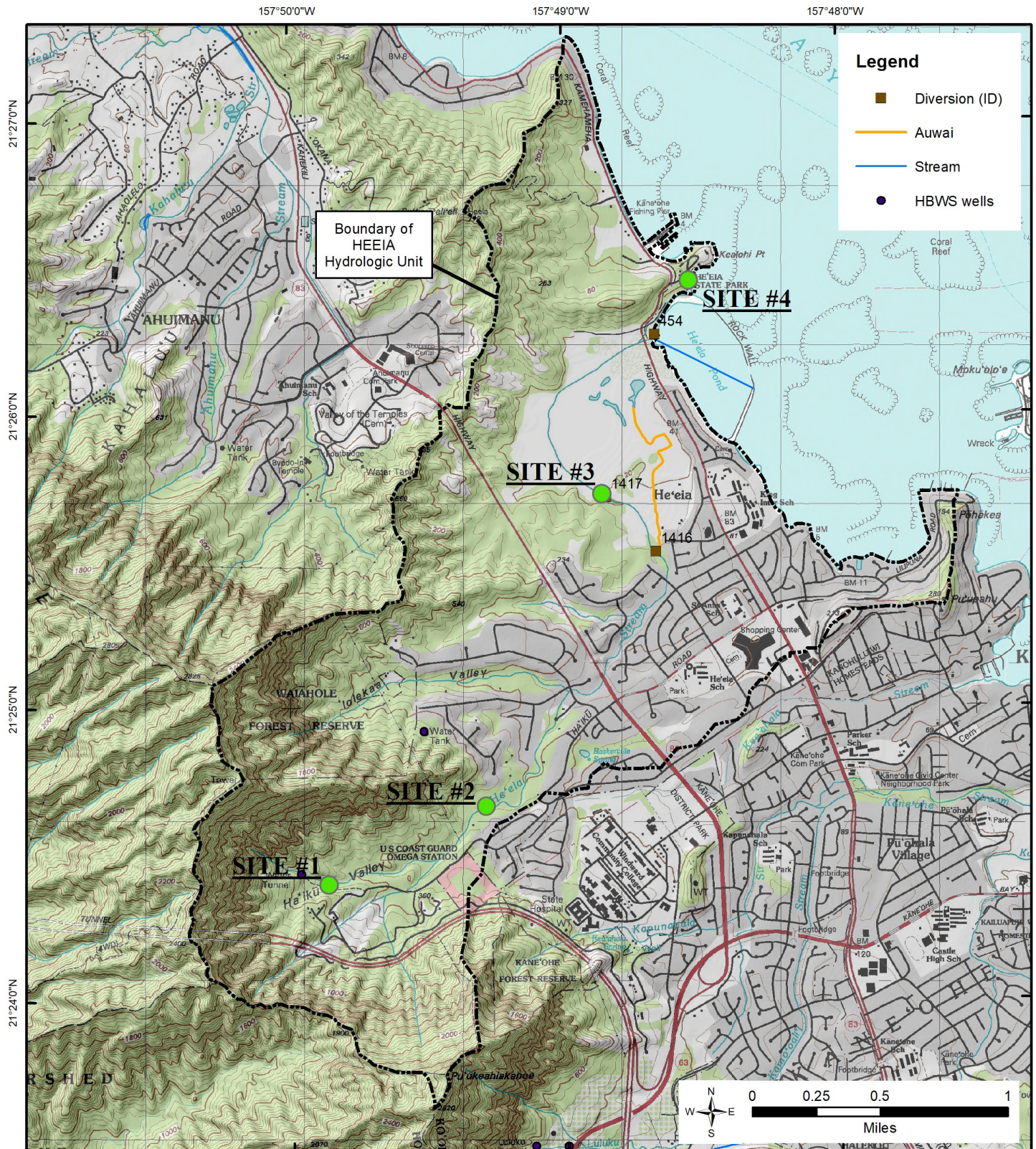


EXHIBIT 2