



**U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE**

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): 5/10/2021

ORM Number: POH-2008-00189

Associated JDs: same number in 2008

Review Area Location¹: State/Territory: Hawaii City: Kaneohe County/Parish/Borough: Island of Oahu

Center Coordinates of Review Area: Latitude 21.395208 Longitude -157.788292

II. FINDINGS

A. Summary: Check all that apply. At least one box from the following list MUST be selected. Complete the corresponding sections/tables and summarize data sources.

- The review area is comprised entirely of dry land (i.e., there are no waters or water features, including wetlands, of any kind in the entire review area). Rationale: N/A or describe rationale.
- There are “navigable waters of the United States” within Rivers and Harbors Act jurisdiction within the review area (complete table in Section II.B).
- There are “waters of the United States” within Clean Water Act jurisdiction within the review area (complete appropriate tables in Section II.C).
- There are waters or water features excluded from Clean Water Act jurisdiction within the review area (complete table in Section II.D).

B. Rivers and Harbors Act of 1899 Section 10 (§ 10)²

§ 10 Name	§ 10 Size		§ 10 Criteria	Rationale for § 10 Determination
N/A.	N/A.	N/A.	N/A.	N/A.

C. Clean Water Act Section 404

Territorial Seas and Traditional Navigable Waters ((a)(1) waters): ³				
(a)(1) Name	(a)(1) Size		(a)(1) Criteria	Rationale for (a)(1) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
Seep Channel	223	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	The 54-acre AOR contains a total of three features: Seep Channel and an unnamed channel referred to as the Ephemeral Channel in the May 2021 resource delineation report, both in the south half of the AOR referred to as the Ohaha Drainage in the report; and an unnamed channel referred to as the Lipalu Channel in the May 2021 resource delineation report in the north half of the AOR. In personal communication with the Corps, the agent stated that the land in the AOR was used for cow ranching until the 1920s or 1930s and that the Hawaiian Memorial Park cemetery

¹ Map(s)/figure(s) are attached to the AJD provided to the requestor.

² If the navigable water is not subject to the ebb and flow of the tide or included on the District’s list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

³ A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD Form.



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			<p>was constructed in the 1940s and 1950s. The Hawaiian Memorial Park cemetery was open for public use in 1958. As stated in the May 2021 report, an Archaeological Inventory Survey (AIS) of the Project area identified the Seep Channel as an ‘auwai, a manmade agriculturally-related drainage feature, consisting of the concrete capped spring, terraces, a metal pipe, water hole, and road crossing (Honua Consulting, 2019). The AIS also identified several rain-fed agricultural sites in the vicinity of the Lipalu Channel. The AOR is bordered by the Hawaii State Veterans Cemetery to the south, by the Pikoiloa residential neighborhood to the west, and by undeveloped forested hillslope land and Kapaa Quarry to the north and east.</p> <p>According to the January 2018 State of Hawaii Land Use District Boundaries mapping application, the AOR is within a large area zoned for conservation. According to the State of Hawaii Land Use Commission’s State Land Use Districts website, “Conservation lands are comprised primarily of lands in existing forest and water reserve zones and include areas necessary for protecting watersheds and water sources, scenic and historic areas, parks, wilderness, open space, recreational areas, habitats of endemic plants, fish and wildlife, and all submerged lands seaward of the shoreline. The Conservation District also includes lands subject to flooding and soil erosion”. The Pikoiloa residential neighborhood bordering the west side of the AOR is part of Kaneohe, the nearest urban area. Kapaa Quarry began operations in 1949 and produces basalt rock in a range of sizes, including man-made sand.</p> <p>The AOR is located on the western flank of a crater ridgeline called Oneawa Hills and slopes northwest from an elevation of approximately 400 feet above sea level to the Pikoiloa neighborhood in Kaneohe at an elevation of 181 feet above sea level. The AOR is located in the 92-acre Kawa Stream watershed which extends from the Oneawa Hills crater ridgeline north to drain into Kaneohe Bay. The land south of Oneawa Hills is in a separate watershed that drains through Kawainui Marsh to Kailua Bay. Kawa Stream is a perennial stream that originates from the Hawaii State Veterans Cemetery and drains to Kaneohe Bay. In the May 2021 wetland delineation report, the consultant included information about a USGS stream gauge (No. 16265000) called “Kawa Str at Kaneohe, Oahu, HI”. The USGS gauge is located on Kawa Stream, west of the intersection of Puaae Road with Kaneohe Bay Drive, approximately 0.74 miles north outside the limits of the AOR. Water in the AOR drains northwest through the approximately 2,000 feet of the storm drain system beneath the Pikoiloa residential neighborhood and enters Kawa Stream. As stated in the May 2021 delineation report, site investigations were most recently conducted on 20 and 21</p>



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			<p>January 2021. The agent had previously conducted site visits for the Seep Channel and Ephemeral Channel on 19 November and 05 December 2018 and for the Lipalu Channel on 04 February 2019. During the agent’s most recent site visit on 20 and 21 January 2021, the average streamflow at USGS Stream Gage 16265000 on 20 January 2021 was 0.72 cubic feet per second (cfs) and on 21 January 2021, was 0.75 cfs (USGS, 2021).</p> <p>The agent documented the site visit findings for the Seep Channel and Ephemeral Channel in USACE ERDC Ordinary High Water Mark (OHWM) data sheets (https://www.erd.c.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/486085/ordinary-high-water-mark-ohwm-research-development-and-training/) and included the OHWM data sheets in the May 2021 report. The agent also evaluated the Seep Channel, Ephemeral Channel, and Lipalu Channel under the draft North Carolina Stream Assessment Method and included the data sheets in the May 2021 report.</p> <p>The Corps reviewed the ORM database and found that the Corps conducted a site visit to the property on 23 July 2008 under the same Corps permit name and number and determined that the site consisted “entirely of uplands”. The ORM database shows another project POH-2005-00573 (SFR Kaneohe Oahu) located southeast of the AOR, but there is no action logged in ORM nor in the Corps electronic files. The Corps also reviewed ORM for other projects on Kawa Stream outside the AOR, including two pre-application consultations under POH-2012-00185 (Kawa Stream and Ditch Improvements, Kaneohe, Oahu) and POH-2005-00652 (Kaneohe Bay Drive Rehabilitation Kam H); a determination of no permit required based on the activity, not geographic jurisdiction, for POH-2016-00121 (Construction of a Streamflow Monitoring Station on Kawa Stream, Koolaupoko District, Oahu, HI); a determination of no permit required based on the project’s location outside Kawa Stream for POH-2014-00171-krd (Kaneohe Wastewater Treatment Facility Stormwater Swale Project); a Nationwide Permit (NWP) 3 (Maintenance) verification dated 31 July 2020 for the maintenance of existing structures in Kawa Stream under POH-2018-00154 (Ko’olaupoko, Kawa Stream and Ditch Improvements, Kaneohe, Hawaii); and a NWP 12 (Utility Line Activities) verification dated 04 November 2013 for the installation of two wastewater lines beneath the lower tidally-influenced portion of Kawa Stream under permit number POH-2012-00235 (Kaneohe Kailua Wastewater Utility Line Crossing under Kawa Stream, Kaneohe, Island of Oahu, Hawaii).</p> <p>As shown in the May 2021 resource delineation report, soils in</p>



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			<p>the western half of the AOR at lower elevation are mapped as Kaneohe silty clay, 30 – 65% slopes on the south end of the AOR and 8 – 15% slopes on the north end. The soils in the eastern half of the AOR at higher elevation are mapped as Alaeloa silty clay, 40 – 70% slopes in the south end and 15 – 35% slopes on the north end. As shown in the SSURGO data layer for Google Earth Pro, soils in the Kaneohe silty clay series are Oxisols, tropical soils with low organic matter and high concentration of iron and aluminum oxides, and soils in the Alaeloa silty clay series are Ultisols, deep well-developed soils with clay accumulation in the lower horizons. The soil layers as shown in the NRCS SSURGO data layer for both soil series in the AOR do not indicate gleying. The lack of gleying in soils profiles indicates the lack of long-term presence of water needed to achieve anaerobic conditions. The NRCS SSURGO data layer lists both soil series as well drained with a Hydric Rating of “No”, indicating that these two soil series do not tend to include known hydric soils. Both soil series are shown on the NRCS Web Soil Survey application as the category of “Not Hydric”. Additionally, as stated in the May 2021 resource delineation report, neither of the soil series mapped for the AOR are listed as hydric on the USDA-NRCS National List of Hydric Soils for Oahu (USDA-NRCS, nd).</p> <p>The USFWS National Wetland Inventory data layer for Google Earth Pro, the Earth Point USGS topographic data layer for Google Earth Pro, the EPA Waters GeoViewer website, and the USGS National Hydrography Dataset website do not show any streams or other linear features or other aquatic features in the AOR. Lipalu Channel is visible in the Hawaii layers of the USGS StreamStats website, but the Seep Channel and Ephemeral Channel are not visible. Being visibly noted in multiple desktop references may indicate the presence of a linear aquatic feature. The absence of the three features from most of the common desktop references suggests that flow does not occur with sufficient frequency and/or volume in the three features in the AOR to be considered streams by environmental federal and state agencies.</p> <p>The agent also evaluated the Seep Channel, Ephemeral Channel, and Lipalu Channel under the draft North Carolina Stream Assessment Method (Assessment Method). The Assessment Method was specifically calibrated to the piedmont of the east coast of the U.S. mainland, which tends to have much longer stream reaches and greater hydrologic inputs than present in Hawaii. While the results of the Assessment Method are not an exact translation to the streams of Hawaii, the Assessment Method results can provide a secondary source to support resource delineation practitioner best professional judgement. Based on the</p>



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(a)(2) Name	(a)(2) Size	(a)(2) Criteria	Rationale for (a)(2) Determination
			<p>observations of continuous bed and bank, baseflow, soil with high organic content, iron oxidizing bacteria, and aquatic flora (e.g. taro) and fauna, the agent determined that the Seep Channel scored 34 points in the Assessment Method. Streams that score greater than or equal to 30 points in the Assessment Method are characterized as perennial under the Assessment Method.</p> <p>The Seep Channel consists of a main 223-foot-long channel (referred to in the report photos as "Channel A") and a 26-foot-long channel (referred to in the report photos as "Channel B") that joins the main channel in the upper third of the channel. Both channels of the Seep Channel range between 3 to 16 feet wide with 8-inch high banks. During the agent's 20 and 21 January 2021 and 19 November and 05 December 2018 site visits, the agent observed that the both channels of the Seep Channel were flowing at a depth of approximately four inches of water. The Seep Channel was observed to emerge from the ground next to an existing abandoned passive concrete well and flow downhill into a culvert that connects to the storm drain system beneath the Pikoiloa neighborhood. The agent observed that the entirety of both channels of the Seep Channel had continuous defined bed and bank. The storm drain system outfalls to the northwest outside the AOR into Kawa Stream, a perennial stream that flows directly into Kaneohe Bay.</p> <p>The AOR west of the Seep Channel is sharply sloping down to the channel and dominated by maile-scented fern (<i>Phymatosorus grossus</i>, FACU). The portion of the AOR east of the Seep Channel, between the Seep Channel and Ephemeral Channel, is flat and dominated by approximately 20% cover of octopus trees (<i>Schefflera actinophylla</i>, UPL). In the May 2021 report, the agent delineated the OHWM of the Seep Channel as the lower limit of the exposed roots visible in the Seep Channel of octopus trees rooted next to the Seep Channel. Other species present in the AOR around the Seep Channel (i.e. outside of the channel footprint) included approximately 5% absolute cover of shoebutton ardisia (<i>Ardisia elliptica</i>, FACU), 5% absolute cover of fiddlewood (<i>Citharexylum caudatum</i>, UPL), and 3% absolute cover of African tulip (<i>Spathodea campanulata</i>, FACU). In addition to consistent and defined bed and bank within the AOR, several factors distinguished the Seep Channel from the surrounding uplands and suggest constant flow in the channel, including a change in vegetation from the surrounding uplands, bacteria residue, aquatic fauna, and the soil composition in the channel. The agent observed less than 5% absolute cover of vegetation rooted in the Seep Channel and categorized the Seep Channel as a stream rather than a linear wetland due to the small amount (less than 5%) of absolute but determined that since absolute vegetative cover in the Seep Channel was less than</p>



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(a)(2) Name	(a)(2) Size	(a)(2) Criteria	Rationale for (a)(2) Determination
			<p>5% that the feature was a stream rather than a potential wetland. The vegetation present in the Seep Channel includes approximately 22 square feet of taro (<i>Calocasia esculenta</i>, OBL) and umbrella sedge (<i>Cyperus involucratus</i>, FACW)). The taro was observed to be located at the upstream end and center of the Seep Channel and the umbrella sedge was only located at the downstream end of the Seep Channel near the confluence with the Ephemeral Channel. Plants with wetland indicator statuses of obligate or facultative wet, such as taro and umbrella sedge, require a substrate that is saturated the majority of the time. The presence of with wetland indicator statuses of obligate or facultative wet suggests the presence of constant low volume flow in the Seep Channel consistent with a groundwater discharge water source for the Seep Channel. A 97-square-foot stand of red ginger (<i>Alpinia purpurata</i>, FACU) was also observed, located in the center of the Seep Channel longitudinally (i.e. halfway down the Seep Channel from the upper limit of the channel to the culvert downstream). Although the wetland indicator status of red ginger is FACU, the individuals in the Seep Channel were observed to appear unhealthy, including yellowing leaves, further indicating that flow occurs in the Seep Channel with a frequency that results in soils that are too wet for this FACU species. Biofilms formed by iron-oxidizing bacteria were also observed within the Seep Channel, reflecting the emergence of groundwater into the aerobic environment at the ground surface and indicating consistent input of flow into the Seep Channel by groundwater. Additionally, red-rimmed melania (<i>Melania tuberculata</i>), an introduced aquatic snail, adults and juvenile individuals of the blackline Hawaiian damselfly (<i>Megalagrion nigrohamatum nigrolineatum</i>), listed as Endangered under the Endangered Species Act, and two cane toads (<i>Rhinella marina</i>) were all observed within the Seep Channel. The red-rimmed melania was observed throughout the Seep Channel, while the blackline Hawaiian damselfly was only observed in a 43-foot long section at the confluence of the two upper branches of the Seep Channel. The agent did not observe fish in the Seep Channel during both site visits to that portion of the AOR. The observation of aquatic fauna, but not of fish suggests that the Seep Channel flows with sufficient constancy to support water-dependent habitat, but not with sufficient flow to allow larger fauna to migrate to or live in the Seep Channel. The agent also observed that the substrate within the Seep Channel was composed of exposed boulders and mucky mineral soil, i.e. saturated soil with high organic matter content. The mucky mineral soil is present throughout the length of the channel, indicating constant flow through the entire channel. The substrate of exposed boulders and lack of accumulated vegetative debris may be the result of occasional high velocity storm-based flows, while the saturation and high</p>



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(a)(2) Name	(a)(2) Size	(a)(2) Criteria	Rationale for (a)(2) Determination
			<p>organic matter content of the Seep Channel substrate may reflect the normal shallow flow at lower velocity from the groundwater source. In the May 2021 report, the agent also noted that little shelving was observed in the Seep Channel, indicating constant and low volume flow.</p> <p>Photographs provided with the delineation report are consistent with the consultant's characterization summary the Seep Channel, Ephemeral Channel, and Lipalu Channel within the AOR, including continuous bed and bank in the Seep Channel and Ephemeral Channel, vegetation rooted in the Ephemeral Channel and Lipalu Channel, and flow in the Seep Channel.</p> <p>Based the data described above, the Corps has determined that the Seep Channel within the AOR is an (a)(2) tributary that is naturally occurring surface water channel that contributes surface water flow to a paragraph (a)(1) water in a typical year. The Seep Channel is a perennial channel which flows continuously and more than in direct response to precipitation. In accordance with the Navigable Waters Protection Rule, perennial waters, are jurisdictional Waters of the U.S. and therefore the discharge of fill in the Seep Channel does require Corps authorization.</p>

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):			
(a)(3) Name	(a)(3) Size	(a)(3) Criteria	Rationale for (a)(3) Determination
N/A.	N/A.	N/A.	N/A.

Adjacent wetlands ((a)(4) waters):			
(a)(4) Name	(a)(4) Size	(a)(4) Criteria	Rationale for (a)(4) Determination
N/A.	N/A.	N/A.	N/A.

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)): ⁴			
Exclusion Name	Exclusion Size	Exclusion ⁵	Rationale for Exclusion Determination
Ephemeral Channel and Lipalu Channel	Ephemeral Channel = 118; Lipalu Channel = 1100	linear feet (b)(3) Ephemeral feature, including an ephemeral stream,	The Ephemeral Channel, like the Seep Channel, is located on the south half of the AOR and drains with consistent and distinct bed and banks from the hill slope to the culvert at Ohaha Place. The Ephemeral Channel joins the Seep Channel main channel approximately 30 feet upslope of the culvert leading to the storm drain system under the Pikoiloa neighborhood. The Ephemeral

⁴ Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.

⁵ Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.



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Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
			swale, gully, rill, or pool.	<p>Channel is 118 feet long and ranges from 3 to 10 feet wide. At least three faint linear erosional features connect to the Ephemeral Channel from higher elevations within the AOR. In contrast to the Ephemeral Channel, which was observed to have continuous defined bed and with approximately 4.9-foot-high nearly vertical banks, the features draining to the Ephemeral Channel are indicated by wrack lines formed during high rainfall events and lack defined bed and bank. The substrate of the Ephemeral Channel consists of primarily of fine sediment and boulders arranged in a series of steps, like a linear series of small dry waterfalls. During the agent’s site visits, characteristics indicating occasional high-velocity flow, including the exposed roots of surrounding trees and the absence of accumulated leaf litter, were observed within the Ephemeral Channel. However, the agent also observed that a few scattered seedlings of shoebutton ardisia (<i>Ardisia elliptica</i>, FACU) and java plum (<i>Syzygium cumini</i>, FAC) (approximately 1% absolute cover of each species throughout the channel) were rooted within the Ephemeral Channel, suggesting flow in the Ephemeral Channel is sufficiently infrequent to allow woody vegetation to take root in the channel, particularly vegetation with wetland indicator statuses of FACU and FAC which have limited tolerance to saturated soils. The AOR west of the Ephemeral Channel, between the Ephemeral Channel and the Seep Channel, is flat and dominated by octopus trees. The AOR east of the Ephemeral Channel sharply rises in elevation and is also dominated by octopus trees.</p> <p>The site visit dates occurred during the wet season in Hawaii, which is November to April. As stated in the May 2021 report, the 1.30 inches of rain was collected by the NOAA-National Weather Service Luluku rain gage (located at 21.379998, -157.799999, approximately 1.30 miles southwest outside the AOR) over a 24-hour period ending at 0800 on 20 January 2021. The Corps also reviewed daily weather data posted to the Weather Underground website, collected from the weather station Kamehameha and Mokulele – KHIKANE013, located on Nukoki Place approximately 0.61 miles west of the AOR. The weather station KHIKANE013 recorded 1.17 and 0.15 inches of rain occurring on 18 and 19 January 2021 and 0.09 inches of rain on 21 January 2021. The Ephemeral Channel was not flowing during the 20 January 2021 site visit. For the 30 November and 06 December 2018 site visits, the Ephemeral Channel was also not flowing. While the Luluku rain gage recorded 0.24 inches of rainfall between 30 November and 06 December 2018, the Luluku gage did not record rainfall in the 24 hours prior to each 2018 site visit date. Based on the observations of continuous bed and bank, an absence of leaf litter, an absence of flow following a rain event, an absence of base flow, moderate continuity of channel bed and bank, and upland plants rooted in the channel, the agent determined that the Ephemeral Channel scored 12.0 points in the Assessment Method. Streams that score less than 19 points in the Assessment Method are characterized as ephemeral under the</p>



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Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
				<p>Assessment Method.</p> <p>The Lipalu Channel is located on the north half of the AOR and drains from the hillslope through a culvert under Lipalu Street into the storm drain system under the Pikoiloa neighborhood. Lipalu Channel is comprised of a main linear feature with three short perpendicular features attached for a total length of 1,100 feet. Lipalu Channel is an average of three feet wide and approximately three feet deep with discontinuous bed and bank. A small rain shower (approximately 0.09 inches of rain collected at the NOAA Luluku rain gage) occurred prior to and during the 04 February 2019 site visit. During the 04 February 2019 site visit, the agent observed flowing water through short segments and isolated standing pools of water, but did not observe consistent flow throughout the entire Lipalu Channel. The agent observed aquatic insects in the order Coleoptera in the pools, but no fishes or crustaceans were observed during the 2019 site visit. Without more detailed identification to genus or species, the agent could not infer flow frequency from the Coleoptera individuals found in Lipalu Channel. The agent observed that Lipalu Channel was not flowing and that the stream bed was dry during the 20 and 21 January 2021 site visit. During the agent’s site visits, characteristics indicating occasional high-velocity flow, including the exposed roots of surrounding trees and the absence of accumulated leaf litter, were observed within the Lipalu Channel. The agent also observed sediment sorting in the Lipalu Channel. Sediment sorting, with larger particles of sediment or rocks in the center of a channel and finer materials along the sides of a channel, indicate sufficient flow for light particles to be carried farther by the water and heavier particles to settle out sooner. Sediment sorting reflects the presence of stream flow but does not indicate flow duration or frequency relative to precipitation. The agent also observed approximately 10% absolute cover of maile-scented fern (<i>Phymatosorus grossus</i>, FACU) and palm grass (<i>Setaria palmifolia</i>, FAC) each (20% absolute cover total) along the sides within the Lipalu Channel. Rooted vegetation in 1/5th of the Lipalu Channel suggests flow is sufficiently infrequent to allow vegetation to take root in the channel, particularly vegetation with wetland indicator statuses of FACU and FAC which have limited tolerance to saturated soils. The agent evaluated the Lipalu Channel under the draft North Carolina Stream Assessment Method. Based on the observations of an absence of leaf litter and upland plants rooted in the channel, an absence of baseflow, and moderate continuity of stream bed and bank, the agent determined that the Lipalu Channel scored 13.5 points in the Assessment Method. Scores of less than 19 points in the Assessment Method are characterized as ephemeral under the Assessment Method.</p> <p>Photographs provided with the delineation report are consistent with the consultant’s characterization summary the Seep Channel, Ephemeral Channel, and Lipalu Channel within the AOR, including</p>



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Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
				<p>continuous bed and bank in the Seep Channel and Ephemeral Channel, vegetation rooted in the Ephemeral Channel and Lipalu Channel, and flow in the Seep Channel.</p> <p>The Corps has concluded that Ephemeral Channel and Lipalu Channel are determined not to be tributaries based on the information above. The Ephemeral Channel and Lipalu Channel are ephemeral features (b)(3) that do not contribute surface water flow to a water identified as an (a)(1) water in a typical year either directly or through one or more waters identified in (a)(2),(3) or (4) of the NWPR. In accordance with the NWPR, ephemeral, (b)(3), waters are not Waters of the U.S. and therefore not jurisdictional.</p>

III. SUPPORTING INFORMATION

A. Select/enter all resources that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.

- Information submitted by, or on behalf of, the applicant/consultant: [vicinity map](#)
This information *is* sufficient for purposes of this AJD.
Rationale: [The Area of Review is clearly shown.](#)
- Data sheets prepared by the Corps: [Title\(s\) and/or date\(s\)](#).
- Photographs: [Aerial and Other: Aerial photographs acquired from Google Earth Pro. Photographs are included in the agent’s December 2020 delineation report.](#)
- Corps site visit(s) conducted on: [Date\(s\)](#).
- Previous Jurisdictional Determinations (AJDs or PJDs): [The Corps reviewed the ORM database and found that the Corps conducted a site visit to the property on 23 July 2008 under the same Corps permit name and number and determined that the site consisted “entirely of uplands”.](#)
- Antecedent Precipitation Tool: [provide detailed discussion in Section III.B.](#)
- USDA NRCS Soil Survey: [SSURGO data layer for Google Earth Pro and NRCS Web Soil Survey](#)
- USFWS NWI maps: [data layer for Google Earth Pro](#)
- USGS topographic maps: [Earth Point Topo Map data layer for Google Earth Pro](#)

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	USGS StreamStats web application
USDA Sources	N/A.
NOAA Sources	NOAA Daily Summaries precipitation web application.
USACE Sources	N/A.
State/Local/Tribal Sources	N/A.
Other Sources	USACE ERDC Ordinary High Water Mark (OHWM) data sheets (https://www.erdc.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/486085/ordinary-high-water-mark-ohwm-research-development-and-training/ EPA Waters GeoViewer website



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Data Source (select)	Name and/or date and other relevant information
	Weather Underground website: weather station Kamehameha and Mokulele – KHIKANE013, located on Nukoki Place approximately 0.61 miles west of the AOR

B. Typical year assessment(s): The Corps used the APT to evaluate whether precipitation was normal for the AOR during the agent’s delineation report site visit dates of 20 and 21 January 2021, 19 November and 05 December 2018, and 04 February 2019. The APT reports indicate that the precipitation level was wetter than normal for 19 November and 05 December 2018 and normal for 20 and 21 January 2021 and 04 February 2019. As stated in the delineation report, according to the Online Rainfall Atlas of Hawai’i (Giambelluca et al. 2013), the area receives a mean annual rainfall of approximately 59.25 inches (1,505 millimeters (mm)) and National Weather Service Luluku rain gage (located at 21.379998, -157.799999, approximately 1.30 miles southwest outside the AOR) recorded an mean annual rainfall of 84 inches (2,134 mm). Rainfall is typically highest during the wet season from November through April.

C. Additional comments to support AJD: The agent also investigated the area above the confluence of the Ephemeral Channel with the Seep Channel, shown in the AOR as SP1. As documented in a wetland delineation data sheet included in the May 2021 delineation report, the agent observed two secondary indicators of wetland hydrology, drainage patterns and geomorphic position, which allow a determination of wetland hydrology being present. However, based on soil and vegetation investigation, the agent determined that the site SP1 did not have wetland soils or wetland vegetation and therefore the site is not a wetland. Drainage patterns and a concave surface are also typical of a stream confluence on a steep slope. Additionally, no primary wetland hydrology indicators were observed on site. The Corps reviewed and concurs with the findings based on the data provided in the wetland delineation data sheet.