



**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): 12/10/2020

ORM Number: POH-2020-00067

Associated JDs: None

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

Center Coordinates of Review Area: Latitude 19.934353 Longitude -155.675339

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
N/A.	N/A.	N/A.	N/A.	N/A.

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.	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.	N/A.

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.



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

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
Kamakoa Gulch, left branch, middle branch, right branch, Far Left Gully, and Left Gully	Kamakoa Gulch = 1,433; left branch = 1,426; middle branch = 2,097; right branch = 1,355; Far Left Gully = 1,160; Left Gully = 397	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	<p>The 354-acre AOR contains a total of six features: Kamakoa Gulch, three features that drain to Kamakoa Gulch, referred to as the left, middle, and right branches, and two unnamed features that are unconnected to Kamakoa Gulch or its three attached features referred to as Far Left Gully and Left Gully.</p> <p>The land in the AOR is used as a pasture and adjacent areas contain West Hawaii Concrete and Industrial area and an existing six-acre solar farm. According to the January 2018 State of Hawaii Land Use District Boundaries mapping application (https://histategis.maps.arcgis.com/apps/webappviewer/index.html?id=b843c728b4cb4333b1df015fdaa84104), 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 nearest urban area is approximately seven miles west of the AOR.</p> <p>The AOR is a flat plain with direct disturbance of the ground surface from the hooves of grazing animals. Based on the terrain data layer for Google Earth Pro, the elevation from the south edge of the AOR to the north edge of the AOR decreases by approximately 228 feet, with the center of the AOR at an elevation of approximately 2,650 feet above sea level. Within the AOR, water flows along with the change in slope from south to north. North outside of the AOR, the land slopes east to west. The Corps reviewed the ORM database and found that no prior projects, AJDs, or PJDs had occurred within the AOR or elsewhere outside the AOR on any of the six features. As shown in the SSURGO data layer for Google Earth Pro, the soils in the AOR are mapped as three series: the dominant soil series in the AOR is the Kamakoa series, with the southern portion of the AOR dominated by the Waikalua series, and northwest corner of the AOR dominated by the Puu Pa series. The Kamakoa and Puu Pa series are both Humic Haplustands and soils in the Waikalua series are Typic Halotorrands. The soil layers shown in the NRCS SSURGO data layer for all three soil series 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 hydraulic rating</p>

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.



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

Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
				<p>for all three soil series are listed as well drained. All three soil series in the AOR are listed on the NRCS Web Soil Survey application as the category of “Not Hydric”. The agent described the soils of Kamakoa Gulch and the left, middle, and right branches as “mostly sandy loam with some boulders”.</p> <p>Kamakoa Gulch and the left, middle, and right branches are shown on several desktop references: the USFWS NWI data layer for Google Earth Pro, the Earth Point USGS topographic data layer for Google Earth Pro, and the EPA Waters GeoViewer application. Kamakoa Gulch and the left, middle, and right branches are shown as stream channels on the USFWS NWI data layer; the USFWS NWI data layer does not show any wetlands within the AOR. Additionally, in the USGS StreamStats application, Kamakoa Gulch, the left, middle, and right branches, and the Far Left Gully are visible in the HI map layers, but the Left Gully is not shown. Being visibly noted in multiple desktop references may indicate that flow occurs in Kamakoa Gulch and the left, middle, and right branches with sufficient frequency to be mapped.</p> <p>In the 04 December 2020 wetland delineation report, the consultant included information about a USGS stream gauge (No. 16759060) called “Kamakoa Gulch near Waimea, HI”. The USGS gauge is located at Hawaii Belt Road on a separate neighboring channel parallel to Kamakoa Gulch, north outside the limits of the AOR. The neighboring channel meets with Kamakoa Gulch to the west of the AOR; the USGS gauge is not located on the same reach that flows through the AOR. The “Kamakoa Gulch near Waimea, HI” USGS gauge operated sporadically between 1963 to 2016, during which the average annual peak streamflow recorded was 2.66 cubic feet per second (cfs) and the average gauge height that corresponded with the annual peak streamflow was 3.82 feet. The most extreme flow recorded during the gauge’s period of operation was on 16 January 1963 at 1,290 cfs with a gauge height of 6.30 feet.</p> <p>The Corps reviewed also other available records at the Kamakoa Gulch near Waimea, HI (site 16759060) as well as the records available for the two other USGS stream gauge stations nearest to the AOR: Auwaiakeakua Gulch near Waikoloa Village, HI (site 16759100) and Popoo Gulch near Wikii, HI (site 16759080). All three USGS stream gauges are located on the central leeward side of Mauna Kea, northeast and inland from Kailua-Kona. Data collected from field measurements at the gauges available online indicate that flow data was sporadically collected; the data at all three gauges does not provide a continuous reference from which to determine flow relative to the presence or absence of precipitation.</p>



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

Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
				<p>As stated in the 04 December 2020 delineation report, during the site investigations on 16 and 17 October 2018 and confirmed on the 12 June 2019 site investigation, the agent found that the portion of Kamakoa Gulch in the AOR and the left, middle, and right branches all had faint and discontinuous bed and bank. The left branch is 1,426 feet long, the middle branch is 2,097 feet long, the right branch is 1,355 feet long, and Kamakoa Gulch (between the confluence of the three branches to the south and the edge of the AOR to the north) is 1,433 feet long. All four features were found to be an average of 8.2 feet wide and 3 feet or less deep. The bed and bank of the four features was delineated based on a slight (less than 10%) change in slope and a change in grass species relative to the surrounding AOR. The agent delineated a faint and discontinuous Ordinary High Water Mark (OHWM) at the top of bank for Kamakoa Gulch and the left, middle, and right branches.</p> <p>While typically the land in the AOR is primarily composed of bare land, the AOR at the time of the site visit dates in October 2018 was completely covered in lush herbaceous vegetation as a result of record rainfall associated with Hurricane Lane in August 2018. The dominant herbaceous species within Kamakoa Gulch and the left, middle, and right branches included Pangola grass (<i>Digitaria eriantha</i>, FAC), kikuyu grass (<i>Cenchrus clandestinus</i>, FACU), and Bermuda grass (<i>Cynodon dactylon</i> FACU). Additionally, while buffelgrass (<i>Cenchrus ciliaris</i>; FACU) was observed to occur both within and outside the channel, the species was not dominant within the channels of the six features. The estimated percentages of absolute cover for the three species within the channels were 40% coverage of Pangola grass and 30% coverage each of kikuyu grass and Bermuda grass. Based on the percent cover, using the 50/20 rule in accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Hawaii and Pacific Islands Region, the Corps determined that all three species are dominants. The Corps determined that the observed vegetation failed the dominance test (33% is less than the 50% threshold), then determined that the observed vegetation also failed the prevalence index (3.6 is greater than the maximum threshold of 3.0). Therefore, the vegetation does not indicate a clear delineation of hydrologic difference from within or outside of the six features in the AOR. The agent’s estimated absolute cover of buffelgrass outside the channels in the AOR was 70%. The community composition was observed to be similar during both the October 2018 and June 2019 site visits.</p> <p>While two other features within the AOR, the Far Left Gully and the Left Gully, were observed during the agent’s site visit to exhibit minor evidence of flow, the two features did not contain bed, bank, or OHWM. The agent characterized the Far Left Gully and Left Gully as each consisting solely of a very indistinct depression. The species</p>



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

Excluded waters ((b)(1) – (b)(12)): ⁴				
Exclusion Name	Exclusion Size		Exclusion ⁵	Rationale for Exclusion Determination
				<p>composition in the Far Left Gully and Left Gully were similar to Kamakoa Gulch and the left, middle, and right branches, but with a higher percentage of kikuyu grass and buffelgrass within the channels of the Far Left Gully and Left Gully. The Far Left Gully is 1,160 feet long and Left Gully is 397 feet long.</p> <p>The agent clarified that the lack of channel definition of the six features may partially be a result of the minimal elevation change within the AOR and partially a result of the indirect disturbance of erosion and redistribution of the sediment disturbed by grazing. Photographs provided with the delineation report are consistent with the consultant’s characterization summary of all six features within the AOR, including faint and discontinuous bed and bank with full coverage of herbaceous vegetation for Kamakoa Gulch and the left, middle, and right branches and the very indistinct depressions with full coverage of herbaceous vegetation characterizing the Far Left Gully and Left Gully. None of the photographs showed active flow in the any of the six features. The agent also noted scattered wrack deposits throughout the AOR, which the agent stated appeared to be deposited by sheet flow across the AOR during the August flooding from Hurricane Lane rather than deposited from ordinary flows. Wrack deposits or lines, typically consisting of vegetative detritus pushed against and wrapped around a more solid feature, reflect the presence of flow, but do not indicate flow duration or frequency relative to precipitation. Additionally, some sediment sorting was observed in the substrate of the right branch feature. 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 flow, but does not indicate flow duration or frequency relative to precipitation.</p> <p>The Corps has concluded that Kamakoa Gulch and the left, middle, and right branches, and the Far Left Gully and Left Gully are all determined not to be tributaries based on the information above. The six features in the AOR are all 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](#)



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

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): [No prior AJDs or PJDs were conducted on this feature within, above, or below the AOR.](#)
- 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	N/A.

B. Typical year assessment(s): [The Corps used the APT for a typical year assessment for the date of the agent's site visit 16 and 17 October 2018 and 12 June 2019. All three dates were categorized as the "Dry Season". The APT report for 16 and 17 October stated that precipitation was wetter than normal and the report for 12 June stated that precipitation was normal.](#)

C. Additional comments to support AJD: [N/A or provide additional discussion as appropriate.](#)