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): 6/8/2021
ORM Number: POH-2018-00262-SMG
Associated JDs: N/A
Review Area Location[1]: State/Territory: Hawaii City: Waialua County/Parish/Borough: Honolulu
Center Coordinates of Review Area: Latitude 21.5752 Longitude -158.1438

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.

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Irrigation Ditch A	1,156	linear feet	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1).	Irrigation Ditch A is approximately 10 feet wide at bankfull and appears to have been constructed in uplands. The feature is observable on 1951 USGS aerial imagery as a linear feature constructed for agricultural irrigation. The ditch is soft bottomed and runs south to north along the westernmost boundary of the 333-acre JD review area before it converges with Irrigation Ditch D (aka, "Tidal Ditch"). Due to the dense vegetation and tree canopy cover along this ditch, obervations of potential surface water flow are obscured on aerial imagery. According to the requestor's delineation report, an OHWM was present on March 5, 2020 during a site visit conducted by the consultant, but on the day of the USACE site visit there were no indicators of streamflow. Stagnant, shallow (2-3 inches) pools of water were observed in the ditch during the February 4, March 5 and November 30, 2020 field visits, likely owing to the dense vegetation in the unmaintained conveyance. The JD requestor's agent extrapolated and applied the North Carolina Stream Assessment Method (NCDWQ, 2010) to help ascertain streamflow duration. The results of the assessment indicate the ditch is ephemeral based on the absence of almost all geomorphological, hydrological and biological indicators. This finding corroborates the field observations and anecdotal evidence collected by the USACE. Based on the foregoing, the USACE determined this feature is a ditch constructed in uplands and is in not an (a)(1) or (a)(2) water and therefore is a ditch excluded under (b)(5).
Irrigation Ditch B	2,623	linear feet	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the	Irrigation Ditch B is approximately 10 feet wide at bankfull and like Irrigation Ditch A, it is a soft bottomed conveyance that flows south to north through the center of the 333-acre JD review before it converges with Irrigation Ditch D. Much of the ditch is choked with guinea grass and kiawe trees. Irrigation Ditch B appears to be a modified reach of an unnamed natural stream

[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.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
			conditions of (c)(1).	that originates in the Mokulēʻia Forest Reserve to the south at approximately 1,600 feet above sea level. Historical aerial imagery shows Irrigation Ditch B was constructed in and relocated the unnamed natural stream more than 70 years ago. Surface flows within the stream, including its channelized reach, are not visible from aerial imagery due to the dense vegetation and tree canopy cover. USGS topographic maps show the unnamed natural stream as a "broken blue-line stream" (indicating an intermittent flow regime), but field observations made within the channelized reach of this feature indicate the streamflow is ephemeral. Specifically, as the unnamed natural stream approaches Farrington Highway and passes under the highway via a box culvert, it becomes channelized and straightened within the JD review area. The upper segment of Irrigation Ditch B was observed to be dry during site visits conducted by the consultant on February 4, 2020 and March 5, 2020; as well as on November 30, 2020 when the USACE performed a site visit. The downstream segment of Irrigation Ditch B was observed to have standing water on both March 5 and November 30, 2020. The stagnant, shallow pools are believed to be attributed to the dense vegetation in the unmaintained irrigation ditch. The JD requestor's agent extrapolated and applied the North Carolina Stream Assessment Method (NCDWQ, 2010) to help ascertain streamflow duration in the irrigation ditch. The results of the assessment indicate the ditch is ephemeral based on the absence of almost all geomorphological, hydrological and biological indicators of an intermittent or perennial streamflow. This finding corroborates anecdotal evidence collected by the USACE. Based on the foregoing, the USACE determined this irrigation ditch is not an (a)(1) or (a)(2) water and is an ditch excluded under (b)(5).
Irrigation Ditch D	4,643	Linear feet	(b)(5) Ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that	Irrigation Ditch D (also referred to as "Tidal Ditch" in the requestor's delineation report) is on average 23 feet wide at bankfull and flows approximately 2,538 additional linear feet north outside the JD review area before discharging into the Pacific Ocean. Based on historical aerial images it is difficult to discern whether this ditch

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
			do not satisfy the conditions of (c)(1).	was constructed wholly in uplands, but based on historical aerial images it appears to be manmade and a feature that has been periodically manipulated over the years. Aerial images from 1951, 1962, 1966, 1977 and 1993 show this ditch as a straightened linear conveyance that was once part of the agricultural irrigation system supporting the sugar cane fields. Although the sugar cane industry is no longer operational, this aquatic feature is still used for agricultural activities, including the conveyance of agricultural run-off. Based on water samples taken by the JD requestor's agent, the ditch is permanently flooded with freshwater that appears to be floating on top of brackish groundwater. Field observations suggest Irrigation Ditch D is either subject to periodic subterranean incursion of sea water or contains brackish groundwater. Evidence of the presence of brackish waters includes mangroves along a portion of the banks; estuarine grasses (e.g., seashore paspalum); and a faint salt line along the banks of the ditch. The aforementioned secondary indicators of saline or brackish conditions are more noticeable along the eastern segment of the irrigation ditch and become more muted along the western segment. Despite the presence of salt tolerant species, the USACE was unable to observe the rise and fall of the surface water in this irrigation ditch and found that it was not something practically measured. An ebbing (low) tide was occurring at the time of the November 30, 2020 site visit and the USACE returned to the site during a rising (high) tide—in neither instance was the rise and fall of the surface water discernable based on the water surface elevation demarcations made along the bank of the ditch at low tide. The USACE believes the lack of observable fluctuations in the water surface elevations is due to a combination of the hydraulic gradient, heterogeneity of the aquifer, and tidal amplitude. Therefore, because the rise and fall of the surface water cannot be observed nor practically measured, this irrigation ditch does not meet the definition of a "*tidal water or a water subject to the ebb and flow of the tide*" (refer to 33 CFR

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				328.3(c)(11)). Based on the foregoing, the USACE determined this irrigation ditch is not an (a)(1) or (a)(2) water and is a ditch excluded under (b)(5).
Wetland A	1.39	acre(s)	(b)(1) Non-adjacent wetland.	Wetland A is located in an area of old sand dunes along the northwest edge of the JD review area between a residential neighborhood and active agriculatural parcels that are part of the 333-acre JD review area. Wetland A is a freshwater pond that can be classified as an excavated, permanently flooded palustrine wetland with an unconsolidated bottom. Wetland A is located on the mauka side of Waialua Beach Road and is approximately 465 linear feet from the Pacific Ocean. Although possibly a remnant of interdunal wetlands, the landowner reports this wetland formed as a result of the previous landowner(s) excavating sand that was used to improve nearby farm roads during the sugar cane era. Site observations made during the field visits confirm there is no surface hydrologic connection in a typical year due to the roadway (Waialua Beach Road/Crozier Drive) and residential development between the Wetland A and the Pacific Ocean. Based on the foregoing, the USACE determined this wetland is a non-adjacent wetland.
Wetland C	0.09	acre(s)	(b)(1) Non-adjacent wetland.	Wetland C is an excavated, continuously saturated palustrine wetland with broad-leaved evergreen scrub-shrubs situated approximately 672 linear feet from the Pacific Ocean. Like Wetland A, it was reported by the landowner to be the result of the previous landowner(s) excavating sand that was used to improve the farm roads during the sugar cane era. Site observations made during the field visits confirm there is no surface hydrologic connection in a typical year due to the roadway (Waialua Beach Road/Crozier Drive) and residential development between the wetland and the Pacific Ocean. Based on the foregoing, the USACE determined this wetland is a non-adjacent wetland.

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: Report, titled "Jurisdictional Waters Survey for Mahiko Farms, TMK: (1)6-8-006:010, Mokuleia, Waialua, Oahu" (AECOS, Inc., dated March 10, 2021)

This information is and is not sufficient for purposes of this AJD.

Rationale: Certain information and data presented in the report is considered sufficient for substantiating the flow characteristics of the aquatic features located in the JD review area, presence/absence of wetlands, and whether a hydrologic surface connection in a typical year exists to an (a)(1) water. However, the report contains some errors and data gaps as well as statements that are not entirely congruent with the NWPR. While these deficiencies were noted by the USACE, they did not have a bearing on the empirical data and other information that the USACE considered and relied upon in determining the jurisdictional status of the aquatic features within the JD review area.

☐ Data sheets prepared by the Corps: Title(s) and/or date(s).

☒ Photographs: Aerial and Other: USGS aerials 1951, 1962, and 1977; NOAA aerials 1993 and 2000; Google Earth imagery November 29, 2002 and January 10, 2011; on-the-ground site photographs taken in February, March and November 2020.

☒ Corps site visit(s) conducted on: November 30, 2020

☐ Previous Jurisdictional Determinations (AJDs or PJDs): N/A

☒ Antecedent Precipitation Tool: *provide detailed discussion in Section III.B*.

☒ USDA NRCS Soil Survey: USDA-NRCS National List of Hydric Soils for Oahu (2019)

☒ USFWS NWI maps: 2019

☒ USGS topographic maps: Poamoho Stream Waialua, Oahu, HI

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	N/A.
USDA Sources	USDA-NRCS National List of Hydric Soils for Oahu (2019)
NOAA Sources	N/A.
USACE Sources	N/A.
State/Local/Tribal Sources	City & County of Honolulu, DPP, Hydrography Maps
Other Sources	N/A.

B. Typical year assessment(s): The Corps, Honolulu District used the Antecedent Precipitation Tool (APT) to understand whether normal Typical Year conditions (i.e., precipitation levels within the normal periodic range) were present within the JD review area at the time that field assessments were completed for the Mahiko Farms project area. The APT output for the JD review area indicate that normal conditions existed on the day of the November 30, 2020 site visit and wetter than normal conditions existed during the February 4 and March 5, 2020 field visits.

C. Additional comments to support AJD: N/A

JD Review Area
Approved Jurisdictional Determination
Mahiko Farms Residential Development

DA File No. POH-2018-00262

Enclosure 1