

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 20-Oct-2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Honolulu District, POH-2009-00271-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : HI - Hawaii
County/parish/borough: Kauai
City: Kapaa
Lat: 22.08111
Long: -159.33972
Universal Transverse Mercator

Folder UTM List
UTM list determined by folder location

- NAD83 / UTM zone 34S

Waters UTM List
UTM list determined by waters location

- NAD83 / UTM zone 34S

Name of nearest waterbody: Kainahola Stream
Name of nearest Traditional Navigable Water (TNW): Waikaea Canal, Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC):

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

- Office Determination Date: 29-Sep-2009
 Field Determination Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area:¹

Water Name	Water Type(s) Present
Mana Irrigation Ditch	Non-RPWs that flow directly or indirectly into TNWs

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: (m²)
Linear: 23 (m)

c. Limits (boundaries) of jurisdiction:

based on: Not Applicable.

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1. TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 7.6 square miles

Drainage area: 7.6 square miles

Average annual rainfall: 60 inches

Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [] tributaries before entering TNW.

:Number of tributaries

Project waters are [] river miles from TNW.

Project waters are [] river miles from RPW.

Project Waters are 1-2 aerial (straight) miles from TNW.

Project waters are 1-2 aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵

Mana Irrigation ditch flows into another irrigation ditch, then into Kainahola Stream, then into Waikaea Canal and then into the Pacific Ocean.

Tributary Stream Order, if known:

Order	Tributary Name
2	Mana Irrigation Ditch

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Mana Irrigation Ditch	-	X	Mana ditch is a man-made ditch used to irrigate sugar fields	-	-

Tributary properties with respect to top of bank (estimate):

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Mana Irrigation Ditch	2	2	-

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Mana Irrigation Ditch	X	X	-	-	-	-	-	X	-

Vegetation Explained:

Tributary Name	Percent Cover	Vegetation Explained
Mana Irrigation Ditch	80	California grass and Guinea Grass

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name	Condition/Stability	Run/Riffle/Pool Complexes	Geometry	Gradient (%)
Mana Irrigation Ditch	well defined and stable	-	Meandering	-

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Mana Irrigation Ditch	Intermittent but not seasonal flow	2-5	In the past year the water gates were only opened once to allow flow through the irrigation ditches. Presence of water lasted about 3 days. Once the area is developed it is anticipated that the irrigation ditches will be used as needed by the new ag. residents	3 days per event. Flow velocity is approximately 1 foot per second. The irrigation ditch is currently dry as the water that would normally flow in the ditch is being diverted at a water gate located near the upstream ponds.

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Mana Irrigation Ditch	Confined	-

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Mana Irrigation Ditch	No	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
Mana Irrigation Ditch	X	-	X	Historically used for sugar cane irrigation and water is currently being diverted upstream by a water gate. Ditch is also maintained and services by the East Kauai Water Cooperative.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:**High Tide Line indicated by:**

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:**Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).**

Tributary Name	Explain	Identify specific pollutants, if known
Mana Irrigation Ditch	-	land was historically used to grow sugar and is currently zoned as agriculture land. It is reasonable that Mana ditch would carry pollutants and other inputs used in the production of sugar or other products into the downstream environments.

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Mana Irrigation Ditch	-	-	-	-	-

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Not Applicable.

(b) General Flow Relationship with Non-TNW:

Flow is:

Not Applicable.

Surface flow is:

Not Applicable.

Subsurface flow:

Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:

Not Applicable.

(d) Proximity (Relationship) to TNW:

Not Applicable.

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Not Applicable.

(iii) Biological Characteristics. Wetland supports:

Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Findings for: Mana Irrigation Ditch

The Mana irrigation ditch is a man-made ditch that drains three upstream ponds and their adjacent wetlands. The upstream ponds are man-made and are partially fed by groundwater and an upper mountain source. Mana irrigation ditch is serviced and maintained by the East Kauai Water Cooperative. Currently the Mana ditch is dry and usage is fully controlled. At full flow the water velocity is approximately 1 foot per second. The water outlets into the Kainahola Stream above a natural spring and then into the Pacific Ocean. Although Mana Irrigation Ditch experiences sporadic flow and is a non-relatively permanent water (non-RPW) it serves as a significant nexus between three upstream ponds and their adjacent wetlands and the perennial Kainahola Stream, which flows directly into the Pacific Ocean. Kulana Agriculture Subdivision is located within Waika`ea watershed. Rainfall varies by elevation in the watershed from 40-80 in/yr. The host geology is comprised of weathered igneous rock and is characterized as displaying a rapid runoff response. The higher elevations of the watershed are characterized by heavy vegetation. The lower Kainahola Stream basin is currently under development for low-density residential housing and has previously been used for sugar cultivation. Given the history of the Kulana Agriculture lot as sugar cultivation land and the nutrient inputs associated with such activities; the high annual rainfall; and the topographic and geologic characteristics of Waika`ea watershed it is reasonable and feasible that the

Mana Irrigation Ditch and the upstream ponds and its adjacent wetlands have the capacity to carry sediments, pollutants or flood waters to TNWs.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE:

1. TNWs and Adjacent Wetlands:

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

3. Non-RPWs that flow directly or indirectly into TNWs:⁸

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Tributary Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Mana Irrigation Ditch	Non-RPWs that flow directly or indirectly into TNWs	22.86	-
Total:		22.86	0

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

Not Applicable.

7. Impoundments of jurisdictional waters:⁹

Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	2009-271	Receiving State Waters Map Bow Engineering and Development Inc.
--USDA Natural Resources Conservation Service Soil Survey.	2009-271	Hydric Rating by Map Unit- Island of Kauai, Hawaii NRCS Web Soil Survey
--National wetlands inventory map(s).	2009-271	TIG GIS Maps
--Photographs	2009-271	Mana Irrigation Ditch typical section, Bow Engineering and Development Inc.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

¹-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
²-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
³-Supporting documentation is presented in Section III.F.
⁴-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
⁵-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
⁶-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
⁷-Ibid.
⁸-See Footnote #3.
⁹-To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
¹⁰-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.