STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

November 15, 2022
Honolulu, Hawai‘i

Approval of Stream Channel Alteration Permit Application (SCAP.5927.3)
State of Hawai‘i, Department of Agriculture
Spillway Rehabilitation and Vegetation Clearing at the Decommissioned Tai Lee Reservoir
Kahawai Stream, Waimānalo, O‘ahu, TMK: (1) 4-1-024:068

APPLICANT
State Department of Agriculture
1428 S. King Street
Honolulu, HI 96793

LANDOWNER
Same

SUMMARY OF REQUEST

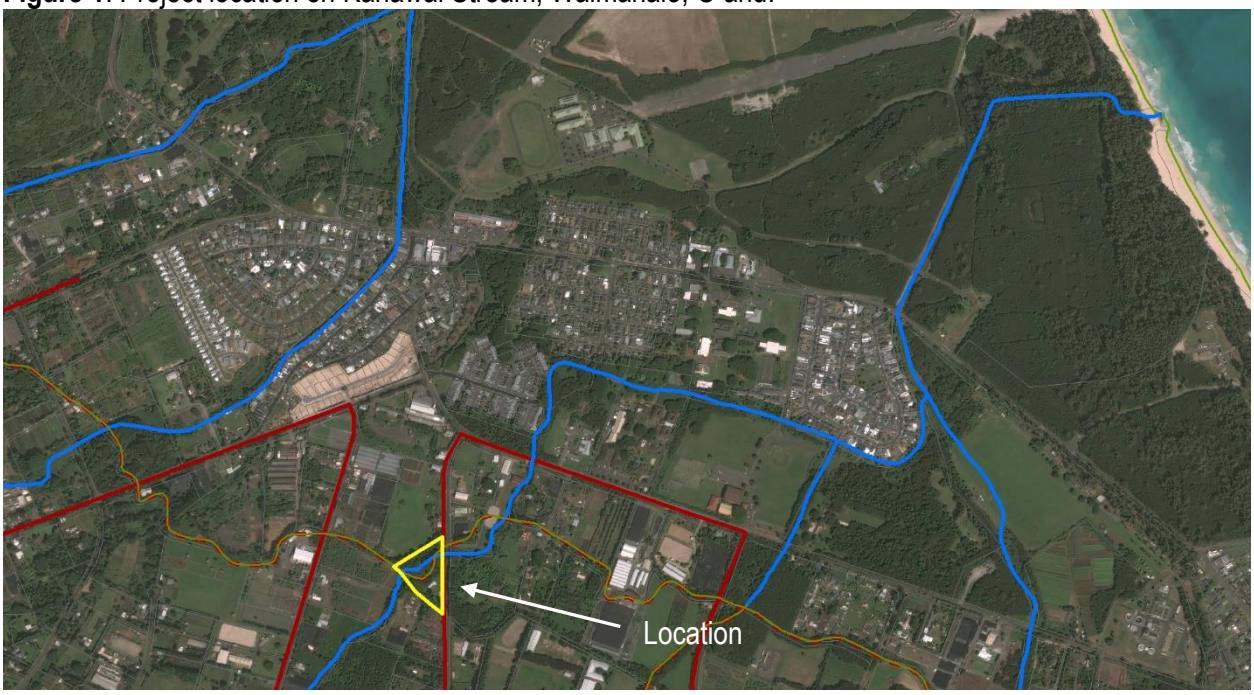
Approve Stream Channel Alteration Permit (SCAP.5927.3) by the Department of Agriculture. The proposed action consists of clearing vegetation on approximately two (2) acres and revegetating the cleared area with grass; installing 28 bollards to capture debris; and grading approximately 26,389 square feet of the property.

BACKGROUND

On August 15, 2022, the applicant filed a complete Stream Channel Alteration Permit application that can be viewed at *https://files.hawaii.gov/dlnr/cwrm/swreview/SCAP_5927_3.pdf*.

LOCATION: Kahawai Stream, Waimānalo, O‘ahu. See **Figure 1**.

Figure 1: Project location on Kahawai Stream, Waimānalo, O‘ahu.



STREAM DESCRIPTION

Kahawai Stream and its tributary Puha Stream occur within the Kahawai surface water hydrologic unit (3036). The National Hydrography Dataset classified the Kahawai Stream as intermittent, while the Division of Aquatic Resources classified it as perennial. The total drainage area of Kahawai Stream is 3.16 square miles with a maximum basin elevation of 2,370 feet, mean annual precipitation of 49.6 inches, and the longest flow path is 3.42 miles. The applicant indicated that the project location “is normally a dry-bed stream,” however, an environmental survey (AECOS, June 2021) referenced by the applicant “described the existing reservoir area as having a hummocky terrain with drift deposits, indicating stream flow had recently extended into the reservoir.”

PROJECT DESCRIPTION

The objective of the project is to address existing ponding issues that occur on the property when it rains and clogging issues at an existing culvert. A concrete stormwater structure is located along the northeastern section of the property line which directs stormwater towards a culvert crossing Mokulama Street. Overflow of stormwater runoff along this floodway has been attributed to the buildup of debris from upstream that occasionally clogs the culvert and from overgrown vegetation on the parcel itself. The proposed project is needed to address the ponding issues on-site and to capture debris that may otherwise block the upstream end of the culvert and cause stormwater to overtop the roadway. Actions to be taken include the following:

1. Within the ordinary high water mark (OHWM): Construction of two (2) staggered rows of a total of 28 protective bollards. The first row will be located 22 feet west of the Mokulama Street Right-of-Way and consist of 13 bollards. The second row will be

located 10 feet west of the first row and consist of 15 bollards. The height of the bollards are approximately four feet. Each of the 28 bollards will be constructed with a six (6) foot depth concrete footing below a two (2) foot thick layer of grouted rip-rap with a non-woven geotextile fabric installed along the bottom of the rip-rap. The grouted rip-rap area will require an excavated area of 956 square feet with a depth of two (2) feet measured below grade. The proposed cleared area within the Kahawai Stream OHWM is 0.21 acre. See **Figure 2**.

2. Outside of the ordinary high water mark – Clear vegetation on approximately 91,069 square feet (2.09 acres), consisting of removal and disposal of all loose vegetation, downed trees, trimming of brush, grass, weeds and removal of 65 trees on the property, and revegetate the cleared area with grass. Tree stumps shall be ground to the surface level. Grade approximately 37,436 square feet of the property. Highlighted in purple and green in **Figure 2**.

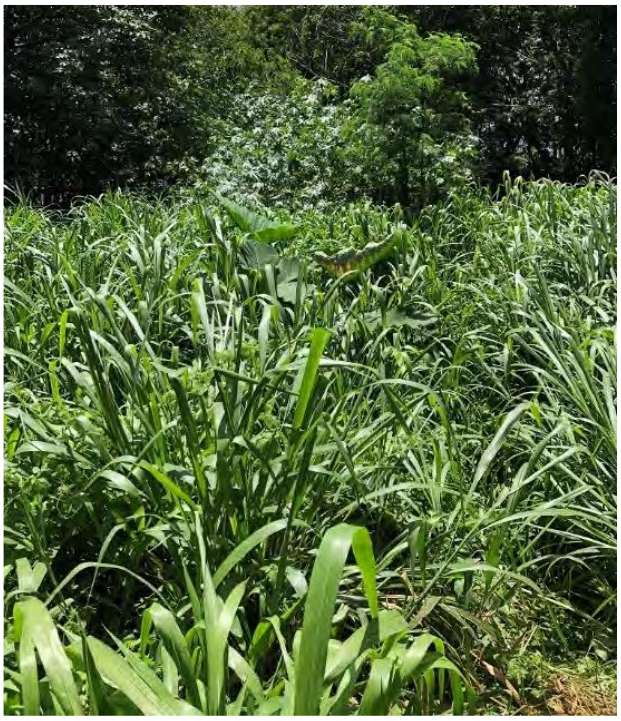
Figure 2: General site plan.

Each of the 28 steel bollards (8-inch diameter) will be provided with a six (6) foot depth by two (2) foot diameter cast-in-place concrete footing and will extend a maximum of four (4) feet above finish grade. The proposed grouted rip-rap area will cover an area of 956 square feet with a depth of two (2) feet for a volume of 1,912 cubic feet. The contractor may be required to use casing while installing the steel bollard concrete footings to prevent collapse of the drilled holes.

The concrete pour shall occur on the same day as drilling for the footings, while a geotechnical engineer licensed in Hawai‘i shall be provided by the contractor to observe drilling and installation of all footings. See **Figure 3** for photos of current site conditions.

Figure 3. Site photos (AECOS, 2021).

View facing downstream at lower portion of project site.



View facing upstream at lower portion of project site.

View facing downstream at upper portion of project site.

View facing upstream at upper portion of project site.

Debris from clearing operations shall not be placed in streams, water courses or at locations that will impede flow of the natural drainage system. The contractor shall cleanup and remove all debris accumulated rom construction operations from time to time. Upon completion of the construction work and before final acceptable of work, the contractor shall remove waste material, including unsatisfactory soil, trash. And debris, and legally dispose of it off State property and leave entire job site clean and neat. Temporary facilities include contractor stockpiling and equipment areas.

The expected period of time required for construction is four (4) months.

AGENCY REVIEW COMMENTS

City and County of Honolulu, Department of Planning and Permitting (DPP): On July 20, 2022, DPP approved the grading plans for the proposed project.

Department of Hawaiian Home Lands (DHHL): No comments received.

Dept. of Health (DOH), Clean Water Branch: The DOH standard comments can be reviewed on the DOH website at: *https://health.hawaii.gov/cwb/files/2018/05/Memo-CWB-Standard-Comments.pdf*.

> *CWRM staff response: The lead agency for the protection of water quality is the Department of Health, Clean Water Branch, which administers the Federal Clean Water Act (33 U.S.C. §1251 et seq.) and the State Water Pollution Act (HRS Ch. 342D; HAR Ch. 11-54 Water Quality Standards; and HAR Ch. 11-55 Water Pollution Control). HAR §11-54-1 through §11-54-8 defines Best Management Practices and water quality criteria applicable to inland and nearshore waters and are based on the Federal Clean Water Act. HAR Ch. 11-55 Appendix C defines discharges of storm water associated with construction activity. HRS 174C-66 states that the DOH oversees the State's water quality control program.*

Department of Land and Natural Resources (DLNR), Aha Moku: No comments received.

DLNR, Aquatic Resources: The proposed project is not expected to have adverse impacts on the aquatic environment, but may have short-term impacts during the excavation and construction of the steel bollards and the grouted rip-rap area. Best Management Practices (BMPs) outlined in the SCAP should help to minimize some of the impacts on the water quality parameters in the aquatic environment and stream flow if there is any should be maintained at all times. DAR requests that the following BMPs or mitigative measures should be implemented during the excavation and construction activities to minimize the potential for erosion, siltation, pollutions, and degradation of the aquatic environment.

1) Minimize stream bank disturbance and areas denuded of vegetation should be planted or covered as quickly as possible to prevent erosion;
2) Scheduling work activities during periods of minimal rainfall and instream work during low or no flow stream flow conditions;

3) Prevent construction materials, petroleum products, debris and landscaping products from falling, blowing or leaching into the aquatic environment; and
4) After completion of the project, the responsibility of maintaining and clearing the bollards should be designated.

CWRM Staff Response: Comments will be incorporated as a special condition.

DLNR, Engineering: No comments received.

DLNR, Forestry and Wildlife (DOFAW): In accordance with DOFAWs prior response letter included in the FEA, we concur with mitigation measures intended to avoid construction and operational impacts to State-listed species and to prevent the spread of invasive species. We recommend native plant for landscaping that are appropriate for the area. Please do not plant invasive species and refer to https://plantpono.org/ for guidance.

CWRM Staff Response: Applicant has indicated that following removal of vegetation, the cleared area will be re-vegetated with grass and maintained. The use of native plants for landscaping should be exercised to the extent possible and will be incorporated as a special condition.

DLNR, Historic Preservation (SHPD): No determination letter received.

CWRM Staff Response: The proposed action is subject to SHPD concurrence and will be added as a special condition.

DLNR, Land Division: No comments received.

DLNR, State Parks: No comments received.

Office of Hawaiian Affairs: No comments received.

US Army Corps of Engineers: No comments received.

US Fish and Wildlife Service (FWS): We have reviewed the information you provided and pertinent information in our files, as it pertains to federally listed species in accordance with section 7 of the ESA (Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*, as amended). Our data indicate the following federally listed species may occur or transit through the vicinity of the proposed project area: the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*).

Hawaiian Hoary Bat

The Hawaiian hoary bat roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away.

To avoid and minimize impacts to the endangered Hawaiian hoary bat we recommend you consider incorporating the following applicable measure into your project description:

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15).
- Do not use barbed wire for fencing.

CWRM Staff Response: Comments will be incorporated as a special condition.

PUBLIC COMMENTS

No public comments were received.

TRADITIONAL AND CUSTOMARY PRACTICES

1) The identity and scope of cultural, historical, or natural resources in which traditional and customary native Hawaiian rights are exercised in the area.

   The Applicant stated "Not applicable – project site was a reservoir and used as a source of water for Chinese rice growers in Waimanalo in the late 1800s. The Tai Lee Reservoir was built as an earthen dam reservoir and served the Waimanalo Sugar Co. as a component of the Waimanalo Ditch System through to end of the enterprise in 1947. Subsequently the Tai Lee Reservoir was effectively repurposed to support diversified agriculture with a new "Tai Lee" ditch created to distribute water to the east by 1952. Also, the project site has been transformed by grading and infilling since the Department of Agriculture concluded an Environmental Assessment for abandonment of the Waimanalo Ditch Irrigation System in August 1993."

   CWRM Staff Response: No comments were received by DLNR Aha Moku. No comments were received from the public. According to the Office of Hawaiian Affairs' Kipuka Database, there are no historic sites or Land Commission Awards (LCA) in the vicinity of Kahawai Stream. There are a fairly large number of LCAs further to the west in the vicinity of Waimānalo Stream. Two heiau are located further mauka in the upper watershed, while the Kailua Ditch and Maunawili Ditch (part of the Waimānalo Irrigation System) are also located mauka and the Bellow Field Archaeological Area comprises a large area along the coast of Waimānalo Bay encompassing the mouth of Kahawai Stream. There are no anticipated impacts to traditional and customary practices as there are no diversions on the stream or the upstream/downstream migration of native macrofauna due to the stream being normally dry and overgrown. Commission staff offers no further action as can be identified.

2) The extent to which those resources, including traditional and customary native Hawaiian rights, will be affected or impaired by the proposed action.

   The Applicant stated, "Not applicable – project site was a reservoir and used as a source of water for Chinese rice growers in Waimanalo in the late 1800s. The Tai Lee Reservoir was built as an earthen dam reservoir and served the Waimanalo Sugar Co. as a component of the

Waimanalo Ditch System through to end of the enterprise in 1947. Subsequently the Tai Lee Reservoir was effectively repurposed to support diversified agriculture with a new “Tai Lee” ditch created to distribute water to the east by 1952. Also, the project site has been transformed by grading and infilling since the Department of Agriculture concluded an Environmental Assessment for abandonment of the Waimanalo Ditch Irrigation System in August 1993.”

CWRM Staff Response: There are no anticipated impacts to traditional and customary practices or upstream/downstream movement of native macrofauna.

3) What feasible action, if any, could be taken by the Commission in regards to this application to reasonably protect native Hawaiian rights.

The Applicant stated, “Not applicable – project site was a reservoir and used as a source of water for Chinese rice growers in Waimanalo in the late 1800s. The Tai Lee Reservoir was built as an earthen dam reservoir and served the Waimanalo Sugar Co. as a component of the Waimanalo Ditch System through to end of the enterprise in 1947. Subsequently the Tai Lee Reservoir was effectively repurposed to support diversified agriculture with a new “Tai Lee” ditch created to distribute water to the east by 1952. Also, the project site has been transformed by grading and infilling since the Department of Agriculture concluded an Environmental Assessment for abandonment of the Waimanalo Ditch Irrigation System in August 1993.”

CWRM Staff Response: No further action as identified.

HRS CHAPTER 343 – ENVIRONMENTAL ASSESSMENT (EA) COMPLIANCE

Under Hawaii Revised Statutes (HRS) §343-5(a), an EA shall be required for actions, as summarized in part below, that propose:

(1) use of state land or county lands, or the use of state or county funds;
(2) use within any land classified as a conservation district;
(3) use within a shoreline area;
(4) use within any historic site as designated in the National Register or Hawaii Register;
(5) use within the Waikiki area of O‘ahu;
(6) any amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation, or preservation;
(7) any reclassification of any land classified as a conservation district;
(8) construction of new or the expansion or modification of existing helicopter facilities within the State, that may affect: (A) any land classified as a conservation district; (B) a shoreline area; or (C) any historic site as designated in the National Register or Hawaii Register;
(9) any (A) wastewater treatment unit, except an individual wastewater system or a wastewater treatment unit serving fewer than fifty single-family dwellings or the equivalent; (B) Waste-to-energy facility; (C) Landfill; (D) Oil refinery; or (E) Power-generating facility.

CWRM Staff Response: The project triggers an EA because it proposes (1) the use of state or county lands or the use of state or county funds. A Final Environmental Assessment (FEA) and Finding of No Significant Impact (FONSI) were published on August 23, 2022. The FEA and FONSI are available for review at: https://files.hawaii.gov/dbedt/erp/Doc_Library/2022-08-23-OA-FEA-Spillway-Rehabilitation-at-Decommissioned-Tai-Lee-Reservoir.pdf.

CONSISTENCY WITH THE HAWAI'I WATER PLAN

The Water Resource Protection Plan (WRPP), updated in 2019, provides an outline for the conservation, augmentation, and protection of statewide ground and surface water resources, watersheds, and natural stream environments. The legal framework of the Code for the issuance of Stream Channel Alteration Permits, as outlined in this submittal, is covered in more detail and context in the WRPP, Appendix I.

The proposed stream channel alteration will not divert any water from Kahawai Stream and should not impact the quantity or quality of water resources, public trust uses, or water rights.

STAFF REVIEW

HAR §13-169-52(b) Based upon the findings of fact concerning an application for a stream channel alteration permit, the commission shall either approve in whole, approve in part, approve with modifications, or reject the application for a permit.

(1) Channel alterations that would adversely affect the quantity and quality of the stream water or the stream ecology should be minimized or not be allowed.

CWRM Staff Response: Upon approval of the construction plans as proposed, the quantity and quality of stream water is unchanged. The BMPs proposed by Applicant should minimize stormwater and sedimentation impacts to downstream landowners. The 2021 AECOS environmental survey found "No aquatic animals were recorded in the survey area. Aquatic fauna observed at the water quality station located outside of the survey area are poeciliid fishes, cane toad tadpoles (Rhinella marina), American bullfrog (Lithobates catesbeianus), and a red-eared slider (Trachemys scripta elegans)."

(2) Where instream flow standards or interim instream flow standards have been established pursuant to subchapters 3 and 4, no permit shall be granted for any channel alteration which diminishes the quantity or quality of stream water below the minimum established to support identified instream uses, as expressed in the standards.

CWRM Staff Response: HRS §174C-71, requires the Commission to protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses. The identified instream uses include agriculture, fish habitat and streamflow contribution to the

nearshore waters, among others. The project is not anticipated to impact the status quo interim instream flow standard.

(3) The proposed channel alteration should not interfere substantially and materially with existing instream or non-instream uses or with channel alterations previously permitted.

CWRM Staff Response: The proposed work plan is limited to the project area and should not interfere with instream or non-instream uses. There are no known diversions located on Kahawai Stream.

RECOMMENDATION

That the Commission:

1. Approve Stream Channel Alteration Permit (SCAP.5927.3) Application subject to the standard conditions in **Exhibit 1** and the special conditions below.

    a. Approval is subject to SHPD concurrence. If SHPD requires conditions, authority shall be delegated to the Deputy Director to attach those as a condition of stream channel alteration.

    b. In conformance with the Hawai'i Division of Aquatic Resources recommendations, the permittee shall be implement the following BMPs during the excavation and construction activities to minimize the potential for erosion, siltation, pollutions, and degradation of the aquatic environment:
        1) Minimize stream bank disturbance and areas denuded of vegetation should be planted or covered as quickly as possible to prevent erosion;
        2) Scheduling work activities during periods of minimal rainfall and instream work during low or no flow stream flow conditions;
        3) Prevent construction materials, petroleum products, debris and landscaping products from falling, blowing or leaching into the aquatic environment;
        4) After completion of the project, the responsibility of maintaining and clearing the bollards should be designated.

    c. In conformance with the Hawai'i Division of Forestry and Wildlife recommendations, the permittee shall utilize native plants for landscaping to the extent practicable. Guidance can be found at *https://plantpono.org*.

    d. In conformance with U.S. Fish and Wildlife Service recommendations, the permittee shall: 1) Not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15); and 2) Not use barbed wire for fencing.

Ola i ka wai,

M. KALEO MANUEL
Deputy Director

Exhibits:
1. Standard Stream Channel Alteration Permit Standard Conditions.
2. Legal Authorities.

APPROVED FOR SUBMITTAL:

SUZANNE D. CASE
Chairperson

STREAM CHANNEL ALTERATION PERMIT STANDARD CONDITIONS
(Revised December 15, 2020)

1. The permit application and staff submittal approved by the Commission at its meeting on the above date shall be incorporated herein by reference.
2. The project may require other agency approvals regarding wetlands, water quality, grading, stockpiling, endangered species, and floodways. The permittee shall comply with all other applicable statutes, ordinances, and regulations of the Federal, State and county governments, including, but not limited to, instream flow standards.
3. The permittee, his successors, assigns, officers, employees, contractors, agents, and representatives, shall indemnify, defend, and hold the State of Hawaii harmless from and against any claim or demand for loss, liability, or damage including claims for property damage, personal injury, or death arising out of any act or omission of the permittee or his successors, assigns, officers, employees, contractors, and agents under this permit or related to the granting of this permit.
4. The permittee shall notify the Commission, by letter, of the actual dates of project initiation and completion. The permittee shall submit a set of as-built plans and photos in pdf format of the completed work to the Commission upon completion of this project. This permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The proposed work under this stream channel alteration permit shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Commission upon showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion date is not met, the Commission may revoke the permit after giving the permittee notice of the proposed action and an opportunity to be heard.
5. Before proceeding with any work authorized by the Commission, the permittee shall submit one set of construction plans and specifications in PDF format to determine consistency with the conditions of the permit and the declarations set forth in the permit application.
6. The permittee shall implement site-specific, construction Best Management Practices in consultation with the DOH Clean Water Branch and other agencies as applicable, that are designed, implemented, operated, and maintained by the permittee and its contractor to properly isolate and confine activities and to contain and prevent any potential pollutant(s) discharges from adversely impacting State waters per HRS Ch. 342D Water Pollution; HAR §11-54-1 through §11-54-8 Water Quality Standards; and HAR Ch. 11-55 Water Pollution Control, Appendix C.
7. The permittee shall protect and preserve the natural character of the stream bank and stream bed to the greatest extent possible. The permittee shall plant or cover lands denuded of vegetation as quickly as possible to prevent erosion and use native plant species common to riparian environments to improve the habitat quality of the stream environment.
8. In the event that subsurface cultural remains such as artifacts, burials or deposits of shells or charcoal are encountered during excavation work, the permittee shall stop work in the area of the find and contact the Department's Historic Preservation Division immediately. Work may commence only after written concurrence by the State Historic Preservation Division.

EXHIBIT 1

LEGAL AUTHORITIES

Water as a Public Trust. The four public trust purposes are:

1. Maintenance of waters in their natural state;
2. Domestic water use of the general public, particularly drinking water;
3. The exercise of Native Hawaiian and traditional and customary rights, including appurtenant rights. Waiahole I, 94 Hawaii 97; 9 P.3d 409 (2000).
4. Reservations of water for use on Hawaiian home lands. Waiola O Molokai, Inc., 103 Hawaii 401; 83 P.3d 664 (2004).

Activities on undeveloped lands. Public Access Shoreline Hawaii v. Hawaii County Planning Commission (PASH I). 79 Hawaii 246 (1993).

HRS §174C-71 Protection of instream uses. The commission shall establish and administer a statewide instream use protection program. In carrying out this part, the commission shall cooperate with the United States government or any of its agencies, other state agencies, and the county governments and any of their agencies. In the performance of its duties the commission shall:

(2) Establish interim instream flow standards;
  (D) In considering a petition to adopt an interim instream flow standard, the commission shall weigh the importance of the present or potential instream values with the importance of the present or potential uses of water for non-instream purposes, including the economic impact of restricting such uses;
(3) Protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses;
  (A) The commission shall require persons to obtain a permit from the commission prior to undertaking a stream channel alteration; provided that routine streambed and drainageway maintenance activities and maintenance of existing facilities are exempt from obtaining a permit;
  (C) The commission shall establish guidelines for processing and considering applications for stream channel alterations consistent with section 174C-93;

HAR §13-169-2 Definitions.

"Channel alteration" means to obstruct, diminish, destroy, modify, or relocate a stream channel; to change the direction of flow of water in a stream channel; to place any material or structures in a stream channel; or to remove any material or structures from a stream channel.

"Stream channel" means a natural or artificial watercourse with a definite bed and banks which periodically or continuously contains flowing water.

HAR §13-169-49.1 Interim instream flow standard for Windward Oahu. The Interim Instream Flow Standard for all streams on Windward Oahu, as adopted by the commission on water resource management on April 19, 1989, shall be that amount of water flowing in each stream on the effective date of this standard, and as that flow may naturally vary throughout the year and from year to year without further amounts of water being diverted offstream through new or expanded diversions, and under the stream conditions existing on the effective date of the standard. (Eff. May 4, 1992).

EXHIBIT 2

HAR §13-169-50 Permit required. (a) Stream channels shall be protected from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses. No stream channel shall be altered until an application for a permit to undertake the work has been filed and a permit is issued by the commission; provided that routine streambed and drainageway maintenance activities and maintenance of existing facilities are exempt from obtaining a permit.

HAR §13-169-52 Criteria for ruling on application. (a) The commission shall act upon an application within ninety calendar days after acceptance of the application.

(b) Based upon the findings of fact concerning an application for a stream channel alteration permit, the commission shall either approve in whole, approve in part, approve with modifications, or reject the application for a permit.

(c) In reviewing an application for a permit, the commission shall cooperate with persons having direct interest in the channel alteration and be guided by the following general considerations:

(1) Channel alterations that would adversely affect the quantity and quality of the stream water or the stream ecology should be minimized or not be allowed.
(2) Where instream flow standards or interim instream flow standards have been established pursuant to subchapters 3 and 4, no permit shall be granted for any channel alteration which diminishes the quantity or quality of stream water below the minimum established to support identified instream uses, as expressed in the standards.
(3) The proposed channel alteration should not interfere substantially and materially with existing instream or non-instream uses or with channel alterations previously permitted.

(c) Notwithstanding subparagraph (b) above, the commission may approve a permit pursuant to subparagraph (a) above in those situations where it is clear that the best interest of the public will be served, as determined by the commission.

HAR §13-169-53 Term of permit. (a) Every permit approved and issued by the commission shall be for a specified period, not to exceed two years, unless otherwise specified in the permit.