



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
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HONOLULU, HAWAII 96809

STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

July 20, 2016
Honolulu, Hawaii

Application for a Stream Channel Alteration Permit (SCAP.4393.3)
City and County of Honolulu, Department of Design and Construction
Kāneʻohe/Kailua Wastewater Conveyance and Treatment Facilities
Tunnel Influent Facility, Stormwater Treatment Swale
Kawa Stream, Kāneʻohe, Oʻahu, TMK: (1) 4-5-030:001 por.

APPLICANT:

Denise Wong, Project Manager
Dept. of Design and Construction
City and County of Honolulu
650 South King Street, 14th Floor
Honolulu, HI 96813

LANDOWNER:

Jerry Appleby, Lead Pastor
Windward Church of the Nazarene
45-232 Puaae Road
Kāneʻohe, HI 96744

SUMMARY OF REQUEST

The project proposes a stormwater treatment swale that includes excavation of the stream bank above the ordinary high water mark along with permanent erosion and scour protection placed at the confluence of the swale and Kawa Stream. A previous Stream Channel Alteration Permit (SCAP.3918.3) dated April 17, 2014 approved construction of a 10-foot wastewater gravity tunnel and a 30-inch diversion pipeline crossing under the Kawa Stream.

LOCATION: The Kawa Stream is located adjacent to the Kāneʻohe/Kailua Wastewater Conveyance and Treatment Facility. (**Exhibit 1**).

STREAM DESCRIPTION

Kawa Stream is 2-miles long, perennial, and flows through the urban district. The watershed is 0.6 square miles, with a maximum elevation of 725 feet. The stream originates on Mahinui Ridge, flows past residential neighborhoods, a school, shopping mall, along the southern boundary of the Kāneʻohe Facility and into Kāneʻohe Bay. At lower elevations, seeps and springs provide perennial flow to the stream channel. The stream is designated as a Class 2 inland water under the Hawaii water quality standards and discharges in Kāneʻohe Bay, which is

a Class AA embayment. Previously, the stream within the project area had been dredged and straightened; however, the bed and banks remain unhardened. The channel is about 10- to 15-foot wide and up to 6-feet deep. The stream has been listed as “waters not meeting Hawaii water quality standards” (Clean Water Act, Sec. 303 (d)) and as “impaired” for not meeting total suspended solids, turbidity, and nutrients.

Biological Survey of Kawa Stream. A field survey of the stream was conducted by AECOS biologists in September and October 2013. The survey extended the entire length from its headwaters on Mahinui Ridge to Waikalua Loko Fishpond adjacent to Kāne‘ohe Bay.

Flora. Mangroves dominate the flora excluding nearly all other vegetation. Streamflow is sluggish and visibility poor. Upstream, the riparian flora shifts to Guinea grass, hau, Java plum, and Chinese banyan. The middle reach of the stream flows through a residential neighborhood that includes Windward City Shopping Center and Castle High School. The stream is channelized in some locations. Long shallow pools are separated by riffles (shallow rapids in an open stream) or artificial drops (structures to reduce or control water velocity). Further upstream is a steep-sided gulch forested with cinnamon trees. Seeps and springs add water to this gaining section of the stream. The upper reach of the stream is highly altered, graded and grubbed.

Fauna. Non-native fish such as tilapia dominate the fauna throughout the stream. Native fishes typically found in estuaries, including āholehole, ‘ama‘ama, ‘o‘opu naniha, and ‘o‘opu ‘akupa have been reported in the Kawa estuary, but only a few āholehole were observed.

BACKGROUND

The subject project is being done in compliance with a 2010 Consent Decree modification in consultation with the Environmental Protection Agency and the Department of Health (DOH). An environmental impact statement was completed in 2011.

PROJECT DESCRIPTION

To protect downstream aquatic resources, stormwater treatment needs to be installed at the Kāne‘ohe Facility in order to comply with the Clean Water Act and the National Pollutant Discharge Elimination System (NPDES) permit.

A vegetated stormwater treatment swale will be installed (**Exhibit 2**) to remove pollutants from stormwater before discharging to Kawa Stream. Construction of the swale is expected to take approximately two (2) weeks. It will require excavation of the stream bank above the ordinary high water mark, along with permanent erosion and scour protection placed at the confluence of the swale and Kawa Stream.

Erosion and sedimentation control best management practices (BMPs) include a temporary silt fence and turbidity curtain. Construction equipment will not enter the stream at any time during construction. BMPs will be installed prior to the start of construction and will remain in place until permanent upland erosion and sedimentation control measures have been installed and are operational.

The swale will be excavated using commonly available excavation equipment, such as a tracked excavator or back-hoe that will operate in upland areas adjacent to the stream. Excavation will vary in depth from the top of the bank to a maximum of 2 feet below the top of the bank, 16 feet inland and will extend approximately 30 feet along the edge of the bank for a maximum excavation of 36 cubic yards for the riprap itself.

To excavate the bank, an excavator will scoop soil from the edge of the bank back toward upland areas. Proper equipment operation techniques will be relied upon to ensure that loose excavated material does not enter Kawa Stream. The excavated material will be removed and hauled to an approved disposal site.

A non-grouted riprap will be placed at the swale connection to Kawa Stream to prevent erosion and scour during higher streamflow events.

AGENCY REVIEW COMMENTS:

City and County of Honolulu, Dept. of Planning and Permitting: No response.

Dept. of Hawaiian Home Lands: No response.

Dept. of Land and Natural Resources (DLNR), Aquatic Resources: The proposed project is not expected to have adverse impacts on the aquatic environment as BMPs during construction, erosion control, and water quality monitoring plans will be initiated under the NPDES General Permit. The excavation of the stream bank for the swale is above the ordinary high water mark, and BMPs have been detailed to prevent pollution of the stream/estuarine environment. The excavation and construction of the swale should be scheduled during periods of minimal rainfall. The stream/estuarine environment adjacent to the proposed project site provides habitat for the following native stream fish species: ‘o‘opu akupa (*Eleotris sandwicensis*), ‘o‘opu naniha (*Stenogobius hawaiiensis*), and ‘o‘opu nakea (*Awaous hawaiiensis*), the native crustacean species ‘Ōpae ‘oeha‘a (*Macrobrachium grandimanus*) and the native mollusk hapawai (*Neritina vespertina*). The following native estuarine fish species observed were: aholehole (*Kuhlia xenura*), ‘ama‘ama (*Mugil cephalus*), and kākū (*Sphyraena barracuda*) (ref. Atlas of Hawaiian Watersheds & Their Aquatic Resources, April 2008).

DLNR, Engineering: The project site, according to the Flood Insurance Rate Map, is located in Zone X. Under the National Flood Insurance Program (NFIP) Zone X is a designation where there is no perceived flood impact. Therefore, the NFIP does not regulate development within Zone X.

DLNR, Forestry and Wildlife: No response.

DLNR, Historic Preservation: No response.

DLNR, Land Division: No objections.

DLNR, State Parks: No objections.

Dept. of Health (DOH), Clean Water Branch:

1. Any project and its potential impacts to State waters must meet the following criteria:
 - a. Antidegradation policy (HAR, §11-54-1.1) requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected;
 - b. Designated uses (HAR, §11-54-3) as determined by the classification of the receiving State waters; and
 - c. Water quality criteria (HAR, §11-54-4 through §11-54-8).
2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form (“CWB Individual NPDES Form” or “CWB NOI Form”) through the e-Permitting Portal and the hard copy certification statement with the respective filing fee (\$1,000 for an individual NPDES permit or \$500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: <https://eha-cloud.doh.hawaii.gov/epermit/>. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

3. If the project involves work in, over, or under waters of the United States, it is recommended that the applicant contact the Army Corp of Engineers, Regulatory Branch regarding their permitting requirements.

Pursuant to Federal Water Pollution Control Act [commonly known as the “Clean Water Act” (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for “[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters...” The term “discharge” is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and HAR, Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State’s Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Ch. 11-54, and/or permitting requirements, specified in HAR, Ch. 11-55, may be subject to penalties of \$25,000 per day per violation.

5. It is the State’s position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:
 - a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.
 - b. Clearly articulate the State’s position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.
 - c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.
 - d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.
 - e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

Staff: 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.

Office of Hawaiian Affairs: No objections, however, OHA would like the presence of an archaeological monitor during all subsurface ground disturbing activities.

US Army Corps of Engineers: Assuming your project is conducted only as set forth in the information provided, this office has determined the proposed activity would not result in the discharge of dredged or fill material into waters of the U.S. as defined by Section 404. Therefore, a Department of the Army permit will not be required.

US Fish and Wildlife Service: No objections.

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

DOH, Office of Environmental Quality Control: The proposed action triggered an environmental impact statement due to the use of County funds (HRS §343-5(a)). On May 23, 2011, a Final Environmental Impact Statement and Finding of No Significant Impact for the project was published in the Environmental Notice (See http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Oahu/2010s/2011-05-23-FEIS-Kaneohe-Kailua-Wastewater-Conveyance-and-Treatmt-Facility-Vol-1-of-2.pdf).

LEGAL AUTHORITIES

Water as a Public Trust. Under the public trust and HRS §174C, there is an inherent presumption in favor of the four public trust purposes, yet allowing for use and development in a reasonable and beneficial manner. The state water resources trust thus embodies a dual mandate of protection and maximum reasonable and beneficial use. 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; and
4. Reservations of water for use on Hawaiian home lands. *Water Use Permit Applications*, 94 Hawaii 97, 9 P.3d 409 (2000); and *Waiola O Molokai, Inc.*, 103 Hawaii 401, 83 P.3d (2004).

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:

- (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;

HAR §13-169-49.1 Interim instream flow standard for Windward O‘ahu. The Interim Instream Flow Standard for all streams on Windward O‘ahu, 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).

HAR §13-169-52 Criteria for ruling on application.

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.

STAFF REVIEW

HAR §13-169-52(c) set out the general criteria for ruling on SCAP applications.

- (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.

Staff: Commission staff believes that any adverse effects to the quantity and quality of the stream water or the stream ecology from the project are small, temporary, and would be mitigated through permitting and BMPs. The quantity or quality of stream water and stream ecology remains unchanged.

- (2) Where instream flow standards or interim instream flow standards have been established, 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.

Staff: The interim instream flow standard for all streams on Windward O‘ahu is that amount of water flowing in each stream on the effective date of the standard (April 19, 1989), and as that flow may naturally vary throughout the year (HAR §13-169-49.1). The identified instream uses include fish habitat and stream flow contribution to the nearshore waters of Kāne‘ohe Bay and fishpond. The proposed project will not

alter the quantity of stream water and will serve to enhance the quality of stream water.

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

Staff: There are no wells, stream diversions, or other public trust purposes in the vicinity of the proposed project. Stream channel alterations nearby consist of drainage outfalls from the golf course. The proposed action does not appear to interfere with existing instream or non-instream uses or with channel alterations previously permitted.

RECOMMENDATION

Staff recommends that the Commission:

1. Approve a Stream Channel Alteration Permit (SCAP.4393.3) Application for the City and County of Honolulu, Department of Design and Construction’s Kāne‘ohe/Kailua Wastewater Conveyance and Treatment Facilities Tunnel Influent Facility, Stormwater Treatment Swale project, for the construction of a stormwater treatment swale that includes excavation of the stream bank above the ordinary high water mark along with permanent erosion and scour protection placed at the confluence of the swale at the Kawa Stream in Kāne‘ohe, O‘ahu, TMK (1) 4-5-030:001 por., subject to the standard conditions in Exhibit 3.

Respectfully submitted,



JEFFREY T. PEARSON, P.E.
Deputy Director

Exhibits:

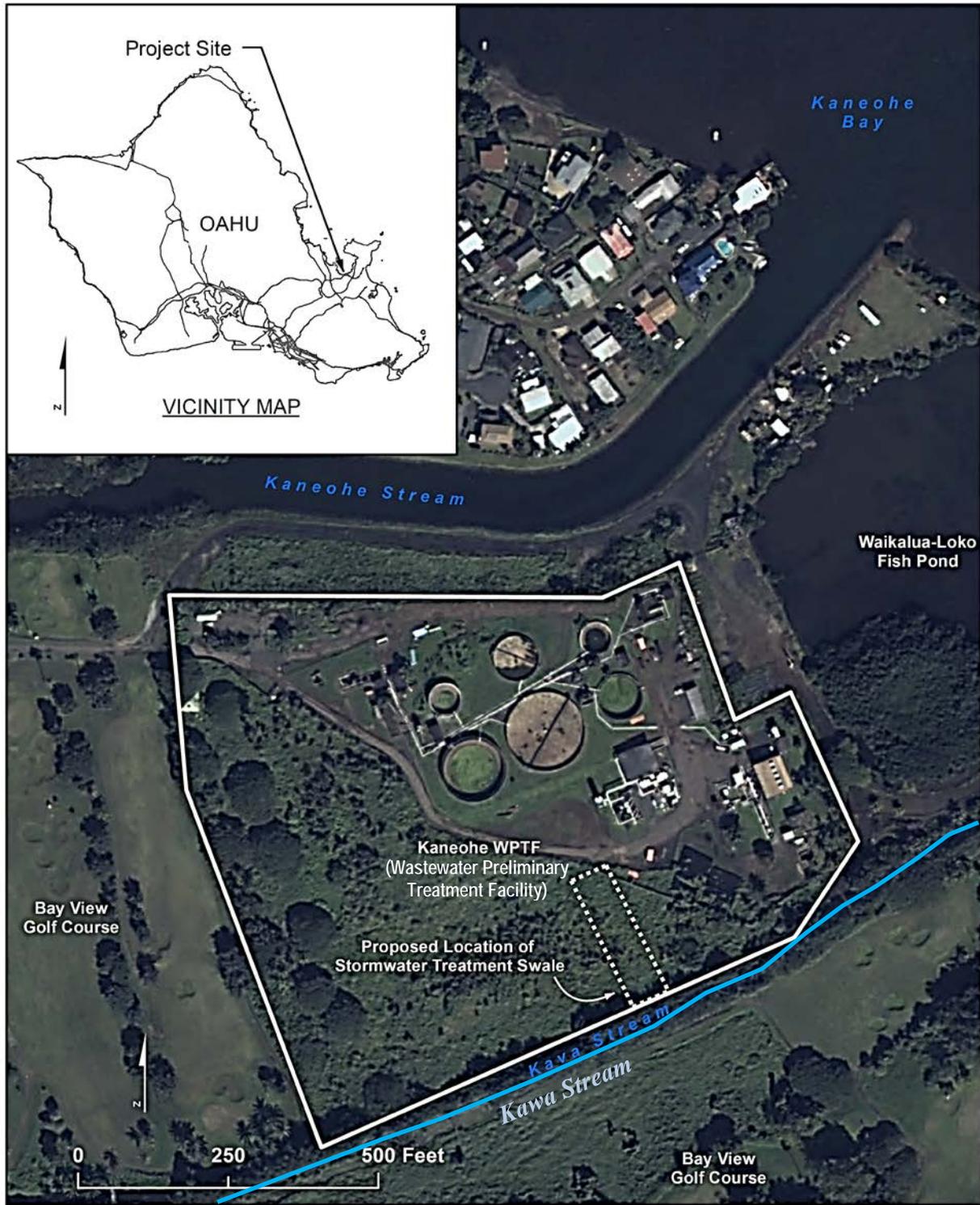
1. Location Map. Kawa Stream, Kāne‘ohe, O‘ahu (TMK:1-4-5-030:001 por.).
2. Stormwater Quality Swale Connection at Kawa Stream.
3. Standard Stream Channel Alteration Permit and Stream Diversion Works Permit Conditions.

APPROVED FOR SUBMITTAL:

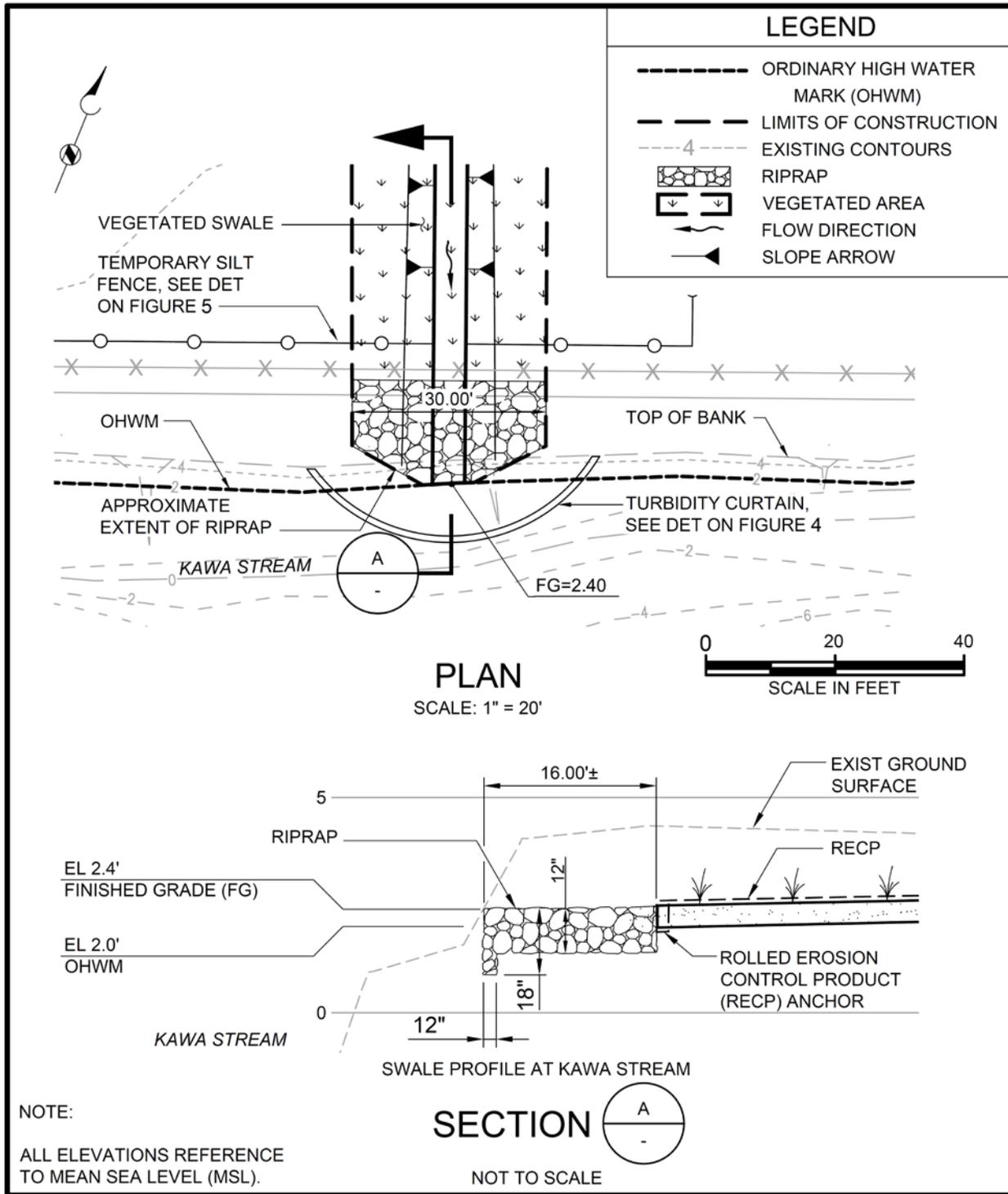


SUZANNE D. CASE
Chairperson

Location Map. Kawa Stream, Kāne‘ohe, O‘ahu (TMK:1-4-5-030:001 por.).



Stormwater Quality Swale Connection at Kawa Stream.



STANDARD STREAM CHANNEL ALTERATION PERMIT AND
STREAM DIVERSION WORKS PERMIT CONDITIONS

(Revised January 28, 2016)

1. The permit application and staff submittal approved by the Commission at its meeting on July 20, 2016, 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.
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.