



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

January 28, 2016
Honolulu, Hawaii

Application for a Stream Channel Alteration Permit (SCAP.4261.3)
City and County of Honolulu, Department of Design and Construction
Flood Control Improvements, Kalauao Stream, Aiea, O'ahu, TMK: (1) 9-8-025:052 and 060

APPLICANT:

City and County of Honolulu
Department of Design and Construction
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

LANDOWNER:

Same

SUMMARY OF REQUEST:

The City and County of Honolulu, Department of Design and Construction (DDC), proposes to install riprap to prevent erosion and improve storm water drainage along the Kalauao Stream.

LOCATION: Kalauao Stream between Kamehameha Highway and Kihale Street (**Exhibit 1**).

STREAM DESCRIPTION:

The Kalauao Stream is approximately 9-miles long, perennial, and drains into Pearl Harbor (**Exhibit 2**). The contributing watershed is 3.4 sq. mi. Gage data (USGS 16224500) from 1958-1982 shows the average annual flow is about three cubic feet per second (cfs). According to information provided by the consultant, aquatic fauna is limited to non-native tilapia, molly, mosquito fish and American crayfish (but see Aquatic Resources' comment below). None of the species are considered rare or endangered. The Kalauao Stream is considered Class 2 waters. The objective of Class 2 is to protect the stream for recreation, support and propagate aquatic life, agricultural and industrial water supplies, shipping, and navigation.

BACKGROUND:

On October 1, 2015, a complete stream channel alteration permit application was received.

Approved by Commission on
Water Resource Management
at the meeting held on

1.28.16

On November 10, 2015, a letter acknowledging receipt of the subject application was sent to the Applicant, initiating the Commission's process for agency review.

PROJECT DESCRIPTION

The proposed project is located within a residential neighborhood that transitions immediately into a commercial district (**Exhibit 3**). Presently, most of the stream bank areas are unlined natural banks and only small areas have sloped concrete rubble masonry (CRM) walls in need of maintenance. Both sides of the stream channel are in single-family residential use. On the downstream side, the stream enters an unlined natural channel under Kamehameha Highway. The majority of improvements occur on or outside of the stream banks and will consist of the following:

- Excavation of approximately 13,700 cubic feet of material prior to new construction with 9,260 cubic feet below the average level of the stream.
- Installation of approximately 1,460 sand bags to serve as a barrier wall / coffer dam, silt fences, rock filters, and other Best Management Practices (BMP)'s.
- Installation of approximately 3,400 cubic feet of concrete and 3,000 cubic feet of CRM.
- New construction will also require the removal of vegetation and mortar repair of the existing sections of CRM slope wall.
- Exposed soils will be grassed and fabric filters will be left in place until surface soil conditions are deemed stable.

Sandbags will divert about 10-15% of the flow and is not expected to affect aquatic wildlife. Upon completion, the site will be restored and maintained until it is back to its original condition. At that time, the temporary BMP measures will be removed. The proposed improvements will not result in any net increase in loadings of pollutants as the area served by the improvements will not be expanded. Disturbances within Kalauao Stream will be minimal and will be limited to the duration of construction.

AGENCY REVIEW COMMENTS:

City and County of Honolulu, Dept. of Planning and Permitting: No objections. The applicant submitted a No-Rise Certification form stating that the project will not increase the base flood elevations.

Department of Hawaiian Home Land (DHHL): No objections.

Department of Land and Natural Resources (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 concrete cutoff walls, concrete cutoff beams, and CRM. The excavation and construction of these bank stabilization structures should not impede the stream flow within the stream channel and will accommodate the upstream migration of postlarval stream fauna, allow the passage of larval drift to the ocean should recruitment or spawning occur, and allow the movement of native estuarine species in this area.

Division staff aquatic biologists visited the proposed project site and performed a stream survey (12/9/15). The following native stream fish species were observed: 'o'opu akupa (*Eleotris sandwicensis*), 'o'opu naniha (*Stenogobius hawaiiensis*), and 'o'opu nakea (*Awaous guamensis*). The following native estuarine species were also observed: aholehole (*Kuhlia xenura*) and 'ama'ama (*Mugil cephalus*).

Mitigative measures should be implemented during the excavation and construction of the concrete cutoff walls, concrete cutoff beams, and CRM to minimize the potential for erosion, siltation and pollution of the aquatic environment.

- 1) lands denuded of vegetation should be planted or covered as quickly as possible to prevent erosion and the vegetation cleared along stream banks should be removed and prevented from falling into the stream/estuary environment;
- 2) scheduling site work (particularly the excavation and construction of the concrete structures and CRM) during periods of minimal rainfall;
- 3) prevent construction materials, petroleum products, debris and landscaping products from falling, blowing or leaching into the aquatic environment during the excavation/construction of the erosion control structures.

Staff: The contractor will be required to follow the project specific Storm Water Pollution Prevention Plan, as well as, the City and County of Honolulu Storm Water Best Management Practice Manual - Construction. General BMPs for construction include, but are not limited to:

- *Silt fence; fiber roll; aggregate filter bag/gravel bag berm; drain inlet protection; catch basin protection; temporary and permanent seeding and planting for bare spots and washouts; and inspections for healthy growth.*
- *Good housekeeping practices to prevent construction materials, petroleum products, debris and landscaping products from falling, blowing, or leaching into the aquatic environment.*

DLNR, Engineering: No comments.

DLNR, Forestry and Wildlife: No comments.

DLNR, Historic Preservation: No comments.

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...” (emphasis in original). 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, who administer 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, water quality criteria applicable to inland and nearshore waters and is 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 comments.

US Army Corps of Engineers: No comments.

US Fish and Wildlife Service: No comments.

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

In accordance with the requirements of Chapter 343, HRS, and Chapter 11-200-8, HAR, an Environmental Assessment (EA) was triggered due to the use of State and County lands and

funds (HRS §343-5(a)). However, the DDC determined that the project is exempt from the preparation of an EA pursuant to its exemption list.

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;
 - (B) Projects which have commenced construction or projects reviewed and approved by the appropriate federal, state, or county agency prior to July 1, 1987, shall not be affected by this part;
 - (C) The commission shall establish guidelines for processing and considering applications for stream channel alterations consistent with section 174C-93;

HRS §174C-93 Permits for construction or alteration. No person shall construct or alter a stream diversion works, other than in the course of normal maintenance, without first obtaining a permit from the commission.

HAR §13-169-49 Interim instream flow standard for Leeward Oahu. The Interim Instream Flow Standard for all streams on Leeward Oahu, as adopted by the commission on water resource management on October 19, 1988, 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. Oct. 8, 1988).

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: Initial BMP work will include the installation of silt fencing, rock filters, and sand bag barriers. The quantity and quality of the stream water or stream ecology is unchanged.

- (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.

Staff: The interim instream flow standard (IIFS) for Leeward O‘ahu is that amount of water flowing in each stream on the effective date of this standard (December 10, 1988), and as that flow may naturally vary throughout the year (HAR §13-169-49). The identified instream uses may include fish habitat and stream flow contribution to the nearshore waters. The quantity and quality of stream water is unchanged.

- (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: Instream uses, such as ecosystem maintenance or recreation, are unchanged. There are no non-instream uses identified.

RECOMMENDATION:

That the Commission:

1. Approve the subject Stream Channel Alteration Permit (SCAP.4261.3) application for the installation of riprap to prevent erosion and improve storm water drainage subject to the standard conditions in Exhibit 4.

Respectfully submitted,



JEFFREY T. PEARSON, P.E.
Deputy Director

Exhibits:

1. Location, Kalauao Stream.
2. Location, Kalauao Stream.
3. Upstream of Kamehameha Highway Bridge, 'Ewa and Diamond Head Side.
4. Standard Stream Channel Alteration Permit Conditions.

APPROVED FOR SUBMITTAL:



SUZANNE D. CASE
Chairperson

Location, Kalauao Stream.



Location, Kalauao Stream.



Upstream of Kamehameha Highway Bridge, 'Ewa Side of Stream.



Upstream of Kamehameha Highway Bridge, Diamond Head Side of 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 {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.
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 applicant 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 applicant shall submit a set of as-built plans and photos in electronic 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 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 electronic 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 (BMPs) in consultation with the Department of Health's 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 construction 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. BMPs shall control erosion and dust during construction and schedule construction activities during periods of low stream flow.
7. The permittee shall protect and preserve the natural character of the stream bank and stream bed to the greatest extent possible. The applicant 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 applicant 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.