



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, 2016
Honolulu, Hawaii

Application for a Stream Channel Alteration Permit (SCAP.4469.3)
Hālonā Street Bridge Replacement, State Department of Transportation
Kapālama Stream, Honolulu, O'ahu, TMK: (1) 1-6-006

APPLICANT:

J. Michael Will, P.E.
U.S. Department of Transportation
FHWA-CFL
12300 W. Dakota Ave., Suite 380
Lakewood, CO 80228

LANDOWNER:

State Department of Transportation
Ford N. Fuchigami, Director
869 Punchbowl Street
Honolulu, HI 96813

City and County of Honolulu
Department of Facility Maintenance
Ross S. Sasamura, P.E., Director
1000 Uluohia Street
Kapolei, HI 96707

SUMMARY OF REQUEST:

The project proposes that the existing Hālonā Street Bridge be demolished and replaced with a new three-span precast bridge. The four existing piers would be removed and replaced with two piers that would align with the two existing and adjacent H-1 Bridge piers.

LOCATION: Kapālama Stream (**Exhibit 1**) also known as Kapālama Canal.

STREAM DESCRIPTION:

Kapālama is a perennial stream five (5) miles long with a watershed of three (3) square miles. At the project location, the stream is channelized with vertical concrete rubble masonry walls and is concrete-lined in the upstream reach, with a natural bottom beneath Halona Street Bridge and downstream of the bridge. A biological assessment for the project reach found that,

although the water was turbid, striped mullet, barracuda juveniles, poeciliids, and tilapia were observed. The stream is tidally influenced and can be up to one (1) foot above sea level during high tide.

Water Quality. The classification of water use near the project site is mapped as Inland Class 2. Use categories classify waters for the purpose of applying the water quality standards, as well as the selection or definition of quality parameters and uses to be protected. Class 2 waters are to be protected for uses compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. In addition, Class 2 waters are to be protected for agricultural and industrial water supply, shipping, and navigation use.

The 2014 *State of Hawaii Water Quality Monitoring and Assessment Report* lists Kapālama Stream as impaired as a result of nitrogen, phosphorus, turbidity, and trash. For all impaired waters, the Department of Health (DOH) is required to develop the Total Maximum Daily Load (TMDL), which is the maximum amount of a pollutant (from point and nonpoint sources) that a waterbody can receive and still meet water quality standards, and to establish an allocation of that amount to the pollutant's sources. Because there is a large demand for TMDL calculations, the DOH has assigned a priority of low, medium, or high to each of the impaired waters listed based on the severity of pollution and how the water is used. Kapālama Stream has been assigned a low priority.

BACKGROUND:

In 1938, the Hālonā Street Bridge was built.

In 2014, the American Association of State Highway Transportation Officials and the State Department of Transportation (DOT) determined that the bridge does not meet structural and design standards for load capacity, bridge railing and transitions, and bridge approaches.

On September 8, 2016, A Final Environmental Assessment and Finding of No Significant Impact was issued by the DOT and published in the Environmental Notice by the Office of Environmental Quality Control.

On August 12, 2016, the applicant filed a complete stream channel alteration permit application.

PROJECT DESCRIPTION:

The existing Hālonā Street Bridge would be demolished and replaced with a new three-span precast bridge 131 feet long, 39 feet wide, 2.5 feet deep (**Exhibit 2**). The four existing piers would be removed and replaced with two piers that would align with the two existing and adjacent H-1 Bridge piers. This pier placement would result in less turbulence and greater hydraulic efficiency. The proposed new bridge abutments would be set back from and behind the existing abutments to minimize impacts to the canal. The proposed bridge is designed for a life span of 75 years. Construction would last 13 months.

The project would involve demolition, excavation, grading, and construction in the stream. Construction would result in 0.16 acres of permanent impacts and 0.22 acres of temporary impacts to Waters of the U.S. Stormwater runoff is expected to remain the same.

Waterborne erosion would be mitigated by implementing Best Management Practices (BMPs) in place during construction. BMPs to protect water quality include the following:

- Manage onsite drainage to minimize sedimentation or other pollution discharge to streams, including placing BMPs fronting drainage outlets
- Stabilize all disturbed areas with erosion control measures
- Revegetate disturbed areas as soon as possible after construction
- Stabilize construction entrances to avoid offsite tracking of sediment
- Ensure all project-related materials and equipment placed in the water are free of pollutants

All, or portions, of the bridge construction area would be dewatered before in-stream work begins using a cofferdam or other method, as appropriate for the location. The dewatering structure would be constructed where needed for dewatering below the High Tide Line and would be sized as needed to dewater the bridge construction area, but still allow for existing flow capacity. The size and location of the dewatering structure would account for tidal fluctuations anticipated during the construction window. The dewatering structure would be removed after it is no longer needed and in a manner that avoids re-release of sediments into the stream.

AGENCY REVIEW COMMENTS:

City and County of Honolulu, Department of Planning and Permitting: No comments.

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

Department of Land and Natural Resources (DLNR), Aquatic Resources: No comments.

DLNR, Engineering: No objections.

DLNR, Forestry and Wildlife: No comments.

DLNR, Historic Preservation: No comments.

DLNR, Land Division: No objections.

DLNR, State Parks: No objections.

Department of Health (DOH), Clean Water Branch: No comments.

Office of Hawaiian Affairs: No comments.

US Army Corps of Engineers: No comments.

US Fish and Wildlife Service: Through the section 7 consultation process of the Endangered Species Act between the FWS and the DOT, the DOT prepared the *Biological Assessment for the Proposed Halona Bridge Project in Kalihi, O’ahu Island, Hawai’i*. This assessment provided conservation measures that will be implemented as part of the proposed action to avoid and minimize effects to listed species. There are no listed aquatic species and no federally designated critical habitat within the immediate vicinity of the proposed project. The FWS also commented on migratory birds, benthic communities and coral in Honolulu Harbor, the movement of sediment, and loss of benthic habitat in a concrete lined channel.

Staff: *The existing channel bottom is at an elevation of 0-feet above mean sea level. Because the stream is tidally influenced, the stream could rise to 1-foot above sea level during high tide. While coral and benthic communities are not in the project area and have a low risk of being affected, staff believes that any adverse effects to the quantity and quality of the stream water and nearshore ecology are small, temporary, and would be mitigated through other agency permitting and BMPs.*

Further, the issue of compensatory mitigation falls under the jurisdiction of the Army Corps of Engineers, who issued a Sec. 404 nationwide permit, and they do not require compensatory mitigation for this project. Potential impacts on marine habitat in Honolulu Harbor fall under the jurisdiction of the National Marine Fisheries Service. The applicant completed an Essential Fish Habitat consultation which resulted in concurrence. The applicant was also issued a Department of Health Sec. 401 Water Quality Certification and Sec. 402 (National Pollutant Discharge Elimination System or NPDES) permit for this project after the SCAP application was submitted to our office.

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

DOH, Office of Environmental Quality Control: An environmental assessment was triggered due to State and County lands and funds used for the project (HRS §343-5(a)). A Final Environmental Assessment (FEA) and Finding of No Significant Impact were issued by the State Department of Transportation. The FEA was published in the Environmental Notice on September 8, 2016.

The FEA is available online at:

http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Oahu/2010s/2016-09-08-OA-5B-FEA-Halona-Street-Bridge-Replacement.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-66 Jurisdiction over water quality. The Department of Health shall exercise the powers and duties vested in it for the administration of the State's water quality control program as provided by law.

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;
 - (C) The commission shall establish guidelines for processing and considering applications for stream channel alterations consistent with section 174C-93;

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.

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.

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) sets 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: The Department of Health is the lead agency regarding water quality (HRS §174C-66). Commission staff believes that any adverse effects to the quantity and quality of the stream water or the stream ecology are small, temporary, and would be mitigated through other agency permitting and BMPs.

- (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 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 includes 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 identified non-instream uses.

RECOMMENDATION:

That the Commission:

1. Approve the Stream Channel Alteration Permit (SCAP.4469.3) application to demolish the Hālonā Street Bridge and replace it with a new three-span precast bridge subject to the standard conditions in **Exhibit 3**.

Respectfully submitted,



JEFFREY T. PEARSON, P.E.
Deputy Director

Exhibits:

1. Location: Kapālama Stream
2. Visual Simulation of the Proposed Hālonā Street Bridge, looking southwest (makai)
3. Standard Stream Channel Alteration Permit and Stream Diversion Works Permit Conditions

APPROVED FOR SUBMITTAL:



SUZANNE D. CASE
Chairperson

Location: Kapālama Stream.

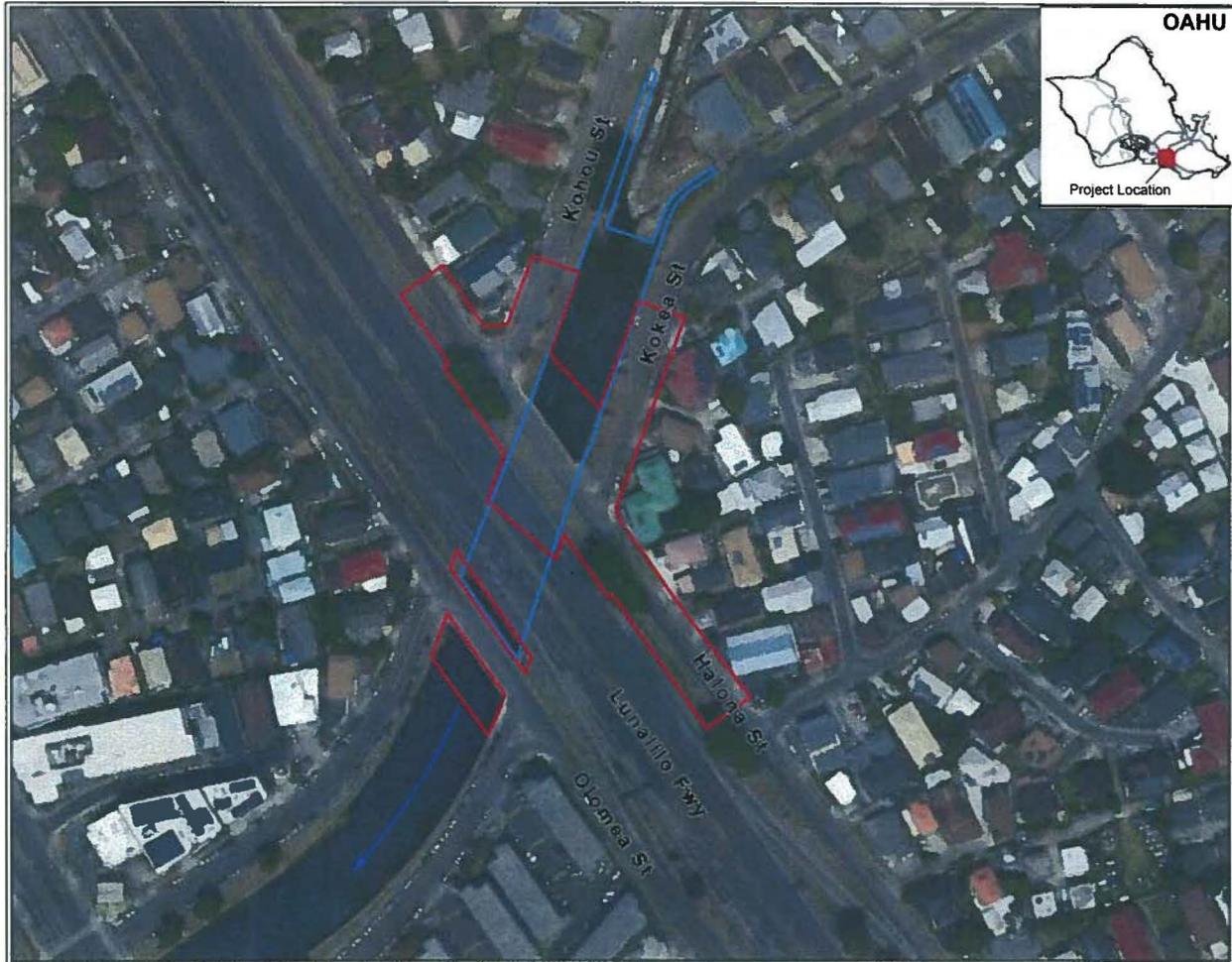
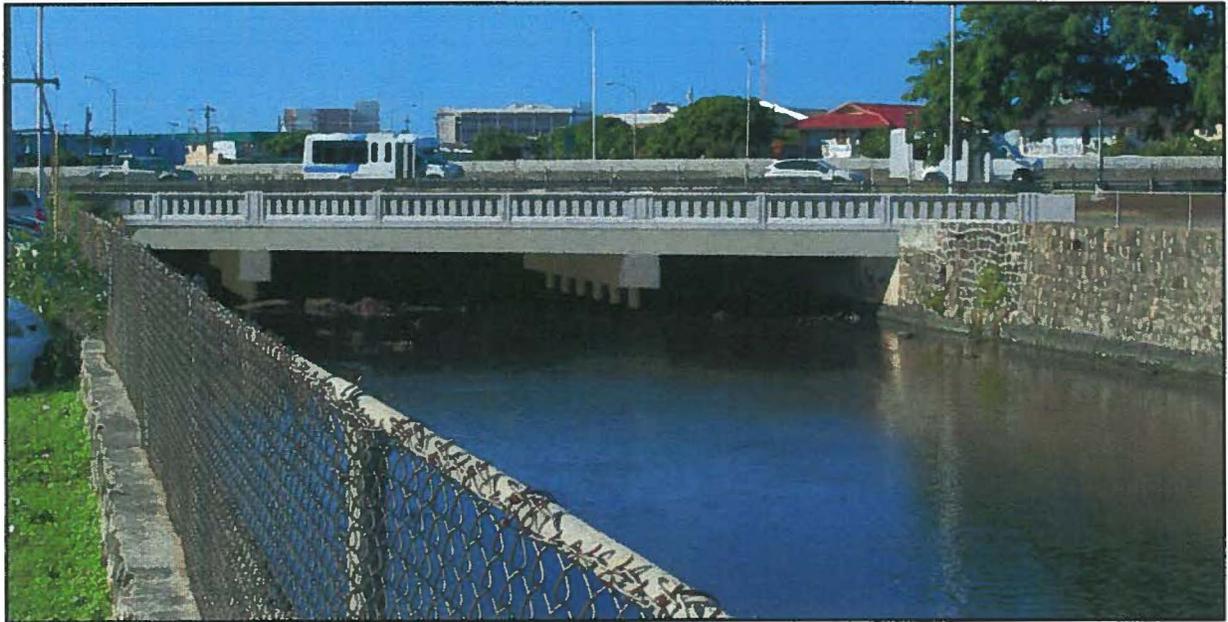


EXHIBIT 1

Visual Simulation of the Proposed Hālonā Street Bridge, looking southwest (makai).



Before.



After.

EXHIBIT 2

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 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.
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 3