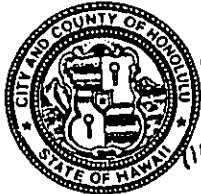


Mailiili Jetty Repair

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4341 • FAX: (808) 527-5857

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'96 NOV 18 P12:37

KENNETH E. SPRAGUE
DIRECTOR AND CHIEF ENGINEER

IN REPLY REFER TO:
96-11-0311

JEREMY HARRIS
MAYOR

November 15, 1996

Mr. Gary Gill, Director
Office of Environmental Quality Control
State of Hawaii
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

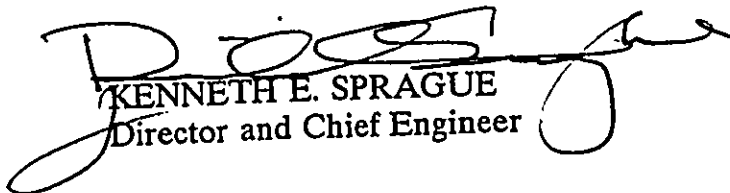
Dear Mr. Gill:

Subject: Final Environmental Assessment (EA) for Mailiili Jetty Repairs, Waianae, Oahu, Hawaii, Tax Map Key: 8-7-16: 007

The Department of Public Works of the City and County of Honolulu has reviewed the draft environmental assessment (EA) for the subject project and anticipates a negative declaration determination. We have responded to comments received during preconsultation with various agencies and interest groups. Please publish the notice of availability for this project in the December 8, 1996, OEQC Bulletin.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the draft EA. Please contact Jolie Yee at 523-4041 if you have any questions.

Very truly yours,


KENNETH E. SPRAGUE
Director and Chief Engineer

Encl.

144

DEC 8 1996

1996-12-08-0A-FEA-Maililiu Jetty Repair FILE COPY

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

ENVIRONMENTAL ASSESSMENT

FOR

MAILILIU JETTY REPAIR


WAIANA, OAHU, HAWAII

TAX MAP KEY: 8-7-16:007

This document is prepared pursuant to Chapter 343, HRS.

PROPOSING AGENCY: DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

RESPONSIBLE OFFICIAL:


KENNETH E. SPRAGUE
Director and Chief Engineer

11/12/96
Date

PREPARED BY
DIVISION OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS

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I. **Description of Proposed Action and Statement of Objective**

The proposed project involves the repair of a damaged section of Mailiilii Channel (M-1) jetty.

II. **Description of the Affected Environment**

The Mailiilii Channel (M-1) is located in Waianae, Oahu, Hawaii. The jetty is on the makai side of Farrington Highway (see Appendices A and B for Location and Site maps).

The jetty was constructed on coral and protrudes 600 feet into the ocean. It is trapezoidal in cross-section with 1.5:1 side slopes. The top of the jetty is 15 feet wide. In the damaged section, the top of the jetty is at Elevation 8.00; the bottom is at Elevation -5.0.

The outlet for Mailiilii Channel lies on the west side of the jetty. The Mailiilii Channel (M-1) outlet is approximately 600 feet long and 120 feet wide. It lies between the jetty and the 15-foot high rocky cliffs. The invert has been excavated to the coral layer. The ocean elevation at the seaward end of the outlet is -6.0 M.S.L.

Maili Beach park is on the east side of the jetty. According to a study done by Sea Engineering in 1988 entitled "Oahu Shoreline Study, Part I - Data on Beach Changes," the Mailiilii Beach is a self-contained littoral cell. Sand normally leaves the area during the winter months and returns during the summer.

The jetty was designed by the Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service, to prevent the accumulation of littoral drift within the outlet of Mailiilii Channel and thus prevent flooding upstream. The jetty was constructed in 1965.

In 1988, repairs were made to the jetty under a joint project involving the NRCS and the City and County of Honolulu. Under this project, approximately 500 lineal feet of the jetty was repaired by resetting missing rocks and using Fabricast bags to stabilize the toe.

Wildlife in the area consists of the usual common birds found on Oahu. No rare or endangered species are known to frequent the project area.

Common algal covers in the area include *Asparagopsis taxi formis* (Limu Kohou), *Laurencia*, *Halimeda discoidea* and *Ulva reticulata*.

Fish fauna include *Pervagor spilosoma* (file fish), *Chaetodon miliaris* (butterfly fish), *Chromis verator* (damsel fish), *Myripristic* (squirrel fish), *A. triostegus* (manini), *Thalassoma duperreyi* (hinalea) and saltwater tilapia.

There are no known archeological or historical sites in the immediate area. The nearest historical site is the Waianae Plantation Managers' Homes, Site No. 80:07:9993, which is located approximately two miles north of the jetty.

III. *Agencies Contacted in Making This Assessment*

Copies of the environmental assessment were sent to the following agencies for review:

- A. City and County of Honolulu
 - 1. Planning Department
 - 2. Department of Land Utilization

- B. State of Hawaii
 - 1. Department of Land and Natural Resources (DLNR)
 - 2. Department of Health (DOH)
 - 3. Office of State Planning (OSP)

- C. U.S. Government
 - 1. Department of Interior, Fish and Wildlife Service
 - 2. Department of Army, Corps of Engineers (COE)
 - 3. USDA Natural Resources Conservation Service

- D. Other
 - Waianae Coast Neighborhood Board No. 24

The Office of State Planning responded by telephone on September 11, 1996. They had no comments regarding the environmental assessment. The rest of the comments and responses (as appropriate) are included in Appendix E of this assessment.

No comments were received from DLNR, USDA and the Waianae Coast Neighborhood Board No. 24.

IV. *General Description of the Project's Technical, Economic, Social, and Environmental Characteristics*

Technical Characteristics

The objective of the project is to repair a 20-foot long hole in the jetty near the tip. The hole extends approximately 15 feet in from the toe. The hole was probably caused by the surging and pumping action of waves that occurs in this region during high surf conditions. The smaller stones within the jetty are washed out during high surf conditions, causing the larger armor stones to lose support and become dislodged.

Two methods of construction were proposed in the original environmental assessment.

The proposals differed in the way they addressed stabilization of the toe. In the first option, three layers of Fabriform concrete bags would be placed immediately in front of the toe. This assumes that the large concrete bags will take the brunt of the wave action and protect the toe. This option was successfully used to make repairs on the opposite face of the jetty. In the second option, the coral layer is notched to a depth of half the size of the bottom rock (approximately 2 feet deep and 4 feet wide). The Army Corps of Engineers uses this method to prevent the rocks at the toe from dislodging during high surf conditions.

Both proposals specified the placement of heavier rocks for the armor and transition layers. The increase in absolute weight and the relative weight of the layers will address two of the problems encountered with the original design. The weight of the rocks in the armor layer will be increased from 1-2 tons to 2-4 tons due to documented problems with movement of the armor rock. The relative weights of the rock layers have been changed to mitigate the escape of rocks from the transition layer through the armor layer during high surf conditions. The rocks in the original transition layer were, on the average, 6 percent of the weight of the rocks in the armor layer; the rocks in the new transition layer will be 10 percent of the weight of the rocks in the armor layer.

After receiving comments from several agencies, we have decided to use the fabriform bags to stabilize the toe of the jetty.

No adverse hydraulic effects are expected to result from the repair work. The addition of fabriform concrete bags will not significantly change the channel cross section. Such bags have already been placed just downstream of the hole during a previous repair job.

The State of Hawaii owns the parcel on which the jetty was constructed. The DLNR of the State of Hawaii has issued a right-of-entry to the City to perform the work.

Economic Characteristics

Maintaining the structural integrity of the jetty is important because it reduces the potential for economic loss due to flooding of homes, crops and businesses upstream.

The project has an estimated construction cost of \$60,000. City operating funds will be utilized for the project.

Social Characteristics

The project will not require the displacement or relocation of any people.

Environmental Characteristics

No adverse long-term environmental effects are anticipated as a result of the work.

It is anticipated that the following permits will be required:

1. 401 Water Quality Certification (DOH)
2. U.S. Army Corps of Engineers Nationwide Permit

The OSP informed us by telephone on September 11, 1996, that they anticipate that a Coastal Zone Management Certification would not be required for this project because it is likely to be covered by a Nationwide Permit from the Army COE.

The Commission of Water Resource Management informed us by telephone on November 6, 1996, that a stream alteration permit will not be required for this project.

V. Identification and Summary of Major Impacts

The environmental impact of the proposed project will be limited to the construction phase and may include the following temporary, unavoidable, adverse environmental effects:

- A. **Dust Emission:** The discharge of dust into the atmosphere resulting from the placement of rocks and boulders may occur during the construction period. This is, however, only a short-term effect on the environment.
- B. **Noise** will be generated by construction equipment such as backhoes, a crane and trucks. The increase in noise level by construction equipment cannot be avoided, but will be controlled and limited to normal daylight working hours. The Contractor will be required to obtain a Community Noise Permit pursuant to Chapter 43 of the State Public Health Regulations and shall comply with the provisions of Chapter 42, Vehicular Noise Control for Oahu. Individuals who may be adversely affected by the construction noise will be residents of the surrounding community. The sound level from equipment noise has been estimated for locations at various distances from the work area. The results have been summarized as follows:

Location	Distance from Project	Sound Level
(1) Nearest residence	800 feet	67 dB
(2) Nearest church	1000 feet	66 dB
(3) Nearest school	3500 feet	54 dB
(4) Nearest medical center	900 feet	67 db
(5) Nearest playground	3500 feet	54 dB
(6) Nearest library	2000+feet	60 dB

- C. **Water Pollution:** There are several potential causes of water pollution.

There are several potential causes of water pollution: (1) increase in turbidity of oceanwater due to placement of boulders and rocks in the existing hole, (2) release of petrochemicals into the water from construction equipment, (3) placement of the fabriform bags, and (4) increase in turbidity when rocks and boulders are removed to open the area above the undermined portion (necessary to provide good access to the hole for repair work).

- D. **Archaeological Deposits:** Since the project site has already been disturbed by the original construction of the jetty, no archaeological deposits are anticipated under either method.

- E. **Disturbance to Marine Life:** Since the channel is at least 120 feet wide at the project site, construction will not impede movement of any marine life within the area. Action will be taken to minimize any increase in turbidity during construction which may adversely affect marine life.

The previous repair project in 1988 involved the placement of three layers of fabriform bags on the east side of the jetty. There is no evidence of permanent disturbance to marine life as a result of the work. Small fishes were observed eating the algae which has grown on the fabriform bags. Crabs were also noted on the fabriform bags during several field visits.

- F. **Continued Function of the Jetty:** If the jetty is repaired, the businesses, residences and farmlands upstream of the site will have a greater chance of avoiding flood damage because the jetty can continue to prevent the accumulation of littoral drift at the ocean end of Mailiili Channel.

- G. **Positive Financial Impacts:** Arresting the deterioration of the jetty at this point will prevent the need to do a project of substantially larger proportions and cost at a later date. The project will also provide additional work for the construction industry.

VI. ***Proposed Mitigation Measures - Best Management Practices***

When removing the rocks and mortar immediately above the undermined area, the contractor will be required to control dust and to remove and dispose of all the material generated by the procedure. Dust may be controlled during this phase by wetting the surfaces involved prior to excavating the material.

The project involves the placement of approximately 114 cubic yards of rocks and boulders ranging from cobbles to 4 ton boulders. The project specifications will require that these materials be free of any deleterious or organic matter to prevent the entrance of such matter into the ocean during placement. Dust will be reduced and controlled through application of water and/or appropriate methods. The specifications will contain provisions that will require the Contractor to prevent dust nuisance at all times and have sufficient equipment and manpower at the job site to accomplish this.

The Contractor shall not stockpile any construction materials on the jetty or below the high water mark to prevent the materials from entering the water due to acts of nature.

High surf conditions may increase the amount of turbidity as a result of wave action during placement of materials. Construction will be scheduled during the summer to reduce the exposure of the project area to high surf conditions during construction. Placement of large boulders and fabriform bags (as applicable) will be done during low tide.

During construction under either of the proposed methods of repair, silt curtains or sandbags (as appropriate for ambient conditions) will be employed to mitigate turbidity in the surrounding water. The silt curtains/sandbags will remain in place for one day after construction has been completed, regardless of the repair method selected. This is intended to provide protection during the 8-hour initial set time for the grout within the fabriform bags.

To mitigate the introduction of turbidity during placement of concrete or grout, work will be postponed if a storm is impending. Otherwise, normal prudent actions to protect the placement from wave action will be taken, including the use of antiwashout additives in the concrete which fills the fabriform bags.

Turbidity will be monitored by the Contractor through the use of two sampling stations. One sampling station shall be located one meter from the mitigation measure in order to ascertain its effectiveness. The other station shall be located to determine the ambient water conditions. Each day, samples shall be taken at the two stations near the middle of the work day. Each sample shall be tested (or sent for testing) as soon as possible for total suspended solids, turbidity, and pH by the Contractor or a certified lab. Once the Contractor is in possession of the day's test results, he must transmit them to the Clean Water Branch of the DOH for review. The Clean Water Branch will notify the Contractor if he is required to take additional precautions during the course of his work.

The project specifications will require the Contractor to check his equipment for leaks on a daily basis and to preclude the discharge of petrochemical products from construction into the water.

VII. Alternatives Considered

The following courses of action were considered: (1) no action, and (2) completion of the proposed project.

Alternative 1: If no action is taken, the size of the hole in the jetty will continue to increase, eventually endangering the structural stability of the jetty and impeding its function of preventing the accumulation of littoral drift at the ocean end of Mailiilii Channel. Flooding may result during subsequent major storm activity.

Alternative 2: Completion of the proposed project would ensure the structural integrity of the jetty and allow it to continue to prevent the accumulation of littoral drift at the ocean end of Mailiilii Channel.

VIII. Determination

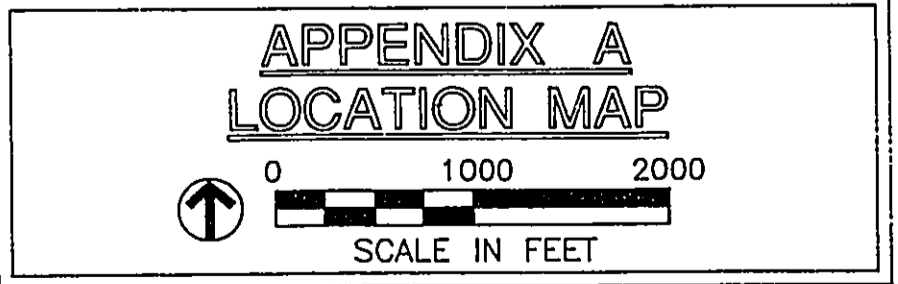
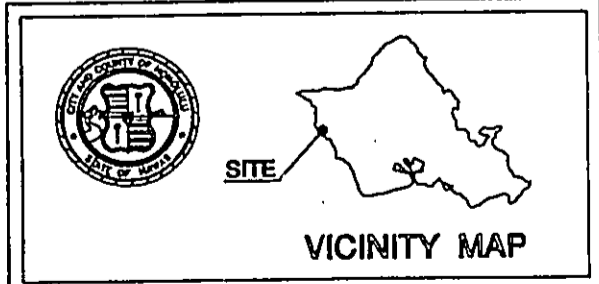
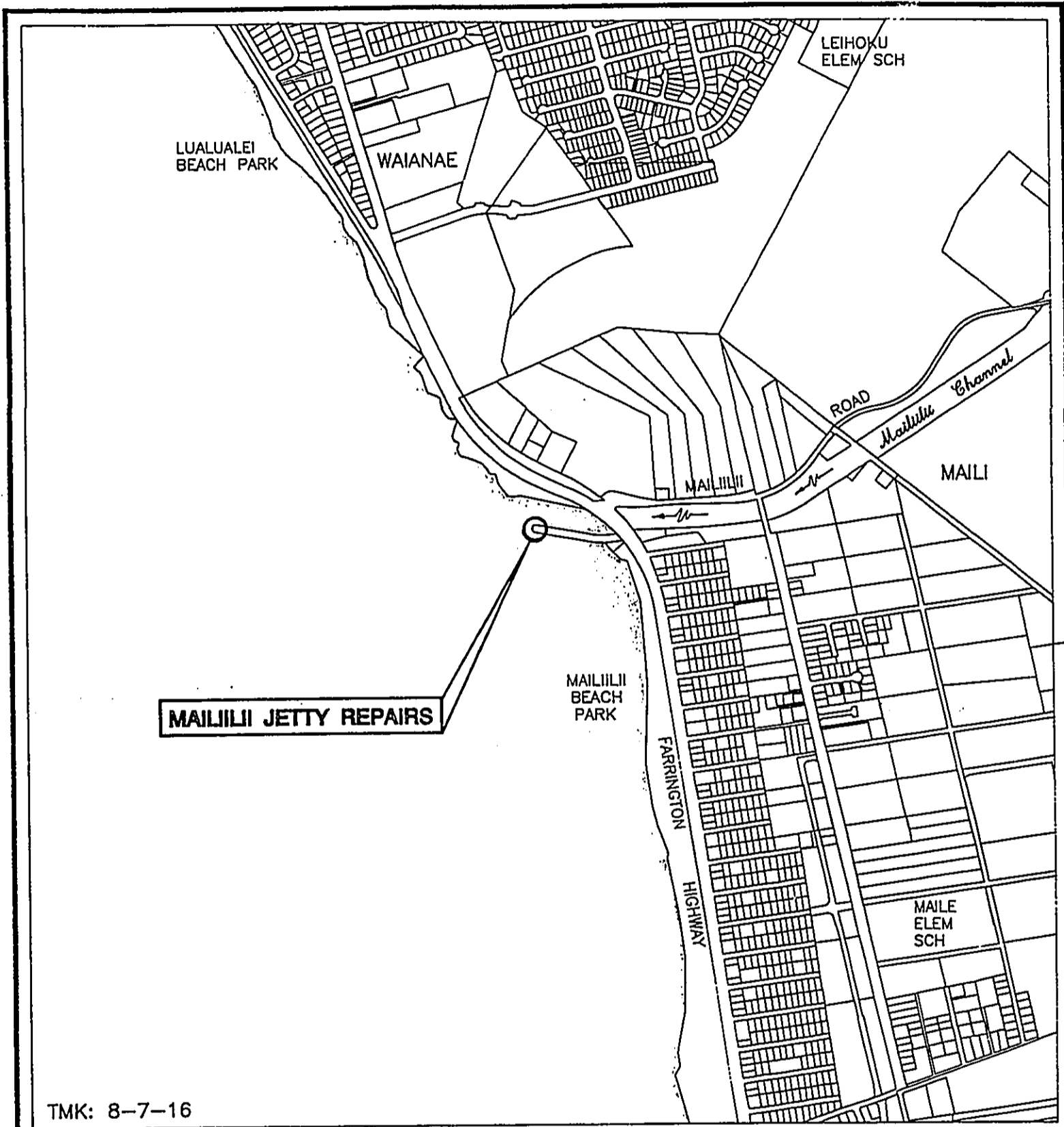
After preparing an environmental assessment, we have determined that the proposed project will not have a significant impact on the environment, and an environmental impact statement will not be prepared.

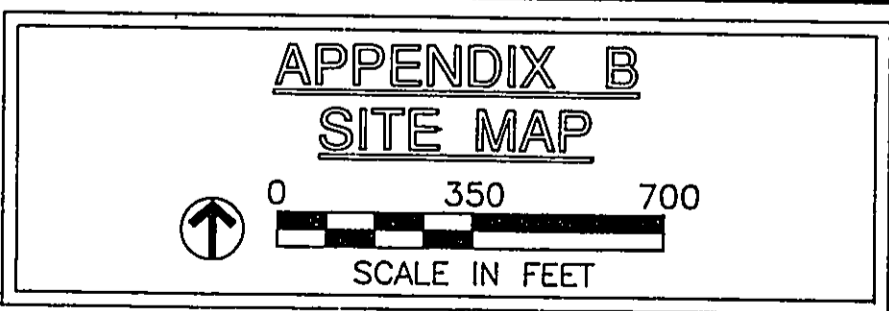
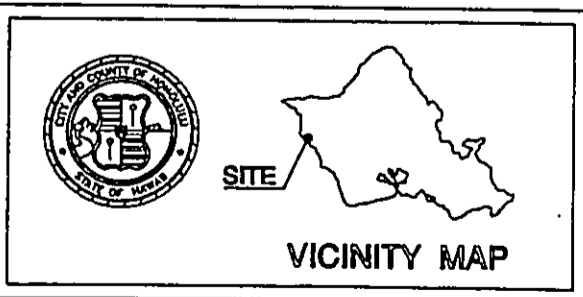
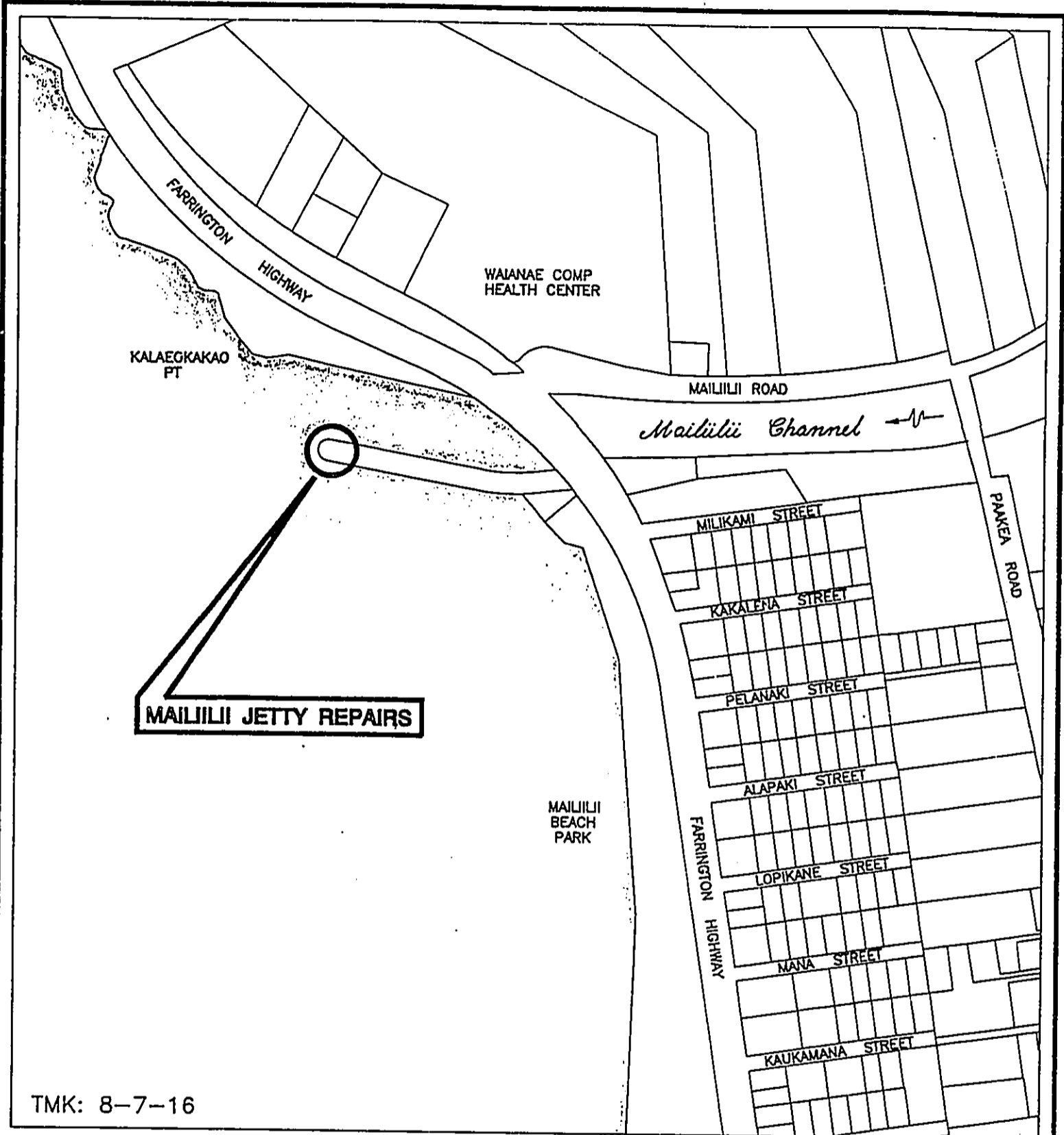
IX. Reasons Supporting the Determination

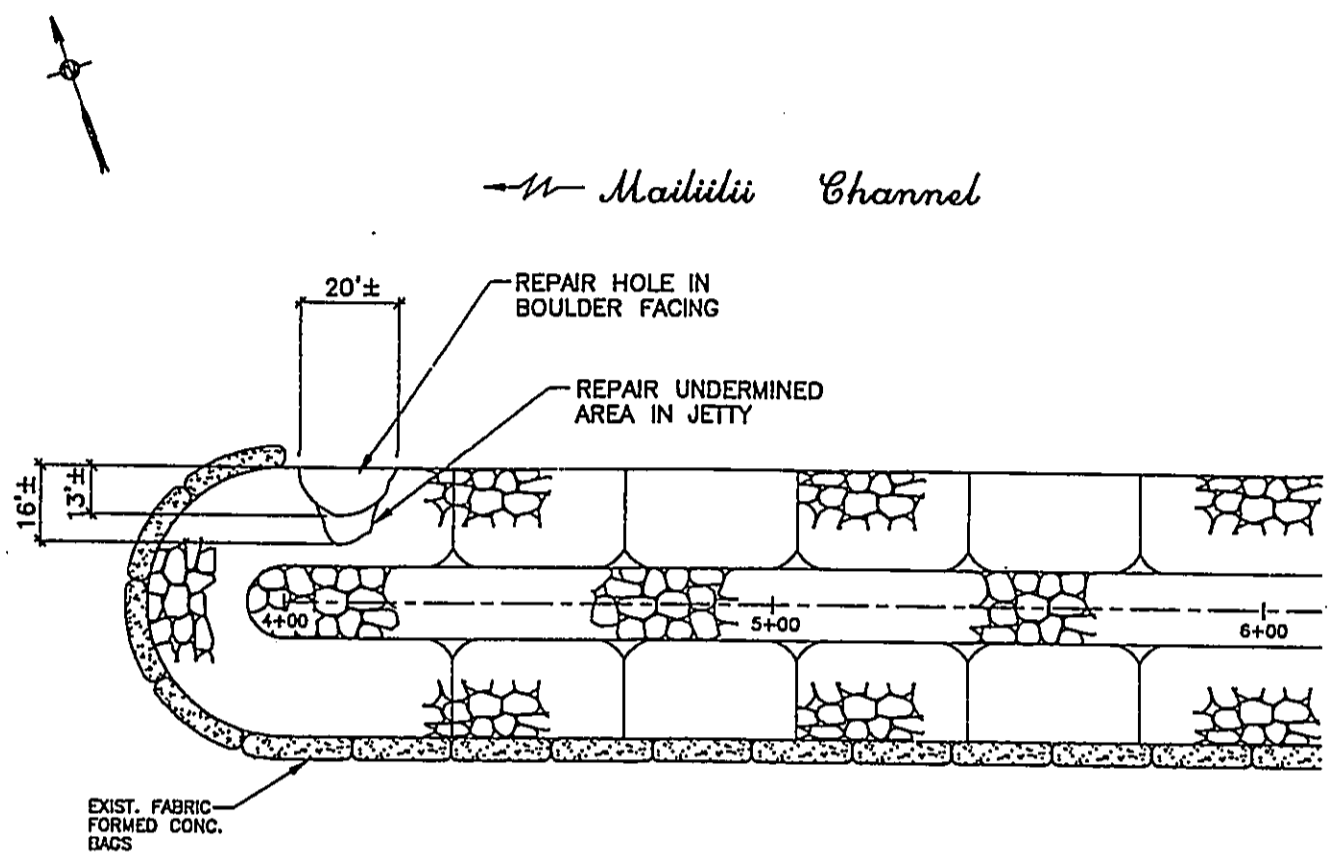
Based on an analysis of the significance criteria in Section 11-200-12 of the 1996 Hawaii Environmental Impact Statement Rules, the reasons supporting the Negative Declaration determination are that the proposed project will not:

- result in the loss or destruction of any natural or cultural resource;
- curtail the range of beneficial uses of the environment;
- conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes;
- affect public health;
- displace any residences or businesses;
- have significant long-term effects on air quality, water quality or ambient noise levels;
- adversely affect rare or endangered species of flora or fauna;

- be in close proximity to any known natural, historic or archaeological sites; and
- affect the economic or social welfare of the community.







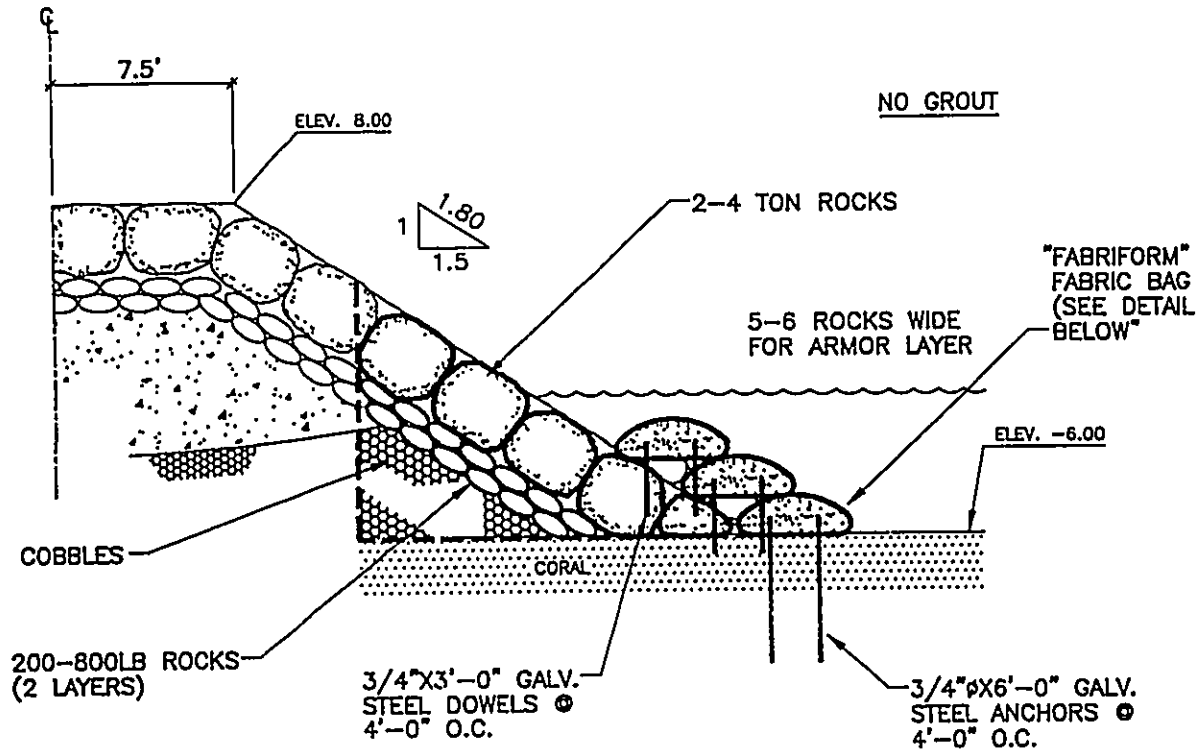
PLAN
 SCALE: 1"=40'-0"

APPENDIX C

TMK: 8-7-16

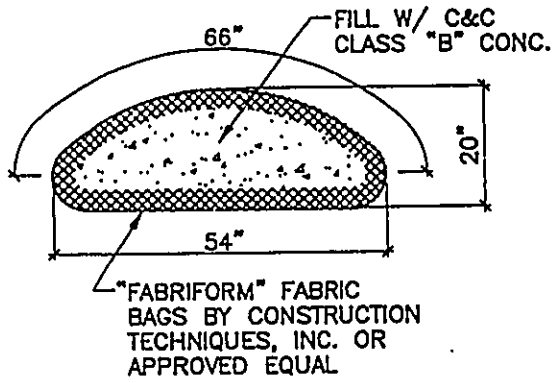
S.H. 9/96

MAILILII JETTY REPAIRS



TYPICAL SECTION

SCALE: 1/8"=1'-0"



FABRIFORM BAG DETAIL

SCALE: 1/8"=1'-0"

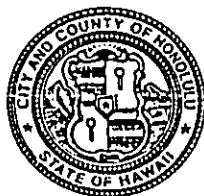
APPENDIX D

APPENDIX E
COMMENTS

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU

RECEIVED
DEPT. OF PUBLIC WORKS
300 KING STREET, 8TH FLOOR • HONOLULU, HAWAII 96813-3017
PHONE: (808) 523-4711 • FAX: (808) 523-4930

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Zng.

CHERYL D. SOON
CHIEF PLANNING OFFICER

CAROLL TAKAHASHI
DEPUTY CHIEF PLANNING OFFICER

MH 9/96-1851

JEREMY HARRIS
MAYOR

October 1, 1996

MEMORANDUM

TO: KENNETH E. SPRAGUE, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: CHERYL D. SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR MAILILII JETTY REPAIR,
TAX MAP KEY: 8-7-16: 007

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DIV. OF PUBLIC WORKS
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In response to your department's request of September 5, 1996, we have reviewed the subject Environmental Assessment and have the following comments to offer:

1. The proposed subject site is designated for Park use on the Waianae Development Plan Land Use Map.
2. There are no publicly funded nor privately funded improvements designated in the general vicinity of the proposed subject site on the Waianae Development Plan Public Facilities Map.
3. We have no objections to the proposed repair work for the damaged section of the Mailiilii Channel jetty which would reduce the potential for economic loss due to flooding of homes, crops and businesses upstream.

Should you have any questions, please contact Matthew Higashida of our staff at 527-6056.

Cheryl D. Soon
CHERYL D. SOON
Chief Planning Officer

CDS:js

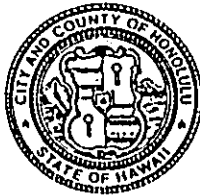
DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4432

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SEP 27 10 55 AM '96

JEREMY HARRIS
MAYOR



PATRICK T. ONISHI
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

96-2737
eiy
96-05922 (DT)
'96 SMA Exemption Zone 8

September 26, 1996

MEMORANDUM

TO: KENNETH E. SPRAGUE, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: PATRICK T. ONISHI, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

SUBJECT: SPECIAL MANAGEMENT AREA REVIEW

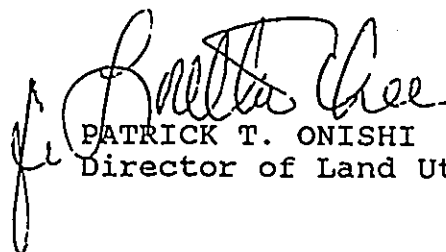
Tax Map Key (TMK): 8-7-16: 07
Type of Project : Repair 20-foot long hole in the
Mailiilii Channel jetty

The proposed project on the above-referenced TMK has been reviewed.
We find that it:

- [] Is not within the Special Management Area.
- [X] Is within the Special Management Area, but is not defined as "development" and is therefore, exempt (Section 25-1.3 [2][F], Chapter 25, Revised Ordinances of Honolulu).

The above-referenced TMK is zoned P-2 General Preservation District. The project is not governed by the City's Land Use Ordinance as it is located over the ocean.

Should you have any questions, please contact the Environmental Review Branch at 523-4077.


PATRICK T. ONISHI
Director of Land Utilization

PTO:am

g:9605922.djt

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

RECEIVED

SEP 20 11 27 AM '96

LAWRENCE MIKE
DIRECTOR OF HEALTH

In reply, please refer to:
EMDCWB

September 19, 1996

P0928KP

Mr. Kenneth E. Sprague
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Sprague:

Subject: Environmental Assessment for Mailiilii Jetty Repair
Waianae, Oahu, Hawaii
TMK: 8-7-16:007

The Department of Health has reviewed the Environmental Assessment dated September 6, 1996 for the subject project and has the following comments:

1. The proposed Best Management Practices (BMPs) proposes to employ silt curtains to mitigate turbidity in the surrounding waters. However, silt curtains may not be effective in heavy surf conditions. If heavy surf conditions will be prevalent, then sandbags installed to contain silt to the immediate construction area may be more appropriate;
2. Visual monitoring alone may not be sufficient in determining the impacts of the subject project. Water quality sampling should also be performed during in-water construction. In general, we require at least two sampling stations, one to determine ambient water conditions and the other located one meter from the mitigation measure in order to ascertain the effectiveness of the mitigation measures. At a minimum, both samples should be tested for total suspended solids, turbidity, and pH because of the possible suspension of silt and the usage of grout for the repair work;
3. If the project involves any stream alteration, then the method of diverting the stream should be addressed. The stream diversion should be implemented and maintained to prevent any water quality degradation;

Mr. Kenneth E. Sprague
September 19, 1996
Page 2

4. The location of construction materials and any stockpiling should be located as far away from the surface waters as possible; and
5. A National Pollutant Discharge Elimination System general permit is required from the Department of Health if the project involves any construction dewatering.

Should you have any questions, please contact Ms. Kris Poentis at 586-4309.

Sincerely,



THOMAS E. ARIZUMI, P.E., CHIEF
Environmental Management Division

KP:auc

October 30, 1996

Dr. Lawrence Miike
Director
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, Hawaii 96801

Attention: Mr. Thomas Arizumi, Chief
Environmental Management Division

Dear Dr. Miike:

Subject: Your Letter Dated September 19, 1996, Regarding the Draft Environmental Assessment for the Mailiili Jetty Repair, Waianae, Oahu

Thank you for your timely comments. Our responses to them are as follows:

1. *The proposed Best Management Practices (BMPs) proposes to employ silt curtains to mitigate turbidity in the surrounding waters. However, silt curtains may not be effective in heavy surf conditions. If heavy surf conditions will be prevalent, then sandbags installed to contain silt to the immediate construction area may be more appropriate.*

We have altered our BMP plan to specify the use of silt curtains or sandbags as appropriate. A copy of the revised plan is attached for your reference.

2. *Visual monitoring alone may not be sufficient in determining the impacts of the subject project. Water quality sampling should also be performed during in-water construction. In general, we require at least two sampling stations, one to determine ambient water conditions and the other located one meter from the mitigation measure in order to ascertain the effectiveness of the mitigation measures. At a minimum, both samples should be tested for total suspended solids, turbidity, and pH because of the possible suspension of silt and the usage of grout for the repair work.*

In response to comments received following distribution of the environmental assessment, we will be using option 2 without using grout to set the stones. We recognize that silt may still be suspended in the water column during the placement of the rocks and boulders.

PTP

Dr. Lawrence Miike
Page 2
October 30, 1996

After a telephone consultation with Ms. Kris Poentis of your office, we have included monitoring requirements in the revised plan. The contractor will be required to set up two sampling stations as specified, take samples each day at noon, send them to a laboratory or perform the testing onsite, and submit the results to the Clean Water Branch for review as soon as they become available. Kris has agreed to look over the revised copy of our BMP plan and will inform us of any additional issues or alterations required.

3. ***If the project involves any stream alteration, then the method of diverting the stream should be addressed. The stream diversion should be implemented and maintained to prevent any water quality degradation.***

The project does not involve any stream alteration. Its purpose is to repair an existing structure.

4. ***The location of construction materials and any stockpiling should be located as far away from the surface waters as possible.***

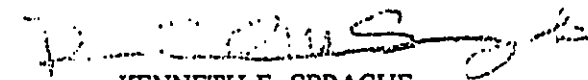
The BMP plan now prohibits the stockpiling of materials on the jetty or within the water's reach.

5. ***A National Pollutant Discharge Elimination System general permit is required from the Department of Health if the project involves any construction dewatering.***

The project will not involve any construction dewatering.

Please contact Jolie Yee at 523-4041 with any questions you may have regarding this matter.

Very truly yours,


KENNETH E. SPRAGUE
Director and Chief Engineer

JY:HK:tt

Attach.

VI. Proposed Mitigation Measures - Best Management Practices

When removing the rocks and mortar immediately above the undermined area, the contractor will be required to control dust and to remove and dispose of all the material generated by the procedure. Dust may be controlled during this phase by wetting the surfaces involved prior to excavating the material.

The project involves the placement of approximately 114 cubic yards of rocks and boulders ranging from cobbles to 4 ton boulders. The project specifications will require that these materials be free of any deleterious or organic matter to prevent the entrance of such matter into the ocean during placement. Dust will be reduced and controlled through application of water and/or appropriate methods. The specifications will contain provisions that will require the Contractor to prevent dust nuisance at all times and have sufficient equipment and manpower at the job site to accomplish this.

The Contractor shall not stockpile any construction materials on the jetty or near the surface waters to prevent such materials from entering the water due to acts of nature.

High surf conditions may increase the amount of turbidity as a result of wave action during placement of materials. Construction will be scheduled during the summer to reduce the exposure of the project area to high surf conditions during construction. Placement of large boulders and fabriform bags (as applicable) will be done during low tide.

During construction under either of the proposed methods of repair, silt curtains or sandbags (as appropriate for ambient conditions) will be employed to mitigate turbidity in the surrounding water. The silt curtains/sandbags will remain in place for one day after construction has been completed, regardless of the repair method selected. This is intended to provide protection during the 8 hour initial set time for the grout within the fabriform bags or to allow for settlement of turbidity generated during excavation of the coral as appropriate.

To mitigate the introduction of turbidity during placement of the concrete-filled fabriform bags, work will be postponed if a storm is impending. Otherwise normal prudent actions to protect the placement from wave action will be taken, including the use of anti-washout additives in the concrete which fills the fabriform bags.

Turbidity will be monitored by the Contractor through the use of two sampling stations. One sampling station shall be located one meter from the mitigation measure in order to ascertain its effectiveness. The other station shall be located to determine the ambient water conditions. Each day, samples shall be taken at the two stations near the middle of the work day. Each sample shall be tested (or sent for testing) as soon as possible for total suspended solids, turbidity, and pH by the Contractor or a certified lab. Once the Contractor is in possession of the day's test results, he must transmit them to the Clean Water Branch of the Department of Health for review. The Clean Water Branch will notify the Contractor if he is required to take additional precautions during the course of his work.

The project specifications will require the Contractor to check his equipment for leaks on a daily basis and to preclude the discharge of petrochemical products from construction into the water.



96-2855
EW
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United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS ECOREGION
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: KF

Kenneth E. Sprague
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

OCT. 07 1996

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Dear Mr. Sprague:

The U.S. Fish and Wildlife Service (Service) received your September 5, 1996, request to review and provide comments on the Mailiilii Jetty Repair environmental assessment. The proposed jetty repair project is located on the ocean side of the Farrington Highway, Waianae, Oahu. The Department of Public Works prepared this environmental assessment and is the principal agency of the project. The Service offers the following comments for your consideration.

The proposed project will repair a 20 by 15 foot section of the Mailiilii jetty. The jetty extends about 600 feet into the ocean over a coral reef. Refurbishment activities will involve resetting missing rocks and boulders and using Fabricast bags to stabilize the jetty's toe. The hole in the jetty was likely caused by intense wave action during high surf conditions. Potential environmental impacts include: the release of petrochemicals into the marine habitat from construction vehicles, the mobilization of silt in the water column due to the resetting of rocks and boulders in the jetty, and the destruction of six cubic yards of coral reef.

We have reviewed the maps prepared by The Nature Conservancy's Hawaii Natural Heritage Program and the Service's National Wetland Inventory Program. Based on this information, our records indicate that no federally listed species of concern occur at the project site. However, the federally endangered 'Ihi 'Ihi (*Marsilea villosa*) can be found in the general vicinity of the project. The Service believes it is unlikely that construction activities will impact this endangered plant.

Federally endangered Hawaiian monk seals (*Monachus schauinslandi*) are known to occur in the waters offshore of the proposed construction site. It is possible that monk seals may haul out near the Mailiilii jetty. Federally threatened green sea turtles (*Chelonia mydas*) inhabit the waters offshore of the proposed construction site but do not nest at the site. The Service recommends that the National Marine Fisheries Service (NMFS) be contacted regarding potential project-related impacts to monk seals and sea turtles.

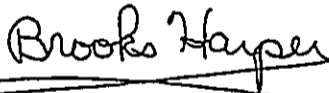
The Service is concerned that nearshore coral habitat may be lost or damaged as a result of project-related activities. Therefore, the Service recommends that:

- (1) a containment boom be deployed around the jetty during construction activities to restrict the release of petrochemicals into the marine habitat;
- (2) silt containment devices be deployed around the repair site to limit the release of silt into the marine habitat;
- (3) fabric bags be used to secure the toe of the jetty, instead of dredging and impacting live coral for this purpose.
- (4) no construction materials should be stockpiled in the marine environment;
- (5) any dredged material temporarily stockpiled at the site should be surrounded by an impermeable berm above the influence of the tides; and
- (6) no contamination of the marine environment (trash or debris disposal, etc.) should result from the project-related activities.

With the incorporation of the above recommendations, we believe that the proposed jetty repair will not result in significant adverse impacts to fish and wildlife species and habitat. However, the Service requests that we be contacted again if the principal agency changes repair activities at the Mailiili Jetty.

The Service appreciates the opportunity to provide comments on the proposed project. If you have any questions regarding these comments, please contact Fish and Wildlife Biologist Kevin Foster at 808/541-3441 (fax: 808/541-3470).

Sincerely,



Brooks Harper
Field Supervisor
Ecological Services

cc: NMFS, Honolulu

96-11-0290

October 30, 1996

Mr. Brooks Harper, Field Supervisor
Ecological Services
Fish and Wildlife Services
Pacific Islands Ecoregion
U.S. Department of the Interior
300 Ala Moana Boulevard, Room 3108
Box 50088
Honolulu, Hawaii 96850

Attention: Mr. Kevin Foster
Fish and Wildlife Biologist

Dear Mr. Harper:

Subject: Your Letter Dated October 7, 1996, Regarding the Draft Environmental Assessment for the Mailiilii Jetty Repair, Waianae, Oahu

After receiving comments following the distribution of the environmental assessment, we have decided to use fabriform bags to stabilize the toe of the repaired section. This will require the placement of dowels into the coral but will not require the excavation of the coral. In using this option, we have also decided not to set the rocks in place with grout. As a result, the only potential environmental impact we anticipate is the mobilization of silt in the water column due to the resetting of the rocks and boulders.

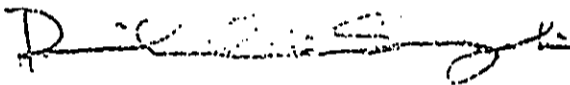
The Best Management Practices Plan (included in your copy of the environmental assessment) has already addressed some of the Ecological Services' recommendations. It provides for silt containment devices and requests measures to preclude the entrance of deleterious materials and petrochemicals in the water. In response to comments from the State Department of Health, it has since been modified to include water sampling and stockpiling requirements.

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Mr. Brooks Harper
Page 2
October 30, 1996

We have contacted Mr. John Naughton of the National Marine Fisheries Service as suggested. He feels that the coral in the immediate proximity of the jetty is not live coral but did suggest that we use the fabriform bag option. In response to his request, the job specifications will require the contractor to halt the construction if a green sea turtle or monk seal appears near the construction site until the animal swims away of its own accord. Since both the endangered animals are mobile, he feels that this requirement will address the issue.

Please contact Jolie Yee at 523-4041 with any questions you may have regarding this matter.

Very truly yours,



KENNETH E. SPRAGUE
Director and Chief Engineer

JY:HK:tt



DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440.

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REPLY TO
ATTENTION OF

October 1, 1996

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Planning and Operations Division

Mr. Kenneth E. Sprague
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

96-2776
J.W.M.
ENG

Dear Mr. Sprague:

Thank you for the opportunity to review and comment on the Environmental Assessment (EA) for the Mailiilii Jetty Repair Project, Waianae, Oahu (TMK 8-7-16: 7). Based on the information provided, a Department of the Army permit will be required for work performed in waters of the U.S. Please contact our Regulatory Section at 438-9258 for further information and refer to file number 960000368.

Sincerely,

Lawrence O. Muraoka

Lawrence O. Muraoka, P.E.
Acting Chief, Planning
and Operations Division

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BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4186
FACSIMILE (808) 586-4186

October 22, 1996

Mr. Kenneth Sprague, Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Sprague:

Subject: Draft Environmental Assessment for the Mailiili Jetty
Repair, Waianae, Oahu

Thank you for the opportunity to review and comment on the subject document. We have the following questions and comments.

1. Please describe the sand migrating pattern for the surrounding area.
2. Please compare the cost/benefit of using option 1 (rock replacement) versus option 2 (fabriform concrete bags)?
3. Please provide reasons for supporting the determination based on an analysis of the significance criteria in section 11-200-12 of the 1996 Hawaii Environmental Impact Statement Rules.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Gary Gill
Director

96-2196
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DIRECTOR
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October 29, 1996

Mr. Gary Gill, Director
Office of Environmental Quality Control
State of Hawaii
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Gill:

Subject: Your Letter Dated October 22, 1996, Regarding the Draft Environmental Assessment for the Mailiili Jetty Repair, Waianae, Oahu

The answers to your questions are as follows:

1. ***Please describe the sand migrating pattern for the surrounding area.***

According to a study done by Sea Engineering in 1988 entitled "Oahu Shoreline Study, Part I—Data on Beach Changes," the Mailiili Beach is a self-contained littoral cell. The wave induced long shore currents pick up sand at the two ends and transport it toward the middle of the beach.

Past observation suggests that sand tends to leave the section of the beach in question during the winter months.

The study presented information collected from 1949 to 1988. It states that the pattern observed at this beach may be expected to continue.

Since the construction site is not within the littoral cell, the project should not affect the sand migration pattern. ✓

2. ***Please compare the cost/benefit of using Option 1 (rock replacement) versus Option 2 (fabriform concrete bags).***

Based on the responses we have received on the environmental assessment, both by phone and in writing, we feel that the costs associated with Option 1 (both monetary and environmental) outweigh its benefits.

Mr. Gary Gill
Page 2
October 29, 1996

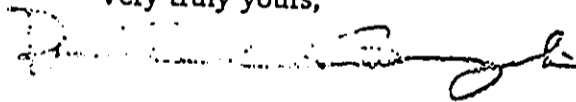
3. ***Please provide reasons for supporting the determination based on an analysis of the significance criteria in Section 11-200-12 of the 1996 Hawaii Environmental Impact Statement Rules.***

The proposed project will not:

- result in the loss or destruction of any natural or cultural resource;
- curtail the range of beneficial uses of the environment;
- conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes;
- affect public health;
- displace any residences or businesses;
- have significant long-term effects on air quality, water quality, or ambient noise levels;
- adversely affect rare or endangered species of flora or fauna;
- be in close proximity to any known natural, historic, or archaeological sites; and
- affect the economic or social welfare of the community.

The negative declaration will reflect the responses to your questions. Please contact Jolie Yee at 523-4041 with any questions you may have regarding this matter.

Very truly yours,



PCS
KENNETH E. SPRAGUE
Director and Chief Engineer

JY:HK:tt