



EXECUTIVE CHAMBERS

HONOLULU

GEORGE R. ARIYOSHI  
GOVERNOR

October 22, 1980

Mr. Donald A. Bremner, Chairman  
Environmental Quality Commission  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Dear Mr. Bremner:

Subject: EIS for Hale Pohaku Mid-Elevation Facilities Master Plan  
and its Amendment

Based upon the recommendation of the Office of Environmental Quality Control, I am pleased to accept the subject document as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes. This environmental impact statement will be a useful tool in the process of deciding whether or not the action described therein should or should not be allowed to proceed. My acceptance of the statement is an affirmation of the adequacy of that statement under the applicable laws, and does not constitute an endorsement of the proposed action.

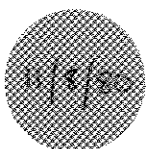
When the decision is made regarding the proposed action itself, I expect the proposing agency to weigh carefully whether the societal benefits justify the environmental impacts which will likely occur. These impacts are adequately described in the statement, and, together with the comments made by reviewers, provide a useful analysis of alternatives to the proposed action.

With warm personal regards, I remain,

Yours very truly,

  
George R. Ariyoshi

cc: Honorable Susumu Ono



OEQC LIBRARY

AMENDMENT  
REVISED ENVIRONMENTAL IMPACT STATEMENT FOR THE  
HALE POHAKU MID-LEVEL FACILITIES MASTER PLAN  
MAUNA KEA SCIENCE RESERVE, HAMAKUA DISTRICT  
COUNTY OF HAWAII  
STATE OF HAWAII

August 1980

Submitted by the  
Department of Land and Natural Resources  
and the  
University of Hawaii

The amendment to the Revised EIS for the Mid-Level Facilities Master Plan at Hale Pohaku provides further clarification concerning the impact to the mid-level facilities if additional telescopes are placed at the summit of Mauna Kea. Based on a reconnaissance survey of the summit area, there are sites that appear suitable for astronomy facilities. However, an in-depth evaluation needs to be made to assess each site and its impact on the environment. No doubt, there may be other sites developed in the future. However, there will be full compliance with the Mauna Kea Plan and the approval of the Board of Land and Natural Resources prior to any commitments being made by the University.

The actions described in the subject EIS relate to a proposed mid-level support facility at Hale Pohaku, Mauna Kea, at an altitude necessary for acclimitization of personnel who must work in the rarified atmosphere of the 13,796-foot summit. Although the facility is being planned to support the existing six telescopes on the summit which have

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been previously approved by the Board of Land and Natural Resources, the following additional information is to provide as much information as feasible based on presently available knowledge and facts about possible future activities and related projects which may have an impact in the area.

This effort is being made to examine possible effects that additional telescopes might generate at the mid-level, even though no official applications for such telescopes have been received by the University of Hawaii as of this date. The recently publicized National Radio Astronomy Observatory radio telescope that was planned for the summit, was not included in the President's Budget (Federal) and will most likely not be funded by Congress for FY 1981.

Mauna Kea is internationally recognized as a superior site for ground-based astronomy. Therefore, it can be anticipated that the State will receive requests -- both from within the United States and from foreign countries -- for permission to locate telescopes on Mauna Kea. If the University believes it valuable to support applications for additional facilities in the Science Reserve Area of Mauna Kea, such approvals must be in conformance with the conditions stated in the Mauna Kea Plan, the policy plan for the region.

The Mauna Kea Plan requires that applications for new facilities on the summit, beyond those existing and approved, must be accompanied

by a comprehensive justification showing: (a) public benefit to the people of Hawaii; (b) public necessity in terms of cooperative use of facilities; (c) evidence that Mauna Kea is the best site for such a facility; and (d) compatibility with other uses of Mauna Kea within the terms of the lease between the University of Hawaii and the Board of Land and Natural Resources. In addition, the University of Hawaii will require that the necessary support for the facility (access, utilities, etc.) is available or proposed and that the telescope can be accommodated on Mauna Kea without any significant adverse impact on other existing activities at the summit. All applications for proposed summit facilities are also subject to approval under DLNR Regulation 4, relating to Conservation District and other Federal, State and County regulations.

It is recognized that if new telescopes are approved and built, they may affect the size of the programmed mid-level facilities at Hale Pohaku and could generate additional environmental impacts to the area. However, because any new proposed telescope would be subject to a rigorous acceptance procedure and because of the changing state of technology, it is very difficult to estimate accurately the kind, magnitude or expected time of occurrence of these potential impacts.

Changing technology makes prediction of possible future impacts very speculative. Any assessment of probable impacts of new summit facilities on the Hale Pohaku accommodations must take into

consideration the increasing emphasis on remote operation of scientific instrumentation at astronomical observatories and the effect of this new technology on "on-site" personnel requirements. Developments in remote control, which have been fundamental to the advancement of space science and spacecraft operation, have also opened up the possibility in the future of operating scientific instruments at remote locations with much less human intervention. The instrumentation and data-acquisition functions of the Multi-Mirror Telescope in Arizona, for example, were designed to be operated by remote control via computer in much the same way as an unmanned spacecraft is operated. This technological advancement has obviated the need for scientists to be present on site at all times. Because of the distinct advantages in flexibility, cost savings and operating efficiency of this mode of operation over existing methods (which require all manpower to be "on-site"), it can be expected that as new telescopes are designed, this technology will be adapted to ground-based instruments, thus reducing the number of personnel necessary to be "on-site" for the newer, more advanced telescope. However, if remote control of the telescope is not feasible for certain operations that will require "on-site" staffing, each request will have to be fully assessed as to its environmental and support services requirements. Any actions resulting in significant impacts to the summit or the mid-level facilities will have to comply with provisions of Chapter 343, HRS, and the Endangered Species Act of 1973, as amended in 1978 (PL 95-632).

Although advances in science and technology will result in a reduction of "on-site" manpower for astronomy operations, some scientists and technical personnel will still be required to be present at the telescopes, the need for the presence of scientists with new instrumentation and for technical personnel to maintain, modify and test the instrumentation will remain. In addition, existing telescopes such as the six that are now in operation on Mauna Kea, will probably need to retain most of their full complement of "on-site" support staff for the foreseeable future, until such time as possibilities for new technology are proposed, funded, and eventually developed to allow economical remote control of their particular operations. At the present time, no telescope that is operational has been adapted to remote control, and funding to develop this technology would be extremely expensive and very difficult to obtain.

Because the number of additional telescopes that will be located on Mauna Kea and the number of personnel in the future who will work "on-site" and need to acclimatize at Hale Pohaku is unknown, it is impossible to accurately estimate potential future expansion needs, if any, at the mid-level facility. Cost constraints, technology, and environmental considerations, will also be limiting factors. The cost of construction on the slopes of Mauna Kea can be extremely expensive -- over two times greater than at sea level -- and this also makes it advantageous to keep construction to a minimum. In view of these constraints, the Hale Pohaku Mid-Level Facility proposed for the

existing six telescopes, as described in this EIS, is the minimum development needed to provide the necessary mid-level research support for the summit.

If expansion becomes necessary at Hale Pohaku, space is available in the area designated for the facility in the Hale Pohaku Master Plan (see also attached map). This space is located within the existing disturbed site where adverse environmental effects would be minimal. It is expected, though, that technological advancements, cost constraints scheduling and/or modification of the programmed space described in the EIS would all act to minimize future construction.

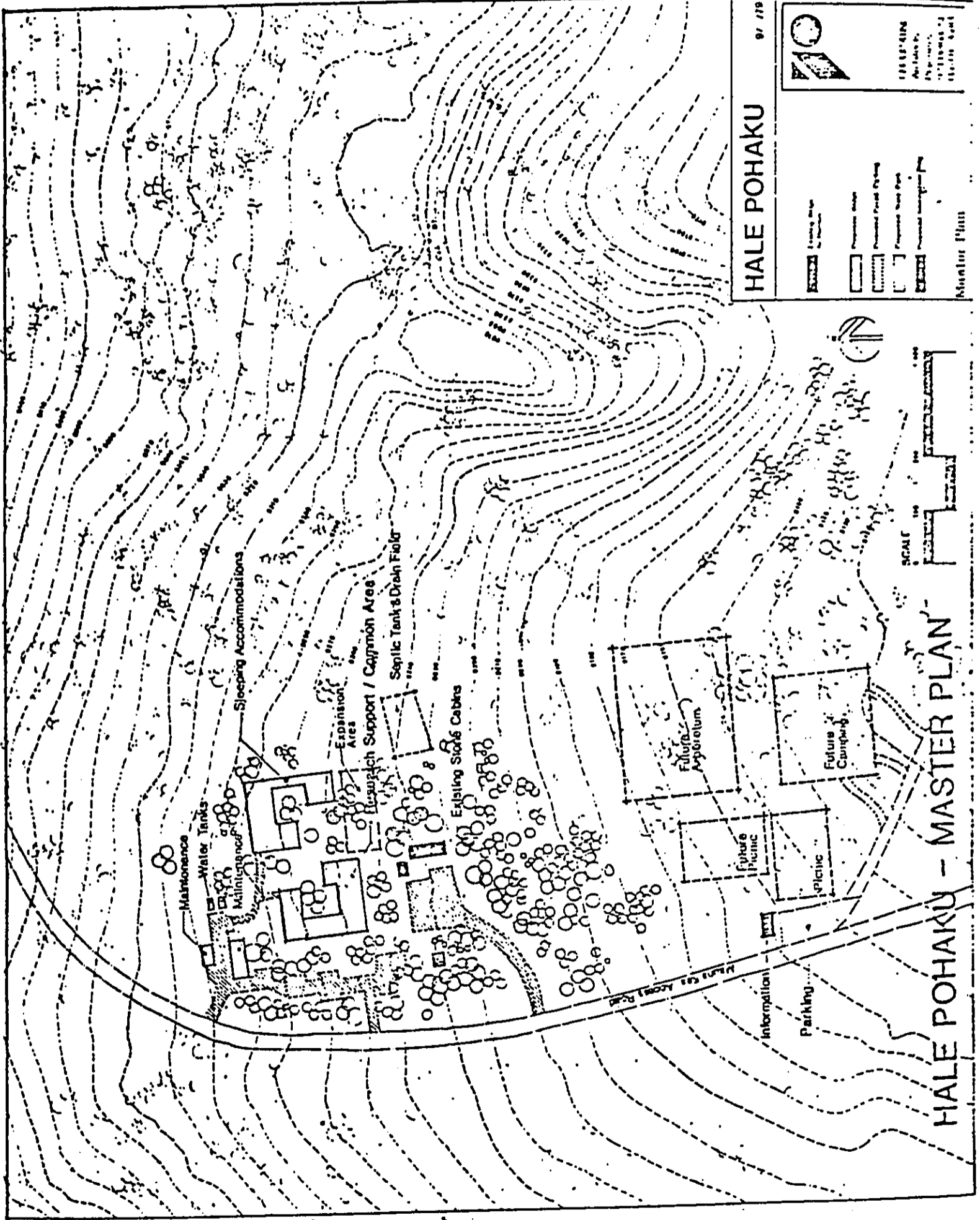
If additional facilities are built at the mid-level site at Hale Pohaku, the addition will be located within the approximate seven acres for the facilities. The structure will be located within the proposed expansion area where the least disturbance as determined with the assistance of a qualified botanist, to the land and vegetation will result. If any mamane trees are to be removed, they will be relocated or replaced with seedlings from approved source. The over-all impact of the expansion if developed, is not expected to have a significant impact on the Palila critical habitat, as long as the expansion is restricted to the allocated area.

To summarize, although additional sites do exist on Mauna Kea that may be suitable for the placement of telescopes, and although it can be anticipated that more requests for approval to place telescopes on Mauna Kea

will be received, each application will have to undergo the rigorous review process described earlier. Further, it is expected that the accommodations at the Hale Pohaku facility will not expand in direct relationship to the increase in the number of scientific facilities at the summit. If necessary, however, expansion can be accommodated in the area within the designated permanent mid-level facility where the least disturbance to the terrain, vegetation and fauna will be involved.


This additional information is to clarify the relationship existing between the controlled development at the summit and the mid-level facility.











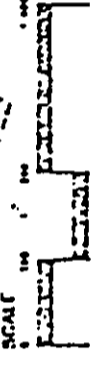
**HALE POHAKU**

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 1:50,000 SCALE
   
 Prepared by:
   
 Date:
   
 Sheet No.

|   |                                |
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|  | Existing Road                  |
|  | Proposed Road                  |
|  | Proposed Road Right of Way     |
|  | Existing Building              |
|  | Proposed Building              |
|  | Proposed Building Right of Way |

Master Plan



**HALE POHAKU - MASTER PLAN**

4572

20 WAD

GEORGE R. ARIYOSHI  
GOVERNOR



RECEIVED

RICHARD O'CONNELL  
DIRECTOR

TELEPHONE NO.  
548-6915

JUL 24 11:39

JUL 23 A 8:58

STATE OF HAWAII

OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
& NATURAL RESOURCES  
STATE OF HAWAII  
550 HALEKAUWILA ST  
ROOM 301  
HONOLULU, HAWAII 96813

July 21, 1980

MEMORANDUM

TO: Susumu Ono, Chairman  
Department of Land and Natural Resources

FROM: Richard L. O'Connell, Director  
Office of Environmental Quality Control *R. L. O'Connell*

SUBJECT: Amendment to the Revised Environmental Impact  
Statement for the Hale Pohaku Mid-Level Facilities  
Master Plan, Mauna Kea Science Reserve, Hamakua  
District

We reviewed the subject document and offer the following  
comments for your consideration.

REGULATIONS (Page 3)

The statement, "All applications for proposed summit  
facilities are also subject to approval under DLNR Regulation  
4, relating to Conservation District and other applicable  
Federal regulations," should be amended to include, "other  
Federal, State, and County regulations."

REMOTE CONTROL

Although the amendment discusses the impact from remote  
control devices, consideration should also be given to conditions  
when remote control may not be feasible or available.

CONSULTATION WITH U.S. FISH AND WILDLIFE

We wish to point out that any expansion of the mid-level  
facility would require another formal consultation process

Susumu Ono  
July 21, 1980  
Page 2

with the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act.

PALILA CRITICAL HABITAT

The amendment fails to discuss the impact on the palila if expansion occurs. Will the palila habitat be significantly affected? Will more mamane trees be removed? How will this affect the palila?

We trust that our comments will be helpful to you. For your convenience, we have attached a list of commenting agencies and organizations.

If you should have any questions regarding this document, please contact us.

Attachment

LIST OF COMMENTING PARTIES

FEDERAL

|  |               |
|--|---------------|
| U.S. Coast Guard                         | June 23, 1980 |
| *Department of Energy                    | June 24, 1980 |
| *Soil Conservation Service               | June 25, 1980 |
| Department of the Air Force              | July 7, 1980  |
| *Naval Base Pearl Harbor                 | July 7, 1980  |
| *Department of the Army (USASCH)         | July 7, 1980  |
| *U.S. Fish and Wildlife Service          | July 14, 1980 |
| Dept. of the Army, U.S. Army Engr. Dist. | July 14, 1980 |

STATE

|   |               |
|---|---------------|
| *Department of Defense                      | No Date       |
| State Energy Office                         | June 24, 1980 |
| Department of Agriculture                   | June 25, 1980 |
| Department of Transportation                | July 2, 1980  |
| Department of Accounting & General Services | July 3, 1980  |
| *Department of Health                       | July 9, 1980  |
| Dept. of Planning & Economic Dev.           | July 23, 1980 |

COUNTY OF HAWAII

|                                     |               |
|-------------------------------------|---------------|
| *Department of Public Works         | June 25, 1980 |
| *Planning Department                | June 30, 1980 |
| *Department of Parks and Recreation | July 2, 1980  |
| *Department of Water Supply         | July 2, 1980  |

UNIVERSITY OF HAWAII

|                                 |               |
|---------------------------------|---------------|
| *Environmental Center           | June 25, 1980 |
| *Harold L. Lyons Arboretum      | July 7, 1980  |
| Water Resources Research Center | July 16, 1980 |

PRIVATE

|                     |               |
|---------------------|---------------|
| *Hawaiian Telephone | June 30, 1980 |
| *Bishop Museum      | July 2, 1980  |

\*Denotes comment forwarded to DLNR by reviewer



DEPARTMENT OF TRANSPORTATION  
UNITED STATES COAST GUARD

CECC  
COMMANDER (dpl)  
Fourteenth Coast Guard District  
Prince Kalanianaʻole Federal Bldg.  
300 Ala Moana Blvd.  
Honolulu, Hawaii 96850

16450  
23 June 1980

Environmental Quality Commission  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Dear Sir:

The Coast Guard has reviewed the West Beach Resort proposal and has no objection or constructive comments to offer at the present time.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. F. Otranto", written over a horizontal line.

J. F. OTRANTO  
Commander, U. S. Coast Guard  
District Planning Officer  
Fourteenth Coast Guard District  
By Direction of the District Commander

*only*



4089

Department of Energy  
Pacific Area Support Office  
P. O. Box 29939  
Honolulu, Hawaii 96820

RECEIVED  
JUN 22 1990  
STATE OF HAWAII

Office of Environmental Quality Control  
550 Halekauwila Street  
Room 301  
Honolulu, HI 96813

Gentlemen:

As requested by your June 20, 1990 letter, we have reviewed the  
"Amendment to the Revised EIS for Hale Pohaku Mid-Level Facility  
Master Plan" and have no comments to offer.

Thank you for offering us the opportunity to participate in the  
EIS process...

Sincerely,

*William J. Stanley*  
William J. Stanley  
Director

OP-373  
JWM:bh

cc: Dept of Land & Natural  
Resources, Hono, HI



United States  
Department of  
Agriculture

Soil  
Conservation  
Service

P. O. Box 50004  
Honolulu, Hawaii  
96850

June 25, 1980

Mr. Richard L. O'Connell  
Director, Office of Environmental  
Quality Control  
550 Halekauwila St., Room 301  
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Subject: Amendment to the Revised EIS for Hale Pohaku  
Mid-Level Facility Master Plan, Mauna Kea Reserve,  
Hamakua District, Hawaii

We have reviewed the subject amendment to the revised EIS and  
have no comments to offer.

Thank you for the opportunity to review this amendment.

Sincerely,

*Donald A. Mass*  
*acting*

JACK P. KANALZ  
State Conservationist

cc:  
Department of Land and Natural Resources  
P. O. Box 621  
Honolulu, Hawaii 96813



( ( TW  
DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 15TH AIR BASE WING (PACAF)  
HICKAM AIR FORCE BASE, HAWAII 96853



7 JUL 1980

REPLY TO DEEV (Mr Shepard, 449-1831)  
ATTN OF:


SUBJECT: Amendment to the Revised EIS for Hale Pohaku Mid-Level Facility Master Plan

TO: Office of Environmental Quality Control  
550 Halekauwila Street, Room 301  
Honolulu, HI 96813

1. Reference your letter, 20 June 1980.

2. This office has reviewed the subject amendment to the EIS and has no comment to render relative to the proposed project.

3. We greatly appreciate your cooperative efforts in keeping the Air Force apprised of your project and thank you for the opportunity to review the document.

  
ROBERT Q. K. CHING  
Chief, Engrg & Envmtl Plng Div  
Directorate of Civil Engineering



N10

*Handwritten mark*

HEADQUARTERS  
NAVAL BASE PEARL HARBOR  
BOX 110  
PEARL HARBOR, HAWAII 96860

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IN REPLY REFER TO:

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Ser 1391

80 JUL 8 A 8: 05

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7 JUL 1980

DEPT. OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

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Office of Environmental Quality Control  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Gentlemen:

Amendment to the Revised EIS for Hale  
Pohaku Mid-Level Facility Master Plan

The Amendment to the Revised EIS for Hale Pohaku Mid-Level Facility  
Master Plan forwarded by the Environmental Quality Commission's letter of  
20 June 1980 has been reviewed and the Navy has no comments to offer.

Thank you for the opportunity to review the subject amendment.

Sincerely,

R. D. EBER  
CDR, CEC, USN  
FACILITIES ENGINEER  
BY DIRECTION OF THE COMMANDER

Copy to:  
State DLNR



*Work*

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80 JUL 9 A 8: 19

07 JUL 1980

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DEPT. OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

Office of Environmental Quality Control  
550 Halekuanila Street, Room 301  
Honolulu, Hawaii 96813

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DEPT. OF LAND & NATURAL RESOURCES

Gentlemen:

The Amendment to the Revised Environmental Impact Statement for the Hale Pohaku Mid-Level Facility Master Plan has been reviewed. It appears unlikely that future expansion of the proposed facility will have a significant adverse effect on the environment or Army activities in the area. Nevertheless, incremental expansion necessitated by additional telescopes on the summit of Mauna Kea should be analyzed in separate environmental assessments or environmental impact statements when details of the project(s) become known.

Sincerely,

Original signed by

ADOLPH A. HIGHT  
COL, EN  
Director of Engineering and Housing

Copy Furnished:

Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

4505



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
300 ALA MOANA BOULEVARD  
P. O. BOX 50167  
HONOLULU, HAWAII 96850

IN REPLY REFER TO:  
ES  
Room 6307

July 14, 1980

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JUL 21 10:06

DEPT. OF ENVIRONMENTAL QUALITY  
GOVERNOR GEORGE A. BUNN  
STATE OF HAWAII

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 by gmd \_\_\_\_\_  
 Gordon \_\_\_\_\_ Estelle \_\_\_\_\_  
 A.S. \_\_\_\_\_ Post \_\_\_\_\_  
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 File in \_\_\_\_\_  
 Return to \_\_\_\_\_

Office of Environmental Quality Control  
Office of the Governor  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Re: Revised EIS for Hale Pohaku  
Mid-Level Facility Master Plan,  
Mauna Kea Science Reserve,  
Hawaii

Dear Sir:

We have reviewed the amendment to the subject revised EIS.

The project will have little, if any, adverse impact on fish and wildlife resources in the area, hence we have no additional comments.

Thank you for keeping us informed about changes in the EIS and Master Plan.

Sincerely yours,

*151*  
Nevin D. Holmberg  
Deputy Project Leader for  
Ecological Services

cc: DLNR



Save Energy and You Serve America!

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FODED-PV

DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
BUILDING 239  
FT. SHAFTER, HAWAII 96858

49:47

14 July 1980

STATE OF HAWAII  
NATURAL RESOURCES

Mr. Richard O'Connell, Director  
Office of Environmental  
Quality Control  
State of Hawaii  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

|                |                    |
|----------------|--------------------|
| Rec'd Eng. Div | JUL 22 1980        |
| By             | <i>[Signature]</i> |
| Specn          | <i>[Signature]</i> |
| Asst           |                    |
| Page           |                    |
| Dist           |                    |
| Remarks        | DOWN               |

Dear Mr. O'Connell:

We have reviewed your "Amendment to the Revised Environmental Impact Statement (REIS) for the Hale Pohaku Mid-Level Facilities Master Plan, Mauna Kea Science Reserve, Hamakua District, County of Hawaii, State of Hawaii, forwarded to us on 20 June 1980. We have prepared the following comments:

No U.S. Army Corps of Engineers Civil Works program would be affected by the amendment to the REIS of the Master Plan if the project were implemented. There are no Corps regulatory requirements that are applicable to the project.

The proposed facility at Hale Pohaku and the entire Mauna Kea area are situated in an area of minimal flooding (zone C), and therefore are not subject to the 100-year flood which is a flood having a one-percent chance of being equalled or exceeded in any given year. This was determined from the flood insurance study for the island of Hawaii, prepared by the Federal Insurance Administration. Thank you for the opportunity to comment on the amended REIS.

Sincerely,

KISUK CHEUNG  
Chief, Engineering Division

Copy Furnished:  
/ Director  
Department of Land and  
Natural Resources  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96309

1408

*Handwritten initials*

STATE OF HAWAII  
DEPARTMENT OF DEFENSE  
OFFICE OF THE ADJUTANT GENERAL  
3949 Diamond Head Road  
Honolulu, Hawaii 96816

HLENG

30 JUN 1980

Office of Environmental Quality Control  
550 Halekuanila Street, Room 301  
Honolulu, Hawaii 96813

Gentlemen:

Amendment to the Revised EIS for Hale  
Pohaku Mid-Level Facility Master Plan

Thank you for sending us a copy of the above subject project. We have  
no comments to offer at this time.

Sincerely,

JERRY M. MATSUDA  
Captain, HANG  
Contr & Engr Officer

cc:  
DLNR

GEORGE R. ARIYOSHI  
GOVERNOR



DONALD A. BREMNER  
Chairman

Executive Secretary

TELEPHONE NO.  
(808) 548-6915

STATE OF HAWAII  
ENVIRONMENTAL QUALITY COMMISSION  
OFFICE OF THE GOVERNOR  
550 HALEKAUWILA ST.  
ROOM 301  
HONOLULU, HAWAII 96813

June 20, 1980

Dear Reviewer:

The following document is enclosed for your review:

Title: Amendment to the Revised EIS for Hale  
Pohaku Mid-Level Facility Master Plan

Location: Mauna Kea Science Reserve, Hamakua  
District, Hawaii

Classification: Agency Action

Your comments or acknowledgement of no comments on  
the amendment are welcomed. Please submit your reply  
to the accepting authority:

Office of Environmental Quality Control  
550 Halekauwila Street  
Room 301  
Honolulu, Hawaii 96813

Please send a copy of your reply to the proposing party:

Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

Your comments must be received or postmarked by:

July 23, 1980

Thank you for your participation in the EIS process.

80:619

June 24, 1980

State Energy Office has no comments.

Sincerely,

A handwritten signature in cursive script that reads "Alfred S. Harris".

Alfred S. Harris

GEORGE R. ARIYOSHI  
GOVERNOR



JOHN FARIAS, JR.  
CHAIRMAN, BOARD OF AGRICULTURE  
YUKIO KITAGAWA  
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII  
DEPARTMENT OF AGRICULTURE  
1428 SO. KING STREET  
HONOLULU, HAWAII 96814

June 25, 1980

MEMORANDUM

To: Office of Environmental Quality Control

Subject: Amendment to the Revised EIS for Hale  
Pohaku Mid-Level Facility Master Plan  
TMK: 4-4-15:1 Mauna Kea Science Reserve

The Department of Agriculture has reviewed the subject document  
and has no comments.

We appreciate the opportunity to comment.

A handwritten signature in cursive script, appearing to read "John Farias, Jr.", written in dark ink.

JOHN FARIAS, JR.  
Chairman, Board of Agriculture

GEORGE R. ARIYOSHI  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813

RYOKICHI HIGASHIONNA, Ph.D.  
DIRECTOR

DEPUTY DIRECTORS  
JACK K. SUWA  
JAMES R. CARRAS  
JAMES B. McCORMICK  
JONATHAN K. SHIMADA, Ph.D.

IN REPLY REFER TO:

STP 8.6368

July 2, 1980

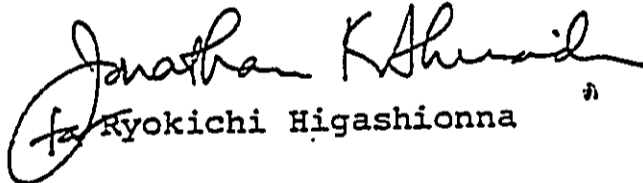
MEMORANDUM

TO: DR. RICHARD O'CONNELL, DIRECTOR  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

FROM: DIRECTOR OF TRANSPORTATION

SUBJECT: AMENDMENT TO THE REVISED EIS FOR HALE POHAKU  
MID-LEVEL FACILITY MASTER PLAN

Thank you for the opportunity to review the subject amendment. We have no substantive comments to offer which could improve the document.

  
for Ryokichi Higashionna



GEORGE R. ARIYOSHI  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 119, HONOLULU, HAWAII 96810

17  
JUL 7 0 JUL

HIDEO MURAKAMI  
COMPTROLLER

MIKE N. TOKUNAGA  
DEPUTY COMPTROLLER

LETTER NO. (P) 1727.0

JUL - 3 1990

Office of Environmental Quality  
Control  
550 Halekauwila Street  
Room 301  
Honolulu, Hawaii 96813

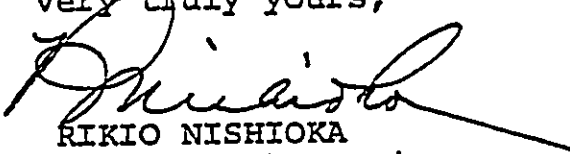
Gentlemen:

Subject: Amendment to the Revised EIS for  
Hale Pohaku Mid-Level Facility Master Plan

Thank you for this opportunity to review and comment  
on the subject document.

We have reviewed the amendment and understand that the  
environmental impact caused by future construction of addi-  
tional telescopes at the mid-level cannot be evaluated at the  
present time. As such, we have no comments to present on  
the subject document.

Very truly yours,

  
RIKIO NISHIOKA  
State Public Works Engineer

MI:ck

*over*

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RECEIVED

GEORGE R. ARIYOSHI  
GOVERNOR OF HAWAII

30 JUL 10 AIO: 48



...ED

GEORGE A. L. YUEN  
DIRECTOR OF HEALTH

~~VERNE G. WANTS, M.D.~~  
DEPUTY DIRECTOR OF HEALTH

HENRY N. THOMPSON, M.A.  
DEPUTY DIRECTOR OF HEALTH

~~JAMES S. KUMAGAI, D.M.D., D.S.~~  
DEPUTY DIRECTOR OF HEALTH

~~JAGAO-DEPRU~~  
DEPUTY DIRECTOR OF HEALTH

DEPT. OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

STATE OF HAWAII  
DEPARTMENT OF HEALTH

P.O. BOX 3378  
HONOLULU, HAWAII 96801

14 JUL 38

July 9, 1980

In reply, please refer to:  
File: EPHS-SS

MEMORANDUM

To: Mr. Susumu Ono, Chairman of the Board  
Department of Land & Natural Resources

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement (EIS) for Hale Pohaku Mid-Level  
Facility Master Plan, Mauna Kea Science Reserve, Hamakua  
District, Hawaii

Thank you for allowing us to review and comment on the subject EIS. On the basis that the project will comply with all applicable Public Health Regulations, please be informed that we do not have any objections to this project.

For your information, current restroom facilities for public's use are unsanitary and inadequate.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

*Melvin K. Koizumi*  
\_\_\_\_\_  
MELVIN K. KOIZUMI

cc: Chief Sanitarian, Hawaii  
OEQC

4692  
Receiving -  
pass on to DEWALI

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AUG 4 9 1980

DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE OF HAWAII

Ref. No. 1829

JUL 30 1980

Rec'd Ping. Cfc \_\_\_\_\_  
By SLC \_\_\_\_\_  
Gordon \_\_\_\_\_ Estelle \_\_\_\_\_  
Aki \_\_\_\_\_ Post \_\_\_\_\_  
Roger  \_\_\_\_\_ Library \_\_\_\_\_  
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Return to \_\_\_\_\_

Mr. Richard L. O'Connell, Director  
Office of Environmental Quality Control  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Subject: Amendment to the Revised Environmental Impact Statement  
for the Hale Pohaku Mid-Level Facility Master Plan,  
Mauna Kea Science Reserve

We have reviewed the subject document and find that it serves to further refine and elaborate upon the question of increased usage of mid-level facilities serving the Mauna Kea Science Reserve. As new ground based astronomy facilities are proposed for the summit of Mauna Kea, their corresponding impacts on limited infrastructure capacities at Hale Pohaku should be thoroughly evaluated to minimize conflict with those ongoing programs and activities which have already been approved.

Thank you for the opportunity to review and comment upon this document.

Sincerely,  
*Frank Kriwanek*  
Hideto Kono

cc:  Department of Land  
and Natural Resources

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4122

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COUNTY OF HAWAII  
DEPARTMENT OF PUBLIC WORKS  
HILO, HAWAII 96720

June 25, 1980

Mr. Donald A. Bremner, Chairman  
Office of Environmental Quality Control  
550 Halekauwila Street, Room 301  
Honolulu, HI 96813

SUBJECT: AMENDMENT TO THE REVISED EIS FOR MALE POHAKU MID-LEVEL FACILITY MASTER PLAN

Thank you for your June 20, 1980 letter transmitting the subject amendment for our comments.

We have reviewed the amendment and have no comments to offer.

EDWARD HARADA  
Chief Engineer

cc: Department of Land & Natural Resources

7232

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COPY

PLANNING DEPARTMENT  
25 AUPUNI STREET

COUNTY OF HAWAII

HILO, HAWAII 98720

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JUL 3 11:00 AM

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JUL 3 4:08

OFFICE OF THE ATTORNEY GENERAL  
STATE OF HAWAII

LAND & NATURAL RESOURCES  
STATE OF HAWAII

June 30, 1980

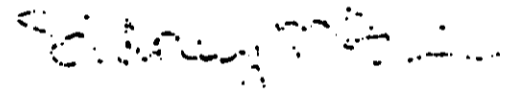
Mr. Donald A. Bremner, Chairman  
Office of Environmental Quality Commission  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Dear Mr. Bremner:

Amendment to the Revised EIS for Hale Pohaku  
Mid-Level Facility Master Plan,  
Hauakua, Hawaii

Thank you for sending the subject document to us for review. Please note that we have no adverse comments to offer at this time. Mahalo.

Sincerely,



SIDNEY FURE  
Director

ES:y

cc: Susumu Ono, Dept. of Land & Natural Resources

*copy*

4272

DEPARTMENT OF PARKS & RECREATION  
COUNTY OF HAWAII  
HILS: HAWAII 96726

July 2, 1980

Office of Environmental Quality Control  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

DEPT. OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

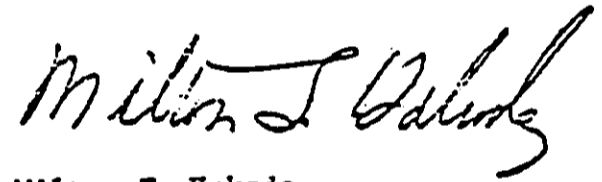
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Subject: Amendment to the Revised EIS for Hale Pohaku  
Mid-Level Facility Master Plan  
Mauna Kea Science Reserve

We have reviewed the subject document and have no adverse comments  
to offer.

Thank you for the opportunity to review the report.



Milton T. Hakoda  
Director

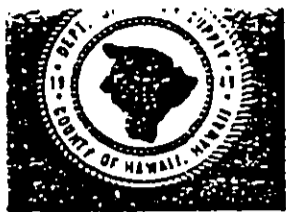
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cc: Dept. of Land and Natural Resources

DEPT. OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

80 JUL 8 AM 11:05

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COPY

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

P. O. BOX 1820

HILO, HAWAII 96720

25 AUPUNI STREET

July 2, 1980

30 JUL 7 11:26

DEPT. OF LAND  
& NATURAL RESOURCES  
STATE OF HAWAII

Environmental Quality Commission  
Office of the Governor  
550 Halekauwila Street, Room 301  
Honolulu, HI 96813

JUL 8 11:05  
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AMENDMENT TO THE REVISED EIS FOR  
HALE POHAKU MID-LEVEL FACILITY MASTER PLAN  
MAUNA KEA SCIENCE RESERVE, HAMAKUA, HAWAII

We have no adverse comments to offer on the subject Environmental  
Impact Statement.

H. William Sewake  
Manager

GK

cc - Department of Land and Natural Resources

... Water brings progress...

RECEIVED



UNIVERSITY OF HAWAII at Manoa

Environmental Center  
Crawford 317 • 2550 Campus Road  
Honolulu, Hawaii 96822  
Telephone (808) 948-7361

Office of the Director

June 25, 1980

Mr. Richard O'Connell  
Office of Environmental Quality Control  
550 Halekauwila Street  
Room 301  
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Amendment to the Revised EIS  
for Hale Pohaku Mid-Level Facility Master Plan  
Mauna Kea Science Reserve, Hawaii

The Environmental Center has received the above cited amendment. We have no comments to make regarding the material in the document at this time.

We appreciate the opportunity to review the amendment.

Sincerely,

Doak C. Cox  
Director

DCC/dh

cc: Department of Land and  
Natural Resources  
John Sorensen

AN EQUAL OPPORTUNITY EMPLOYER



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4350

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30 JUL 10 AIO: 48 JUL 14 11: 39

STATE OF HAWAII

07 July 1980

Office of Environmental Quality  
Control  
550 Halekauwila Street  
Room 301  
Honolulu, HI 96813

Gentlemen:

This is to advise you that our staff has received  
"Amendment to the Revised EIS for Hale Pohaku  
Mid-Level Facility Master Plan" dated June 20, 1980.  
We have no further comments to make.

Thank you for providing us with an opportunity  
to review the plan.

Sincerely yours,

YS  
Yoneo Sagawa  
Director  
Lyon Arboretum

YS:fm

cc: Department of Land and Natural Resources

Handwritten notes in the top left corner.

4584

RECEIVED

UNIVERSITY OF HAWAII

80 JUL 25 A 8:30

Water Resources Research Center

16 July 1980

DEPT. OF LAND & NATURAL RESOURCES STATE OF HAWAII

Office of Environmental Quality Control  
550 Halekauwila Street  
Room 301  
Honolulu, Hawaii 96813

Subject: Review of Amendment to the Revised EIS for Hale Pohaku  
Mid-Level Facility

Gentlemen:

We have reviewed the amendment and have no comments to submit on the subject EIS.

Thank you for the opportunity to review and submit comments on this amendment.

Sincerely,

Handwritten signature of Henry K. Gee

Henry K. Gee  
Acting WRRRC EIS Coordinator

HKG:jm

cc: F. Peterson  
E. Murabayashi

*Handwritten mark*

RECEIVED

HAWAIIAN TELEPHONE

613

30 JUL 2 A 7: 51

June 30, 1980

DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE OF HAWAII

Office of Environmental Quality Control  
550 Halekaiwila Street  
Room 301  
Honolulu, Hawaii 96813

*Vertical stamp or markings*

Gentlemen:

Amendment to the Revised EIS for Hale  
Pohaku Mid-Level Facility Master Plan

This acknowledges receipt of your June 20, 1980 letter regarding the subject matter. We have no objections to the amendment or comments to offer.

Sincerely,

*Richard Mau*  
Richard Mau  
Engineering and Construction  
Staff Manager

cc: ~~Department of Land and Natural Resources~~  
P. O. Box 621  
Honolulu, Hawaii 96809

# BERNICE P. BISHOP MUSEUM

*P. O. Box 19000-A, Honolulu, Hawaii 96819 • Telephone 847-3511*  
July 2, 1980

Office of Environmental Quality Control  
Room 301  
550 Halekaiwila Street  
Honolulu, Hawaii 96813

Dear Sirs:

Thank you for sending us the amendment to the revised EIS for Hale Pohaku Mid Level Facilities Master Plan for review.

As you know Dr. Patrick McCoy of the Department of Anthropology at the museum conducted the archaeological reconnaissance of the area for the EIS in August 1979.

At that time he concluded that there was no chance of the facility causing any adverse environmental impacts to the historical and archaeological resources in the project area.

His survey suggested that there were no archaeological sites in the area because of environmental conditions adverse to the maintenance of permanent or seasonal settlement. There is no rock in the vicinity suitable for adze-making, the principal human prehistoric activity at this height and above on Mauna Kea.

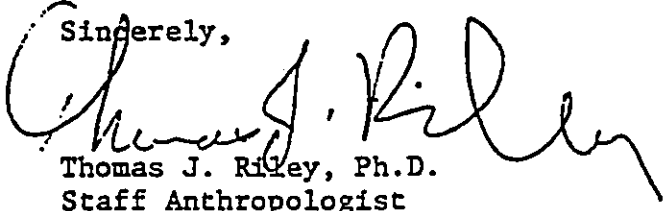
On the basis of his survey and the declaration of no impact on archaeological resources that resulted from it, we feel that no further archaeological survey is necessary for the additional area of the proposed amendment.

If, however, any archaeological sites should come to the attention of the designers or contractors in the area the Dept. of Land and Natural Resources Historic Preservation Office should be contacted immediately for the preparation of a plan for mitigation of impact.

Based on Dr. McCoy's survey, however, and the map of the proposed expansion of the mid-level facility, there seems little likelihood that such action will be necessary.

Thank you for sending us the amendment for our files and for your continuing interest in preserving Hawaii's past.

Sincerely,

  
Thomas J. Riley, Ph.D.  
Staff Anthropologist

Encls.

cc: Dept. of Land and Natural Resources

# BERNICE L. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847 3511

August 22, 1979

Mr. Francis Oda  
President, Group 70 Inc.  
924 Bethel Street  
Honolulu, Hawaii'i 96813

Dear Mr. Oda:


The archaeological reconnaissance survey you requested for preparation of the Mauna Kea Mid-Elevation Facilities Master Plan was conducted on August 17, 1979. As I expected, we found no archaeological or historic sites in either of the two upper-elevation alternative areas, at Hale Pōhaku and at the 8000-ft elevation. The gate to the Humu'ula Sheep Station was padlocked; because we did not have permission to enter the land, we did not inspect the grounds within the fenced area. In view of what you said about the viability of this third alternative location for the astronomy facilities, it did not seem warranted to trespass. There are no visible archaeological remains in the general area of the station, however, and thus no reason to predict that any exist within the Station proper. The absence of sites in the surveyed areas is understandable for reasons briefly outlined below.

The Mauna Kea Summit Road, from the Saddle Road junction to Hale Pōhaku, is in a high-elevation, moderately arid environment that on current evidence was minimally exploited by pre-contact Hawaiians. There is, for example, no adze-quality basalt in this area and no other apparent resources (e.g., birds and wood) that would have required the establishment of camps with substantial housing during short periods of resource exploitation. The most likely locations of any such camps in proximity to the modern summit road would have been along the Humu'ula Trail. Archaeological sites have been found along the trail, but all of them are located much higher on the mountain, in the adze quarry. The known site nearest to Hale Pōhaku is at roughly the 10,000-ft elevation on Waikahalulu Gulch.

If the Humu'ula Sheep Station should be reconsidered as a potential site for the astronomy facilities, further archival research may be required to establish the Station's historical significance. Joseph Brennan mentions in his book, The Parker Ranch of Hawaii, that the Humu'ula Sheep Station was added to the ranch holdings on March 3, 1914, and that the area was prime sheep country. There is, then, some history associated with the Station, but I don't know whether or not any of the original buildings remain.

We appreciate the opportunity to do this survey for you. Please call me if we can be of any further assistance.

Sincerely,

  
Patrick C. McCoy  
Archaeologist

PCM:gmc

DO WAUD

4572

GEORGE R. ARIYOSHI  
GOVERNOR



RICHARD O'CONNELL  
DIRECTOR  
TELEPHONE NO.  
548-8915

RECEIVED  
JUL 23 8 50

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

550 HALEKAUWILA ST.  
ROOM 301  
HONOLULU, HAWAII 96813

July 21, 1980

Rec'd Plng. Ofc JUL 24 1980  
By: *[Signature]*  
Checked: *[Signature]*

MEMORANDUM

TO: Susumu Ono, Chairman  
Department of Land and Natural Resources

FROM: Richard L. O'Connell, Director  
Office of Environmental Quality Control *[Signature]*

SUBJECT: Amendment to the Revised Environmental Impact  
Statement for the Hale Pohaku Mid-Level Facilities  
Master Plan, Mauna Kea Science Reserve, Hamakua  
District

We reviewed the subject document and offer the following  
comments for your consideration.

REGULATIONS (Page 3)

The statement, "All applications for proposed summit  
facilities are also subject to approval under DLNR Regulation  
4, relating to Conservation District and other applicable  
Federal regulations," should be amended to include, "other  
Federal, State, and County regulations."

REMOTE CONTROL

Although the amendment discusses the impact from remote  
control devices, consideration should also be given to conditions  
when remote control may not be feasible or available.

CONSULTATION WITH U.S. FISH AND WILDLIFE

We wish to point out that any expansion of the mid-level  
facility would require another formal consultation process

Susumu Ono  
July 21, 1980  
Page 2

with the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act.

PALILA CRITICAL HABITAT

The amendment fails to discuss the impact on the palila if expansion occurs. Will the palila habitat be significantly affected? Will more mamane trees be removed? How will this affect the palila?

We trust that our comments will be helpful to you. For your convenience, we have attached a list of commenting agencies and organizations.

If you should have any questions regarding this document, please contact us.

Attachment

LIST OF COMMENTING PARTIES

FEDERAL

|                                  |               |
|----------------------------------|---------------|
| U.S. Coast Guard                 | June 23, 1980 |
| *Department of Energy            | June 24, 1980 |
| *Soil Conservation Service       | June 25, 1980 |
| Department of the Air Force      | July 7, 1980  |
| *Naval Base Pearl Harbor         | July 7, 1980  |
| *Department of the Army (USASCH) | July 7, 1980  |
| *U.S. Fish and Wildlife Service  | July 14, 1980 |

STATE

|   |               |
|---|---------------|
| *Department of Defense                      | No Date       |
| State Energy Office                         | June 24, 1980 |
| Department of Agriculture                   | June 25, 1980 |
| Department of Transportation                | July 2, 1980  |
| Department of Accounting & General Services | July 3, 1980  |
| *Department of Health                       | July 9, 1980  |

COUNTY OF HAWAII

|                                     |               |
|-------------------------------------|---------------|
| *Department of Public Works         | June 25, 1980 |
| *Planning Department                | June 30, 1980 |
| *Department of Parks and Recreation | July 2, 1980  |
| *Department of Water Supply         | July 2, 1980  |

UNIVERSITY OF HAWAII

|                            |               |
|----------------------------|---------------|
| *Environmental Center      | June 25, 1980 |
| *Harold L. Lyons Arboretum | July 7, 1980  |

PRIVATE

|                     |               |
|---------------------|---------------|
| *Hawaiian Telephone | June 30, 1980 |
| *Bishop Museum      | July 2, 1980  |

\*Denotes comment forwarded to DLNR by reviewer





STATE OF TEXAS  
COMMISSIONER OF THE GENERAL LAND OFFICE  
DALLAS, TEXAS

[Faint, mostly illegible text, likely a letter or official communication.]

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