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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER RESOURCE MANAGEMENT

P. O. BOX 373
HONOLULU, HAWAII 96809

APR 25 1991

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OFC. OF ENVIRONMENTAL
QUALITY CONTROL

Mr. Brian J.J. Choy
Director
Office of Environmental
Quality Control
220 S. King Street, 4th Floor
Honolulu, Hawaii 96813

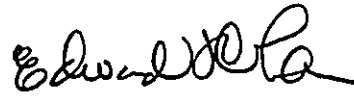
Dear Mr. Choy:

Job No. 80-OP-H10, Sacred Falls
State Park Flash Flood Alarm System
Koolauloa, Oahu, Hawaii

Pursuant to Section 11 of the Environmental Impact Statement Rules, transmitted for processing are four (4) copies of the Environmental Assessment and Notice of Determination (Negative Declaration) for the subject project. Also, attached is a completed OEQC Bulletin Publication Form.

If there are any questions on this matter, please have your staff contact Mr. Edward Lau of the Planning Branch at extension 8-7496.

Sincerely,

for 
KAZUO G. AKITA
Manager-Chief Engineer

AM:lc

c: Div. of State Parks, DLNR

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* 1991-05-08-0A-FEA

FILE COPY

**ENVIRONMENTAL ASSESSMENT
AND
NEGATIVE DECLARATION**

Job No. 80-OP-H10

* **Sacred Falls State Park**

Flash Flood Alarm System

Koolauloa, Oahu, Hawaii *

**State of Hawaii
Department of Land and Natural Resources
Division of Water Resource Management
April, 1991**

NOTICE OF DETERMINATION: Negative Declaration

**FOR: Job No. 80-OP-H10
Sacred Falls State Park
Flash Flood Alarm System
Koolauloa, Oahu, Hawaii**

**BY: Division of Water Resource Management
Department of Land and Natural Resources**

The proposed action will have no significant effect on the environment and therefore does not require the preparation of an Environmental Impact Statement. This Notice of Determination and Environmental Assessment are being filed as a Negative Declaration.

ENVIRONMENTAL ASSESSMENT

For

Job No. 80-OP-H10
Sacred Falls State Park
Flash Flood Alarm System
Koolauloa, Oahu, Hawaii

I. Applicant/Proposing Agency

Division of Water Resource Management
Department of Land and Natural Resources

II. Agencies Consulted

State of Hawaii
Department of Land and Natural Resources
Historic Preservation Division
Division of Forestry
Division of State Parks

City & County of Honolulu
Department of Land Utilization
Board of Water Supply

III. Project Description

The State Department of Land and Natural Resources, Division of Water Resource Management is proposing the installation of a microcomputer-based flash flood warning system for the Sacred Falls State Park on Oahu, TMK: 5-3-11: 9 (see figures 1 and 2). This project involves the installation of two remote precipitation monitoring stations, a base computer station at the existing Honolulu Board of Water Supply pumping station, a repeater station and three audio and/or visual alarm systems.

A helicopter will only be used to transport materials and equipment to the two remote precipitation monitoring stations above Sacred Falls in the Koolau Range and the alarm station at the base of Sacred Falls. Existing cleared areas will be used as temporary landing pads during the installation.

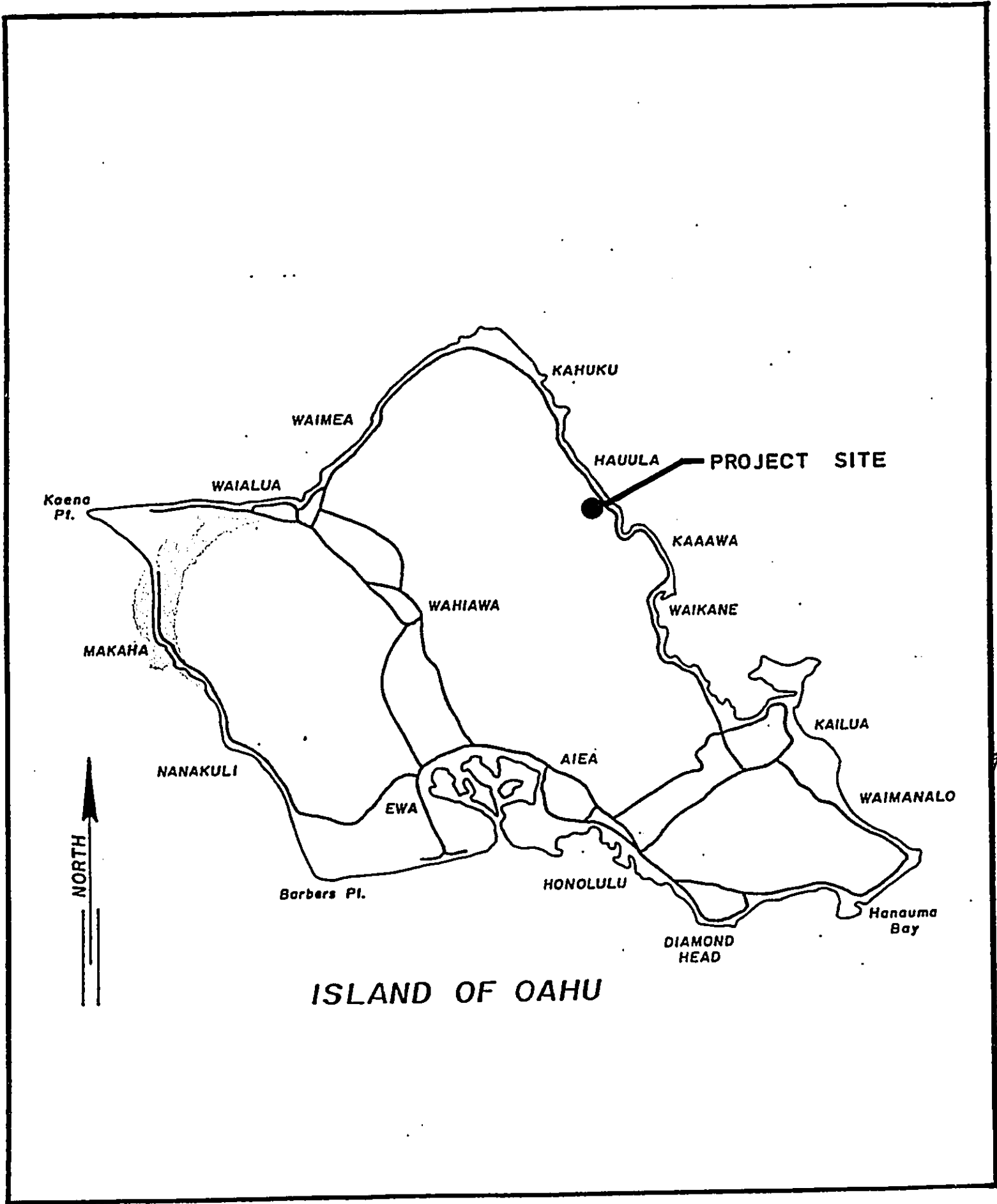


FIGURE 1

During heavy rains in the Koolau Range, Kaluanui Stream, which passes through the park, becomes susceptible to flash flooding. Over the years, several unsuspecting hikers have been killed by the sudden and unexpected deluge. An electronic monitoring system will be able to warn hikers of possible flood conditions ahead of time, allowing them to escape to higher ground. When rainfall in the area exceeds a certain predetermined amount over a fifteen minute period, the alarms will be activated to warn park visitors that a flash flood is imminent. A telemetry system by radio frequency will monitor the rainfall and activate the alarm stations.

IV. Project Schedule and Cost Estimate

The construction portion of this project should be completed 180 calendar days after receipt of notice to proceed. The preliminary construction cost for the project is \$116,400.00.

V. Potential Impacts

Short Term Impacts

Short term impacts of the proposed project should be minimal. Control measures will be performed to reduce any dust nuisance caused by the construction. Erosion and sediment control will be managed by soil protection and drainage facilities. Care shall be exercised to preserve the natural landscape. All short term impacts will be mitigated by normal construction practices.

Long Term Impacts

The proposed project will provide Sacred Falls State Park with a much needed monitoring and alarm system. It will alert park visitors to potentially hazardous conditions and hopefully prevent any more deaths due to flash floods. Once the installation is complete, operation should be automatic. No adverse long term environmental impacts are anticipated.

VI. Alternatives to the Proposed Action

Alternative Site

The flash floods in question are localized at Kaluanui Stream in the Sacred Falls State Park. The proposed project has been developed exclusively in response to the unacceptable number of injuries or fatalities which have occurred as a result of the floods. It would not solve anything to consider an alternate site for this particular project.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

During heavy rains in the Koolau Range, Kaluanui Stream, which passes through the park, becomes susceptible to flash flooding. Over the years, several unsuspecting hikers have been killed by the sudden and unexpected deluge. An electronic monitoring system will be able to warn hikers of possible flood conditions ahead of time, allowing them to escape to higher ground. When rainfall in the area exceeds a certain predetermined amount over a fifteen minute period, the alarms will be activated to warn park visitors that a flash flood is imminent. A telemetry system by radio frequency will monitor the rainfall and activate the alarm stations.

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No Action

Taking no action would not alleviate the problem in any way and may result in more fatalities. This cannot be seriously considered as an option.

VII. Discussion of Significant Criteria

In considering the significance of potential environmental impacts, both short term and long term, with respect to the criteria as defined in Chapter 343, Hawaii Revised Statutes Section 1:31, it has been determined that:

1. The proposed action does not involve an irrevocable commitment or loss of or destruction of any natural or cultural resource:

This project involves the installation of several small monitoring and alarm stations mounted on towers or posts along Kaluanui Stream. There are no natural or cultural resources associated with the project site. Care will be taken to preserve the natural landscape and protect any trees in the area.

2. The proposed action does not curtail the range of beneficial uses of the environment:

The project will monitor rainfall for the safety of the park visitors. As such it will be compatible with the uses of the surrounding area. The project will enhance the range of beneficial uses of the environment.

3. The proposed action is in concert with the state's long-term environmental policies, goals and guidelines as expressed in Chapter 343, HRS, and any revisions and amendments thereto, court decisions and executive orders:

The proposed project is consistent with the State Land Use Plan which is in concert with all applicable policies, goals and guidelines. No long term environmental conflicts are foreseen.

4. The proposed action does not substantially affect the economic or social welfare of the community or state:

The economic impact will be affected by the short term construction related activities only. Because the proposed system will warn hikers of flash flood conditions, it will be beneficial to the community. Any long term effects of the proposed project should be positive.

5. The proposed action does not involve substantial secondary impacts such as population changes or effects on public facilities:

The proposed project will not result in an increase in population, nor will it affect normal population growth in the area. It will not have any negative effects of public facilities.

6. The proposed action does not substantially affect public health:

Because of the limited nature of this project, noise, dust and erosion should be minimal. Any short term impacts will be mitigated by normal preventive measures and long term impacts are not anticipated.

7. The proposed action does not involve a substantial degradation of environmental quality:

The existing physical aspects of the surrounding area will be preserved. Once completed, the concrete footbridge will not generate any noise. It will have no adverse impact on the air quality and will not adversely affect Kaluanui Stream.

8. The proposed action is individually limited and cumulatively, does not have a considerable effect upon the environment or involve a commitment for larger actions:

The proposed project was conceived as a direct result of the hazardous conditions caused by the flash floods. This hazard is of particular concern at Sacred Falls, where several people have already died. The proposed project is limited to Sacred Falls State Park and does not involve a commitment for any larger action.

9. The proposed action does not substantially affect rare, threatened or endangered species or habitats:

Sacred Falls State Park is known for its rare and unusual flora. All rare, threatened or endangered plants will be carefully avoided during installation of the stations.

10. The proposed action does not affect areas of archaeological interest:

Very little excavation, if any, will be required to install the monitoring and alarm systems. No historic or archaeologically significant locations are anticipated at the site. If any unanticipated sites of artifacts are discovered during construction, the work will be halted and the State Historic Preservation Office will be contacted.

11. The proposed action does not detrimentally affect air or water quality or ambient noise levels:

Any short term impacts on air quality and noise levels will be mitigated by normal control measures. Development of the project will not increase ambient noise levels. Air and water quality will not be substantially affected during construction. When the system is operational there should be no adverse effects on ambient noise levels or air and water quality in the area.

VIII. Determination

In accordance with Chapter 343, Hawaii Revised Statutes, it is determined that the proposed project would not have any significant adverse effects on the environment. Any potentially negative effects have been identified along with suggested mitigative measures. Consequently, an Environmental Impact Statement is not required and this Environmental Assessment is hereby being filed as a Negative Declaration.