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

Dear Mr. Gill:

SPECIAL MANAGEMENT AREA ORDINANCE
CHAPTER 25, ROH
Environmental Assessment/Determination
Finding of No Significant Impact

Recorded Owner: Board of Water Supply, City and County of Honolulu
Applicant: Maunalua Associates, Inc.
Agent: Kusao & Kurahashi, Inc.
Location: 7381 Kalanianaole Highway - Koko Head
Tax Map Key: 3-9-12: por. 07
Request: Special Management Area Use Permit
Proposal: To construct a 1.0 million gallon water reservoir
Determination: A Finding of No Significant Impact is issued

Attached and incorporated by reference is the Final Environmental Assessment (FEA) prepared by the applicant for the project. Based on the significance criteria outlined in Chapter 200, State Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the FEA. If you have any questions, please contact Joan Takano of our staff at 527-5038.

Very truly yours,

[Signature]

PATRICK T. ONISHI
Director of Land Utilization

PTO: am
Enclosures

Please review the attached document.
SPECIAL MANAGEMENT AREA USE PERMIT APPLICATION
AND FINAL ENVIRONMENTAL ASSESSMENT REPORT
KOKO HEAD 170-FOOT WATER RESERVOIR ADDITION
Maunalua, Oahu, Hawaii
Tax Map Key: 3-9-12: 7

MAUNALUA ASSOCIATES, INC.
6600 Kalanianaole Highway, Suite 300
Honolulu, Hawaii 96825

APPLICANT

KUSAO & KURAHASHI, INC.
Planning and Zoning Consultants
210 Ward Avenue, Suite 124
Honolulu, Hawaii 96814

AGENT

JUNE 1996
SPECIAL MANAGEMENT AREA USE PERMIT APPLICATION  
AND FINAL ENVIRONMENTAL ASSESSMENT REPORT  
KOKO HEAD 170-FOOT WATER RESERVOIR ADDITION  
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APPLICANT

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Planning and Zoning Consultants  
210 Ward Avenue, Suite 124  
Honolulu, Hawaii 96814  

AGENT

JUNE 1996
June 21, 1996

Mr. Patrick T. Onishi, Director
Department of Land Utilization
City and County of Honolulu
650 S. King Street, 7th Floor
Honolulu, Hawaii 96813

Attention: Mr. Art Challacombe, Chief
Environmental Affairs Branch

Dear Mr. Onishi:

Subject: Special Management Area Permit Application and Final Environment Assessment Report for the Proposed Koko Head 170-Foot Water Reservoir Addition, Maunalua, Oahu, Hawaii Tax Map Key: 3-9-12: 7

On behalf of the applicant, Maunalua Associates, Inc., I hereby submit five (5) copies of the Special Management Area Use Permit Application and Final Environmental Assessment Report.

Based on the enclosed Final Environmental Assessment, the applicant respectfully requests a negative declaration for the project. The project's impact on the environment and neighboring properties will be minimal and mitigation measures will be implemented by the applicant to further reduce these impacts.

Your assistance in processing this request is sincerely appreciated. Should there be questions or you require additional information, please contact our office.

Very truly yours,

Keith H. Kurahashi

cc: Maunalua Associates, Inc.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. GENERAL INFORMATION</td>
<td>2</td>
</tr>
<tr>
<td>A. Applicant</td>
<td>2</td>
</tr>
<tr>
<td>B. Approving Agency</td>
<td>2</td>
</tr>
<tr>
<td>C. Recorded Fee Owner</td>
<td>2</td>
</tr>
<tr>
<td>D. Agent</td>
<td>2</td>
</tr>
<tr>
<td>E. Tax Map Key</td>
<td>2</td>
</tr>
<tr>
<td>F. Location</td>
<td>2</td>
</tr>
<tr>
<td>G. Lot Area</td>
<td>4</td>
</tr>
<tr>
<td>H. State Land Use</td>
<td>4</td>
</tr>
<tr>
<td>I. Development Plan</td>
<td>4</td>
</tr>
<tr>
<td>J. Zoning</td>
<td>4</td>
</tr>
<tr>
<td>K. Special District</td>
<td>4</td>
</tr>
<tr>
<td>L. Existing Use</td>
<td>4</td>
</tr>
<tr>
<td>M. Agencies Consulted</td>
<td>4</td>
</tr>
<tr>
<td>III. DESCRIPTION OF THE PROPOSED ACTION</td>
<td>4</td>
</tr>
<tr>
<td>A. General Description</td>
<td>4</td>
</tr>
<tr>
<td>1. Proposed Project</td>
<td>4</td>
</tr>
<tr>
<td>2. Location</td>
<td>10</td>
</tr>
<tr>
<td>3. Land Use Approvals</td>
<td>10</td>
</tr>
<tr>
<td>B. Technical Characteristics</td>
<td>12</td>
</tr>
<tr>
<td>1. Land Use Details</td>
<td>12</td>
</tr>
<tr>
<td>2. Infrastructure/Utilities/Service Details</td>
<td>13</td>
</tr>
<tr>
<td>C. Economic And Social Characteristics</td>
<td>15</td>
</tr>
</tbody>
</table>
10. Marine Resources ........................................ 38

B. Policies ..................................................... 38

1. Recreational Resources .................................. 38
2. Historic Resources ....................................... 39
3. Scenic and Open Space Resources ...................... 40
4. Coastal Ecosystems ..................................... 41
5. Economic Uses .......................................... 42
6. Coastal Hazards .......................................... 42
7. Managing Development ................................... 42
8. Public Participation ...................................... 43
9. Beach Protection ......................................... 43
10. Marine Resources ....................................... 43

VII. VII. AGENCY COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT ........................................ 43

VIII. MITIGATION MEASURES .................................. 44

IX. BASIS FOR A NEGATIVE DECLARATION FOR THE PROPOSED KOKO HEAD 170-FOOT WATER RESERVOIR . 45

A. Description of the Proposed Action ...................... 45
B. Determination and Reasons Supporting Determination . 47

1. No irrevocable commitment to loss or destruction of any natural or cultural resource would result. ... 48
2. The action would not curtail the range of beneficial uses of the environment. ......................... 50
3. The proposed action does not conflict with the state’s long-term environmental policies or goals and guidelines. ................................................................. 50
4. The economic or social welfare of the community or state would not be substantially affected. ... 51
5. The proposed action does not substantially affect public health. ........................................... 52
6. No substantial secondary impacts, such as population changes or effects on public facilities, are anticipated. ........................................... 52
7. No substantial degradation of environmental quality is anticipated. ......................................................... 52
8. The proposed action does not involve a commitment to larger actions, nor would cumulative impacts result in considerable affects on the environment. ............................. 54
9. No rare, threatened or endangered species or their habitats would be affected. ................................. 54
10. Air quality, water quality or ambient noise levels would not be detrimentally affected. ......................... 55
11. The project would not affect environmentally sensitive areas, such as flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters. .......................... 56

X. CONCLUSION ................................................................. 57
## LIST OF EXHIBITS

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Location Map</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Development Plan Land Use Map</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Zoning Map</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Special Management Area Use Map</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Site Plan</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>Archaeological Resource Map</td>
<td>22</td>
</tr>
</tbody>
</table>
LIST OF APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1960 Reservoir Plan</td>
</tr>
<tr>
<td>II</td>
<td>Site Photographs</td>
</tr>
<tr>
<td>III</td>
<td>Agency Comments</td>
</tr>
</tbody>
</table>
SPECIAL MANAGEMENT AREA USE PERMIT APPLICATION
AND FINAL ENVIRONMENTAL ASSESSMENT REPORT
KOKO HEAD 170-FOOT WATER RESERVOIR ADDITION
Maunalua, Oahu, Hawaii
Tax Map Key: 3-9-12: 7

I. INTRODUCTION

This Special Management Area Use Permit Application and Final Environmental Assessment Report for the construction of a 1.0 million gallon (mg) water reservoir, located in Hawaii Kai, was prepared pursuant to requirements established within Chapter 25, Revised Ordinances of Honolulu, as amended, since the site is in the Special Management Area, and pursuant to Title 11, Chapter 200, Section 11-200, Environmental Impact Statement (EIS) Administrative Rules, State Department of Health (DOH), since the site is in the State Conservation District. It was also prepared in accordance with the Department of Land Utilization's "Content Guide for Preparing an Environmental Assessment Required with an Application for a Special Management Area Use Permit (SMP) Chapter 25, Revised Ordinances of Honolulu, as amended".

This final environmental assessment provides the basis for a Negative Declaration determination for the proposed project pursuant to Chapter 25, Revised Ordinances of Honolulu, as amended and Section 11-200-2 of the DOH, EIS Administrative Rules.
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit * Final Environmental Assessment

II. GENERAL INFORMATION

A. Applicant : Maunalua Associates, Inc.
P.O. Box 25007
Honolulu, Hawaii 96825
Mr. Michael M. Morita
Project Manager

B. Approving Agency : Department of Land Utilization
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

C. Recorded Fee Owner : Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96813

D. Agent : Kusao & Kurahashi, Inc.
Planning and Zoning Consultants
210 Ward Avenue, Suite 124
Honolulu, Hawaii 96814
(808) 538-6652

E. Tax Map Key : 3-9-12: 7

F. Location : The project site is located on the south side of Kalanianaole Highway, on the ewa slope of Koko Head. It is adjacent to the Koko Head Regional Park in Hawaii Kai and has a street address of 7381 Kalanianaole Highway (See Exhibit 1).
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit * Final Environmental Assessment

G. Lot Area : 2.038 acres
H. State Land Use : Conservation
I. Development Plan
   Land Use Map : Preservation (Exhibit 2)
   Public Facilities Map : No improvements planned within the site.
J. Zoning : P-1 Restricted Preservation District (Exhibit 3).
K. Special District : Special Management Area (Exhibit 4).
L. Existing Use : The subject property is developed with an existing 1.0 mg water reservoir and pump station.
M. Agencies Consulted : Board of Water Supply

III. DESCRIPTION OF THE PROPOSED ACTION

A. General Description

1. Proposed Project

   The applicant plans to construct a 1.0 million gallon (mg) water reservoir for additional water storage next to the existing 1.0 mg water reservoir on this 2.038 acre site within Hawaii Kai (Site Plan,
Exhibit 5). The proposed project will consist of the proposed 1.0 mg water reservoir and connection to the existing pump station and underground piping and valves.

The project site was originally developed in the early 1960's based on plans approved by the Board of Water Supply. The plot plan depicts a 1.0 mg water reservoir that has been built and a second (future) 1.0 mg water reservoir to be built on the lot. The site was graded and developed with a cut in the slope to accommodate both the existing water reservoir and the planned future water reservoir. Because of this earlier preparation of the site, the installation of the new water reservoir will require very limited grading, possibly just the excavation to construct footings for the new reservoir. A copy of the Plot Plan approved by the Board of Water Supply for the site in 1960 is provided in Appendix I and details the site preparation plan for both the existing and future water reservoirs. We have also provided recent photographs in Appendix II which depicts the existing development on the site and the vacant area reserved for the future water reservoir.
2. Location

The project site is located on the south side of Kalanianaole Highway on the ewa slopes of Koko Head. It is adjacent to the Koko Head Regional Park in Hawaii Kai and has a street address of 7381 Kalanianaole Highway. The project site is within the East Honolulu Development Plan area, Hawaii Kai Neighborhood Board and the Census Tract No. 1.02. The 2.038 acre parcel is ewa of the Koko Head Regional Park and Hanauma Bay. The project site, zoned P-1 Restricted Preservation District, is adjacent to two zoning districts. To the south is the Koko Head Regional Park, which is also zoned P-1 Restricted Preservation District. The Maunalua Triangle residential subdivision, zoned R-10 Residential District, is located to the north.

3. Land Use Approvals

a. State Land Use

The project site is in the State Land Use Conservation District. The proposed project will require a Conservation District Use Permit (CDUP) approval from the State Department of Land and Natural Resources (DLNR). The
applicant is in the process of preparing and submitting a CDUP
application in coordination with the State DLNR for review and
approval. This report is submitted to meet the requirements of
Chapter 343, Hawaii Revised Statues, and Title 11; Chapter
200, Environmental Impact Statement Rules.

b. Development Plan

The East Honolulu Development Plan (DP) Land Use
Map designates the 2.038 acre property as Preservation. The
proposed reservoir use will be consistent with the site’s
Preservation designation.

c. Zoning

The project site is zoned P-1 Restricted Preservation
District which places use of the site under State jurisdiction.
As discussed earlier, the applicant is in the process of preparing
and submitting a CDUP application in coordination with the
State DLNR for review and approval.
d. Special Management Area Use Permit

The project site is within the Special Management Area and will require a Special Management Area (SMA) Use Permit from the City's Department of Land Utilization. This report is submitted to meet the requirements of Chapter 25 of the Revised Ordinances of Honolulu.

B. Technical Characteristics

1. Land Use Details

The 2.038 acre subject property contains an existing 1.0 mg water reservoir and pump station. The site development includes the existing 1.0 mg water reservoir, pump station, underground piping, valves, grass, shrubs and trees. The proposed reservoir being developed is needed to provide for the water needs of the existing and future Hawaii Kai area residents and businesses.

As discussed earlier, the proposed project will consist of an additional 1.0 mg water reservoir connecting to the existing pump station and underground piping and valves.
This project site was sized and graded to accommodate the existing 1.0 mg water reservoir as well as the proposed 1.0 mg water reservoir. The initial underground piping and valves were also installed to accommodate this proposed 1.0 mg water reservoir. The proposed water reservoir will provide the necessary storage capacity to meet future development, consistent with the East Honolulu DP Land Use Map.

2. Infrastructure/Utilities/Service Details

a. Water

This site contains a 1.0 mg reservoir which is currently providing water storage to the surrounding Hawaii Kai district. The proposed reservoir will provide an additional 1.0 mg water storage facility to meet the existing and planned water storage requirements for the Hawaii Kai district. The applicant proposes to construct and dedicate the 1.0 mg water reservoir to the City and County of Honolulu, Board of Water Supply.
b. Electricity/Telephone Services

   Electrical and telephone services are currently provided to the site by the Hawaiian Electric Company and the Hawaiian Telephone Company, respectively. The proposed addition should not require a significant expansion of the existing service demand.

c. Wastewater Disposal

   There will be no wastewater generated by the proposed or existing water reservoir.

d. Solid Waste

   There will be no solid waste generated by the proposed or existing water reservoir.

e. Roadways and Parking

   The project site is accessed by the two lane section of the, State owned, Kalanianaole Highway running from Hawaii Kai to Waimanalo. The proposed project will not adversely affect traffic conditions in the surrounding area. Trips generated by the proposed project will be restricted to plant
personnel (8 times a month) and maintenance crew (4 times a month) visits, occurring twelve (12) times a month. The proposed project will not significantly change the present level of service for traffic on Kalanianaole Highway.

C. Economic And Social Characteristics

The applicant expects to begin construction of the proposed 1.0 mg water reservoir in the 1997 to Year 2000 time frame, depending on demand.

The project costs are estimated as follows:

1. Land Acquisition
   (Land owned by the BWS)
   $ 0

2. Construction
   Materials $ 380,000
   Equipment $ 300,000
   Demolition $ 10,000
   Landscaping $ 600,000
   Labor $ 1,300,000
   Total $ 1,300,000

The proposed reservoir will provide additional storage to meet the demand for future service in the Hawaii Kai Area.

The project will also provide temporary, short term employment during the construction phase of the project.
The proposed project will have no impact on the social characteristics of the neighborhood.

D. Environmental Characteristics

1. Soils

The majority of the subject site is made up of Rock Land (rRK). Rock Land is made up of areas where exposed rock covers 25 to 90 percent of the surface. It occurs on all five islands. The rock outcrops and very shallow soils are the main characteristics. The rock outcrops area mainly basalt and andesite. This land type is nearly level to very steep. The project site was previously graded to create a level pad site for both the existing and proposed reservoirs. Elevations range from nearly sea level to more than 6,000 feet.

Rock Land is used for pasture, wildlife habitat, and water supply. The natural vegetation at the lower elevations consists mainly of kiawe, klu, piligrass, Japanese tea, and koa haole. Lantana, guava, Natal redtop, and molassegrass are dominant at the higher elevations. This land type is also used for urban development.
Along the north border of the project site is Koko Silt Loam, 6 to 12 percent (KsC) slope soils. The Koko Series consist of well-drained soils on fans and volcanic spurs on the island of Oahu. These soils developed in alluvium washed from deposits of volcanic ash, cinders, and tuff. They are gently sloping to moderately steep. Elevations range from about 140 to 220 feet above sea level. Koko soils occur near Koko Head, Koko Crater, and Diamond Head. They are geographically associated with Lualualei soils.

These soils are used for Homesites, pasture, and truck crops. The natural vegetation consists of kiawe, klu, koa haole, fingergrass and bristly foxtail.

2. Topography

The project site was previously graded to create a relatively level pad area to accommodate two 1.0 mg water reservoirs and appurtenant facilities. Elevation of the project site is approximately 150 feet above mean sea level (msl) and the surrounding areas slope downward toward the Portlock subdivision, which is nearly at sea level elevation. Hanauma Bay is approximately 1,100 feet southeast
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit * Final Environmental Assessment

of the project site.

3. Drainage

Sheet flow from the project site runs north into an existing 25-foot easement for drainage and electrical purposes. Drainage south of the project site runs into the existing earth berm ditch and concrete ditch south of the existing reservoir. Drainage and surface run-off patterns will not significantly change or increase.

4. Flooding

According to the Federal Flood Insurance Rate Maps (FIRM) for the City and County of Honolulu, the site is within Flood Zone D. Flood Zone D, is an area in which flood hazards are undetermined. Situated at the 150-foot elevation on the ewa (upper) slopes of Koko Head, flood hazards at this site are minimal.
IV. AFFECTED ENVIRONMENT

A. Subject Site and Surrounding Area

The State Land Use Map designates the project site and surrounding areas, Conservation District. The project site is located on the south side of Kalanianaole Highway on the ewa slopes of Koko Head. It is adjacent to the Koko Head Regional Park in Hawaii Kai and has a street address of 7381 Kalanianaole Highway. The project site is within the East Honolulu Development Plan area, Hawaii Kai Neighborhood Board and the Census Tract No. 1.02. The 2.038 acre parcel is ewa of the Koko Head Regional Park and Hanauma Bay. The project site, zoned P-1 Restricted Preservation District, is adjacent to two zoning districts. To the south is the Koko Head Regional Park, which is also zoned P-1 Restricted Preservation District. The Maunalua Triangle residential subdivision, zoned R-10 Residential District, is located to the north.

Areas above the 200-foot elevation consists of vegetated and bare mountain slopes except for a Board of Water Supply Reservoir at the 405-foot elevation. Areas at or below the 200-foot elevation include vegetated
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit + Final Environmental Assessment

and bare mountain slopes and the residential developments in the Maunalua Triangle to the north and Portlock to the west.

B. Coastal or Natural Resources

1. Public Shoreline and Recreation Areas

   The project site does not contain shoreline access or recreation areas and will not affect access to the State Koko Head Recreational Park which is adjacent to the project site. The project site is situated on the ewa slopes of Koko Head, while the access to the Hanauma Bay Nature Park is located on the opposite slopes, which further minimizes impact of the construction activities on the Park.

   The applicant will follow the State and City regulations regarding construction noise and hours of operation. Upon completion, the project site will meet State and City development standards. Occasional maintenance visits will result in minimal traffic impact to the adjacent Kalanianaole Highway.

2. Rare or Endangered Wildlife Species

   The site does not contain any significant wildlife habitats, or rare or endangered flora and fauna. Only a few sparrows and doves
were observed on the project site. The surrounding terrain and fencing around the site minimizes the access to the site by most other animals common to the area including mongoose, cats, and dogs, however, mice, mynahs and cardinals may also be found on the site on occasion.

The proposed reservoir will have no impact on rare or endangered flora and fauna or any other flora and fauna on the site. The reservoir will be situated on a cleared area prepared for the future reservoir when the existing reservoir was first constructed.

C. Historic and Archaeological Resources

Although there are documented archaeological sites some distance away, (Koko Head petroglyphs and the Hanauma Rock Shelter, see Exhibit 6) there are no known archaeological or historic sites within the project site. The Hanauma Rock Shelter is the closest archaeological site and is located approximately 1,000 feet away, which is near the Hanauma Bay Nature Park parking lot.

The subject property is not listed on either the Hawaii or National Registers of Historic Places. Since the site has been extensively developed
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit & Final Environmental Assessment

with no previous record of historic or archaeological discoveries, the proposed project will not disturb any such sites or artifacts. With no previous record of historic or archaeological discoveries and the extensive development existing on the site, the proposed project is not expected to have an impact on archaeological resources. In addition, since the site was previously graded and developed with a cut in the slope to accommodate both the existing water reservoir and this planned future water reservoir, the installation of the new water reservoir will require very limited grading, possibly just excavation to construct footings for the new reservoir.

During the construction of the project, should any previously unidentified archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered, the applicant will stop work and contact the Historic Preservation Office for review and approval of mitigation measures.

D. Coastal Views

The proposed reservoir will be developed, adjacent to the existing reservoir, within the existing property. Coastal views, makai, towards Maunalua Bay will not be obstructed since there is no development above
the reservoirs and the reservoirs are slightly recessed in the mountain.

The view from the shoreline mauka will also not be affected since the proposed reservoir is similar in size and shape to the existing reservoir and will be located at the edge of the residential subdivision and slightly screened with a row of trees.

The reservoir will be painted in a neutral earth-tone color as required by the BWS to match the existing reservoir. We will continue the existing landscape treatment that screens the existing water reservoir from view. If necessary, additional trees will be added to provide further landscaped screening of the proposed reservoir.

E. Water Quality

The project will involve minimal grading to excavate footings for the reservoir and impact to receiving waters will be minimal. The proposed reservoir will provide additional storage to meet the demand for future service in the Hawaii Kai Area.

There is approximately 7.0 mg of existing water storage in the existing low-level water systems (water reservoirs in the 170-foot spillway elevation). The existing demand for the Hawaii Kai area is approximately
Koko Head 170-Foot Reservoir Addition

Special Management Area Use Permit * Final Environmental Assessment

6,270,200 gallons of water storage. Undeveloped lands currently zoned for urban development will require approximately 1,059,900 gallons of additional water storage. The lands designated for future urban development in the Hawaii Kai area within the East Honolulu DP Land Use Map will require between 384,700 and 534,700 gallons of additional water storage. The total existing and future Hawaii Kai residences and businesses as planned on the existing East Honolulu DP Land Use Map will require between 7,714,800 and 7,864,800 gallons of water storage capacity. This could result in a shortage of up to 864,800 gallons of water storage. The proposed 1.0 mg water reservoir is planned to provide the necessary storage capacity to accommodate the existing and planned increases in water storage requirements for the Hawaii Kai area.

V. SPECIAL MANAGEMENT AREA GUIDELINES

The City’s Special Management Area (SMA) Guidelines are contained in Chapter 25, Revised Ordinances of Honolulu (ROH), as amended, and are the counterparts to the State’s Coastal Zone Management Guidelines set forth in
Chapter 205A, Hawaii Revised Statutes. The following discussion describes how
the proposed project satisfies the City's SMA Guidelines.

A. TERMS AND CONDITIONS OF DEVELOPMENT

1. Adequate access, by dedication or other means, to publicly owned
or used beaches, recreation areas and natural reserves is provided
to the extent consistent with sound conservation principles.

As discussed earlier, the project site does not contain shoreline
access or recreation areas and will not affect access to these areas.
The project site is situated on the slopes of Koko Head and does not
provide opportunities for beach or recreation area access.

2. Adequate and properly located public recreation areas and wildlife
preserves are reserved.

The proposed reservoir will not affect public recreation areas
or wildlife preserves. The City's Park at Hanauma Bay will not be
affected by the proposed reservoir. The State Park provides adequate
access to the Bay and Koko Head hiking trails.

3. Provisions are made for solid and liquid waste treatment,
disposition and management which will minimize adverse effects upon Special Management Area resources.

As discussed earlier, the proposed and existing water reservoirs will not generate liquid or solid waste which may affect the Special Management Area, since the project site will not be manned on a full time basis.

4. Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.

As discussed earlier, the proposed project will be built on a previously graded level pad and will not require a significant amount of site work or grading. Minor clearing, grubbing and grading work will be confined to the limits of the construction site as part of the building permit application. The project site was sized and graded to accommodate the existing 1.0 mg reservoir as well as the proposed 1.0 mg reservoir in the initial development of the site and very little
grading will occur for this project. As mentioned earlier, the only grading to occur is expected to be excavation to construct footings for the new reservoir. As a result, soil erosion and siltation within the site is not anticipated. Due to its current state of development and location, project construction will not obstruct, eliminate, or affect any existing scenic or recreational amenities within the property or the surrounding area.

B. REQUIRED COUNCIL FINDINGS

1. The development will not have any substantial adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest.

As discussed throughout this report, the proposed improvements will have minimal effect on the environment or ecology due to its location and the relatively small amount of development planned. The project site was sized and graded to accommodate the existing 1.0 mg reservoir as well as the proposed additional 1.0 mg reservoir in the initial development of the site and very little grading will occur for
this proposal. Drainage impacts during construction will be mitigated to insure that no adverse impact to the coastal waters will occur.

2. The development is consistent with the objectives and polices set forth in Section 25-3.1 and area guidelines contained in HRS Section 205A-26.

As discussed in this section, "Conformance with Special Management Area Guidelines", the project is consistent with the objectives and policies of Section 25-3.1 of the Revised Ordinances of Honolulu and the area guidelines contained in HRS Section 205-A-26.

3. The proposed project is consistent with the County General Plan, Development Plan and Zoning.

The proposed 1.0 mg water reservoir is consistent with the County General Plan. The proposed project will be located "in areas where they will least obstruct important views of the mountains and the sea", as stated in the General Plan, Natural Environment Policy 3, Objective B. The proposed project will be located next to an existing water reservoir which is located approximately 600 feet from
Kalanianaole Highway.

The proposed reservoir will be screened from view from Kalanianaole Highway similar to the screening provided for the existing reservoir. Being situated against the middle portion of the profile of Koko Head, the existing and proposed reservoirs do not alter the skyline or affect ocean or coastal views. The applicant will provide additional landscaping as needed to further screen the reservoirs from public view.

The proposed project will also help to implement Policies 1 and 2 of Transportation and Utilities, Objective B. The proposed project will help to develop "and maintain an adequate supply of water for both residents and visitors" and "adequate supply of water for agricultural and industrial needs".

The proposed project will also help to implement Policy 2 of the Transportation and Utilities Objective C. The proposed project will "provide improvements to utilities in existing neighborhoods to reduce substandard conditions". The new reservoir will be constructed in order to maintain or improve the present quality of
lifestyle for the existing as well as future residents of Hawaii Kai.

The East Honolulu Development Plan (DP) Land Use Map designates the 2.038 acre property as Preservation. The proposed renovation and expansion will be consistent with the site's Preservation designation for water supplies.

The project site is zoned P-1 Restricted Preservation District which places use of the site under State jurisdiction. As discussed earlier, the applicant is in the process of preparing and submitting an application for a CDUP in coordination with the State DLNR.

C. IMPACTS TO BE MINIMIZED

1. Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon.

   The proposed project is not located in any bay, estuary, salt marsh, river mouth, slough or lagoon, therefore, will not have any type of dredging, filling or otherwise alterations of these land/water forms.

2. Any development which would reduce the size of any beach or other area usable for public recreation.
The proposed project will not reduce the size of the beach or other area usable for public recreation. The initial development of the project site included space and underground systems to accommodate the proposed 1.0 mg reservoir.

3. Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the Special Management Area and the mean high tide line where there is no beach.

As discussed earlier, the proposed project will not reduce or impose restrictions upon public access within the Special Management Area. The project will confine its improvements to the project site and will not affect access to tidal and submerged lands, beaches, or portions of rivers and streams within the Special Management Area.

4. Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast.

As discussed earlier, the proposed reservoir will be located 600 feet from Kalanianaole Highway, adjacent to the existing reservoir.
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit + Final Environmental Assessment

The proposed reservoir is recessed into the slope of Kokohead and will not detract from the line of sight toward the sea from the highway.

5. Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

As discussed earlier, the proposed project will be built on a previously graded level pad and will not require a significant amount of site work or grading. There are no significant land forms in this area that will require mass grading in the development of the site. Minor clearing, grubbing and grading work will be confined to the limits of the construction site as part of the building permit application. As a result, soil erosion and siltation within the site is not anticipated and the proposed project will have minimal impact on water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit * Final Environmental Assessment

The off-shore coastal waters will not be adversely affected by the potential increase in surface runoff due to the increase in lot coverage since an adequate drainage system is in place and the proposed additional lot coverage is small in relation to the overall drainage area.

VI. COASTAL ZONE MANAGEMENT

A. OBJECTIVES

1. Recreational Resources

   The project will not affect coastal recreational opportunities accessible to the public. As discussed earlier, the project site does not contain shoreline access or recreation areas and will not affect access to these areas. The project site is situated on the slopes of Koko Head and does not provide opportunities for beach or recreation area access.

2. Historic Resources

   Although there are documented archaeological sites some
distance away, (Koko Head petroglyphs and the Hanauma Rock Shelter, see Exhibit 6) there are no known archaeological or historic sites within the project site. The Hanauma Rock Shelter is the closest archaeological site and is located approximately 1,000 feet away, which is near the Hanauma Bay Nature Park parking lot.

The subject property is not listed on either the Hawaii or National Registers of Historic Places. Since the site has been extensively developed with no previous record of historic or archaeological discoveries, the proposed project will not disturb any such sites or artifacts. With no previous record of historic or archaeological discoveries and the extensive development existing on the site, the proposed project is not expected to have an impact on archaeological resources. In addition, since the site was previously graded and developed with a cut in the slope to accommodate both the existing water reservoir and this planned future water reservoir, the installation of the new water reservoir will require very limited grading, possibly just excavation to construct footings for the new reservoir.
During the construction of the project, should any previously unidentified archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered, the applicant will stop work and contact the Historic Preservation Office for review and approval of mitigation measures.

3. Scenic and Open Space Resources

Due to its current state of development and location, project construction will not obstruct, eliminate, or affect any existing scenic, open space or recreational amenities within the property or the surrounding area.

4. Coastal Ecosystems

The project site is situated over 3,000 feet away from Maunalua Bay and about 1,100 feet away from Hanauma Bay, scaled off of a flat map. With the downslope to Maunalua Bay and the up then down slope to Hanauma Bay the actual distance is even greater. This distance and the fact that the project site is on the opposite slopes of Koko Head from Hanauma Bay will minimize impacts to coastal
ecosystems. The primary impact will occur during construction of the reservoir. In order to mitigate temporary construction impacts on coastal water ecosystems and water quality, best management practices will be followed in minimizing drainage impacts to the near shore waters. Mitigation measures may include small sedimentation ponds as needed.

5. Economic Uses

As a public facility related to infrastructure required to service the residential population, as provided for on existing county planning documents, the project will not affect the State’s economy, except for provision of short-term construction employment and related tax impacts.

6. Coastal Hazards

Given the project site’s distance from the coastline and its relatively high elevation (150 feet), the property will not be subject to impacts from coastal hazards.

7. Managing Development

This project will not affect the development review process,
communication, or public participation in the management of coastal resources and/or hazards.

8. Public Participation

This project will not affect public awareness, education or participation in coastal management.

9. Beach Protection

Given the project site's distance from the coastline, the project will not affect the public's use of beaches in the surrounding area.

10. Marine Resources

Given the project site's distance from the coastline, the project will not affect the marine resources, nor will it affect the State's ocean resources management plan.

B. Policies

1. Recreational Resources

The project will not affect coastal recreational opportunities or resources. As discussed earlier, the project site does not contain shoreline access or recreation areas and will not affect access to these areas. The project site is situated on the slopes of Koko Head and
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit * Final Environmental Assessment

does not provide opportunities for beach or recreation area access.
The project will not affect the coordination or funding of coastal
recreational planning and management. The project will also have no
impact on the provision of adequate, accessible, and diverse
recreational opportunities in the coastal zone management area.

2. Historic Resources

Although there are documented archaeological sites some
distance away, (Koko Head petroglyphs and the Hanauma Rock
Shelter, see Exhibit 6) there are no known archaeological or historic
sites within the project site. The Hanauma Rock Shelter is the closest
archaeological site and is located approximately 1,000 feet away,
which is near the Hanauma Bay Nature Park parking lot.

The subject property is not listed on either the Hawaii or
National Registers of Historic Places. Since the site has been
extensively developed with no previous record of historic or
archaeological discoveries, the proposed project will not disturb any
such sites or artifacts. With no previous record of historic or
archaeological discoveries and the extensive development existing on
the site, the proposed project is not expected to have an impact on archaeological resources. In addition, since the site was previously graded and developed with a cut in the slope to accommodate both the existing water reservoir and this planned future water reservoir, the installation of the new water reservoir will require very limited grading, possibly just excavation to construct footings for the new reservoir.

During the construction of the project, should any previously unidentified archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered, the applicant will stop work and contact the Historic Preservation Office for review and approval of mitigation measures.

3. Scenic and Open Space Resources

   Due to its current state of development and location, project construction will not obstruct, eliminate, or affect any existing scenic, open space or recreational amenities within the property or the surrounding area. The project will not affect scenic resources or
coastal views. The project will minimize alteration of natural landforms by situating in a site previously graded to accommodate the reservoir. This reservoir is not a coastal dependent project and has been located in an inland area at a 150-foot elevation on the ewa slopes of Koko Head.

4. Coastal Ecosystems

The project site is situated over 3,000 feet away from Maunalua Bay and about 1,100 feet away from Hanauma Bay, scaled off of a flat map. With the downslope to Maunalua Bay and the up then down slope to Hanauma Bay the actual distance is even greater. This distance and the fact that the project site is on the opposite slopes of Koko Head from Hanauma Bay will minimize impacts to coastal ecosystems. The primary impact will occur during construction of the reservoir. In order to mitigate temporary construction impacts on coastal water ecosystems and water quality, best management practices will be followed in minimizing drainage impacts to the near shore waters. Mitigation measures may include small sedimentation ponds as needed.
5. Economic Uses

As a public facility related to infrastructure required to service the residential population as provided for on existing county planning documents, the project will not affect the State's economy except for the provision of short-term construction employment and related tax impacts. This reservoir is not a coastal dependent project and has been located in an inland area at a 150-foot elevation on the ewa slopes of Koko Head.

6. Coastal Hazards

Given the project site's distance from the coastline and it's relatively high elevation (150 feet), the property will not be subject to impacts from coastal hazards nor will it exacerbate or affect coastal hazards.

7. Managing Development

This project will not affect the development review process, communication, or public participation in the management of coastal resources and/or hazards.
8. Public Participation

This project will not affect public awareness, education or participation in coastal management.

9. Beach Protection

Given the project site's distance from the coastline, the project will not affect the public's use of beaches in the surrounding area.

10. Marine Resources

Given the project site's distance from the coastline, the project will not affect the marine resources, nor will it affect the State's ocean resources management plan.

VII. AGENCY COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Copies of agency comments are provided in Appendix III, along with a detailed response to the concerns and issues presented.
VIII. MITIGATION MEASURES

In order to mitigate temporary construction impacts on air quality, the contractor will be directed to incorporate frequent (twice daily) watering of exposed soil areas and to landscape the project site as soon as possible, upon completion of construction to minimize the length of time of soil exposure. Contractors working on the project will also be directed to insure that their vehicles engines are properly maintained to insure efficient operation and minimize vehicle exhaust fumes. Project contractors will also be asked to minimize construction vehicle movement during the peak traffic hours when air quality of Kalanianaole Highway is most sensitive.

In order to mitigate temporary construction impacts on noise, the contractor will be directed to insure that vehicle and equipment engines are properly maintained to insure efficient operation. Further mitigation of noise impacts will be provided by insuring that contractor complies with existing noise regulations of the State and County.

In order to mitigate temporary construction impacts on water quality, best management practices will be followed in minimizing drainage impacts to the near
shore waters. Mitigation measures may include small sedimentation ponds as needed. The project is not situated over a potable water source and will not impact on the City's potable ground water system.

IX. BASIS FOR A NEGATIVE DECLARATION FOR THE PROPOSED KOKO HEAD 170-FOOT WATER RESERVOIR

A. Description of the Proposed Action

The applicant plans to construct a 1.0 million gallon (mg) water reservoir for additional water storage next to the existing 1.0 mg water reservoir on this 2.038 acre site within Hawaii Kai. The proposed project will consist of the proposed 1.0 mg water reservoir and connection to the existing pump station and underground piping and valves.

The project site was originally developed in 1960 based on plans approved by the Board of Water Supply. The plot plan depicts a 1.0 mg water reservoir that has been built and a second (future) 1.0 mg water reservoir on the lot. The site was graded and developed with a cut in the slope to accommodate both the existing water reservoir and the planned
future water reservoir. Because of this earlier preparation of the site the
installation of the new water reservoir will require very limited grading,
possibly just the excavation to construct footings for the new reservoir.

The applicant considered four alternative sites for this reservoir
project, including this Koko Head site, the existing Kaluanui 170-foot
Reservoir site, the existing Kamiloiki 170-foot Reservoir site, and a
proposed Kamilo Ridge Reservoir site. The four sites are on the marina
side of Hawaii Kai since most of the planned developments (approved on the
zoning and/or development plan land use maps) occurs in this side of Hawaii
Kai.

In reviewing the grading plans for the Kaluanui and the Kamiloiki
sites, both sites were graded for only the existing reservoirs on each site.
Both sites have cut slopes on three sides and a fill slope on the fourth side.
Based on the grading plans and location of the existing reservoirs on each
site, these sites cannot accommodate an additional 1.0 million gallon
reservoir. In contrast, the Koko Head site was graded and prepared for an
additional 1.0 million gallon reservoir when it was first developed in 1960.

The schematic plan for the proposed reservoir at the Kamilo Ridge
site indicates that Kamilo Ridge can accommodate a 1.0 million gallon reservoir. However, in contrast to the Koko Head site, all improvements for the new site must be constructed, including access driveway, water transmission main from Hawaii Kai Drive to the reservoir, grading, storm drain system, electric and telemetering facilities, 1.0 million gallon reservoir, on-site piping control building and site work. The cost for the additional work developing this site over and above the cost of construction of the reservoir itself is about $1,230,000. This would be $1,230,000 more than what it would cost to develop the reservoir at the Koko Head site. In addition, construction of a second reservoir at the Koko Head site would also be less obtrusive and objectionable to the public than introducing a new facility at Kamilo Ridge.

Based on these findings, the Koko Head site, which would require a minimal amount of grading, would be substantially less impacting on surrounding residents, and would be less costly than the other three sites, was selected for the proposed reservoir.

B. Determination and Reasons Supporting Determination

The proposed project would not have a significant effect on the
environment and therefore preparation of an environmental impact statement
is not required. Based on the "Significance Criteria", Section 12 of Hawaii
Administrative Rules Title 11, Chapter 200, "Environmental Impact
Statement Rules", which were reviewed and analyzed, we have come to the
following conclusions:

1. No irrevocable commitment to loss or destruction of any natural
   or cultural resource would result.

   The Koko Head site was originally graded and developed with
   a cut in the slope to accommodate both the existing water reservoir
   and the planned future water reservoir and use of the site would not
   result in the loss of any natural resource. The site is fenced and
   locked with access provided only to Board of Water Supply (BWS)
   personnel. No significant natural resources are present on the site.

   Although there are documented archaeological sites some
distance away, (Koko Head petroglyphs and the Hanauma Rock
Shelter) there are no known archaeological or historic sites within the
project site. The Hanauma Rock Shelter is the closest archaeological
site and is located approximately 1,000 feet away, which is near the
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit + Final Environmental Assessment

Hanauma Bay Nature Park parking lot. The subject property is not listed on either the Hawaii or National Registers of Historic Places.

Since the site has been extensively developed with no previous record of historic or archaeological discoveries, the proposed project will not disturb any such sites or artifacts. With no previous record of historic or archaeological discoveries and the extensive development existing on the site, the proposed project is not expected to have an impact on archaeological resources.

In addition, since the site was previously graded and developed with a cut in the slope to accommodate both the existing water reservoir and this planned future water reservoir, the installation of the new water reservoir will require very limited grading, possibly just excavation to construct footings for the new reservoir.

During the construction of the project, should any previously unidentified archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered, the applicant will stop work and contact the Historic Preservation Office for review and approval of mitigation
measures.

2. The action would not curtail the range of beneficial uses of the environment.

The project will not curtail the range of beneficial uses of the environment. The project site is situated in a restricted access area where the BWS personnel are the only ones allowed entry. It does not serve any recreational purpose or provide any other beneficial use of the environment. The project will provide for water storage to meet the storage needs of the existing and planned development (approved on the zoning and/or development plan land use maps). It will provide a beneficial use of the environment to support the Hawaii Kai community with water storage to meet their needs in case of an emergency, should the existing water sources shut down or certain transmission lines from the water sources be incapacitated.

3. The proposed action does not conflict with the state’s long-term environmental policies or goals and guidelines.

The State’s environmental policies and guidelines are set forth in Chapter 344, Hawaii Revised Statutes, "State Environmental
Policy”. The broad policies set forth include conservation of natural resources and enhancement of the quality of life. As discussed earlier, the project does not affect significant natural resources. The project will enhance the quality of life for the residents of the Hawaii Kai community by providing water storage to meet their needs in case of an emergency, should the existing water sources shut down or certain transmission lines from the water sources be incapacitated.

4. The economic or social welfare of the community or state would not be substantially affected.

Construction of the reservoir would result in temporary economic benefits to the construction industry. It will provide a benefit to the social welfare of the Hawaii Kai community by providing water storage to meet their needs in case of an emergency, should the existing water sources shut down or certain transmission lines from the water sources be incapacitated. The impacts from the reservoir itself will be minimal since it is situated on a site that was graded and developed with a cut in the slope to accommodate both the existing water reservoir and the planned future water reservoir. By
maintaining and possibly adding to the existing landscaping, the site can be adequately screened from public view.

5. The proposed action does not substantially affect public health.

The proposed action will actually have a positive impact on public health by providing emergency water storage capacity to meet the needs of the Hawaii Kai community.

6. No substantial secondary impacts, such as population changes or effects on public facilities, are anticipated.

The proposed reservoir is designed to accommodate development already approved on the City and County of Honolulu’s Development Plans and/or Zoning Maps. As such it will not provide an impetus for additional increases in population. The project will not have an impact on public facilities.

7. No substantial degradation of environmental quality is anticipated.

The project will have minimal impact on environmental quality. The reservoir facility’s only long term impact would be on views and would be similar in impact to the existing reservoir, which is screened from view by landscaping. The reservoir will not affect noise
environment or air quality of the surrounding area, except for temporary impacts during construction.

In order to mitigate temporary construction impacts on air quality, the contractor will be directed to incorporate frequent (twice daily) watering of exposed soil areas and to landscape the project site as soon as possible, upon completion of construction to minimize the length of time of soil exposure. Contractors working on the project will also be directed to insure that their vehicles engines are properly maintained to insure efficient operation and minimized vehicle exhaust fumes. Project contractors will also be asked to minimize construction vehicle movement during the peak traffic hours when air quality of Kalanianaoele Highway is most sensitive.

In order to mitigate temporary construction impacts on noise, the contractors will be directed to insure that vehicle and equipment engines are properly maintained to insure efficient operation. Further mitigation of noise impacts will be provided by insuring that contractors comply with existing noise regulations of the State and County.
In order to mitigate temporary construction impacts on water quality, best management practices will be followed in minimizing drainage impacts to the near shore waters. Mitigation measures may include small sedimentation ponds as needed. The project is not situated over a potable water source and will not impact on the City’s potable ground water system.

8. The proposed action does not involve a commitment to larger actions, nor would cumulative impacts result in considerable affects on the environment.

The proposed project does not involve a commitment to larger actions nor will it result in cumulative impacts to the environment. As mentioned earlier, the proposed reservoir is designed to accommodate development already approved on the City and County of Honolulu’s Development Plans and/or Zoning Maps. As such it will not provide an impetus for additional increases in population. The project will not have an impact on public facilities.

9. No rare, threatened or endangered species or their habitats would be affected.
As mentioned earlier, the site is a controlled access site with only the BWS personnel allowed entry. Being fenced in and landscaped with plants introduced by the BWS, no rare, threatened, or endangered species or their habitats would be affected.

10. Air quality, water quality or ambient noise levels would not be detrimentally affected.

In order to mitigate temporary construction impacts on air quality, the contractor will be directed to incorporate frequent (twice daily) watering of exposed soil areas and to landscape the project site as soon as possible, upon completion of construction to minimize the length of time of soil exposure. Contractors working on the project will also be directed to insure that their vehicles engines are properly maintained to insure efficient operation and minimized vehicle exhaust fumes. Project contractors will also be asked to minimize construction vehicle movement during the peak traffic hours when air quality of Kalanianaole Highway is most sensitive.

In order to mitigate temporary construction impacts on noise,
the contractors will be directed to insure that vehicle and equipment engines are properly maintained to insure efficient operation. Further mitigation of noise impacts will be provided by insuring that contractors comply with existing noise regulations of the State and County.

In order to mitigate temporary construction impacts on water quality, best management practices will be followed in minimizing drainage impacts to the near shore waters. Mitigation measures may include small sedimentation ponds as needed. The project is not situated over a potable water source and will not impact on the City’s potable ground water system.

11. The project would not affect environmentally sensitive areas, such as flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters.

No environmentally sensitive areas would be affected. The project will not be situated on land involving or affecting flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters. The proposed reservoir will
Koko Head 170-Foot Reservoir Addition
Special Management Area Use Permit + Final Environmental Assessment

share a site with an existing reservoir that has been at that location for over 30 years.

X. CONCLUSION

Based on the foregoing report, the applicant respectfully requests your approval of a negative declaration for this Final Environmental Assessment and subsequently, your approval of our request for a Special Management Area Use Permit to allow the construction of the proposed 1.0 mg water reservoir proposed in this report. The project will be developed and constructed in a fashion that will be sensitive to the environment.
APPENDIX I

1960 RESERVOIR PLAN
APPENDIX II

SITE PHOTOGRAPHS
View 1
View From Kalanianaole Highway Into Project Site

View 2
View Outside of Security Gate
View 3
View Of Existing 1.0 mg Water Reservoir

View 4
View Of Existing 1.0 mg Water Reservoir
APPENDIX III

AGENCY COMMENTS
TO:     PATRICK T. ONISHI, DIRECTOR
        DEPARTMENT OF LAND UTILIZATION

FROM:   DONA L. HANAIKE, DIRECTOR
        DEPARTMENT OF PARKS AND RECREATION

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR KOKO HEAD WATER
        RESERVOIR, KOKO HEAD, OAHU, 96/SMR-011(JT)
        TAX MAP KEY 3-9-12: 07

This responds to the subject environmental assessment
prepared for the proposed project.

Based on our review of the subject document, we have no
comments to offer at this time.

Should you have any questions, please contact Brian Suzuki of
our Advance Planning Branch at extension 6316.

For DONA L. HANAIKE
Director

DLH:ei

We Add Quality to Life
May 31, 1996

Ms. Dona L. Hanaike
Director
Department of Parks and Recreation
650 So. King Street, 10th Floor
Honolulu, Hawaii 96813

Dear Ms. Hanaike:

Subject: Draft Environmental Assessment for the Koko Head 170-Foot Reservoir - Office of Environmental Quality Control
Response Dated April 19, 1996

On behalf of the applicant, Maunalua Associates, Inc., I would like to thank you response to the Department of Land Utilization’s request for comments regarding the subject Environmental Assessment.

Your letter and our response will be included in the Final Environmental Assessment.

Very truly yours,

Keith H. Kurahashi

cc: Department of Land Utilization
Maunalua Associates, Inc.
Ref. No. Z-0070

April 1, 1996

The Honorable Patrick T. Onishi
Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Attn: Ms. Joan Takano

Dear Mr. Onishi:

Subject: Special Management Area Use Permit Application and Draft Environmental Assessment Report - Koko Head 170-Foot Water Reservoir Addition

We have the following comments on the above document. The project is required to comply with the Coastal Zone Management (CZM) objectives and policies, and a complete assessment of the project's compliance should be incorporated into the environmental assessment.

However, we note that the document does not identify the source of water for the 1.0 mg reservoir. This is necessary to determine whether there will be impacts to other water sources or fresh water ecosystems. This concern is based on policy 4(D) of Chapter 205A which states, "Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards."

Page 8 refers to Appendix I and II which are described as a 1960 Plot Plan by the Board of Water Supply and recent area photographs. However, these appendices were not included in the document. They appear to be important to evaluating the project's compliance with the CZM objective and policies relating to scenic and open space resources.

We appreciate the opportunity to provide comments. If there are any questions, please contact Christina Meller of our CZM Program at 587-2843.

Sincerely,

[Signature]

Gregory C. Y. Pai, Ph.D.
Director

cc: Department of Land and Natural Resources, CWRM
Office of Environmental Quality Control
May 31, 1996

Gregory G.Y. Pai, Ph.D.
Director
Office of State Planning
Office of the Governor
P.O. Box 3540
Honolulu, Hawaii 96811-3540

Dear Mr. Pai:

Subject: Draft Environmental Assessment for the Koko Head 170-Foot Reservoir - Office of State Planning
Comments Dated April 1, 1996

Thank you for your prompt response to the Department of Land Utilization’s request for comments on the subject Draft Environmental Assessment (DEA).

The project’s compliance with the Coastal Zone Management (CZM) objectives and policies will be included in the Final Environmental Assessment.

The water to be stored in the proposed 1.0 MG reservoir will come from existing wells that presently fill the existing 1.0 MG reservoir on the property. If water is available from the Board of Water Supply’s (BWS) existing water sources at the time the proposed reservoir is built in the 1997 to year 2000 time frame, no new wells will be required to fill the reservoir. However, if existing water sources are not sufficient, those future projects which created the demand for this additional storage will not be granted approval by BWS until additional water sources are developed by BWS or the landowners and/or developers of those projects.

We inadvertently failed to include Appendices I and II in the DEA. They will be included in the Final EA for the project. A copy of these two appendices are included for your consideration.
Your letter and this response will be included in the Final Environmental Assessment.

Should there be questions, or should you wish to discuss this project further, please contact me.

Very truly yours,

Keith H. Kurahashi

cc: Department of Land Utilization
Maunalua Associates, Inc.
APPENDIX I

1960 RESERVOIR PLAN
APPENDIX II

SITE PHOTOGRAPHS
View 1
View From Kalaniaole Highway Into Project Site

View 2
View Outside of Security Gate
187-C Holualoa Street
Hilo HI 96720

April 2, 1996

Mamala‘u Associates, Inc.
P.O. Box 25007
Honolulu HI 96825

Dear Sir or Madam:

Re: Draft Environmental Assessment for Koko Head 170-foot Water Reservoir Addition

Thank you for the opportunity to comment on this Draft EA. My comments follow:

DLU Master Application Form:

On the blank in this form where the applicable state land use district is to be written in, the application states that the parcel is in the “Urban” land use district. This is in variance with information elsewhere in the application, where it is clearly indicated that the land is in the “Conservation” district. This should be corrected.

Water Source:

The proposed action is construction of a water tank which, the Draft EA states, “is needed to provide for the water needs of the existing and future Hawai‘i Kai area residents and businesses” (page 12). But it is wrong to think the environmental impacts of this action are limited to those narrowly associated with the brick-and-mortar phase. Underlying the project is the assumption that water will be available to fill it. Thus, the Draft EA should address the source of water that will be stored in and drawn from this tank.

Will additional wells need to be developed to supply this tank, or will existing wells that feed the adjoining tank simply be pumped at a higher rate? What will the effect be on the source aquifer? Will well-drilling or well-pumping permits need to be obtained or existing ones amended by application to the Commission on Water Resource Management?

Future Needs:

Justification for this tank is provided on page 24, where the statement is made: “Undeveloped lands currently zoned for urban development will require approximately 932,700 gallons of additional water storage.” But how much of this additional storage is needed in the areas that can be served by a tank at the 170-foot elevation? The implication in the Draft EA is that the 1 mg-reservoir planned in this project will suffice to serve all new needs, when full build-out of “existing and future Hawai‘i Kai residences and businesses” occurs. Yet many of the anticipated residential sites are above the 170-foot elevation, as I understand it. How will those areas be served by this tank?

Finally, I would ask if the full build-out anticipates City Council final approval of the consent decree approved in U.S. Federal Court as settlement of various lawsuits filed by Mamala‘u Associates and others against the City and County of Honolulu. If so, then it may be premature to obtain approvals for developments ancillary to this build-out unless and until final Council approval is obtained and has withstood such legal challenges as will probably be brought.
Liability:

I am given to believe by the Draft EA that this reservoir will be turned over to the Honolulu Board of Water Supply, to become part of its municipal water delivery system. In the event there is an eventual failure of this tank that might involve damage to private property, and which results from faulty construction, will the Board of Water Supply be indemnified against claims for that damage by the developer? Or will the BWS (i.e., the public) be forced to pay the tab without recourse to legal action against the builder or developer?

Thank you, again, for the opportunity to comment on this Draft EA. I look forward to your response.

Yours truly,

Patricia Tummons

cc: OEQC
Division of Land Utilization, City and County of Honolulu
Division of Land Management, Department of Land and Natural Resources
Kusao & Kurohashi, Inc.
May 31, 1996

Ms. Patricia Tummons
187-C Hokuani Street
Hilo, Hawaii 96720

Dear Ms. Tummons:

Subject: Draft Environmental Assessment for Koko Head 170-foot Water Reservoir Addition

On behalf of the applicant, Maunalua Associates, Inc., I would like to thank you for your comments, dated April 2, 1996, regarding the subject Environmental Assessment. The following is a summary of our responses to your comments and concerns:

DLU Master Application Form:

Thank you for informing us of this error. We will submit a letter to the Department of Land Utilization correcting the Application's State Land Use designation to "Conservation" district.

Water Source:

The water to be stored in the proposed 1.0 MG reservoir will come from existing wells that presently fill the existing 1.0 MG reservoir on the property. If water is available from the Board of Water Supply's (BWS) existing water sources at the time the proposed reservoir is built in the 1997 to year 2000 time frame, no new wells will be required to fill the reservoir. However, if existing water sources are not sufficient, those future projects which created the demand for this additional storage will not be granted approval by BWS until additional water sources are developed by BWS or the landowners and/or developers of those projects.

Future Needs:

The 932,000 gallons of additional water storage required for undeveloped lands currently zoned for urban development were inadvertently understated. The correct amount is 1,059,900 gallons. These currently zoned lands will all be served by the 170-foot reservoir system.
Ms. Patricia Tummons
Page 2

The purpose of obtaining land use approvals to construct the additional 1.0 MG reservoir is not associated with the proposed entitlement under the consent decree pending approval by the U.S. Federal Government as settlement of various lawsuits. As indicated in our application report, the reservoir is required for existing urban zoned lands and lands that already received Development Plan approvals for urban development.

The full build-out that we are preparing for with this reservoir is based on uses already approved by the City Council on the existing zoning and development plan land use map for the Hawaii Kai area.

The full build-out does not require City Council final approval of the consent decree approved in U.S. Federal Court as settlement of the various lawsuits filed by landowners and developers in Hawaii Kai.

Liability:

As discussed in the application report, the applicant will develop the proposed reservoir at no cost to the City and dedicate it to the Honolulu Board of Water Supply (BWS). The construction drawings for the reservoir will be subject to review and approval by BWS and must meet BWS standards. Prior to dedication, the BWS will inspect the reservoir, built according to BWS standards. This is common practice for large public infrastructure constructed by private developers and dedicated to the City. The BWS will then be responsible for the reservoir through a formal agreement dedicating the improvements to the BWS. The liability for the design and construction of the reservoir would probably lie with the engineering firm that designed the reservoir and the contractor that built it. Their liability would probably extend beyond the point of dedication of the facility to the City and possibly run to the end of the projected useful life of the reservoir.

Again, thank you for your comments and concerns. Should you have any additional questions or concerns please contact our office.

Very truly yours,

Keith H. Kurahashi

Keith H. Kurahashi

cc: Department of Land Utilization
Maunalua Associates, Inc.
LIFE OF THE LAND
HAWAII'S OWN ENVIRONMENTAL ACTION GROUP
EDUCATION, RESEARCH, LOBBYING & LITIGATION
PROTECTING HAWAII'S FRAGILE ENVIRONMENT

APRIL 4, 1996

Patrick T. Onishi, Director
Department of Land Utilization
City and County of Honolulu
620 S. King St. 7th Floor
HONOLULU, HI 96813

Maunahau Associates, Inc.
P. O. Box 25007
Honolulu, HI 96825

Kussao & Kunsashi, Inc.
Planning and Zoning Consultants
210 Ward Ave. Suite 12
Honolulu, HI 96814

Re: Special Management Area Permit Application
Proposed Koko Head 170-foot Water Reservoir Addition
Maunahau, Oahu, Hawaii. Tax Map Key: 3-9-12/7

The proposed water tower may service DPED (Development Plan approved) and Zoning approved development. The water to fill it will come from the difference between water allocated to Hawaii Kai and the current Hawaii Kai usage (7.0 mgd daily allowance minus 6.5 mgd current usage). So far so good.

But the water tower will not be needed for several years. Then why build it now? Because the water tower is required out of the Unilateral Agreement between the City and County of Honolulu, Bishop Estate and Maunahau Associates (Kaiser Development Corporation).

Who then is the applicant? If it is only Maunahau, then the settlement is industry initiated -> and this segment is part and parcel to a larger development which requires an EIS.

If the applicant includes the City and County of Honolulu, then why are they omitted from the applicant page.

If the City and County is really interested in following an EIR process, whatever that is, then they should. Further deviatives from state and federal law will provide additional ammunition in the legal challenge which is coming.

HENRY Q CURTIS
Executive Director

1111 Bishop St., Suite 511 • Honolulu, HI 96813 • ph: 533-3454 • fax: 537-9019
May 31, 1996

Mr. Henry Q. Curtis
Executive Director
Life of the Land
1111 Bishop St., Suite 511
Honolulu, Hawaii 96813

Dear Mr. Curtis:

Subject:    Draft Environmental Assessment for the Koko Head 170-Foot Reservoir - Office of Environmental Quality Control
Comments Dated April 4, 1996

Thank you for your prompt response to the Department of Land Utilization's request for comments on the subject Draft Environmental Assessment (DEA).

The water reservoir will be built between 1997 and the year 2000. It is projected that at that point in time, we will be close to fully utilizing the capacity of the existing reservoirs and additional water storage will be necessary to allow development in Hawaii Kai on already zoned lands. The land use permit process, including processing the Conservation District Use Permit, is expected to continue over the next six to eight months. Upon receipt of the land use approvals construction drawings will have to be prepared and reviewed and approved by the City. The actual construction of the reservoir will be timed to insure that future development (approved on the zoning and/or development plan land use maps) will not be held up for lack of storage capacity.

The applicant is Maunalua Bay Associates, Inc. and not the City and County of Honolulu. As is true with most public facilities of this type, the reservoir will eventually be turned over (dedicated) to the City at no cost, but it will be built by Maunalua Bay Associates, Inc., the applicant.

We are processing this application in full compliance with State and County laws (Federal laws are not applicable for this project). Permits required for this reservoir are being processed independent of the EIR process since the reservoir is not an infrastructure required for projects in the EIR. This reservoir will be needed to support existing and planned development (approved on the zoning and/or development plan land use maps) regardless of what occurs during the EIR process. It is prudent on our part to have the
approvals necessary to construct this reservoir in place and to be able to construct this reservoir in advance of the full utilization of the storage capacity of existing reservoirs.

Your letter and this response will be included in the Final Environmental Assessment.

Should there be questions or should you wish to discuss this project further, please contact me.

Very truly yours,

Keith H. Kurahashi

cc: Department of Land Utilization
Maunalua Bay Associates, Inc.
Mr. Patrick Onishi  
Director of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Onishi:

Subject: Draft Environmental Assessment for the Koko Head 170-foot Reservoir

Thank you for the opportunity to review the subject document. We have the following comments.

1. Please provide details about the future water needs of the Hawaii Kai area relating to this project. Which parcels would this reservoir serve? How many housing units are involved?

2. Mitigation measures to reduce visual impacts should be proposed. We suggest painting the reservoir tank in a neutral earth-tone color and landscaping to minimize visual impacts.

3. Mitigation measures to reduce air quality and water quality impacts during construction must be proposed.

4. Please provide reasons for supporting the determination based on an analysis of the significance criteria in section 11-200-12 of the Hawaii Environmental Impact Statement Rules. Refer to section D of the enclosed sample as a guideline.

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

Sincerely,

Gary Gill  
Director

C: Michael Morita  
Keith Kurahashi
May 31, 1996

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

Dear Mr. Gill:

Subject: Draft Environmental Assessment for the Koko Head 170-Foot Reservoir - Office of Environmental Quality Control
Comments Dated April 8, 1996

Thank you for your prompt response to the Department of Land Utilization’s request for comments on the subject Draft Environmental Assessment (DEA).

The following responds to each of the four comments that you provided:

1. We have enclosed a copy of a portion of Zoning Map No. 1 for Hawaii Kai which details the projects zoned but not developed that will be supported by the proposed reservoir addition. We have also enclosed a table describing the water storage requirements for each of the zoned projects.

We have also enclosed a copy of a portion of the Development Plan Land Use Map for East Honolulu which details the projects designated on the Development Plan (DP) but are not yet zoned. We have again enclosed a table describing the water storage requirements for each of the DP projects.

The projected water storage requirements are based on Board of Water Supply’s (BWS) standards, which are summarized as follows:

<table>
<thead>
<tr>
<th>Board of Water Supply Water Storage Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Single Family Residential</td>
</tr>
<tr>
<td>b. Multi-Family Units</td>
</tr>
</tbody>
</table>
The existing reservoir system and this planned Koko Head 170-foot reservoir will jointly service the existing and planned development (approved on the zoning and/or development plan land use maps). It is not possible to specify which particular parcels will be served by this reservoir, however, because of its location, there is a good chance that this reservoir will primarily serve existing development and zoned lands near the marina, which would free other existing reservoirs to service other areas that include existing and planned developments (approved on the zoning and/or development plan land use maps). An overall service area for the 170-foot elevation reservoirs is enclosed.

2. The reservoir tank will be painted in a neutral earth-tone color as required by the BWS to match the existing reservoir. We will continue the existing landscape treatment that screens the existing water reservoir from view. If necessary, additional trees will be added to provide further landscaped screening of the proposed reservoir.

3. In order to mitigate temporary construction impacts on air quality, the contractor will be directed to incorporate frequent (twice daily) watering of exposed soil areas and to landscape the project site as soon as possible, upon completion of construction to minimize the length of time of soil exposure. Contractors working on the project will also be directed to insure that their vehicles engines are properly maintained to insure efficient operation and minimized vehicle exhaust fumes. Project contractor’s will also be asked to minimize construction vehicle movement during the peak traffic hours when air quality of Kalanianaole Highway is most sensitive.

In order to mitigate temporary construction impacts on noise, the contractor will be directed to insure that vehicle and equipment engines are properly maintained to insure efficient operation. Further mitigation of noise impacts will be provided by insuring that contractor complies with existing noise regulations of the State and County.
In order to mitigate temporary construction impacts on water quality, best management practices will be followed in minimizing drainage impacts to the near shore waters. Mitigation measures may include small sedimentation ponds as needed. The project is not situated over a potable water source and will not impact on the City's potable ground water system.

4. We have enclosed reasons for supporting the negative declaration determination based on an analysis of the significance criteria in Section 11-200-12 of the Hawaii Environmental Impact Statement Rules.

Your letter and this response will be included in the Final Environmental Assessment.

Should there be questions or should you wish to discuss this project further, please contact me.

Very truly yours,

Keith H. Kurahashi

cc: Department of Land Utilization
Maunalua Bay Associates, Inc.
NOTICE OF DETERMINATION
NEGATIVE DECLARATION FOR THE PROPOSED
KOKO HEAD 170-FOOT WATER RESERVOIR

A. Applicant

Maunalua Associates, Inc.

B. Accepting Authority

Department of Land Utilization

C. Description of the Proposed Action

The applicant plans to construct a 1.0 million gallon (mg) water reservoir for additional water storage next to the existing 1.0 mg water reservoir on this 2.038 acre site within Hawaii Kai. The proposed development will consist of the proposed 1.0 mg water reservoir and connection to the existing underground piping, valves and pump station.

The project site was originally developed in 1960 based on plans approved by the Board of Water Supply. The plot plan depicts a 1.0 mg water reservoir that has been built and a second (future) 1.0 mg water reservoir on the lot. The site was graded and developed with a cut in the slope to accommodate both the existing water reservoir and the planned future water reservoir. Because of this earlier preparation of the site the installation of the new water reservoir will require very limited grading, possibly just the excavation to construct footings for the new reservoir.

The applicant considered four alternative sites for this reservoir project, including this Koko Head site, the existing Kaluanui 170-foot Reservoir site, the existing Kamiloiki 170-foot Reservoir site, and a proposed Kamiloiki Ridge Reservoir site. The four sites are on the marina side of Hawaii Kai since most of the planned developments (approved on the zoning and/or development plan land use maps) occurs in this side of Hawaii Kai.

In reviewing the grading plans for the Kaluanui and the Kamiloiki sites, both sites were graded for only the existing reservoirs on each site. Both sites have cut slopes on three sides and a fill slope on the fourth side. Based on the grading plans and location of the existing reservoirs on each site, these sites cannot accommodate an additional 1.0 million gallon reservoir. In contrast, the Koko
Head site was graded and prepared for an additional 1.0 million gallon reservoir when it was first developed in 1960.

The schematic plan for the proposed reservoir at the Kamilo Ridge site indicates that Kamilo Ridge can accommodate a 1.0 million gallon reservoir. However, in contrast to the Koko Head site, all improvements for the new site must be constructed, including access driveway, water transmission main from Hawaii Kai Drive to the reservoir, grading, storm drain system, electric and telemetering facilities, 1.0 million gallon reservoir, on-site piping control building and site work. The cost for the additional work developing this site over and above the cost of construction of the reservoir itself is about $1,230,000. This would be $1,230,000 more than what it would cost to develop the reservoir at the Koko Head site. In addition, construction of a second reservoir at the Koko Head site would also be less obtrusive and objectionable to the public than introducing a new facility at Kamilo Ridge.

Based on these findings, the Koko Head site, which would require a minimal amount of grading, would be substantially less impacting on surrounding residents, and would be less costly than the other three sites, was selected for the proposed reservoir.

D. Determination and Reasons Supporting Determination

The proposed project would not have a significant effect on the environment and therefore preparation of an environmental impact statement is not required. Based on the "Significance Criteria", Section 12 of Hawaii Administrative Rules Title 11, Chapter 200, "Environmental Impact Statement Rules", which were reviewed and analyzed, we have come to the following conclusions:

1. No irrevocable commitment to loss or destruction of any natural or cultural resource would result.

The Koko Head site was originally graded and developed with a cut in the slope to accommodate both the existing water reservoir and the planned future water reservoir and use of the site would not result in the loss of any natural resource. The site is fenced and locked with access provided only to Board of Water Supply (BWS) personnel. No significant natural resources are present on the site.

Although there are documented archaeological sites some distance away, (Koko Head petroglyphs and the Hanauma Rock Shelter) there are no known archaeological or historic sites within the project site. The Hanauma Rock Shelter is the closest archaeological site and is located approximately
1,000 feet away, which is near the Hanauma Bay Nature Park parking lot. The subject property is not listed on either the Hawaii or National Registers of Historic Places.

Since the site has been extensively developed with no previous record of historic or archaeological discoveries, the proposed development will not disturb any such sites or artifacts. With no previous record of historic or archaeological discoveries and the extensive development existing on the site, the proposed development is not expected to have an impact on archaeological resources.

In addition, since the site was previously graded and developed with a cut in the slope to accommodate both the existing water reservoir and this planned future water reservoir, the installation of the new water reservoir will require very limited grading, possibly just excavation to construct footings for the new reservoir.

During the construction of the project, should any previously unidentified archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered, the applicant will stop work and contact the Historic Preservation Office for review and approval of mitigation measures.

2. The action would not curtail the range of beneficial uses of the environment.

The project will not curtail the range of beneficial uses of the environment. The project site is situated in a restricted access area where the BWS personnel are the only ones allowed entry. It does not serve any recreational purpose or provide any other beneficial use of the environment. The project will provide for water storage to meet the storage needs of the existing and planned development (approved on the zoning and/or development plan land use maps). It will provide a beneficial use of the environment to support the Hawaii Kai community with water storage to meet their needs in case of an emergency, should the existing water sources shut down or certain transmission lines from the water sources be incapacitated.

3. The proposed action does not conflict with the state’s long-term environmental policies or goals and guidelines.

The State’s environmental policies and guidelines are set forth in Chapter 344, Hawaii Revised Statutes, "State Environmental Policy". The broad
policies set forth include conservation of natural resources and enhancement of the quality of life. As discussed earlier, the project does not affect significant natural resources. The project will enhance the quality of life for the residents of the Hawaii Kai community by providing water storage to meet their needs in case of an emergency, should the existing water sources shut down or certain transmission lines from the water sources be incapacitated.

4. The economic or social welfare of the community or state would not be substantially affected.

Construction of the reservoir would result in temporary economic benefits to the construction industry. It will provide a benefit to the social welfare of the Hawaii Kai community by providing water storage to meet their needs in case of an emergency, should the existing water sources shut down or certain transmission lines from the water sources be incapacitated. The impacts from the reservoir itself will be minimal since it is situated on a site that was graded and developed with a cut in the slope to accommodate both the existing water reservoir and the planned future water reservoir. By maintaining and possibly adding to the existing landscaping, the site can be adequately screened from public view.

5. The proposed action does not substantially affect public health.

The proposed action will actually have a positive impact on public health by providing emergency water storage capacity to meet the needs of the Hawaii Kai community.

6. No substantial secondary impacts, such as population changes or effects on public facilities, are anticipated.

The proposed reservoir is designed to accommodate development already approved on the City and County of Honolulu's Development Plans and/or Zoning Maps. As such it will not provide an impetus for additional increases in population. The project will not have an impact on public facilities.

7. No substantial degradation of environmental quality is anticipated.

The project will have minimal impact on environmental quality. The reservoir facility's only long term impact would be on views and would be similar in impact to the existing reservoir, which is screened from view by
landscaping. The reservoir will not affect noise environment or air quality of the surrounding area, except for temporary impacts during construction.

In order to mitigate temporary construction impacts on air quality, the contractor will be directed to incorporate frequent (twice daily) watering of exposed soil areas and to landscape the project site as soon as possible, upon completion of construction to minimize the length of time of soil exposure. Contractors working on the project will also be directed to insure that their vehicles engines are properly maintained to insure efficient operation and minimized vehicle exhaust fumes. Project contractor’s will also be asked to minimize construction vehicle movement during the peak traffic hours when air quality of Kalanianaole Highway is most sensitive.

In order to mitigate temporary construction impacts on noise, the contractors will be directed to insure that vehicle and equipment engines are properly maintained to insure efficient operation. Further mitigation of noise impacts will be provided by insuring that contractors comply with existing noise regulations of the State and County.

In order to mitigate temporary construction impacts on water quality, best management practices will be followed in minimizing drainage impacts to the near shore waters. Mitigation measures may include small sedimentation ponds as needed. The project is not situated over a potable water source and will not impact on the City’s potable ground water system.

8. The proposed action does not involve a commitment to larger actions, nor would cumulative impacts result in considerable affects on the environment.

The proposed project does not involve a commitment to larger actions nor will it result in cumulative impacts to the environment. As mentioned earlier, the proposed reservoir is designed to accommodate development already approved on the City and County of Honolulu’s Development Plans and/or Zoning Maps. As such it will not provide an impetus for additional increases in population. The project will not have an impact on public facilities.

9. No rare, threatened or endangered species or their habitats would be affected.

As mentioned earlier, the site is a controlled access site with only the BWS personnel allowed entry. Being fenced in and landscaped with plants
introduced by the BWS, no rare, threatened, or endangered species or their habitats would be affected.

10. **Air quality, water quality or ambient noise levels would not be detrimentally affected.**

In order to mitigate temporary construction impacts on air quality, the contractor will be directed to incorporate frequent (twice daily) watering of exposed soil areas and to landscape the project site as soon as possible, upon completion of construction to minimize the length of time of soil exposure. Contractors working on the project will also be directed to insure that their vehicles engines are properly maintained to insure efficient operation and minimized vehicle exhaust fumes. Project contractors will also be asked to minimize construction vehicle movement during the peak traffic hours when air quality of Kalanianaole Highway is most sensitive.

In order to mitigate temporary construction impacts on noise, the contractors will be directed to insure that vehicle and equipment engines are properly maintained to insure efficient operation. Further mitigation of noise impacts will be provided by insuring that contractors comply with existing noise regulations of the State and County.

In order to mitigate temporary construction impacts on water quality, best management practices will be followed in minimizing drainage impacts to the near shore waters. Mitigation measures may include small sedimentation ponds as needed. The project is not situated over a potable water source and will not impact on the City’s potable ground water system.

11. **The project would not affect environmentally sensitive areas, such as flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters.**

No environmentally sensitive areas would be affected. The project will not be situated on land involving or affecting flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters. The proposed reservoir will share a site with an existing reservoir that has been at that location for over 30 years.
**HAWAII KAI**

**WATER STORAGE REQUIREMENTS**
**FOR THE LOWER ELEVATION LANDS**

<table>
<thead>
<tr>
<th>Project</th>
<th>Tax Map Key</th>
<th>Zoning</th>
<th>No. of Units/Acreage</th>
<th>Water Storage Required (Gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf Course 2/1A</td>
<td>3-9-10: Por. 01</td>
<td>R-5</td>
<td>116 units</td>
<td>87,000</td>
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<tr>
<td>Kaalakei 1-A</td>
<td>3-9-36: 1, 2 &amp; 3</td>
<td>A-1</td>
<td>252 units</td>
<td>67,900</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>120 beds</td>
<td></td>
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<td>Kalama Commercial</td>
<td>3-9-10: Por. 28</td>
<td>B-1</td>
<td>2.4 acs.</td>
<td>11,000</td>
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<tr>
<td>Kaluanui 1</td>
<td>3-9-08: Por. 13</td>
<td>A-2</td>
<td>290 units</td>
<td>174,000</td>
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<tr>
<td>Kaluanui 1 - Remnant</td>
<td>3-9-08: Por. 13</td>
<td>A-2</td>
<td>34 units</td>
<td>20,400</td>
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<td>Kaluanui 2 &amp; 3</td>
<td>3-9-08: Por. 40</td>
<td>A-2</td>
<td>503 units</td>
<td>301,800</td>
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<td>Kaluanui Park</td>
<td>3-9-08: 39</td>
<td>P-2</td>
<td>3.3 aces.</td>
<td>19,800</td>
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<td>Marina 7E/8C</td>
<td>3-9-08: 36</td>
<td>A-1, A-2</td>
<td>630 units</td>
<td>378,000</td>
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<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>1,059,900</strong></td>
</tr>
</tbody>
</table>
HAWAII KAI
WATER STORAGE REQUIREMENTS
FOR THE LOWER ELEVATION LANDS

<table>
<thead>
<tr>
<th>Category</th>
<th>Gallons</th>
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</thead>
<tbody>
<tr>
<td>Existing Development</td>
<td>6,270,200</td>
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<tr>
<td>Existing Zoned Lands</td>
<td>1,059,900</td>
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<tr>
<td>Total</td>
<td>7,330,100</td>
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</tbody>
</table>

Urban Development Plan Designations

<table>
<thead>
<tr>
<th>Location</th>
<th>Acres (Type)</th>
<th>Development</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Kamilo Ridge</td>
<td>9.0 acres (Res.)</td>
<td>66 to 108 single-family</td>
<td>49,500 to 81,000</td>
</tr>
<tr>
<td>Marina 4-B</td>
<td>5.1 acres (Res.)</td>
<td>38 to 60 single-family</td>
<td>28,500 to 45,000</td>
</tr>
<tr>
<td>Kamiloaui-1</td>
<td>17.4 acres (LDA)</td>
<td>340 to 510 low-rise apartments</td>
<td>204,000 to 306,000</td>
</tr>
<tr>
<td>Golf Course 2/1A</td>
<td>10.9 acres (Ind.)</td>
<td></td>
<td>65,400</td>
</tr>
<tr>
<td>Kalama Valley</td>
<td>8.3 acres (Comm.)</td>
<td></td>
<td>37,300</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>384,700 to 534,700</td>
</tr>
</tbody>
</table>

Total Storage Requirements Based on Zoning and the Existing East Honolulu Development Plan Land Use Map

Between 7,714,800 and 7,864,800 gallons
MEMORANDUM

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

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

SUBJECT:   SPECIAL MANAGEMENT AREA USE PERMIT APPLICATION
            AND DRAFT ENVIRONMENTAL ASSESSMENT REPORT FOR
            KOKO HEAD 170-FOOT WATER RESERVOIR ADDITION

Thank you for giving us the opportunity to review the Draft Environmental Assessment
(DEA) for the proposed Koko Head 170-foot water reservoir addition. We have reviewed
the subject document and offer the following comments:

- We are currently processing an amendment to the East Honolulu Development
  Plan Public Facilities Map for the proposed water reservoir addition. The City
  Planning Commission endorsed the proposed amendment (95/EH-1001(1C))
  during their April 3, 1996 meeting.

- Page 25 of the DEA states: "The proposed 1.0 mg water reservoir is planned
  to provide the necessary storage capacity to accommodate the existing and
  planned increases in water storage requirements for the Hawaii Kai area." The
  Final Environmental Assessment (FEA) should identify the proposed 170-
  foot water reservoir water service area.

- Page 29 of the DEA states: "The existing and proposed reservoirs will not be
  visible from the roadway." Portions of the existing water reservoir is visible
  from Kalanianaoele Highway. The FEA should discuss how this proposed
  project would be consistent with the section on Public Views, Section
  24-4.2.(a)(2)(A) of the East Honolulu Development Plan Special Provisions.
Should you have any questions, please contact Eugene Takahashi of our staff at 527-6022.

CHERYL D. SOON
Chief Planning Officer

CDS:lh
cc: Kusao and Kurahashi
     OEQC
May 31, 1996

Ms. Cheryl D. Soon
Chief Planning Officer
Planning Department
City and County of Honolulu
650 South King Street, 8th Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Draft Environmental Assessment for the Koko Head 170-Foot Reservoir - Office of Environmental Quality Control
Comments Dated April 19, 1996

Thank you for your response to the Department of Land Utilization’s request for comments on the subject Draft Environmental Assessment (DEA).

The Final EA will include a map identifying the service area for the existing and proposed 170-foot reservoir system (enclosed). All four reservoirs within this 170-foot service area are interconnected by large water mains (16 inches in diameter to 36 inches). Although these reservoirs are separated by about one mile from each other to better serve the locations in the service area, the large interconnecting water mains allow the water levels in the four reservoirs to generally be the same level at any given time.

Page 29 of the Final EA will be revised to state:

"The proposed reservoir will be screened from view from Kalanianaole Highway similar to the screening provided for the existing reservoir. Being situated against the middle portion of the profile of Koko Head, the existing and proposed reservoirs do not alter the skyline or affect ocean and coastal views. The applicant will provide additional landscaping as needed to further screen the reservoirs from public view."
Ms. Cheryl D. Soon
Page 2

Your letter and this response will be included in the Final Environmental Assessment.

Should there be questions or should you wish to discuss this project further, please contact me.

Very truly yours,

Keith H. Kurahashi

cc: Department of Land Utilization
    Maunalua Bay Associates, Inc.
April 25, 1996

Mr. Keith H. Kurahashi, President
Kusao & Kurahashi, Inc.
210 Ward Avenue, Suite 124
Honolulu, Hawaii 96814

Dear Mr. Kurahashi:

Project Name : Koko Head 170-Foot Water Reservoir
File No. : 96/SMA-11(JT)
Tax Map Key : 3-9-12: 7

We are forwarding copies of all comments we have received relating to the Draft Environmental Assessment (DEA) of the above-referenced project.

In accordance with the provisions of Chapter 343, Hawaii Revised Statutes, you must respond in writing to these and any other comment which were received during the 30-day comment period which began with publication of a notice of availability of the DEA in The Environmental Notice on March 8, 1996. The final Environmental Assessment must include these comments and a response, as well as revised text, if appropriate.

If you have any questions, please contact Joan Takano of our staff at 527-5038.

Very truly yours,

[Signature]

PATRICK T. ONISHI
Director of Land Utilization

Enclosures

PTO:am

q:kokocm.jht
June 5, 1996

Mr. Patrick T. Onishi  
Director  
Department of Land Utilization  
City and County of Honolulu  
650 So. King Street, 7th Floor  
Honolulu, Hawaii 96813

Attention: Ms. Joan Takano  
Environmental Assessment Branch

Dear Mr. Onishi:

Project Name : Koko Head 170-Foot Water Reservoir  
File No. : 96/SMA-11 (JT)  
Tax Map Key : 3-3-12: 7

Thank you for forwarding copies of the comments received relating to the Draft Environmental Assessment of the above referenced project.

In accordance with the provisions of Chapter 343, Hawaii Revised Statutes, we have responded to each of the comments received during the 30-day comment period. We have also responded to comments received after the end of the 30-day comment period. Copies of our responses are enclosed and will be included in the Final Environmental Assessment, as well as revisions to the text as noted.

Should there be questions, please contact me.

Very truly yours,

Keith H. Kurahashi

cc: Maunalua Bay Associates, Inc.
Honorable Patrick T. Onishi
Director of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

SUBJECT: Draft Environmental Assessment (DEA)
Koko Head Water Reservoir
7381 Kalanianaole Highway - Koko Head
Tax Map Key: 1-2-12: 07

We have reviewed the subject DEA and would like to offer the following comments:

Commission of Water Resource Management

We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.

Thank you for the opportunity to review the subject DEA. We have no further comments to offer at this time. If you have any questions, please contact Al Jodar of the Land Division at 587-0424.

Aloha

MICHAEL D. WILSON
May 31, 1996

Mr. Michael D Wilson, Chairperson
Board of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Subject: Draft Environmental Assessment for the Koko Head 170-Foot Reservoir - Department of Land and Natural Resources, Commission of Water Resource Management
Comments Dated April 26, 1996

Thank you for your response to the Department of Land Utilization’s request for comments on the subject Draft Environmental Assessment (DEA).

The Board of Water Supply (BWS) as the landowner for the proposed reservoir site has seen and approved the filing of both the East Honolulu Development Plan Public Facilities Map Amendment application and the Special Management Area (SMA) Use Permit and Draft Environmental Assessment applications. Their signature and approval will also be required for the Conservation District Use Permit application that will be filed with your office in the near future.

Based on BWS’s opportunities for review and approval of our permit applications and construction drawings as the landowner of the parcel that the reservoir will be situated on and since the reservoir after completion will be dedicated to the county at no cost to the county, we expect that the reservoir will be incorporated into the county’s water use plan.

As mentioned above, we are currently processing an amendment to the East Honolulu Development Plan Public Facilities Map which would place the reservoir on the county’s public and private infrastructure planning document.
Mr. Michael D. Wilson
Page 2

Your letter and this response will be included in the Final Environmental Assessment.

Should there be questions or should you wish to discuss this project further, please contact me.

Very truly yours,

Keith H. Kurahashi

cc: Department of Land Utilization
Maunalua Bay Associates, Inc.
REF: DM-AJ

Honorable Patrick T. Onishi
Director of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

MAY 6 1986

Dear Mr. Onishi:

SUBJECT: Draft Environmental Assessment (DEA)
Koko Head Water Reservoir
7381 Kalanianaole Highway - Koko Head
Tax Map Key: 3-9-12: 87

We have additional comments on the subject DEA to offer.

The Oahu District Office of Land Management has no objections to the addition of the one million gallon water reservoir by the Board of Water Supply, City and County of Honolulu, on the Board of Water Supply’s property located on the lower slopes of Koko Head, at Maunalua, Oahu subject to:

1. That the applicant correct the DLJ Master Application Form to reflect the correct State Land Use District as Conservation and not as Urban.

2. That the proposed Special Management Use Permit from the City and County of Honolulu be obtained by the applicant and that the terms and conditions of the SMA permit be strictly adhered to.

3. That the Conservation District Use Permit be obtained from the Department of Land and Natural Resources, State of Hawaii, and that the terms and conditions of said CDUP be strictly adhered to.

4. That the applicant, in this and future cases, install the reservoirs in recesses or depressions in a ridge to reduce the profile on the visual plain. Installation of reservoirs on the center of the ridge line or adjacent to it devastates the contour and appearance of the land, such as the reservoir installed by the applicant on Pahehee Ridge in Waianae.

5. That the applicant obtain all other required Federal, State and County permits prior to construction of the project.

Should you have any questions, you may contact Al Jodar at 587-0424.

Aloha

[Signature]

MICHAEL D. WILSON
May 31, 1996

Mr. Michael D Wilson, Chairperson
Board of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Subject: Draft Environmental Assessment for the Koko Head 170-Foot Reservoir - Department of Land and Natural Resources, Commission of Water Resource Management
Additional Comments Dated May 6, 1996

Thank you for your response to the Department of Land Utilization’s request for comments on the subject Draft Environmental Assessment (DEA).

The following responds to each of the five comments that you provided:

1. We will correct the Department of Land Utilization (DLU) Master Application Form to reflect the correct State Land Use District as Conservation and not Urban. Thank you for bringing this error to our attention.

2. We are processing a Special Management Area (SMA) Use Permit with DLU and if approved, we will strictly adhere to the conditions of the SMA Use Permit.

3. We are preparing a Conservation District Use Permit (CDUP) application that will be filed with your office in the near future. We will strictly adhere to the terms and conditions of this CDUP.
4. The applicant, in this and future cases will make every effort to install reservoirs in recesses or depressions in a ridge to reduce the profile on the visual plain.

5. The applicant will obtain all other required Federal, State and County permits prior to construction of the project.

Your letter and this response will be included in the Final Environmental Assessment.

Should there be questions or should you wish to discuss this project further, please contact me.

Very truly yours,

Keith H. Kurahashi

cc: Department of Land Utilization
Maunalua Bay Associates, Inc.
June 5, 1996

Mr. Michael D Wilson, Chairperson
Board of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Subject: Draft Environmental Assessment for the Koko Head 170-Foot Reservoir - Department of Land and Natural Resources, Commission of Water Resource Management
Additional Comments Dated May 6, 1996

Although we responded to your comments in a letter dated May 31, 1996, we are submitting this letter to clarify a point made by your office in the fourth condition presented in your comment letter dated May 6, 1996. It was stated that:

"4. That the applicant, in this and future cases, install the reservoirs in recesses or depressions in a ridge to reduce the profile on the visual plain. Installation of reservoirs on the center of the ridge line or adjacent to it devastates the contour and appearance of the land, such as the reservoir installed by the applicant on Paheehee Ridge in Waianae."

We just wanted to clarify that the applicant for the Koko Head 170-Foot Reservoir, Maunalua Bay Associates, Inc., is not the applicant that installed the reservoir on Paheehee Ridge in Waianae.

Should there be questions or should you wish to discuss this project further, please contact me.

Very truly yours,

Keith H. Kurahashi

cc: Department of Land Utilization
Maunalua Bay Associates, Inc.