November 30, 2017

Mr. Scott Glenn, Director
Office of Environmental Quality Control
235 South Beretania Street, Room 702
Honolulu, Hawai‘i 96813-2437

Dear Mr. Glenn:


We respectfully request the publication of the EISPN for the subject project in the next available issue of The Environmental Notice.

Enclosed please find the following:

1. Order determining the LUC will be the accepting authority of the EIS for the Project
2. OEQC Publication Form w/Project Summary Description;
3. Two paper copies of the EISPN; and
4. Two digital copies of the EISPN (pdf);
5. Digital copies of OEQC Publication Form and LUC Transmittal Letter (pdf); and
6. Summary of the Action (MS Word doc)

A CD-ROM with a copy of this transmittal letter, the LUC Order, EISPN, and Publication Form are enclosed for your convenience. Please feel free to contact Scott Derrickson, AICP of my office at 587-3921 should you require clarification or any further assistance.
Sincerely,

DANIEL E. ORODENKER
Executive Officer

Enclosures

cc: Curtis Tabata, Esq. (w/o enclosures)
    Leo Asuncion, OP (w/o enclosures)
    Ronald Sato, Helber Hastert & Fee (w/o enclosures)
### APPLICANT PUBLICATION FORM

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Hawaiian Memorial Park Cemetery Expansion Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Short Name:</td>
<td>Hawaiian Memorial Park Expansion Project</td>
</tr>
<tr>
<td>HRS §343-5 Trigger(s):</td>
<td>Reclassification of Petition Area from State Land Use Conservation District to Urban District</td>
</tr>
<tr>
<td>Island(s):</td>
<td>O'ahu</td>
</tr>
<tr>
<td>Judicial District(s):</td>
<td>Ko'olaupoko District</td>
</tr>
<tr>
<td>TMK(s):</td>
<td>(1) 4-5-033: por. 001 (Private Property)</td>
</tr>
<tr>
<td>Permit(s)/Approval(s):</td>
<td>State Land Use District Boundary Amendment, NPDES Permit, Construction Noise Permit, City Grading Permit</td>
</tr>
<tr>
<td>Approving Agency:</td>
<td>State of Hawai‘i Land Use Commission (LUC)</td>
</tr>
<tr>
<td>Contact Name, Email, Telephone, Address</td>
<td>Mr. Daniel Orodenker, Executive Director; <a href="mailto:dbedt.luc.web@hawaii.gov">dbedt.luc.web@hawaii.gov</a>; (808) 587-3827 Land Use Commission Department of Business, Economic Development &amp; Tourism State of Hawai‘i P.O. Box 2359 Honolulu, Hawai‘i 96804</td>
</tr>
<tr>
<td>Applicant:</td>
<td>Hawaiian Memorial Life Plan, Ltd.</td>
</tr>
<tr>
<td>Contact Name, Email, Telephone, Address</td>
<td>Mr. Jay Morford; General Manager; <a href="mailto:Jay.Morford@dignitymemorial.com">Jay.Morford@dignitymemorial.com</a>; (808) 522-5233 Hawaiian Memorial Life Plan, Ltd. 1330 Maunakea Street Honolulu, HI 96813</td>
</tr>
<tr>
<td>Consultant:</td>
<td>HHF Planners</td>
</tr>
<tr>
<td>Contact Name, Email, Telephone, Address</td>
<td>Ronald Sato, AICP; <a href="mailto:rsato@hhf.com">rsato@hhf.com</a>; (808) 457-3172 733 Bishop; Street, Suite 2590 Honolulu, Hawaii 96813</td>
</tr>
</tbody>
</table>

### Status (select one)

- **DEA-AFNSI**
  - Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.

- **FEA-FONSI**
  - Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.

- **FEA-EISPN**
  - Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.

- **X Act 172-12 EISPN ("Direct to EIS")**
  - Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.

- **DEIS**
  - Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.

- **FEIS**
  - Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.

- **FEIS Acceptance Determination**
  - The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
Office of Environmental Quality Control

Applicant Publication Form

February 2016 Revision

___ FEIS Statutory Acceptance

The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant’s FEIS under Section 343-5(c), HRS, and therefore the applicant’s FEIS is deemed accepted as a matter of law.

___ Supplemental EIS Determination

The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice.

___ Withdrawal

Identify the specific document(s) to withdraw and explain in the project summary section.

___ Other

Contact the OEQC if your action is not one of the above items.

Project Summary

Provide a description of the proposed action and purpose and need in 200 words or less.

Hawaiian Memorial Life Plan, Ltd (Petitioner) is preparing an Environmental Impact Statement (EIS) for the Hawaiian Memorial Park Cemetery Expansion Project. The Petitioner owns and manages the Hawaiian Memorial Park (HMP), a full service cemetery located in Kāne‘ohe, O‘ahu, Hawai‘i. HMP has grown from an initial size of six acres to its existing size of approximately 80 acres situated across three tax map parcels. As of June 2017, HMP has sold over 94% of available burial plots, and anticipates it will exhaust available supply in the near-term as O‘ahu’s population ages, resulting in the need for additional internment and inurnment spaces. The project proposes to expand HMP to address this need and provide families with future disposition options.

In order to expand HMP, the project would reclassify a 53.45 acre portion (Petition Area) of a larger 164.4 acre parcel (Parcel 1) from the Conservation District to the Urban District. Proposed improvements within the Petition Area consist of two main components: 1) expansion of the HMP cemetery (28.2 acres); and 2) creation of a 14.5-acre cultural preserve immediately to the northeast of the expansion area. Remaining undeveloped areas of Parcel 1 outside of the Petition Area would remain undeveloped.
Hawaiian Memorial Park
EXPANSION PROJECT

ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

November 2017

Prepared for
Hawaiian Memorial Life Plan, Ltd.

HAWAIIAN MEMORIAL PARK CEMETARY

Prepared by
HHF PLANNERS places for people
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter / Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TABLE OF CONTENTS</strong></td>
<td>i</td>
</tr>
<tr>
<td><strong>1</strong></td>
<td><strong>INTRODUCTION AND BACKGROUND</strong></td>
</tr>
<tr>
<td>1.1</td>
<td>Purpose for EIS Preparation Notice</td>
</tr>
<tr>
<td>1.1.1</td>
<td>Applicant and Approving Agency</td>
</tr>
<tr>
<td>1.1.2</td>
<td>Findings Under State Chapter 343, HRS</td>
</tr>
<tr>
<td>1.2</td>
<td>Applicant and Project Background</td>
</tr>
<tr>
<td>1.3</td>
<td>Project Location</td>
</tr>
<tr>
<td>1.4</td>
<td>Property Information</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td><strong>PROJECT DESCRIPTION AND ALTERNATIVES</strong></td>
</tr>
<tr>
<td>2.1</td>
<td>Project Need and Objectives</td>
</tr>
<tr>
<td>2.2</td>
<td>Proposed Action</td>
</tr>
<tr>
<td>2.3</td>
<td>Project Phasing and Estimated Costs</td>
</tr>
<tr>
<td>2.4</td>
<td>Listing of Permits and Approvals</td>
</tr>
<tr>
<td>2.5</td>
<td>Alternatives Considered</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td><strong>NATURAL ENVIRONMENT</strong></td>
</tr>
<tr>
<td>3.1</td>
<td>Topography</td>
</tr>
<tr>
<td>3.2</td>
<td>Soils</td>
</tr>
<tr>
<td>3.3</td>
<td>Natural Hazards</td>
</tr>
<tr>
<td>3.3.1</td>
<td>Seismic Hazards</td>
</tr>
<tr>
<td>3.3.2</td>
<td>Hurricane Hazards</td>
</tr>
<tr>
<td>3.3.3</td>
<td>Tsunami Hazards</td>
</tr>
<tr>
<td>3.3.4</td>
<td>Flood Hazards</td>
</tr>
<tr>
<td>3.3.5</td>
<td>Rockfall Hazards</td>
</tr>
<tr>
<td>3.4</td>
<td>Botanical Resources</td>
</tr>
<tr>
<td>3.5</td>
<td>Faunal Resources</td>
</tr>
<tr>
<td>3.6</td>
<td>Invertebrate Resources</td>
</tr>
<tr>
<td>3.7</td>
<td>Hydrogeological Resources</td>
</tr>
<tr>
<td>3.7.1</td>
<td>Groundwater Hydrology</td>
</tr>
<tr>
<td>3.7.2</td>
<td>Surface Water</td>
</tr>
<tr>
<td>3.8</td>
<td>Scenic Resources</td>
</tr>
<tr>
<td>Chapter / Section</td>
<td>Page</td>
</tr>
<tr>
<td>-------------------</td>
<td>------</td>
</tr>
<tr>
<td>3.9 Historic and Cultural Resources</td>
<td>3-16</td>
</tr>
<tr>
<td>3.9.1 Historic Background</td>
<td>3-16</td>
</tr>
<tr>
<td>3.9.2 Previously Recorded Sites</td>
<td>3-17</td>
</tr>
<tr>
<td>3.10 Air Quality</td>
<td>3-20</td>
</tr>
<tr>
<td>3.11 Noise</td>
<td>3-21</td>
</tr>
<tr>
<td>4 SOCIAL AND ECONOMIC ENVIRONMENT</td>
<td>4-1</td>
</tr>
<tr>
<td>4.1 Population and Housing</td>
<td>4-1</td>
</tr>
<tr>
<td>4.2 Employment and Household Income</td>
<td>4-3</td>
</tr>
<tr>
<td>5 INFRASTRUCTURE AND PUBLIC FACILITIES</td>
<td>5-1</td>
</tr>
<tr>
<td>5.1 Water Facilities</td>
<td>5-1</td>
</tr>
<tr>
<td>5.2 Wastewater Facilities</td>
<td>5-1</td>
</tr>
<tr>
<td>5.3 Drainage Facilities</td>
<td>5-2</td>
</tr>
<tr>
<td>5.4 Solid Waste Facilities</td>
<td>5-3</td>
</tr>
<tr>
<td>5.5 Transportation Facilities</td>
<td>5-3</td>
</tr>
<tr>
<td>5.6 Electrical and Communication Facilities</td>
<td>5-4</td>
</tr>
<tr>
<td>5.7 Recreational Facilities</td>
<td>5-5</td>
</tr>
<tr>
<td>5.8 Educational Facilities</td>
<td>5-5</td>
</tr>
<tr>
<td>5.9 Medical Facilities</td>
<td>5-6</td>
</tr>
<tr>
<td>5.10 Police and Fire Protection</td>
<td>5-6</td>
</tr>
<tr>
<td>5.10.1 Police Protection</td>
<td>5-6</td>
</tr>
<tr>
<td>5.10.2 Fire Protection</td>
<td>5-7</td>
</tr>
<tr>
<td>6 CONFORMANCE WITH LAND USE PLANS AND POLICIES</td>
<td>6-1</td>
</tr>
<tr>
<td>6.1 State of Hawai‘i</td>
<td>6-1</td>
</tr>
<tr>
<td>6.1.1 State Land Use District</td>
<td>6-1</td>
</tr>
<tr>
<td>6.1.2 Conservation Districts</td>
<td>6-1</td>
</tr>
<tr>
<td>6.1.3 Chapter 344, HRS, State Environmental Policy</td>
<td>6-4</td>
</tr>
<tr>
<td>6.1.4 Hawai‘i State Plan</td>
<td>6-4</td>
</tr>
<tr>
<td>6.1.5 State Functional Plans</td>
<td>6-4</td>
</tr>
<tr>
<td>6.1.6 Coastal Zone Management Program</td>
<td>6-4</td>
</tr>
<tr>
<td>6.2 City and County of Honolulu</td>
<td>6-5</td>
</tr>
<tr>
<td>6.2.1 General Plan</td>
<td>6-5</td>
</tr>
<tr>
<td>6.2.2 Ko‘olau Poko Sustainable Communities Plan</td>
<td>6-5</td>
</tr>
<tr>
<td>6.2.3 City Zoning Regulations</td>
<td>6-5</td>
</tr>
<tr>
<td>7 PARTIES CONSULTED DURING PREPARATION OF THE DRAFT EIS</td>
<td>7-1</td>
</tr>
<tr>
<td>8 REFERENCES</td>
<td>8-1</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Project Location Map</td>
<td>1-7</td>
</tr>
<tr>
<td>1.2</td>
<td>Project Vicinity Map</td>
<td>1-8</td>
</tr>
<tr>
<td>1.3</td>
<td>Tax Map Key</td>
<td>1-11</td>
</tr>
<tr>
<td>2.1</td>
<td>Hawaiian Memorial Park Remaining Interment Plots</td>
<td>2-2</td>
</tr>
<tr>
<td>2.2</td>
<td>Hawaiian Memorial Park Expansion Conceptual Plan</td>
<td>2-5</td>
</tr>
<tr>
<td>3.1</td>
<td>Topographic Map</td>
<td>3-2</td>
</tr>
<tr>
<td>3.2</td>
<td>Soils Map</td>
<td>3-4</td>
</tr>
<tr>
<td>3.3</td>
<td>Flood Hazard Zones</td>
<td>3-8</td>
</tr>
<tr>
<td>3.4</td>
<td>Existing Historic Sites Map</td>
<td>3-18</td>
</tr>
<tr>
<td>6.1</td>
<td>State Land Use Districts Boundaries Map</td>
<td>6-2</td>
</tr>
<tr>
<td>6.2</td>
<td>State Conservation District Subzones Map</td>
<td>6-3</td>
</tr>
<tr>
<td>6.3</td>
<td>Ko'olau Poko SCP Land Use Map</td>
<td>6-6</td>
</tr>
<tr>
<td>6.4</td>
<td>Zoning Districts Map</td>
<td>6-7</td>
</tr>
</tbody>
</table>

LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Summary of Project Information</td>
<td>1-2</td>
</tr>
<tr>
<td>2.1</td>
<td>Projected Aging Residential Population (Statewide)</td>
<td>2-3</td>
</tr>
<tr>
<td>2.2</td>
<td>Resident Deaths in Population (Statewide)</td>
<td>2-3</td>
</tr>
<tr>
<td>2.3</td>
<td>Method of Disposition of Deaths (Statewide)</td>
<td>2-4</td>
</tr>
<tr>
<td>3.1</td>
<td>Identification of Previously Identified Historic Sites</td>
<td>3-19</td>
</tr>
<tr>
<td>3.2</td>
<td>Comparison of Kāne'ōhe with Honolulu County Community Demographic Data (2015)</td>
<td>4-2</td>
</tr>
</tbody>
</table>
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Hawaiian Memorial Life Plan, Ltd. (Petitioner) owns and manages the Hawaiian Memorial Park (HMP) that offers a variety of interment options. HMP is a full-service cemetery located in Kāne'ōhe, O'ahu, Hawai'i, and has been at its present location since 1958. The Petitioner is proposing the expansion of HMP because of a growing aging population on O'ahu and demand for ground interment and inurnment spaces. Currently, only about 6% of all the individual plots at HMP remain available for families. This project is referred to as the “Hawaiian Memorial Park Cemetery Expansion Project.” This Environmental Impact Statement Preparation Notice (EISPN) document has been prepared for this project.

1.1 PURPOSE FOR EIS PREPARATION NOTICE

This project triggers the State of Hawai'i’s (State) environmental review process under Chapter 343 (Environmental Impact Statements), Hawai'i Revised Statutes (HRS), as amended and State Department of Health’s Hawai'i Administrative Rules (HAR), Title 11, Chapter 200 because the project involves reclassification of the Petition Area from the State Land Use Conservation District to the Urban District.

Compliance with the State’s environmental review process is thus required. This EISPN is being prepared in support of a State Land Use District Boundary Amendment petition to reclassify the Petition Area (project site) of approximately 53.45-acres from the Conservation District to the Urban District.

1.1.1 Applicant and Accepting Authority

HHF Planners (HHF) is serving as the “Authorized Agent” on behalf of the Petitioner in the preparation of this EISPN. The project is an “Applicant Action” under the State’s environmental review regulations because Hawaiian Memorial Life Plan, Ltd. is the proposing entity. Table 1.1 provides a summary of pertinent project information.

The Governor of the State of Hawai'i will serve as the “Accepting Authority” for the Final EIS document, and the State Land Use Commission is serving as the authorized representative for the Governor processing this document.
<table>
<thead>
<tr>
<th><strong>Table 1.1</strong></th>
<th><strong>Summary of Project Information</strong></th>
</tr>
</thead>
</table>
| **Project Name:** | Hawaiian Memorial Life Plan, Ltd.  
Hawaiian Memorial Park Cemetery Expansion Project |
| **Accepting Authority:** | The Honorable David Y. Ige, Governor  
State of Hawai‘i  
http://governor.hawaii.gov/contact-us/contact-the-governor/  
Executive Chambers, State Capitol  
415 South Beretania Street  
Honolulu, Hawai‘i 96813  
Telephone: (808) 586-0034 |
| **Petitioner:** | Hawaiian Memorial Life Plan Ltd.  
1330 Maunakea Street  
Honolulu, HI 96813  
Telephone: (808) 522-5233  
Contact: Mr. Jay Morford |
| **Preparers of Environmental Impact Statement Preparation Notice:** | HHF Planners  
733 Bishop Street, Suite 2590  
Honolulu, Hawai‘i 96813  
Telephone: (808) 457-3172  
Contact: Mr. Ronald A. Sato, AICP, Sr. Associate |
| **Project Location:** | HMP is a privately-owned cemetery located in the Kāne‘ohe district on the Windward side of the island of O‘ahu. The cemetery is approximately 7 miles northeast of downtown Honolulu, and located mid-way between the towns of Kailua to the east and Kāne‘ohe to the west. |
| **Tax Map Key Parcels:** | (1) 4-5-033: por. 001 (Private Property). |
| **Petition Area:** | Petition Area includes an approximately 53.45-acre portion of a larger 164.4-acre parcel. Expansion of the cemetery only involves about 28.2 acres of active cemetery use within the Petition Area. |
| **Existing Use:** | Presently undeveloped land. |
| **State Land Use District:** | TMK 4-5-033: Parcel 001: Conservation District (156.5 acres), Urban District (7.9 acres for Ocean View Garden)  
**Petition Area:** Conservation District (53.45 acres) |
| **City Ko‘olau Poko Sustainable Communities Plan:** | Open Space/Preservation Area |
| **Special Management Area:** | Petition Area is outside of the City’s SMA boundary. |
| **City Zoning District:** | P-1 Restricted Preservation District |
| **Flood Zone Designation:** | Zone X - Areas determined to be outside the 500-year flood; Zone D - Areas of undetermined flood hazard |
1.1.2 Findings Under State Chapter 343, HRS

Under §343-5(e), HRS, an applicant proposing an action subject to these environmental regulations may proceed directly to preparing an Environmental Impact Statement (EIS) beginning with the preparation of an EISPN if the Accepting Authority determines that an EIS is likely to be required (State of Hawai‘i, 2007). As a result, an environmental assessment would not need to be first prepared.

Findings

The findings supporting the preparation of an EISPN are as follows:

1. **Involve an irrevocable commitment to loss or destruction of any natural or cultural resource;**
   The project would not involve the loss or destruction of any natural or cultural resource. Establishing a planned cultural preserve would support preservation and maintenance of cultural and historic sites present within the property, having an overall beneficial effect. Expansion of the cemetery would change the present use of over 28 acres of the undeveloped site, but is should not result in the loss or destruction of natural resources. Technical studies will be conducted as part of the Draft EIS to identify any sensitive or important natural resources that may be affected, such as the native Blackline Hawaiian Damselfly (*Megalagrion nigrohamatum nigrolineatum*), and also identify necessary mitigative measures.

2. **Curtails the range of beneficial uses of the environment;**
   The project would not curtail the range of beneficial uses associated with this property because this privately-owned property is currently undeveloped and not open to the public. Expansion of the cemetery within the Petition Area would address a growing need for additional burial space and options for the disposition of persons by family members increasing beneficial uses of this environment. Establishing a cultural preserve would have a beneficial effect by ensuring the preservation, management, and maintenance of cultural resources within this area in partnership with the Ko‘olaupoko Hawaiian Civic Club.

3. **Conflicts with the State’s long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;**
   The improvements should not conflict with the State’s long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS. A discussion of the project’s consistency with applicable guidelines would be provided in the EIS document.
4. **Substantially affects the economic welfare, social welfare and cultural practices of the community or state;**

The project would generate additional tax revenue from construction activities and operations. However, these activities should not substantially affect the economic welfare of the city or state. Establishing a cultural preserve would have a beneficial effect on cultural practices by ensuring the preservation, management, and maintenance of cultural resources within this area in partnership with the Ko'olaupoko Hawaiian Civic Club. The project could have a substantial effect on social issues with regard to cemetery operations. These issues would be addressed in greater detail in the Draft EIS.

5. **Substantially affects public health;**

The project should not substantially affect public health as expansion of the cemetery should have little impacts on the natural environment, and should not generate significant public health issues, such as air pollution, hazardous waste, water quality issues, etc. The Draft EIS would include studies addressing particular areas in greater detail.

6. **Involves substantial secondary impacts, such as population changes or effects on public facilities;**

The project should not have substantial secondary impacts on the social environment, infrastructure, and public facilities because it only involves expansion of an existing cemetery. The project would not increase the resident or visitor population because it does not include new housing or visitor units. Project improvements would not generate additional demands on schools (e.g. new students), recreational facilities, or other public services.

7. **Involves a substantial degradation of environmental quality;**

The project should not contribute to a substantial degradation to the quality of the surrounding environment. Project improvements involve grading and landscaping activities. The Draft EIS will include studies addressing subjects that may affect environmental quality such as drainage, water quality, etc.

8. **Individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;**

This project should not have significant cumulative effect on the environment or involve a commitment for larger actions. The Draft EIS document would address such considerations in greater detail.
9. **Substantially affect a rare, threatened, or endangered species, or its habitat;**
The property does have the endangered native Blackline Hawaiian Damselfly present within a small area of the larger property that will be assessed in greater detail in the Draft EIS. There are no other known endangered, threatened, or rare species or resources present within the Petition Area. Technical studies will be conducted for the Draft EIS to address the presence of potential species in greater detail.

10. **Detrimentally affect air or water quality or ambient noise levels;**
The project should not have detrimentally significant impacts on air, water quality, or ambient noise levels. Construction of project improvement would include implementing best management practices that would be addressed in the Draft EIS. Other short-term construction effects are expected to be temporary and minor, and include mitigative measures such as best management practices.

11. **Affect or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;**
The Petition Area is not known to be located within environmentally sensitive areas, such as wetlands. The site is not located within a floodway or other flood hazard area, and is not located along the coastline that may be susceptible to associated hazards (e.g. tsunami zone). The Draft EIS will address potential hazards in greater detail, including potential hazards from rockfall, and stormwater runoff that might affect downslope residential properties.

12. **Substantially affect scenic vistas and view planes identified in county or state plans or studies;**
Project improvements should not have a significant impact on existing scenic vistas and view planes from roadways. The Draft EIS document would address view considerations in greater detail.

13. **Require substantial energy consumption**
The project would have minimal impact on energy consumption because it involves expansion of an existing cemetery. The proposed use would not generate substantial energy demand.
1.2 APPLICANT AND PROJECT BACKGROUND

Hawaiian Memorial Life Plan, Ltd. owns Hawaiian Memorial Park, which operates as a cemetery providing the community with burial plots along with a variety of interment options. HMP is a full-service cemetery that has been at its present location since 1958. HMP is the final resting place for over 41,000 people, representing families across Hawai‘i. As sections of the cemetery have filled, HMP has grown from an initial size of six acres to its existing size of approximately 80 acres situated on three tax map parcels. One of the parcels is separated by the Hawai‘i State Veterans Cemetery.

The Petitioner had developed expansion plans in 2007 that included completing a Final Environmental Impact Statement (EIS) in September 2008. Since then, the Petitioner has had several meetings over the years with the Kāne'ohe Neighborhood Board, community members, and government agencies to address concerns associated with previous plans. Current project plans have since been revised and have been incorporated in the City’s updated Ko‘olau Poko Sustainable Community Plan, which was recently revised by adoption of Ordinance 17-42 by the City Council in August 2017.

1.3 PROJECT LOCATION

HMP is a privately-owned cemetery located in the Kāneʻohe district on the Windward side of the island of O'ahu. The cemetery is approximately 7 miles northeast of downtown Honolulu, and located mid-way between the towns of Kailua to the east and Kāne'ʻohe to the west. The Petition Area is situated within the ahupua’a (traditional land division) of Kāne'ʻohe. Kāne'ʻohe is a large ahupua’a of approximately 11,000 acres, extending from the Windward crest of the Ko'olau Mountain Range to include most of the Mōkapu Peninsula, and is bordered by the ahupua’a of He'eia to the west and Kailua to the east.

The Ko'olau Mountain Range is located west of the HMP site, and Kāne'ʻohe Bay is situated approximately 1.5 miles to the north. Figure 1.1 is a location map showing the Petition Area in relation to the larger Windward district.

Project Vicinity and Surrounding Uses

The Petition Area for the expansion of the cemetery is situated makai (seaward) of the existing HMP area and the Hawai‘i State Veterans Cemetery (Exhibit 1.1). The Petition Area is about 53.45 acres in size, and is a portion of a larger 164.4-acre parcel. The entire HMP property is comprised of three separate parcels. The 53.45-acre site is undeveloped. The HMP's existing Ocean View Garden cemetery site is located adjacent to the Petition Area on the northwest end of the larger 164-acre property. Figure 1.2 includes a vicinity map showing the Petition Area and surrounding uses in the vicinity.
Project Location Map
Hawaiian Memorial Park Cemetery Expansion Project
Kāne‘ohe, O‘ahu, Hawai‘i

Figure 1.1
Project Vicinity Map
Hawaiian Memorial Park Cemetery Expansion Project
Kāne‘ohe, O‘ahu, Hawai‘i

Figure 1.2
The entire HMP property is generally bounded by Kamehameha Highway to the northwest, or mauka (inland) side. Single-family residences associated with the Pikoiloa Tract Units 9 and 10 subdivisions are situated immediately to the west. A natural ridgeline generally running in a south to north direction borders the northern and eastern ends of the site. The opposite side of this ridge serves as the Kapa'a Quarry for HC&D, LLC, with the John A. Burns Freeway (H-3 Freeway) located east of the quarry.

The Pohai Nani Good Samaritan Retirement Community (Pohai Nani) is a large assisted living facility of about 16 acres situated along the hillside behind the residential subdivision off of Namoku Street. This facility borders the northern end of HMP's Parcel 1 property. The Pohai Nani complex includes a main 14-story tower and other accessory buildings. The south-southeastern boundary of the Petition Area consists of undeveloped area along the hillside that is part of the 122.5-acre Hawai‘i State Veterans Cemetery.

Major roadways in the vicinity of the HMP are the H-3 Freeway to the east, Kamehameha Highway to the south, and Mokulele Drive, which serves the surrounding residential neighborhoods along the western end. There are two entrance roads into HMP from Kamehameha Highway. The main entrance road, which is shared by the Hawai‘i State Veterans Cemetery, is located opposite of Halekou Road. The second entrance is located on the southern end across from Mahinui Road. From these entrances, there are several paved driveways providing vehicle circulation within the cemetery property.
1.4 PROPERTY INFORMATION

The Petition Area consists of about 53.45 acres, and is a portion of a larger parcel of property identified as Tax Map Key (1) 4-5-033: 001 (Parcel 1). Parcel 1 totals 164.42 acres, and is owned by Hawaiian Memorial Life Plan Ltd. (Petitioner). About 7.9 acres of Parcel 1 consists of the existing Ocean View Garden, which is part of HMP. Of the 53.45-acre Petition Area, only 28.2 acres would be for cemetery use. The remaining 25.25 acres of the site would consist of internal roadways, open space, and land for the establishment of a cultural preserve. Figure 1.3 includes a Tax Map showing the Petition Area and other HMP parcels. The remainder of Parcel 1 (103.07 acres) would be left undeveloped. The property is currently undeveloped, and previous land uses on the property within the last 50 to 75 years include grazing and possibly agriculture (pineapple cultivation).

HMP has grown from an initial size of six acres in 1958 to its existing size of approximately 80 acres situated on three tax map parcels: (1) 4-5-034: 013 (43.97 acres); (2) 4-5-035: 008 (28.00 acres); and (3) 4-5-033: portion of 001 (7.90 acres). Parcels 13 and 8 are contiguous, but are separated from Parcel 1 by the 122.5-acre Hawaii State Veterans Cemetery (4-5-033: 002). Hawaiian Memorial Life Plan Ltd. owns and has been affiliated with HMP for the past 55 years. A summary of the Petition Area and other parcels associated with HMP is provided below.

<table>
<thead>
<tr>
<th>Tax Map Key Parcels</th>
<th>Total Parcel Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaiian Memorial Park</td>
<td></td>
</tr>
<tr>
<td>(1) 4-5-033: 001</td>
<td>164.42 acres</td>
</tr>
<tr>
<td>● Petition Area (Project Site)</td>
<td>53.45 acres</td>
</tr>
<tr>
<td>● Ocean View Garden</td>
<td>7.90 acres</td>
</tr>
<tr>
<td>● Open Space Area Remaining</td>
<td>103.07 acres</td>
</tr>
<tr>
<td>(1) 4-5-034: 013 (HMP)</td>
<td>43.97 acres</td>
</tr>
<tr>
<td>(1) 4-5-035: 008 (HMP)</td>
<td>28.00 acres</td>
</tr>
<tr>
<td>Total</td>
<td>236.39 acres</td>
</tr>
</tbody>
</table>
Petition Area
(53.45 Ac.)

Existing Hawaiian Memorial Park
Ocean View Garden
4-5-033 portion 001
(7.90 Ac.)

Existing Hawaiian Memorial Park
4-5-034-013
(43.97 Ac.)

Hawaii State Veterans Cemetery
4-5-033-002
(122.50 Ac.)

Remaining Undeveloped Area
(103.07 Ac.)

Parcel
4-5-033-001
(164.42 Ac.)

Not to Scale

Tax Map Key
Hawaiian Memorial Park Cemetery Expansion Project
Kāneʻohe, Oʻahu, Hawaiʻi

Figure 1.3
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CHAPTER 2
PROJECT DESCRIPTION AND ALTERNATIVES

2.1 PROJECT NEED AND OBJECTIVES

HMP serves as the final resting place for over 41,000 persons, and accommodates an average of between 700 to 800 interments\(^1\) a year from families throughout Hawai‘i. HMP accommodates about 25% of all burials occurring in the state. Over the decades, as the need for additional burial space has increased, HMP has met the demand by increasing the land area available for burials within its owned property. Since 1958, as sections of the cemetery have filled, HMP has grown from six acres to their present size of about 80 acres. The most recent expansion occurred in 1999 on a 7.9-acre site within the larger Parcel 1, and is identified as the Ocean View Garden site.

Inventory of Available Plots Being Exhausted

As of June 2017, HMP has sold over 94% percent of available burial plots, and anticipates it will exhaust its available supply of burial plots in the near-term. As shown on Figure 2.1, of the approximately 79,000 individual plots, less than about 6% remain. Consequently, HMP’s inventory of plots is being significantly constrained and could be exhausted in about 5 years, if not sooner.

Management of cemeteries requires a large number of available inventory, especially ground burial spaces, in order to adequately service the community, specifically allowing a choice for the future generations of the families that currently own and/or are interred at HMP. Since HMP must be able to satisfy all of these different demands, it is necessary to have vacant inventory available scattered throughout the cemetery, even as new inventory is developed. Consequently, future planning must occur well in advance of the depletion of existing inventory to ensure the needs of families can be met.

Demographic Factors Contributing to Increasing Need

The need for burial services in Hawai‘i is increasing for several reasons. Hawai‘i’s resident population over the age of 55 is on the rise, a trend which reflects the baby boomer generation moving into and through their 50s and 60s. At the current annual rate of ground burial and with the expected increase in numbers of burials associated with Hawai‘i’s aging population, HMP will need to expand its inventory in order to meet increasing demand for the families they serve while maintaining vital heritage sensitivities.

\(^1\) This includes traditional burials and disposition of cremated remains.
Hawaiian Memorial Park Remaining Interment Plots
Hawaiian Memorial Park Cemetery Expansion Project
Kāne'ohe, O'ahu, Hawai'i

Figure 2.1

Legend
- Interment Spaces Purchased
- Interment Spaces Available

In addition to addressing the current rate of burial ground use, there are a number of demographic factors that will influence the demand for new burial space in the future. As seen in Table 2.1, the total of Hawai‘i residents that are 55+ years of age is projected to increase from 19.8% of the population in 1990 to 33.8% of the population in 2040. Numbers for population cohorts ages 70+ are even more dramatic. As a percentage of the overall population, this cohort group will grow from 7.2% of the population in 1990 to a projected 18.9% of the population in 2040. This translates to a significant increase in terms of overall numbers, from 79,421 in 1990 to a projected 323,560 by 2040.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population Age 55+ (Statewide)</th>
<th>Percentage Age 55+</th>
<th>Age 70+ (Statewide)</th>
<th>Percentage Age 70+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1,108,220</td>
<td>219,108</td>
<td>19.8%</td>
<td>79,421</td>
</tr>
<tr>
<td>2000</td>
<td>1,212,670</td>
<td>266,943</td>
<td>22.0%</td>
<td>117,467</td>
</tr>
<tr>
<td>2010</td>
<td>1,363,620</td>
<td>374,860</td>
<td>27.5%</td>
<td>138,420</td>
</tr>
<tr>
<td>2020*</td>
<td>1,481,240</td>
<td>476,420</td>
<td>32.2%</td>
<td>198,576</td>
</tr>
<tr>
<td>2030*</td>
<td>1,602,340</td>
<td>537,650</td>
<td>33.6%</td>
<td>278,990</td>
</tr>
<tr>
<td>2040*</td>
<td>1,708,920</td>
<td>576,940</td>
<td>33.8%</td>
<td>323,560</td>
</tr>
</tbody>
</table>

* Projected
Source: 2016 State of Hawai‘i Data Book, Table 1.27

From the year 2000 to 2010, the annual average deaths in the state was between 8,500 and 9,200 persons based upon State Department of Business and Economic Development and Tourism (DBEDT) calculations using U.S. census data. This rate is would increase to 10,300 persons a year from 2010 to 2015, and estimated to be up to 15,800 persons a year (53% annual increase) between the years 2035 to 2040. This increasing mortality rate is due to the aging population of the state. Table 2.2 shows this increase. As a result, the need for burial plots and services is projected to increase significantly over the next 20+ years.

**Continued Demand for Burial Disposition**

The preferences for post-death care for Hawai‘i residents has seen changes over the last 35 years as shown on Table 2.3. While the percentage of burials used to be almost equal to cremation as a choice of disposition in 1980, cremation has since risen to the preferred choice at about 72% in 2015. In 1980, 45% of those interred in Hawai‘i were buried; whereas in 2015 that percentage has decreased to about 22%. However, the number of annual deaths has increased considerably since 1980, and therefore, the current number of annual burials are still comparable to 1980 at about 2,400 a year. From 2010 to 2015, the number of burials...
has remained fairly constant as shown on Table 2.3. Therefore, the actual demand for burial plots has remained steady and will continue to do so or even increase as a function of the aging population in the future. The large number of cremations would also require space further contributing to the demand for available space for ground interment and inurnment.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Methods</td>
<td>5,204</td>
<td>7,055</td>
<td>8,511</td>
<td>9,654</td>
<td>10,885</td>
<td>11,215</td>
</tr>
<tr>
<td>Cremation</td>
<td>2,241</td>
<td>3,564</td>
<td>5,092</td>
<td>6,661</td>
<td>7,907</td>
<td>8,097</td>
</tr>
<tr>
<td>Burial</td>
<td>2,343</td>
<td>2,798</td>
<td>2,767</td>
<td>2,322</td>
<td>2,306</td>
<td>2,399</td>
</tr>
<tr>
<td>Removal/Other</td>
<td>620</td>
<td>693</td>
<td>652</td>
<td>671</td>
<td>672</td>
<td>719</td>
</tr>
</tbody>
</table>

Source: 2016 State of Hawai‘i Data Book, Table 2.20

**Project Objectives**

Without proper planning for the future, Hawai‘i residents could easily face a shortage of cemetery space in the near future. At the base of the Ko‘olau Mountains, HMP provides a convenient location for Windward, Honolulu and Leeward communities for both initial interment and subsequent visitations to a burial site. The expansion of HMP under the proposed project would address this need for additional burial plots, and provide families with options on disposition in the future.

**2.2 PROPOSED ACTION**

Proposed improvements (Proposed Action) within the approximately 53.45-acre Petition Area would consist of two main components: 1) expansion of the HMP cemetery; and 2) creation of a 14.5-acre cultural preserve immediately to the northeast of the cemetery expansion area. Remaining undeveloped areas of Parcel 1 outside of the Petition Area would continue to remain undeveloped. Figure 2.2 includes a Proposed Concept Plan for this project, and a summary of the proposed land use is provided.

**Summary of Proposed Land Use**

| 1. Cemetery Expansion Area       | 28.20 acres   |
| 2. Internal Roadways (Approximate) | 3.00 acres   |
| 3. Cultural Preserve             | 14.50 acres   |
| 4. Other Open Space Area         | 7.75 acres    |
| **Total**                        | **53.45 acres** |
Cemetery Expansion

The majority of the approximately 53.45-acre Petition Area would be used for expansion of the cemetery by 28.2 acres (53% of total Petition Area). The cemetery expansion would involve the construction of landscaped areas for burial space. Small private structures could also be placed throughout the cemetery grounds with special features, garden walls, walkways, and monuments similar to that present within other areas of HMP. After grading to establish appropriate slopes, the majority of the land would be landscaped with turf and would match the appearance of the existing cemetery.

An internal roadway system encompassing about 3 acres would be constructed to provide access to various areas as shown in Figure 2.2. The roadway would be paved and suitable to accommodate two-way traffic.

An irrigation system would be provided to irrigate the landscape elements of the cemetery. The irrigation system for the existing HMP is served by the City’s potable water system. A connection point is located at the entrance to HMP in the vicinity of Mahinui Road and Kamehameha Highway. A waterline under Kumakua Place irrigates the existing Ocean View Garden site. The feasibility of incorporating a non-potable water source for the cemetery expansion area would be evaluated. However, if a non-potable water source cannot be obtained, the cemetery would be allowed to hook up to the domestic water supply.

Storm water runoff would be managed in accordance with applicable City regulations and drainage standards. The primary method planned to manage the cemetery’s stormwater would be a system of retention areas designed to meet City’s Drainage Standards for the 100-year, 1-hour storm event. More detailed information associated with grading and drainage improvements would be discussed in the Draft EIS.

Cultural Preserve

A 14.5-acre area within the Petition Area would be established as a cultural preserve. This cultural preserve would allow for the preservation and maintenance of cultural sites present within this area. This area contains a range of significant resources within its boundaries, including, but not limited to Kawa’ewa’e Heiau, other historic sites, native plants used for cultural practices, and is the site of wahi pana (storied places or landscapes).

A preservation plan is currently being developed by Hawaiian Memorial Life Plan, Ltd. in partnership with the Ko’olaupoko Hawaiian Civic Club regarding the stewardship and management of the cultural preserve. The preservation plan would determine the best treatment strategies for the resources within the cultural preserve, the reserve’s management, and its operation. The preservation plan would ensure the long-term maintenance and security of Kawa’ewa’e Heiau and this area.
The 156.5 acres of the 164.4 acre parcel (less 7.9-acre Ocean View Garden) will be placed in a conservation easement. This conservation easement would limit any other future development on the property, except for the expansion of the cemetery and cultural preserve. Further details on the conservation easement would be discussed in the Draft EIS.

2.3 PROJECT PHASING AND ESTIMATED COSTS

HMP intends to commence design and construction of the backbone infrastructure for development of the entire Petition Area in a single integrated system as soon as all entitlements have been obtained. Construction would likely occur in phases in successive 5-acre increments until all sections of the cemetery expansion area have been completed.

It is anticipated that the entitlement phase of the project would be completed in early to mid-2019. A preliminary target date for completion of the initial phase of construction is 2020.

Development costs for the cemetery construction are estimated at $16 million (in 2017 dollars).

2.4 LISTING OF PERMITS AND APPROVALS

A listing of required discretionary land use approvals and ministerial permits for this project is provided.

**State of Hawai‘i Permits**

- Land Use Commission
  - State Land Use District Boundary Amendment

- Department of Health
  - National Pollutant Discharge Elimination System (NPDES) Permit - Construction Activities
  - Construction Noise Permit, if required

- Department of Land and Natural Resources, Historic Preservation Division
  - Chapter 6E, HRS, Historic Preservation Review

**City and County of Honolulu Permits**

- Board of Water Supply
  - Water System Facilities Charges

- Department of Planning and Permitting
  - Grading Permit
2.5 ALTERNATIVES CONSIDERED

This section discusses alternatives to the Proposed Action that have been identified and would be evaluated during preparation of the Draft EIS. Alternatives discussed include: 1) not implementing the project, otherwise referred to as the “No-Action” Alternative; and 2) expansion of the cemetery utilizing a larger area or the entire remaining 156.5 acres of Parcel 1.

The No Action Alternative assumes there would be no additional expansion of the HMP Cemetery, and is planned to be eliminated from further consideration in the Draft EIS because it would not meet the project need and objectives. As previously discussed, there is a need for additional burial plots due to HMP’s depleting inventory and demographic trends showing a growing need for such plots due to Hawai‘i’s aging population. The Draft EIS would address this alternative in greater detail, and it would serve to establish baseline conditions (without project) to assess impacts resulting from the project.

The other alternative considering expanding the cemetery to utilize the entire acreage of Parcel 1 is also planned to be eliminated from further consideration in the Draft EIS. This alternative would support the project need and objectives, however, there would be increased environmental impacts resulting from this action. The Draft EIS would address this alternative in greater detail along with likely impacts associated with it.

The Draft EIS would evaluate and include discussion of other prudent and feasible alternatives meeting the project need and objectives that may be identified as part of the consultation process associated with publication of this EISPN.
CHAPTER 3
NATURAL AND HUMAN ENVIRONMENT

Climate

O’ahu’s temperatures have small seasonal variation such that the temperature range averages only 7 degrees between the warmest months (August and September) and the coolest months (January and February) and about 12 degrees between day and night. The HMP project area is located in Kāne‘ohe, in the windward lowlands, a climatic region that is characterized as being moderately rainy with frequent trade wind showers. Temperatures are nearly uniform and mild compared to other regions on the island. Average low temperatures range from about 62 degrees Fahrenheit (° F) in the winter to about 69° F in the summer. Average high temperature ranges from approximately 75° F in the winter to 81° F in the summer. The project area receives between 60 inches of rain annually.

Winds are predominantly “trade winds” from the east-northeast except for occasional periods when “Kona” storms generate strong winds from the south, or when the trade winds are weak and land breeze to sea breeze circulations develop. Wind speeds typically vary between 5 and 15 miles per hour providing relatively good ventilation much of the time. Lower velocities (less than 10 mph) occur frequently when the usual northeasterly trade winds tend to fall giving way to light, variable wind conditions through the winter and on into early spring.

3.1 TOPOGRAPHY

The Petition Area encompasses the lower area of the hillside that includes gently sloping areas with smaller gullies. The site generally slopes in a northwest direction from the hillside toward the Pikoiloa subdivisions. Elevations associated with cemetery expansion area range from 200 feet above mean sea level (AMSL) to 375 feet AMSL as shown on Figure 3.1. This area has gentle to moderate slopes varying from 10% to 15% in some areas, and 15% to 45% in other steeper areas closer to the hillside. The area planned for the cultural preserve extends further up the hillside to an elevation of about 500 feet AMSL.

Probable Effects

Proposed improvements would involve grading activities to create more consistent and gentler finished slopes within the cemetery area that would alter the site’s existing topography. The general topographic condition of the area and natural drainage patterns would be retained, however, the degree of slope within certain areas would be reduced. Areas would need to be graded to provide a suitable physical environment for burial plots, and would generally have slopes of 15% to 20% or less. Therefore, changes to the topography should overall be minor given existing conditions.
CHAPTER 3 Hawaiian Memorial Park Cemetery Expansion Project  
NATURAL AND HUMAN ENVIRONMENT Environmental Impact Statement Preparation Notice

Internal roadways would require some cut and fill, but are intended to follow existing contours of the site. Areas exceeding 25 percent slope would not be suitable to create burial plots. A preliminary engineering report would address potential impacts from short-term construction activities, and the Draft EIS would identify potential best management practices that can be implemented to mitigate impacts from ground disturbance.

3.2 SOILS

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service classifies soils within the Petition Area as comprised of: 1) Alaeloa Series; and 2) Kaneohe Series association of soils. These soil types are shown on Figure 3.2, and a description of these soils based upon the Soil Survey, Islands of Kaua‘i, O‘ahu, Maui, Moloka‘i and Lāna‘i, State of Hawai‘i (SCS, 1972) study is provided below.

**Alaeloa Series**

A broad band of soil from the Alaeloa series, the dominant soil series in the proposed expansion area, exists below the hillside. The Alaeloa series is described to typically consist of deep and very deep, well-drained soils that formed in material weathered from basic igneous rock. Alaeloa soils are on uplands and have a broad range of slopes.

These soils are well drained with slow to very rapid runoff depending on slope. Permeability is moderately rapid. The Petition Area has Alaeloa silty clay with 40% to 70% slopes (ALF) situated on the northern and southern ends. In the middle of these pockets of ALF is a large section of Alaeloa silty clay with 15% to 25% slope (AeE).

**Kāne‘ohe Series**

The Kāne‘ohe Series is described to characteristically consist of well-drained soils on terraces and alluvial fans that typically developed in alluvium and colluvium derived from basic igneous rock. This type of soil is present within gently sloping to very steep areas, and are characteristically found in elevations that can range from 100 to 1,000 feet AMSL on O‘ahu. Where existing slope is less than 15%, runoff is medium and the erosion hazard is moderate. Where existing slope is greater than 30%, runoff is medium to rapid and the erosion hazard is moderate to severe.

The band of soil extending along the western end of the project’s petition area is comprised of Kaneohe silty clay with slopes ranging from 8% to 15% (KgC). The southwest end of the petition area has soils that are characterized as typically being within areas having slopes ranging from 30% to 65% (KHOF). However, the actual slopes on the southwest end of the site are not as steep (slope up to 45%) as other areas on the island where KHOF soils are present.
Probable Effects

Project improvements would impact soils due to grading activities necessary for internal roadways and creating areas for active cemetery use; however, impacts are not expected to be adverse. A grading plan prepared for the project during the design phase would try to achieve balanced cut and fill quantities throughout the site so that no soil needs to be imported or exported for disposal. Preliminary grading plans and quantity estimates would be developed as part of a preliminary engineering report prepared, and addressed in the Draft EIS.

The Draft EIS would address impacts from short-term construction activities, and identify potential best management practices that can be implemented. Standard construction best management practices would be utilized to mitigate short-term soil erosion during construction, and may include stationing water trucks nearby during construction to provide sprinkling in active areas, and use of temporary silt fencing, sand bags or screens. Actual implementation measures would be developed during project design.

3.3 NATURAL HAZARDS

3.3.1 Seismic Hazards

The U.S. Geological Survey’s *Atlas of Natural Hazards in the Hawaiian Coastal Zone* (USGS, 2002) assigns seismic hazard intensity ratings for all islands on a scale from “1” to “5” with “1” representing lowest hazard and “5” the highest. The southern half of O‘ahu extending from Mākaha east around Diamond Head and Makapu‘u and north up to Kāne‘ohe Bay is assigned a volcanic/seismic risk ranking of “3” due the region’s proximity to the Moloka‘i Seismic Zone. The remainder of the island is ranked “2” with respect to volcanic/seismic hazard (USGS, 2002). The Petition Area is situated within the southern half of O‘ahu and has a risk ranking of “3” similar to other uses in the eastern half of the Windward district. The project area’s earthquake hazard risk is not significantly higher than other areas of O‘ahu.

Potential Project Impact

The proposed expansion of the cemetery would not be impacted by or have an impact on seismic hazard. The majority of improvements would consist of internal roadways and landscaping for burial plots and accessory improvements. The susceptibility of structures and paths to earthquake damage would be no different than the existing structures in the surrounding area.
3.3.2 Hurricane Hazards

Hurricanes are tropical storms with winds greater than or equal to 74 miles per hour. They have affected every island in the State and can cause major damage and injury usually resulting from high winds, marine over-wash, heavy rains, and other intense small-scale winds and high waves. Hawaiian Memorial has and is still used by the community as a safe zone during hurricane and tsunami warnings because of its open space and elevation.

Exhibit 3.1 shows the paths of past hurricanes and tropical storms that have affected the Hawaiian Islands from 1950-2016 based upon hurricane tracking information from the National Oceanic Atmospheric Administration’s (NOAA) website accessed in January 2017. Tropical Storm Flossie passed close to the Hawaiian Islands in July 2013, but only brought stormy weather. The Central Pacific basin had a record number of storms (15) in 2015.

Not all of these storms pass directly through the state, and actual hurricane strikes on the Hawaiian Islands are relatively rare in the modern record. More commonly, hurricanes pass close to the islands generating large swells and moderately high winds causing varying degrees of damage (USGS, 2002). Of these many storms, Hurricanes Dot (1959), Iwa (1982) and Iniki (1992) directly hit the Island of Kaua‘i. Hurricane Iniki, hit Kaua‘i as a Category 4 hurricane, causing nearly $2 billion in damage, more than any other hurricane to affect the state since records began. In 2014, Tropical Storm Iselle impacted the southern end of the Island of Hawai‘i.

Potential Project Impact

Should a hurricane make landfall on O‘ahu, it is anticipated that sufficient warning would be available and that any visitors to the HMP area would be cleared and directed to a safe location. Hurricane damage is not anticipated to be higher in the project area compared to surrounding areas. The majority of the Petition Area would consist of landscaping with some minor accessory structures associated with family memorials. No significant danger to the public is anticipated.
3.3.3 Tsunami Hazards

Tsunami manifest themselves as large breaking waves, often largest around headlands where they are concentrated by wave refraction, or as sea levels that rise rapidly like a flooding tide. The coastline of the Hawaiian Islands is under continuous threat of tsunami inundation because the Pacific basin is one of the most geologically active regions on Earth. The HMP property is located well inland of the coastline and is outside of the City’s designated tsunami evacuation zone. Hawaiian Memorial Park has and is still used by the community as a safe zone during tsunami warnings because of its open space and elevation.

**Potential Project Impact**

The project area is not within the current City tsunami evacuation zone, and proposed improvements will not be affected by a tsunami.

3.3.4 Flood Hazards

According to the Flood Insurance Rate Map (FIRM) number 15003C0270JG (effective date: November 4, 2014) published by the Federal Emergency Management Agency (FEMA), the Petition Area is predominantly located within Zone D. Figure 3.3 shows the flood zone designations for the site and immediate area. Zone D denotes areas of undetermined flood hazard, but where flooding is possible. Small areas close to the Petition Area surrounding residences along Lipalu Street are designated Zone X. Zone X is for areas determined to be outside the 100- and 500-year floodplains.

Kāwā Stream begins in the upper reaches of the Hawai‘i State Veterans Cemetery and flows in a northwest direction (makai) through the veteran’s cemetery, and below HMP’s Ocean View Garden toward Kumakua Place. This stream then flows through residential neighborhoods before discharging into Kāne‘ohe Bay. Flood areas within the residences associated with this stream are designated Zone AEF. Zone AE areas are subject to a 1% or greater annual chance of flooding in any given year, and base flood elevations have been determined. Floodway areas are identified as the channel of a stream plus any adjacent floodplain that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. There is no flood hazard identified for this stream within the Hawai‘i State Veterans Cemetery areas.
Figure 3.3

Flood Hazard Zones
Hawaiian Memorial Park Cemetery Expansion Project
Kāne‘ohe, O‘ahu, Hawai‘i

Legend

D Areas of Undetermined Flood Hazard, but Possible
X Areas Determined to be Outside the 500-Year Floodplain

Source: City and County of Honolulu GIS, 2017
CHAPTER 3 Hawaiian Memorial Park Cemetery Expansion Project
NATURAL AND HUMAN ENVIRONMENT
Hawaiian Memorial Park Cemetery Expansion Project Environmental Impact Statement Preparation Notice

Potential Project Impact

The project should not impact existing designated flood hazards because there are none identified within the Petition Area. Project improvements would include drainage improvements to address increases in storm water runoff created by additional impervious surfaces. Kāwā Stream runs below (outside) the Petition Area over 400 feet away. Therefore, project improvements should not significantly impact this stream or alter its flow path. A preliminary engineering report prepared would address storm water runoff and potential flooding impacts associated with the project, and the Draft EIS will address changes to existing flood hazards in greater detail.

3.3.5 Rockfall Hazards

The Petition Area is located along the foot of the adjacent hillside, and could be subject potential rock fall hazards. Overall, both soil types (Kāne'ohe and Alaeloa) present are believed to have good suitability, have moderate shrink-swell potential, and have greater than 5 inches to bedrock based upon a prior engineering report conducted as part of HMP’s 2008 Final EIS (HHF, 2008). However, there are a few areas along the hillside within the Petition Area that could have a slight potential for rockfall hazards.

Potential Project Impact

A slope stability analysis performed in the 2008 Final EIS determined that there should be no apparent potential for hazards to the Petition Area associated with slope stability of the hillside. A generally accepted minimum factor of safety for considering work within existing slopes and newly graded slopes is that it should next exceed a factor of 1.5 (ration of horizontal distance to vertical distance) or 33% angle. Site improvements for the expansion of the cemetery should not need to exceed this 1.5 factor. Nevertheless, an updated rockfall study will be conducted to address slope stability issues based upon present project plans.

3.4 BOTANICAL RESOURCES

Existing vegetation found within the Petition Area can be characterized as being an alteration of native plant habitat. As a result, very few native plant elements remain in the area. A botanical study conducted in 2006 (HHF, 2008) determined that 95% of the vegetation present were alien or introduced. Only 5% of the existing vegetation was identified as native, primarily because the parcel has historically been disturbed when it was used for dairy ranching. Of the 94 plant species observed, 88 species were alien, four were indigenous (native to the Hawaiian Islands and elsewhere), and two were endemic (native only to the Hawaiian Islands).

The native species included infrequent occurrences of ‘uhaloa (*Waltheria indica*), hala (*Pandanus tectorius*), ka‘e‘e or sea bean (*Mucuna gigantean*), and moa (*Pisilotum nudum*). Of the two endemic species, two koa (*Acacia koa*) trees were observed near the Kawa‘ewa‘e Heiau, and ‘akia (*Wikstroemia Oahuensis var.*
Oahuensis) was documented along the edges of the Ocean View Garden section of HMP and within the upper elevations near the ridgeline. Four Polynesian introduced plant species were observed, including: ti (Cordyline fruticosa); niu or coconut (Cocos nucifera); kukui (Aleurites moluccana); and hau (Hibiscus tiliaceus). The kukui and hau were observed scattered throughout the survey area especially in the small gulches and ravines. Ti plants were observed along the boundary of the existing HMP and scrub vegetation, as well as along several of the ridges (HHF, 2008).

Laua’e (Phymatosorus grossus) populations are also present, and are dominated by a thick canopy of monkeypod (Samanea saman), java plum (Syzygium cumini), and octopus trees (Schefflera actinophylla). Several liana species were observed growing up into the canopy of the forest, including, ka'e'e or sea bean (Mucuna gigantea), passion fruit (Passiflora edulis), and maile pilau (Paederia foetida).

No wetlands were encountered during the botanical survey. None of the plant species observed were a threatened or endangered species, nor was any plant a species of concern. All of the plants can be found in similar environmental habitats throughout the Hawaiian Islands.

Potential Project Impact

Project improvements should not have a significant effect on botanical resources because the vast majority of species present are alien or introduced. No threatened or endangered plant species would be affected. Native and endemic plant species within the cultural preserve could be increased as part of cultural restoration efforts conducted in that area, which would have a beneficial effect on botanical resources and support native Hawaiian cultural practices. The majority of the expanded cemetery area would consist of grass, however, native plants could be incorporated into landscape plans developed for other areas. An updated botanical survey will be conducted for the Draft EIS to evaluate current conditions and botanical resources present to assess the impact from present project plans.

3.5 FAUNAL RESOURCES

An avifauna and feral mammal survey conducted in 2008 (HHF, 2008) determined the project area provides habitat for a variety of alien birds and mammals, none of which are endangered or threatened. No native land birds were recorded during the survey, and the absence of native land birds was not unexpected given the location, elevation, and type of habitats available at this site. The short-eared Owl (Asio flammeus sandwicensis) or Pueo forages in grasslands, agricultural fields, and pastures as well as in upland forested habitat. This species was not recorded during the survey work done at HMP in 2008.

No native waterbirds were recorded, nor were any expected on this property due to an absence of suitable wetland habitat. Similarly, no seabirds were recorded on the property due to unsuitable habitat, the presence of ground predators, and habitat disruption. Some species of seabird may occasionally fly over the property. One species of migratory shorebird, the Pacific Golden-Plover or Kolea (Pluvialis fulva), was observed on lawns adjacent to the Petition Area. Kolea are not listed as either endangered
or threatened species by the U.S. Fish and Wildlife Service, nor proposed as a candidate for listing as an endangered or threatened species.

A total of 14 species of introduced (alien) birds were recorded. The more common of these species included: the Spotted Dove (Streptopelia chinensis); the Red-vented Bulbul (Pycnonotus cafer); the Red-whiskered Bulbul (Pycnonotus jocosus); the Japanese White-eye (Zosterops japonicus); and the House Finch (Carpodacus mexicanus).

Feral cats (Felis catus), Small Indian Mongoose (Herpestes auropunctatus), and pigs (Sus scrofa) were observed. Pig tracks and uprooted areas caused by pigs were abundant throughout the site. Mice (Mus musculus) and rats (Rattus spp.) undoubtedly occur on the property. The native endangered Hawaiian Hoary Bat was not detected during the survey, and none were expected given the low number of bats reported to occur on O'ahu.

**Potential Project Impact**

Project improvements should not have a significant effect on avifauna and faunal resources because the vast majority of species present are alien. No federal endangered or threatened species, or species of concern were observed.

Expansion of the cemetery would reduce areas that may currently be used by feral pigs (Sus scrofa) resulting in a change to their foraging and destructive activities, particularly on vegetation. The clearing of the area and its subsequent conversion to more landscaped lawn habitat would reduce the immediate, local populations of alien birds using the area. But, this change would provide new foraging space for the wintering Kolea, who forage in grassy areas with a good insect supply.

Revegetation of portions of the Petition Area with a plant palette dominated by native and Polynesian-introduced plants could provide habitat for a number of avian species including the O'ahu 'amakihi, Pueo, and any of the alien bird species typically found in Windward O'ahu. There is an abundance of non-native habitat in the lands surrounding the Petition Area for bird species, and provides sufficient habitat for potential Pueo that may exist in the general area. An updated avifauna and faunal survey will be conducted for the Draft EIS to evaluate current conditions and species present to assess the impact from present project plans.

### 3.6 INVERTEBRATE RESOURCES

A survey of native invertebrate resources conducted for HMP in 2008 (HHF, 2008) encountered three native species: 1) the widespread endemic grass feeding bug *Trigonotylus hawaiiensis*; 2) the endemic Moss moth (*Eudonia* sp.); and 3) the endemic small moth or micro-moth (*Mestolobes*). No native mollusks were observed and no invertebrate listed under either federal or state endangered species statues was located. The extremely low level of native plants serving as arthropod hosts was most likely the reason for the absence of Hawaiian arthropods in the area.
Anecdotal information provided by area residents indicated the presence of the endangered native Blackline Hawaiian Damselfly (*Megalagrion nigrohamatum nigrolineatum*) being present on a small portion of the Petition Area. The Petition Area was subsequently surveyed by Dr. Steven Montgomery to determine the presence or absence of this species. Damselflies were typically common in a variety of lowland habitat, and the higher inland elevation of the HMP property is not a typical habitat. A small number (about 10 individuals) of federally listed endangered Blackline Hawaiian Damselfly were observed along a soggy drainage area within the northwestern section of the Petition Area.

All sections of the Memorial Fountain at the Ocean View Garden site were also inspected, but no Blackline Hawaiian Damselflies were observed. This water feature did have many tadpoles of the cane toad, *Bufo marinus,* but no native species. An adult *Bufo* was seen in the area above the seeps. Although *Bufo* may be a predator on the Damselfly adults, it is mostly a nocturnal feeder.

**Potential Project Impact**

Project improvements should not have a significant effect on native invertebrate species because of the low level of native plants serving as potential arthropod hosts within the Petition Area. Establishment of the cultural preserve could allow for cultural restoration of the area using native plants to replace alien plants. Increasing native plants within this preserve could support creating improved habitat for endemic arthropods, which is a beneficial effect.

An updated survey of native invertebrate resources would be conducted, and project effects addressed in the Draft EIS. This would include an expanded field inspection to determine the full extent of the presence of the endangered Blackline Hawaiian Damselfly. Necessary best management practices would be addressed to ensure the project does not impact Damselfly habitat.

**3.7 HYDROGEOLOGICAL RESOURCES**

**3.7.1 Groundwater Hydrology**

The State DLNR, Commission on Water Resource Management (CWRM) has established groundwater hydrologic units to provide a consistent basis for managing groundwater aquifers. A coding system has been established under the State’s Water Resource Protection Plan that classifies and describes the islands aquifers. The project area is located within the Koʻolaupoko Aquifer system (30603) of the larger Windward Aquifer Sector (306) (CWRM, 2008). This system spans from the ridgeline of the Koʻolau Mountains to the shoreline and in a south to north direction from the beginning of Kāne'ohe up to Waiʻahole. The Windward aquifer has an estimated sustainable yield of 91 million gallons per day (mgd). The Koʻolaupoko Aquifer system has a sustainable yield of 30 mgd.

The most abundant form of groundwater on Oʻahu is the basal aquifer, which is a lens of fresh to brackish water floating on sea water. The Petition Area is located in an area where a primary basalt aquifer is overlain with an upper aquifer of sedimentary caprock. The upper aquifer is an unconfined, basal sedimentary system. The upper aquifer is currently used, ecologically important, considered
irreplaceable, has low salinity (250-1,000 mg/l Cl⁻), and a high vulnerability to contamination. The lower aquifer groundwater is confined basal in dike compartments, and is classified as drinking water, with fresh salinity <250 mg/l Cl⁻, considered replaceable, and has moderate vulnerability to contamination.

The Underground Injection Control (UIC) line was established to protect the aquifers of Hawai‘i, as established by §11-23, HAR. Above this line, the groundwater is considered to be useable for drinking water; below it is not. The Petition Area is located below the UIC line, and the state does not consider the area to be viable for developing drinking water.

**Potential Project Impact**

Windward O‘ahu generally receives sufficient precipitation to minimize the need for supplemental irrigation of landscaping. However, some irrigation would be required for the Petition Area during establishment of new sections for use and during dry periods. Proposed improvements should not have a significant effect on the underlying aquifer. Although some impervious areas would be created by structures and roadways, the majority of the cemetery expansion area would be pervious areas consisting of landscaped grass. Detention and/or retention basins are planned as part of drainage site improvements that would enhance groundwater recharge. Such site improvements would be discussed in greater detail in the Draft EIS.

Groundwater can be influenced by turf management practices as well. New burial sections would be treated with slow release turf fertilizers, and maintenance activities would target applications during dry periods to ensure it is absorbed by the plant material. If herbicides or pesticides are necessary, its use would follow manufacturer specifications by trained personnel. This practice would be rare and avoided due to potential operational problems and expense.

The U.S. Environmental Protection Agency (EPA) does not regulate the burial of human remains under current environmental statues or regulations. As decomposition progresses there may be a very limited potential to release very small quantities of Formaldehyde into the adjacent soil and groundwater. However, Formaldehyde is diluted with water as part of the embalming process. This solution reacts with proteins in the embalmed body and to a smaller degree evaporates from the body prior to interment, thereby, reducing the residual amount of chemical to a less than significant amount. Thus, the potential for the release of Formaldehyde, which is a decomposable organic fluid, into adjacent soil and groundwater is thought to be very small to non-existent. HMP had a ground water study performed in 2010 that showed HMP did not contribute to any ground water contaminants. HMP also requires a concrete outer burial container that encases all human remains.

The Draft EIS will address the project’s potential to impact groundwater resources. This would include addressing herbicide and pesticide use, impacts on groundwater recharge, and include further discussion of the embalming process to address potential issues with Formaldehyde.
3.7.2 Surface Water

There are no current perennial or intermittent streams running through the Petition Area. The area does have low lying areas serving as drainageways for storm water runoff from upland areas during periods of heavy rainfall. An old cement collection structure, likely constructed from previous cattle or pineapple farming, was identified that may have potentially been used to collect sparse to low volume spring water or intermittent drainageway flows. This structure could be providing habitat for the Blackline Hawaiian Damselfly, and will be assessed in greater detail in the Draft EIS.

Kāwā Stream starts from the Hawai‘i State Veteran’s Cemetery, and proceeds toward the residential subdivision where it eventually discharges into the southern portion of Kāne‘ohe Bay. This stream is located outside of the Petition Area, although the Petition Area is situated within the larger watershed discharging to the stream. Exhibit 3.2 shows the watershed serving this stream along with the seven subwatersheds within it. The Petition Area is located within subwatershed areas No. 3 and 4. As shown on the exhibit, the tributaries immediately below (south) the Petition Area feeding into the stream are identified as intermittent streams (OLI, 2002).

Kāwā Stream is included on the State’s Clean Water Act, Section 303(d) list of impaired waters that do not meet State Water Quality Standards, and is considered to be impaired by sediments, turbidity, and the nutrients nitrogen and phosphorus. These pollutants could enhance unwanted algae growth in the stream and impact coral reef resources in the receiving waters of Kāne‘ohe Bay. The order of magnitude Total Maximum Daily Loads (TMDLs) for total suspended solids (TSS), total nitrogen, and total phosphorus in Kāwā Stream was established by the State DOH (OLI, 2002). The water quality goal of these TMDLs is to control sources of TSS and nutrients to improve the water quality of the system, so that the designated uses for Kāwā Stream can be maintained.
**Potential Project Impact**

The project would not directly impact Kāwā Stream’s bed or banks, or directional flow because the site is located away from the stream. However, storm water runoff from the project would discharge toward lower lying areas that eventually flow into this stream. Petition Area improvements are planned to include detention and/or retention basins that would detain storm water runoff and allow sediments and nutrients to settle and infiltrate into the ground before discharging into the stream. These drainage improvements should have a beneficial effect in addressing storm water runoff and water quality. A water quality study will be conducted that evaluates and assesses discharges from the project into Kāwā Stream. This study will also include information addressing TMDL guidelines for Kāwā Stream in relation to proposed improvements. The results of this study would be used to identify mitigative measures and BMPs that are addressed in the Draft EIS in greater detail.

### 3.8 SCENIC RESOURCES

Visual resources within and around the project area have been addressed in two City planning documents, the *Koʻolau Poko Sustainable Communities Plan* (Koʻolau Poko SCP) (DPP, 2017) and *Coastal View Study* (Chu and Jones, 1987). These planning documents identify visual resources associated with the project area. The *Coastal View Study* did not identify any important scenic resources or viewing corridors in the vicinity of HMP.

The Koʻolau Poko SCP identifies the orientation and vantage points of major panoramic views within the Koʻolaupoko ahupuaʻa, which includes the project area. HMP is identified as a cemetery under the Open Space Map of the Koʻolau Poko SCP. There are no significant views from stationary points in the area of HMP. The Koʻolau Poko SCP identified the following scenic views from major roadways identified below.

1. Continuous views of the distant Kāneʻohe district and coastline from the H-3 Freeway generally from the Tetsuo Harano Tunnels down to its intersection with Kamehameha Highway.
2. Intermittent views of the natural landscape along the H-3 Freeway between Kamehameha Highway and the entrance to Marine Corps Air Station Kāneʻohe Bay.

Development in the vicinity of HMP is low-rise in nature and characterized by single-family residences and businesses. The primary exception to the low-rise built environment in the vicinity is the Pohai Nani Retirement Community, which is north of the Petition Area. The centerpiece of the retirement community is a large 14-story building, which is prominently visible throughout the region. HMP cemetery contributes to the open space of the region by virtue of its size and open landscape character. Driving along Kamehameha Highway in either direction, motorists can view across the landscaped cemetery lawns through to the foothills.
Potential Project Impact

Project improvements are not expected to have a significant impact on scenic resources for views from major roadways. HMP is not visible from the H-3 freeway between Kamehameha Highway and the entrance to Marine Corps Air Station Kāne'ōhe Bay. Views of HMP along the H-3 Freeway from the Tetsuo Harano Tunnels are not easily recognizable because the site blends into the larger Kāne'ōhe Town landscape from that distance. The Petition Area is also located behind the existing HMP making it less visible from major roadways. Therefore, project improvements would have minimal effect on views of Kāne'ōhe Town from the H-3 Freeway. The Draft EIS will evaluate visual impacts from the project in further detail from Kamehameha Highway and other locations from immediate surrounding neighborhoods.

3.9 HISTORIC AND CULTURAL RESOURCES

3.9.1 Historical Background

In pre-contact times, the ahupua’a of Kāne'ōhe offered fresh water from inland springs that supported extensive agricultural fields and a well-developed fishpond system, making it both an agricultural and aquacultural center on O'ahu. Pre-contact land uses would have consisted mainly of kalo (wetland taro) and kula (dryland) cultivation of hala pandanus (used for making household furnishings such as mats), wauke (paper mulberry used for making tapa/kapa cloth), bananas, and sweet potatoes.

In the 1860s, both commercial sugar cane and rice cultivation began in Kāne'ōhe. The Kaneohe Sugar Plantation Company was established around 1865, but the plantation eventually shut down in 1891 when the yield was not enough to support the operation. The lands were then converted to stock farming under Kaneohe Ranch. By the mid-1880s, grazing animals (cattle, sheep, and goats) were having an impact on the land and water of Kāne‘ohe. Alien grasses and other species, such as pigeon peas, were introduced to the area as cattle fodder. Much of the land modification in the upland and hilly portions of Kāne'ōhe may be the result of heavy cattle grazing over a long period of time.

The commercial cultivation of pineapple in the region began in the 1890s. From approximately 1910 to 1925, pineapple cultivation was a major industry in Windward O'ahu stretching from Kāne'ōhe to Kahaluu. The pineapple fields were later abandoned when Moloka‘i and Lāna‘i pineapple cultivation began to boom. Most of the former pineapple land went to grass, and some of it was used to graze cattle.

By the end of World War II, ranching was no longer economically viable, and residential developments changed the face of Kāne'ōhe. The opening of the Wilson Tunnel and the expansion of the Pali Highway in the 1950s and 60s led the way to a development boom on the windward side. The dairy industry rose to prominence in the post-war years due to shortage of available land from urban expansion forcing dairy districts near Honolulu to relocate to more remote areas of O'ahu. In the 1950s, Kailua-Kāne'ōhe was an important dairy district of Windward O'ahu. The land presently occupied by HMP adjacent to Kamehameha Highway was formerly a dairy farm.
3.9.2 Previously Recorded Sites

Two archaeological inventory surveys have been undertaken that cover the Petition Area; one completed in 1989 by Szabian, Landrun & Cleghorn (SLC); the other in 2007 by Cultural Surveys Hawai‘i (CSH). These two efforts identified several archaeological sites within and in the vicinity of the Petition Area.

One previously recorded site by SLC was identified as State Inventory of Historic Places (SIHP) 50-80-10-4682, and was located outside of the Petition Area. This site was described as a series of natural “terraces” formed by lava rocks by SLC. This site was later determined to be non-cultural, and is not considered a historic property anymore.

A total of 11 historic properties have been recorded within a large study area that includes both the current Petition Area and areas outside of it. Figure 3.4 identifies these sites in relation to the Petition Area. Table 3.1 provides a summary of these sites. Overall, there are eight historic sites identified within the Petition Area, and three sites located outside of the Petition Area. The most significant historic site is Kawa‘ewa‘e Heiau. Other sites consist of pit features, habitation sites, and stone enclosures.

Kawa‘ewa‘e Heiau (Site -354) is located in the northwest corner of the Petition Area, and will be included as part of the cultural preserve established and managed by the Ko‘olaupoko Hawaiian Civic Club. Built at the beginning of the 12th century, the heiau was a ceremonial site used for worship. Because of its prehistoric religious significance, the site was designated as a historic site (#50-80-10-354, “Kawa‘ewa‘e Heiau”) and placed on the Hawai‘i Register of Historic Places in 1971. The Register describes the site as a “large Heiau; probably the most massive on the windward side; in excellent condition.” It was also placed on the National Register of Historic Places in 1972.

Potential Project Impact

The project would have a beneficial effect on historic properties because almost all of the historic sites, except Site -4680, within the Petition Area will be included within a proposed Cultural Preserve. No other historic sites have been identified within the proposed cemetery expansion area. Site -4680 would be left undisturbed, and no further work was required for this site. This Cultural Preserve would allow for the restoration, management, and preservation of historic sites present within the preserve. This would ensure Kawa‘ewa‘e Heiau can be preserved and maintained, supporting its historic and cultural features, and consistent with its listing on both the state and federal registers. Within the preserve, an area is proposed for potential native Hawaiian burials separate from the HMP. This supports traditional cultural practices and the use would be compatible with other historic sites present within the preserve.
Petition Area

Figure 3.4

Source: City and County of Honolulu GIS, 2017
Cultural Surveys Hawaii, 2008

Existing Historic Sites Map
Hawaiian Memorial Park Cemetery Expansion Project
Kāne' ohe, O'ahu, Hawai'i
The previous Final EIS for the HMP project recommended preservation in the form of avoidance for sites -354, -4684, and -6930 that are within the Petition Area. No further work was recommended for sites -4680, -4683, -6932, and -6933. The project would not impact these sites or recommendations because they will be included within the Cultural Preserve. Site -4680 within the Petition Area would be left undisturbed.

A supplemental archaeological inventory survey will be conducted to: 1) field truth previously identified sites; 2) update their condition; 3) re-assess the description of the heiau; and 4) conduct additional test excavations. The results from this supplemental study will provide further documentation of existing historic sites so that potential impacts can be addressed, and necessary mitigative measures identified, if warranted.
A Cultural Impact Assessment will also be prepared to assess potential impacts to traditional cultural practices as a result of the project. The study will include interviews with lineal and cultural descendants along with other groups or individuals with ties to the property.

3.10 AIR QUALITY

Federal ambient air quality standards (AAQS) have been established by the U.S. Environmental Protection Agency (EPA) for six criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), lead (Pb), ozone (O3), and concentrations of particulate matter less than 10 microns (PM10) and 2.5 microns (PM2.5). The State of Hawai'i has established ambient air quality standards for these pollutants that are somewhat more stringent than Federal standards under Title 11, Chapter 60.1 HAR.

Air quality in the project area is primarily affected by vehicular carbon monoxide (CO) emissions, and to a lesser extent by nearby residential, commercial, and industrial uses. Carbon monoxide (CO) emissions in the HMP project vicinity are generated predominantly by vehicles travelling along Kamehameha Highway, Mokulele Drive, and the H-3 Freeway interchange with Kamehameha Highway. The H-3 Freeway is routed further away from HMP, and the hillside separates any CO effects from HMP. Minor streets in the project vicinity serving nearby residences should have minimal effect on CO emissions due to the low volume of daily traffic on those roads.

Dominant northeasterly tradewinds likely push vehicular emissions along the major roadways away from the HMP area and Petition Area. This also applies to commercial uses that are already predominantly located north and northeast of HMP. Some industrial emissions are generated from activities occurring at Kapa’a Quarry.

Potential Project Impacts

The project should not have significant long-term impacts on air quality in the project area because it only consists of expansion of the existing HMP cemetery. Activities occurring within project area would not generate concentrations of pollutants that may exceed state or federal standards. Vehicles of family members and guests visiting burial sites would be low on a daily basis and will not generate concerns with CO emissions.

Construction activities would cause some short-term effects such as emissions of particulate matter and CO from grading activities and equipment. However, these emissions are not expected to be significant or cause exceedances of state or federal standards. The Draft EIS will address best management practices that could be implemented to minimize these short-term effects.
3.11 NOISE

A variety of activities and land uses surrounding the project area are currently sources of ambient noise. Minimal noise is generated on the eastern half of the Petition Area and HMP because areas are undeveloped associated with the adjacent ridge and hillside. Vehicular traffic along Kamehameha Highway and Mokulele Drive are currently the primary generator of noise in the area. Other noise generators would be activities occurring at residences (e.g. voices, television, sound systems, etc.) in the vicinity of the Petition Area. Present noise generated from activities occurring within HMP would primarily be attributable to activities associated with excavation of grave sites and voices of individuals visiting the site.

Potential Project Impacts

The project should not have significant long-term impacts on noise in the project area. Activities occurring within the expanded cemetery would not generate significant noise impacts. Noise sources would continue to be attributable to gravesite excavations and human voices from visitors.

Construction activities would cause some short-term noise effects from grading activities, roadway construction, etc. along with equipment being used. Noise from construction activities is regulated under Title 11, Chapter 46 (Community Noise Control) of the State DOH’s Administrative Rules (State of Hawai’i, 1996). Construction activities are expected to be limited to regular workday hours (7:30 a.m. to 4:30 p.m., Monday through Friday). If necessary, a community noise permit for construction activities would be obtained from the State DOH. The Draft EIS will address existing and probable noise impacts from the project in greater detail.
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CHAPTER 4
SOCIAL AND ECONOMIC CHARACTERISTICS

4.1 POPULATION AND HOUSING

Information from the U.S. Census American Community Survey (ACS) 2015 data was examined to understand the social characteristics of the project area. This ACS data also includes information on employment and income. The HMP site is located within the Kāne‘ohe census designated place (CDP). This CDP generally includes several individual census tracts consisting of 105, 106, and 107.

The Kāne‘ohe CDP represents the entire Kāne‘ohe district extending from the H-3 Freeway northwest to the Haiku Road area near Windward Mall. This CDP is a diverse, urbanized, predominantly residential community. The CDP serves as a baseline of comparison for project area demographic characteristics. Demographic characteristics of the Kāne‘ohe CDP compared to the City and County of Honolulu (Honolulu County) CDP as a whole are shown in Table 3.2.

ACS data indicates that the Kāne‘ohe CDP had a population of about 33,650 persons comprising about 3.4% of Honolulu’s population. The median age of individuals living in Kāne‘ohe is 41.9 years which is comparatively higher than Honolulu’s median age of 36.9 years. This pattern is also reflected in the slightly higher percentage of persons 65 years and older living in Kāne‘ohe (19.3% compared to 15.4%).

The largest ethnic composition for Kāne‘ohe’s population are Asian (36.2%), then two or more races (31.7%), and then White (23.1%). Native Hawaiian or other Pacific Islander residents comprise about 6.8% of the population. Compared to the island totals, Kāne‘ohe has a lower percentage of Asians (6.4% less) and native Hawaiian (2.4% less), but notably higher percentage of persons with ancestry of two or more races (9% higher).

The Kāne‘ohe CDP contains about 10,700 households, and has a high percentage (78.2%) of family households (with children under 18 years of age). The percentage of family households is notably higher than Honolulu County (7.8% higher) reflecting Kāne‘ohe’s residential community character. The percentage of owner-occupied (owned) housing units in Kāne‘ohe (69%) is also significantly higher than the island’s average of 54.4%.
### Table 3.2
Comparison of Kāne‘ohe with Honolulu County Community Demographic Data (2015)

<table>
<thead>
<tr>
<th>Description of Demographic Data</th>
<th>Kaneohe CDPs 2015</th>
<th>Honolulu County 2015</th>
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<td>Number</td>
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<td>Under 5 Years</td>
<td>1,904</td>
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<td>5 To 17 Years</td>
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<td>Population 16 Years And Older</td>
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<td>Median Household Income</td>
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Source: U.S. Census Bureau, ACS 2014
CHAPTER 4 Hawaiian Memorial Park Cemetery Expansion Project
SOCIAL AND ECONOMIC CHARACTERISTICS Hawaiian Memorial Park Cemetery Expansion Project
Environmental Impact Statement Preparation Notice

Potential Project Impact

The project should not have a significant impact on the residential population, housing conditions, or demographic character of Kāneʻohe. The project does not include additional housing or visitor units, and would not change the current or future residential population of the district.

Expansion of the cemetery should also not change the character of Kāneʻohe’s community. Surrounding residential areas should not experience a significant change in their character. The expanded cemetery would create a different landscape from one that is currently undeveloped and overgrown with vegetation to one that is landscaped with grass and maintained. However, the activities occurring at the Petition Area would continue to be passive use of the area as a cemetery. This project has generated concerns from the community when initially proposed in 2008. Current project plans have changed significantly, including the elimination of residential lots previously proposed, but may continue to generate concerns from some residents. The Draft EIS will address probable effects in greater detail.

4.2 EMPLOYMENT AND HOUSEHOLD INCOME

The 2015 U.S. Census ACS data indicates that the Kāneʻohe district has a similar percentage of the population employed in the island’s labor force with both being about 66%. Kāneʻohe’s median household income of $84,626 is also notably higher (about 14%) than Honolulu County’s average of $74,460 reflecting a more affluent community. This is also reflected in the higher percentages of households with incomes of $50,000 and up compared to Honolulu County.

Potential Project Impact

The project would generate some short-term construction related jobs as site preparation and infrastructure improvements are implemented and phased over time. A few additional new full-time jobs may be created at HMP by the expansion of the cemetery to support operations and maintenance. Therefore, the project should have minimal impact on employment and household income within the Kāneʻohe district. Fiscal impacts from the project would also be minimal. The Draft EIS would address the probable effects in greater detail.
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CHAPTER 5
INFRASTRUCTURE AND PUBLIC FACILITIES

5.1 WATER FACILITIES

Presently, the proposed expansion area is without on-site water infrastructure. The irrigation system serving the existing sections of HMP is served by the City’s potable water system. The connection point to this system is located at the entrance to HMP in the vicinity of Mahinui Road and Kamehameha Highway. A 6-inch meter on Kamehameha Highway services HMP, and has a capacity of 1,000 gallons per minute (gpm).

A 5/8-inch water meter at Kumaukua Place and a 1-inch lateral serves the irrigation system for the Ocean View Garden section of HMP. Previous discussions with the City Board of Water Supply (BWS) indicated that ample water quantities and pressure should exist in association with the Kumaukua Place system to fully service approximately 30 acres of turf landscaping requiring 550 gallons per minute (gpm).

There is also a waterline under Lipalu Street. However, due to the differences in elevation between the reservoir serving this line (272 feet) and the proposed cemetery elevations of 200 to 375 feet, the pressure would not be sufficient without a booster pump system.

Potential Project Impact

A discussion of the irrigation system and water source necessary to serve the current proposed project plans will be addressed in greater detail in the Draft EIS. Overall, the project should not have a significant impact on water facilities, and consultation with the City BWS would be conducted to verify continued availability of water based upon current project plans. A preliminary engineering report will be prepared to assess existing water facilities and project impacts in greater detail.

5.2 WASTEWATER FACILITIES

The City Department of Environmental Services (DES) provides municipal wastewater collection and treatment in the Kāneʻohe district via a system of wastewater pump stations and sewer lines. There are currently no sewer lines within the Petition Area. There are wastewater lines within the existing HMP adjacent to the Petition Area, and an 8-inch municipal transmission line in Lipalu Street. The Kailua Wastewater Treatment Plant (WWTP) processes wastewater collected from the HMP and surrounding areas.
CHAPTER 5 Hawaiian Memorial Park Cemetery Expansion Project
INFRASTRUCTURE AND PUBLIC FACILITIES
Hawaiian Memorial Park Cemetery Expansion Project
Environmental Impact Statement Preparation Notice

Potential Project Impact

The proposed expansion of the cemetery may plan to include restroom facilities that would not require additional wastewater collection lines to connect to the site's existing system. HMP currently uses an approved septic system. Therefore, the project should have no impact on the City's existing wastewater facilities. A preliminary engineering report will be prepared to assess existing wastewater facilities and if there would be any project impacts in greater detail.

5.3 DRAINAGE FACILITIES

Existing City drainage facilities surrounding the HMP area are generally provided within urbanized areas developed as part of existing residential subdivisions. There are no City drainage facilities within Kamehameha Highway fronting the HMP. The drainage system generally consists of storm drains of various sizes within roadways conveying storm water, inlets (curb, grate, etc.) and catch basins for collecting runoff from streets, and outlets serving as discharge points for storm water.

Because the Petition Area is undeveloped, storm water runoff generally sheet flows in a northwest direction toward the Pikoiloa Tract subdivision area. The southern area of the Petition Area likely sheet flows in a southwest direction toward Kāwā Stream. Runoff would follow existing topography and naturally collect in low lying drainageways. Due to the slope and low soil permeability associated with the Petition Area, much of the storm water runoff generated during rain events likely discharges from the site as runoff rather than infiltrating into the soil.

The Pikoiloa subdivision does have a drainage system collecting storm water runoff from residences and roadways which are eventually channeled into Kāwā Stream that carries water toward Kāne'ōhe Bay. There is a drainage culvert at the end of Lipalu Street intended to collect runoff from upland areas, including the Petition Area. Other drainage inlets or culverts are provided behind residences at the end of cul de sacs or just bordering the undeveloped HMP project area to collect storm water runoff from this undeveloped area.

Potential Project Impact

Expansion of the cemetery would have an effect on existing drainage conditions and runoff rates. Site improvements are planned to include drainage improvements such as detention and/or retention basins to decrease runoff rates from the Petition Area. Based upon previous preliminary engineering studies conducted in 2008 (HHF, 2008), the proposed drainage system would reduce storm water runoff from the 10- and 100-year, 1-hour, storm events. Updated drainage plans would be prepared for this project based upon current plans, and drainage improvement should similarly reduce storm water runoff from the Petition Area. The Draft EIS will include the updated preliminary engineering study conducted to address drainage conditions and necessary improvements.
5.4 SOLID WASTE FACILITIES

The City Honolulu Department of Environmental Service (DES) Refuse Division provides curbside collection of municipal solid waste and recyclables for single-family residences. The DES also provides this service for a limited number of multi-family properties, non-residential customers, and City agencies on O‘ahu. Bulky items are collected by the DES on a monthly basis and items are disposed of at the Waimānalo Gulch Sanitary Landfill, O‘ahu’s only municipal solid waste landfill located in west O‘ahu.

The City’s refuse collection service does not serve the HMP or Petition Area because HMP is a private operation. HMP uses a private refuse company for collecting their waste and composting green waste generated. Solid waste at HMP is collected and transported to the City’s Honolulu Program of Waste Energy Recovery (H-POWER) for processing and disposal. HMP’s operational program protocol does not remove grass clippings from the site, as they are left in place to decay.

Potential Project Impact

Construction activities associated with the cemetery expansion would generate some solid waste needing disposal. Construction debris would need to be properly disposed of at the PVT Nānākuli Construction and Demolition Material Landfill. Solid waste generated from construction of these improvements would be typical of construction-related activities. Construction waste generated would have a short-term minor impact, and consist primarily of vegetation, rocks, lumber, plastics, etc. which the contractor would need to properly dispose of.

Operation of the cemetery should not generate much solid waste in the long-term and have minimal impact on solid waste facilities. Such waste would primarily consist of vegetation (e.g. flowers from burial sites) needing to be disposed of. This green waste would be disposed of following current disposal practices at HMP.

5.5 TRANSPORTATION FACILITIES

The main vehicular circulation route in the vicinity is Kamehameha Highway, a four-lane thoroughfare with a central median. There are two existing access points to HMP from Kamehameha Highway. The central access is across of Halekou Road and the second access is across of Mahinui Road.

A paved two-lane road beginning at the Kamehameha Highway entrance to the HMP and Hawaii State Veterans Cemetery runs northeast through the existing HMP grounds. The main road has several small spurs leading to outlying sections of the cemetery. Visitors to the cemetery park their vehicles along the internal park roads. The internal road system provides access to the Ocean View Garden area through an easement agreement with Hawai‘i State Veterans Cemetery. HMP currently closes the vehicular access gates to the cemetery at dusk.
Potential Project Impact

The project is not expected to have a significant impact on existing traffic conditions along Kamehameha Highway because the expansion of HMP would generate minimal traffic during the weekday commuter peak hours. Currently, HMP operations limit burial and inurnment ceremonies to mid-day time periods, typically from 9:00 a.m. to 3:00 p.m. Funerals are also restricted to similar mid-day time periods. Some funeral services are scheduled during the evenings, starting at 6:00 p.m. Thus, cemetery activities that draw the largest crowds are intentionally scheduled during the non-peak mid-day or evening time periods when there are lower traffic volumes and less congestion on Kamehameha Highway. A traffic impact analysis study will be conducted to evaluate existing traffic conditions and impacts from the project in greater detail.

5.6 ELECTRICAL AND COMMUNICATION FACILITIES

Electrical service is provided to HMP and surrounding land uses by the Hawaiian Electric Company (HECO) via overhead subtransmission lines located on utility poles. These lines are suspended from utility poles usually routed along roadways within and surrounding the project area. Hawaiian Telcom and Spectrum both provide communication service via existing facilities in the Kāneʻohe area including HMP.

The Petition Area is undeveloped and is not serviced by any existing power or communications facilities. An overhead easement from 1964 exists over the Ocean View Garden site of HMP off Kumakua Place. Currently, an underground line enters from Kumakua Place and traverses several hundred feet before ending at a 7.2 kilo Volt transformer.

Potential Project Impact

It is anticipated that HECO would provide necessary electrical service to the Petition Area. Minimum electrical demand would be required, and mainly for limited security lighting because HMP closes at dusk. Therefore, the project should have minimal effect on HECO facilities and electrical demands. Project plans would be coordinated with HECO during the project’s design phase.

Either Hawaiian Telcom or Spectrum would provide necessary communication service to the Petition Area. Because the project involves an expansion of the existing cemetery, such communication service would be minimal, if needed at all. HMP operations and facilities would continue where they are presently located and not require additional improvements with the project.
5.7 RECREATIONAL FACILITIES

The City Department of Parks and Recreation (DPR) manages most recreational facilities in the Kāne‘ohe district, which include a botanical garden, regional parks, and community parks. These recreational facilities generally fall under DPR’s District No. 4, Windward O‘ahu. There is also a golf course that is managed by the City’s Department of Enterprise Services. Most City park sites are located within the Kāne‘ohe town center significant distances to the north of HMP. Those facilities in the general vicinity of HMP include the following:

1. Pali Golf Course. This municipal 18-hole golf course is located southeast of HMP across Kamehameha Highway.
2. Ho‘omaluhia Botanical Garden. This 400-acre botanical garden is located southwest of HMP across Kamehameha Highway, and extends from behind residential subdivisions up to the H-3 Freeway. This botanical garden allows catch-and-release fishing in a reservoir, camping, activities associated with its visitor center, hiking, and outdoor passive recreation.
3. Kaluapuhi Neighborhood Park. This park is located within the Pikoiloa residential subdivision along Keana Road. This park site is situated about 1 mile north from the Petition Area. The park has two basketball courts, a volleyball court, pavilion, and large open field used for activities.

There are no recreational facilities provided within HMP. However, the grounds are used by neighboring residents for walking, jogging, and walking dogs every day, usually during the morning and afternoon. Unauthorized access does occasionally occur within the Petition Area for unpermitted recreational activities such as paintball and hiking.

Potential Project Impact

The project should have no impact on existing recreational facilities present in the general vicinity of HMP and the cemetery expansion area. The project would not increase residential or visitor units and would not generate increased demand for use of these recreational facilities due to increased population. Activities occurring at HMP would not interfere or disrupt golfing activities at the Pali Golf Course or recreational activities at Kaluapuhi Neighborhood Park.

5.8 EDUCATIONAL FACILITIES

HMP is situated within the Castle Complex of public schools, administered by the State Department of Education. Schools in the Castle Complex include eight elementary schools (‘Ahuimanu, Ben Parker, He‘eia, Kahalu‘u, Kane‘ohe, Kapunahala, Pu‘ohala, and Waiahole), S.W. King Intermediate School, and James B. Castle High School. The only school within the general vicinity of HMP and the Petition Area is Kane‘ohe Elementary School. This school is located along Mokulele Drive about 250 feet north of the northern end of HMP, and separated from the cemetery by a residential subdivision. Hawai‘i Pacific University’s Hawai‘i Loa campus is a private university located about 1.5 miles southeast of the Hawai‘i State Veterans Cemetery and HMP.
Potential Project Impact

The project should have no impact on existing school facilities or activities present in the general vicinity of HMP and the cemetery expansion area. The project would not increase residential units and therefore not place increased demand on school facilities and faculty due to new students. The project would similarly not place additional demands or impact activities at Hawai‘i Pacific University.

5.9 MEDICAL FACILITIES

Adventist Health Castle (formerly Castle Medical Center) is the primary medical facility serving Windward O‘ahu. The medical center is located in Kailua on the southwestern corner of the intersection of Kalaniana'ole Highway and Kailua Road. The facility is a full-service medical center offering a wide range of inpatient, outpatient, and home-based services. The medical center is a 160-bed facility with more than 1,000 employees, and is staffed by 248 physicians.

There are other smaller, private, medical centers in the general vicinity of HMP located closer to Kāne'ōhe town near Likelike Highway and Kāne'ōhe Bay Drive. The Kaiser Permanente Koolau Medical Office is located along Kamehameha Highway about 0.7 miles north of HMP. This center provides same day care service, behavioral health, and diagnostic imaging. U.S. Renal Care Windward Dialysis is a dialysis clinic located across the street of Kaiser Permanente. The Aloha Nursing and Rehab Center is located along Kamehameha Highway north of HMP.

Potential Project Impact

The project should have no impact on existing medical facilities or activities present in the general vicinity of HMP and the cemetery expansion area. The project would not increase residential units and therefore would not place increased demand on medical facilities and staff due to increased population. Expansion of the cemetery would not generate activities that interfere or disrupt the operations or patients of these medical facilities.

5.10 POLICE AND FIRE PROTECTION

5.10.1 Police Protection

The HMP project area falls within the jurisdiction of the City’s Honolulu Police Department (HPD) District 4 (Kāne'ōhe/Kailua/Kāhuku) command. District 4 is HPD’s largest patrol area, extending from Makapu‘u Point to Kawela Bay on the North Shore of O‘ahu.

The project is not expected to have a significant impact on the HPD’s ability to provide police protection services in Kāne‘ohe. The project would not increase residential housing or visitor units and therefore should not place increased demand on police protection and staff associated with new residents or visitors.
5.10.2 Fire Protection

The City’s Honolulu Fire Department (HFD) Battalion 3 provides fire protection services for Windward O'ahu from Makapu'u Point to Kawela Bay. The Kāne'ōhe Fire Station Number 17 is located in the heart of Kāne'ōhe town, approximately three miles from HMP. The next closest station is ‘Aikahi Fire Station Number 19, located on Kāne'ōhe Bay Drive approximately four miles from HMP. Station 17 serves as Battalion 3 headquarters and is equipped with an engine company and a ladder company. Station 19 is equipped with an engine company.

The project is not expected to have a significant impact on the HFD’s ability to provide fire protection services in Kāne'ōhe. The project would not increase residential housing or visitor units and therefore should not place increased demand on fire protection and staff associated with an increase in population. The expansion of the cemetery consists primarily of landscaped grounds that would not create additional potential fire hazards, such as new buildings. Accessory improvements serving the expansion area would similarly not create potential fire hazards.
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CHAPTER 6
CONFORMANCE WITH LAND USE PLANS AND POLICIES

6.1 STATE OF HAWAI‘I
6.1.1 State Land Use Districts

Pursuant to Title 13, Chapter 205 (Land Use Commission), HRS, all lands in the State of Hawai‘i are classified by the State Land Use Commission (LUC) into four major districts. These four land use districts are Urban, Rural, Agricultural, and Conservation. Permitted uses within the State Land Use Districts are prescribed under Title 13, Chapter 205, HRS, and the State LUC’s Administrative Rules prescribed under Title 15, Subtitle 3, Chapter 15, Hawai‘i Administrative Rules (HAR).

The entire 53.45-acre Petition Area is designated as State Conservation District. This site borders the Ocean View Garden site that is designated as Urban District. The adjacent Hawai‘i Veteran’s Cemetery has areas designated as both Conservation and Urban Districts. Figure 6.1 highlights the Petition Area’s location within the State’s Land Use District boundaries. Conservation District lands associated with the fall under the jurisdiction of the State Board of Land and Natural Resources (BLNR). Permitted uses or activities within the Urban District fall under the regulatory jurisdiction of the City.

A boundary amendment is being proposed for the Petition Area to reclassify areas within the Conservation District to the Urban District. This would result in a continuous Urban District boundary extending from HMP and the Ocean View Garden site to the proposed cemetery expansion area, and will include the cultural preserve. The Draft EIS will discuss how the project conforms to State Land Use District Guidelines.

6.1.2 Conservation Districts

Under the jurisdiction of the BLNR, this authority has established zones (known as subzones) within Conservation District lands. Permitted uses within subzones are delineated in the BLNR’s Administrative Rules, Section 13-5-23 of Title 13, Chapter 5, HAR.

The majority of the Petition Area is classified as “General Subzone” and with remaining areas closer to the ridge classified as “Limited Subzone.” Remaining areas of HMP’s Parcel 01 would remain undeveloped. Figure 6.2 shows the boundaries of these Conservation District subzones for the Petition Area and immediate area using State Geographic Information System (GIS) data. It should be noted that the State’s GIS data for subzone boundaries along the residential subdivisions do not match the State’s GIS data for Conservation District boundaries. This discrepancy with subzone boundaries, based upon the GIS data, will be clarified with the State DLNR, Office of Conservation and Coastal Lands during the preparation of the Draft EIS.
State Land Use District Boundaries Map

Hawaiian Memorial Park Cemetery Expansion Project
Kāne'ohe, O'ahu, Hawai'i

Figure 6.1

Source: City and County of Honolulu, 2017
State of Hawaii Land Use Commission, 2015
Figure 6.2
State Conservation District Subzones Map
Hawaiian Memorial Park Cemetery Expansion Project
Kāne'ohe, O'ahu, Hawai'i

Legend
- General Subzone
- Limited Subzone

Source: City and County of Honolulu, 2017
State of Hawaii GIS, 2012

Petition Area
The project is intended to reclassify lands within the Petition Area currently designated as Conservation District areas to the Urban District. Consequently, regulatory jurisdiction over this reclassified Conservation District area would then fall under the City. The Draft EIS will discuss how the reclassification of the Petition Area would not conflict with the subzones established for this Conservation District area.

### 6.1.3 Chapter 344, HRS, State Environmental Policy

Chapter 344, HRS outlines the State’s Environmental Policy that establishes State guidelines for encouraging a balanced and productive relationship between people and the environment. The Draft EIS would discuss how the project conforms to the various policies and guidelines in Chapter 344, HRS.

### 6.1.4 Hawai‘i State Plan

The Hawai‘i State Plan (Chapter 226, HRS) sets forth the goals, objectives, polices, and priority guidelines for growth, development, and allocation of limited resources throughout the State. It contains diverse policies and objectives on topics of state interest including but not limited to, the economy, agriculture, the visitor industry, federal expenditure, the physical environment, facility systems, socio-cultural advancement, and sustainability. The Draft EIS would discuss how the project conforms to the pertinent policies and guidelines in the Hawai‘i State Plan.

### 6.1.5 Hawai‘i State Functional Plans

The Statewide planning system requires the development of State Functional Plans. The State Functional Plans guide the implementation of State and County actions in the areas of agriculture, conservation lands, education, energy, health, higher education, historic preservation, housing, recreation, tourism, water resources development, transportation, employment, and human services. The Draft EIS would discuss how the project is consistent with the objectives, policies and implementing actions of pertinent functional plans.

### 6.1.6 Coastal Zone Management Program

Hawai‘i’s Coastal Zone Management (CZM) program was enacted in 1977 (Chapter 205A, Hawai‘i Revised Statutes), following the passage of the federal CZM Act of 1972. In Hawai‘i, the entire state has been designated as being within the CZM area. The Hawai‘i CZM program under Chapter 205A, HRS also contains the general objectives and policies upon which all counties within the State have structured specific legislation creating and regulating Special Management Areas (SMA). Although the HMP and Petition Area are not located within the City’s SMA boundary, the Draft EIS will address pertinent objectives and policies from Hawai‘i’s CZM program.
6.2 CITY AND COUNTY OF HONOLULU

6.2.1 General Plan

The General Plan of the City and County of Honolulu (DGP, 1992, amended October 3, 2002) is a comprehensive statement of objectives and policies which sets forth the long-range social, economic, environmental, and design objectives for O‘ahu. The General Plan serves as a guide for government, private enterprise, communities, and individual citizens around 11 areas of concern.

The Plan is currently undergoing an update. The O‘ahu 2035: General Plan Focused Update is looking at the critical issues of growth, development, and quality of life, including regional population, economic health, affordable housing, and sustainability. A final plan is expected to be completed by the end of 2017, which will then be reviewed and adopted by the City Council. Until the new plan is adopted, the current General Plan remains the guiding document, and will be addressed in the Draft EIS evaluating the project’s consistency with pertinent objectives and policies.

6.2.2 Koʻolau Poko Sustainable Communities Plan

The City’s Development/Sustainable Communities Plan program provides a regional level framework to implement the City’s General Plan objectives. The HMP project area is located within the Koʻolau Poko SCP area, one of eight geographic regions of O‘ahu that are part of the SCP program. The Koʻolaupoko district encompasses the windward coastal and valley areas generally extending from Makapu‘u Point to Kailua, Kane‘ohe, and northbound up to Kaʻōʻio Point in Kualoa. The existing Koʻolau Poko Sustainable Communities Plan was recently updated in August 2017 as Ordinance No. 17-42, ROH.

The current SCP includes the proposed expansion of HMP. This is reflected in their Open Space Map, where the current HMP site and 53.45 acre expansion are designated as a “Cemetery” land use, are included as part of “Urban Areas,” and are within the “community growth boundary.” The SCP Land Use Map also designates HMP and the Petition Area as “Cemetery” as shown on Figure 6.3. Discussion of the HMP and expansion area is included under Section 3.1.3.4, under the cemeteries subheading. Other sections of the SCP were amended to include some design criteria applicable to HMP’s cemetery expansion. The Draft EIS will discuss how the project is consistent with the policies and guidelines of the Koʻolau Poko SCP.

6.2.3 City Zoning Regulations

Permitted land uses and activities under the City’s jurisdiction are prescribed under Chapter 21 Land Use Ordinance (LUO) of the City’s Revised Ordinances of Honolulu, as amended (City, 1990). The LUO describes the various zoning districts throughout the City, the uses allowed within each zoning district, and the applicable development standards for each district. Figure 6.4 shows the City zoning districts relevant to the HMP project area.
Figure 6.3

Source: City and County of Honolulu, Department of Planning and Permitting, 2017
Zoning Districts Map

Hawaiian Memorial Park Cemetery Expansion Project
Kāneʻohe, Oʻahu, Hawaiʻi

Figure 6.4

Legend
AG-1 Restricted Agriculture
P-1 Restricted Preservation
P-2 General Preservation
R-10 Residential
R-7.5 Residential
R-5 Residential
A-2 Apartment

Source: City and County of Honolulu GIS, 2017

H-3 Freeway
Kamehameha Highway
Mokulele Drive
Hawaii State Veterans Cemetery
Pikoiloa Subdivision
Namoku Parkway
Castle High School
P-1 Petition Area
Mokulele Drive
Parkway Subdivision
R-10
AG-1
P-2
P-1
Hawaiian Memorial Park
P-2
Kamehameha Highway
H-3 Freeway
The Petition Area is within the City’s P-1, Restricted Preservation District. The Ocean View Garden site is within the P-2, General Preservation District. The P-1 Restricted Preservation District corresponds to the State’s Conservation District as intended under the City’s LUO, Section 21-3.40(b).

The P-2, General Preservation District is intended for uses characterized by open space (parks, golf courses, cemeteries) within the State Urban District. The proposed cemetery expansion within this zoning district is a permitted use under the LUO.

Within the P-1, Restricted Preservation District, all uses, structures and development standards are governed by the Board of Land and Natural Resources. This environmental document is supporting a petition to the State Land Use Commission to reclassify the areas of the Petition Area within the Conservation District to the Urban District. Upon reclassification to the Urban District, all uses, structures and development standards would be as specified for the P-2, General Preservation District. Consequently, the expansion of the cemetery along with the cultural preserve would be permitted uses. The Draft EIS will address the project’s consistency with the development standards and permitted uses allowed under these zoning regulations.
CHAPTER 7
PARTIES CONSULTED DURING PREPARATION OF THE DRAFT EIS

Below is a listing of government agencies, community associations, and elected representatives that will receive a copy of the EISPN for review and comment on the project. Comments received will be incorporated into the preparation of the DEIS.

Federal Agencies
Department of Agriculture, Natural Resources Conservation Service, Pacific Islands State Office
Department of Defense
  Department of the Army, Army Corps of Engineers
Department of the Interior
  Fish and Wildlife Service, Pacific Islands Administrator
  Geological Survey

State Agencies
Department of Accounting and General Services
Department of Agriculture
Department of Business, Economic Development, and Tourism
  Land Use Commission
  Office of Planning
Department of Defense
  Office of Veteran’s Services
  State Civil Defense
Department of Education
Department of Health
  Environmental Management Division
    Clean Air Branch
    Clean Water Branch
    Safe Drinking Water Branch
    Solid and Hazardous Waste Branch
    Wastewater Branch
  Environmental Planning Office
  Environmental Health Service Division
    Indoor and Radiological Health Branch
    Sanitation Branch
State Agencies (continued)
Department of Land and Natural Resources
  Division of Aquatic Resources
  Engineering Division
  Division of Forestry and Wildlife
  Historic Preservation Division
  Office of Conservation and Coastal Lands
Department of Transportation
Office of Hawaiian Affairs
University of Hawaii
  Environmental Center

City and County of Honolulu
Board of Water Supply
Department of Community Services
Department of Design and Construction
Department of Emergency Management
Department of Enterprise Services
Department of Environmental Services
Department of Facility Maintenance
Department of Parks and Recreation
Department of Planning and Permitting
Department of Transportation Services
Honolulu Fire Department
Honolulu Police Department

Public Utilities
Hawaiian Electric Company, Inc.
Hawaiian Telcom
Spectrum

Community Organizations/Individuals
Senator Jill Tokuda, 24th Senate District
Representative Ken Ito, 49th House District
Councilmember Ikaika Anderson, District 3

Hawai‘i State Public Library System
  Hawai‘i State Library
  Kāne‘ohe Regional Library
Community Organizations/Individuals (continued)

- Hui Mālama I Nā Kūpuna O Hawai‘i Nei
- Kāne‘ohe Neighborhood Board #30
- Kāne‘ohe Outdoor Circle
- Ko‘olau Poko Hawaiian Civic Club
- Queen Lili‘uokalani Children’s Center, Ko‘olau Poko Unit
- Sierra Club
- Mr. Grant Yoshimori
- Mr. and Mrs. Rich Creedy
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CHAPTER 8
REFERENCES


State of Hawai‘i. June 2014 (as amended). *Hawai‘i Administrative Rules*. Title 11, Department of Health, Chapter 60.1, Air Pollution Control.


State of Hawai‘i. August 2011 (as amended). *Hawai‘i Administrative Rules*. Title 13, Department of Land and Natural Resources; Chapter 5, Conservation District.
State of Hawai'i. April 2008 (as amended). Hawai'i Administrative Rules. Title 11, Department of Health; Chapter 200, Environmental Impact Statement Rules.

State of Hawai'i. 1996 (as amended). Hawai'i Administrative Rules. Title 11, Department of Health, Chapter 46, Community Noise Control.


