

# BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843  
www.boardofwatersupply.com



November 9, 2018

KIRK CALDWELL, MAYOR

BRYAN P. ANDAYA, Chair  
KAPUA SPROAT, Vice Chair  
KAY C. MATSUI  
RAY C. SOON  
MAX J. SWORD

ROSS S. SASAMURA, Ex-Officio  
JADE T. BUTAY, Ex-Officio

ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.  
Deputy Manager and Chief Engineer

Mr. Scott Glenn, Director  
Office of Environmental Quality Control  
Department of Health  
State of Hawaii  
235 South Beretania Street, Room 702  
Honolulu, Hawaii 96813

Dear Mr. Glenn:

Subject: Board of Water Supply Beretania Complex Redevelopment Project  
Environmental Impact Statement Preparation Notice

Under the provisions of Act 172 (12), the Board of Water Supply, City and County of Honolulu (BWS) has determined at the outset that an environmental impact statement is required for the Beretania Complex Redevelopment Project at Tax Map Keys 2-1-036:001 and 2-1-036:005 (portion) in the Kona District on the island of Oahu. A completed Bulletin Publication form and a summary of the proposed action are enclosed.

Pursuant to the requirements of Section 11-200-3, Hawaii Administrative Rules and Section 11-200-15, Hawaii Administrative Rules, BWS requests that you provide notice of this statutory determination in the next available *The Environmental Notice* for the public to submit comments during a 30-day public comment period.

If you have any questions, please contact Michael Matsuo of our Land Division at 748-5951.

Very truly yours,

  
ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

Enclosures

Cc: Keane Kakuda, Architects Hawaii, Ltd.  
Scott Ezer, HHF Planners  
Leslie Kurisaki, HHF Planners  
Steve Kothenbeutel, Avalon Development Company

## AGENCY PUBLICATION FORM

Project Name:	Board of Water Supply Beretania Complex Redevelopment Project
Project Short Name:	BWS Beretania Complex Redevelopment
HRS §343-5 Trigger(s):	Use of state or county lands
Island(s):	Oahu
Judicial District(s):	Kona District
TMK(s):	[1] 2-1-036:001 & 2-1-036:005 (portion)
Permit(s)/Approval(s):	Construction and building permits
Proposing/Determining Agency:	Board of Water Supply, City and County of Honolulu (BWS)
<i>Contact Name, Email, Telephone, Address</i>	Ernest Y. W. Lau, P.E., Manager and Chief Engineer Board of Water Supply 630 South Beretania Street Honolulu, Hawaii 96843 <a href="mailto:bwsredevelopmenteis@hhf.com">bwsredevelopmenteis@hhf.com</a> ; phone: (808) 748-5061
Accepting Authority:	Mayor, City and County of Honolulu
<i>Contact Name, Email, Telephone, Address</i>	Mayor Kirk Caldwell City and County of Honolulu c/o Board of Water Supply 630 South Beretania Street Honolulu, Hawai'i 96843 <a href="mailto:bwsredevelopmenteis@hhf.com">bwsredevelopmenteis@hhf.com</a> ; phone: (808)748-5061
Consultant:	HHF Planners
<i>Contact Name, Email, Telephone, Address</i>	Scott Ezer, Vice President HHF Planners 733 Bishop Street, Suite 2590 Honolulu, HI 96813 <a href="mailto:bwsredevelopmenteis@hhf.com">bwsredevelopmenteis@hhf.com</a> ; phone: (808) 457-3158

**Status (select one)** DEA-AFNSI FEA-FONSI FEA-EISPN Act 172-12 EISPN  
("Direct to EIS") DEIS FEIS**Submittal Requirements**

Submit 1) the proposing 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.

Submit 1) the proposing 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.

Submit 1) the proposing 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.

Submit 1) the proposing 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.

Submit 1) a transmittal letter to the OEQC and to the accepting authority, 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.

Submit 1) a transmittal letter to the OEQC and to the accepting authority, 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 accepting authority simultaneously transmits to both the OEQC and the proposing agency 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.
- FEIS Statutory Acceptance      Timely statutory acceptance of the FEIS under Section 343-5(c), HRS, is not applicable to agency actions.
- Supplemental EIS Determination      The accepting authority simultaneously transmits its notice to both the proposing agency 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.

The Board of Water Supply, City and County of Honolulu (BWS) intends to issue a Request for Proposals to redevelop approximately 128,100 square feet of its 6.3 acre Beretania Complex located at 630 South Beretania Street, Honolulu. The purpose of the proposed action is to provide a revenue stream to help offset a portion of BWS's operating expenses and capital improvements costs. BWS will enter into a development contract with a qualified developer and issue a ground lease for the use of a portion of the Beretania Complex. The lease term will not exceed 65 years and will provide for continued and uninterrupted use of existing BWS buildings and operational facilities. Redevelopment will occur on areas currently being used as ground level parking for BWS employees, equipment and staff vehicles. All lost parking spaces will be replaced in the redevelopment.

Future redevelopment of the Beretania Complex will be determined by the selected developer. But, three possible redevelopment scenarios will be evaluated in the EIS. The redevelopment scenarios are: 1) Assisted Care Living Facility and Office Building; 2) Affordable Senior Rental Apartments and Office Building; and 3) Parking Structure and Office Building. All of these uses are allowed under the property's A-2 Medium Density Apartment zoning.

# BOARD OF WATER SUPPLY BERETANIA COMPLEX REDEVELOPMENT

ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE



NOVEMBER 2018

Prepared For:



Board of Water Supply  
City and County of Honolulu



# BOARD OF WATER SUPPLY BERETANIA COMPLEX REDEVELOPMENT

ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

NOVEMBER 2018

Prepared For:



Board of Water Supply  
City and County of Honolulu

ahl.

Prepared By:



HHF PLANNERS  
*places for people*





# Contents

## Section

	<u>Page</u>
1.0 Introduction	1
1.1 Project Summary .....	1
1.2 Proposed Action .....	3
1.3 Determination and Supporting Rationale.....	3
1.4 Project Location .....	3
1.5 Background .....	6
1.5.1 Existing Land Use .....	6
1.5.2 Past Land Use.....	8
2.0 Purpose and Need for Action	8
3.0 Description of Proposed Action	9
3.1 Scenario 1: Assisted Care Living Facility and Office Building.....	10
3.2 Scenario 2: Affordable Senior Rental Apartments and Office Building.....	10
3.3 Scenario 3: Parking Structure and Office Building.....	13
4.0 Alternatives Considered	15
4.1 No Action .....	15
4.2 Other Lease and Development Options .....	15
4.2.1 Office/Commercial Building .....	15
4.2.2 Government/Public Use Building .....	15
4.2.3 Expansion of Queen’s Medical Center.....	16
4.2.4 Leasehold Condominiums .....	16
4.3 Sell the Beretania Complex Property .....	17
5.0 Resource Areas to be Evaluated in the DEIS	17
5.1 Natural and Physical Environment.....	17
5.1.1 Climate and Air Quality .....	17
5.1.2 Geology, Topography, and Soils.....	18
5.1.3 Biological Resources .....	20
5.1.4 Natural Hazards .....	20
5.2 Human Environment .....	22
5.2.1 Archaeological, Historic and Cultural Resources .....	22
5.2.2 Visual and Scenic Resources.....	23
5.2.3 Noise.....	24

5.2.4	Infrastructure and Utilities.....	24
5.2.5	Roadways and Traffic .....	25
5.2.6	Public Services .....	25
5.2.7	Social and Economic Factors .....	25
5.2.8	Hazardous and Regulated Materials and Waste .....	26
6.0	Consistency with Land Use Plans, Policies, and Controls .....	27
6.1	State of Hawai‘i.....	27
6.2	City and County of Honolulu.....	27
7.0	Significance Criteria .....	31
8.0	Early Consultation .....	32
9.0	References .....	34

## List of Figures

1	Location Map .....	4
2	Tax Map Key.....	5
3	Existing Land Use.....	7
4	Scenario 1: Assisted Care Living Facility and Office Building .....	11
5	Scenario 2: Affordable Senior Rental Apartments and Office Building.....	12
6	Scenario 3: Parking Structure and Office Building.....	14
7	Soils Map .....	19
8	Flood Zones Map .....	21
9	State Land Use District .....	28
10	Primary Urban Center Development Plan .....	29
11	Zoning and Special District Map .....	30

# 1.0 Introduction

This Environmental Impact Statement Preparation Notice (EISPN) was prepared in accordance with the requirements of Chapter 343, Hawai'i Revised Statutes (HRS) and Chapter 200 of Title 11, Hawai'i Administrative Rules (HAR). It supports a proposal by the Board of Water Supply, City and County of Honolulu (BWS) to issue a Request for Proposal(s) (RFP) to redevelop a portion of its Beretania Complex property located at 630 South Beretania Street, Honolulu, Hawai'i. This HRS 343 environmental review is required due to the use of public land and funds.

## 1.1 PROJECT SUMMARY

<b>Project Name:</b>	Board of Water Supply Beretania Complex Redevelopment	
<b>Project Location:</b>	Waikiki Ahupua'a, Kona District, Island of O'ahu, Hawai'i	
<b>Applicant/Owner:</b>	Board of Water Supply, City and County of Honolulu (BWS)	
<b>Approving Agency:</b>	Board of Water Supply, City and County of Honolulu	
<b>Tax Map Key:</b>	<b>BWS Beretania Complex:</b> [1] 2-1-036: 001, 004, & 005 <b>Project Area:</b> [1] 2-1-036: 001 & 005 (por)	
<b>Project Area:</b>	[1] 2-1-036: 001	22,980 square feet (SF)
	[1] 2-1-036: 005 (portion)	105,072 SF
	Total Project Area	128,052 SF
	say	<b>128,100 SF</b>
<b>Existing Uses:</b>	<b>BWS Beretania Complex:</b> Buildings and open parking in support of BWS operations. BWS buildings include Public Service Building, Engineering Building, and Pump Building. <b>Project Area:</b> surface parking lots	
<b>Proposed Use:</b>	Proposed uses in Project Area to be determined by developer, but may include: new BWS office building; parking structure(s); assisted care living facility; affordable senior rental apartments. Existing BWS Public Service Building, Engineering Building, and Pump Building will remain.	
<b>Proposed Action:</b>	BWS will issue a Request for Proposal(s) to redevelop a 128,100 SF area within the 6.3-acre BWS Beretania Complex. BWS will enter into a development contract and ground lease with the selected developer for a portion of the Beretania Complex. The Project Area is currently being used as ground level parking for employees and staff vehicles.	



- Land Use Designations:** **State Land Use District:** Urban (see Figure 9)  
**Primary Urban Center Development Plan:** Institutional ( see Figure 10)  
**Zoning:** A-2, Medium Density Apartment (see Figure 11)  
**Special District:** Hawai'i Capital Special District (see Figure 11)  
**Special Management Area (SMA):** Not in SMA
- Flood Zone Designation:** Zone X (Areas determined to be outside the 1% and 2% annual chance floodplain)
- Permits Required:** **State of Hawai'i**  
 Department of Health
  - National Pollutant Discharge Elimination System (NPDES) Permit
  - Construction Noise Permit
 Department of Land and Natural Resources, State Historic Preservation Division
  - Historic Preservation Review, Chapter 6E, HRS
 Department of Transportation
  - Permit to Perform Work Upon State Highway
  - Private Storm Drain Connection and/or State Highways Division Storm Drain System**City and County of Honolulu**  
 Department of Planning and Permitting (DPP)
  - Conditional Use Permit (CUP)-Major (for Scenario 1, Assisted Care Living Facility); CUP-Minor (for Scenario 3, Parking)
  - Primary Urban Center (PUC) Development Plan (DP) Public Infrastructure Map (PIM) revision (to add "Government Building Modification" PIM symbol)<sup>1</sup>
  - Grading, grubbing, and stockpiling permits
  - Building permits**Chapter 343, HRS Determination:** BWS has determined at the outset that the proposed action requires the preparation of an environmental impact statement (EIS), based on the significance criteria set forth in Chapter 200, Title 11, State of Hawai'i Department of Health. The proposed action may meet the criteria for "curtails the range of beneficial uses of the environment," and it may involve "substantial secondary impacts...such as effects on public facilities." (HAR §11-200-12).

---

<sup>1</sup> Per Memo dated August 9, 2018 from City and County of Honolulu Department of Planning and Permitting to BWS; Subject: BWS FY2018-2019 Capital Improvements Program (CIP) Budget

## 1.2 PROPOSED ACTION

BWS intends to issue RFP to redevelop up to 128,100 square feet (SF) of its 6.3 acre (274,000 SF) Beretania Complex, located at 630 South Beretania Street, Honolulu, Hawaii. BWS will enter into a development contract with a qualified developer and issue a ground lease for the use a portion of the Beretania Complex to a maximum term not to exceed sixty-five (65) years. The lease will provide for continued and uninterrupted use of BWS's existing buildings and operational facilities. Any displaced BWS parking spaces must be replaced by the developer during and after construction. At the end of the lease term, full ownership and control over the property and improvements constructed shall revert to BWS.

Future development at the site will be determined by the selected developer, but three possible development scenarios are described in Section 3.0 below, and will be evaluated in the Draft EIS. Development components may include a new BWS office building with parking; multi-story parking structure; assisted care living; or affordable senior rental housing. All of these uses are permitted under the existing A-2 Medium Density Apartment zoning.

## 1.3 DETERMINATION AND SUPPORTING RATIONALE

Based on its review of the significance criteria established under HAR §11-200-12 and through its judgment and experience, BWS has determined that the proposed action may have a significant effect on the environment and that an EIS should be prepared. This EISPN informs the public of this and presents pertinent information on the project and affected environmental resource areas that will be assessed in the forthcoming Draft EIS (DEIS). Publication of the project's EISPN in the Office of Environmental Quality Control's periodic bulletin will initiate a 30-day public consultation period for parties to comment on the action and its potential impacts, and to request to become consulted parties in the preparation of the DEIS.

## 1.4 PROJECT LOCATION

The Project Area is a portion of the BWS Beretania Complex, which is bounded by Beretania Street to the south, Lauhala Street to the west, Lusitana Street to the north, and Alapai Street to the east. The 6.3 acre Beretania Complex is controlled by BWS and is comprised of three tax map parcels: Tax Map Key (TMK) (1) 2-1-036:001; (1) 2-1-036:004; and (1) 2-1-036:005. The Beretania Complex is bisected by Lisbon Street, which divides the complex into an "Ewa Block" and a "Diamond Head Block."

The Project Area includes a 105,072 SF portion of TMK (1) 2-1-036:005 in the Ewa Block, and all of parcel 001 (22,980 SF) in the Diamond Head Block. In total, the Project Area comprises an area of approximately 128,100 SF.



**Location Map**  
**Board of Water Supply Beretania Complex Redevelopment**  
 Environmental Impact Statement Preparation Notice  
 Board of Water Supply

**Figure 1**





**Tax Map Key Map**

**Board of Water Supply Beretania Complex Redevelopment**

Environmental Impact Statement Preparation Notice

Board of Water Supply

**Figure 2**



## 1.5 BACKGROUND

BWS was created in 1929 by Act 96 of the Hawai'i Territorial Legislature. With the passage of Act 96, the planning and management of the existing water system was turned over to the newly created agency. BWS was designed to be semi-autonomous and self-supporting with the authority to charge for water usage to support its capital improvement and operating expenses, and to set long term plans for O'ahu's water future. BWS does not receive or request funds to manage and operate the water system from property or other County taxes or fees, or from the State. Its mission is to provide O'ahu water users with a safe, dependable, and affordable drinking water supply now and into the future (BWS 2018). BWS currently supplies approximately 145 million gallons of water per day to one million people (BWS 2016).

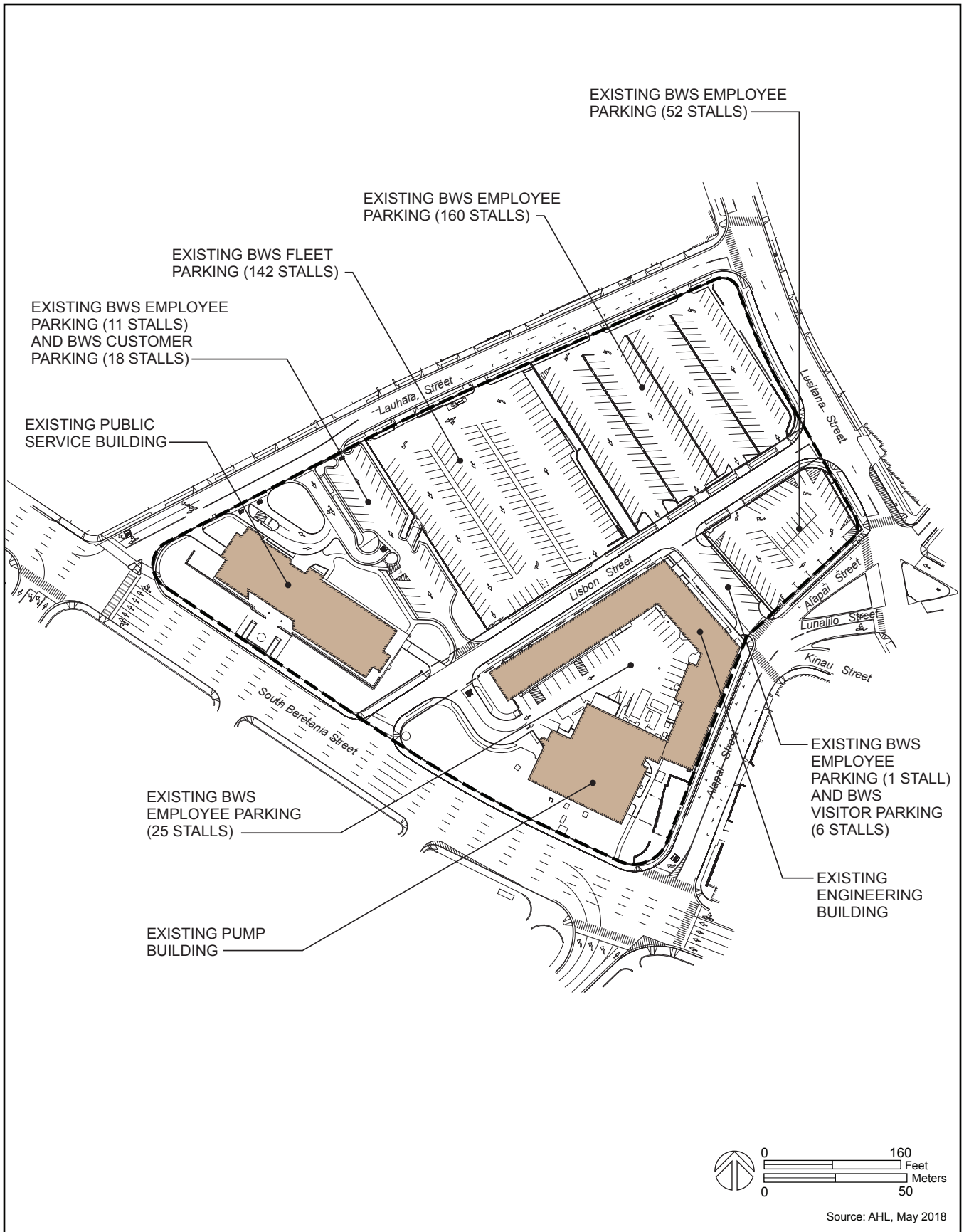
BWS is governed by a seven-member Board, five of which are nominated by the Mayor and approved by the City Council. The Director of the State of Hawai'i Department of Transportation and Chief Engineer of the City Department of Facility Maintenance serve as ex-officio members of the Board. The Board sets policy for BWS and appoints the Manager and Chief Engineer, who is responsible to administer the water department and its operation.

### 1.5.1 Existing Land Use

The Beretania Complex is the primary center of operations for BWS and contains the majority of its executive, support, engineering, and administrative functions. Figure 3 shows the existing land uses on the property. The Beretania Complex includes several BWS buildings: 1) the Public Service Building; 2) the Engineering Building; and 3) the Beretania Pump Station and infrastructure, a major operating component of the area water system. The Project Area is limited to portions of the Beretania Complex that are currently used for parking.

The BWS Public Service Building, fronting Beretania Street on the Ewa Block, is recognizable by its unique façade and bubbling water fountain. The building is surrounded by landscaped grasses and trees. Behind the building are parking areas for fleet vehicles, customers and staff. The Project Area includes the land beyond the customer parking area extending to the northeast toward Lusitana Street. This area is currently occupied by paved, fenced parking lots that date to 1959.

An elevated walkway extends from the Public Service Building across Lisbon Street to the U-shaped Engineering Building. The three-story, concrete Engineering Building, located in the Diamond Head Block, houses BWS employees who are responsible for planning and operating all the water system facilities. The area behind the Engineering Building all the way to Lusitana Street is used for parking and is part of the Project Area.



### Existing Land Use

#### Board of Water Supply Beretania Complex Redevelopment

Environmental Impact Statement Preparation Notice

Board of Water Supply

**Figure 3**

The Pump Building is also located on the Diamond Head Block, fronting Beretania Street. It is one of the oldest structures in the Beretania Complex, and one of 81 pumping stations operated by BWS on O'ahu. The land underlying the Pump Building, TMK (1) 2-1-0136:004, is owned by the State of Hawai'i, and is not part of the Project Area. This area was set aside to the City by the Governor of the Territory of Hawai'i by Executive Order 107 in 1921. The Executive Order was subsequently amended by Executive Order 785 in 1947. This area is limited to use as a pump station and municipal garage, unless otherwise approved by the State of Hawai'i.

### 1.5.2 Past Land Use

According to an Archaeological Inventory Survey (AIS) for another BWS project<sup>2</sup>, the project vicinity was not likely used for permanent human habitation during the pre-contact period due to the lack of fresh water sources. However, Handy (1940) noted that the lands to the west of the Project Area were intensively cultivated.

The area surrounding Honolulu Harbor that is presently downtown Honolulu was known to the Hawaiians as "Kou," and was a center of population and activity. The current Project Area was probably considered to be part of the *ahupua'a* of Nu'uano and Pauoa. By the mid-1800s, westerners had arrived and land use in the Honolulu area had shifted from traditional agriculture to maritime trade. The native Hawaiian population in the Honolulu and Waikiki areas had become decimated by disease, the demands on labor for the sandalwood trade, and other factors.

Traditional land divisions of the fifteenth and sixteenth centuries persisted until the Māhele (1848), which introduced private property into Hawaiian society. Historical records show that by 1912, the project area was divided into multiple small regularly shaped land grant parcels known as the 'Auwaiolimu Lots, which were leased or sold to private individuals over the next few decades (Pacific Consulting Services, Inc. 2017).

By the end of the nineteenth century, city water sources were insufficient for the growing Honolulu population. As a solution, pumping stations and inland reservoirs were planned by the Minister of the Interior to the Monarchy. In 1894, a pumping station, along with two drilled wells, were constructed at the Beretania Complex at the corner of Beretania and Alapai Streets. The pumping station connected to a storage reservoir on the slope of Punchbowl. The extant pumping station replaced the original brick structure in 1927, and in 1939, the BWS Engineering Building was constructed. By 1950, a majority of the residences in the current Beretania Complex site had been removed, and in 1958, the BWS Public Service Building was constructed fronting Beretania Street. The public service building is connected to the Engineering Building by an elevated footbridge across Lisbon Street (Pacific Consulting Services, Inc. 2017).

## 2.0 Purpose and Need for Action

The primary purpose of the proposed action, the redevelopment of a portion of the Beretania Complex through a lease agreement, is to provide a revenue stream for BWS. The revenue stream will help offset a portion of operating and capital improvement costs. Underutilized land currently used for ground level parking will be converted to a revenue-generating use to help BWS sustain its

---

<sup>2</sup> Archaeological Inventory Survey for BWS Energy Savings/Performance Contract (ESPC) Project, Pacific Consulting Services, Inc. 2017

ongoing operations and capital improvement program. With the redevelopment, BWS would maximize use of the Beretania Complex.

The proposed construction of a new BWS office building is needed to provide additional and more efficient office and administrative facilities for BWS. The redevelopment of this property can also meet a public need by providing additional rental housing and/or assisted care living targeted to Honolulu's growing older adult population.

Over the years, Honolulu has experienced soaring home ownership and rental prices, a shortfall of rental inventory, and very little new inventory other than to the higher income market. The National Housing Conference's 2017 edition of its Paycheck to Paycheck database shows that of 203 metro areas nationwide, Honolulu was the fourth most expensive market for renters, with average fair market rent (2016) of \$1,982 (for a 2-bedroom home). The annual income required to afford this fair market rent was \$79,280 (National Housing Conference, <https://www.nhc.org/paycheck-to-paycheck/>).

The cost of living in Honolulu is 16 percent higher than the national average, severely impacting limited and low income seniors. Between 2010 and 2040, the number of persons age 65 years and older in the City and County of Honolulu is projected to increase by 104 percent. By 2040, 27 percent of Honolulu residents will be aged 65 and older. On O'ahu, affordable senior apartments occupancy rates are currently low, below 1 percent (Avalon 2017).

The project provides a rare opportunity to construct new housing targeted to the growing older adult demographic. The A-2 Medium Density Apartment zoning designation is intended to provide areas for medium density, multi-family dwellings. Assisted care living and/or affordable senior rental apartments are uses that are compatible with the existing land designation. On O'ahu, assisted care living vacancy rates are currently below 14 percent. Historically, over the last 20 years, vacancy rates for these facilities have fluctuated between 7 and 10 percent. Currently, some facilities have wait lists as long as three years for prospective residents.

Construction of the proposed project could increase the rental housing inventory in a centrally located area, providing a public benefit. The Project Area's proximity to the Queen's Medical Center (and to a lesser extent, the Straub Medical Clinic and Hospital) creates synergy between housing and medical support services, a benefit to future residents and health care providers.

### **3.0 Description of Proposed Action**

Under the proposed action, BWS will issue an RFP for redevelopment of a portion of the Beretania Street Complex. The Project Area does not include the existing BWS Public Service Building, Engineering Building, and Pump Station Building. The selected developer will be issued a ground lease for the use of the Project Area, and will be allowed to redevelop the Project Area, subject to the conditions of the lease. The maximum lease term shall be sixty-five (65) years. At the end of the lease term, full ownership and control over the property and improvements constructed shall revert to BWS.

The specific redevelopment plan will be determined by the lessee. The DEIS evaluates three potential development scenarios, all of which could be implemented under existing zoning and appear to be supported by market conditions. The scenarios, illustrated in Figures 4, 5 and 6 are:



- Scenario 1: Assisted Care Living Facility and Office Building
- Scenario 2: Affordable Senior Rental Apartments and Office Building
- Scenario 3: Parking Structure and Office Building

All three scenarios show a new BWS office building (10 stories), including several stories of parking, near the corner of Lusitana Street and Alapai Street. All scenarios also include a larger multi-level parking structure between Lisbon and Lauhala Streets. This structure will replace lost ground level parking and support the proposed residential uses. The number of parking stalls varies by scenario.

### **3.1 SCENARIO 1: ASSISTED CARE LIVING FACILITY AND OFFICE BUILDING**

The main component of Scenario 1 (Figure 4) is an assisted living facility located in the northwest corner of the property. Assisted living is a form of residential care for seniors that provides residents with as much independence as they want, but with available personal care and support services. Assisted living communities offer residents assistance with everyday activities such as meals, medication management, bathing, grooming, dressing, and transportation. They include common areas for activities, while allowing residents to age in place. Unlike nursing homes, assisted living communities do not offer complex medical services, and are considered non-medical facilities.

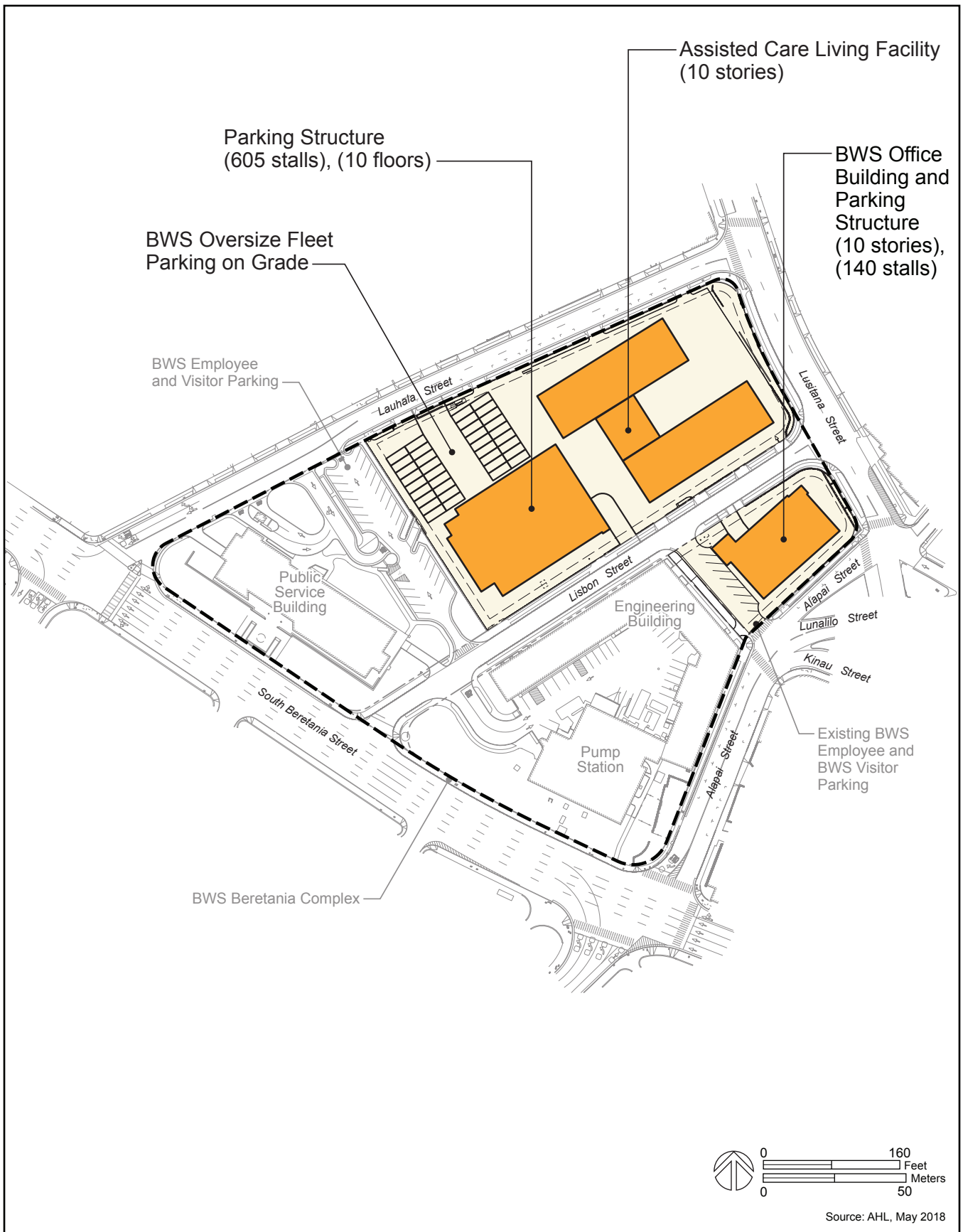
The City and County of Honolulu's Land Use Ordinance (LUO) Master Land Use Table indicates that "Special needs housing for the elderly" is allowed in the A-2 Medium Density Apartment zoning district (A-2 zoning) with a Conditional Use Permit (CUP)-Major. According to the City's Department of Planning and Permitting (DPP), the processing time for a CUP-Major is 90 calendar days from DPP acceptance of a completed application. A presentation to the local Neighborhood Board is required.

The concept plan in Figure 4 shows an assisted living facility with 10 floors totaling 251,000 square feet (SF). It is likely that the ground floor and portion of the second floor would be used for amenities and utilities. Upper floors would consist of living units and an activity room on each floor. Parking for employees, residents, and guests of the assisted living facility would be provided in the adjacent 10-floor parking structure, which will include a total of 605 stalls; 248 stalls for BWS and the remainder for the assisted living residents, visitors and employees. There will also be up to 218 parking stalls available for lease.

Scenario 1 will also include a new BWS office building located at the northeast corner of the Beretania Complex, near the intersection of Lusitana Street and Alapai Street. The office building will be 10 stories high, including several stories of parking, plus one story of parking below grade.

### **3.2 SCENARIO 2: AFFORDABLE SENIOR RENTAL APARTMENTS AND OFFICE BUILDING**

Scenario 2 (Figure 5) includes the development of senior rental apartments in the northwestern corner of the Beretania Complex. These would be rent-controlled apartments for individuals 60 years and older. In contrast to the assisted living scenario, there would be no on-site support services for residents, other than standard building security and maintenance. Senior rental apartments are considered a multifamily dwelling and are a permitted use in the A-2 Zone.



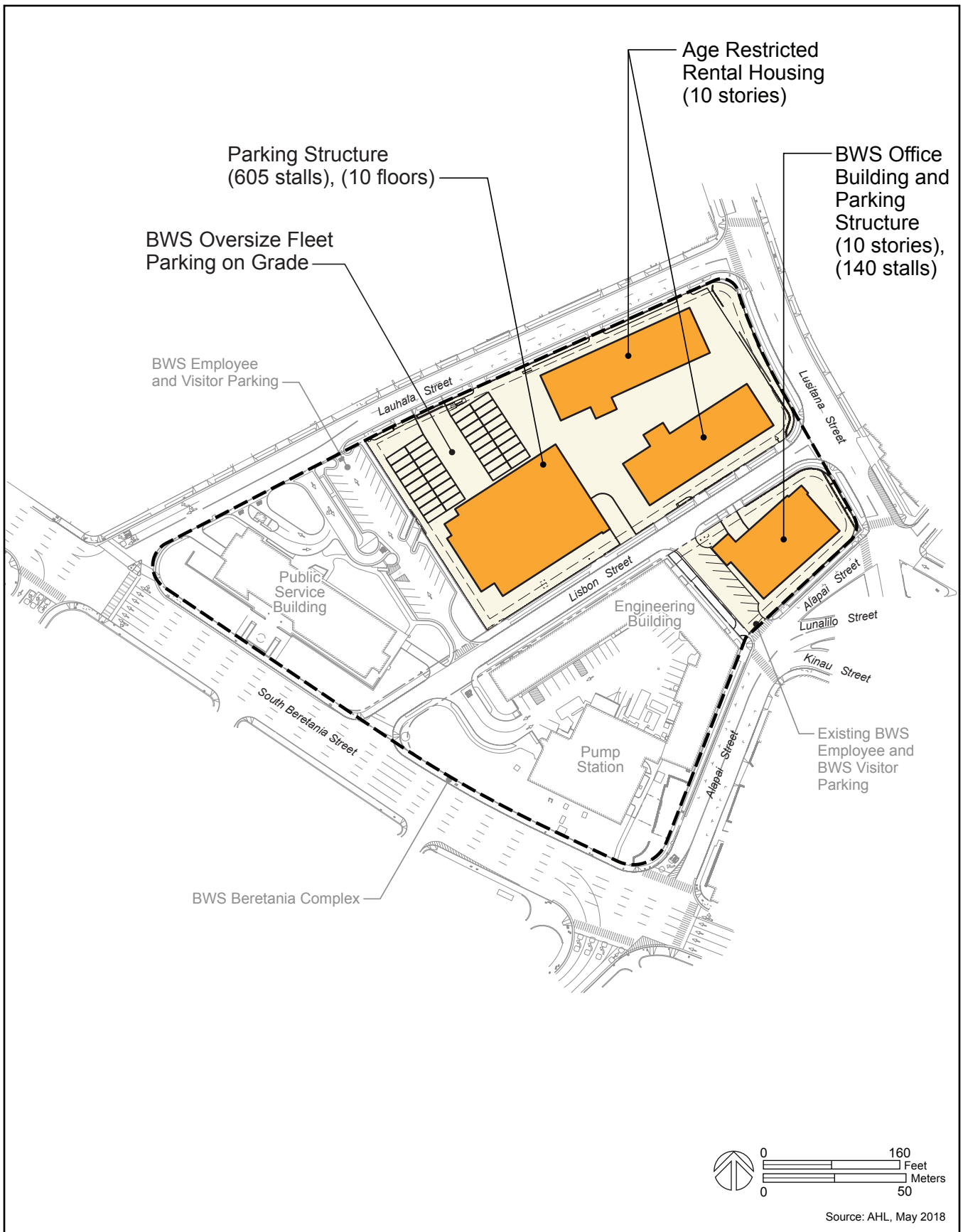
**Scenario 1: Assisted Care Living Facility and Office Building**

**Figure 4**

**Board of Water Supply Beretania Complex Redevelopment**

Environmental Impact Statement Preparation Notice

Board of Water Supply



**Scenario 2: Affordable Senior Rental Apartments and Office Building**

**Figure 5**

**Board of Water Supply Beretania Complex Redevelopment**

Environmental Impact Statement Preparation Notice

Board of Water Supply

The concept plan shows the building footprint for two 10-story apartments. The building floor area will total 248,300 SF. The ground floor and portion of the second floor of each building would most likely be used for amenities and utilities. Residential units would be located on the upper floors. Similar to the Assisted Living Facility option, parking for residents and visitors would be provided in the adjacent 10-floor, parking structure which will include a total of 605 stalls; 248 stalls for BWS with the remainder for residents and visitors. There will also be up to 247 parking stalls available for lease.

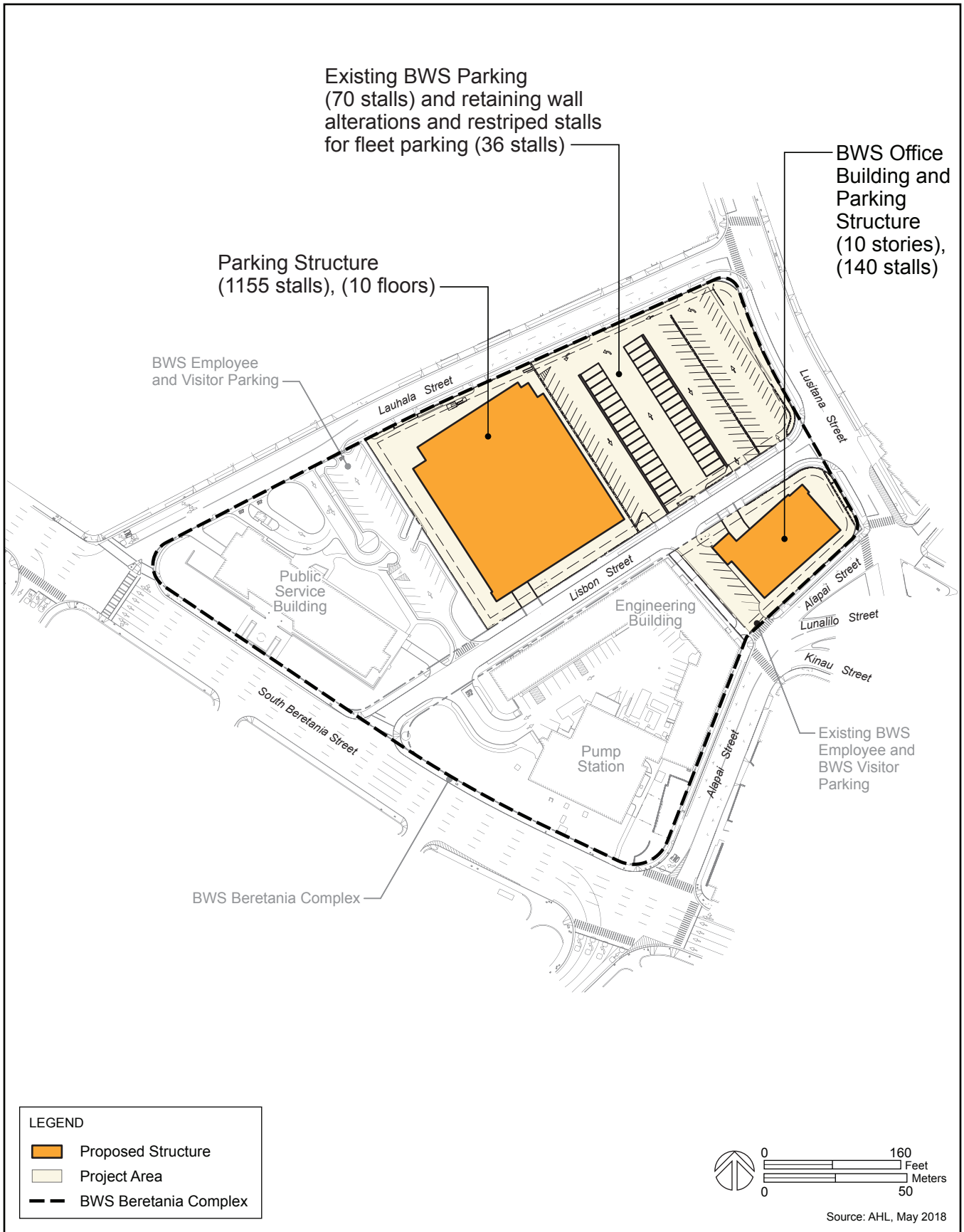
Scenario 2 will also include a new BWS office building located at the northeast corner of the Beretania Complex, near the intersection of Lusitana Street and Alapai Street. The office building will be 10 stories high, including several stories of parking, plus one story of parking below grade.

### **3.3 SCENARIO 3: PARKING STRUCTURE AND OFFICE BUILDING**

Under Scenario 3 (Figure 6), there would be no residential component on the property. The northwest corner of the property, near the intersection of Lauhala and Lusitana Streets, will remain as ground level parking. The proposed parking structure off Lauhala Street will be 10 floors but larger in footprint, with a total of 1,155 parking stalls. Approximately 178 stalls will be reserved for BWS use and the remainder will be available for lease.

Development of a stand-alone parking structure is permitted under A-2 zoning with a Conditional Use Permit (CUP)-Minor. According to DPP, the processing time for a CUP-Minor is 45 calendar days from DPP acceptance of a completed application.

Scenario 3 will also include a new BWS office building located at the northeast corner of the Beretania Complex, near the intersection of Lusitana Street and Alapai Street. The office building will be 10 stories high, including several stories of parking, plus one story of parking below grade.



**Scenario 3: Parking Structure and Office Building**  
**Board of Water Supply Beretania Complex Redevelopment**  
 Environmental Impact Statement Preparation Notice  
 Board of Water Supply

**Figure 6**

## **4.0 Alternatives Considered**

### **4.1 NO ACTION**

Under a No Action alternative, BWS would not issue an RFP for the redevelopment of its Beretania Complex. Existing facilities on the site would continue operating in support of BWS, but no new construction would occur. Areas of the site not occupied by existing BWS buildings would continue to be used for open air parking. No senior rental housing, assisted living, or additional office space would be provided. Under the No Action alternative, BWS would not have a supplemental source of revenue.

### **4.2 OTHER LEASE AND DEVELOPMENT OPTIONS**

All of the development components in the three alternative scenarios are allowed under the existing A-2 zoning, and given the Project Area's proximity to the Queen's Medical Center (QMC), are expected to be the primary uses proposed for a potential redevelopment (Avalon 2017). However, the RFP will not preclude a developer from proposing alternative uses that may require a zone change or other entitlements. The developer/lessee would be responsible for obtaining any necessary land use approvals. Some other development options are briefly discussed below.

#### **4.2.1 Office/Commercial Building**

One development alternative is to construct an office or commercial building on the property. The project area is within close proximity to the QMC and the Queens Physician's Office Buildings (POB) 1, 2 and 3, various government offices, and the downtown business district. According to the LUO, commercial office buildings are not an allowed use under the existing A-2 zoning. Therefore, construction of a commercial office building would require a zone change.

A 2017 market assessment report for the site (Avalon Development Company 2017) characterized the current and projected market for office space as "stagnant," noting vacancy rates well above the sub-10 percent days of 2008 and rents that have experienced minimal increase over the past ten years. In the first quarter of 2018, office vacancy rates for the Honolulu central business district had increased to 17 percent (Hawai'i Commercial Real Estate 2018). The Avalon market assessment found little current demand to support the development of additional medical office space, which makes it unlikely that this use would be proposed.

#### **4.2.2 Government/Public Use Building**

Although commercial offices are not allowed in the A-2 zone, public uses and structures, including government office buildings, are permitted. The Beretania Complex is suitable for government offices given its location in the Hawai'i Capital Special District and that it is within walking distance to the State Capitol, Honolulu Hale, Frank F. Fasi Municipal Building, Honolulu Police Department, and other government buildings.

However, there are market challenges to a private developer constructing new office space at the Beretania Complex. Current market office rents do not support the development of new office product. Therefore, any new development of office space at the Beretania Complex would require significant guarantees to lenders by developers and/or public agencies.

Because the new office space could only be leased to government agencies, the sponsoring public agencies would need to provide the developer (and lender) with an "exit" at a certain return. That is, the government will have to "buy out" the developer or provide some guarantee of leasing the space for an extended period of time at a certain rate, in order to provide the developer a satisfactory return.

#### **4.2.3 Expansion of Queen's Medical Center**

In the past, the QMC has expressed an interest in leasing a portion of the Beretania Complex for the expansion of its medical campus. An expansion of the medical center in A-2 zoning would require a Plan Review Use (PRU) process with the City's Department of Planning and Permitting. A PRU is typically required for expansion of an institutional use such as a hospital, college or university, airport, convention center, etc. It is intended to be a review and approval mechanism for major institutional uses to ensure that their expansion and development is compatible with, and does not have major adverse impact on, surrounding land uses.

Should the project area be developed as part of the QMC campus, the PRU process could take 12 months or longer to complete. QMC has recently expanded its facilities at the Hawai'i Medical Center West in West O'ahu, and their interest in further expansion of their Honolulu campus is uncertain.

#### **4.2.4 Leasehold Condominiums**

The development of leasehold residential condominiums is another option. In a leasehold situation, the land and the improvements on it (i.e., the residential units) have different owners, and the homeowner, or "lessee," would purchase the condo unit and pay a monthly lease fee to the lessor for the rights to use the land. In this case, BWS would retain ownership of the property throughout the lease term.

While the number of leasehold single family properties on O'ahu have declined over the years, there are still a number of leasehold condominiums, mostly in urban areas of Honolulu. According to the Honolulu Board of Realtors, while less than 2 percent of single family homes on the market are leasehold, leasehold offerings represent about 12 percent of the condos on the market (Berger, 2014). As a multi-family residential use, leasehold condominiums would be allowed under the existing A-2 zoning. It is unknown whether there is a sufficient market demand for leasehold condominiums and/or whether a third party developer would find it financially feasible to develop such a housing product.

From a market perspective, buyers prefer to avoid leasehold residential condominiums as it presents uncertainty in the future with lease renegotiations. This occurred previously in the early 1990's, when many leasehold residential units experienced significant increases in land values and associated ground rent. That memory has not faded from the public's mind. The one exception to this is the market for luxury ocean-side leasehold residential units, which have continued to sell, primarily to high net-worth retirees and empty nesters. These individuals desire, and can afford to pay a premium for location, view, and amenities, and are less concerned about the investment over the long term.

### **4.3 SELL THE BERETANIA COMPLEX PROPERTY**

One revenue-generating alternative that was eliminated was the outright sale of all or a portion of the Beretania Complex. The property sale could result in a large cash infusion, which could sustain BWS operations into the future. If the entire Beretania Complex were sold, a condition of the sale would be the ability for BWS to lease back its facilities on the site and to continue its operations in perpetuity.

This option was not considered to be a realistic or viable alternative. It has been estimated that the cost to purchase land and construct replacement office space for a BWS relocation to Kapolei would be approximately \$143.5 million. By comparison, the value of the Beretania Complex is approximately \$41.2 million (taking into consideration that the Pump Building remains at the Beretania Complex).

Moreover, sale of the Beretania Complex fails to conform to the BWS's Strategic Plan for 2018-2022, which specifically calls for developing other sources of revenue through execution of a RFP for the Beretania Complex. The Beretania Complex contains an active pump station and other major engineering components of the water system. Transferring control of the property to a non-governmental entity would likely conflict with BWS's Capital Improvement Program. In the long term, a land sale could jeopardize the BWS mission to provide safe, dependable and affordable drinking water now and into the future.

## **5.0 Resource Areas to be Evaluated in the DEIS**

The DEIS will address the probable impacts of the proposed action on relevant environmental resource areas, including direct, indirect, secondary, and cumulative impacts. The sections below briefly describe the resource areas that will be evaluated in greater detail in the DEIS. Technical studies being prepared in support of the DEIS are described in the applicable sections.

### **5.1 NATURAL AND PHYSICAL ENVIRONMENT**

#### **5.1.1 Climate and Air Quality**

##### **5.1.1.1 Climate**

The Project Area is located in downtown Honolulu, which has a mild climate year round. The climate of the Honolulu area is typical of the leeward coastal lowlands of O'ahu, and characterized by abundant sunshine, persistent tradewinds, relatively constant temperatures, moderate humidity, and infrequent severe storms. Temperatures around Honolulu range from 52 to 95 degrees Fahrenheit, with the warmest temperatures in September and the coolest temperatures in January. Annual average rainfall ranges between 20 to 30 inches. Northeasterly tradewinds prevail throughout the year although its frequency varies from more than 90 percent during the summer months to 50 percent in January. The average annual wind velocity is approximately 10 miles per hour.

##### **5.1.1.2 Air Quality**

Air quality within the Project Area is good, and there are no major sources of air pollution in the area. National Ambient Air Quality Standards (NAAQS) have been established for seven major air



pollutants: carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), ozone (O<sub>3</sub>), particulate matter smaller than 10 microns (PM<sub>10</sub>), particulate matter smaller than 2.5 microns (PM<sub>2.5</sub>), sulfur oxides (SO<sub>x</sub>), and lead. Air pollutant levels are monitored by the State Department of Health (DOH) at a network of sampling stations statewide. The DOH's Honolulu air monitoring site is located on Punchbowl Street across the Queen's Medical Center, less than a quarter mile from the BWS Beretania Complex. Based on ambient air monitoring data, the U.S. Environmental Protection Agency has classified the island of O'ahu and the entire State of Hawai'i as being in attainment of federal standards.

Construction period activities, including demolition, excavation and other ground disturbance will generate short term impact to air quality. The long-term increase in vehicle traffic in the immediate area could also impact local air quality. The DEIS will discuss the short- and long-term air quality impacts for the three development scenarios.

### **5.1.1.3 Climate Change**

Climate change is a long-term shift in patterns of temperature, precipitation, humidity, wind and seasons. Scientific data show that Earth's climate has been warming, largely attributed to rising levels of carbon dioxide and other "greenhouse gases" generated by human activity. These changes are already impacting Hawai'i and the Pacific Islands through rising sea levels, increasing ocean acidity, changing rainfall patterns, decreasing stream flows, and changing wind and wave patterns. Climate change issues, as they relate to the proposed project, will be discussed in the DEIS.

## **5.1.2 Geology, Topography, and Soils**

### **5.1.2.1 Geology**

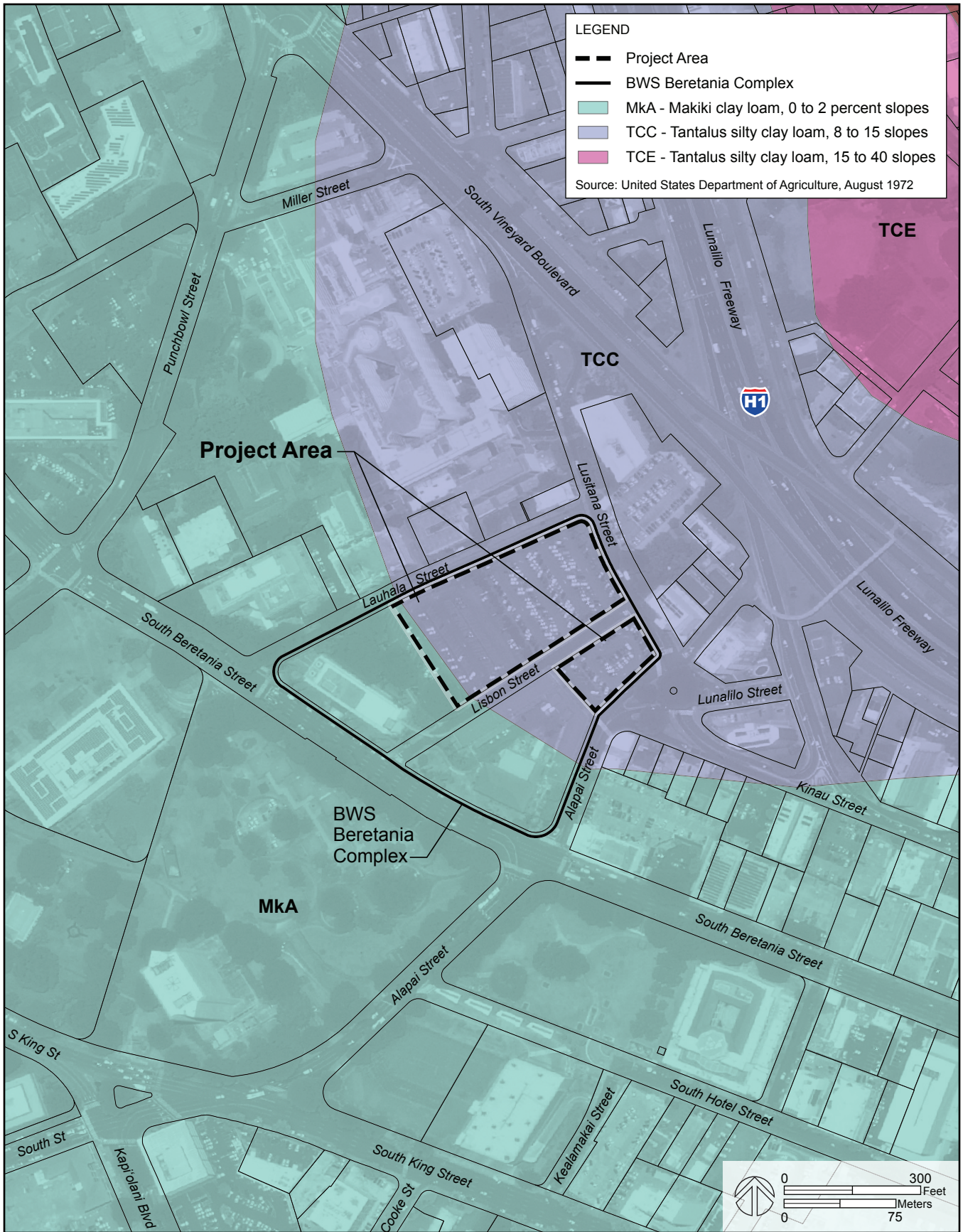
The Project Area is within the Honolulu Plain, which is underlain by a broad elevated coral reef, partly covered by alluvium carried out from the Ko'olau mountain range. The fossils found in the reef indicate the reef is not older than the late Pleistocene. However, fossil associations also indicate these creatures lived in waters warmer than the present, which indicates the reef likely formed in one of the interglacial periods when the sea level was higher than it is at present (Macdonald and Abbott 1974).

### **5.1.2.2 Topography**

The elevation of the Beretania Complex ranges from approximately 10 to 45 feet above mean sea level (AMSL). The topography of the site slopes gradually upward from the southern portion of the property along South Beretania Street to the northern corner of Lauhala and Lusitana Streets.

### **5.1.2.3 Soils**

Soils in the Beretania Complex, shown in Figure 7, consists of Makiki clay loam (MkA) and Tantalus silty clay loams (TCC) with 8 to 15 percent slopes. The Project Area is primarily Tantalus silty clay loam. The Tantalus series are well-drained soils on uplands that developed in volcanic ash and material weathered from cinders. Elevations range from 100 to 2,200 feet (Foote et al. 1972).



**Soils Map**

**Board of Water Supply Beretania Complex Redevelopment**

Environmental Impact Statement Preparation Notice

Board of Water Supply

**Figure 7**

### 5.1.3 Biological Resources

#### 5.1.3.1 Botanical

The entire Beretania Complex is a highly disturbed urban environment, with most of the Project Area paved and used for ground level parking. There are limited landscaped areas with grass, trees and bushes on the front lawn and behind the Public Service Building. There is no federally delineated Critical Habitat, or threatened and/or endangered plant species present on or adjacent to the Project Area.

#### 5.1.3.2 Terrestrial and Avian Fauna

Fauna that would likely be found within the Beretania Complex include mammals that typically inhabit urban areas of Honolulu including feral cats (*Felis catus*), rats (*Rattus* sp), house mouse (*Mus musculus*) and Indian mongoose (*Herpestes a. auropunctatus*).

Avifauna found within the boundaries of the Beretania Complex would include alien species common to urban environments, such as the Common Mynah (*Acridotheres tristis*), Red crested Cardinal (*Paroaria coronata*), Northern Cardinal (*Cardinalis cardinalis*), House Finch (*Carpodacus mexicanus*), Java Sparrow (*Padda oryzivora*), Rock Pigeon (*Columba livia*), Spotted Dove (*Streptopelia chenensis*), Zebra Dove (*Geopelia striata*), Red-vented Bulbuls (*Pycnonotus cafer*), and Japanese White-eye (*Zosterops japonicus*). The Pacific Golden Plover (*Pluvialis fulva*) is a migratory shorebird that may use the grassy lawn areas fronting the Public Service Building and Pump Station building, particularly during the late summer and winter months. Other species of migratory shorebirds may occasionally pass over, but would not settle at the Project Area. There are no threatened or endangered species or their habitats within the Beretania Complex or Project Area.

### 5.1.4 Natural Hazards

Natural hazards include a variety of phenomena including seismic activity, hurricanes, tsunami inundation, and flood. The following is a brief description of the hazards that will be discussed in more detail in the DEIS.

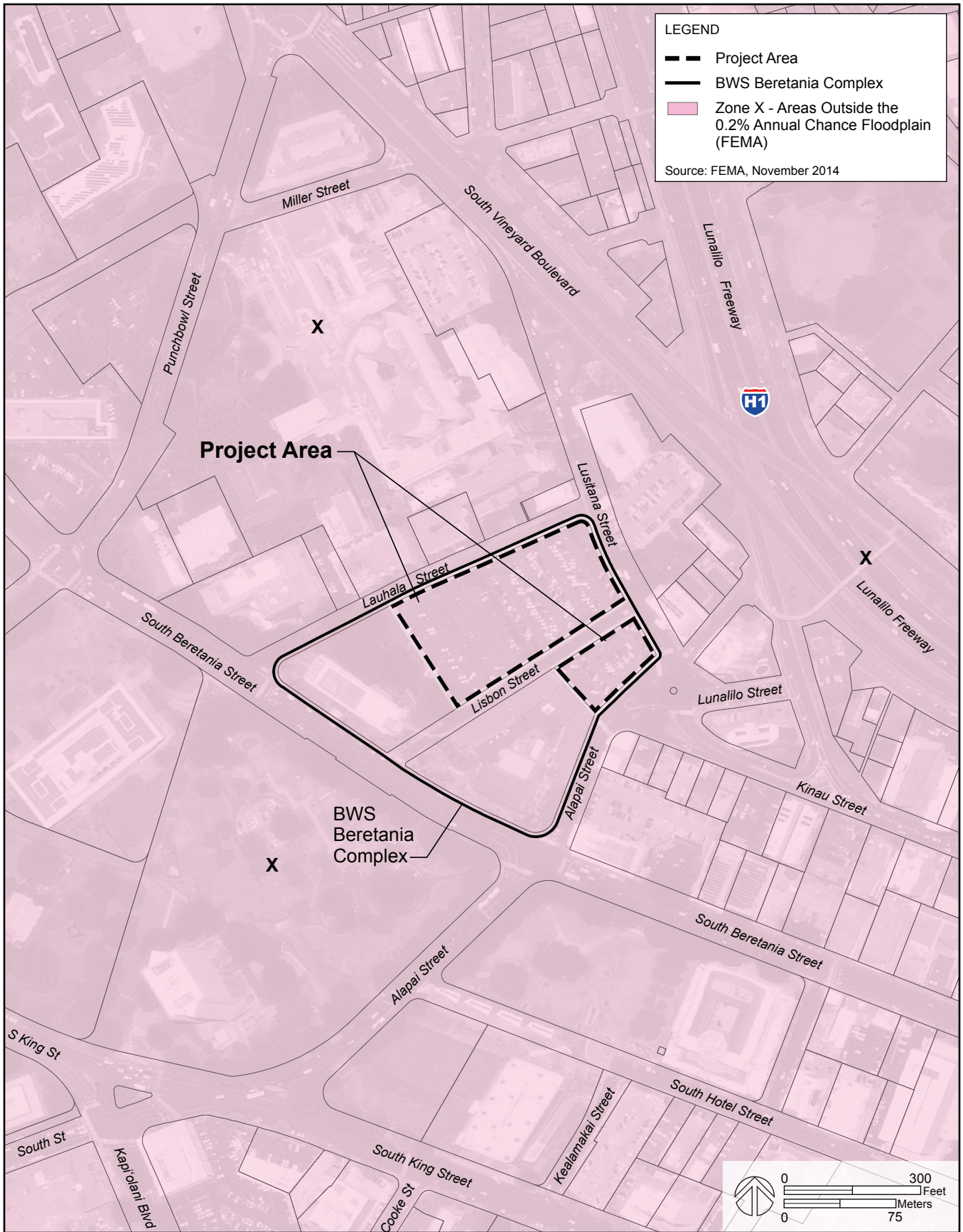
#### 5.1.4.1 Flood

The project site is not in a flood prone area. The site is in the Federal Emergency Management Agency's Flood Zone X, areas of minimal flood hazard, determined to be outside the 500-year flood (see Figure 8). There are no streams in the vicinity of the project area.

#### 5.1.4.2 Seismic Activity

Seismic activity or earthquakes in the Hawaiian Islands are primarily associated with volcanic eruptions from the expansion or shrinkage of magma reservoirs, rather than shifts in the Earth's crust. The island of O'ahu is periodically subject to episodes of seismic activity of varying intensity, but available historical data indicates that the number of major earthquakes have generally been fewer and of lower intensity compared with other islands, such as Hawai'i Island (Big Island).





**Flood Zones Map**

**Board of Water Supply Beretania Complex Redevelopment**

Environmental Impact Statement Preparation Notice

Board of Water Supply

**Figure 8**

Earthquakes cannot be avoided or predicted with any degree of certainty, and an earthquake of sufficient magnitude (greater than 5.0 on the Richter scale) could cause damage to roadways and structures. The Uniform Building Code (UBC) provides minimum design criteria to address potential for damages due to seismic disturbances. The UBC scale is rated from Seismic Zone 1 through Zone 4, with 1 the lowest level for potential seismic induced ground movement. O'ahu is designated Seismic Zone 2A.

#### **5.1.4.3 Hurricanes**

Hurricanes are one subclass of a category of phenomena known to meteorologists as tropical cyclones. Hurricanes are characterized by the following life-threatening effects: high winds in excess of 74 mph; high storm surges; and heavy rains that will exceed flash flood conditions. The hurricane season in Hawai'i officially begins on June 1 each year and ends six months later on December 1.

Virtually all hurricanes near the Hawaiian Islands since 1950 have approached from the southeast, south, or southwest. Among the six most critical cyclones that approached the Hawaiian Islands between 1832 and 1949, three of the storms went toward Kaua'i and Ni'ihau. In 1982, Hurricane Iwa struck Kaua'i and O'ahu and caused \$234 million in property damage to both islands. On September 11, 1992, Hurricane Iniki, a Category 4 hurricane with winds up to 150 mph (240 km/hr), resulted in over \$1.8 billion in damage and was responsible for six deaths. It remains the strongest hurricane in history to hit the Hawaiian Islands.

#### **5.1.4.4 Tsunami**

The City and County of Honolulu's tsunami evacuation zone map covering the area from the Airport to Waikiki shows the Beretania Complex is located in the "safe zone," outside of both the tsunami evacuation zone and the new extreme tsunami evacuation zone (XTEZ). The new XTEZ is an overlay on the regular tsunami evacuation zones. It represents the evacuation area for a low probability but worst case event, with very large magnitude (9+) earthquake and tsunami.

## **5.2 HUMAN ENVIRONMENT**

### **5.2.1 Archaeological, Historic and Cultural Resources**

#### **5.2.1.1 Archaeological Resources**

An Archaeological Literature Review and Field Inspection (LRFI) was conducted in 2012 for the Beretania Complex (Cultural Surveys Hawai'i, 2012). The purpose of the 2012 LRFI was to guide decision making in advance of future redevelopment of the Beretania Complex. An update to this LRFI is currently being conducted by Cultural Surveys Hawai'i (CSH), and the findings will be included in the DEIS.

The 2012 LRFI included a field inspection of the Beretania Complex. No historic properties were noted during the field inspection. Based on background research, CSH noted that the probability of pre-contact and/or 18<sup>th</sup> or 19<sup>th</sup> century burials and cultural deposits associated with the use of the land for habitation is high. There may also be trash deposits associated with the 20<sup>th</sup> century use of the property by BWS. CSH recommended the presence of an archaeological monitor during any future construction at the property that involves subsurface disturbance or excavation to a depth of greater than 12 inches.

There is a documented Native Hawaiian human burial located within the Project Area, which was identified during a previous BWS project. The burial is located in the vicinity of the proposed parking structure. A burial treatment plan (BTP) was prepared in consultation with recognized cultural descendants, the State Historic Preservation Division, and the O'ahu Island Burial Council, and specifies preservation in place and the creation of a buffer zone around the burial. The developer will be required to comply with the BTP in the proposed redevelopment.

It is anticipated that once a developer is selected and a specific development plan proposed, the developer would be required to prepare an Archaeological Inventory Survey (AIS). Based on the results of background research, the AIS would require subsurface testing with a combination of hand and backhoe excavations to identify and document subsurface historic properties that were not located by surface pedestrian inspection. The AIS would evaluate the project's effect on historic properties and make recommendations to mitigate potential adverse effects on significant properties. Findings and proposed mitigation would be submitted in a report to the State Historic Preservation Division (SHPD) for review prior to project construction.

#### **5.2.1.2 Historic Architecture**

The Project Area is entirely paved and there are no historic architecture resources. There are historic buildings within the Beretania Complex, and these have been previously evaluated by Mason Architects, Inc. The BWS Engineering Building was designed by the architectural firm Wood, Weed, and Associates and was constructed in 1939. The Public Service Building houses the BWS's main offices. This historic structure was designed by architect Hart Wood and was constructed in 1958. The BWS's iconic Pump Station Building, which fronts South Beretania Street, was designed by the architectural firm Wood, Weed, and Associates. Construction was started on this building in 1927 and completed by 1939. The proposed action does not include modification of these existing buildings. The DEIS will discuss the project's potential impact on architectural resources, and if necessary, recommend avoidance, minimization and mitigation measures.

#### **5.2.1.3 Cultural Resources**

A cultural impact assessment (CIA) for the project is being conducted by CSH in compliance with Act 50 of State environmental law, passed by the 2000 Hawai'i Legislature and requiring that cultural impacts be analyzed during the state's environmental review process. CIAs include information on traditional cultural practices and cultural resources of the community and State. The CIA process involves consultation with key stakeholders, including government agencies and community members familiar with ongoing and past cultural practices in the area. The CIA report will summarize the findings and evaluate potential adverse effects of the redevelopment options on cultural practices and cultural resources. Findings will be presented in the DEIS.

### **5.2.2 Visual and Scenic Resources**

The Beretania Complex is located along South Beretania Street, a major, highly traveled thoroughfare, and is located in the vicinity of Queen's Medical Center and Queen's Physician's Office Buildings along Lusitana Street and Lauhala Street. The Beretania Complex property is located less than a quarter mile from the Hawai'i State Capitol on South Beretania Street and is located within the Hawai'i Capital Special District, which includes the State Capitol, Washington Place, 'Iolani Palace, and Honolulu Hale. The special district has height restrictions and open space requirements.

The redevelopment of the Beretania Complex will replace expansive, paved parking areas with several new structures up to ten stories in height, including a parking structure, BWS office building, and assisted living facility or apartments. From South Beretania Street, these new buildings will be partially visible, but are set back several hundred feet from the road and will be obscured by the Public Service Building. The new buildings will have a noticeable visual impact from Lusitana Street and Lauhala Street. The DEIS will discuss impact of the proposed redevelopment on surrounding uses, from public roads and vantage points, and on the Hawai'i Capital Special District.

### **5.2.3 Noise**

The proposed redevelopment of the Beretania Complex will result in both short-term and long-term noise impacts. Short-term noise impacts on surrounding buildings will be associated with demolition of the existing paved parking lots, excavation, grading, and construction of the proposed structures and buildings.

After completion of the new buildings, the redevelopment may have a long-term impact on the acoustic environment due to the increase in traffic associated with the proposed uses. A new multi-story parking garage, BWS office building, and assisted living or senior apartment complex will increase vehicle traffic and associated noise. An acoustic study is being conducted and will provide existing and projected traffic noise levels, particularly impacts on noise sensitive locations. The noise impacts of the three development scenarios will be evaluated, and mitigation measures will be recommended.

### **5.2.4 Infrastructure and Utilities**

The project site is in a highly urbanized area that is well served by public services and utilities. Sewer service to the area is provided by the City and County of Honolulu and water service is provided by BWS. Hawaiian Electric Company provides electrical service through underground conduits, telephone service is provided by Hawaiian Telcom and cable service is available through Spectrum Hawai'i. All utility lines in the vicinity are located below ground. The redevelopment of the Project Area, which may include a combination of office, assisted living and/or senior apartments, will increase demand for water, sewer, electrical and telecommunication service within the project area. The DEIS will describe existing water, wastewater, electrical and drainage infrastructure; provide an estimate of future demand; and address the potential impact of the three development scenarios on these utility systems.

#### **5.2.4.1 Drainage**

The DEIS will describe general existing and proposed drainage patterns both regionally and within the Project Area. Estimated existing and proposed runoff quantities will be calculated.

#### **5.2.4.2 Solid Waste**

The DEIS will describe existing solid waste disposal services provided by the City and County of Honolulu to the Beretania Complex, and proposed services during project construction and operation. It is anticipated that a future assisted living facility or senior rental apartment would contract with a private waste disposal company.

### 5.2.5 Roadways and Traffic

A Traffic Impact Assessment Report (TIAR) is currently being conducted for the project. The TIAR will assess the traffic impacts of the three proposed development scenarios, identify any potential operational deficiencies, and evaluate mitigative measures as appropriate for the study intersections during the morning and afternoon (AM and PM) peak periods.

An assessment of existing traffic conditions will be conducted at up to eight (8) study intersections to establish baseline conditions, including traffic flow, intersection operation, signal timings, etc. that could be affected by the development of the Project Area. Trip generation computations will be prepared based on the proposed uses for the three development scenarios using standard trip generation techniques. Existing traffic volumes will be projected for the anticipated buildout year of the project and assessed under with and without project conditions. Future traffic projections will account for de facto growth, growth occurring independent of the project, compared to additional traffic generated by the future land uses at the Project Area.

### 5.2.6 Public Services

The DEIS will provide an overview of available public services including police, fire, and emergency medical services, parks and recreation, libraries, and school facilities. The impact of the three development scenarios on these public services will be evaluated. It is anticipated that most of the future residents of the rental apartments and/or the assisted living facility are currently Hawai'i residents as opposed to new residents from out of State. As such, there is not expected to be a net increase in demand for services city-wide, though localized demand may increase. The impacts of the three scenarios and any recommended mitigation will be addressed in the DEIS.

### 5.2.7 Social and Economic Factors

According to the 2010 U.S. Census, the population of the State of Hawai'i was 1,360,301, with the population of the City and County of Honolulu, i.e., Island of O'ahu, accounting for approximately 64 percent of those residents. In 2010, the population on O'ahu was 876,156, a 9 percent increase since 2000.

According to the State Department of Business, Economic Development and Tourism (DBEDT)'s Population and Economic Projections for the State of Hawai'i to 2045 (DBEDT 2018), one of the most prominent population trends over the past several decades is the aging of Hawai'i's population. Hawai'i is growing older at a faster pace than the rest of the nation. The number of persons aged 65 years and older has increased an average of 3.3 percent a year, and the share of total population has increased from 7.9 percent in 1980 to 17.1 percent in 2016.

By 2030, 24 percent of Hawai'i's population will be aged 65 years or older, compared to 21 percent nationally. In Honolulu, 27 percent of residents will be 65 years and older by 2040. Between 2010 and 2040, Hawai'i's population 65 years and older will increase 104 percent, compared with the total population increase of 28 percent of the same period (Avalon 2017). A number of factors contribute to this demographic change: lower mortality rates, improved health access, and advances in medical and pharmaceutical technologies.

Economic growth in the state is expected to be gradual over the coming decades, with the prospects for more rapid growth limited by the aging population. Real gross domestic product, the total value of goods produced and services provided over one year, is projected to grow at 1.7 percent per year



between 2016 and 2045. Hawai'i's total personal income is forecast to grow at an annual rate of 1.96 percent in real terms over this same period (DBEDT 2018).

The 2017 market study for the Beretania Complex redevelopment noted that in terms of housing services, Hawai'i is particularly challenged since as an ocean-locked state, mobility is limited and all islands are required to create their entire aging network of services and delivery infrastructure, and cannot readily share services or workers.

Based on these trends, the market report anticipates that:

- Fixed-income elderly people will not have sufficient affordable housing options and many may not find suitable housing to rent; and
- Those that seek residency in assisted care living facilities will likely shift their search to mainland

The DEIS will discuss the anticipated social and economic impacts of the proposed Beretania Complex redevelopment.

### **5.2.8 Hazardous and Regulated Materials and Waste**

The DEIS will discuss the potential for the presence of hazardous and regulated materials at the Beretania Complex and within the Project Area. In 1992, six underground storage tanks (UST) located in the vicinity of the Pump Station Building—outside the Project Area--were permanently closed. These USTs were used to store diesel fuel and unleaded gasoline. A UST closure report completed in 1992 and submitted to the DOH concluded that four of the USTs did not have fuel releases, and that two gasoline USTs had releases apparently resulting from spills and overfills. The gasoline contaminated soils were subsequently over excavated, bagged, and shipped to a mainland landfill for disposal. In a July 16, 1993 letter, the DOH concurred that no further response action was necessary. Two other USTs outside the Project Area were abandoned in place and closed in 2008. A 2008 closure was submitted to DOH, and indicated that petroleum levels in soil samples were non-detectable and below DOH action levels. In a February 28, 2011 letter to BWS, DOH concluded that no further action was required.

## 6.0 Consistency with Land Use Plans, Policies, and Controls

Figures 9, 10 and 11 show the Project Area's State Land Use, PUC Development Plan, and zoning designations. The Beretania Complex is within the State Urban District. The City's Primary Urban Center (PUC) Development Plan land use map identifies the site as "Institutional," a designation that includes facilities for public use or benefit. The City and County zoning is A-2 Medium Density Apartment, and the site is not within the Special Management Area (SMA).

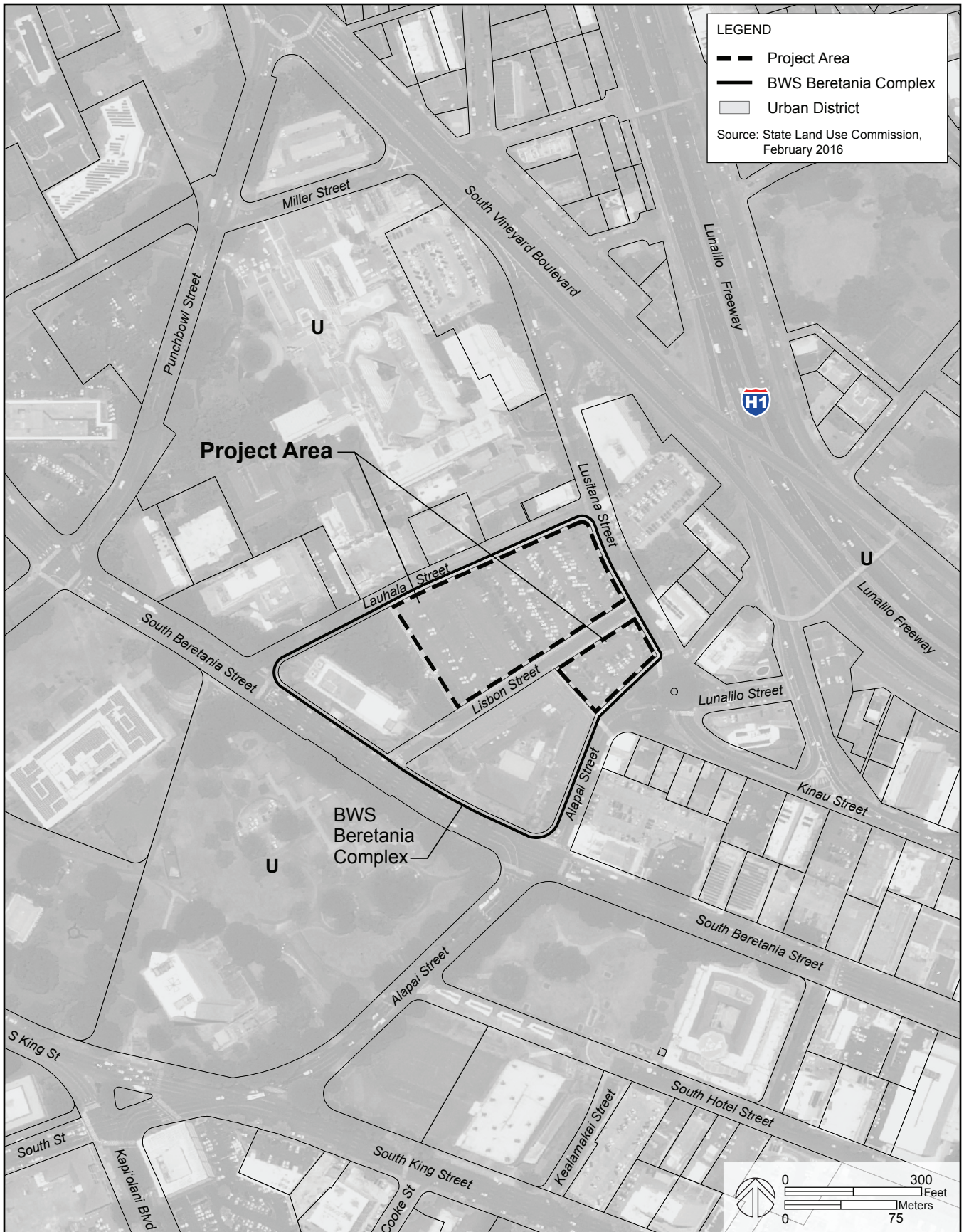
The Beretania Complex is located within the City's State Capital Special District, which encompasses the area around the Hawai'i State Capitol and regulates building heights and required open space. The DEIS will discuss the relationship of the proposed action to the following land use plans, policies, and controls:

### 6.1 STATE OF HAWAI'I

- State Land Use (Chapter 205, HRS)
- State Environmental Policy (Chapter 344, HRS)
- Hawai'i State Plan
- State Functional Plans
- Coastal Zone Management Program

### 6.2 CITY AND COUNTY OF HONOLULU

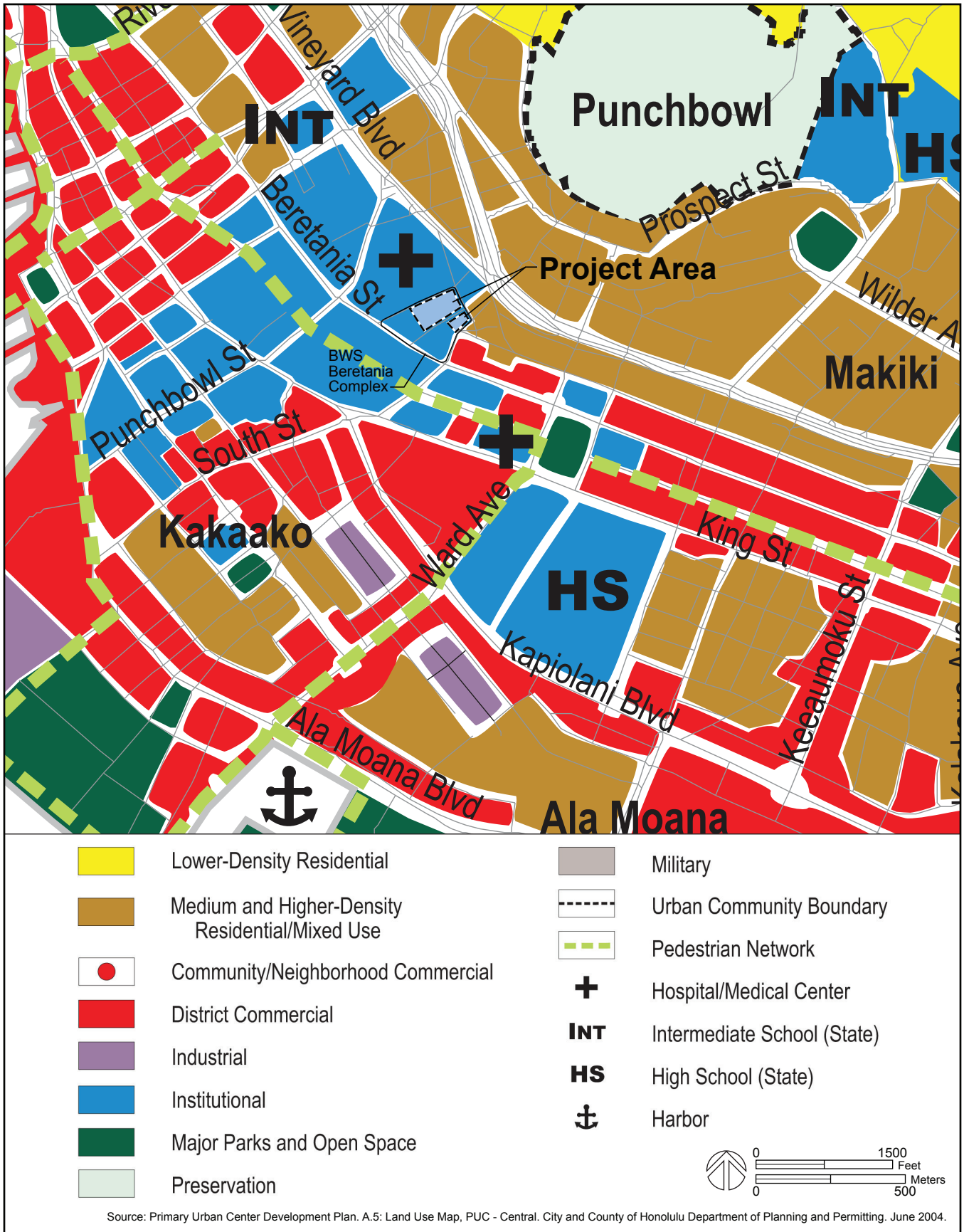
- PUC Development Plan, June 2004
  - PUC DP Land Use Map
  - Public Infrastructure Map (PIM)
- Zoning and Special Management Area
- Hawai'i Capital Special District



**State Land Use District**  
**Board of Water Supply Beretania Complex Redevelopment**  
 Environmental Impact Statement Preparation Notice  
 Board of Water Supply

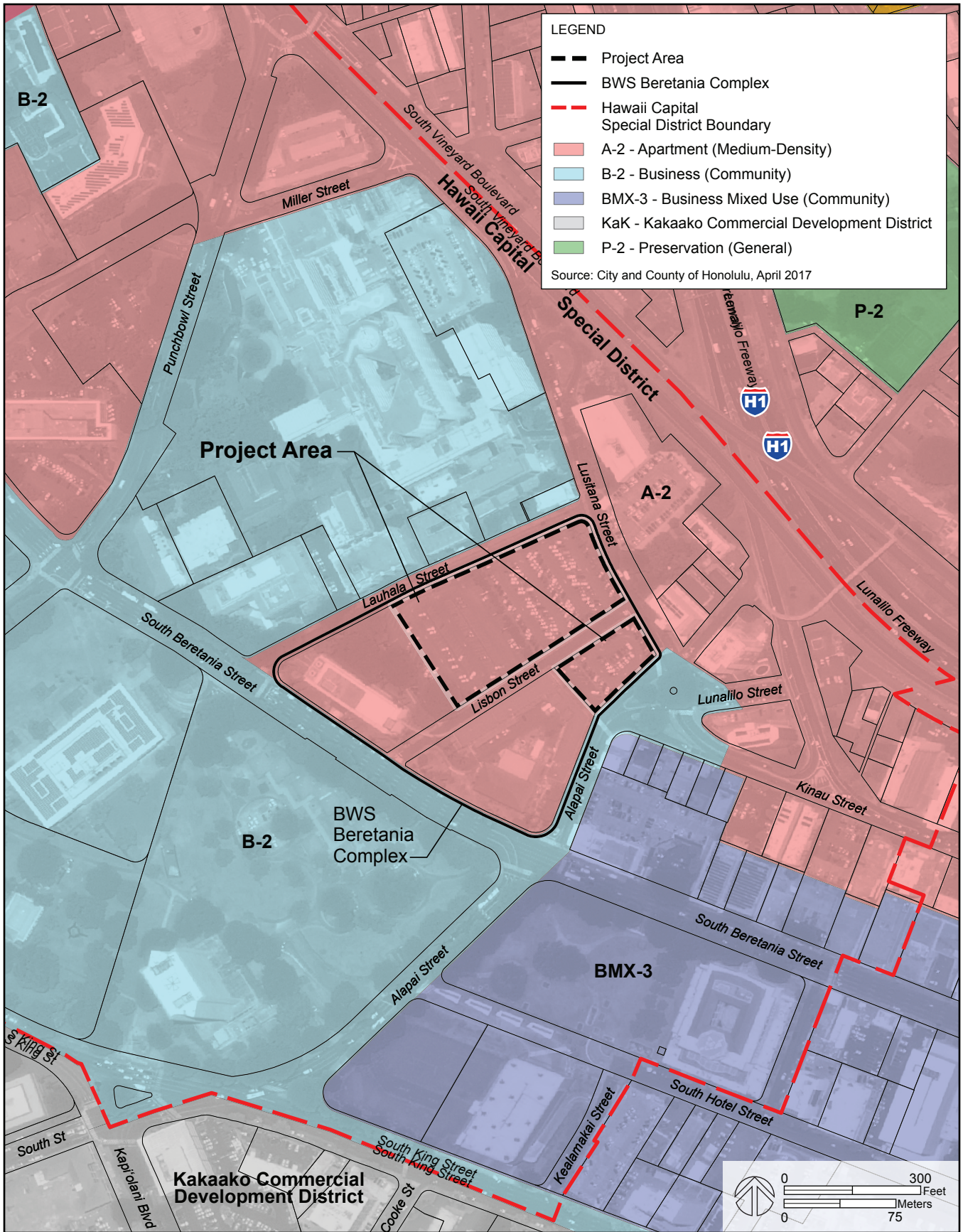
**Figure 9**





**Primary Urban Center Development Plan**  
**Board of Water Supply Beretania Complex Redevelopment**  
 Environmental Impact Statement Preparation Notice  
 Board of Water Supply

**Figure 10**



**Zoning and Special District Map**  
 Board of Water Supply Beretania Complex Redevelopment  
 Environmental Impact Statement Preparation Notice  
 Board of Water Supply

**Figure 11**



## 7.0 Significance Criteria

In determining whether an action may have a significant impact on the environment, agencies and applicants are tasked to consider the sum of effects on the quality of the environment, and evaluate the overall and cumulative effects of the action. In most instances, an action shall be determined to have a significant effect on the environment if it meets any of the following criteria (from Section 11-200-12, HAR):

1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;
2. Curtails the range of beneficial uses of the environment;
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;
4. Substantially affects the economic or social welfare of the community or State;
5. Substantially affects public health;
6. Involves substantial secondary impacts, such as population changes or effects on public facilities;
7. Involves a substantial degradation of environmental quality;
8. Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;
9. Substantially affects a rare, threatened, or endangered species, or its habitat;
10. Detrimentally affects air or water quality or ambient noise levels;
11. Affects 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;
12. Substantially affects scenic vistas and view planes identified in county or state plans or studies;
13. Requires substantial energy consumption.

Based on information and input collected and assessed to date, the BWS, as the approving agency, has determined that the project meets two significance criteria defined in HAR §11-200. The proposed action has the potential to curtail the range of beneficial uses of the environment and may involve substantial secondary impacts, including on public roadways, traffic, and public facilities. Therefore, BWS has determined that the project will require the preparation of an Environmental Impact Statement (EIS) versus an Environmental Assessment, and has elected to move forward with the preparation of the EIS. The publication of this EISPN is the initial step in the EIS process.

## 8.0 Early Consultation

Early consultation to discuss the proposed BWS Redevelopment project is being conducted. This EISPN serves as early consultation for the forthcoming DEIS. Notification of the availability of the EISPN will be made to the following parties and substantive comments received during the public comment period will be addressed in the DEIS.

### Federal

- Department of Agriculture, Natural Resources Conservation Service
- Department of the Army, Army Corps of Engineers, Pacific Ocean Division
- Department of the Interior, Fish and Wildlife Service
- Department of the Interior, Geological Survey, Pacific Islands Water Science Center
- Department of Transportation, Federal Aviation Administration
- Department of Transportation, Federal Transit Administration
- Department of Transportation, Federal Highways Administration
- Environmental Protection Agency, Region IX

### State of Hawai'i

- Department of Agriculture
- Department of Accounting and General Services
- Department of Business, Economic Development and Tourism (DBEDT)
- DBEDT Office of Planning
- DBEDT Strategic Industries Division
- Department of Defense
- Department of Education
- Department of Hawaiian Home Lands
- Department of Health
- Department of Land and Natural Resources (DLNR)
- DLNR State Historic Preservation Division
- Department of Transportation
- University of Hawai'i, Water Resources Research Center
- University of Hawai'i, Environmental Center
- Office of Hawaiian Affairs

### City and County of Honolulu

- Department of Design and Construction
- Department of Environmental Services
- Department of Facility Maintenance
- Fire Department
- Department of Community Services
- Department of Planning and Permitting
- Department of Parks and Recreation
- Police Department

- Department of Transportation Services

**Elected Officials**

- U.S. Senator Brian Schatz
- U.S. Senator Mazie Hirono
- U.S. Representative Tulsi Gabbard
- U.S. Representative Colleen Hanabusa
- Senator Karl Rhoads, State Senate District 13
- Representative Scott Saiki, State House District 26
- Mayor Kirk Caldwell
- City Council Member Kymberly Marcos Pine
- City Council Member Ernest Y. Martin
- City Council Member Ikaika Anderson
- City Council Member Trevor Ozawa
- City Council Member Ann Kobayashi
- City Council Member Carol Fukunaga
- City Council Member Joey Manahan
- City Council Member Brandon Elefante
- City Council Member Ron Menor

**Utilities/Other**

- Downtown-Chinatown Neighborhood Board #13
- Hawaiian Electric Company
- Hawaiian Telcom
- Spectrum Hawaii
- The Queen’s Medical Center

**Libraries**

- Hawai’i State Library, Hawai’i Documents Center
- DBEDT Research Division Library
- University of Hawai’i, Thomas H. Hamilton Library
- Legislature Reference Bureau Library
- Department of Customer Service, Municipal Library

## 9.0 References

Avalon Development Company LLC. *Market Assessment, Honolulu Board of Water Supply Beretania Campus Redevelopment*. July 2017.

Berger, Powell. "Leasehold Properties: A Deal or a Drain?" *Hawai'i Business Magazine*, May 1, 2014.

Board of Water Supply. *Strategic Plan 2018-2022*. 2016.

Cassiday, Ricky. *Honolulu Rental Market, Affordable Rental Housing Study Update, 2014*. Prepared for Department of Community Services, City and County of Honolulu.

Cerball, Alex. "State-owned building to become operational after more than a decade." *Khon2 News*, January 21, 2016. URL= <https://www.khon2.com/news/local-news/state-owned-building-to-become-operational-after-more-than-a-decade.20180309123810100/1025937728>

Cultural Surveys Hawai'i. *Archaeological Literature Review and Field Inspection for the Technical Advisory Services Project for the Development of the Board of Water Supply Beretania Property, Honolulu Ahupua'a, Honolulu (Kona) District, Island of O'ahu, TMK [1] 2-2-036:001, 004, 005 and 006*. Prepared for Mason Architects. December 2012

Foote, Donald E., E.L. Hill, S. Nakamura, and F. Stephens. 1972. *Soil Survey of the Islands of Kaua'i, O'ahu, Maui, Moloka'i and Lāna'i, State of Hawai'i*. U.S. Department of Agriculture, U.S. Government Printing Office, Washington D.C.

Handy, E.S., Craighill. *The Hawaiian Planter, Volume 1*. Bishop Museum Bulletin No. 161, Bernice Pauahi Bishop Museum, Honolulu.

Hawai'i Commercial Real Estate, LLC, Honolulu Office Market Reports, 2018 1<sup>st</sup> Qtr. URL= <https://hawaiicre.com/market-reports/>. Accessed August 13, 2018.

Honolulu Board of Water Supply. Board of Water Supply, Strategic Plan 2018-2022. 2018.

Department of Planning and Permitting. *Primary Urban Center Development Plan*. June 2004.

Macdonald, G.A. and A.T. Abbott. *Volcanoes in the Sea*, University of Hawai'i Press, Honolulu. 1974 ,

National Housing Conference, Paycheck to Paycheck. URL=<https://www.nhc.org/paycheck-to-paycheck/>. Accessed August 7, 2018.

Pacific Consulting Services, Inc. *Final Report, Archaeological Inventory Survey in Support of the Honolulu Board of Water Supply's Energy Savings Program Contracting (ESPC) Project on Beretania Street, Honolulu (Waikiki) Ahupua'a, Honolulu (Kona) District, Island of O'ahu, Hawai'i. TMK (1) 2-1-036:004 and 005*. Prepared for Board of Water Supply. July 2017.

State of Hawai'i, Department of Business Economic Development and Tourism (DBEDT), Research and Economic Analysis Division. March 2015. *Measuring Housing Demand in Hawai'i, 2015-2025*. URL= <http://files.hawaii.gov/dbedt/economic/reports/2015-05-housing-demand.pdf>. Accessed July 12, 2017.

\_\_\_\_\_. Population and Economic Projections for the State of Hawai'i to 2045. June 2018. URL=[http://files.hawaii.gov/dbedt/economic/data\\_reports/2045-long-range-forecast/2045-long-range-forecast.pdf](http://files.hawaii.gov/dbedt/economic/data_reports/2045-long-range-forecast/2045-long-range-forecast.pdf). Accessed August 9, 2018.

University of Hawai'i at Hilo, Department of Geography. Atlas of Hawai'i. Third Edition. Edited by Sonia P. Juvik and James O. Juvik. 1998.

University of Hawai'i, Department of Geography. *Atlas of Hawai'i*. Second Edition. Honolulu, Hawai'i. 1983.

University of Hawai'i, Land Study Bureau. *Detailed Land Classification: Island of Oahu*. May 1967.

U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA). Climate of Hawai'i. URL=[http://www.prh.noaa.gov/hnl/pages/climate\\_summary.php](http://www.prh.noaa.gov/hnl/pages/climate_summary.php).



