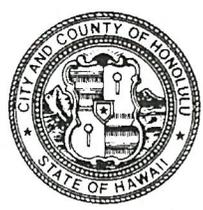


KIRK CALDWELL
MAYOR



KATHY K. SOKUGAWA
 ACTING DIRECTOR

 TIMOTHY F. T. HIU
 DEPUTY DIRECTOR

 EUGENE H. TAKAHASHI
 DEPUTY DIRECTOR

August 14, 2020

2020/SUP-4(FK)

MEMORANDUM

TO: Arthur D. Challacombe, Chair
 and Members of the Planning Commission

 FROM: *Eugene H. Takahashi*
 Kathy K. Sokugawa, Acting Director
 Department of Planning and Permitting

SUBJECT: Special Use Permit (SUP) Application File No. 2020/SUP-4 for the Relocation
 of the PVT Integrated Solid Waste Management Facility
 Across Lualualei Naval Road from 87-2020 Farrington Highway,
 Nanakuli, Waianae District, Oahu
 Tax Map Key 8-7-009: 007

RECEIVED
 20 AUG 14 PM 4:01
 DEPT OF PLANNING
 AND PERMITTING
 CITY & COUNTY OF HONOLULU

The Department of Planning and Permitting is transmitting for your appropriate action, our report and recommendation for approval of a SUP for the relocation of the PVT Integrated Solid Waste Management Facility (Project). This proposal includes the construction of new landfill cells and the installation of materials recovery and diversion lines, renewable energy facilities, and accessory support structures, subject to conditions.

The report and recommendations include copies of letters and correspondence from governmental agencies and members of the community and a copy of the SUP application. Since an Environmental Impact Study (EIS) preceded this application, the three volumes can be found at: http://oeqc2.doh.hawaii.gov/EA_EIS_Library/2020-02-08-OA-FEIS-PVT-ISWMF-Relocation.pdf

As the proposed Project exceeds the 15-acre threshold, a favorable decision by the Planning Commission will require State Land Use Commission review.

Should you have any questions, please contact Mr. Franz Krintz, of our staff, at 768-8046 or fkrintz@honolulu.gov.

Enclosures

cc: Crystal Rogers, Belt Collins Hawaii

DEPARTMENT OF PLANNING AND PERMITTING
OF THE CITY AND COUNTY OF HONOLULU

STATE OF HAWAII

IN THE MATTER OF THE APPLICATION)
)
 OF)
)
 PVT LAND COMPANY, LTD.)
)
 FOR A)
)
 SPECIAL USE PERMIT)
_____)

FILE NO. 2020/SUP-4

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND RECOMMENDATION

I. APPLICATION

A. **Basic Information.**

APPLICANT:	PVT Land Company, Ltd.
OWNER:	Leeward Land Company, LLC
LOCATION:	Across Lualualei Naval Road from 87-2020 Farrington Highway, Waianae, Oahu (Exhibit 1)
TAX MAP KEY:	8-7-009: 007
PROJECT SITE PLAN:	179.109 Acres (Exhibit 2)
RECORDATION:	Land Court
STATE LAND USE DISTRICT:	Agricultural (Exhibit 3)
WAIANAE SUSTAINABLE COMMUNITIES PLAN:	Agriculture, Outside the Community Growth Boundary
EXISTING ZONING:	AG-2 General Agricultural District (Exhibit 4)

LAND STUDY BUREAU RATING: "E"

SURROUNDING LAND USE: Existing PVT Integrated Solid Waste Management Facility (ISWMF), Industrial, Residential, Agriculture, and Conservation Lands

B. **Proposal.** PVT Land Company, Ltd., (Applicant) proposes to obtain a Special Use Permit (SUP) to install and operate a new construction and demolition (C&D) debris receiving, recycling, and landfill disposal facility on a 179.109-acre parcel (Project Site), owned by an affiliate of the Applicant, Leeward Land Company, LLC. The Project Site (**Exhibit 1**) is located on the opposite side of Lualualei Naval Road from the current PVT ISWMF location. The SUP will enable the Applicant to construct new landfill cells, upgrade its recycling operations by installing two materials recovery and diversion (MRD) lines, and install renewable energy facilities (an enclosed gasification unit or an anaerobic digester and photovoltaic (PV) panels) to power its operations at the Project Site (**Exhibit 2**). The proposed C&D debris landfill, recycling of waste, and renewable energy power generation facilities together is hereafter referred to as the "Project". The proposed Project involves: Grading to prepare the Project Site for five new landfill cells; a 10-acre site for the two MRD lines and renewable energy facilities; non-potable water and fuel tanks, groundwater monitoring wells, security hut, administrative building, feedstock storage bins, leachate sump, perimeter fencing, water tank and wells, equipment maintenance facility, scale house and scales, berms for landscaping and screening; roads; and basins for stormwater detention (**Table 1**). The proposed Project is projected to process up to 3,000 tons per day of C&D debris which is equal to the maximum amount of C&D debris being processed at the current site. There will be a total of 80 personnel, 60 full-time and 20 temporary workers at the Project Site.

Table 1: Summary of Land Use Types

Land Use Types	Acres
Upper (MRD Area - 10 acres) & Lower (Offices - two acres) Facilities Areas	12
Stormwater Basin and De-silting Terraces Areas	11
Five C&D Debris Landfill Cells; seven acres for PV systems over landfill cells	75
Roads and Drainage Ditches	20
Slopes and Idle Areas	61
Total Property Acreage	179

1. **Proposed Site Preparation and Use**

Landfill Cells - Approximately 75 acres of the 179-acre Project Site would be developed to have five cells (Phase III, Cells 10-14), numbered sequentially after the existing PVT ISWMF cells (Cells 1-9). Grading will change the topography of the Project Site, but the cells will be designed to avoid slope instability. The maximum landfill grade will be 255 feet above mean sea level (amsl) and located in Cell 13 right before the beginning of Cell 14, approximately 4,000 feet from the R-5 single-family residential zoning districts to the south, in an effort to minimize potential noise, air quality, dust, and visual impacts (see Figure 3-3 of the SUP application for Maximum Elevations). Once the proposed Project is operational, the Applicant intends to place C&D debris waste first in Cell 10, then proceeding northward until the final cell (Cell 14) reaches capacity. The total anticipated aggregate volume capacity of the five cells is 11,923,000 cubic yards (**Table 2**).

Table 2: C&D Debris Landfill Cell Size by Gross Volume and Acreage

Landfill	Gross Volume (cubic yards)	Acres
Cell 10	2,174,480	13
Cell 11	2,270,478	17
Cell 12	2,579,424	16
Cell 13	2,946,756	16
Cell 14	2,014,179	13
TOTAL	11,985,317	75

Source: Landfill Cell Acreage - Environmental Impact Statement, PVT ISWMF Relocation

The Applicant's landfill cells will be lined by an engineered composite liner consisting of natural materials (soil and gravel) and synthetic fabrics (high-density polyethylene plastic and geotextiles) which is the regulatory requirement for municipal solid waste (MSW) landfills. This proposed landfill liner exceeds the industry standard for C&D debris landfills. C&D debris landfills are only required to install a clay barrier. The impermeable liner prevents any leachate from impacting soils and groundwater beneath the liner. The life expectancy of the high-density polyethylene liner is up to 300 years.

MRD Lines - An area of approximately 10 acres at the north end of the Project Site would be the MRD Area. It would accommodate the two processing lines, MRD-2 and MRD-3, which would process the same types of C&D debris as MRD-1 at the existing PVT ISWMF.

MRD-2 and MRD-3 would provide improved materials recovery and diversion results both in material quantity and quality over MRD-1. The MRD-2 and MRD-3 lines would use a combination of mechanized and manual sorting methods to maximize the recovery of recyclable materials including metals, inert materials suitable for

aggregate production, soils for landfill cover, and materials suitable for feedstock production. The type and weight of materials recycled at the existing PVT ISWMF is shown on **Table 3**.

**Table 3: Type, Weight, and Destination of Recycled Material
- Existing PVT ISWMF**

Type	Weight (tons)	Destination
Scrap Metal	4,906	Taken to Metal Recycling Facilities
Concrete/Asphalt/Aggregate	31,737	Used for Construction on site
Feedstock (Wood/Combustibles)	71,457	Temporarily Stored in Cell 7
Residual Waste for Disposal	53,592	Disposed in Landfill
Dirt (Removed Prior to MRD Sorting)	21,264	Used as Landfill Cover
Total	204,165	

Source: PVT Annual Operating Report, 2018-2019

Renewable Energy - The Applicant aims to meet 100 percent of its proposed power needs through renewable energy sources, which would generate between 17,000 kilowatt hours (kWh) to 55,000 kWh per day. The power requirements for the proposed Project would be 4,500 kWh per day, with 10 to 15 percent additional power surge required to start the MRD equipment. The Applicant proposes to install a gasification unit or anaerobic digestion system, and a PV system to generate renewable energy that would be used onsite to power the office trailers and the MRD process lines. The renewable energy sources would reduce the Applicant’s reliance on Hawaiian Electric Company (HECO) and diesel generators. Feedstock produced by the Applicant’s MRD units would also contribute to renewable energy providers across Oahu. Renewable energy installations would meet applicable State and City and County of Honolulu (City) regulations and the Applicant would obtain additional permits, as necessary.

- a. Photovoltaic Power System - The Applicant proposes to install a PV power generation system on approximately seven acres of the Project Site. The proposed system would have a capacity of 20 to 40 percent of the Applicant’s anticipated total daily requirement by generating approximately 8,000 to 10,000 kWh of electricity per day.

The PV system will be relocated on the Project Site as the landfill cells are filled. Initially, they will be placed on the area proposed for Cell 14, then moved to Cell 10 and 11, as an interim location. Upon Cells 10 and 11’s closure, the final proposed location of the PV arrays will be on Cell 12 and a portion of Cell 13 alongside Lualualei Naval Road. The PV system will be designed to maximize efficiency and minimize potential visual impacts to neighboring properties. The PV system will be installed below the 200-foot landfill elevation contour and would be obscured from neighboring properties by the Puu Heleakala Ridge and the existing PVT ISWMF. However, a glint and glare study should be undertaken to inform

the proper positioning of the modules to prevent a glint or glare hazard to vehicles and aircrafts, per Federal Aviation Administration (FAA) regulations. The PV system is made up of several key components, including PV modules, inverter, and battery storage system. The inverter and battery storage system would be located in the MRD Area. Except for removal or replacement of panels at the end of their useful life, no wastes would be produced by the operation of the PV system.

- b. Gasification Unit - The Applicant proposes to install and operate a gasification unit to convert the photosynthetic energy stored in biomass materials (organic materials) into a clean, synthetic gas that can be converted by a gas engine into electricity.

The system is designed to produce between 7,200 and 24,000 kWh of electrical power per day, depending on the Applicant's power needs. The gasification system would be located in the MRD area of the Project Site and utilize approximately 43 tons per day of feedstock generated by the MRD-2 or MRD-3.

The gasifier generates few by-products and emissions. The primary solid discharges from the system are inorganic residue from the solid waste, elutriated fines, and spent sorbents. These materials are collectively referred to as ash. The unit would produce approximately 2.5 tons of ash per day. The ash would be automatically extracted and stored in a hopper within the gasification system. The Applicant proposes to use this non-hazardous ash for beneficial uses on-site, if permission is obtained from the Hawaii Department of Health (HDOH), in their Solid Waste Management Permit (SWMP) for the proposed Project. The system would also produce approximately 14.5 tons (3,835 gallons) per day of excess, non-contact water from the syngas cooling process. The water would be stored in tanks within the system and used for onsite dust control.

The gasification unit is automated and designed to operate continuously for approximately 330 days a year. The unit would only produce power during the Applicant's operational hours and would be idle the remainder of the day.

- c. Anaerobic Digestion System - As an alternative to the gasification unit, the Applicant is considering installing and operating an Induced Bed Reactor (IBR) anaerobic digestion system. Anaerobic digestion is a naturally occurring process where micro-organisms breakdown and digest organic materials and produce biogas as a byproduct. An internal gas engine converts the biogas into energy. The system would produce approximately 45,000 kWh of electrical power per day.

The anaerobic digestion system would be located in the MRD area of the Project Site and include several pre-engineered modules including: Feedstock processing and feeding; biological pre-treatment; IBR digester; biogas recovery, storage, and treatment; digestates storage and processing; and electricity generation.

According to the Final Environmental Impact Statement (EIS), the anaerobic digestion system would be fed with non-odorous feedstock and/or fuel crops and are not anticipated to generate odors. The by-products and emissions include waste heat generated by the digestion process would be captured and reused. Emissions from the anaerobic digestion system would be subject to a HDOH Noncovered Source Permit. The biogas cleanup process is designed so that the biogas used for electricity generation results in air emissions well below the regulatory limits.

The anaerobic digestion system is automated and designed to operate continuously for approximately 350 days a year. The system would only produce power during the Applicant's operational hours and idle the remainder of the day.

Grading and Landscaping - Non-landfill related grading will include a 15 to 25-foot high grassed berm to shield the first landfill cell (Cell 10) from the community's view, a stormwater detention basin, drainage features, and access roads. The stormwater basin will be designed in accordance with the guidelines of the City's *2017 Stormwater BMP Guide for New and Redevelopment*. Including low impact development (LID) hydrologic design strategies and best management practices (BMPs) to limit, convey, and retain peak stormwater flows on site. The stormwater basin would be installed adjacent to a 100-foot landscaping strip with a variety of plant heights and densities planted along the southern boundary. The proposed Project includes a permanent 20-foot high dust screen outside of the landscape buffer but before the southern property line to provide an additional barrier to adjacent properties. The landscaping of this strip, as well as, at the proposed Project entrance and along Lualualei Naval Road, will include landscaping designed to support restoration of native species, increase tree canopy, and be resistant to arid conditions.

Setbacks and Buffering - Setbacks and buffering with the proposed Project would include, but not be limited to: maintaining adequate setbacks from surrounding uses including a 750-foot buffer zone; locating the office trailers, employee parking, stormwater basins, and the scale house between the residential area and the landfill cells to provide additional buffer, and locating the materials processing lines and energy renewal facilities at the northernmost portion of the Project Site.

2. **Proposed Site Activities**

Hours Of Operation - Hours of operation for customers would be maintained as follows:

Facility:	Monday – Friday	7:00 AM - 4:00 PM
	Saturday	7:00 AM - 1:30 PM
Scale house:	Monday – Friday	7:00 AM - 3:00 PM (last truck)
	Saturday	7:00 AM - 1:00 PM (last truck)

Number Of Clients And Population Served - With the proposed Project, the Applicant will continue to accept up to 300 haul trucks per day. Primary users of the PVT ISWMF are C&D contractors and waste haulers on Oahu, including federal, State, and local government agencies.

C&D Debris Acceptance - PVT ISWMF would accept C&D debris materials and segregate incoming loads for processing, recycling, on-site usage, or landfill disposal. The Applicant is permitted by its SWMP for the current site operations to accept up to 3,000 tons of C&D debris per day. The Applicant does not propose to increase this limit or accept new types of wastes. It does not accept hazardous waste or MSW.

All C&D customers would be subject to PVT ISWMF prequalification procedures, the Applicant's SWMP conditions, and applicable City and State laws. The Applicant requires testing for several categories of C&D debris, including debris containing lead paint, sand blast sand, and soil. Fiberglass or steel waste storage tanks proposed for disposal must be certified clean by a qualified environmental contractor. Customers are required to submit test results and certifications for these materials before the Applicant accepts the waste. When waste transporters arrive at the scale house, the load and paperwork is inspected to determine if it can be accepted per the SWMP. If acceptable, the waste is weighed, and the customer is directed to the appropriate processing or disposal area.

Mixed Material Sorting, Recycling and Materials Recovery - The Applicant will install the two new MRD units, MRD-2 and MRD-3, at the northern end of the Project Site for materials segregation and sorting, aggregate materials production, feedstock processing, and storage of recyclable materials. A recent example of the material composition that PVT currently separates is provided on **Table 4**.

Aggregate Materials Processing - The proposed Project would continue to process rock, concrete, and asphalt rubble to produce crushed aggregate materials for use in permanent and temporary on-site landfill construction. Primary sources of these materials are land clearing and excavation, building demolition, and road/highway construction and maintenance. The aggregate processing operations, materials, and end use of products would be similar to current operations at the PVT ISWMF.

**Table 4: Type and Weight of Waste Materials
Received at the Existing PVT ISWMF**

North Area Landfill Cell	Weight of Solid Waste (tons)
Concrete	29,482
Asphalt	2,255
Mixed Waste (Building Materials, Wood, Metal, Dirt)	204,165
Asbestos Waste	7,714
Special Waste (Paint Chips, Sand Blast Grit, Contaminated Soil)	21,264
Total	264,880

Source: PVT Annual Operating Report, 2018-2019

Solidification of Liquid Wastes - Under the proposed Project, a portion of a lined cell (identified on Cell 10) would be used for the solidification of non-hazardous liquid wastes, such as sugars, lactic acid, bromides, or carbonates before being buried in the landfill. Accepting non-hazardous liquids is done on a pre-arranged basis from known sources. They must pass testing, and review procedures in accordance with HDOH guidelines for customers proposing to dispose of liquid wastes for solidification. Once a liquid waste is accepted for solidification, an excavator is used to create a shallow basin in the center of the soil stockpile. Liquid is discharged to the basin and solidified using soil, coal ash, and feedstock ash, as approved by the SWMP issued for the proposed Project. After free liquid has been absorbed in the soil, the excavator mixes the pile to distribute moisture as evenly as possible. The soil is allowed to dry, with additional mixing as needed. Solidified liquid-soil mixtures would be disposed in the landfill.

Miscellaneous Recyclables - The proposed Project would occasionally accept loads of source-separated recyclable materials allowed under the SWMP. Examples of such materials include: tires, mattresses, carpet, and other materials with organic content suitable for feedstock. These materials would be handled on a case-by-case basis and may be introduced into the reclamation processes to remove undesirable materials, reduce or classify the material by particle size, or otherwise prepare them for delivery to markets or end users.

C&D Debris Disposal - Once all materials have been extracted for energy production or recycling, C&D debris will be properly placed and compacted in a limited area each day (active landfill face). As filling progresses, the active landfill face incrementally advances across the landfill cell creating successive layers of compacted debris fill until the final permitted refuse grades are achieved. Debris is placed and compacted to ensure maximum density and slope stability. BMPs, including water trucks and interim cover, would be used to reduce fugitive dust, wind-blown litter (if any), and other environmental nuisances.

Summary of Proposed Project Construction and Operational Activities - Once all necessary permits and approvals are secured, the proposed Project will require four or more years of construction before the PVT ISWMF is fully operational at the Project Site. **Table 5** provides a tentative schedule for development of the proposed Project.

During the first two years, initial clearing, grubbing, and mass grading would be required throughout the Project Site. Any excavated soil would be stockpiled on-site for interim cover. Security fencing, internal roads, stormwater basin, and drainage features would be constructed. The MRD Area would be paved in preparation for MRD-2 and MRD-3. Landscaping would be installed. All operations would remain at the existing PVT ISWMF during this initial construction phase.

Table 5: Tentative Schedule for Development of the Proposed Project

Timeline	Construction Activities	Operational Activities
Year 0-2	Security and Fencing Stormwater Basin and Drainage Features Landscaping Internal Roads MRD Area Entrance Area	All Operations remain at the existing PVT ISMWF
Year 2-4	Truck Scales and Scale House Office Trailers and Parking - MRD Area Office Trailers and Parking - Entrance Landfill Cell 10 and Leachate and Recovery System MRD-2 and MRD-3 PV System Location 1 Gasification Unit or Anaerobic Digestion System	Set Up MRD-2 and MRD-3 Operation Set Up Aggregate Materials Processing Generation of Renewable Energy
Year 4-10	Solidification Area	The Applicant Begins C&D Debris Waste Disposal at the Project Site Set Up Solidification Area
Year 10+	Subsequent Landfill Cells (as needed)	

Source: Final Environmental Impact Statement, PVT ISWMF Relocation

Most of the construction and operational set up occurs in years two through four. The scales, office trailers, and supporting infrastructure, (e.g., water, wastewater, electricity, and telecommunication) will be constructed. The liner and leachate

collection and recovery system for the first landfill cell (Cell 10), MRD-2 and MRD-3 equipment, PV system (initial location), and the gasification or anaerobic digestion systems would be installed. MRD and aggregate materials processing will be the first operations to be conducted at the Project Site. Select waste haul trucks with reusable or recyclable C&D debris materials would be accepted at the new facility for sorting and processing. During the years two through four construction phases, there would be some internal truck traffic between the existing PVT ISWMF and the Project Site. Disposal operations would remain at the existing PVT ISWMF until Phases I and II reach capacity. The Applicant would then relocate operations to the new site and complete the closure of Phase I and II. Some ancillary structures (e.g., security hut, administrative building, MRD-1, leachate sump, perimeter fencing, water tank and wells, equipment maintenance facility and scales) would remain at the existing PVT ISWMF post-closure as back-up for the continuity of PVT operations in the event of an emergency or natural disaster.

Closure and Post-Closure Plans - When all disposal capacity has been exhausted at the Project Site, estimated to last 30 years, the Applicant would close and install final cover on all areas of the C&D debris landfill. A HDOH-approved closure plan would be implemented to ensure environmental protection beyond the active life of the ISWMF.

The Applicant would be responsible for up to 30 years of post-closure care. Post-closure activities include monitoring and maintenance of the landfill final cover and stormwater management systems, leachate collection and removal system operation, and groundwater monitoring.

Facilities and operations which are required for the support of post-closure maintenance activities would remain on the site. However, the majority of the Project Site would appear as a low hill covered in natural vegetation. The Applicant would continue to work with the community at the time of closure to explore potential post-closure land use options. Several agencies, commenting on this SUP application, called for consideration of a park as a post-closure use much like at the Kakaako Waterfront Park. However, future re-use of landfills is contingent on the type of final cover established and the environmental hazards still present at the time re-use is being considered. When considering re-use types, a variety of environmental hazards must be considered and may include, but not limited to, site stability, landfill gases, potential of the re-use to cause breaches in the landfill cap, and other adverse impacts to the landfill that may result in hazards to the on-site user or surrounding communities.

- C. **Background.** At one time, the existing PVT ISWMF site and the Project Site were one parcel. In 1931, the U. S. Navy, with the permission of the landowner, bisected the property into two parcels. Both properties retained access rights via the Lualualei Naval Road. According to the State Land Use Commission (LUC) Docket No. A71-275, the LUC approved a petition by Oceanview Ventures to reclassify land at the existing PVT ISWMF site (currently TMK 8-7-009: 025 and TMK 8-7-021: 026) from the State Agriculture District to the State Urban District (**Exhibit 3**) for a proposed affordable housing complex.

In 1977, the City conducted an extensive, *Inventory Study of Potential Sanitary and Demolition Landfill Sites* (Inventory). The Inventory referred to the two properties collectively as one candidate site, "Nanakuli Landfill Site." Subsequent records show that a Conditional Use Permit (85/CUP-6) was granted to Linton Company/Amazon Construction in 1985 to establish extractive and landfill operations at the existing PVT ISWMF site. This land was later purchased by the Applicant in 1989.

After 85/CUP-6, the Applicant has obtained the land use permits listed in **Table 6** to upgrade and enhance the landfill and recycling operations at the existing PVT ISWMF. A SUP is not required for landfill activities in the State Urban District.

Table 6: Land Use Permit History

Land Use Permit No.	Approval Date	Description
2015/CUP-69	2/18/2016	This CUP approval supersedes 85/CUP-6 to increase the capacity of the landfill, expand its recycling and materials recovery operation, and install a gasification unit and photovoltaic panels to power its recycling operation.
2012/ELOG-2082	11/20/2012	Minor modification to allow four parking canopy structures to support PV modules.
2010/ELOG-2623	3/24/2011	Minor modification to allow the increase sorting of mixed loads, produce bioconversion feedstock, conduct landfill reclamation, and produce aggregate materials for on-site use.
2008/ELOG-791	5/9/2008	Install office trailer.
98-02494	5/04/1998	Add waste stream sorting and about 150 tons of material to be sorted daily.
98-01594, 97-09369	3/09/1998	Minor modification to allow an increase in the finished height of the landfill grades of Phases IA, IB, and IC. The request for waste stream sorting was denied due to insufficient information provided.
No file found	11/27/1995	Minor modification to extend the use to December 31, 2000.
No file found	7/9/1993	Minor modification to add soil remediation.
No file found	7/1/1991	Minor modification to extend the use to December 31, 1995.
85/CUP-6	7/19/1985	CUP to establish an extractive industry and a solid waste landfill.

Presently, all site planning and permitting opportunities (i.e., expanded recycling efforts, vertical and horizontal expansion) to increase the capacity at the existing PVT ISWMP are exhausted. With an estimated five to seven years of landfill capacity remaining, PVT will soon need to initiate closure activities in accordance with its SWMP (Permit No. LF-0061-15). To continue to provide uninterrupted C&D debris waste management for Oahu, the proposed Project is time critical, given the lead time necessary to secure all permits and approvals to construct the ISWMP.

- D. **Other Permits and Approvals.** Should the SUP be granted by the LUC, the proposed Project is subject to obtaining a Conditional Use Permit (CUP), Major for waste disposal and processing under Chapter 21, Revised Ordinance of Honolulu (referred to as the Land Use Ordinance). Beyond the CUP Major, other permits needed to allow the proposed Project to proceed relate to grading, water quality (National Pollutant Discharge Elimination System (NPDES)), utility hook-ups and connections, and building permits.
- E. **Environmental Impact Statement (EIS).** The application to site a landfill is subject to the environmental disclosure requirements of Chapter 343, Hawaii Revised Statutes (HRS), and Title 11, Chapter 200, Hawaii Administrative Rules (HAR). An EIS Preparation Notice for the landfill was published in the January 23, 2019 issue of *The Environmental Notice*. The City's Department of Planning and Permitting (DPP), as the approving agency, determined the Final EIS was acceptable on January 27, 2020. A notice of the Final EIS was published in the Office of Environmental Quality Control's *The Environmental Notice* on February 8, 2020.
- F. **City ISWMP.** Originally adopted by City Council via Resolution No. 94-306, CD1, the 2019 ISWMP is a 10-year plan that consists of programs and facilities to support the waste reduction, recycling, composting, and the conversion of combustible solid waste into energy (Honolulu Program of Waste Energy Recovery - H-POWER) to minimize waste disposal at public and private landfills.

The landfilling of C&D debris materials is currently handled by the private sector and PVT is the only C&D debris landfill on Oahu. It is also Oahu's largest recycler and is currently capable of processing up to 1,775 tons of debris each day. Through this proposed Project to increase recycling and reclamation activities, add disposal capacity, and configure renewable energy sources from C&D waste to power on-site operations, the Applicant's operations are pivotal to the priorities of the ISWMP which is to: (1) Reduce the volume of waste generated; and (2) Divert waste away from landfills through reuse, recycling, and recovery.

Diverting C&D debris from landfill disposal is a high-priority waste management strategy for the City. Without the proposed Project, the City would need to modify its ISWMP and identify an alternative C&D debris disposal site on Oahu. The closure of the existing PVT ISWMP would leave Oahu without a commercial C&D debris landfill. Without an authorized C&D debris disposal site, this could increase the potential for unauthorized dumping of C&D waste. In the past, some C&D debris is known to have been dumped in non-permitted and illegal locations. When C&D wastes are disposed of in non-permitted illegal dump sites, other (potentially hazardous) materials may also be included that not only are a public nuisance but may also degrade water quality which is of concern to the Board of Water Supply (BWS) due to potential leakage and runoff from these sites degrading the underground aquifers that are a source of the City's water supply. On behalf of the City, need for the proposed Project is

confirmed in a letter of support from the City Department of Environmental Services (ENV), Refuse Division (**Attachment 1**).

II. FINDINGS OF FACT

- A. **Site Description and Surrounding Uses.** The Project Site, located on the lower slopes of Puu Heleakala, is approximately 179 acres of open land mostly covered by low-growing grasses, shrubs, and trees. The Project Site is largely undeveloped apart from some unpaved roads/paths, two non-potable brackish industrial supply wells, one PVT groundwater monitoring well, and two 25,000 gallon non-potable brackish water storage tanks which are used to supply operational water to the existing ISWMF. An active 46-kilovolt overhead power line crosses the southern portion of the Project Site. All access to the site is via Lualualei Naval Road, a two-lane, two-way roadway owned and controlled by the U.S. Navy. The road has an unpaved shoulder on the north side for pedestrians and the posted speed limits vary between 25 and 45 miles per hour (mph). Access to the proposed Project will be provided by a driveway, which will be located immediately opposite the existing PVT ISWMF driveway.

Abutting land uses to the Project Site include residential, commercial, industrial, and undeveloped lands. **Exhibit 4** shows the neighboring properties and land uses adjacent to the Project Site which includes the following:

- **North and East:** The northern and eastern borders are enclosed by 219 acres of undeveloped land (TMK 8-7-009: 001) owned by Leeward Land Company LLC, an affiliate company of the Applicant that comprises Puu Heleakala ridge's western slope. To the northeast, beyond the ridge, is MAO Organic Farms and over the ridge to the east is the back of the Nanakuli Valley and to the southeast are the residential lots of Nanakuli Homestead, and Nanakuli High and Intermediate School, and Nanakuli Elementary School.
- **South:** Commercial and residential developments of the Lualualei/Nanakuli community are located south and southwest of the Project Site. The Nanaikapono Elementary School is approximately 1,300 feet to the southeast, located behind the Nanakuli Public Library on Farrington Highway.
- **West:** The existing PVT ISWMF is adjacent to the western border of the Project Site across Lualualei Naval Road. The Pine Ridge Farms, Inc. industrial facility, also known as West Oahu Aggregate, borders the northwestern boundary of the Project Site along with various residential and agricultural lots along the west side of Lualualei Naval Road.

The topography of the site gently slopes downward from east to west and is located between Puu Heleakalā (elevation 1,890 feet amsl) and Puu o Hulu Uka (elevation 715 feet amsl). The elevation of the Project Site varies from 50 feet amsl in the southwestern portion of the site and to 350 feet amsl in the northeastern portion of the site. The southwestern side of the

property is located approximately 2,000 feet from the ocean shoreline, and the most inland portions of the property are within 7,500 feet of the shoreline.

- B. **Climate and Wind Patterns.** Existing climate characteristics of the Project Site were obtained from the PVT ISWMF meteorological station which is a remote continuous monitoring station that records rainfall, wind speed and direction, temperature, humidity, and solar radiation. The PVT ISWMF meteorological station is located on the existing PVT ISWMF administrative office trailer (Degree: 21.39236313° North, 158.148296° West) at an elevation of approximately 60 feet amsl. It is the closest weather station to the Project Site.

Between 2006 and 2018, the average temperature was 77 degrees Fahrenheit (°F), ranging from an average low of 72 °F to an average high of 83 °F. Most of the annual precipitation falls between October and March, averaging one to two inches per month. Rainfall is generally less than one inch per month for the rest of the year. The average annual rainfall from 2006 through 2018 was 12 inches. The maximum rainfall recorded in one day was six inches in January 2011.

During the day, light and onshore winds of five mph from the south and southwest prevail, regardless of season. At night, the wind patterns reverse becoming offshore. Wind gusts can be strong ranging between 40 and 60 mph at certain periods throughout the year.

- C. **Soil Type and Quality of Agricultural Land.**

1. **U. S. Department of Agriculture (USDA).** According to the USDA, Soil Conservation Service, the predominant soil types within the Project Site are primarily Lualualei extremely stony clay (**Exhibit 5**). The soils identified at the Project Site are:
 - Lualualei extremely stony clay, with 3 to 35 percent slopes (LPE): Predominant soil type at the Project Site. This soil type is very sticky and very plastic clay with many stones on the surface and throughout the profile. The soil has a high shrink-swell potential. The permeability and runoff are slow. The erosion hazard is slight. It is not suitable for agriculture.
 - Mamala Stony silty clay loam, 0 to 12 percent slopes (MnC): Two small non-contiguous areas in the southern portion of the Project Site. Dark reddish-brown silty Clay Loam with coral rock fragments. Also found in cracks and crevices of coral outcrop (CR). It has limited use for agriculture if irrigated because the soil is shallow, droughty, or stony. The permeability is moderate and runoff very slow to medium. The erosion hazard is slight to moderate.
 - Lualualei Clay, two to six percent slopes (LuB): Three non-contiguous locations and largest area is in the southern portion. It has limited use for agriculture if irrigated and a low growing ground cover is maintained. The runoff is slow and the erosion hazard is slight.

- Rock Land (rRK): Small portion at the southeastern ridge of Puu Heleakala. Exposed rock covers 25 to 90 percent of the surface and soils are very shallow. It is not suitable for agriculture.

2. Agricultural Lands of Importance to the State of Hawaii (ALISH). Soil Conservation Service, University of Hawaii College of Tropical Agricultural and Human Resources, and the State of Hawaii Department of Agriculture designated ALISH in 1977 as part of a national effort by the U.S. Department of Agriculture to inventory important farmlands. The assessment was based on soil type, climate, water supply, and agricultural land use patterns. The three classifications are as follows:

- a. Prime: Best suited for production of food, feed, forage, and fiber crops.
- b. Unique: Useful for specific high value food crops (e.g., taro, coffee, rice, watercress).
- c. Other: Farmland of statewide or local importance.

No “Unique” lands were designated at or in the vicinity of the Project Site. “Prime” lands were designated in the northwest corner of the Project Site (1.17 acres) and “Other” lands were identified in the southwest corner of the Project Site (34.68 acres).

3. Land Study Bureau (LSB) Classification. The University of Hawaii LSB conducted an *Overall Productivity Rating, Detailed Land Classification*. The LSB classification ratings are based on the agricultural productivity of soils throughout the State, accounting for characteristics such as texture, slope, salinity, erodibility, and rainfall. The productivity potential ratings range from “A” (Very Good) to “E” (Very Poor), or “U” (Unclassified). Under the LSB system, the Project Site has the lowest agricultural productivity rating of “E”.

4. Important Agricultural Lands (IAL). Part III of Chapter 205, HRS designates IAL as a supplemental land use classification reserved for high quality farmland within the State Agricultural District. The City Council passed Resolution 18-233, CD1, FD1 approving the *Report on the Oahu Important Agricultural Land Mapping Project* and the IAL geographic information system mapping product completed by the DPP in August 2018. The Project Site was not included on the August 2018 IAL Map approved by the City Council.

D. Open Space and Important Views. The landscape of Lualualei is made up of rugged mountain ridges, an expansive valley, and sandy beaches. Puu Heleakala, Puu o Hulu Kai, Puu o Hulu Uka, and the rest of the Waianae Mountain Range are the dominant visual features and are visible from multiple viewpoints in the valley. Any open space and important views are considered cultural resources to be protected.

The 1987 Coastal View Study, conducted by the former Department of Land Utilization, provides an inventory of significant coastal views and coastal landforms which together make up the shoreline scenic resources on Oahu. The scope of the study generally focused on views of the ocean, shoreline, and coastal landforms while driving along Farrington Highway, therefore, the only “significant stationary view” identified in the Nanakuli viewshed was from Kahe Point toward the ocean, which is not in the vicinity of the Project Site. Significant “lateral” views along the coastline toward Kaena from Farrington Highway were identified in the Nanakuli viewshed. The significance was due to the descending ridges that can be seen including Puu Heleakala and Puu O Hulu Kai. The Project Site is not within these significant lateral view planes. The residential and commercial developments along Farrington Highway obstruct, or greatly diminish drivers’ views into the valley. However, the intersecting roadways that extend into the valley provide views of the Waianae Mountain Range and other notable land forms.

From a mauka-makai perspective, the view from Hina’s Cave (located on the slope of Puu Heleakala at 600 amsl) to Maui Rock (located in the Garden Grove Condominium Complex) was also identified as an important cultural view plane. Section 5.4 of the Final EIS provided an analysis of six additional key observation points (KOP) where the proposed Project would be visible and potentially impact the visual character and quality of the community. The six KOPs included trafficked roadways, public gathering places, and medium density residential and commercial areas.

- E. **Agency Comments.** The following government agencies provided significant substantive comments on the SUP application. **Table 7** provides a summary of their comments as follows:

Table 7 - Summary of Agency Comments

Source	Comments Summary
ENV	<p>Currently, the City’s disposal facilities do not handle or accept C&D waste. PVT is the only commercial C&D debris ISWMF on Oahu. In 2018, a total of 2,072,539 tons of solid waste was generated on Oahu, and more than 42 percent (870,466 tons) of that total solid waste was C&D debris. In addition, PVT plays an important role in the recycling of C&D debris and in the City’s Emergency Preparedness Plan for disaster debris acceptance and processing.</p> <p>If there were no commercial C&D debris disposal and handling facility on Oahu, the City may have to provide a replacement facility at significant expense.</p> <p>Noting the potential impact of Senate Bill (SB) 2386, SD2, HD2, on the proposed Project, it remains important to proceed through the Special Use Permit process.</p> <p>In a supplemental letter dated August 10, 2020, the ENV stressed that the Applicant make maximum use of the existing ISWMF. This is important because the mining of combustible materials, and delivering appropriate combustible materials to H-POWER Waste-to-Energy</p>

Source	Comments Summary
	<p>facility (may require the payment of tipping fees) will recover a significant amount of capacity (up to an estimated 750,000 cubic yards) in the existing landfill and reduce the amount of material that goes into the proposed PVT ISWMF.</p>
BWS	<p>The existing water system cannot provide adequate off-site fire protection to accommodate the proposed development and meet the Water System Standards for BWS. In addition, there are no existing water lines along Lualualei Naval Road, a privately-owned road. Access to the BWS water system and Fire Hydrant No. L00921, approximately 370 feet from project site, is restricted by parked vehicles and a metal guardrail at the end of Mohihi Street, a City and County road. The developer should evaluate whether this restriction can be modified. The BWS preference is to not install BWS infrastructure within private property, therefore, the developer should coordinate with the BWS Capital Projects Division if they intend to bring BWS water system improvements to the Project Site.</p> <p>A second alternative is for the solid waste management facility development to be served entirely by the proposed private water systems. The State Commission on Water Resource Management should be consulted to determine regulatory and permitting requirements.</p>
Honolulu Fire Department (HFD)	<p>The HFD has access road and water supply standards for new projects, which includes submission of civil drawings for its review and approval.</p>
Honolulu Police Department (HPD)	<p>The HPD did not have any comments at this time.</p>
Department of Emergency Management (DEM)	<p>The DEM supports uninterrupted construction and demolition waste management, particularly during post disaster debris management operations.</p> <p>The Project Site is sufficiently inland to avoid short-and long-term, direct impacts from coastal hazards (e.g. coastal flooding, storm surge, tsunamis, or sea level rise).</p>
Department of Transportation Services (DTS)	<p>The DTS commented about the necessary permits that may be required for any construction-related work and road closures, as well as maintaining the highest safety measures during construction. The DTS also recommended that the community, businesses, and service providers be kept apprised of the proposed Project and that the Disability and Communication Access Board should review and approve project plans to ensure full compliance with the Americans with Disabilities Act requirements.</p>

Source	Comments Summary
Hawaii Department of Transportation (HDOT)	<p>Since photovoltaic (PV) panels may pose a risk to aircraft in the approach path of Kalaeloa Airport (JRF), Airports Division (HDOT-A) recommends that the Applicant install non-glare solar panels and position the PV arrays to FAA standards to avoid glint and glare as well as radio frequency interference which can disrupt air-to-ground communications. If either of these hazards are created, the Applicant will be notified by the HDOT-A and/or the FAA to mitigate the hazard.</p> <p>Highways Division (HDOT-HWY) found the Transportation Impact Analysis Report (TIAR) dated June 18, 2019 acceptable.</p>
Office of Hawaiian Affairs (OHA)	<p>OHA's comments concern: 1) Insufficient consideration of alternative locations by the Applicant in limiting their review to merely what is within the Applicant's purview as being the only feasible alternative and dismissing the City's 2017 landfill siting report; 2) That the SUP application does not state whether the State Historic Preservation Office (SHPD) has had the opportunity to review the current proposed Action (Project); and 3) The information regarding the assessment of health risks does not fully assess the adverse health effects to the surrounding community. In conclusion, the OHA stated action on the SUP should be deferred until the Governor decides whether or not to veto SB 2386, SD2, HD2, by September 15.</p>
State of Hawaii, Office of Planning (OP)	<p>The OP recognizes this is the only C&D debris management facility on Oahu, which provides a critical service to the City and County of Honolulu.</p> <p>The OP assessed the proposed Project relative to the five LUC special permit guidelines and recommends approval of the State special permit to establish the C&D debris landfill and other accessory uses. OP concurs that the proposed project meets the criteria for an unusual and reasonable use within the State Agricultural Land Use District. The applicant has met the requirements for the issuance of a special permit for the proposed use, and appropriate conditions can be imposed to mitigate adverse impacts from the proposed project.</p> <p>OP does have concerns, however, that a Ka Paakai analysis was not done and recommends that it be provided to the Planning Commission (PC) for consideration.</p>

Other government agencies contacted that did not provide comments as of the date of this Report include the following:

- City
Department of Design and Construction
Department of Parks and Recreation
Honolulu Emergency Services Department
Office of Climate Change, Sustainability, and Resiliency
Neighborhood Commission
Neighborhood Boards Nos. 24 and 34

- State
 Department of Agriculture
 Department of Economic Development and Tourism
 Department of Land and Natural Resources (DLNR)
 DLNR - SHPD
 Department of Hawaiian Home Lands
 Department of Health
- Federal
 U.S. Army Corps of Engineers
 U.S. Department of the Interior, Fish and Wildlife Service
 U.S. Department of the Interior, Geological Survey
 U.S. Navy, Hawaii Commander
 U.S. Navy, Naval Facilities Engineering Command

All governmental agency comments are included in **Attachment 1**. Any comments from government agencies received after the filing of this Report will be forwarded to the PC for their review and consideration.

- G. **Community Concerns**. Notification of the acceptance of the SUP application were transmitted to the Waianae Coast Neighborhood Board (NB) No. 24, the Makakilo/Kapolei/Honokai Hale NB No. 34, and the Nanakuli-Maili NB No. 36 on June 26, 2020. The NBs have a 45-day comment period which ended on August 10. On August 7, 2020, the chair of the Nanakuli-Maili NB sent the results of a special meeting the NB held in September 2019.

On September 4, 2019, the Nanakuli-Maili NB No. 36 held a special meeting to hear the community's voice and determine a position for their NB. At the meeting, there was testimony and consideration from over individuals and organizations including NB members and a motion was made and passed. On September 5, 2019, the Chair of the Nanakuli-Maili NB No. 36, sent to the DPP a letter stating that the Nanakuli-Maili NB No. 36 passed a motion whereby they support PVT's recycling efforts and service to the community, however the Nanakuli-Maili NB No. 36 opposes their request for relocation, as stated in the Draft EIS and urges entities, especially the City, the State, and Federal governments to assist PVT in their efforts to find a suitable location as they help the State achieve a zero waste society, by a vote of five to three (with one absent). See a copy of the letter in Appendix H of the SUP application.

Civic and labor organizations submitting testimony include:

Waianae Community Re-Development Corporation, aka MAO Organic Farms
 International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers,
 Local 625
 Iron Workers Stabilization Fund
 International Alliance of Theatrical Stage Employees (IATSE), Local 665
 Hawaii Labor Coalition
 Hawaii State Teachers Association

Democratic Party of Hawaii Labor Caucus
Ke One O Kakuhihewa – Oahu Council of the Association of Hawaiian Civic Clubs
Prince Kuhio Hawaiian Civic Club
Hoola Na Moku o Keehi (Mokauea, Kahakaaulana, and Mokuoeo)
Young Progressives Demanding Action
Sierra Club – Oahu Group
Association of Hawaiian Civic Clubs
Local 5
Hawaii Building and Construction Trades Council
ILWU Local 142
Self-Help Housing Corporation of Hawaii

These civic and labor organizations are opposed to the proposed Project for a variety of reasons. Among them: 1) Too close to residential uses; 2) Lower life expectancy caused by fugitive dust, contaminated groundwater; 3) Native Hawaiian and minority populations carrying the burden of potentially undesirable land uses; 4) Harmful to the environment; and 5) Loss or obstruction of cultural connection. Copies of their testimony is in **Attachment 2**.

At the time of this writing, 29 individuals from the community had also sent in their expressions of opposition for many of the same reason expressed by the community organizations listed above. These comments are attached in **Attachment 3**.

III. ANALYSIS

A. Laws and Public Policies.

1. Land Use Law, Chapter 205, HRS. The Project Site is within the State Land Use Agricultural District (**Exhibit 3**).

According to Title 15-15-95(a), HAR, any person who desires to use the land within an agricultural or rural district for other than a permissible agricultural or rural use may petition the county (PC) within which the land is located for a special permit to use the land in the manner desired. Special permits for areas greater than 15 acres require approval of both the county PC and the LUC.

Certain “unusual and reasonable” uses within agricultural and rural districts other than for which the district is classified may be permitted. In determining whether a proposed use is deemed “unusual and reasonable,” Title 15-15-95(b), HAR, established five guidelines. These guidelines are also found in Section 2-45, of the PC Rules.

The Acting Director of the DPP (Director) finds that the proposal to allow the expansion of the PVT ISWMF across Lualualei Naval Road and to relocate landfilling and reclamation operations there, generally meets the requirements of Chapter 205, HRS.

A description of the Project's comparison with the five guidelines of Section 2-45, of the PC Rules, are as follows:

Guideline 1: Such use shall not be contrary to the objectives sought to be accomplished by the State Land Use Law and Regulations.

Chapter 205, HRS, seeks to protect agricultural lands and ensure their continued availability for agricultural use. It provides that the Agricultural District shall also include lands with a high capacity for agricultural production, grazing, and other agricultural uses. Section 205-2 (a), HRS, states that "in establishment of agricultural districts the greatest possible protection shall be given to those lands with a high capacity for intensive cultivation." Chapter 205 also recognizes that some lands in the Agricultural District may not be suitable for the uses permitted in the Agricultural District.

Chapter 205 lists non-agricultural uses with the potential to generate renewable energy are allowed on agricultural lands, i.e., wind-generated energy production, geothermal resources development, and hydroelectric facilities. Solar energy facilities are also permitted in the agricultural district with a SUP if the land is rated less than class A, as classified by the LSB.

These permitted large-scale and relatively unusual, (i.e., geothermal) non-agricultural uses are typically located away from urban development. Other non-agricultural uses that are not permissible, i.e., waste disposal and processing facilities are unusual in that they are uncommon but reasonable because they are needed and best located away from urban activities. Being relatively large-scale, with few needed structures and infrastructure, and reliant on heavy mechanization in their daily operations, waste disposal and processing facilities resemble both agricultural and permitted non-agricultural endeavors and are thus reasonable in the State Agricultural District.

Guideline 2: That the desired use would not adversely affect surrounding property.

The surrounding properties to the north, east, and west of the Project Site are characterized by low population densities. Lands immediately east and north are classified State Land Use Conservation due to the rugged terrain of the steep mountain slopes of Puu Heleakala. On the flatter and gentler slopes, lands are classified as State Land Use Agricultural. The land uses immediately west include the existing PVT ISWMF and West Oahu Aggregate with low-density residential and farm lots beyond Ulehawa Stream. Lualualei Naval Road is not a public thoroughfare and traffic adjacent to the Project Site is generally limited to military vehicles and haul trucks.

Potential impacts were noted for one property located in the upper valley, north of but not adjacent to the Project Site. MAO Organic Farms currently cultivates approximately 23 acres within Lualualei Ahupuaa off of Puhawai Road. They intend to expand their farming of traditional and non-traditional crops onto a newly acquired 21-acre parcel across Lualualei Naval Road. This MAO Organic Farms parcel is

2,300 feet upwind and up-gradient of the Project Site. The larger 236-acre parcel, which MAO Organic Farms acquired in 2019, is within 900 feet of the Project Site, in the vicinity of the planned MRD operations. MAO Organic Farms plans to harvest crops on this parcel and expressed interest in establishing a location for an affordable farmer-housing complex. However, in comments regarding this SUP application, they expressed concern that the proposed Project may have an adverse impact on their future farming activity. The northerly spine of Puu Heleakala on their south property line will make it difficult to plant crops or build farm dwellings on steep, rocky terrain, close to the Project site, therefore, farming and possible farm dwellings will likely be located further north into the valley and gentler slopes, away from the proposed Project. As in all their operations, the Applicant intends to implement environmental controls (e.g. litter, dust, odor, gas, and noise) at the Project Site to mitigate potential impacts to air quality, water resources, and land use characteristics. With these mitigative measures, it is not anticipated that existing MAO Organic Farms operations towards the back of the Lualualei Valley will be adversely impacted by the proposed Project.

Potential adverse impacts are anticipated on the surrounding property located south, southwest and southeast of the Project Site. Preparation of the site and installation of the facilities with the proposed Project will cause short-term impacts due to fugitive dust, noise, truck traffic, and to a lesser extent, odor. Long-term impacts from the ISWMF operations at the Project Site, such as fugitive dust, noise, truck traffic, and possible odors will be minimized by best management practices and lessons learned from the Applicant's experience in addressing these issues at the existing PVT ISWMF. Their sensitivity to the concerns of the residents is partially reflected in the design of the Project Site intended to maximize on-site mitigation and BMPs. For example, the new MRD lines and gasification or anaerobic digester units will be located at the northern end of the Project Site, furthest away from residential areas and queue areas for haul trucks will be on the Project Site rather than along Lualualei Naval Road. The Applicant remains committed to addressing potential adverse impacts by incorporating the following -proven environmental controls. These include:

- Litter Control: The proposed Project would continue to implement the Applicant's on-going litter control program, which includes daily inspections and litter sweeps, fencing downwind of the landfill area, and interim covering of active landfill cells.
- Dust Control: Due to the dry and windy climate conditions, the Applicant closely monitors and mitigates fugitive dust. The Applicant would continue to implement regular dust control measures in the Project Site and along Lualualei Naval Road. These mitigative measures include, but are not limited to, the following:
 - Pave and regularly clean permanent access and haul roads;
 - Apply water to unpaved roads and any disturbed surfaces that could be subject to dust generation and promote compaction;

- Apply water during placement of waste in the active landfill face to minimize dust generation and promote compaction. Operations cease when wind speeds are above 40 mph;
 - Landscape closed portions of the landfill area;
 - Maintain a 750-foot buffer along the southern property boundary;
 - Install a 20-foot tall dust screen along the southern property boundary;
 - Maintain permanent landscaping around the site entrance, parking, and administrative areas, and along the west and south perimeters of the Project Site, per the site-specific landscape plan;
 - Install and maintain a wheel wash to clean the tires of trucks leaving the site; and
 - Continue to work with the US Navy to address dust generated by truck traffic on Lualualei Naval Road.
- Odor Control: Odor is ordinarily not an issue at C&D debris disposal facilities. Any noticeable odor would be investigated to determine its sources and dealt with by rejecting the load or immediately depositing it and covering it with non-odorous refuse or soil.
 - Gas Control: The Applicant has a gas monitoring and management program which would be updated and implemented with the proposed Project. Steel gas probes are strategically placed around the landfill as needed for gas monitoring and carbon dioxide injection. Due to the lack of organic matter that goes into the C&D debris landfill, there is very little, if any, landfill gases. Nevertheless, the Applicant injects and sequesters carbon dioxide gas into the landfill to drive out oxygen to minimize fire potential and the generation of odorous gases.
 - Noise Control: Noise levels must comply with the HDOH Community Noise Control Rule, which stipulates maximum permissible noise limits at all property lines based on zoning. The HDOH maximum permissible daytime noise levels are 70 decibels (dBA) for a Class C industrial/agricultural zoned area. The DOH maximum permissible daytime noise levels are 70 decibels (dBA) for a Class A residential, conservation, preservation, public space, and open space zoned area is 55 dBA. According to Appendix D of the Final EIS, overall noise levels at most surrounding properties are expected to decrease as PVT ISWMF operations are moved further away from most of the surrounding occupied properties. The lone area where the noise level is calculated to increase is the housing complex directly south of the new scale house within the proposed Project, which is not expected to be significant, i.e., less than three dBA. For reference, a three dBA increase in sound level is generally considered to be barely perceptible. A five to six dBA increase is considered clearly noticeable. The Applicant's best practices would minimize noise impacts on sensitive receptors by implementing the following measures:

- Require all site-owned and customer-owned vehicles traveling internally on the site to be operating with fully functional mufflers and in a state of good repair;
- Encourage quiet operating techniques and practices;
- Maintain the commonly traveled roads on-site to keep a smooth and evenly sloped surface free from major bumps and potholes that cause noise when traveled over;
- Grade all on-site driveways and roads at a low enough slope that they do not require excessive throttle to navigate; and
- Post signage to inform drivers of “no engine braking” or “no horn unless emergency” areas close to noise critical areas.

One concern that remains is the proposed Project driveway and entrance/exit point will be directly across from the existing PVT ISWMF entrance/exit close to the southern property line. The Applicant feels this is a strategic location to minimize dust disturbance to the surrounding areas by establishing the shortest distance possible for trucks to travel to the Project Site. However, with permanent paving of haul roads and wash down of trucks before leaving the site as outlined in their dust control measures, dust should be less of a problem. Instead, truck traffic requiring to brake pulling into or throttle to accelerate from a standstill out of a full stop out of the Project Site has the potential to create unacceptable noise this close to the southern residential areas. With the access road license from the Navy for PVT to use Lualualei Naval Road coming up for renewal in December 2021, the DPP recommends a condition for SUP approval with the successful negotiations for a new driveway entry/exit point further mauka along Lualualei Naval Road.

An additional SUP condition for approval will be an on-site circulation study to analyze and show how having an entry/exit at the south end generates the least amount of daily truck movements between the scale house and offices, and the landfill cells and MRD area. It seems the entry at this locations has more repetitive back and forth movement between these areas than if they accessed from the north and circulate down from the MRD to the landfill cells before leaving at a southern entry/exit point on the Project Site.

- Vector Control: C&D debris disposal facilities do not attract flies, rodents, birds, or other pests that one might find at a traditional MSW landfill that accepts household wastes. Proper application of cover material would discourage use of the site by vectors.

Operations at the proposed Project are also subject to meeting Federal (the Resource Conservation and Recovery Act, Subtitle D, which specifically concerns the management of non-hazardous solid waste, governing siting, design standards, operating requirements, groundwater monitoring, and corrective action, closure, and

post-closure care), State (HDOH air quality regulations), and local regulations (City's, Rules Relating to Water Quality).

Therefore, the proposed Project is not expected adversely affect surrounding properties, providing the Applicant complies with all Federal, State, and local regulations and maintains the safeguards employed in their established operations. Recent legislation, SB 2386, SD 2, HD 2, introduced and passed by the State legislature however aims to establish a minimum buffer distance of one-half mile between the edge of a waste or waste activity and the nearest residential, school, or hospital property line. Passage of the bill essentially renders the proposed Project moot.

Guideline 3: Such use would not unreasonably burden public agencies to provide roads and streets, sewers, water, drainage and school improvements, and police and fire protection.

The Project would not unreasonably burden public agencies to provide roads, sewers, drainage, schools, police, and fire protection based on the following:

Roads and Streets. Haul traffic to the Project Site will remain at 300 trucks per day with 80 employee trips to and from the site. The average daily traffic volume on Lualualei Naval Road is approximately 9,000 vehicles per day. Therefore, PVT-bound haul trucks make up, at most, approximately three percent of the total daily vehicles on Lualualei Naval Road.

The Lualualei Naval Road is not a public thoroughfare and the traffic is generally limited to military and truck traffic, therefore, there is no additional burden upon city or state agencies to provide road or road improvements. Based on the TIAR-Appendix F in the Final EIS, the proposed Project is expected to increase the traffic at the intersection of Farrington Highway and Lualualei Naval Road by about 1.0 percent and 0.8 percent, during the A.M. and P.M. peak hours of traffic, respectively. Beyond the Lualualei Naval Road intersection, the proposed Project's impact on other intersections in the study area decreases to 0.5 percent or less. Based on the TIAR, in response to the Draft EIS, the HDOT found the proposed Project would not have a significant impact to State highway facilities and, therefore, a condition of SUP approval relating to traffic impacts is not recommended at this time.

Sewers. The proposed Project sanitary waste water would be discharged into two separate, private, on-site septic systems: one located in the proposed MRD area and one near the entrance area. The sanitary waste water systems would be designed to meet Chapter 11-62, HAR, and the Applicant would obtain necessary permits for the systems. The sanitary waste systems would be designed to treat a projected wastewater volume for up to 80 employees who would staff and operate the facility daily.

Water. The Project Site does not have any potable water. Current PVT ISWMF operations use approximately 65,000 gallons of potable water per day for irrigation, office trailers, and daily washout of dust suppression trucks and equipment. The same amount of water is expected to be used at the proposed Project.

There are two private groundwater wells on the Project Site. The brackish, non-potable water from these wells (PW-1 (DLNR Well 2308-03) and North Well (DLNR Well 2408-11)) is pumped into two existing aboveground storage tanks (approximately 25,000 gallons each). Non-potable water is used primarily for dust control and current ISWMF water usage is approximately 100,000 gallons per day (gpd).

Water usage from each groundwater well is permitted up to a maximum of 288,000 gpd. The Applicant does not propose to increase the permitted usage. The Applicant proposes to construct three additional potable and non-potable aboveground tanks in the MRD area. Potable and non-potable water would continue to be sourced from the two brackish water wells on-site and pumped into the two existing and the three planned aboveground tanks located near the wells. Potable water will be produced on-site from non-potable water using reverse osmosis or provided by the BWS municipal system.

Currently, there is no potable water access or use at the Project Site. To obtain municipal service, the BWS requires system upgrades to meet the BWS Water System Standards unless the Applicant wishes to rely on the adequacy of their proposed private water system to meet fire flow requirements and won't use water from the existing PVT ISWMF to bypass this requirement.

Fire Protection: While the PVT ISWMF has minimal combustible material and the inert nature of C&D debris does not typically spontaneously combust, the most probable sources of fire in the Project Site are surface fires. The Waianae District is significantly more vulnerable to wildfire incidents than the rest of Oahu. This is attributed to numerous factors including: steep slopes, rough terrain, strong winds, highly ignitable invasive grasses, warm weather, recurring drought-conditions, and a history of human-caused fire. The initial response to fires is the responsibility of the HFD. The nearest fire station is one mile away in Nanakuli. Historically, the HFD has been prepared to respond to fires affecting surface structures, while PVT responds to subsurface landfill fires. The Applicant would continue to rely on non-potable water sources from on-site wells for landfill fires. It is expected that an Emergency Fire Plan, similar to the one implemented at the existing PVT ISWMF, will be incorporated into the Applicant's SWMP for the proposed Project to reduce the risk of surface and subsurface fires. It is anticipated that the proposed Project will not have an impact on the HFD to provide fire service, however, it is recommended that as a condition of the SUP, that an analysis be provided that concludes to the satisfaction of the HFD and the BWS that sufficient access and on-site fire flow protection will be provided.

Drainage: The Project Site is within the Ulehawa Watershed with an average annual rainfall of 12 inches, which typically permeates the soils or evaporates. Ulehawa Stream drains the Ulehawa watershed and is aligned along the western boundary of the existing PVT ISWMF site west of Lualualei Naval Road. It is about five miles in length and the segment south of the existing PVT ISWMF is a concrete drainage channel designed to handle a 100-year storm.

The Applicant is designing the proposed Project's stormwater management system for the 24-hour, 25-year rain event. It is sized to handle the runoff from the Project Site and the

adjacent slopes of Puu Heleakala. The proposed Project would divert stormwater runoff away from on-site operations and the neighboring properties, into earthen drainage channels located around the perimeter of the Project Site. The channels would convey the stormwater into sedimentation/retention basins at the higher elevations in the southeast corner of the Project Site and will drain to the stormwater basin closest to Lualualei Naval Road. Stormwater will then discharge through a culvert crossing under Lualualei Naval Road and into a new drainage channel that will run parallel to the southwestern property line of the existing PVT ISWMF property, where it will discharge into an existing storm basin (Storm Basin A-1) and eventually into Ulehawa Stream via existing Discharge Point D-1. In addition to stormwater basins, the proposed Project would be designed with significant, natural stormwater features that will allow percolation and minimize erosion. The proposed Project would not cause or otherwise significantly increase downstream flooding.

The proposed Project's stormwater management system is designed to meet the same NPDES permit conditions as the current PVT ISWMF site. The existing NPDES permit and monitoring program would be modified to include the Project Site. No new discharge points are proposed. In accordance with PVT's NPDES permit (File No. HI R50B841) with the HDOH Clean Water Branch, stormwater leaving the site is sampled annually, and the provisions of PVT's Storm Water Pollution Prevention Plan are followed. Because of the anticipated effectiveness of these controls in avoiding impacts is based on twelve years of water monitoring data by the Applicant, the proposed Project does not pose an unreasonable burden upon the drainage system of Ulehawa Stream or the shores along the Pacific Ocean.

School Improvements: The proposed Project is located within the Leeward Oahu School District. There are no schools, libraries, parks, recreational facilities, or community centers on or adjacent to the Project Site and located over 2,000 feet away from Nanakuli High, Intermediate, and Elementary Schools and Nanaikapono Elementary School to avoid negative impacts that might be associated with the proposed Project. The proposed Project would not burden schools or other community facilities in the Lualualei/Nanakuli community, therefore, a condition of SUP approval relating to school improvement is not required.

Police Services: The HPD District 8 response area is from Kapolei to Waianae. It includes the Kapolei District Station/Headquarters and the Waianae Police Substation, eight and six miles away from the Project Site, respectively. The proposed Project includes security infrastructure (e.g., perimeter fencing, controlled access), video surveillance, and security guard presence during and after operational hours. In their letter commenting on this proposed Project, the HPD stated there is no burden placed upon police services so a condition of SUP approval related to police services is not required.

Other considerations: The proposed Project would not alter the existing emergency service capabilities nor increase the number of personnel or alter the occupational hazards and risks. The Applicant will continue to implement and train its employees under the PVT Employee Safety Plan, therefore, it is not anticipated that the proposed Project

will place an unreasonable burden upon the medical and emergency services from the community.

The City's *Disaster Debris Management Plan* (2001) and the Makani Pahili 2019 Honolulu Debris Management Workshop describe the Applicant's role in managing C&D disaster debris. A Category 4 Hurricane that directly hits Oahu is considered the worst-case probable disaster planning scenario. Under this scenario, the workshop attendees determined the Applicant would receive two-thirds of the anticipated four million cubic yards of all C&D debris generated on Oahu. The Applicant would receive the debris, bury it, and recover it later for recycling. With the two proposed MRD units, the Applicant would be able to process the debris efficiently and continue to generate feedstock for renewable energy production while maximizing the amount of debris that is ultimately diverted from the landfill.

The need for additional public infrastructure services, as a result of the Project, indicates that no additional public infrastructure services will be required at this time, however, additional coordination with the HFD and the BWS will be required to assure that the proposed Project has sufficient capability to meet on-site fire protection requirements.

Guideline 4: Unusual conditions, trends and needs have arisen since the district boundaries and regulations were established.

In 1977, the City conducted an extensive Inventory Study of Potential Sanitary and Demolition Landfill Sites referring to the two properties collectively as one candidate site, "Nanakuli Landfill Site." Based on nineteen criteria, the Nanakuli Site was ranked the highest of the Leeward sites. "Nanakuli Site A," the "old quarry," became the Nanakuli Landfill and is the current PVT operations area. "Nanakuli Site B", the Project Site, was identified as the next phase of landfill development. The 2001 Disaster Debris Management Plan acknowledges that the Project Site is available for future expansion of the Applicant's landfill operations.

As Oahu's only C&D debris landfill, the proposed Project factors into meeting the solid waste management goals of the City's ISWMP. In addition, it is identified as a site for temporary storage for proper recycling and processing for disposal of debris that might result from a hurricane, tsunami, or other natural disaster. This unusual role bestowed upon it and modern solid waste management evolving into a much more sophisticated resource-rich, and conservation-driven enterprise was not anticipated at the time the State Land Use Law was being established. Identified as a long-time candidate to be a C&D debris waste disposal and processing site, not granting the SUP would require the City to modify its ISWMP and identify and invest in alternative C&D debris disposal sites on Oahu. The closure of the existing PVT ISWMP would leave Oahu without a commercial C&D debris landfill and increase the potential for unauthorized dumping of C&D debris impacting the environment, human health, and the welfare of the construction industry, an anchor for Oahu's economy.

Guideline 5: That the land upon which the proposed use is sought is unsuited for the uses permitted within the district.

The Project Site has lands rated “E”, the least productive soils according to the LSB. According to ALISH, only a small portion of the site (1.17 acres) is rated as “Prime” agricultural lands and 20 percent of the Project Site (34.68 acres) is rated as “Other” important agricultural land. Moreover, it was not designated as IAL in the City’s 2018 IAL Mapping Project. These poor classification ratings hint at its unsuitability for agricultural production and reflect a likelihood that the Applicant will not engage in any agricultural activities.

The State Department of Agriculture did not provide comments on the request.

Future re-use of the property for agricultural activities has not been ruled out. Land use activities after closure would be subject to the HDOH and other agency requirements and is dependent on the landfill cell cover that is used.

2. PC Rule No. 2-46(e) - Establishment of the Proposed Use. Pursuant to Rule No. 2-46(e), of the Rules of the Planning Commission, a condition of SUP approval to require a reasonable time limit suited to establishing the use is required. The Applicant estimates that the useful life of the existing PVT ISWMF is approximately five to seven years and it will take, at a minimum, approximately seven years to secure permits and construct the new PVT ISWMF. To satisfy this requirement, as a condition of SUP approval, a deadline to become operational, accepting, and processing C&D debris should be adopted.
3. Hawaii State Plan. The Hawaii State Plan (Chapter 226, HRS, as amended) provides the overall theme, goals, objectives, policies, and priority guidelines for statewide planning. The proposed Project is consistent with the following objectives and policies of the Hawaii State Plan:

Section 226-15: Objectives and policies for the State’s facility systems -- solid and liquid wastes.

- (a) *Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:*
 - (1) *Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.*
- (b) *To achieve solid and liquid waste objectives, it shall be the policy of this State to:*
 - (2) *Promote reuse and recycling to reduce solid and liquid wastes and employ a conservation ethic.*

- (3) *Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.*

PVT is the State's largest recycler by weight. The current PVT ISWMF operation recycles or reuses approximately 80 percent of incoming C&D debris. PVT's recycling operations not only divert C&D debris from the landfill but create economically viable products for reuse on Oahu. PVT ISWMF is the only facility on Oahu permitted to solidify liquid waste. The proposed Project would allow PVT to continue its recycling operation and provide an environmentally secure site for the disposal of non-hazardous, non-recyclable C&D debris.

4. City General Plan (GP) as amended 2002. The GP consists of comprehensive objectives and policies that outline the City's long-range development goals. The proposed Project conforms to the following objectives and policies of the City's GP, as cited below:

Section V. Transportation and Utilities

Objective B. To meet the needs of the people of Oahu for an adequate supply of water and for environmentally sound systems of waste disposal.

Policy 3: Encourage the development of new technology which will reduce the cost of providing water and the cost of waste disposal.

Policy 4: Encourage a lowering of the per-capita consumption of water and the per-capita production of waste.

Policy 5: Provide safe, efficient, and environmentally sensitive waste-collection and waste-disposal services.

Policy 6: Support programs to recover resources from solid-waste and recycle wastewater.

The proposed Project is consistent with the objective of providing Oahu with one component of an environmentally sound waste disposal system by providing C&D debris waste management. Since 2003, commercial haulers have been precluded from delivering loads containing any C&D debris to City facilities in an effort to encourage recycling. Having an aggressive program to monitor and divert C&D debris from landfill disposal is a high-priority waste management strategy for the City. Recent ordinances requiring construction companies and City contracts for C&D projects to inventory C&D materials that may be generated and the amount reused and recycled in order to get building permits have been attempted. The intent behind requiring buildings to submit a C&D debris recovery plan is to encourage re-use and recycling of materials in an effort to also lower the per-capita production of waste. However, the proposed Project is planned to continue diverting 80 percent of the recyclable materials from landfill disposal so is very active in terms of recovering resources from the C&D debris waste stream. The Applicant minimizes its

consumption of BWS potable water through the use of non-potable water to the extent practicable.

Section VI. Energy

Objective C. To fully utilize proven alternative sources of energy.

Policy 1: Encourage the use of commercially available solar energy systems in public facilities, institutions, residences, and business developments.

Policy 2: Support the increased use of operational solid waste energy recovery and other biomass energy conversion systems.

Objective D. To develop and apply new, locally available energy resources.

Policy 1: Support and participate in research, development, demonstration, and commercialization programs aimed at producing new, economical, and environmentally sound energy supplies from:

b. biomass energy conversion.

The proposed Project will support renewable energy technologies that reduce Hawaii's reliance on fossil fuels by generating energy to power the Applicant's facilities as well as generating electricity for Oahu. The Applicant proposes to install a PV system and a gasification unit or anaerobic digestion system using feedstock generated from C&D debris into a sustainable, renewable, and local source of energy estimated at 55,000 kWh per day.

Section VIII. Public Safety

Objective B. To protect the people of Oahu and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions.

Policy 8: Provide adequate search and rescue and disaster response services.

The proposed Project fulfills Objective B by providing disaster response services where, following a disaster two-thirds of all C&D debris generated on Oahu would be taken to the Project Site, buried, and then recovered later for recycling. With the two proposed MRD units, the Applicant would process the debris efficiently and continue to generate feedstock for renewable energy production while maximizing the amount of debris that is ultimately diverted from the landfill.

The City has also identified the Project Site as a favorable staging area for general relief efforts (e.g., storage for food, equipment, tents and other supplies) because the proposed Project includes the capability to generate water and renewable energy onsite. Clearing roads and providing access to the Applicant's operations, hospitals, utility plants and other critical facilities would be a priority in post-disaster recovery.

The communities along the critical routes (including the route to PVT) would also benefit from the cleared roadways for mobility and restoration of community services.

5. Waianae Sustainable Communities Plan (SCP). The proposed Project is located within the Waianae SCP area. The Waianae SCP, adopted by Ordinance No. 12-3, recognizes the ISWMF on the Public Facilities Map. The following sections discuss compliance of the proposed Project with the Waianae SCP.
 - a. Section 3.2: Open Space and Important Views. The Waianae SCP identifies open space and views across open spaces as cultural resources and should be protected. The proposed Project would not be visible from most public locations in the community due to the built environment, topography, and distance. From those locations where it would be visible, only the upper portion of the landfill would be seen.
 - b. Section 3.2.2.7: Minimize Outdoor Lighting. The Applicant did not provide an outdoor lighting plan. The Waianae SCP's policies and guidelines support minimizing artificial lighting on wildlife and human health by balancing the need for outdoor lighting to provide night utility and security, and to conserve energy and protect the natural environment. Normal operations of the PVT ISWMF will be limited to daytime hours. Night lighting is generally used to improve visibility on the security cameras in the event of theft or trespassing. What lighting the Applicant needs to support security efforts will be shielded and facing towards the ground. In order to ensure that the Project Site's outdoor lighting remains consistent with its surroundings, the Applicant should be required to submit an outdoor lighting plan as a condition of SUP approval.
 - c. Section 3.6: Historic and Cultural Resources. According to Section 5.1 of the Final EIS, early settlement patterns were influenced by water resources. Pre-contact settlement patterns and land use in Lualualei was greatest near the coastal areas where marine resources were plentiful, or in the mountainous interior where there was sufficient rainfall. The intervening lands, including the Project Site, were dry scrubland and less likely to be used for agriculture or habitation by Native Hawaiians.

Three known historic properties have been identified in the Project Site:

1) A rock shelter (State Inventory of Historic Properties (SIHP) #50-80-08-6699) believed to be used for temporary habitation on an infrequent basis; 2) A WWII concrete bunker (SIHP # 50-80-08-6681); and 3) A rock mound (SIHP #50-80-08-6920) interpreted as a traditional Hawaiian marker. All three historic properties are outside the site development area and the Applicant and security presence on the premises resulting from the proposed Project would likely deter public access and intentional or inadvertent historic property disturbance at all three historic sites.

Although an inadvertent physical disturbance of the historic sites during construction is unlikely, the SHPD approved a Preservation Plan in 2007 (SIHP No. 50-80-08-6699) outlining long-term conservation measures for one

of the sites (the rock shelter) that the Applicant will implement as part of the proposed Project. The conservation measures include establishing a 26-foot buffer with interim and permanent fencing as a barrier as well as allowing no landscaping, signage, or public access to the site. In addition, in the event that potential burials or other cultural finds are identified during ground disturbance, the construction contractor would immediately cease work all work while the appropriate agencies are notified.

As the OHA pointed out in their comments on the proposed Project, the SUP application does not mention whether the SHPD was contacted by the Applicant as to whether the 2007 Preservation Plan was still acceptable to SHPD in relation to the current proposed Project. Although no comments have been received by the SHPD on the proposed Project, a condition of SUP approval is recommended to ensure compliance with Chapter 6E, HRS.

The Project Site lies in the vicinity of culturally significant sites, including Puu Heleakala (Hina's Cave), Puu o Hulu Kai, Puu o Hulu Uka, Makalualualei, Ulehawa Stream, and landforms associated with the demi-god Maui (Maui Rock). The proposed Project would, at a maximum elevation of 255 feet amsl not obstruct or alter the views among the culturally important landforms in Lualualei. Moreover, no traditional cultural place or traditional and customary practices were identified at the Project Site. There is no evidence of historic subsistence gathering of plant and aquatic resources or other agricultural production at the Project Site. No evidence of religious practice or burials were identified at the Project Site. The OP, in their comments regarding the proposed Project, felt that a Ka Paakai analysis be prepared and the recommendations of the SHPD be a condition of SUP approval.

- d. Section 3.7.2.4: Prohibit Incompatible Land Uses of "Agriculture" Land. Waste disposal and processing facilities are not listed as a type of incompatible use on Agriculture land under this policy. Urban-style development such as residential subdivisions, new commercial uses, public and private schools, congregate housing and elderly care homes, resorts, theme parks, and other forms of large-scale commercial or industrial development should generally not be permitted. These types of land uses are characterized more by development that has buildings and structures, roads and sidewalks, massive infrastructure to support it. These types of development are also intended to be permanent. The proposed Project is largely open space, with very few structures needed to support the activity. The land is plied by mechanized equipment much like the harvesting of sugar cane or pineapple and other large-scale crop production entails. Also, once the lifespan of the proposed Project is complete, with proper closure, it reverts back to an open space feature. Therefore, the proposed Project is not incompatible with this policy in the Waianae SCP.
- e. Section 4.6.1: Overview of Solid Waste Issues. The future of Oahu's solid waste disposal capabilities became a major issue when the Waimanalo Gulch Sanitary Landfill site was selected instead of the four alternative sites

proposed. Waianae residents were vocally adamant that their District should not have to carry the burden of housing another landfill in their community. In the Waianae SCP, more emphasis was placed on protecting the rural and country lifestyle from land uses characterized more by development buildings and structures, roads and sidewalks, massive infrastructure to support it such as residential subdivision, commercial centers, and industrial complexes. These types of development are also intended to be permanent. The proposed Project is largely open space, with very few structures needed to support the activity. The land is plied by mechanized equipment much like the harvesting of sugar cane or pineapple and other large-scale crop production entails. Also, once the lifespan of the proposed Project is complete, with proper closure, it reverts back to an open space feature.

- f. Section 4.6.2.1: Enforce Anti-Dumping Laws. Another local solid waste issue of concern to the Waianae community is the problem of illegal dumping of all kinds of solid waste, including material from demolished buildings and from construction sites. When C&D debris is disposed of in non-permitted illegal dump sites, other (potentially hazardous) materials may also be included that can degrade water quality. In addition, illegal and indiscriminate dumping may be located in areas where landfilling is prohibited by the BWS, which is concerned about leakage and runoff from the sites degrading the underground aquifers that are the source of the City's water supply.

Policies pertaining to Solid Waste Disposal focus on coordination within the community (both public and private sectors) to develop and implement a comprehensive program or partnership within the community to clean-up and curtail illegal dumping. There are no partners identified in the Waianae SCP to fulfill this policy but a condition of the SUP to direct the Applicant to organize and support (e.g., equipment, manpower, a dedicated fund) further efforts to remove unmanaged waste that would otherwise accumulate and create increased health hazards of nearby residents is recommended.

- g. Appendix: The Conceptual Maps: Land Use, Open Space, and Public Facilities, Section 1: Community Growth Boundary (CGB). The CGB defines, protects, and contains the intended extent of the "built up" or "settled" areas of rural communities. Its purposes are to provide adequate land to support established communities, to protect such communities from more intense forms of development, and to protect such lands outside the boundary for agriculture or other resource or open space values. Areas within this boundary typically consist of relatively small, dispersed residential communities and towns.

The existing PVT ISWMF and Project Site are both located outside the CGB, which is on the makai property line of both properties. Moving the CGB to encompass the proposed Project would be in direct conflict with the purpose of the CGB to contain the extent of the built up and settled area of nearby Nanakuli. Including the proposed Project within the CGB would also be in conflict with the purpose protecting such lands outside the boundary for resource or open space values. During the last five-year review of the

Waianae SCP in 2012, the public testimony on the Waianae SCP was strongly in favor of not expanding the CGB in order to preserve open space in Waianae. Thus, the Project is consistent with the intent of the CGB.

- h. Appendix: The Conceptual Maps: Land Use, Open Space, and Public Facilities, Section 3: Agriculture. The proposed Project is located within the Agriculture Area of the Waianae SCP Land Use Map. The Agriculture Area is intended to include lands in agricultural use or high value for future agricultural use. However, the Project Site is on land rated with the least agricultural productivity (LSB rated E) and only 20 percent of the Project Site was rated as either Prime (1.17 acres or 0.06 percent) or Other Important lands (34.68 acres or 19.4 percent) in the ALISH study. It was not designated as IAL by the City's 2018 IAL Mapping Project. Therefore, the Project Site is and has been unsuited for agricultural production and has not historically been used for agriculture crops, grazing, or traditional gathering. Its Agricultural designation is more to keep the area in a natural or open space, free from urban development.
6. ROH, 1990, Chapter 4, Article 8, Public Infrastructure Maps (PIM). The proposed Project is a privately owned and operated facility and is not listed on the Waianae PIM (**Exhibit 6**). In relation to the proposed Project, City projects should be noted. PIM Symbol RES 015, represents the siting of a new BWS water reservoir with related site improvements on the southeast ridge of Puu Heleakala Ridge. PIM Symbol R 018 on Lualualei Naval Road confers upon the road its status as a part of the Waianae Coast Emergency Alternate Route. The proposed Project has no impact upon this status but may actually complement its status as an emergency access route since the Project Site and the new PVT ISWMF are an integral part of the City's ISWMP in the event of a catastrophic natural event.
7. ROH, 1990, Chapter 21, the LUO. The proposed Project is located within the AG-2 General Agricultural District and the proposed Project is subject to obtaining a CUP-Major for waste disposal and processing. The CUP-Major will need to include approval for the proposed gasification unit as a biofuel processing facility and the PV system as a Type B utility installation. Should the special permit be granted by the LUC, there is consideration being given to the possible administrative advantages of combining the CUP-Major of both the new and existing PVT ISWMF operations to better manage the timing and phasing of new Project Site development, transitioning operations, and closure of the existing PVT ISWMP. This determination shall be made during the CUP-Major process.

Section 21-5.680, also states that waste disposal and processing facilities shall be located within 1,500 feet of any zoning lot in a country, residential, apartment, apartment mixed-use or resort district. The Applicant maintains that by adequate mitigation due to prevailing winds, terrain, and their BMPs and environmental controls, the distance should be reduced to 750 feet for the proposed Project. Given that this is a LUO parameter, the actual distance separation for the proposed Project will be addressed during the CUP-Major process.

8. Chapter 205A, HRS, Coastal Zone Management Act (CZM). All lands of the State, including the area extending seaward of the shoreline to the seaward limits of the State's jurisdiction, are included in the CZM Area.

The proposal is consistent with the CZM objectives and policies pursuant to Section 205A-2, HRS, as follows:

Section 205A-2(b) Objectives.

(2) *Historic resources;*

- (A) *Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

(3) *Scenic and open space resources;*

- (A) *Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.*

The Applicant proposes to preserve known historic resources, design the proposed Project to protect open spaces resources, and implement mitigative measures to blend any detection of the proposed Project from public view.

Section 205A-2(b) Policies.

(2) *Historic resources;*

- (A) *Identify and analyze significant archaeological resources;*

The Applicant conducted an Archeological Literature Review and Field Inspection Report and Archeological Inventory Survey and has a SHPD-approved Preservation Plan, SIHP No. 50-80-08-6699.

(3) *Scenic and open space resources;*

- (A) *Identify valued scenic resources in the coastal zone management area;*
- (B) *Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;*

The Applicant has identified valued scenic and open space resources and through design and location will minimize loss of public views to and along the shoreline.

Based on the above analysis, the Director finds that the proposed Project is in compliance with relevant objectives and policies of the CZM Program.

9. Chapter 205A-21 Special Management Area (SMA). The Project Site is located outside of the SMA (**Exhibit 7**) and a Special Management Permit is not required.
10. Environmental Justice Concerns. The following definition of environmental justice in Hawaii as stated in the Hawaii Environmental Justice Initiative Report:

“Environmental justice is the right of every person in Hawaii to live in a clean and healthy environment, to be treated fairly, and to have meaningful involvement in decisions that affect their environment and health; with an emphasis on the responsibility of every person in Hawaii to uphold traditional and customary Native Hawaiian practices that preserve, protect, and restore the aina for present and future generations. Environmental justice in Hawaii recognizes that no one segment of the population or geographic area should be disproportionately burdened with environmental and/or health impacts resulting from development, construction, operations, and/or use of natural resources.”

There is no standard formula for how environmental justice issues should be identified or addressed; each situation needs to be evaluated for environmental justice issues on a case-by case basis. According to the most recent (2018) American Community Survey social dataset for the Waianae region (Zip Code 96792), Waianae has a larger concentration of Native Hawaiian and Other Pacific Islander population compared to Oahu overall (59 percent versus 12 percent) with a higher percentage living below the poverty level (24 percent versus 10 percent). Those living in the Lualualei Homesteads areas have lived adjacent to the existing PVT ISWMF for over 30 years. In correspondence from the residences there, they raise concerns about a higher incidence of adverse health effects such as cancer and 10 years less lifespan than residents on the rest of Oahu.

Other resident opposition involves the possibility that the proposed Project will block or obstruct views of Hina’s cave from Maui’s Rock and vice versa. The Maui legends form one of the strongest links in the mythological chain of evidence that binds the inhabitants of the Pacific. While no traditional cultural practices were identified, this link creates additional sensitivity from interrelated cultural and historical factors that amplify the environmental effects the proposed Project may have upon the community.

The Applicant recognizes that it is unlikely for a landfill to be welcomed into a community but the Applicant asserts that PVT is committed to maintaining a high standard of corporate-social responsibility and principles of environmental justice in service to the community it resides within. The Applicant will continue to incorporate BMPs into its daily operations to ensure that the proposed Project does not cause any significant impacts that would disproportionately burden residents in the surrounding area. In addition, the Applicant has made efforts to keep the public informed of its

plans and educate the public by attending Neighborhood Board meetings, open houses, and community workshops.

11. Social Impacts. The proposed Project will have minimal, if any, impact on population increases or decreases in the area. However, it has created diverse views in the community – support for the proposed Project including accolades from environmentally and economically sound solid waste management, advancing worker and community health and safety, but also has sustained long-term opposition primarily due to suspected public health impacts. The public outreach program in the past has included: 1) High school scholarship programs; 2) Financial and volunteer support to a variety of organizations and community events, education programs, sports teams, and public services; 3) Monthly newsletter in the local paper; 4) Responsiveness to community concerns (e.g. host a complaint “hotline”), and 5) Group and individual tours of the facility. The Applicant has worked with the community to landscape the road shoulder areas outside the PVT ISWMF and to care and clean-up of Lualualei Naval Road.
12. Pending State Legislation, Senate Bill 2386, SD2, HD2. The State Legislature recently passed a bill, Senate Bill 2386, SD2, HD2, that establishes a new buffer zone for any new, modification, or expansion of a waste or disposal facility including a C&D debris landfill of no less than one-half mile around the waste or disposal facility between the edge of waste or waste activity and the nearest residential, school, or hospital property line. The Governor can either veto or sign the bill into law on or by September 15, 2020. If he decides to veto the bill, he must inform the Legislature by August 31, 2020. Passing of the bill would essentially render the proposed Project moot.
13. Pending City Resolution, Resolution 20-119. On May 13, 2020, the Zoning, Housing, and Planning Committee of the City Council introduced Resolution 20-119. The Resolution, relating to waste disposal and processing facilities, intends to increase the required minimum distance between waste disposal and processing facilities and zoning lots in country, residential, apartment mixed use, and resort districts; or any zoning lot on which a school is located. The proposed minimum distance would become 5,280 feet or when it can be determined that potential impacts can be mitigated, this distance can be reduced to 2,640 feet with passage of this Resolution. The DPP has begun reviewing Council’s proposed amendments to the LUO relating to waste disposal and processing facilities. Passing of the bill would have the same effect as passage of SB 2386, SD 2, HD 2.

IV. CONCLUSION

The proposed Project would employ proven mitigative measures to reduce or avoid potential adverse impacts to properties to the south. The Applicant is committed to mitigating anticipated impacts using BMPs in design, site development, and operations. Potential adverse impacts have been anticipated and addressed based on the Applicant’s years of operations in this community.

The proposed Project to handle C&D debris for the foreseeable future addresses a number of economic and alternate energy goals of the State and City, while reclaiming as much material that is recycled or reused. The new landfill and resumption of reclamation and diversion operations to the Project Site will serve to avert a social and economic crisis that may result from the health and safety issues associated with closing the only approved C&D debris landfill.

The proposed Project is generally in compliance with relevant State and City policies and no adverse infrastructure impacts are anticipated, provided the Project Site's wastewater and water system conform to health and safety standards. In addition, rather than structures or buildings developed on-site, the proposed Project, to the extent possible, maintains the open space character of the surrounding area. State classified and City-zoned as agriculture, it is unsuited due to poor quality soils and lack of water and unintended for future agriculture by the Applicant. Rather, it has long been cited as a candidate for a C&D debris landfill site and particularly as a site for debris following a natural disaster.

However, on the other hand, it is recognized there have long-standing complaints towards the nuisances associated with the PVT ISWMF. The OHA, in their comments on the proposed Project, stated they have no data to provide a causal link between the PVT ISWMF and higher incidence of cancer rates amongst Native Hawaiian within the Nanakuli community. Nevertheless, the issue of human health concern should be given adequate consideration. In a good faith effort to the residents, every attempt should be made to distance the ISWMF operations as far away on the Project Site even if that means having to give up some landfill space to create additional buffer and separation between ISWMF operations and residents to the south. A voluntary overture to do so is a more effective strategy than having new restrictions forced upon the industry and reduces the reliance of reacting to adverse impacts with increasing amounts of environmental controls for dust, noise, traffic, and odor.

The additional capacity of 4.5 million cubic yards culminating from the expansion with 2015/CUP-69 and the extraction of 750,000 cubic yards of buried C&D debris at the existing PVT ISWMF provides quite a boost in landfill capacity. Adding possible increased landfill diversion rates with improving technology over time could reduce the space needed for landfilling requiring less space for the entire operation thereby providing more opportunity to provide buffer and reduce the incidence of nuisances upon the surrounding population. These factors and operational redesign may prove that the same initial calculated lifespan of the landfill can still be achieved and landfilling instead could begin at the north end and move south since there could be less need for landfilling if C&D debris waste diversion rates continually improve.

Provided the Applicant adheres to the recommended conditions of approval, allowing the proposed Project for the PVT ISWMF to expand by relocating operations across Lualualei Naval Road in order to provide uninterrupted services once the existing PVT ISWMF begins closure, is "unusual and reasonable" as set forth in Chapter 205-6, HRS, and meets the five guidelines established by the PC, pursuant to Section 2-45 of the PC Rules.

V. RECOMMENDATION

The Director recommends that Special Use Permit (SUP) Application File No. 2020/SUP-4, granted to PVT Land Company, Ltd., for the location of an Integrated Solid Waste Management Facility (ISWMF) on approximately 179.109 acres, Tax Map Key 8-7-009: 007, as shown on Exhibit A, be approved, subject to the following conditions.

1. The Applicant will eliminate Cell 10 (18 percent volume reduction in landfill capacity) and move the proposed PVT ISWMF operations back to the closest edge of the next cell (currently Cell 11) to create additional separation from the landfill operating area and the nearest residential area to the south. The 100-foot landscaping buffer with irrigation system and dust and security fencing shall remain along the southern property line but the office trailers, scale house, and parking shall abut Cell 11 as they were abutting Cell 10 before this recommended removal. The liquid solidification basin shall be relocated to the area of proposed Cell 11 and the aggregate materials processing area shall be relocated to the area proposed as Cell 12. Exhibit A will need to be amended to show one less landfill cell.
2. Prior to the access license from the U.S. Navy expiring, the Applicant will secure from the U. S. Navy, a new entry/exit driveway to the Project Site off of Lualualei Naval Road further mauka from its southernmost parcel boundary and which will still allow sufficient on-site (off of Lualualei Naval Road) stacking and queuing area before approaching the scales, scale house, and office as initially proposed in this Application by that time.
3. Uses permitted by this SUP at the Project Site will be as follows: A construction and demolition debris (C & D) landfill and accessory uses and structures to include:
 - a) Two materials recovery and diversion units; b) Either one of a gasification unit or an anaerobic digestion system (not both); c) Up to seven acres of portable photovoltaic modules with inverters, mounting racks and battery storage systems; d) Feedstock storage bins; e) Equipment maintenance facilities; f) Fuel tanks; g) Two sets of scales and scale houses; h) Paved employee and visitor parking for up to 90 employees and guests; i) Stormwater basin and drainage features; j) Groundwater well pumps and monitoring wells; k) Water tanks and a reverse osmosis unit; l) Electrical utilities transformer; m) Telecommunications; n) Related equipment such as bulldozers, water spray trucks, excavating equipment, fire suppression; o) Office trailers; p) Security hut; and q) Perimeter and dust-screen. The establishment of any the uses not included above is subject to the Planning Commission (PC) and State Land Use Commission (LUC) review and approval.
4. The Applicant will provide a revised timeline of remaining capacity and rates of extraction and landfill disposal by volume (cubic yards), and estimated time of closure of both the existing PVT ISWMF and the proposed Project, annually.
5. The Applicant shall start the landfilling of Cell 14, the most mauka (north) of the landfill cells first. The Applicant is to provide an internal traffic circulation plan on the site showing truck movements and operational characteristics of the Project Site with landfilling beginning at Cell 14.

6. Within 10 years, should the LUC grant the special permit for the proposed Project, the proposed Project will be operational to accept and process C&D debris and if capacity is reached, the existing PVT ISWMF will be closed per the Hawaii Department of Health (HDOH) approved closure plan. If not, see Condition No. 13(b).
7. Prior to building permit approval for any buildings, the Applicant shall provide an analysis that concludes to the satisfaction of the Honolulu Fire Department and the Board of Water Supply that sufficient access and on-site fire flow protection will be provided.
8. The Applicant will submit the 2007 Preservation Plan to the State Historic Preservation Office (SHPO) for their determination as to whether the SHPO still concurs that the Plan is still acceptable in relation to the current proposed Project to ensure compliance with Chapter 6E, Hawaii Revised Statutes.
9. The Applicant shall provide a beneficial re-use plan for lands disturbed by its ISWMF operations. The plan shall include planning and preparation of design and implementation scenarios for the beneficial re-use of the ISWMF area consistent with established land use policies for the site and surrounding area. The re-use planning document and accompanying scenarios and drawings shall be submitted to the Department of Planning and Permitting (DPP), for review and approval within the seventh year after the date of the LUC's Decision and Order approving the ISWMF.
10. The final cover of the landfill cells shall meet the HDOH requirements for closure and shall be of sufficient material, durability, and design so that the Applicant can implement the beneficial re-use plan approved by the DPP.
11. Prior to building permit approval for any structure related to the proposed Project, excluding security or dust fencing, the Applicant shall submit to the DPP for review and approval, an outdoor lighting plan with catalog cuts showing exterior fixtures are fully shielded and that the level of lighting in lumens is appropriate for its intended use. Outdoor light fixtures should avoid blue wavelength emissions to protect wildlife, human health, and the night sky. The outdoor lighting plan will consider dimming controls or being turned off during off peak hours.
12. On or before December 31 of each year that the SUP is in effect, the Applicant or its successor will file an Annual Report to the DPP that demonstrates the Applicant's compliance with conditions of the SUP.
13. Major modifications to: (a) The approved site plan; (b) Amendments to the conditions of approval; (c) Any increases in acreage of the approved area; or (d) Change in approved uses stated herein, will be subject to the review and approval of the PC. Minor modifications, including minor additions to accessory uses and structures in the approved area, are subject to review and approval by the Director.
14. The Applicant and/or landowner will notify the Director of:

- a. Any change or transfer of licensee on the Project Site;
- b. Any change in uses on the Project Site;
- c. Termination of any uses on the Project Site; and/or
- d. Transfer in ownership of the Project Site.

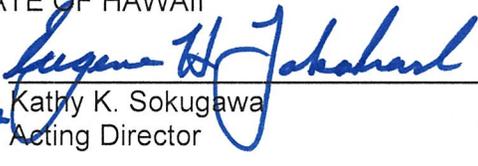
The PC, in consultation with the Director, will determine the disposition of this SUP, and the facilities permitted herein.

- 15. Enforcement of the conditions of the SUP will be pursuant to the Rules of the PC, including the issuance of an order to show cause as to the reason the SUP should not be revoked if the PC has reason to believe that there has been a failure to perform the conditions imposed herein.

Dated at Honolulu, Hawaii this 14th day of August, 2020.

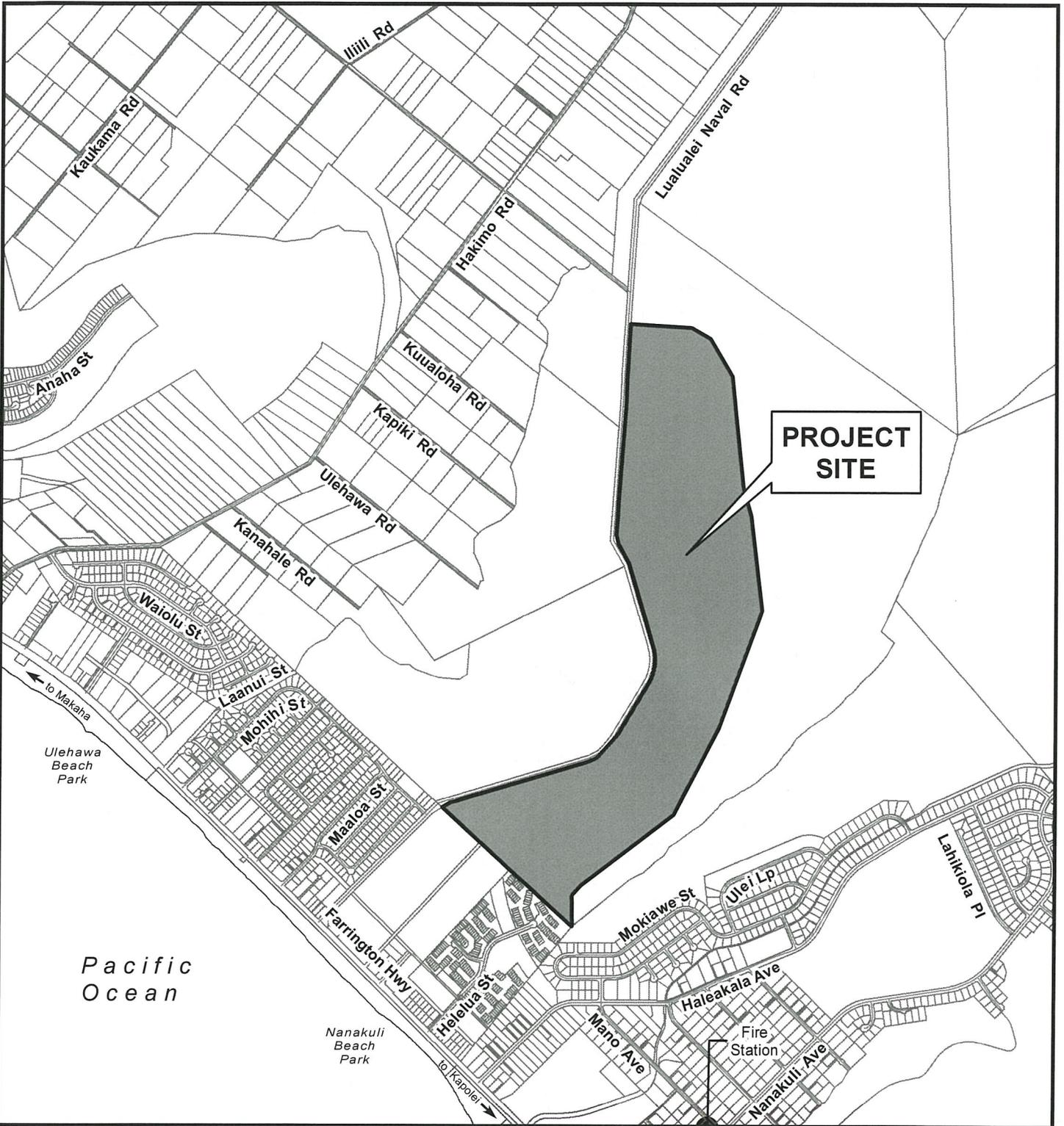
DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
STATE OF HAWAII

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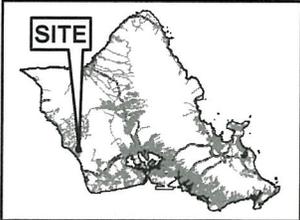
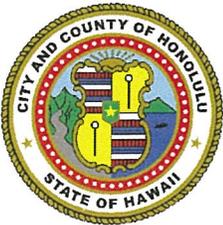
Kathy K. Sokugawa
Acting Director

Attachments

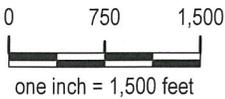


PROJECT SITE

Pacific Ocean



VICINITY MAP



LOCATION MAP

PVT Integrated Solid Waste Management Facility Relocation Project.

NANAKULI, WAIANAE DISTRICT

TAX MAP KEY: 8-7-009:007

FOLDER NO.: 2020/SUP-4