

CHAPTER 5 INFRASTRUCTURE AND PUBLIC FACILITIES

5.1 WATER FACILITIES

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

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

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

Potential Project Impact

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

5.2 WASTEWATER FACILITIES

The City Department of Environmental Services (DES) provides municipal wastewater collection and treatment in the Kāne'ōhe district via a system of wastewater pump stations and sewer lines. There are currently no sewer lines within the Petition Area. There are wastewater lines within the existing HMP adjacent to the Petition Area, and an 8-inch municipal transmission line in Lipalu Street. The Kailua Wastewater Treatment Plant (WWTP) processes wastewater collected from the HMP and surrounding areas.

Potential Project Impact

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

5.3 DRAINAGE FACILITIES

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

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

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

Potential Project Impact

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

5.4 SOLID WASTE FACILITIES

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

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

Potential Project Impact

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

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

5.5 TRANSPORTATION FACILITIES

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

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

Potential Project Impact

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

5.6 ELECTRICAL AND COMMUNICATION FACILITIES

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

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

Potential Project Impact

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

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

5.7 RECREATIONAL FACILITIES

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

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

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

Potential Project Impact

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

5.8 EDUCATIONAL FACILITIES

HMP is situated within the Castle Complex of public schools, administered by the State Department of Education. Schools in the Castle Complex include eight elementary schools (ʻAhuimanu, Ben Parker, Heʻeia, Kahaluʻu, Kaneʻohe, Kapunahala, Puʻohala, and Waiahole), S.W. King Intermediate School, and James B. Castle High School. The only school within the general vicinity of HMP and the Petition Area is Kaneʻohe Elementary School. This school is located along Mokulele Drive about 250 feet north of the northern end of HMP, and separated from the cemetery by a residential subdivision. Hawaiʻi Pacific University's Hawaiʻi Loa campus is a private university located about 1.5 miles southeast of the Hawaiʻi State Veterans Cemetery and HMP.

Potential Project Impact

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

5.9 MEDICAL FACILITIES

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

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

Potential Project Impact

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

5.10 POLICE AND FIRE PROTECTION

5.10.1 Police Protection

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

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

5.10.2 Fire Protection

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

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

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CHAPTER 6 CONFORMANCE WITH LAND USE PLANS AND POLICIES

6.1 STATE OF HAWAII

6.1.1 State Land Use Districts

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

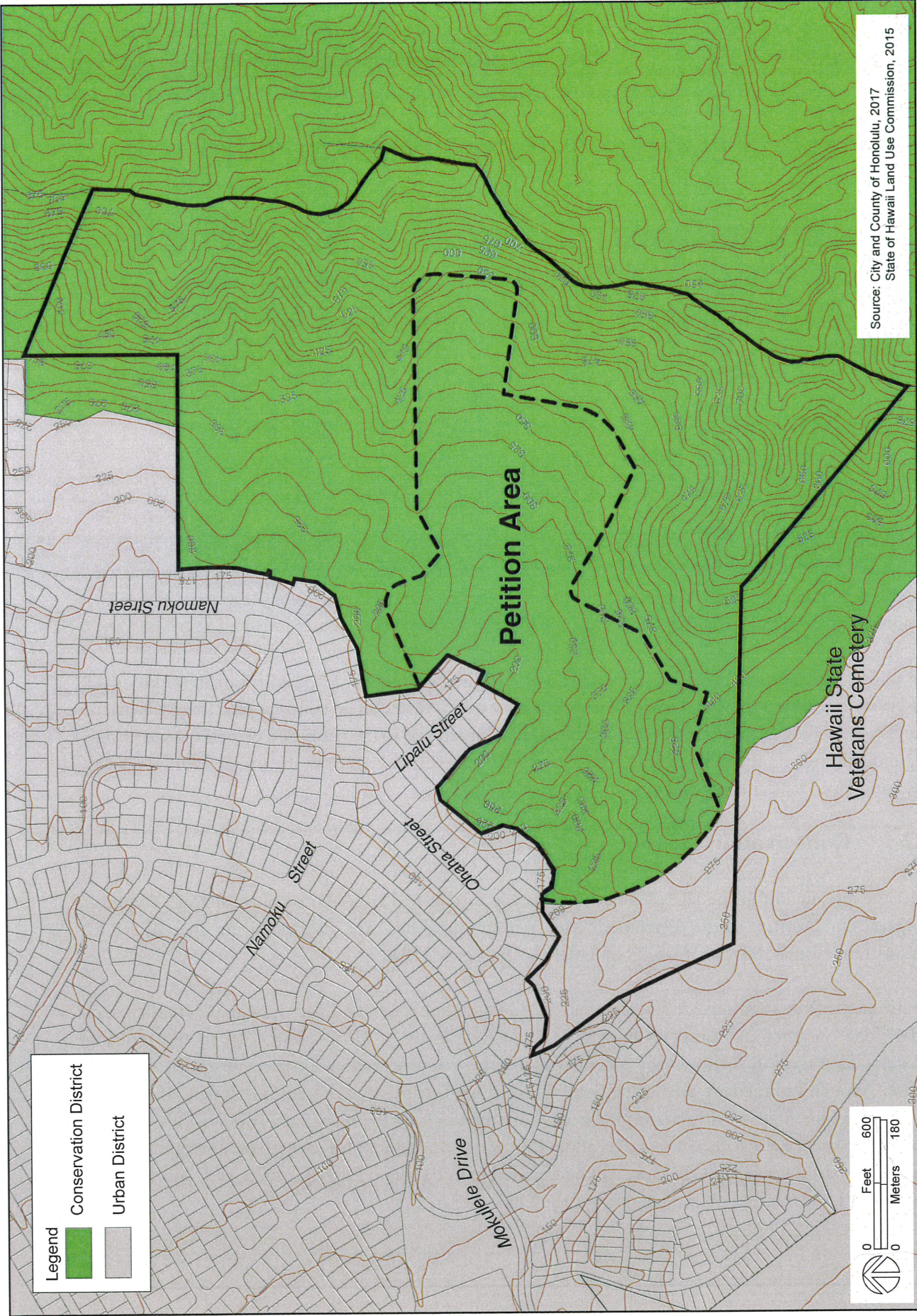
The entire 53.45-acre Petition Area is designated as State Conservation District. This site borders the Ocean View Garden site that is designated as Urban District. The adjacent Hawai'i Veteran's Cemetery has areas designated as both Conservation and Urban Districts. Figure 6.1 highlights the Petition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

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

6.1.2 Conservation Districts

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

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



State Land Use District Boundaries Map

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

Figure 6.1