

STATE OF HAWAI‘I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawai‘i

File No: OA-3952
180-Day Exp. Date: November 12, 2024

September 27, 2024

**Board of Land and
Natural Resources
State of Hawai‘i
Honolulu, Hawai‘i**

REGARDING	Conservation District Use Application (CDUA) OA-3952, for the Lā‘ie Water Company (LWC) Production Well Project
APPLICANT	Lā‘ie Water Company
AGENT	Jim Hayes of Planning Solutions
LOCATION	Por. Kahuku Forest Reserve, Lā‘ie, Ko‘olaupua, O‘ahu
TAX MAP KEY	(1) 5-5-007:001 (portion)
AREA OF USE	Approximately 0.4 acres (16,900 square feet)
SUBZONE	General Subzone
EXHIBITS	<ol style="list-style-type: none"> 1. Project location 2. Photos 3. Lā‘ie Water Company Service Area 4. Well Site Development Plan 5. Well Construction and Pump Installation Plan 6. Pump Control and Chlorination Building Plan

Item K-2

SUMMARY

The Lā'ie Water Company (LWC) is proposing to drill, test, construct, and operate two new production wells and accessory structures at its existing 2.0-million-gallon (MG) storage tank site on a portion of Tax Map Key (TMK): (1) 5-5-007:001. See **Exhibit 1**. The proposed 1.1-acre well site is entirely in the General Subzone of the State Land Use Conservation District near Waialele Gulch at an elevation of approximately 224 feet above sea level Mean Sea Level (+MSL).

DESCRIPTION OF AREA

The project is located in Lā'ie, Oahu, Hawaii on a ridge, in a saddle between two hills. The well site was graded when the existing tanks and associated infrastructure was developed in the 1980s. The site is an approximately 1-acre fenced enclosure on the subject parcel, which has a total area of 2,206.84 acres. There are no buildings on the well site; on site structures are limited to a 2.0 MG tank (40-foot tall), a 0.3 MG tank (20-foot tall), and above and below ground piping that connects the tanks to off-site wells and the off-site LWC service area. See **Exhibit 2**. Utilities currently at the site are the single-phase, low-voltage electrical power via underground conduit lines from the quarry wells, and the above and below ground piping that connects the tanks to the off-site wells at the LWC service area.

There are no public roadways present on the subject parcel, which is accessible via a cane haul road branching off Kamehameha Highway south of the Polynesian Cultural Center and Brigham Young University, Hawaii Campus. See **Exhibit 2**. The cane haul road is lightly traveled with multiple gates, and there are no public uses in the areas it accesses.

All proposed infrastructure is outside of designated hazard zones including any floodway or special flood hazard area.

The vegetation within the project site is maintained Saint Augustine grass (*Stenotaphrum secundatum*), and short trees and shrubs primarily haole koa (*Leucaena leucocephala*) and parasol leaf tree (*Macaranga tanarius*).

The project site beyond the well site, where the 3-phase electric power line would be installed, is predominantly along an established road where the vegetation (primarily grass) is regularly maintained. The forested area was previously cleared for the installation of the 1-inch diameter water main along the same alignment.

The only fauna observed at the project site has been common introduced avian species, such as mynah birds, and Indian mongoose. Although not observed, it is likely that native forest birds and/or Hawaiian hoary bats are periodically present in the project area, and it is possible that seabirds overfly the project area during certain times of the year. There is no USFWS-designated critical habitat in the project vicinity.

HISTORICAL & CULTURAL RESOURCES

The LWC is a private water utility company that has been providing potable water to the Lā'ie community since 1898. See **Exhibit 3**. LWC currently: serves over 720 customers, has over 80,000 linear feet of pipeline, has 100 fire hydrants, and distributes approximately 1 million gallons per day (MGD) of potable water.

The ahupua'a of Lā'ie meaning, in 'ōlelo Hawai'i, is "the ie'ie leaf". Lā'ie is traditionally divided into two sub-ahupua'a, the southern portion being Lā'ie Malo'o ("dry Lā'ie"), and the northern side closer to the ponds and streams being known as Lā'ie Wai ("Wet Lā'ie"). The land area in Lā'ie has a broken landscape of coastal dunes and level lands. There are many small branching streams between rough ridges that extend far down to the sea that intersect stretches of elevated coral. A number of these streams join to form Lā'ie Stream, which flows into Lā'ie Bay.

No new archaeological studies have been prepared for this project. The Lā'ie region has been the subject to of numerous archaeological studies from reconnaissance to inventory surveys, plus work associated with inadvertent finds. Some of the archaeological studies have included portions of the proposed power line alignment; none of the archaeological studies have specifically involved the well site.

The well site was graded when the existing tanks and associated infrastructure was developed. On May 9, 1986, an After-the-Fact Conservation District Use Permit (CDUP) OA 1878 was approved by the Board of Land and Natural Resources for a private water storage tank with access road and accessory uses, subject to 9 conditions.

No historic properties are evident in any of the project areas. This condition indicates that no known historic properties will be directly affected by the proposed project.

PROPOSED USE

The LWC is proposing to construct two new production wells at its existing 2.0 storage tank site. Assuming exploratory well testing confirms the adequacy of the water source in terms of quality and quantity, additional improvements to the site will be required to develop the wells into production wells linked to the existing Lā'ie water system. See **Exhibit 4**. The additional improvements would consist of:

PRODUCTION WELL DEVELOPMENT. The anticipated well construction involves a 21-inch diameter borehole, 215-feet of 14-inch-diameter solid steel casing (ASTM A 606), 170-feet of louvered steel casing (ASTM A 606) and placing roughly 210 vertical feet of grout to seal the annular space adjacent to the solid steel casing. The proposed wells would connect to an existing 12-inch pipeline associated with the existing tanks.

PUMPS AND PIPING. A 125-horsepower, 1,075 GPM submersible pump will be installed in each well along with ancillary aboveground and underground infrastructure related to the pumps (e.g., piping and three-phase electrical power). See **Exhibit 5**. The water piping will include pipes to connect the wells to the on-site storage tanks and well flush pipes that connect to the onsite water storage tank overflow discharge piping.

TESTING. Final, permit-required, constant-rate pump tests will be run to establish the well's hydraulic capacity and long-term yield. The pump tests will be conducted over five consecutive days.

PUMP CONTROL AND CHLORINATION BUILDING. The building will (i) be a single-story, concrete block building with a flat concrete roof; (ii) be roughly 570 square feet and have a maximum height of roughly 11 feet; (iii) be naturally ventilated, except for the electrical room which will be air conditioned to protect the equipment; and (iv) have exterior security lighting. See **Exhibit 6**. The building will house the motor control center, electrical control panel, a Supervisory Control and Data Acquisition (SCADA) remote system, alarm system, disinfection, and backup generator. There will be a dedicated chlorination room with a disinfection system within the building.

FUEL TANK. A roughly 1,000-gallon aboveground storage tank will be installed near the building to provide fuel for the generator.

ANTENNA. The sole exterior component of the Supervisory Control and Data Acquisition (SCADA) system will be a small communications antenna mounted on one of the existing storage tanks. The SCADA system will allow the LWC to continuously monitor and control operation of the proposed facilities remotely.

3-PHASE ELECTRIC POWER. Three-phase electrical power is needed to power the pump motors and other infrastructure. All the work to design and construct the power line extension will be conducted by Hawaiian Electric. Although final design work is not complete, the power lines will be three-phase mounted on poles approximately 30 to 50 feet in height, with a vegetation clearance corridor on either side. The work will start at an existing Hawaiian electric pole near the Lā'ie Wastewater Treatment Plant, extend along an existing cane haul road, and then up a hill for roughly 500-linear-feet to the existing well site. The total length of the line is anticipated to be roughly 3,000-linear-feet, of which roughly 900 linear feet is in the Conservation District. Typically, a utility corridor of this type involves poles spaced 100 to 200 feet apart and a 20-foot-wide easement in which vegetation is controlled; the roughly 500-linear-foot portion of the line from the road to the well site would require vegetation clearing and management; however, the line would parallel and existing water main and that alignment was previously cleared and disturbed when the water line was installed.

FENCING. The fence on the north side of the 2.0 MG tank will be pushed out roughly 245-linear-feet so that the fenced area would increase from roughly 1-acre to roughly 1.1-acres. The new section of the fence will be consistent with the existing fence. The existing fence is a six-foot-tall chain-link fence with three strands of barbed wire. The additional fenced area will need to be cleared of the low vegetation. In total, site preparation will require excavation of roughly 1,190 cubic yards of material and result in a roughly 0.3-acre area graded to an elevation of 224 feet for well drilling and outfitting.

LANDSCAPING. Site preparation will remove the existing landscape over a roughly 0.4-acre portion of the well site. Project construction requires a stabilized ground surface across much of the graded area so that drill rigs and other equipment can easily move and not track soil. Following construction, access to the new wells and associated infrastructure will need to be maintained for monitoring, service, and repair needs. For these reasons, landscaping will consist of a stabilized gravel, concrete, and/or asphalt

area within the well site from the end of the concrete driveway to the wells and the control building. This area is roughly 5,700-square-feet. Stabilizing material will be inspected prior to use to ensure it is free of foreign matter and will not introduce invasive species into the Conservation District. The remainder of the disturbed well site will be planted with grass. The disturbed area outside of the fenced well sited will be allowed to naturally regrow. No planting will be performed outside of the fenced area.

ALTERNATIVES CONSIDERED

1. No Action. The No Action Alternative consists of not implementing the Proposed Action or any other action to address the purpose and need.
2. Proposed Action. (*preferred alternative*) The Proposed Action is to construct two new production wells at its existing 2.0 MG storage tank site. This would include drilling and pump testing two new exploratory wells to determine if the yield is adequate and the quality is suitable for drinking. Once found to be viable sources of potable water, the exploratory wells will be converted into a production facility. LWC believes this course of action to be the most efficient available means to continue to provide adequate, reliable, and affordable drinking water to customers in the service area.
3. Rely on Quarry Wells E and F. This alternative is not recommended, as it will rely on the existing 1,075 GPM pumps. There were extended periods during which two wells would have to be run concurrently with reduced capacity due to their close proximity to each other. If service requirements increase over the current water use, this issue would occur more frequently.
4. Add Quarry Well D to the System. This alternative does not provide the needed source water reliability and redundancy that is required for a public water system.
5. Alternative Well Sites. Two alternative well sites were considered for the project. The first was at an elevation of 110 feet, and the second was on the makai (seaward) side of the existing 2.0-million-gallon storage tank at 224-feet. However, both options were rejected due to higher construction and operational costs, without offering any environmental benefits.

MITIGATIVE ACTIONS AND POLICIES

AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

Temporary Best Management Plans (BMPs) will be implemented during ground-disturbing activities to avoid and minimize soil erosion, including perimeter controls (like silt fences and silt socks), check dams and/or erosion blankets in steep areas, stabilized construction access areas, designated fueling and storage areas, soil stockpile protections, dust control measures, and site stabilization measures.

Additionally, the following avoidance and minimization measures would be employed:

- Stopping work and stabilizing the site during periods of heavy rainfall. Stabilization methods could include straw mulch cover, erosion blankets with anchors, 6-milimeter plastic sheets, and other measures.
- Phasing the project to reduce the disturbed/exposed areas at any one time.
- Existing vegetation would be preserved to the maximum practicable extent.
- Clearing and grubbing along step slopes and prior to rain events would be avoided.
- Stabilizing disturbed areas as soon as possible.
- The project shall comply with the City and County of Honolulu's "Storm Drainage Standards" and the "rules Relating to Water Quality."

BIOLOGICAL RESOURCES AND PROTECTED SPECIES

The following mitigation measures will be implemented to avoid and minimize potential impacts to biological resources:

- Woody plants greater than 15-feet tall will not be disturbed, removed, or trimmed during the bat birth and pup rearing season from June 1 through September 15.
- The LWC will consider the use of taller fences in lieu of barbed wire to avoid potential impacts to the Hawaiian Hoary Bat while meeting its security needs.
- Construction activities will not occur at night. If for unforeseen reasons night work is required, it would not occur during seabird fledging season (September 15 through December 15) and fully shielded lights would be used outside of that period.
- Outside lights installed as part of the project (e.g., security lights at the well site) will be dark sky compliant and seabird friendly by being fully shielded and considered "acceptable" per the DLNR guidance. They would utilize automatic motion sensor switches and controls when possible.
- In the event that a listed species of waterbird, such as the Hawaiian stilt, Hawaiian coot, or Hawaiian gallinule, should occur in or around the project site, all work within 100-feet will cease until the bird leaves the area of its own accord.
- If a nest for any such species is encountered in the project area, Lā'ie will contact the O'ahu Branch DOFAW Office and establish a buffer zone around the nest.
- In the unlikely event that a pueo nest is observed in the project area, LWC will contact O'ahu Branch DOFAW Office and establish a buffer zone around the nest until nesting is complete.

HISTORIC AND CULTURAL RESOURCES MITIGATION ACTIONS

The following measures will be implemented to avoid and minimize potential impacts to historic and cultural resources:

- Continue consultation with SHPD to complete the HRS 6E review process.
- Brief project construction workers on the history of the area and inform them of the possibility of inadvertently encountering unknown historic/cultural resources, including human remains.
- Cease all activities if historic/cultural resources are inadvertently encountered during construction activities and notify SHPD pursuant to HAR § 13-280-3. If iwi kupuna (i.e., ancestral remains) are identified, all earth moving activities in the area

will stop, the area will be cordoned off, and SHPD, the medical examiner, and the Honolulu Police Department will be notified pursuant to HAR § 13-300-40.

NATURAL HAZARDS MITIGATION ACTIONS

One of the goals of the Proposed Action is to improve the reliability of LWC's water system, this section details the measures it incorporates to ensure the reliability in the event of a natural hazard:

- Constructing all new infrastructure in compliance with regulatory controls to meet current seismic, plumbing, building, and critical infrastructure code design requirements, reducing the risk of failure in the event of hazards.
- Extending the life of the existing LWC water distribution system new water sources to replace water sourced from the aging and deteriorated facilities.
- Locating all major project elements outside of flood zones, Tsunami Evacuation Zones and the SLR-XA

ROADWAYS AND TRAFFIC MITIGATION ACTIONS

Construction activity related traffic impacts would be avoided and minimized by delivering large equipment and material during off-peak times, stabilizing the construction entrance/exit to prevent entrained materials from leaving the project site and impacting area roadways. The proposed project will require all construction workers to park vehicles and other equipment in appropriate areas at the project site.

LĀ'IE WATER COMPANY – BACKGROUND/HISTORY

LWC currently obtains potable water from two well batteries. The first battery of wells is the Quarry Wells; the three Quarry Wells are owned by LWC and are located on TMK 5-5-006:001, which is zoned for agriculture and owned by Property Reserve, Inc. The second battery of wells are on the Brigham Young University-Hawai'i (BYUH) campus, TMK 5-5-006:005. The BYUH Wells are owned by BYUH and used by LWC per an agreement with BYUH.

On May 9, 1986, the Board of Land and Natural Resources approved the After-the-Fact Conservation District Use Permit (CDUP) OA-1878 to construct a new 2.0-million-gallon (MG) water storage tank and accompanying service road from the adjacent existing 0.25 MG water tank site subject to nine conditions.

SUMMARY OF COMMENTS

The Office of Conservation and Coastal Lands referred the application to the following agencies and organizations for review and comment:

Federal Agencies:

- U.S. Fish and Wildlife

State Agencies:

- DLNR: Engineering Division, Water Resource Management, O‘ahu District Land Office, Nā Ala Hele, Aha Moku, Resource Enforcement, Division of Forestry and Wildlife, Office of Conservation and Coastal Lands.
- Department of Health
- Department of Agriculture
- Office of Hawaiian Affairs

County Agencies:

- City and County of Honolulu, Department of Planning and Permitting
- Honolulu Fire Department
- Honolulu Police Department
- Board of Water Supply
- Department of Community Services

Other Individuals and Organizations:

- Hawaii Gas
- Brigham young University Library
- Kahuku State Library
- Lā‘ie Community Association

Additionally, notice of CDUA OA-3952 was published in the May 23, 2024, issue of *The Environmental Notice* and was also available on OCCL’s website to make this information readily available for those who may wish to review it.

Comments were received by the following agencies and individuals and summarized by Staff as follows:

U.S. FISH AND WILDLIFE SERVICE:

The USFWS recommended avoiding the use of barbed wire to prevent harm to the Hawaiian hoary bat.

APPLICANT’S RESPONSE:

The Lā‘ie Water Company (LWC) agreed to consider using taller fences instead of barbed wire to meet security needs and protect bats. This change was incorporated into the Final Environmental Assessment (FEA), Section 3.4.3.

ENGINEERING DIVISION:

The Engineering Division advised that the project should comply with the National Flood Insurance Program (NFIP) standards if it falls within a designated flood zone.

APPLICANT’S RESPONSE:

LWC confirmed that the project is in Flood Zone D, which corresponds to unstudied areas. LWC coordinated with the City and County of Honolulu’s Department of Planning and Permitting and confirmed no flood standards apply.

COMMISSION ON WATER RESOURCE MANAGEMENT:

CWRM emphasized the need for permits, including a Water Use Permit and Best Management Practices (BMPs) for stormwater management and water conservation.

APPLICANT'S RESPONSE:

LWC confirmed they would obtain the necessary permits and implement BMPs, ensuring that stormwater management and water conservation were addressed.

DEPARTMENT OF FORESTRY AND WILDLIFE:

DOFAW concurred with the measures included in the DEA intended to avoid construction and operational impacts to State-listed species including the 'ope'ape'a or Hawaiian Hoary bat (*Lasiurus cinereus semotus*), and seabirds. It is also recommend avoiding the use of barbed wire, as bats can become ensnared and killed by such fencing during flight.

State-listed waterbirds such as ae'o or Hawaiian stilt (*Himantopus mexicanus knudsem*), 'alae ke'oke'o or Hawaiian coot (*Fulica a/at*), 'alae 'ula or Hawaiian gallinule (*Gallinu/a ch/oropus sandvicensis*), could potentially occur at or in the vicinity of the proposed project site. It is against State law to harm or harass these species. If any of these species are present during construction, all activities within 100 feet (30 meters) should cease and the bird or birds should not be approached. Work may continue after the bird or birds leave the area of their own accord. If a nest is discovered at any point, please contact the O'ahu Branch DOFAW Office at (808) 973-9778 and establish a buffer zone around the nest.

DOFAW recommended a qualified biologist conduct surveys during crepuscular hours and walk line transects through the area to detect any active pueo nests. If a pueo nest is discovered, notify DOFAW staff, minimize time spent at the nest, and establish a minimum buffer distance of 100 meters from the nest until chicks are capable of flight.

DOFAW recommended using native plant species for landscaping that are appropriate for the area, i.e., plants for which climate conditions are suitable for them to thrive, plants that historically occurred there, etc. Please do not plant invasive species. DOFAW also recommended referring to www.plantpono.org for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants proposed for use in the project.

DOFAW recommended minimizing the movement of plant or soil material between worksites. DOFAW recommend consulting the O'ahu Invasive Species Committee (OISC) at (808) 266-7994 to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. Page 6-25 August 2024

DOFAW recommended taking action to minimize predator presence; remove cats, place bait stations for rodents and mongoose, and provide covered trash receptacles.

APPLICANT'S RESPONSE:

The LWC acknowledged concerns about Hawaiian hoary bats being harmed by barbed wire and has updated the Final Environmental Assessment (FEA) to consider using taller fences instead.

If a listed waterbird species, such as the Hawaiian stilt, coot, or gallinule, is found within 100 feet of the project, work will stop until the bird leaves. In the event of a nest, LWC will notify the O'ahu Branch DOFAW Office. While no pueo (Hawaiian short-eared owl) have been observed in the area, LWC will establish a buffer zone around any discovered nests and inform DOFAW.

The project will involve clearing a 0.4-acre area, stabilizing it with gravel, concrete, or asphalt for equipment use, and landscaping with grass afterward. LWC will use endemic or indigenous grass species to prevent the introduction of invasive species. Outside the fenced well site, no planting will occur, and the area will be left to naturally regrow. To prevent the spread of invasive species, LWC will ensure equipment is cleaned before use and materials are inspected. Contractors will also take steps to minimize the presence of invasive predators, such as cats, rodents, and mongooses, including using covered trash receptacles.

HONOLULU POLICE DEPARTMENT:

The Honolulu Police Department (HPD) recommended ensuring proper traffic management, safety equipment, and possibly acquiring police services to ensure safe traffic flow.

APPLICANT'S RESPONSE:

The LWC acknowledged the HPD's recommendations related to safety equipment, proper traffic management, and acquiring police services to ensure that traffic flow is not adversely affected. Since the project site is remote, they do not anticipate major traffic impacts.

HONOLULU FIRE DEPARTMENT:

HFD emphasized the need for fire access roads in accordance with National Fire Protection Association (NFPA) standards. Submit civil drawings to the City and County of Honolulu's Department of Planning and Permitting (OPP). They will be routed to the Honolulu Fire Department as needed by the OPP.

APPLICANT'S RESPONSE:

All fire department access roads shall be in accordance with all applicable provisions of the NFPA. All civil drawings for the proposed project will be submitted to HFD for review and approval once they are finalized.

DEPARTMENT OF COMMUNITY SERVICES:

The department indicated no adverse impacts from the project but encouraged the applicant to consider health, safety, and accessibility for residents.

APPLICANT'S RESPONSE:

The LWC will continue to consider the health, safety, accessibility, and long-term wellbeing of area residents and believes that the proposed action is supportive of them.

HAWAII GAS:

Hawai'i Gas confirmed that there are no utility gas facilities in the project area.

APPLICANT'S RESPONSE:

The LWC acknowledged Hawai'i Gas does not have any utility-related gas facilities in the vicinity of the project area.

ANALYSIS

On May 16, 2024, the Department notified the applicant that:

1. The proposed use is an identified land use in the General subzone of the Conservation District, pursuant to the Hawaii Administrative Rules (HAR) §13-5-22, P-8 STRUCTURES AND LAND USES, EXISTING (D-1) Major alteration of existing structures, facilities, uses, and equipment, or topographical features which are different from the original use or different from what was allowed under the original permit. When county permit(s) are required for the associated plan(s), the department's approval shall also be required. Please be advised, however, that this finding does not constitute approval of the proposal.
2. Pursuant to HAR §13-5-40(a), a Public Hearing will not be required.
3. In conformance with the Hawaii Revised Statutes (HRS), Chapter 343, as amended, and HAR Chapter 11-200.1, a finding of no significant impact to the environment (FONSI) is anticipated for the proposed project; and,
4. The subject area is not located in the Special Management Area (SMA).

CONSERVATION CRITERIA

The following discussion evaluates the merits of the proposed land use by applying the criteria established in §13-5-30, HAR.

- 1) *The proposed use is consistent with the purpose of the Conservation District.*
The objective of the Conservation District is to conserve, protect and preserve the important natural and cultural resources of the State through appropriate management and use to promote their long-term sustainability and public health,

safety, and welfare.

The proposed project seeks to expand an existing potable water system operated by the Lā'ie Water Company, a non-governmental regulated utility, within the Conservation District's General Subzone. Classified as a "Public Purpose Use," the project aligns with permissible uses in the Conservation District. The operation of the new wells will adhere to Water Use Permit (WUP) limits, promoting the sustainable management of groundwater resources. Since the new well site is located within the same Ko'olauloa Aquifer System as the existing wells, the project will draw the same or less water, ensuring no negative impact on groundwater or surface water. Additionally, the new wells will be built to modern standards to enhance the protection of water resources and the environment.

- 2) *The proposed land use is consistent with the objectives of the Subzone of the land on which the use will occur.*

The objective of the General Subzone is to designate open space where specific conservation uses may not be defined, but urban uses would be premature. The proposed use is not an urban use; it is a Public Purpose Use, which is an identified use in all Conservation District subzones. Ample open space in the Conservation District will remain for other appropriate uses.

- 3) *The proposed land use complies with the provisions and guidelines contained in Chapter 205A, HRS entitled "Coastal Zone Management", where applicable.*

RECREATIONAL RESOURCES: The proposed project is on a privately-owned parcel in upper Lā'ie. There are no parks or public recreational resources within the project vicinity, the closest public park is Lā'ielohelohe Beach Park, approximately one mile to the southwest.

HISTORIC RESOURCES: LWC has assessed the potential for impacts to historic and cultural resources. The collective finding of those reviews and assessments is that no historic properties will be affected by the proposed LWC Production Well Project. LWC will continue to coordinate with the SHPD and cultural stakeholders in compliance with all state and county laws. The proposed project will include measures to ensure appropriate handling and management of any historic resources that are encountered during project implementation.

SCENIC AND OPEN SPACE RESOURCES: The LWC infrastructure to be improved is low-profile and located in visually inaccessible areas, where views are precluded by intervening topography, vegetation, and structures.

COASTAL ECOSYSTEMS: The LWC has determined, in consultation with USFWS, that there is no federally designated critical habitat within, or in the immediate

vicinity, of the project area. Further, the BMPs for the project will avoid or minimize the short-term construction phase impacts to water and air quality.

ECONOMIC USES: The improved availability and reliability of potable water is consistent with, and supportive of, the economic use objectives and policies identified by the State of Hawai'i.

COASTAL HAZARDS: The Proposed Action is well inland of most coastal hazards. All proposed new infrastructure is outside of designated hazard zones including any floodway or special flood hazard area. LWC has concluded that the Proposed Action is consistent with the CZM policies related to coastal hazards.

MANAGING DEVELOPMENT: The Proposed Action complies with applicable laws and policies regarding coastal development.

PUBLIC PARTICIPATION: The LWC Production Well Project is intended to provide the Lā'ie community with a more robust and reliable water service. A notice of availability for the Draft EA was published in the Office of Planning and Sustainable Development, ERP's bi-monthly bulletin, The Environmental Notice with a request for review and comment. In addition, a presentation was be made to the Lā'ie Community Association and the Ko'olauloa Neighborhood Board during the Draft EA review period.

BEACH AND COASTAL DUNE PROTECTION: The proposed LWC Well Project will not have any impact on area beaches and coastal dunes. The project area is not near the shoreline or sand deposits.

MARINE AND COASTAL RESOURCES: The proposed project will be mauka of Kamehameha Highway and will not interact with any littoral or nearshore marine process or resources in any way. The LWC Well Project is not anticipated to have any adverse effect on marine or coastal resources and is consistent with these policies of the CZM program.

- 4) The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community, or region.

The well site is primarily a well maintained and fenced area managed by LWC for potable water storage. The small area to be used outside of the existing fence and the power line alignment is dominated by introduced and invasive species. No rare, threatened, or endangered species are known to use the project site, and no activities are contemplated that would pose a threat to rare, threatened, or endangered species, or their designated critical habitat.

- 5) The proposed land use, including building, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.

The proposed project consists exclusively of infrastructure that is common to portable water system installations. The well site is currently a potable water storage facility. The minor expansion of the existing use to include groundwater wells is not anticipated to detract from the compatibility or appropriateness of the use.

- 6) The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.

The proposed project is not anticipated to have significant adverse effects on the environment. The BMPs prepared for the project are designed to minimize the potential for impact and preserve the land.

- 7) Describe how subdivision of land will not be utilized to increase the intensity of land in the Conservation District.

The Proposed Action does not involve the subdivision of land.

- 8) The proposed land use will not be materially detrimental to the public health safety, and welfare.

The proposed project will be like the many similar potable well and tank sites in the Conservation District throughout the State of Hawai'i. It will be fenced for security, built to applicable codes, monitored and operated remotely, and maintained regularly. The proposed project will not be materially detrimental to the public health, safety, and welfare. In fact, the continued availability of clean potable water facilitated by the proposed project is considered a public health benefit.

CULTURAL IMPACT ANALYSIS

Based on the information gathered via the interviews and other research, the project team believes that no historic resources exist at the project site. Planning Solutions project planners walked the entire project site on two separate days, once in June 2023 and once in March 2024. Those visits included walking the roughly 500-foot-long alignment of the existing 16-inch-diameter water main and the alignment of the proposed 3-phase electric line between the road and the well site. The only traditional and customary practice potentially occurring in the project area is the gathering of medicinal plants for traditional Hawaiian medicine or lā'au lapa'au. It would not have been useful for agricultural or most

other pre-contact and historic era activities. No Land Commission Awards (LCAs) were awarded within the project area, including the utility line corridor, although several were awarded just east of the project in lower, more arable portions of Lā'ie; these are comprised of kula lands and house lots.

Based on examination of available aerial photography, it does not appear that during the sugar cultivation era, from the mid-1800s to the mid-1900s, that the well site was under cultivation. The road along which the proposed power line would be built was on the edge of the sugar cultivation area and was likely used as a cane haul road. The well site was graded when the existing tanks and associated infrastructure was developed in the 1980s. Although grading plans are not available, it is evident that substantial earth work was needed to generate the level area along the ridge where the tanks now sit. There is evidence that the entire well site, including the roughly 4,170 square foot area outside the existing fence, was graded in the 1980s. There are no above ground features at the well site that are not related to the existing LWC infrastructure. The remainder of the project site, the power line corridor, is similar to the well site in that (i) there are no above ground features not associated with modern uses, such as roads and gates; and (ii) it was previously disturbed for the road construction and/or installation of the existing 16-inch-diameter underground water main. If evidence of traditional Hawaiian activity in the area once existed, it is likely to have been destroyed during historic plantation and ranching activities or more recent infrastructure development.

The OCCL notes the HRS 6E-8 review with SHPD is still in progress. OCCL submitted the HRS 6E-8 form on May 29th, 2024, for review, however, no response has been received from SHPD at this time.

KA PA 'A KAI ANALYSIS

The project team has identified that the only traditional and customary practice potentially occurring in the project area is the gathering of medicinal plants for traditional Hawaiian medicine or lā'au lapa'au. It appears highly unlikely that this is occurring at the project site because (i) the interviewees indicated that it was more common in easily accessible areas closer to town, (ii) the vast majority of the project area is maintained as a roadway or fenced water tank site, and (iii) the project team, including LWC staff that have worked in the area for decades, has not observed people engaged in this activity in the project areas.

DISCUSSION

The Lā'ie Water Company is proposing to drill, test, construct, and operate two new production wells with accessory structures on a portion of TMK No. 5-5-007:001, where it has water storage tanks. Also, to bring the needed electrical power to the site, a power line extension would be necessary. The proposed 1.1 acre well site is entirely in the General Subzone of the State Land Use Conservation District near Waialele Gulch at an elevation of approximately 224 feet above sea level (+MSL). The proposed wells would

connect to an existing 12-inch pipeline associated with the existing tanks and a roughly 3,000-linear-foot-long three-phase electrical service (of which 900 linear feet is in the Conservation District) would be extended to the site.

Providing safe, high-quality potable water involves constant planning to ensure continuous, reliable, and affordable water to residences, businesses, and other customers in LWC's service area. The purpose of the Proposed Action is to expand LWC's sources of potable water. Adding a new source of water would add redundancy and ensure LWC's ability to reliably provide safe, high-quality potable water should the BYUH Wells become unavailable.

Staff believes the project shall be beneficial to the public as the improvements will:

- Provide a new source of water to ensure the LWC's ability to reliably provide safe, high-quality water should the BYUH Wells become unavailable as the BYUH Wells are at an age of 133 years.
- Ensure appropriate management and use in a manner that promotes long-term sustainability of the groundwater resource within the limits of the Water Use Permit allocation.
- Protect and sustain groundwater, surface water, and the environment because the new well site is in the same Ko'olauloa Aquifer System as the existing wells and the same (or less) water volume will be pumped from the aquifer. Importantly, the new wells will be built to modern standards that contribute to the protection of groundwater resources.

During construction Standard Best Management Practices will be observed. Within the CDUA and FEA, the applicant has identified several mitigative measures, conditions, and practices to ensure the proposal will have minimal effects on the natural resources and others nearby.

Based on the information provided, staff believes the project will have negligible adverse environmental or ecological effects provided that best management practices and mitigation measures as described in the application and environmental assessment, and as required by rule or laws, are fully implemented.

OCCL notes staff consulted with DOFAW and confirmed that Saint Augustine grass is a high-risk grass. DOFAW provided a list from the Hawaii Weed Risk Assessment for low-risk grasses, and LWC has agreed to select a grass from this list.

Additionally, DOFAW and USFWS both recommend avoiding the use of barbed wire, as bats can become ensnared and killed by such fencing during flight.

OCCL will recommend the above two DOFAW recommendations be made conditions of the permit.

RECOMMENDATION

Based on the preceding discussion, staff recommends that the Board of Land and Natural Resources approve Conservation District Use Permit OA-3952 for the Lā'ie Water Company Production Well Project located at Por. Kahuku Forest Reserve, Lā'ie Ko'olauloa, island of O'ahu, Tax Map Key: (1) 5-5-007:001 (portion) subject to the following standard and special conditions:

1. The permittee shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, state, and county governments, and applicable parts of this chapter;
2. The permittee, its successors and assigns, shall indemnify and hold the State of Hawai'i harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit;
3. The permittee shall comply with all applicable department of health administrative rules;
4. The permittee shall provide documentation (e.g., book and page or document number) that the permit approval has been placed in recordable form as a part of the deed instrument, prior to submission for approval of subsequent construction plans;
5. The proposed project shall not be commenced, or, in the event it has already begun, continued, until the SHPD has given its written concurrence;
6. Before proceeding with any work authorized by the department or the board, the permittee shall submit four copies of the construction plans and specifications to the chairperson or an authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three of the copies will be returned to the permittee. Plan approval by the chairperson does not constitute approval required from other agencies;
7. The permittee shall notify the Office of Conservation and Coastal Lands (OCCL) in writing prior to the initiation and upon completion of the project;
8. Unless otherwise authorized, any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been signed by the chairperson and shall be completed within three years of the approval of such use. The permittee shall notify the department in writing when construction activity is initiated and when it is completed;
9. All representations relative to mitigation set forth in the accepted environmental assessment or impact statement for the proposed use are incorporated as conditions of the permit;

10. The permittee understands and agrees that the permit does not convey any vested right(s) or exclusive privilege;
11. In issuing the permit, the department and board have relied on the information and data that the permittee has provided in connection with the permit application. If, subsequent to the issuance of the permit such information and data prove to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and the department may, in addition, institute appropriate legal proceedings;
12. When provided or required, potable water supply and sanitation facilities shall have the approval of the department of health and the county department of water supply;
13. Provisions for access, parking, drainage, fire protection, safety, signs, lighting, and changes on the landscape shall be provided;
14. Obstruction of public roads, trails, lateral shoreline access, and pathways shall be avoided or minimized. If obstruction is unavoidable, the permittee shall provide alternative roads, trails, lateral beach access, or pathways acceptable to the department;
15. During construction, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities;
16. To minimize potential impacts to night-flying Hawaiian seabirds who may overly or use the area, the permittee shall not conduct night-time construction on the site during the seabird fledgling season (September 15 to December 15) and shall ensure that all outdoor lighting (if any) is fully shielded and dark sky compliant;
17. Cleared areas shall be revegetated, in accordance with landscaping guidelines provided in this chapter, within thirty days unless otherwise provided for in a plan on file with and approved by the department and the grass for revegetated areas shall be chosen from the Hawaii Week Risk Assessment for low-risk grasses.
18. Use of the area shall conform with the program of appropriate soil and water conservation district or plan approved by and on file with the department, where applicable;
19. Any replanting shall be appropriate to the site location and shall give preference to plant materials that are endemic or indigenous to Hawaii. The introduction of invasive plant species is prohibited.
20. The permittee shall obtain a county building or grading permit or both for the use prior to final construction plan approval by the department;
21. Signs, including safety signs, danger signs, no trespassing signs, and other informational signs. No signs shall exceed twelve square feet in area and shall be

non-illuminated. All signs shall be erected to be self-supporting and be less than or equal to eight feet above finished grade;

- 22. Artificial light from exterior lighting fixtures, including but not limited to floodlights, up lights, or spotlights used for decorative or aesthetic purposes, shall be prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline and ocean waters, except as may be permitted pursuant to section 205A-71, HRS. All exterior lighting shall be shielded to protect the night sky;
- 23. The permittee acknowledges that the approved work shall not hamper, impede, or otherwise limit the exercise of traditional, customary, or religious practices of native Hawaiians in the immediate area, to the extent the practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law;
- 24. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact HPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;
- 25. The permittee will not use barbed wire on new fences;
- 26. Other terms and conditions as prescribed by the chairperson;
- 27. Failure to comply with any of these conditions shall render a permit void under the chapter, as determined by the chairperson or board.

Respectfully submitted,



Kariann Stark, Staff Planner
Office of Conservation and Coastal Lands

Approval for submittal:



Dawn N.S. Chang, Chairperson
Board of Land and Natural Resources

mc

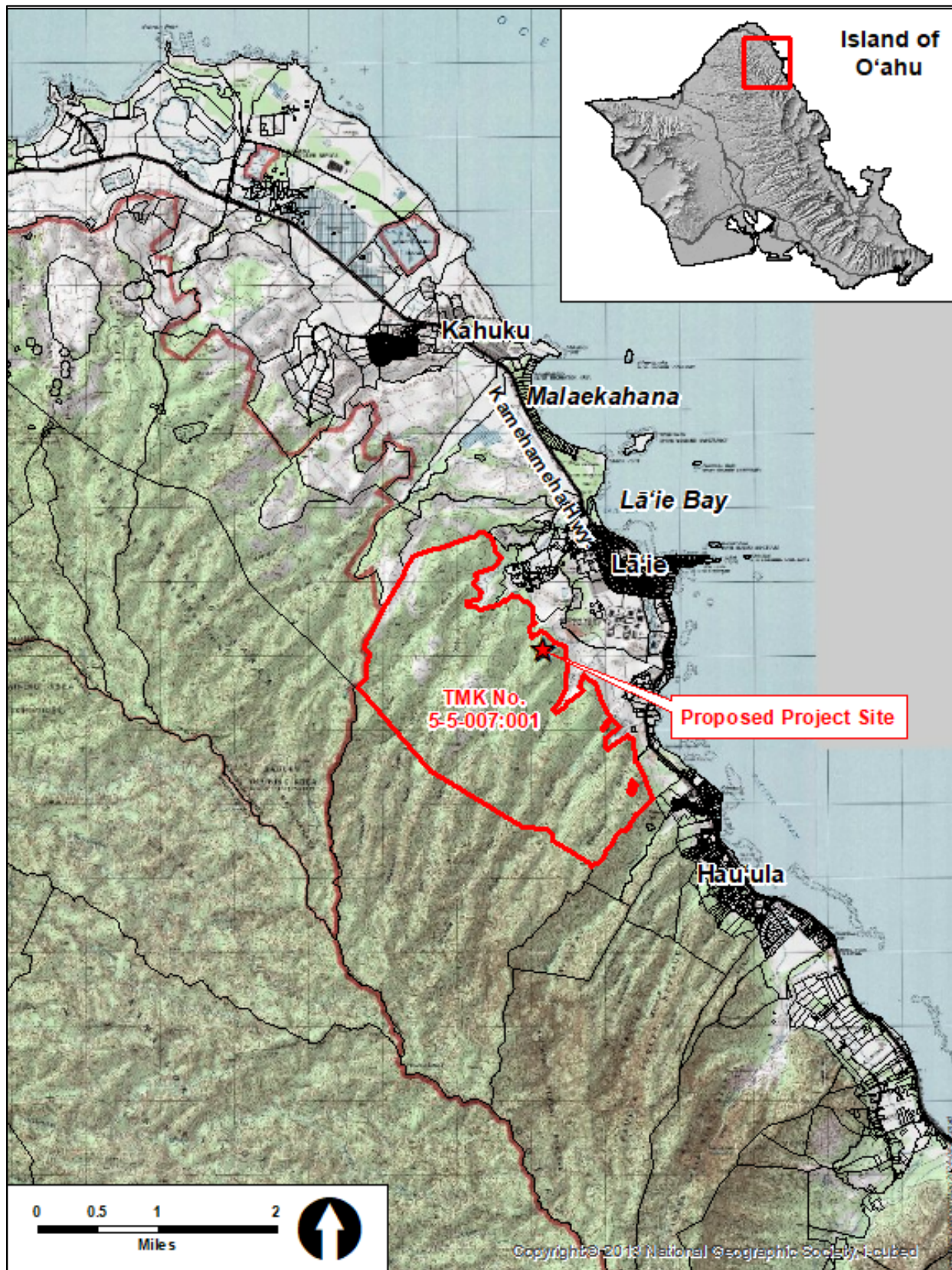


Exhibit 1- Project Location

Gated entrance to existing well site and proposed wells site. Existing 0.3 MG water storage tank in background.



Existing 2.0 MG water storage tank. Approximate location of proposed wells indicated.

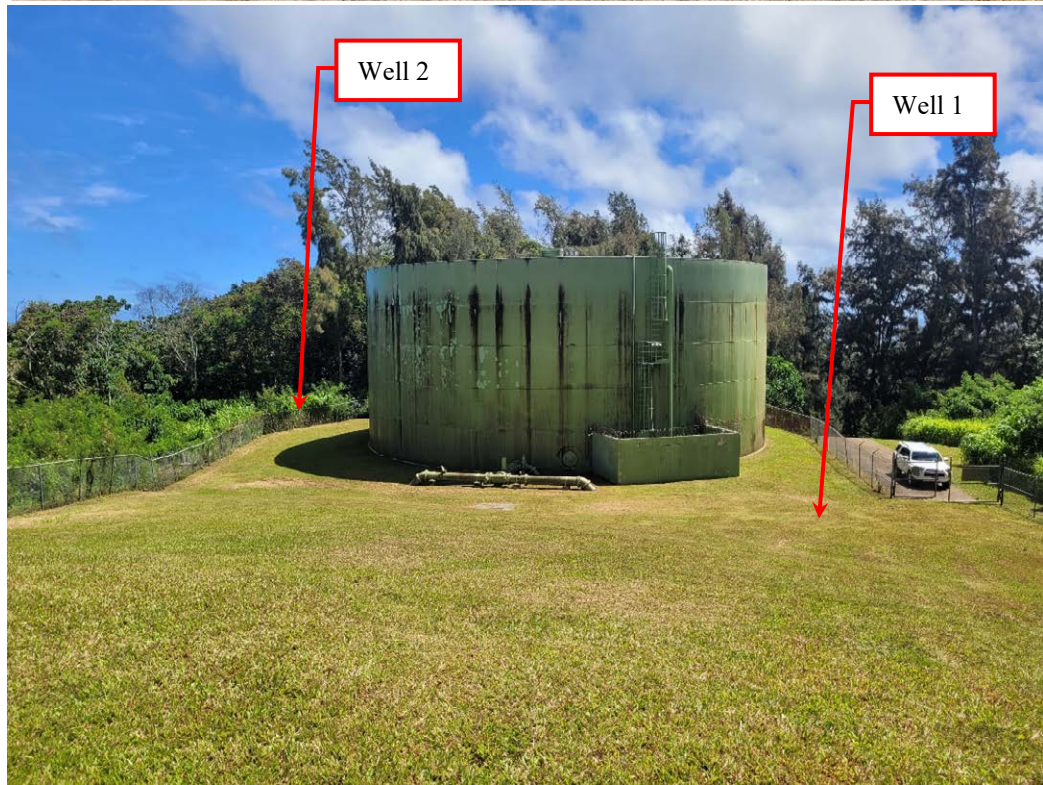


Exhibit 2- Photos of Existing Gate and 2.0 MG Water Tank

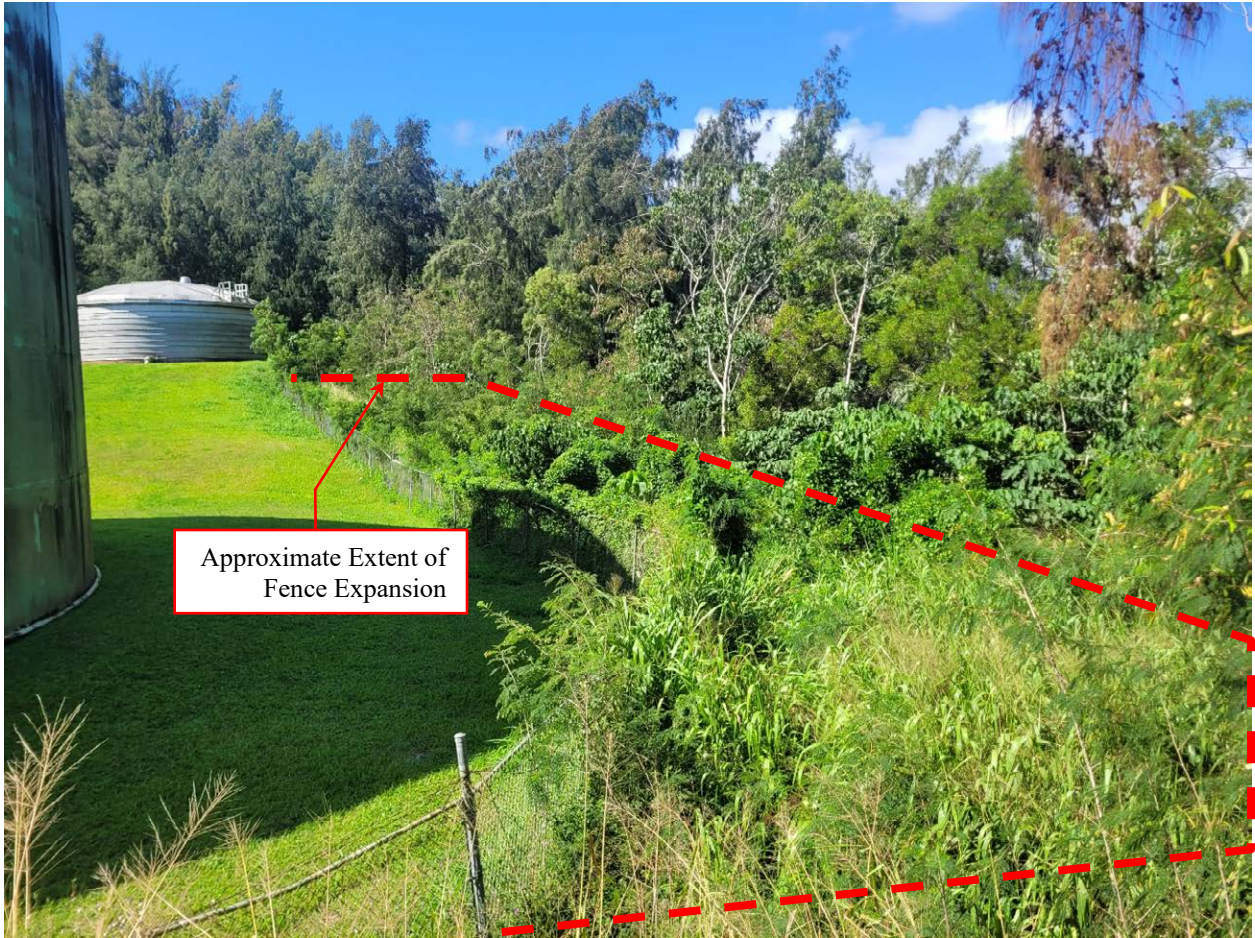
Existing 2.0 MG water storage tank on left and 0.3 MG backup water storage tank in background. Approximate location of proposed Well 1 indicated (Well 2 would be behind camera).



Existing 2.0 MG water storage tank on right. Approximate location of proposed Well 2 indicated.



Exhibit 2- Photos of Proposed Location of Wells and Pumps



Source: Planning Solutions, Inc., March 28, 2024

Exhibit 2- Photo of Proposed Fence Extension

Alignment of proposed power line along cane haul road.



View of existing Hawaiian Electric power lines and poles in vicinity of proposed tap.



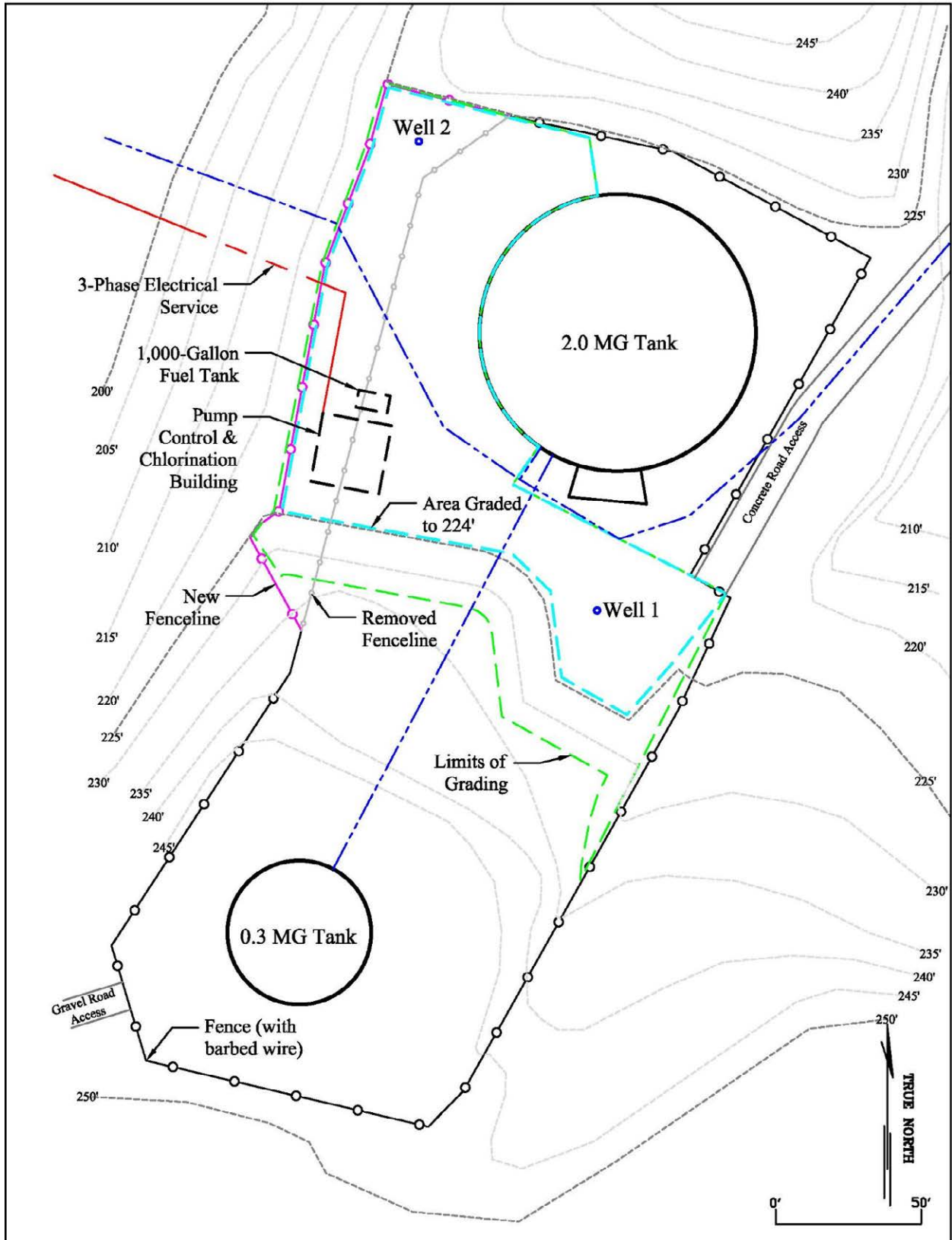
Source: All Photos by Planning Solutions, Inc. on June 9, 2023.

Exhibit 2- Photos of Cane Haul Road and Proposed 3-Phase Power Lines



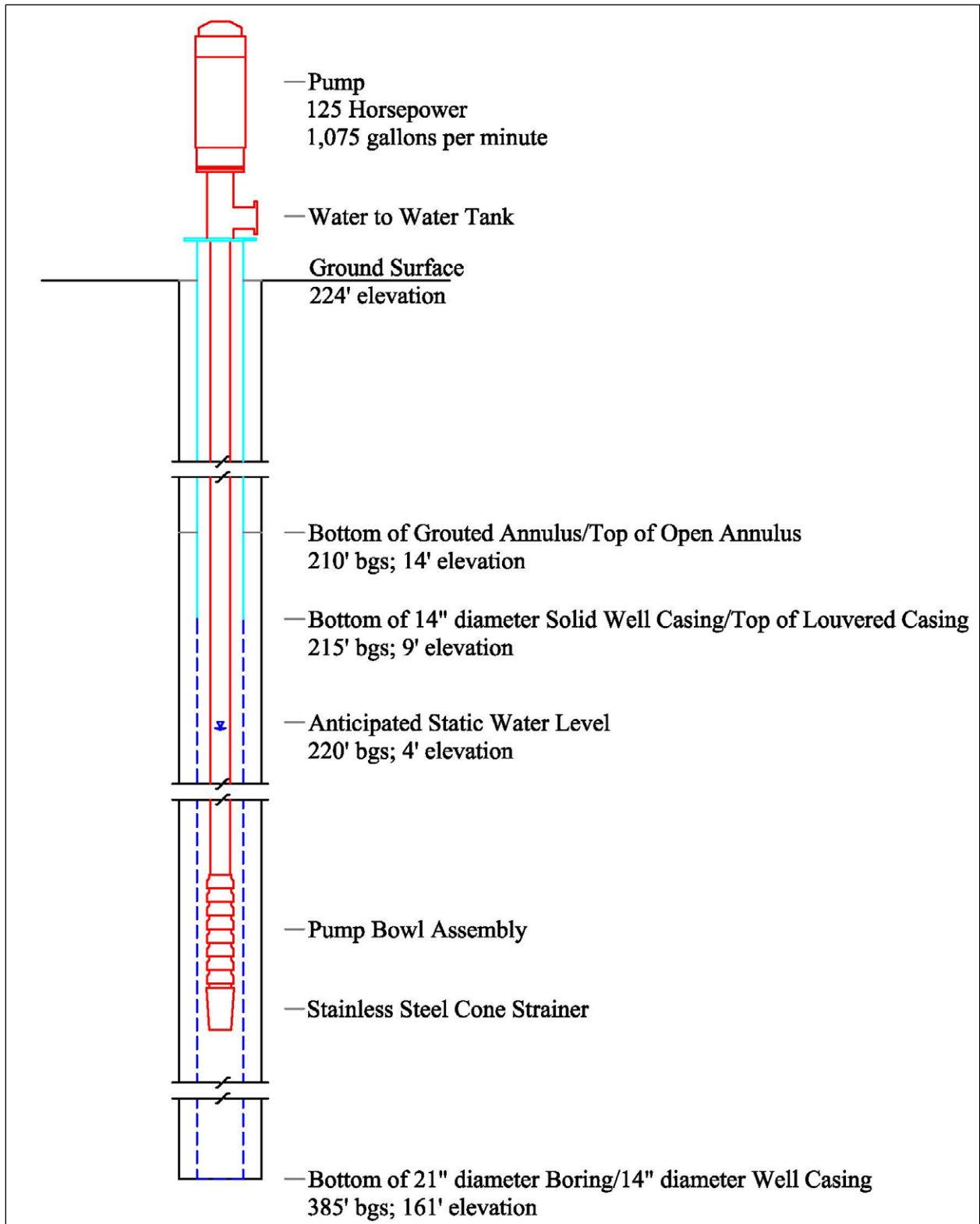
Source: LWC (2023)

Exhibit 3- Lā'ie Water Company Service Area



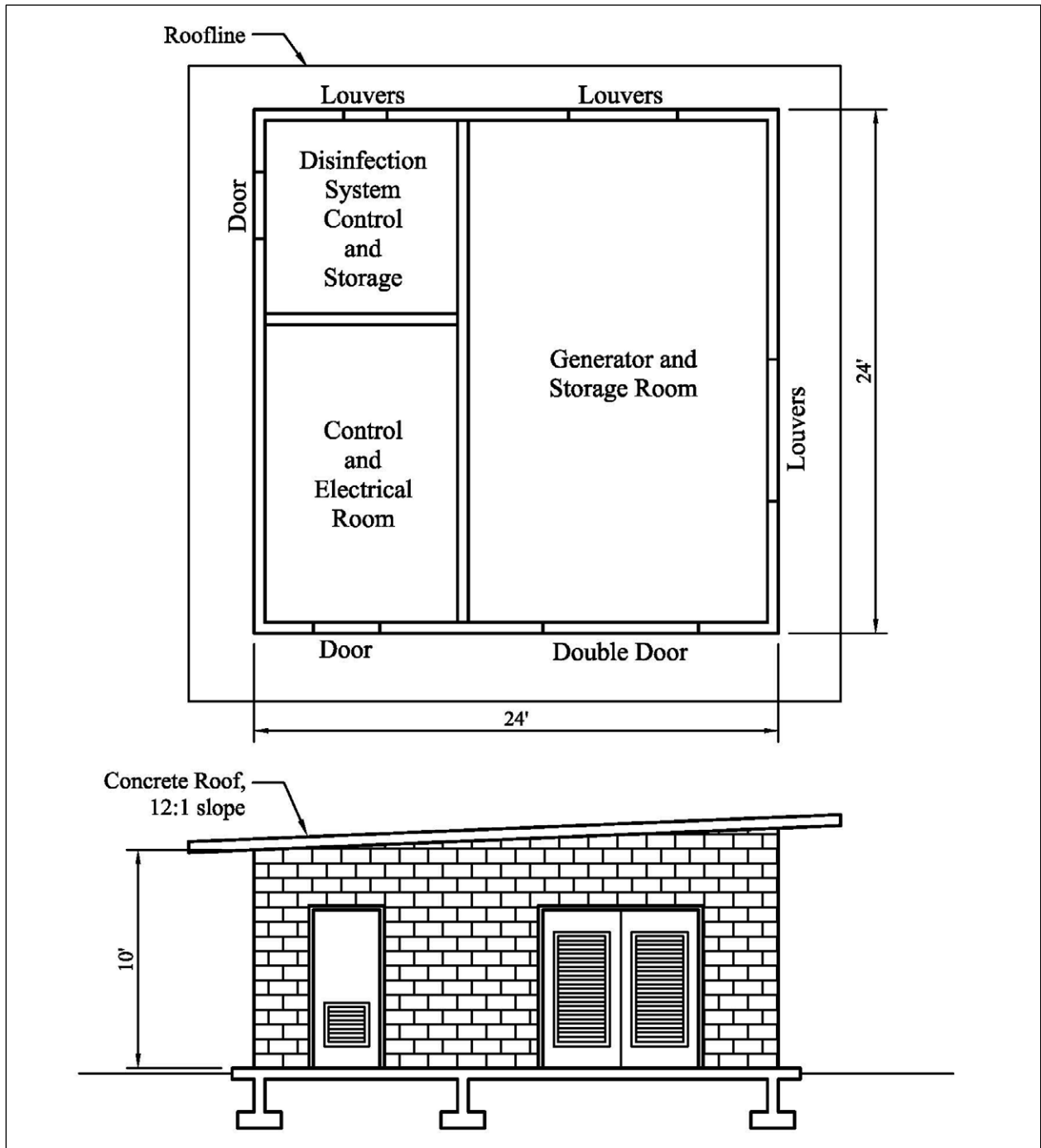
Source: Planning Solutions, Inc.

Exhibit 4- Proposed Site Plan for Production Well Project



Source: Planning Solutions, Inc.

Exhibit 5- Proposed Pump Installation



Source: PSI

Exhibit 6- Pump Control and Chlorination Building Plan