

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

September 13, 2013

180-Day Exp. Date: November 20, 2013

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

REGARDING: Conservation District Use Application (CDUA) KA-3668
for the Kalāheo Water System Improvements

**APPLICANT/
LANDOWNER:** County of Kaua`i- Department of Water Supply (DOW)

CONSULTANT: Glenn Koyama of Belt Collins Hawaii LLC.

LOCATION: Kalāheo and Wahiawa, Kaua`i
Tax Map Keys: (4) 2-4-003:006 & 007; 2-4-004: 005, 039, 049 & 058; and
2-4-009:003

SUBZONE: General, Resource and Limited

BACKGROUND:

The project area has nonconforming Department of Water Supply (DOW) facilities as well as a number of approved uses for the Water System. Nonconforming facilities exist on parcel 003 (Clearwell Site) and a well on parcel 049. Water improvements and their supporting structures and facilities were approved by the Board of Land and Natural Resources (Board) on October 22, 1976 under Conservation District Use Permit (CDUP) KA-829 for a 900gpm pump, control building and appurtenances and pipeline; on January 26, 1984 under CDUP KA-1598 for a second well and distribution lines; on July 17, 1987 under CDUP KA-1980 for a 1,200 gpm pump, control building, appurtenance and distribution lines and a Treatment Plant; and on April 23, 2004 for CDUP KA-3185 for a 500,000-gallon reservoir, booster pump facility and emergency generator facility and site improvements. These approved improvements have taken place on TMK: (4) 2-4-004:005, 039 & 049.

Water system improvements are proposed for land within the Conservation, Rural and Agricultural State Land Use Districts. For this particular application, the Board will be considering: Improvements at the Clearwell Reservoir, a portion of the proposed Yamada Reservoir & authorization to subdivide Conservation District land at the Yamada site; Improvements at the established 908 Tank site; and roadway improvements and transmission lines that lie in the Conservation District. **Exhibits C, G, I and K** illustrate the portions of the project that are in the Conservation District and are under the Board's discretion.

DESCRIPTION OF AREA AND CURRENT USE (Exhibit A & B)

Kalāheo and Wahiawa exists in the Koloa District on the west side of the island of Kaua`i. The project area is located about 1.2 miles mauka of Kaumuali`i Hwy on Pu`uwai Road, Po`ohiwi Road and Kikala Road. The project is located in a rural area consisting of scattered residential homes surrounded by open space.

Yamada Reservoir

The newly acquired site by the County of Kauai, DOW is primarily vacant and this parcel is dual zoned lying in the Conservation District General subzone with the majority of the lot in the Urban District.

Clearwell Reservoir

The site presently houses the abandoned County DOW Kalaheo Treatment Facility. Two of the three concrete tanks have been repurposed to store potable water. The third tank was deactivated due to damages sustained from the 1992 hurricane.

908 Tank Site

This site has a 0.5-MG reservoir constructed in 2004 and stores water pumped from two on-site existing wells. The tank, wells, support buildings, and other equipment are surrounded by a chain link fence.

No federally listed threatened or endangered flora or fauna was encountered during surveys of the project areas. The Hawaiian Owl and the endangered Hawaiian Hoary Bat may fly over or forage in the project area.

Cultural Surveys Hawai`i conducted an archaeological literature review, field inspections and a cultural impact assessment of the project area. No archeological sites were identified in the project areas.

PROPOSED USE: (Exhibits C, D, E, F, G, H, I, J & K)

The improvements will occur primarily on existing properties occupied by existing facilities and County road rights-of-way. Planned improvements include replacement of two existing water tanks, construction of a new production well and accessory facilities, 12,500 linear feet of transmission mains, booster pump upgrade, modifications of existing pressure reducing valve stations, modification of a booster pump station affected by the upgrades and road improvements.

The Objective of the proposed project is to upgrade the aging water system in upland Kalāheo to meet future Maximum Day Demand storage capacity and fire flow requirements for current and future demand.

Yamada Reservoir

Improvements proposed for the recently acquired parcel 007, include a new 0.5 million-gallon (MG) reservoir, production well, control building, booster pump station and associated equipment are proposed to replace the existing 0.1 MG site located across the street on parcel 039. The proposed well is estimated to be drilled to a depth of -1,375-ft.

A 1,000-gpm pump will bring the water to the surface and into the new tank. A control building will be constructed nearby to monitor operations and will include a liquid chlorination system. The building will also house a motor control center, a backup generator and Supervisory Control and Data Acquisition (SCADA) equipment.

Upon completion, the well water shall be tested along with the other nearby well to determine if there are any changes in water level or salinity. Samples are analyzed and forwarded to the Department of Health. Should results from the pump tests show sufficient sustainable yield and no organic contamination, the well will be converted into a production well.

Subdivision of land is also proposed for this site to rectify the boundaries between parcel 007 and parcel 006.

Clearwell Reservoir

Improvements proposed for parcel 003, known as the Clearwell Reservoir, included a new 0.5 MG reservoir, paved access road, water lines, perimeter road around the reservoir, a control building with booster pump, drainage, retaining wall and fencing. A portion of the existing treatment facility will be demolished to accommodate the new storage tank. The existing tank on the Clearwell site will remain in service until the new 0.5-MG is operational.

For this site and the Yamada site, the tank will be cylindrically shaped, have a 72-foot diameter and a height of 22-feet. The tanks will be constructed of reinforced concrete in a white or off-white color. Paved access will be provided around the base of the tanks. The 1,000-foot long dirt driveway road to the Clearwater tank will be paved

908 Tank Site

Proposed improvements include new water lines and upgrade/replacement of the existing booster pump facility.

Transmission Lines

A new transmission main will be constructed along the roadways to the Yamada Tank site. Installation of the transmission main will occur within the Kikala, Po`ohiwi and Pu`uwai Road rights-of-way. Waterlines no longer in use will be abandoned.

Best Management Practices and Minimization of Impacts

During construction, best management practices will be employed and existing State Department of Health regulations will be observed to protect air and water quality. As required a National Pollutant Discharge Elimination System (NPDES) permit will be obtained. Construction noise will be minimized through compliance with Chapter 1-46, HAR Community Noise Regulations.

Erosion and sedimentation control measures such as silt fences, dust screens, inlet filter devices and graveling ingress/egress will be implemented. As part of the permanent erosion control, Bermuda grass will be planted.

Views of the project site from the highway are obstructed by vegetation, rolling hills and private properties. Minor visual alterations to the land will result from the proposed 0.5-MG water tanks. The proposed tanks will be tucked into the slope of the site to partially shield the structures from view. Existing on-site vegetation will provide additional visual screening for the water facilities.

A traffic control plan will be prepared for County review. The design will maintain safe vehicular passage through or around the project construction area. Adequate warnings to motorists will be posted far in advance of the construction work.

SUMMARY OF COMMENTS:

This application was referred to the following agencies for their review and comment: the **State:** Department of Health; Office of Hawaiian Affairs; Office of Environmental Quality Control; Department of Land and Natural Resources Divisions of: Commission on Water Resource Management, Conservation and Resource Enforcement, Forestry and Wildlife, Kaua'i District Land Office; State Parks, Historic Preservation; and the **County of Kaua'i:** Department of Planning. In addition, this application was also sent to the nearest public library, the Hanapepe State Library, to make this information readily available to those who may wish to review it.

Responses were received and have been summarized from the following agencies:

STATE OF HAWAII

DEPARTMENT OF HEALTH

No Comment

DEPARTMENT OF LAND AND NATURAL RESOURCES

Commission on Water Resource Management

We recommend coordination with the County to incorporate this project into the County's Water Use and Development Plan;

We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii that may be found online;

A Well Construction Permit is required before any well construction work begins;

A Pump Installation Permit is required before ground water is developed as a source of supply for the project; and

Based upon the experience of two wells within 1/3 mile, the expectations for the proposed well seem reasonable.

Applicant's response

The proposed improvements are consistent with the DOW's long-range Water Plan 2020 for the island. Sections of Kalaheo's water system are aging and require upgrades to

meet current water system standards as well as projected water demands in the growing Kalaheo community. The proposed improvements implement the policies and programs of the County's Water Plan 2020.

The DOW will review the landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawai'i and implement those practices where applicable and feasible for the department.

The DOW will obtain the necessary Well Construction and Pump Installation Permits prior to construction or installation of the relevant facility or equipment.

Forestry and Wildlife
No Comment

Kaua'i District Land Office

TMK: (4) 2-4-004:005 is under the management of DLNR Division of State Parks by Executive Order 2375, Papapahohola State Park. Comment should be sought from State Parks prior to making a final disposition on the CDUA.

TMK: (4) 2-4-009:003 is under the management of DLNR Division of Forestry and Wildlife by Executive Order 3143, Lihue Koloa Forest Reserve. Please seek comment from DOFAW prior to making a final disposition on the CDUA.

State Parks

The proposed improvements are not expected to affect lands that were set aside to the division under EO 2375 and designated as Wahiawa Mauka State Park Reserve, parcel 05 of 2-4-004, and we have no objections to the project.

ANALYSIS:

After reviewing the application, by correspondence dated June 5, 2013, the Department has found that:

1. The proposed use is an identified land use in the Limited, Resource and General subzone of the Conservation District, pursuant to §13-5-22, Hawaii Administrative Rules (HAR), P-6 PUBLIC PURPOSE USES (D-1) Not for profit land uses undertaken in support of a public service by an agency of the county, state, or federal government, or by an independent non-governmental entity, except that an independent non-governmental regulated public utility may be considered to be engaged in a public purpose use. Examples of public purpose uses may include but are not limited to public roads, marinas, harbors, airports, trails, water systems and other utilities,...and other public purpose uses, intended to benefit the public in accordance with public policy and the purpose of the conservation district. Please be advised, however, that this finding does not constitute approval of the proposal;
2. Pursuant to §13-5-40(a) (4), HAR, a Public Hearing is not required;

3. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and Chapter 11-200, HAR, the Final Environmental Assessment has been reviewed and accepted by the County of Kaua'i, Department of Water. The FONSI was published in the July 23, 2012 issue of the Environmental Notice; and
4. The Conservation District portion of this project does not lie within the Special Management Area.

Notice of this application was published in the June 8, 2013 Environmental Notice.

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 land 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 resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

Staff notes that the proposed use is for the public benefit. As presented in the project's final EA, the proposed water system improvements will enhance the capability and reliability of the municipal water system, which will help conserve and protect the water supply. Staff notes that proper design and management of the proposed improvements, by the DOW, will ensure long-term sustainability of the water supply.

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 Limited subzone is to limit uses where natural conditions suggest constraints on human activity. The objective of the Resource Subzone is to develop, with proper management, areas to ensure the sustained use of the natural resources of those areas. The objective of the General subzone is to designate open space where specific conservation uses may not be defined, but where urban use would be premature.

As the proposed use is an identified land use in the Limited, Resource and General subzone of the Conservation District, pursuant to §13-5-22, Hawaii Administrative Rules (HAR), P-6 PUBLIC PURPOSE USES, staff believes the land use is consistent with the objectives of the subzone.

Security fencing will limit human activities within the DOW facilities; the DOW manages the water system to ensure the sustained use and although the project will add additional hardscape, other than the proposed improvements, the open space character of the area will be maintained.

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

The project is approximately 3-miles from shoreline. The project site is not located within the County's Special Management Area (SMA).

The project is not expected to be inconsistent with the objectives and policies of Chapter 205A, the Coastal Zone Management. The open space character will be preserved by tucking the tanks into the sloping terrain; the water improvements will accommodate economic growth and manage development.

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

Staff believes the proposed land use is consistent with the existing land uses of the project area. The proposed use is not expected to have a significant negative impact on botanical resources and the population of birds and mammals in the project area.

The community may experience temporary road travel delays as work is proposed in the roadways.

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

The existing parcels are currently occupied by operating DOW facilities with the exception of the newly acquired Yamada property. The proposed improvements are compatible with the locality and surrounding areas.

Accordingly, staff believes the proposed land use is, properly conditioned, appropriate to the physical conditions of the parcel.

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

Activities associated with construction and installation of the proposed improvements will be short-term, and confined to the immediate vicinity. Increased intermittent traffic, noise, dust and vehicular and equipment emissions can be expected and will be controlled. The proposed reservoirs are being designed to be partially tucked into the hillside to minimize visual impacts.

Surrounding existing vegetation at the reservoir sites will be retained to preserve the visual screen around the new improvements. The associated ancillary improvements are low profile features that would not be obtrusive to the appearance of the area setting.

Staff believes that the natural beauty and open space characteristics of the area will not be negatively impacted to any great extent.

7. *Subdivision of the land will not be utilized to increase the intensity of land uses in the Conservation District.*

A portion of the Yamada site must be subdivided to become a legally recognized parcel. The subdivision is to correct a procedural error and will not increase density.

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

No significant impacts of the proposed action have been identified. Improvement of a public water system is expected to be beneficial to the public. Accordingly, staff believes the proposed project will not be detrimental to the public health, safety and welfare.

CULTURAL IMPACT ANALYSIS

Cultural Surveys Hawai'i Inc. conducted archaeological literature reviews and field inspections of the project area. Former water improvement work may have eliminated the potential for the presence of subsurface archaeological sites. Subsurface features and deposits could still be a possibility within the roadways and within limited areas of the Clearwell site based on the lack of previous subsurface disturbance. However, previous archaeology in the vicinity of the project area suggests such deposits are unlikely to occur.

During CSH field inspection, no historic properties were observed within the project area. CSH recommended no further archaeological work for the proposed project.

CSH also conducted a cultural impact assessment of the project area to assess the proposed project's impacts to cultural practices and resources. Participants in the community consultation recommended establishing a buffer zone around Papapahohola Spring and identified cultural practices for access and gathering, spirituality at sacred sites, and protecting ancient burials as potential issues should the project expose cultural resources or sites. If features are encountered during construction, the contractor will be required to notify the County in addition to the State Historic Preservation Division to assess the find and determine mitigative measures as appropriate.

During the processing of this application, no comments were received from native practitioners or the Office of Hawaiian Affairs. To the extent to which traditional and customary native Hawaiian rights are exercised, the proposed action does not appear to affect traditional Hawaiian rights; it is believed that no action is necessary to protect these rights.

DISCUSSION:

Water system improvements are proposed for land within the Conservation, Rural and Agricultural State Land Use Districts. For this particular application, the Board will be considering: Improvements at the Clearwell Reservoir, a portion of the proposed Yamada Reservoir & authorization to subdivide Conservation District land at the Yamada site; Improvements at the established 908 Tank site; and roadway improvements and transmission lines that lie in the Conservation District as illustrated in **Exhibits C, G, I and K**.

Staff understands the planned completion of the Kalaheo Water System Improvements and the subsequent operation of system is intended to provide the public health benefit of a more reliable water supply. Staff believes the significant impacts of these actions will be overwhelmingly beneficial, and that relative to the benefits that will occur, any adverse impacts will not be substantial.

.RECOMMENDATION:

Staff recommends that the Board of Land and Natural Resources APPROVE this application for the Kalāheo Water System improvements and subdivision of land on parcel (4) 2-4-003:007 located at Kalāheo and Wahiawa, Kaua`i, Tax Map Keys: (4) 2-4-003:006 & 007; 2-4-004: 005, 039, 049 & 058; and 2-4-009:003 subject to the following 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 Hawaii 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 obtain appropriate authorization from the department for the occupancy of state lands;
- (4) The permittee shall comply with all applicable department of health administrative rules;
- (5) 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;
- (6) 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;
- (7) 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;
 - (8) The permittee understands and agrees that the permit does not convey any vested right(s) or exclusive privilege;
 - (9) 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;
 - (10) 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;
 - (11) Provisions for access, parking, drainage, fire protection, safety, signs, lighting, and changes on the landscape shall be provided;
 - (12) Where any interference, nuisance, or harm may be caused, or hazard established by the use, the permittee shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;
 - (13) Obstruction of public roads 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;
 - (14) During construction, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities;
 - (15) 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;
 - (16) The permittee shall obtain a county building or grading permit or both for the use prior to final construction plan approval by the department;
 - (17) The permittee shall obtain the required authorizations from the Commission on Water Resource Management prior to the initiation of any well construction work;

- (18) Artificial light from exterior lighting fixtures, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, shall be prohibited except as may be permitted pursuant to section 205A-71, HRS. All exterior lighting shall be shielded to protect the night sky;
- (19) 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;
- (20) Other terms and conditions as prescribed by the chairperson; and
- (21) 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,



K. Tiger Mills, Staff Planner
Office of Conservation and Coastal Land

Approved for submittal:



William J. Aila, Jr., Chairperson
Board of Land and Natural Resources

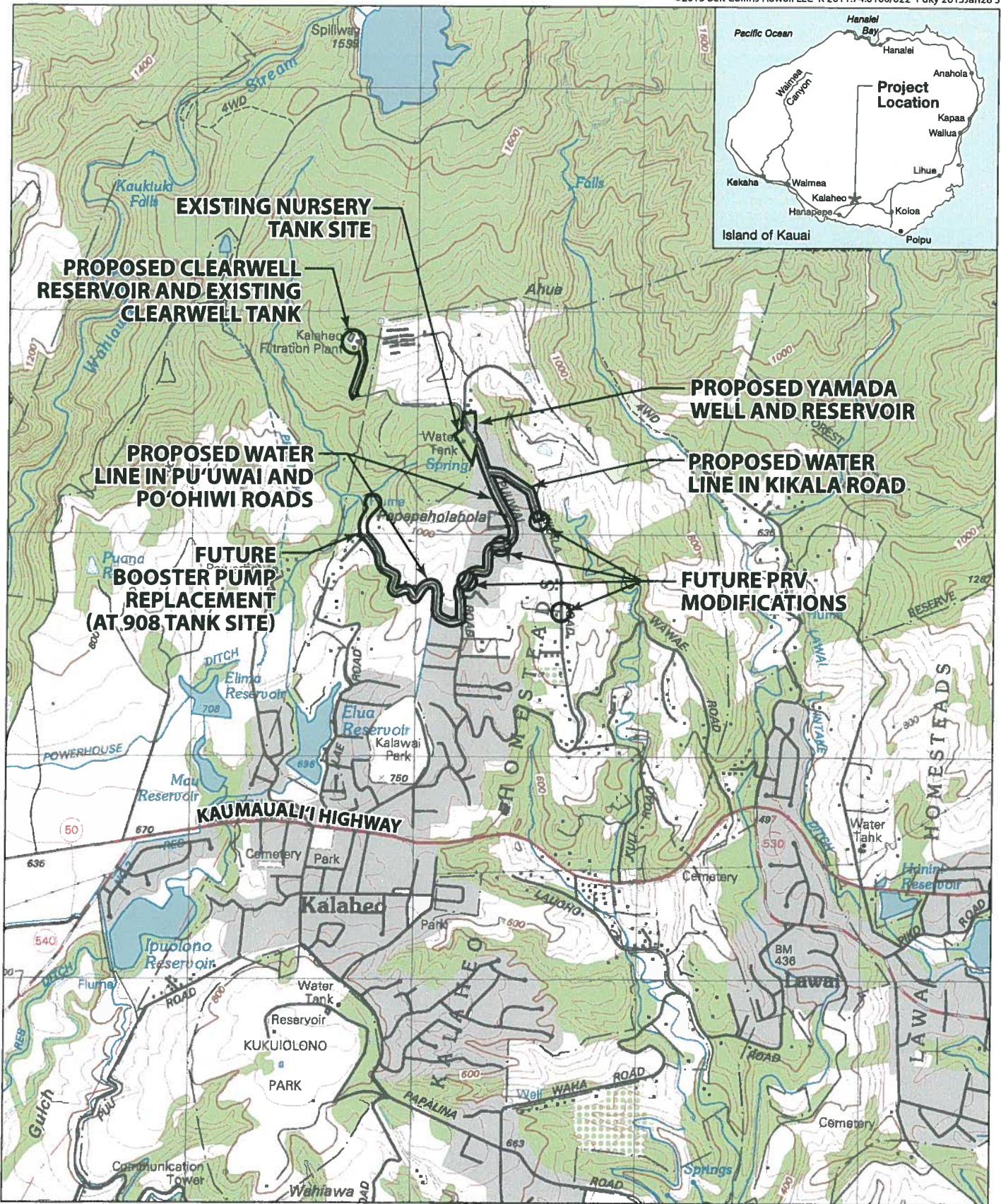
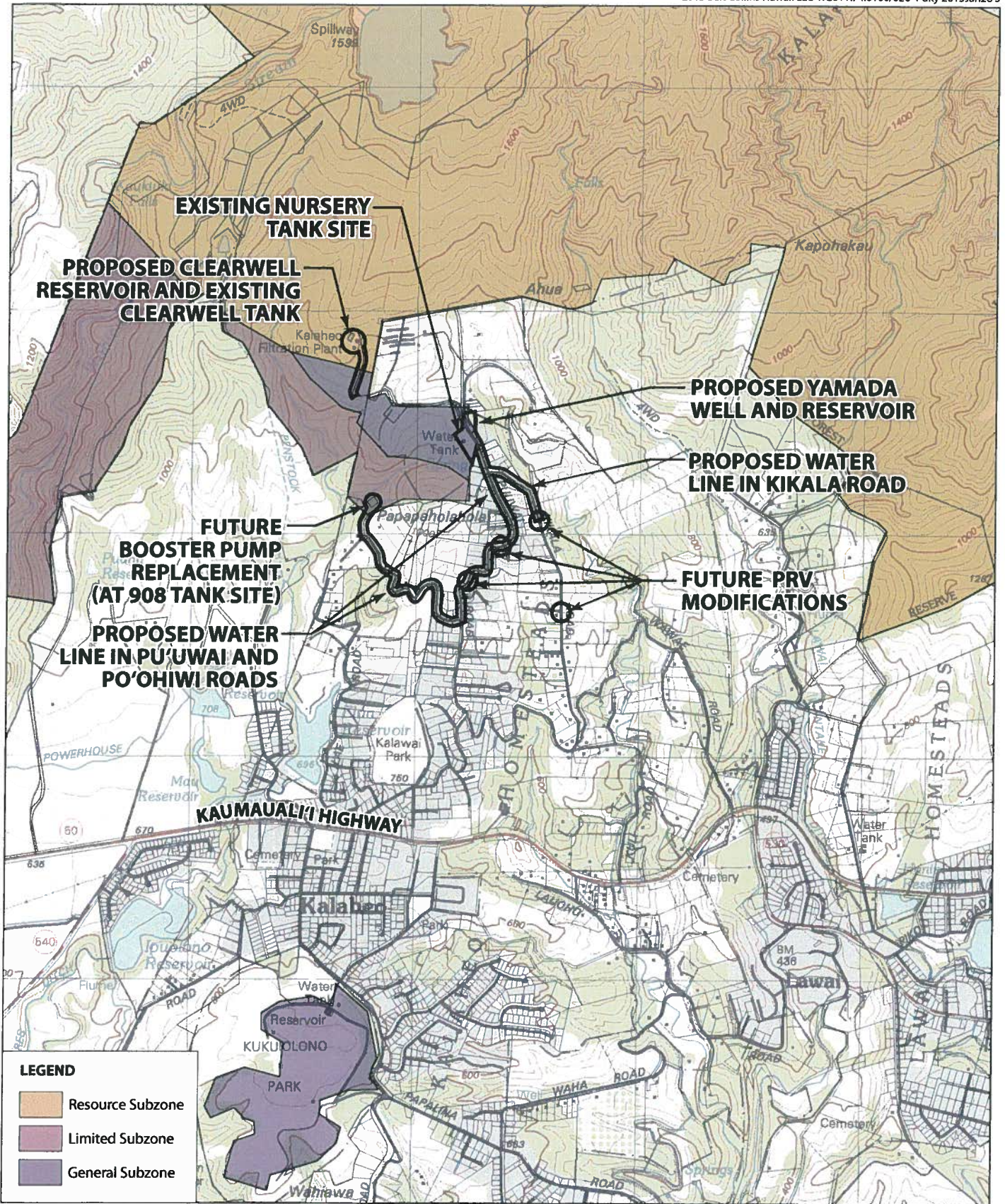
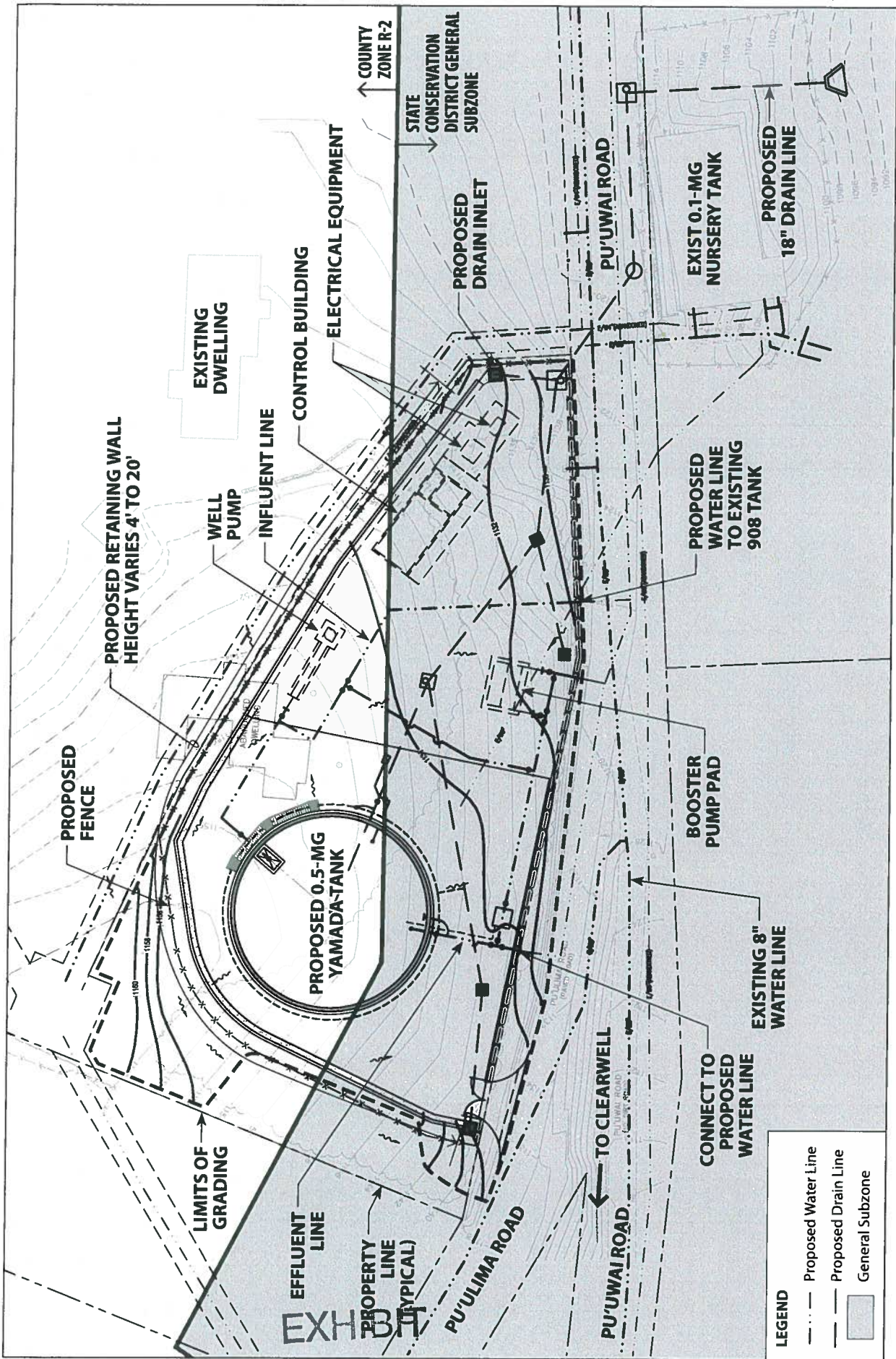


EXHIBIT A

LOCATION MAP
Kalāheo Water System Improvements
 Kalāheo, Kauai



LOCATION MAP WITH CONSERVATION DISTRICT SUBZONES
 Kalāheo Water System Improvements
EXHIBIT B
 Kalāheo, Kauaʻi



PROPOSED YAMADA RESERVOIR—OPTION 1
 Kalāheo Water System Improvements
 Kalāheo, Kauaʻi

- LEGEND**
- Proposed Water Line
 - - - Proposed Drain Line
 - ▭ General Subzone



C

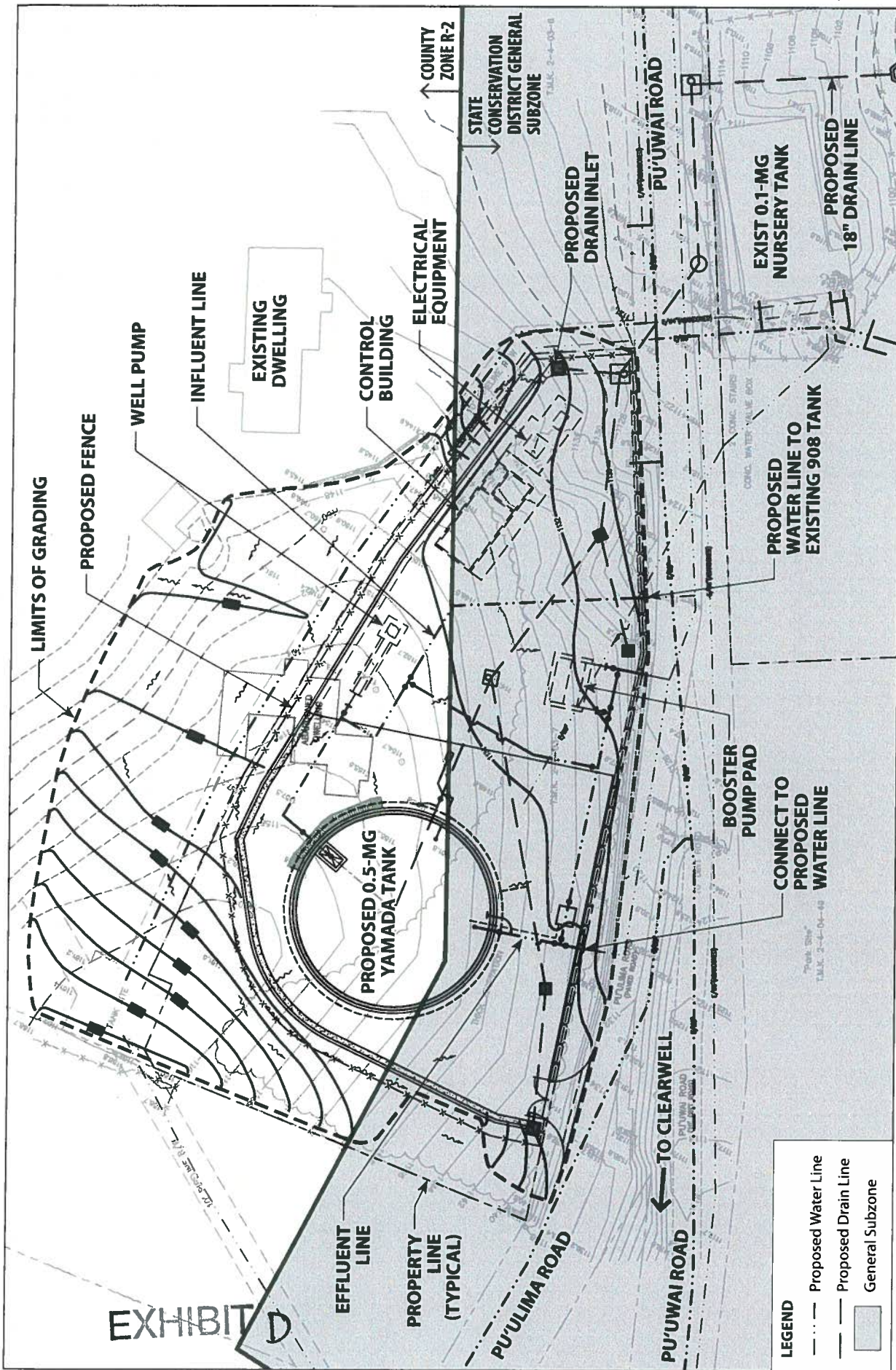


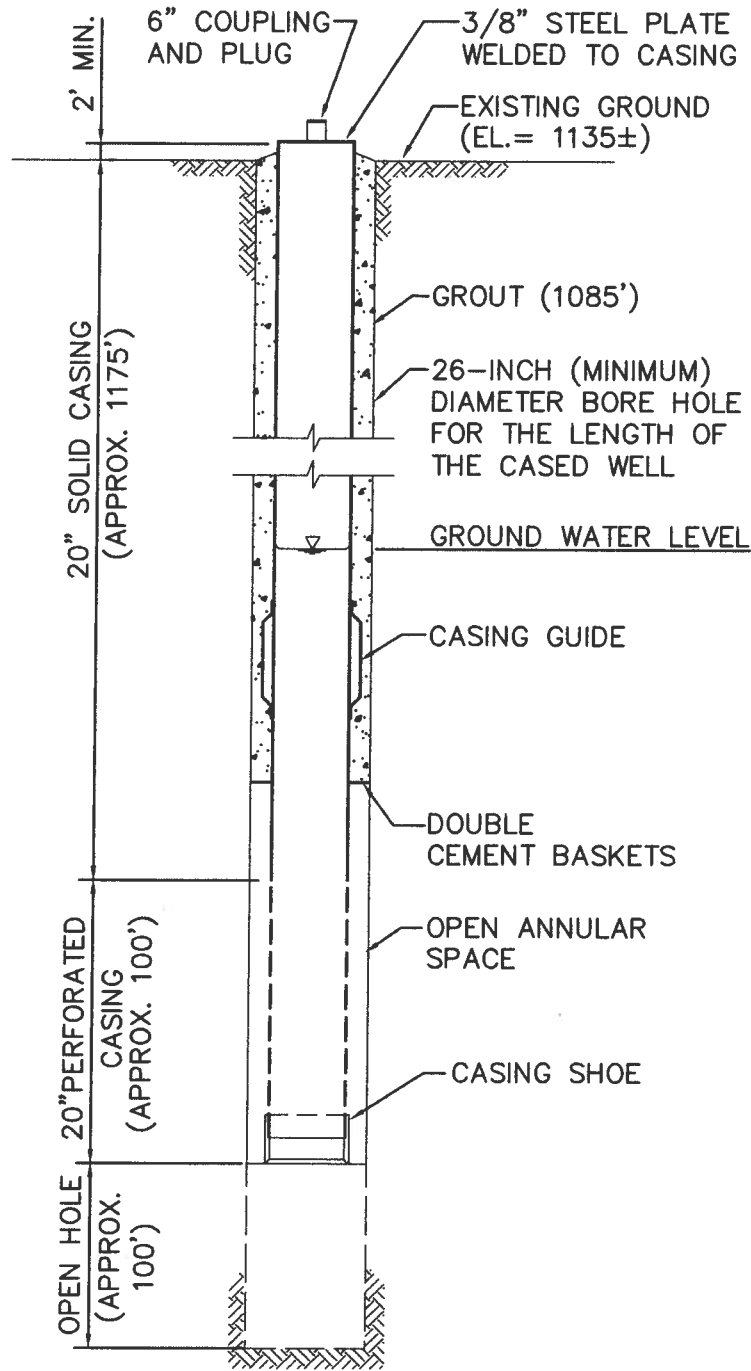
EXHIBIT D

LEGEND

- Proposed Water Line
- Proposed Drain Line
- General Subzone



PROPOSED YAMADA RESERVOIR—OPTION 2
 Kalāheo Water System Improvements
 Kalāheo, Kauaʻi

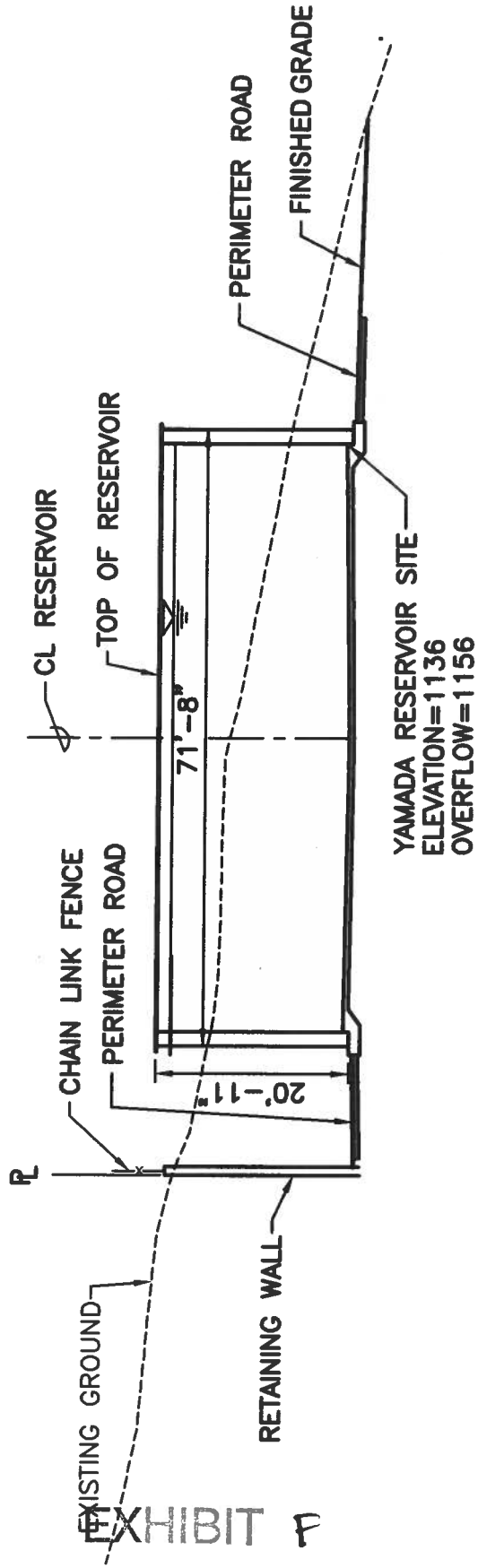


SECTION THRU WELL
NOT TO SCALE



EXHIBIT E

SECTION OF PROPOSED PRODUCTION WELL
Kalāheo Water System Improvements
Kalāheo, Kaua'i



TYPICAL YAMADA RESERVOIR SECTION
Kalāheo Water System Improvements
Kalāheo, Kauaʻi

EXHIBIT A

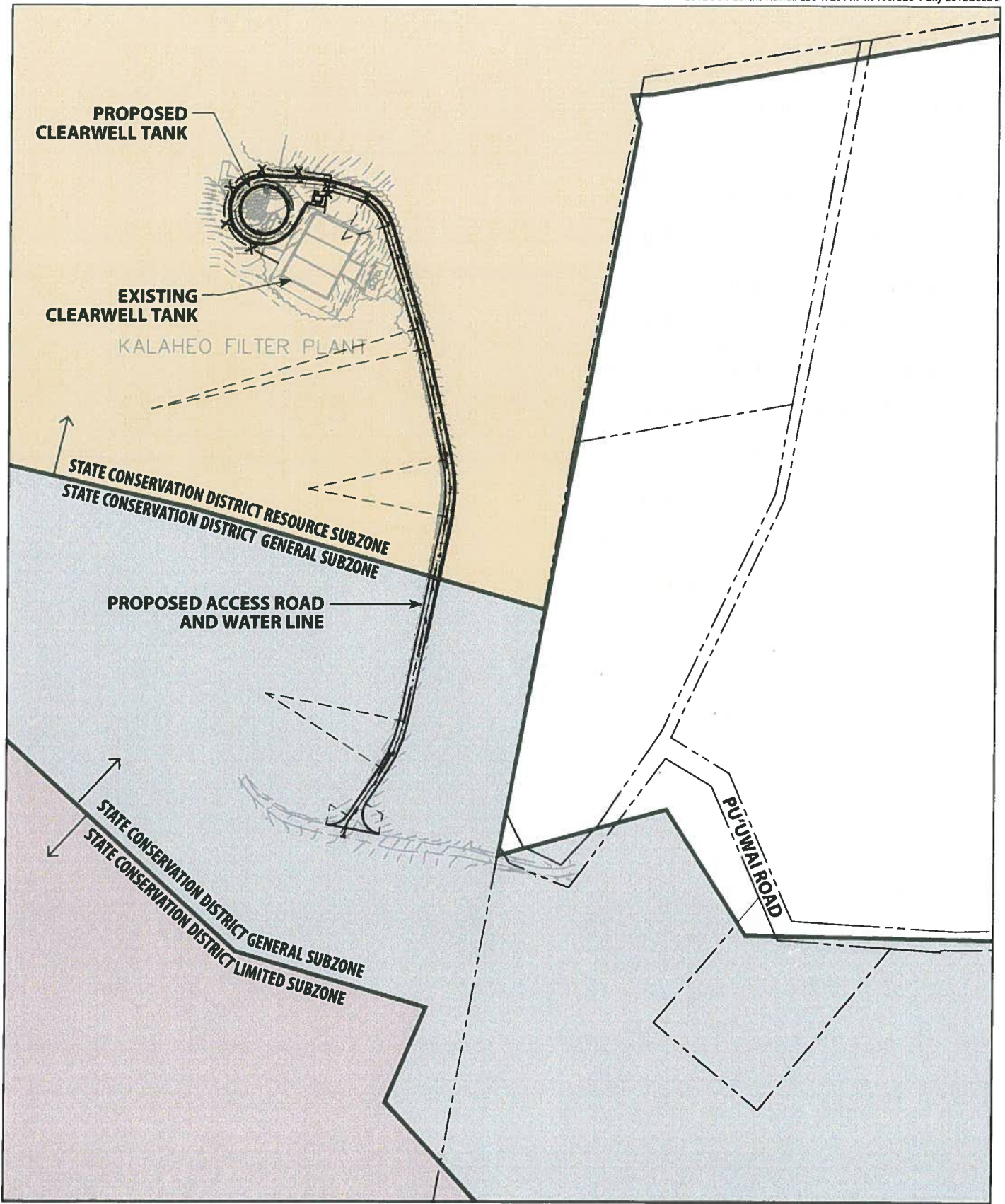
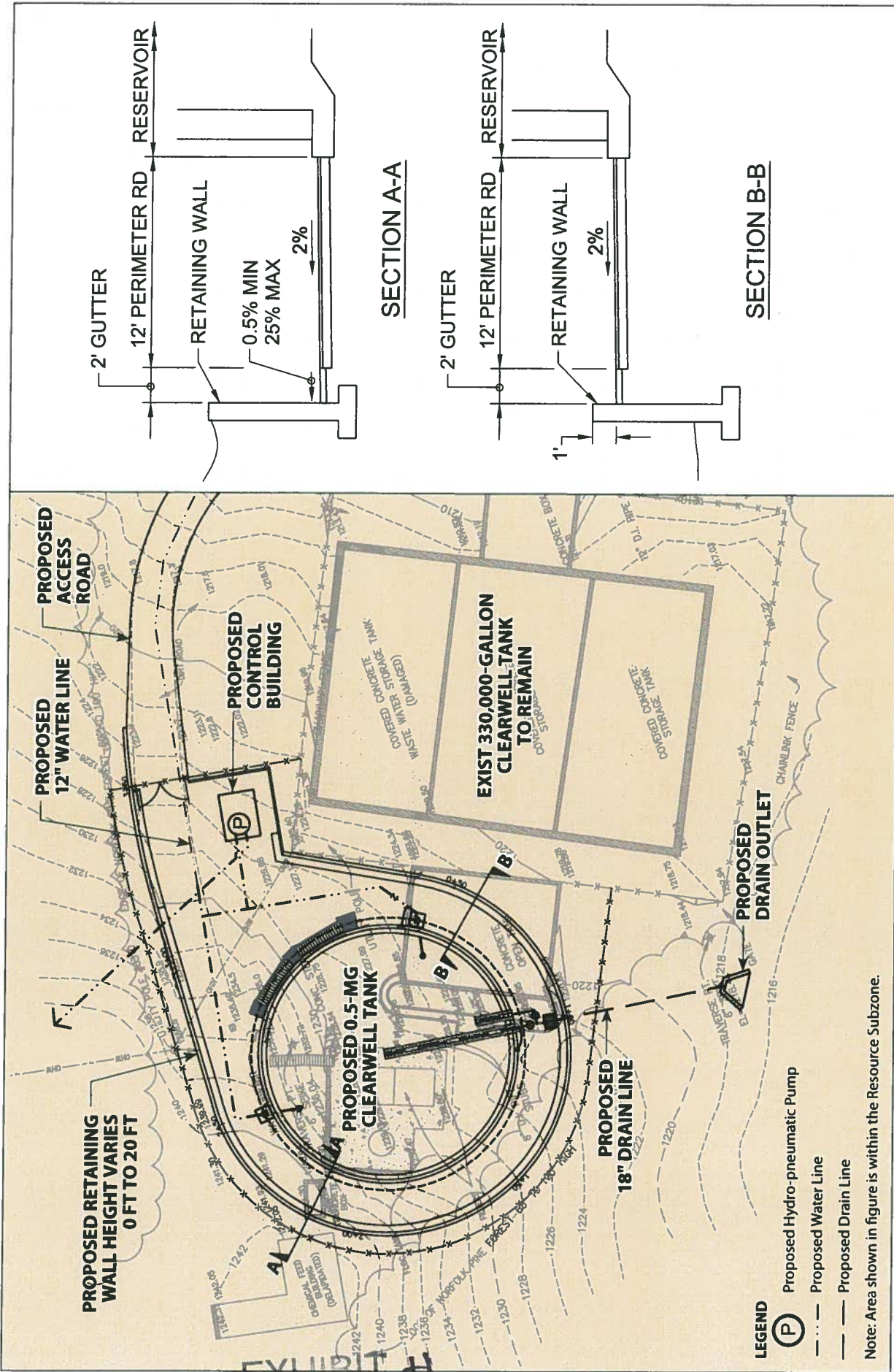


EXHIBIT G

**PROPOSED CLEARWELL RESERVOIR SITE,
ACCESS ROAD AND WATER LINES**
Kalāheo Water System Improvements
Kalāheo, Kaua'i



PROPOSED CLEARWELL RESERVOIR SITE—OPTION 1
 Kalāheo Water System Improvements
 Kalāheo, Kauaʻi



Note: Area shown in figure is within the Resource Subzone.

- LEGEND**
- (P) Proposed Hydro-pneumatic Pump
 - Proposed Water Line
 - Proposed Drain Line

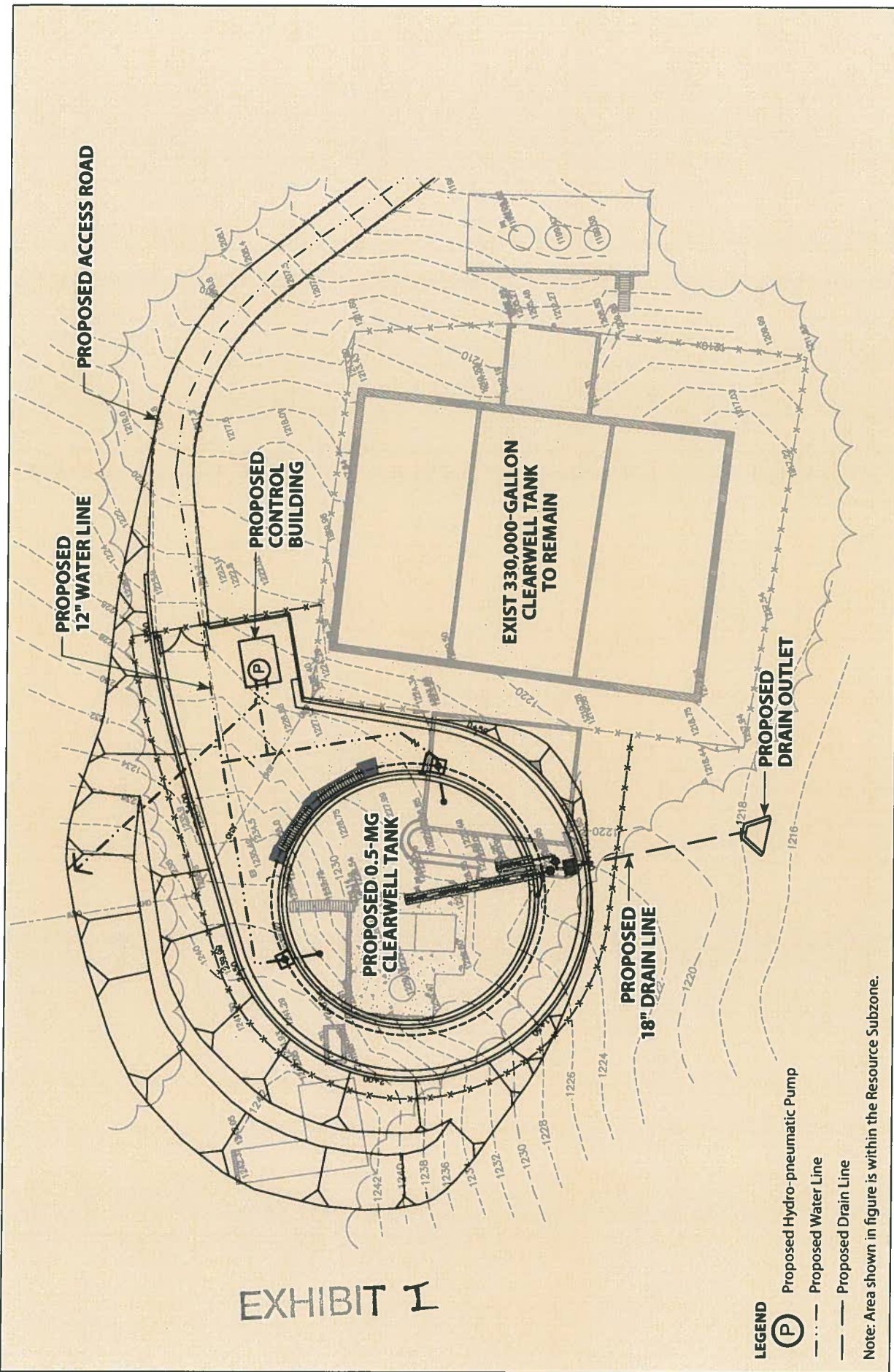


EXHIBIT I

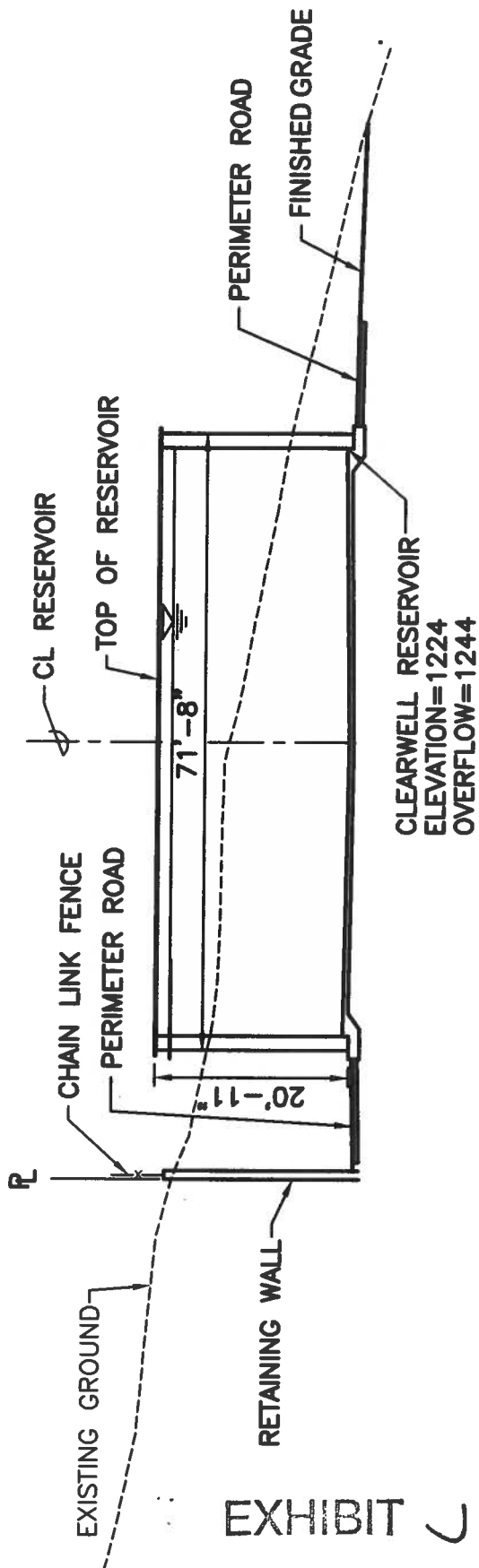
- LEGEND**
- Proposed Hydro-pneumatic Pump
 - Proposed Water Line
 - Proposed Drain Line

Note: Area shown in figure is within the Resource Subzone.



PROPOSED CLEARWELL RESERVOIR SITE—OPTION 2

Kaīāheo Water System Improvements
Kaīāheo, Kaua‘i



TYPICAL CLEARWELL RESERVOIR SECTION
Kalāheo Water System Improvements
Kalāheo, Kauaʻi

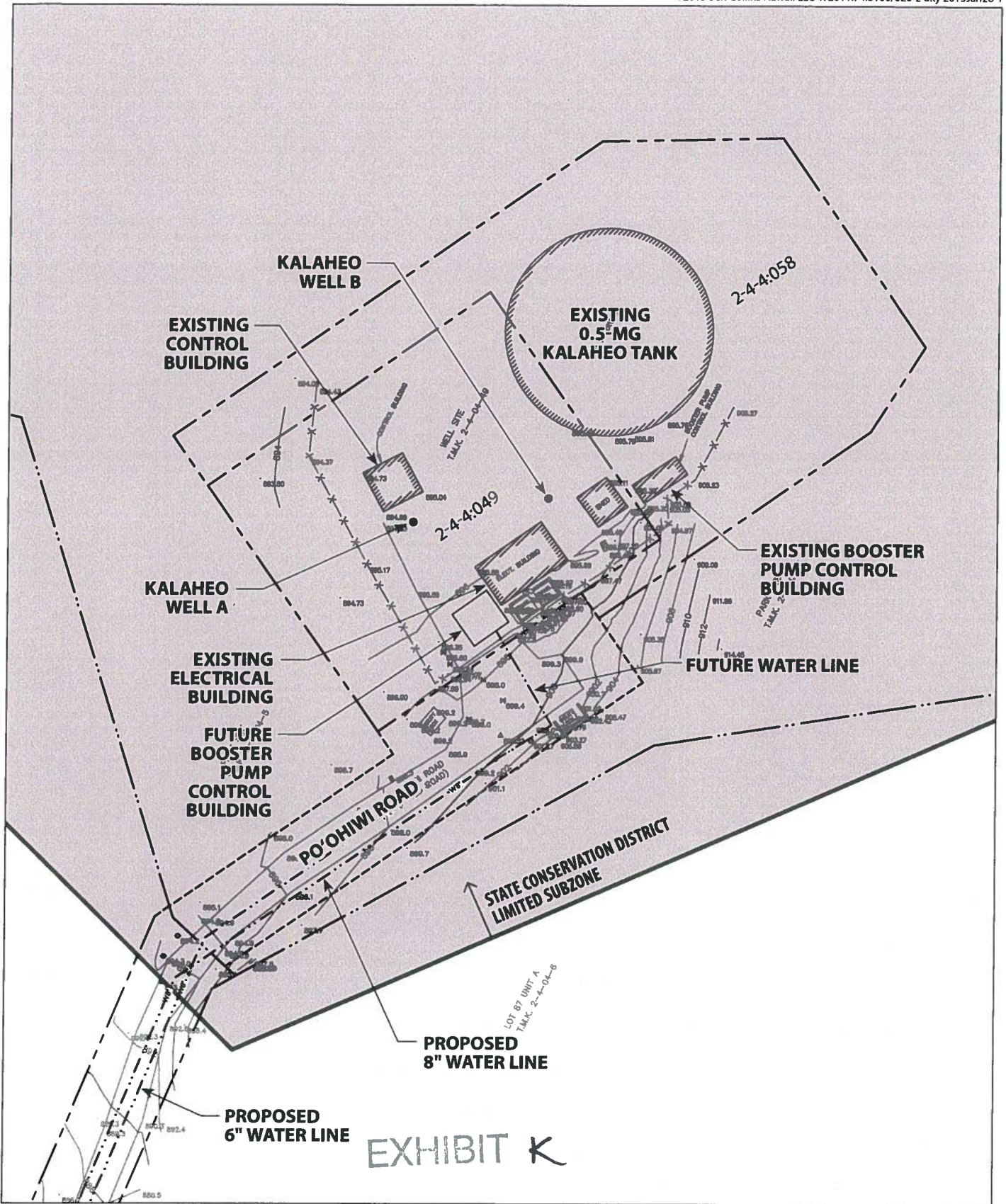


EXHIBIT K



0 12.5 25 50
SCALE IN FEET

PROPOSED IMPROVEMENTS AT 908 TANK PROPERTY
 Kalāheo Water System Improvements
 Kalāheo, Kaua'i