



CONSERVATION DISTRICT USE APPLICATION (CDUA)

All permit applications shall be prepared pursuant to HAR 13-5-31

File No.:

Acceptance Date:

180-Day Expiration Date:

Assigned Planner:

for DLNR Use

PROJECT NAME Job No. G55BH18A Waimea Deep Monitor Well

Conservation District Subzone: Resource

Identified Land Use: Resource subzone, C-1 for basic data collection wells in Protective Subzone
(Identified Land Uses are found in Hawai'i Administrative Rules (HAR) §13-5-22 through §13-5-25)

Project Address: Hāpuna Beach State Recreation Area

Waimea, Hawaii

Tax Map Key(s): (3) 6-6-002:041

Ahupua'a: Puako

District: South Kohala

County: Hawaii

Island: Hawaii

Proposed Commencement Date: June 2025

Proposed Completion Date: Jan 2026

Estimated Project Cost: \$1,187,125

TYPE OF PERMIT SOUGHT Board Permit Departmental Permit

ATTACHMENTS

\$ 250 Application Fee. 2.5% of project cost for Board Permits, but no less than \$250, up to a maximum of \$2500; \$250 for Departmental Permits (ref §13-5-32 through 34).

\$ _____ Public Hearing Fee (\$250 plus publication costs; ref §13-5-40)

- 20 copies of CDUA (5 hard + 15 hard or digital copies)
- Draft / Final Environmental Assessment (EA) or Draft / Final Environmental Impact Statement (EIS) or Statement of Exemption
- State Historic Preservation Division HRS 6E Submittal Form (dlnr.hawaii.gov/shpd/review-compliance/forms)
- Management Plan or Comprehensive Management Plan (ref §13-5-39) if required
- Special Management Area Determination (ref Hawai'i Revised Statutes 205A)
- Shoreline Certification (ref §13-5-31(a)(8)) if land use is subject to coastal hazards.
- Kuleana documentation (ref §13-5-31(f)) if applying for a non-conforming kuleana use.
- Boundary Determination (ref §13-5-17) if land use lies within 50 feet of a subzone boundary.

REQUIRED SIGNATURES


Applicant

Name: Ciara Kahahane
Title; Agency: Deputy, State of Hawaii, DLNR, Commission on Water Resource Management
Mailing Address: P.O. Box 621
Honolulu, Hawai'i 96809
Contact Person & Title: Ryan Imata, Ground Water Hydrologic Program Manager
Phone: 808-587-0255
Email: ryan.r.imata@hawaii.gov
Interest in Property: site of CWRM deep monitor well

Signature:  Date: Nov 14, 2024
Signed by an authorized officer if for a Corporation, Partnership, Agency or Organization


Landowner (if different than the applicant)

Name: Curt Cottrell
Title; Agency: Administrator, State of Hawaii, DLNR, Division of State Parks
Mailing Address: P.O. Box 621
Honolulu, Hawai'i 96809
Phone: 808-587-0300
Email: curt.a.cottrell@hawaii.gov

Signature:  Date: Nov 14, 2024
For State and public lands, the State of Hawai'i or government entity with management control over the parcel shall sign as landowner.

Agent or Consultant

Agency: Akinaka & Associates, Ltd.
Contact Person & Title: Ken C. Kawahara, PE
Mailing Address: 1100 Alakea Street, Suite 1800
Honolulu, HI 96813
Phone: 808-203-6668
Email: kck@akinaka.com

Signature:  Date: 10/31/2024

For DLNR Managed Lands

State of Hawai'i
Chairperson, Board of Land and Natural Resources
State of Hawai'i
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809-0621

Signature:  Date: Nov 15, 2024

PROPOSED USE

Total size/area of proposed use (indicate in acres or sq. ft.): 100 sq. ft. for final monitor well area, approximately 7,500 sq.ft. for temporary construction and staging area.

Please provide a detailed description of the proposed land use(s) in its entirety. Information should describe what the proposed use is; the need and purpose for the proposed use; the size of the proposed use (provide dimensions and quantities of materials); and how the work for the proposed use will be done (methodology). If there are multiple components to a project, please answer the above for each component. Also include information regarding secondary improvements including, but not limited to, grading and grubbing, placement of accessory equipment, installation of utilities, roads, driveways, fences, landscaping, etc.

Attach any and all associated plans such as a location map, site plan, floor plan, elevations, and landscaping plans drawn to scale (*ref §13-5-31*).

See attached plans

The proposed Waimea Deep Monitor Well is to be located within the Hapuna Beach State Recreation Area in an undeveloped hardpan area approximately 466-ft mauka of the facility maintenance baseyard building and 233-ft north of the park campground area. The purpose of this well is to gather hydrologic groundwater information of water levels, conductivity, salinity and temperature to establish the size and vertical profile of the basal aquifer lens floating on an overlying saltwater. This is part of ongoing research and monitoring responsibilities of the Commission on Water Resource Management (CWRM) to help assess and protect the sustainability of the Waimea Aquifer System Area groundwater resource.

The 8-inch diameter well will be constructed by a licensed driller permitted under a well construction permit approved by the CWRM in accordance with the CWRM 2004 Hawaii Well Construction Standards including standard NPDES requirements for well construction and pump testing under the Department of Health. The well will be drilled to a depth of 275-ft below the ground elevation of 105-ft msl with the anticipation of reaching saltwater -170-ft below msl. The solid steel casing will be approximately 100-ft deep followed by 100-ft of steel perforated casing into the saturated groundwater portion of the borehole followed by 75-ft of uncased open hole. Water levels expected to be encountered around 1-3 ft above msl and possibly brackish. The well will be finished within 5'x5' 8-inch thick well pad that will be enclosed within a 10'x10'x6' security fenced area. The well will be capped and locked at all times and only accessible to CWRM staff for ongoing data collection purposes.

No grading is required though a temporary 7,500 square foot staging and storage area will be used during construction and returned to pre-construction conditions once the well is completed.

EXISTING CONDITIONS

Please describe the following, and attach maps, site plans, topo maps, colored photos, and biological or archaeological surveys as appropriate:

Existing access to site:

Hapuna Beach Recreational Area, off Queen Kaahumanu Highway to Hapuna Beach Road to Cabin Loop Road. See attached plans

Existing buildings/structures:

Nearby camping A-frame shelters and park maintenance yard facilities. See attached plans

Existing utilities (electrical, communication, gas, drainage, water & wastewater):

See attached plan

No utilities are within the project site area though a 4-inch water supply line is located approximately 70-ft to the north.

Physiography (geology, topography, & soils):

See attached NRCS USDA Soils Map and Report, USGS Geologic Map (SIM 3143 sheet 5, Sherrod 2021), and site photos. Section 373 - Hardpan Hapuna-Waikui-Lalamilo complex 0 to 20 percent slope on ancient Mauna Kea Qhm - a'a and pāhoehoe lava flows.

Hydrology (surface water, groundwater, coastal waters, & wetlands):

See attached. Very dry area with mean annual rainfall of 9.92 inches (Rainfall Atlas of Hawaii, UH Geography Department). No streams by dry gulches that flow during storms. Within the Waimea Aquifer System Area 80301 hydrologic unit of the W. Mauna Kea Aquifer Sector Area of the Island of Hawaii. The sustainable yield of 80301 is 16 million gallons per day (Mgd).

Flora & fauna (indicate if rare or endangered plants and/or animals are present):

The project resides within the grassland vegetation type area described in the February 1994 Botanical Survey of the area by Char & Associates (see attached Appendix F - August 15, 2001, 2001-05 HA-FEIS Hāpuna Beach State Recreation Area). This area is generally described as wide open area with low clumps of grass and scattered small trees, such as the kiawe (see attached photos). Other conditions in this vegetation type is barren stony soil conditions (hardpan), which is the location of the well site footprint. Of the 73 inventoried species of flora, no rare or endangered plants were present nor were proposed candidates at the time of this survey.

The 1994 Botanical Survey identifies a number of avifauna and feral mammals through past studies. During the survey the Indian mongoose was identified as the most common mammal recorded in the area, while there had been no recorded sightings of the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), or 'ōpe'ape'a, which continues to be listed and endangered by the U.S. Fish & Wildlife service. They typically roost in native and non-native shady trees more than 15 feet tall. Short Kiawe trees at or below 15 ft are present at the site (see photos). Barbed wire security will not be used for the project in accordance with the latest posted U.S. Fish & Wildlife Service 5-yr Status Review of the Hawaiian Hoary Bat (3/16/2021) (https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/3306.pdf) recommends recommendations.

Natural hazards (erosion, flooding, tsunami, seismic, etc.):

The project site resides within Flood Zone D designation. Zone D is used for areas where there are possible but underdetermined flooding hazards, as no analysis of flood hazards has been conducted nor base flood elevations (for 100-year flood) established (see attached FHAT & FEMA flood maps). Well site lies above the tsunami inundation zone for South Kohala (see attached PDC map). The project has very small footprint and well casing only extends 2.5 ft above ground. Water inundation is most important hazard as surface water can run down well casing if submerged.

Historic & cultural resources:

See attached Figure 2 map of historic sites identified around the project site from a 1994 AIS (attached Appendix F - August 15, 2001, 2001-05 HA-FEIS Hāpuna Beach State Recreation Area). There were 164 sites identified in the AIS/FEIS and the monitor well project site is not near any of the identified sites. State Historic Preservation Division (SHPD) is currently reviewing the proposed plans (HICRIS# 2024PR00806) submitted by Division of State Parks.

EVALUATION CRITERIA

The Department or Board will evaluate the merits of a proposed land use based upon the following eight criteria (*ref §13-5-30(c)*)

1. The purpose 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 the public health, safety, and welfare. (*ref §13-5-1*) How is the proposed land use consistent with the purpose of the conservation district?

Deep monitor well has very small footprint on the surface to evaluate the profile of the groundwater aquifer within the conservation district as well as the makai section of the entire Waimea Aquifer System Area. Data from the monitoring well will help the State Commission on Water Resource Management to assess and protect the sustainability of groundwater resources in the area.

2. How is the proposed use consistent with the objectives of the subzone of the land on which the land use will occur? (*ref §13-5-11 through §13-5-15*)

The pertinent subzone is under §13-5-13 Resource (R) subzone (see attached subzone map). (a) The objective of this subzone is to ensure, with proper management, the sustainable use of the natural resources of those areas. The monitor well is part of proper groundwater management data collection to protect the sustainable use of natural groundwater within the beach park as well as the entire Waimea Aquifer System Area mauka of the park.

3. Describe how the proposed land use complies with the provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management" (*see 205A objectives on p. 9*).

The monitor well will not have any significant adverse, environmental, or ecological effects and will collect data to monitor and assess groundwater resources in the Waimea Aquifer System Area to help avoid such adverse effects, which is a compelling public interest.

The County of Hawaii Planning Department has confirmed the project is covered under SMA 77-05 including an exemption from preparing an EA per HRS 11-200.1.5 (5) basic data collection. See last attachments.

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

The area of permanent affect will be a small 10'x10' (100 sq.ft.) footprint chainlink fenced off area providing a security for a deep monitor well that will be managed by the State of Hawaii Commission on Water Resource Management to monitor and assess the health of the groundwater in the Waimea Aquifer System Area.

5. Describe how the proposed land use, including buildings, structures and facilities, is compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.

The proposed land use is a very small (100 sq.ft.) footprint behind the already existing park facility maintenance building, camp ground sites, and access road covering approximately 5 acres. The area is very dry hard pan area with short Kiawe trees sparsley dispersed (see photos)

6. Describe how the existing physical and environmental aspects of the land, such as

natural beauty and open space characteristics, will be preserved or improved upon.

The location of the well site was chosen to be on flat ground away from the existing camp ground and park maintenance baseyard facility with the least visual impact in the small developed area between Hapuna Beach Rd, Old Puako Rd, Cabin Loop Rd, and Queen Ka'ahumanu Hwy to preserve larger open spaces outside of the looped road area. Also, location was chosen to minimize public attention to the well while its proximity to the existing maintenance baseyard facility provide some measure of security.

7. If applicable, describe how subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.

No subdivision of land is involved.

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

The area of potential impact is very small (100 sq.ft.) footprint the behind the already existing park facility maintenance building, camp ground sites, and access road covering approximately 5 acres. It is located in an out of the way place so as to provide some security to the monitoring site in addition to the minimal security chain link fence construction (10'x10x6').

CULTURAL IMPACTS

Articles IX and XII of the State Constitution, other state laws, and the courts of the State, require government agencies to promote and preserve cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups.

Please provide the identity and scope of cultural, historical, and natural resources in which traditional and customary native Hawaiian rights are exercised in the area.

Please see attached 1994 AIS from August 15, 2001, 2001-05 HA-FEIS Hāpuna Beach State Recreation Area. There are many historic and cultural sites within the entire Hapuna Beach Recreation Area but there are no such sites within the project area (see pg-32 of CDUPA of modified Figure 2 from AIS showing location of well site relative to cultural sites). Please also refer to answers on pg-5 Historic & cultural resources of this application and AIS attachments.

Identify the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by the proposed action.

Due to the small footprint of the well pad and non-consumptive observational data collection of well bore water levels, conductivity, and temperature profiles obtained quarterly by lowering a conductivity/temperature/depth probe through the water column there should be no effects, impairment, or impacts, to any traditional customary Native Hawaiian rights.

What feasible action, if any, could be taken by the Board of Land and Natural Resources in regards to your application to reasonably protect Native Hawai'i rights?

Approve the CDUP so that monitoring of the groundwater resource can be done to collect factual data to assess and protect the groundwater resource that help identify impacts on coastal discharge for groundwater dependant ecosystems (GDE) that are important for traditional and customary gathering rights.

OTHER IMPACTS

Does the proposed land use have an effect (positive/negative) on public access to and along the shoreline or along any public trail?

No. The project is located in the back of the camp ground loop road behind the camp sites and park facility maintenance yard buildings.

Does the proposed use have an effect (positive/negative) on beach processes?

Proposed monitor well will have a neutral effect on beach processes.

Will the proposed use cause increased sedimentation?

No.

Will the proposed use cause any visual impact on any individual or community?

The 10'x10' 6' high security chain link fence will be visible to those using the camp site and park facility maintenance yard. Also, those driving along Hapuna Beach Road may be able to see the fenced area where they can see the camp ground site structures and/or the park's facility maintenance building.

Please describe any sustainable design elements that will be incorporated into the proposed land use (e.g. the use of efficient ventilation and cooling systems; renewable energy generation; sustainable building materials; permeable paving materials; efficient energy and water systems; efficient waste management systems; etc.).

No sustainable design elements are required for this monitor well other than the non-use of barbed wire to help protect the Hawaiian Hoary Bat ('Ōpe'ape'a).

If the project involves landscaping, please describe how the landscaping is appropriate to the Conservation District (e.g. use of indigenous and endemic species; xeriscaping in dry areas; minimizing ground disturbance; maintenance or restoration of the canopy; removal of invasive species; habitat preservation and restoration; etc.)

NA

Please describe Best Management Practices that will be used during construction and implementation of the proposed land use.

See attached plans for filter sock configuration during drilling. Additionally, the contractor is responsible for obtaining a Department of Health (DOH) National Pollutant Discharge Elimination System (NPDES) General Permit (see HRS 11-55 Appendix I for well drilling activities) prior to actual work, which is a standard condition of all Well Construction Permits issued by the Commission on Water Resource Management (CWRM), which is required for this project.

Please describe the measures that will be taken to mitigate the proposed land use's environmental and cultural impacts.

The monitor well will be constructed in accordance with the DLNR-CWRM Hawaii Well Construction

and pump Installation Standards to protect the groundwater aquifer from contaminants from entering the resource. The CWRM well construction permits also require as a standard condition that the contractor obtain the required DOH NPDES General Permit for well drilling activities that approve the use and disposal of drilling fluids during construction. Environmental mitigation measures for drilling are described in comprehensive detail in HRS 11-55 Appedix I.

For cultural mitigation measures, the project was located away from known archeological sites and should not hinder access to practice traditional and cultural practices. Should during the course of construction, the contractor is directed by the standard well drilling permit condition 6. to adhere to DLNR State Historic Preservation Division directions that: "In the event that historically significant remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and immediately contact the Department of Land and Natural Resources State Historic Preservation Division (SHPD). Work may recommence only after written concurrence by the SHPD."

SINGLE FAMILY RESIDENTIAL STANDARDS

Single Family Residences must comply with the standards outlined in HAR Chapter 13-5, Exhibit 4. Please provide preliminary architectural renderings (e.g. building foot print, exterior plan view, elevation drawings; floor plan, etc.) drawn to scale.

SIZE OF LOT

	Existing	Proposed	Total
Proposed building footprint			
Paved areas/ impermeable surfaces			
Landscaped areas			
Unimproved areas			

SETBACKS Front: Side: Back:

SHORELINE PROPERTIES

Average Lot Depth (ALD): Average annual coastal erosion rate:
 Minimum shoreline setback based on Exhibit 4:
 Actual shoreline setback or proposed structure:

MAXIMUM DEVELOPABLE AREA

The Maximum Developable Area includes all floor areas under roof, including first, second, and third stories, decks, pools, saunas, garage or carport, and other above ground structures.

Maximum Developable Area based on Exhibit 4:
 Actual Developable Area of proposed residence:
 Actual height of the proposed building envelope as defined in Exhibit 4:

COMPATIBILITY

Provide justification for any propose deviation from the established residential standards.

How is the design of the residence compatible with the surrounding area?

If grading is proposed, include a grading plan which provides the amount of cut and fill. Has grading or contouring been kept to a minimum?

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CHAPTER 205A – COASTAL ZONE MANAGEMENT

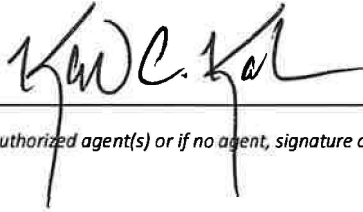
Land uses are required to comply with the provisions and guidelines contained in Chapter 205A, Hawai'i Revised Statutes (HRS), entitled "Coastal Zone Management," as described below:

- **Recreational resources:** Provide coastal recreational opportunities accessible to the public.
- **Historic resources:** Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
- **Scenic and open space resources:** Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.
- **Coastal ecosystems:** Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.
- **Economic uses:** Provide public or private facilities and improvements important to the State's economy in suitable locations.
- **Coastal hazards:** Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.
- **Managing development:** Improve the development review process, communication, and public participation in the management of coastal resources and hazards.
- **Public participation:** Stimulate public awareness, education, and participation in coastal management.
- **Beach protection:** Protect beaches for public use and recreation.
- **Marine resources:** Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

CERTIFICATION

I hereby certify that I have read this completed application and that, to the best of my knowledge, the information in this application and all attachments and exhibits is complete and correct. I understand that the failure to provide any requested information or misstatements submitted in support of the application shall be grounds for either refusing to accept this application, for denying the permit, or for suspending or revoking a permit issued on the basis of such misrepresentations, or for seeking of such further relief as may seem proper to the Land Board.

I hereby authorize ~~representatives~~ ^{the project} of the Department of Land and Natural Resources to conduct site inspections on ~~my~~ property. Unless arranged otherwise, these site inspections shall take place between the hours of 8:00 a.m. and 4:30 p.m.



Signature of authorized agent(s) or if no agent, signature of applicant

AUTHORIZATION OF AGENT

I hereby authorize Akinaka & Associates, Ltd to act as my representative and to bind me in all matters concerning this application.



Nov 14, 2024

Signature of applicant(s)