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STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
**COMMISSION ON WATER RESOURCE MANAGEMENT**  
P.O. BOX 621  
HONOLULU, HAWAII 96809

**STAFF SUBMITTAL**

for the meeting of the  
**COMMISSION ON WATER RESOURCE MANAGEMENT**

April 21, 2010  
Honolulu, Oahu

Haseko (Ewa), Inc.  
**APPLICATION FOR A WATER USE PERMIT**  
Ocean Point 1-4, EP-27 (Well No. 1902-09,-10,-11, 1901-06, 1902-01), TMK 9-1:various  
WUP No. 884 (Modification of WUP No. 784)  
To New (Agricultural) Use for 1.500 mgd  
Puuloa Ground Water Management Area, Oahu

APPLICANT:

Haseko (Ewa), Inc.  
841 Bishop Street, Suite 400  
Honolulu, HI 96813

LANDOWNER:

Same

SUMMARY OF REQUEST:

The applicant requests that the Commission on Water Resource Management (Commission) modify water use permit no. 784 by decreasing the current allocation from 3.300 million gallons per day (mgd) to 1.500 mgd of non-potable caprock ground water from an existing well to supply golf course irrigation, landscape irrigation, and dust control.

LOCATION MAP: See Exhibit 1

BACKGROUND:

On May 14, 1997, the Commission approved water use permit (WUP) no. 192 to Haseko (Ewa) Inc. (Haseko) for 1.800 mgd, with a chloride cap of 1,000 mg/l, for agricultural use. On the same day, the Commission also approved WUP no. 347 to Haseko for 1.500 mgd, with a chloride cap of 1,000 mg/l, for golf course, roadway and maintenance irrigation, and dust control. Both of these water use permits covered the same well source, EP-27.

On July 15, 2002, the Commission approved a variance for the 1,000 mg/l chloride cap, subject to repeal once the R-1 wastewater use started.

On May 15, 2003, the Commission administratively modified and combined WUP nos. 192 and 347 into WUP no. 650, for a total of 3.3 mgd. This modification also added the Ocean Point Wells 1-4 (Well Nos. 1901-06, 1902-09, 10 & 11).

On August 3, 2006, the Commission issued WUP no. 784 to convert WUP no. 650 from interim to permanent status.

On October 1, 2008, the Commission approved a second variance to the chloride cap of 1,000 mg/l, despite starting to use of R-1 water in early 2008 because the available amount of R-1 was not sufficient to meet their irrigation needs and the only alternative was to use potable Board of Water Supply (BWS) water.

On December 29, 2009, the Commission received a completed application from Haseko to modify WUP no. 784. The application requests the following: 1) the reduction of allocation from 3.300 to 1.500 mgd; 2) the modification of the end use area to encompass the entire Ocean Pointe/Hoakalei project area; and 3) the deletion of Special Condition b., which requires reporting TMK changes of end uses.

Additional information regarding the source, use, notification, objections, and field investigation(s) is provided in Attachment A.

#### ANALYSIS/ISSUES:

Section 174C-49(a) of the State Water Code establishes seven (7) criteria that must be met to obtain a water use permit. An analysis of the proposed permit in relation to these criteria follows:

(1) Water availability

If approved by the Commission, there will be a net reduction of this allocation from 3.300 mgd to 1.500 mgd. Further, as part of the Ewa Caprock Aquifer Sector, the Puuloa Aquifer System is regulated by the maximum allowable chloride concentration limit of 1,000 mg/l, not total pumpage. Current chlorides for these sources have been reported at between 830 and 1,075 mg/l for the period between November 2009 and February 2010, and this reduction in allocation should not increase these concentrations. Therefore, water is available.

(2) Reasonable-beneficial

Section 174C-3 HRS defines "reasonable-beneficial use" is

*"...the use of water in such a quantity as is necessary for economic and efficient utilization, for a purpose, and in a manner which is both reasonable and consistent with the state and county land use plans and the public interest".*

### *I. Purpose of Use*

The applicant is requesting the use of brackish, non-potable ground water for dust control and irrigation. These are considered industrial and irrigation uses of water. The Declaration of Policy section, §174C-2(c) HRS, states that the Water Code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for various purposes including industrial and irrigation uses.

### *II. Quantity Justification*

The applicant is requesting a total of 1.500 mgd for the following uses: golf course irrigation, landscape irrigation, and dust control.

#### Golf course irrigation

The current allocation for golf course irrigation is 1.080 mgd. The change in total area covered under this permit request does not affect the golf course net land area. However, there is now 600,000 gpd of R-1 water that is provided for the golf course by the BWS from the Honouliuli Wastewater Treatment Plant. Therefore, the total amount of groundwater that is justifiable for golf course use is now  $1.080 - 0.600 = 0.480$  mgd.

#### Landscape irrigation

The current allocation for landscape irrigation is 0.105 mgd. Presently, there are approximately 10 acres of nursery used to provide plants for the development.

Since its presentation to the Commission in April 2008, the Commission staff has used an ArcGIS based numerical simulation irrigation model, created in conjunction with the College of Tropical Agriculture and Human Resources (CTAHR), from the University of Hawaii, as a *guideline* to help review irrigation requirements for proposed water use permit applications. Most applications do not have the level of irrigation analysis as provided by this application. Nevertheless, it is useful to use the Irrigation Water Requirement Estimation Decision Support System (IWREDSS) model for comparative purposes.

Based on the IWREDSS, staff has calculated that landscape tree irrigation requirements may be on the order of 3,187 gpd/acre. At 10 acres, a reasonable approximation would be 31,870 gpd, or 0.032 mgd.

Dust control

The Commission has used estimates of between 1,500 and 3,500 gpd/acre for dust control in the past. However the higher of this range took composting requirements into account. According to the applicant, approximately 50% of the homes are now constructed. Applying 1,500 gpd/acre for half of the total land area (550 acres), the applicant would require 0.825 mgd.

Therefore, the total projected demand is the sum of golf course irrigation (0.480 mgd) + landscape irrigation (0.032 mgd) + dust control (0.825 mgd) = 1.337 mgd.

*III. Efficiency of Use*

The golf course is irrigated using sprinklers, and watering is done at night. Nursery irrigation is done using sprinklers. Dust control is done with truck spray. These methods, while not the most efficient, are the most economical and practical.

*IV. Analysis of Practical Alternatives*

The golf course is already using R-1 reuse water for irrigation, with the remainder coming from the wells under this permit. Surface and ditch water are not available. Desalinization is too expensive. Potable water from the BWS is available, but is more expensive and the use of nonpotable brackish water is more suitable than potable water for irrigation and dust control use.

Given these considerations (I through IV), 1.337 mgd seems to be a reasonable and beneficial quantity.

(3) Interference with other existing legal uses

Because the total amount of proposed water use will decrease and there is currently no interference with other existing legal uses, the potential for interference is less than currently exists.

(4) Public interest

Public interest is defined under §174C-2 - Declaration of policy, as follows:

*“(c) The state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and*

*enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest."*

The applicant states that the golf course serves as a greenbelt, as well as retention/detention basins for stormwater flows. Dust control measures are required by the Department of Health. Additionally, irrigation is deemed to be in the public interest. Also, no objections have been made through the agency and public review process. Therefore, this application is consistent with the public interest.

(5) State & county general plans and land use designations

The proposed uses are in various state districts and county zones.

Normal agency review includes:

- 1) the State's Department of Land and Natural Resources (DLNR) and its State Parks, Aquatic Resources, Historic Preservation, and Land Divisions; the Department of Health (DOH) with its Clean Water, Safe Drinking Water, and Wastewater Branches; the Department of Hawaiian Home Lands (DDHL), and Land Use Commission (LUC); and the Office of Hawaiian Affairs (OHA);
- 2) the County's County Council, Department of Planning and Permitting, and the Honolulu Board of Water Supply.

Additionally, no comments or objections have been made through this review. These proposed uses and land use designations have been confirmed and are consistent with the state and county general plans and land use designations.

(6) County land use plans and policies

Again normal County review includes County Council, Department of Planning and Permitting, and the Board of Water Supply and this water use application has been confirmed to be consistent with County land use plans and policies. No comments or objections have been made.

(7) Interference with Hawaiian home lands rights

All permits are subject to the prior rights of Hawaiian home lands. The Department of Hawaiian Home Lands (DHHL) and the Office of Hawaiian Affairs have reviewed this application and made no comments or objections. Further, standard water use permit conditions 3.g., 6., and 9.f. notify all water use permittees that their permits are subject to and cannot interfere with DHHL rights.

Other issues

The applicant wishes to have this permit issued for a general defined footprint within TMK 9-1:various rather than individual TMKs down to the normal parcel level. The reason for this request is to reduce the burdensome requirement to notify the Commission when each and every individual new parcel number is assigned. Originally, Haseko was only located on TMKs 9-1-011:various and 9-1-012:various since 2006. The plat numbers have been subdivided into at least 10 additional plats with hundreds of parcel updates for each lot, common areas, and roads. The continued subdivision process and size of the parcels in question would make changes relatively frequent and numerous, within additional changes to be made on the order of as much as 1,000 updates. Therefore, staff believes the intent of tracking TMK changes can be met at the larger plat, TMK 9-1:various, as represented by the map shown on Exhibit 1A.

RECOMMENDATION:

Staff recommends that the Commission modify WUP No. 784 by approving the issuance of WUP No. 884 to Haseko (Ewa), Inc. for the reasonable and beneficial use of 1.337 million gallons per day of non-potable brackish water for golf course and landscape irrigation and dust control from the Ocean Point 1-4, EP-27 Wells (Well Nos. 1902-09,-10,-11, 1901-06, 1902-01), subject to the standard water use permit conditions listed in Attachment B and the following special conditions:

1. Should an alternate permanent source of water be found for this use, then the Commission reserves the right to revoke this permit, after a hearing.
2. The applicant shall contact the Environmental Management Division, State Department of Health, at 586-4304, concerning "GUIDELINES APPLICABLE TO GOLF COURSES IN HAWAII" dated July, 2002 (version 6).
3. Standard Condition 16 for a water shortage plan requirement is waived.
4. The permittee shall submit a contingency plan for water use in the event the chloride concentration in the permitted well(s) exceeds the 1,000 mg/l sustainable capacity limit established for Ewa caprock aquifer sources, the permittee shall seek an alternative source of supply. The contingency plan shall be submitted to the Commission within 30 days of the issuance of this permit.

5. The area that this permit is valid for is defined by the footprint in Exhibit 1 (TMK 9-1:various. The permittee is not required to notify the Commission of TMK changes provided that the change occurs within the footprint and that the uses remain in compliance with state and county general plans and land use designations and county land use plans and policies.

Respectfully submitted,

  
KEN C. KAWAHARA, P.E.  
Deputy Director

Attachments:           A (Water Use Permit Detailed Information)  
                              B (Water Use Permit Standard Conditions)

Exhibit:                 1 (Location Map)

APPROVED FOR SUBMITTAL:

  
LAURA H. THIELEN  
Chairperson

**WATER USE PERMIT DETAILED INFORMATION**

**Source Information**

**AQUIFER:** Puuloa System, Ewa Caprock Sector, Oahu  
Sustainable Yield: 1000 mg/l

**Use Information**

Quantity Requested: 1.500 million gallons per day  
New Type of Water Use: golf course and landscape irrigation and dust control  
Place of Water Use: refer to Exhibit 1

**Public Notice**

In accordance with HAR §13-171-17, a public notice was published in the Honolulu Advertiser on January 29, 2010 and February 5, 2010 and a copy of the notice was sent to the Mayor's office. Copies of the completed application were sent to the Board of Water Supply, Department of Planning and Permitting, Department of Health, Department of Hawaiian Home Lands, Office of Hawaiian Affairs, the various divisions within the Department of Land and Natural Resources, and other interested parties for comments. Written comments and objections to the proposed permit were to be submitted to the Commission by February 22, 2010.

**Objections**

The public notice specifies that an objector meet the following requirements: (1) state property or other interest in the matter; (2) set forth questions of procedure, fact, law, or policy, to which objections are taken; (3) state all grounds for objections to the proposed permits, (4) provide a copy of the objection letter(s) to the applicant, and (5) submit objections meeting the previous requirements to the Commission by February 22, 2010.

No objections were submitted. To the best of staff's knowledge there are no objectors who have property interest within the Puuloa Aquifer System or who will be directly and immediately affected by the proposed water use.

**Briefs in Support**

Responses to objections, or briefs in support, regarding the application are required to be filed with the Commission ten (10) days after an objection is filed and, presumably, copies are served to the applicant. No briefs in support were filed with the Commission.

**STANDARD WATER USE PERMIT CONDITIONS**

1. The water described in this water use permit may only be taken from the location described and used for the reasonable beneficial use described at the location described above. Reasonable beneficial uses means "the use of water in such a quantity as is necessary for economic and efficient utilization which is both reasonable and consistent with State and County land use plans and the public interest." (HRS § 174C-3)
2. The right to use ground water is a shared use right.
3. The water use must at all times meet the requirements set forth in HRS § 174C-49(a), which means that it:
  - a. Can be accommodated with the available water source;
  - b. Is a reasonable-beneficial use as defined in HRS § 174C-3;
  - c. Will not interfere with any existing legal use of water;
  - d. Is consistent with the public interest;
  - e. Is consistent with State and County general plans and land use designations;
  - f. Is consistent with County land use plans and policies; and
  - g. Will not interfere with the rights of the Department of Hawaiian Home Lands as provided in section 221 of the Hawaiian Homes Commission Act and HRS § 174C-101(a).
4. The ground-water use here must not interfere with surface or other ground-water rights or reservations.
5. The ground-water use here must not interfere with interim or permanent instream flow standards. If it does, then:
  - a. A separate water use permit for surface water must be obtained in the case an area is also designated as a surface water management area;
  - b. The interim or permanent instream flow standard, as applicable, must be amended.
6. The water use authorized here is subject to the requirements of the Hawaiian Homes Commission Act, as amended, if applicable.
7. The water use permit application and submittal, as amended, approved by the Commission at its April 21, 2010 meeting are incorporated into this permit by reference.
8. Any modification of the permit terms, conditions, or uses may only be made with the express written consent of the Commission.
9. This permit may be modified by the Commission and the amount of water initially granted to the permittee may be reduced if the Commission determines it is necessary to:
  - a. protect the water sources (quantity or quality);
  - b. meet other legal obligations including other correlative rights;
  - c. insure adequate conservation measures;

- d. require efficiency of water uses;
- e. reserve water for future uses, provided that all legal existing uses of water as of June, 1987 shall be protected;
- f. meet legal obligations to the Department of Hawaiian Home Lands, if applicable; or
- g. carry out such other necessary and proper exercise of the State's and the Commission's police powers under law as may be required.

Prior to any reduction, the Commission shall give notice of its proposed action to the permittee and provide the permittee an opportunity to be heard.

- 10. An approved flowmeter(s) must be installed to measure monthly withdrawals and a monthly record of withdrawals, salinity, temperature, and pumping times must be kept and reported to the Commission on Water Resource Management on forms provided by the Commission on a monthly basis (attached).
- 11. This permit shall be subject to the Commission's periodic review of the Puuloa Aquifer System's sustainable yield. The amount of water authorized by this permit may be reduced by the Commission if the sustainable yield of the Puuloa Aquifer System, or relevant modified aquifer(s), is reduced.
- 12. A permit may be transferred, in whole or in part, from the permittee to another, if:
  - a. The conditions of use of the permit, including, but not limited to, place, quantity, and purpose of the use, remain the same; and
  - b. The Commission is informed of the transfer within ninety days.

Failure to inform the department of the transfer invalidates the transfer and constitutes a ground for revocation of the permit. A transfer which involves a change in any condition of the permit, including a change in use covered in HRS § 174C-57, is also invalid and constitutes a ground for revocation.

- 13. The use(s) authorized by law and by this permit do not constitute ownership rights.
- 14. The permittee shall request modification of the permit as necessary to comply with all applicable laws, rules, and ordinances which will affect the permittee's water use.
- 15. The permittee understands that under HRS § 174C-58(4), that partial or total nonuse, for reasons other than conservation, of the water allowed by this permit for a period of four (4) continuous years or more may result in a permanent revocation as to the amount of water not in use. The Commission and the permittee may enter into a written agreement that, for reasons satisfactory to the Commission, any period of nonuse may not apply towards the four-year period. Any period of nonuse which is caused by a declaration of water shortage pursuant to section HRS § 174C-62 shall not apply towards the four-year period of forfeiture.

16. The permittee shall prepare and submit a water shortage plan within 30 days of the issuance of this permit as required by HAR § 13-171-42(c). The permittee's water shortage plan shall identify what the permittee is willing to do should the Commission declare a water shortage in the Puuloa Ground-Water Management Area.
17. The water use permit shall be subject to the Commission's establishment of instream standards and policies relating to the Stream Protection and Management (SPAM) program, as well as legislative mandates to protect stream resources.
18. Special conditions in the attached cover transmittal letter are incorporated herein by reference.
19. The permittee understands that any willful violation of any of the above conditions or any provisions of HRS § 174C or HAR § 13-171 may result in the suspension or revocation of this permit.



HASEKO (EWA) INC.  
←  
TMK 9-1- various

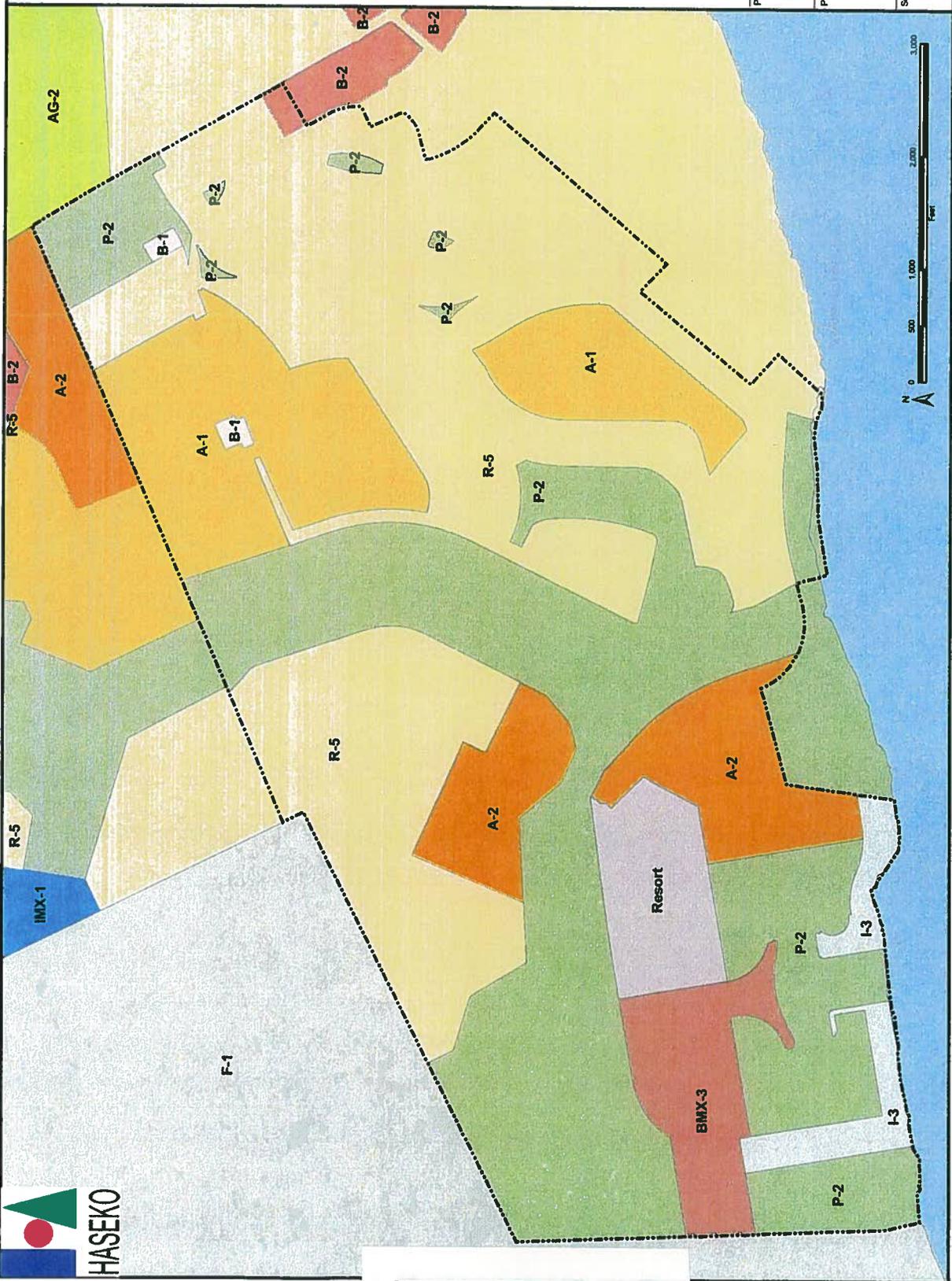
**EXHIBIT 1A**

# Ocean Pointe Zoning (Nov. 23, 2009)

## Legend

### Zoning 2009-11-23

- A-1
- A-2
- AG-2
- B-1
- B-2
- BMX-3
- F-1
- I-3
- IMX-1
- P-2
- R-5
- Resort



Prepared For:  
**HASEKO (Ewa) Inc.**

Prepared By:  
**PLANNING SOLUTIONS**

Source:  
Honolulu County GIS (Nov. 23, 2009 upload)

**EXHIBIT 1B**

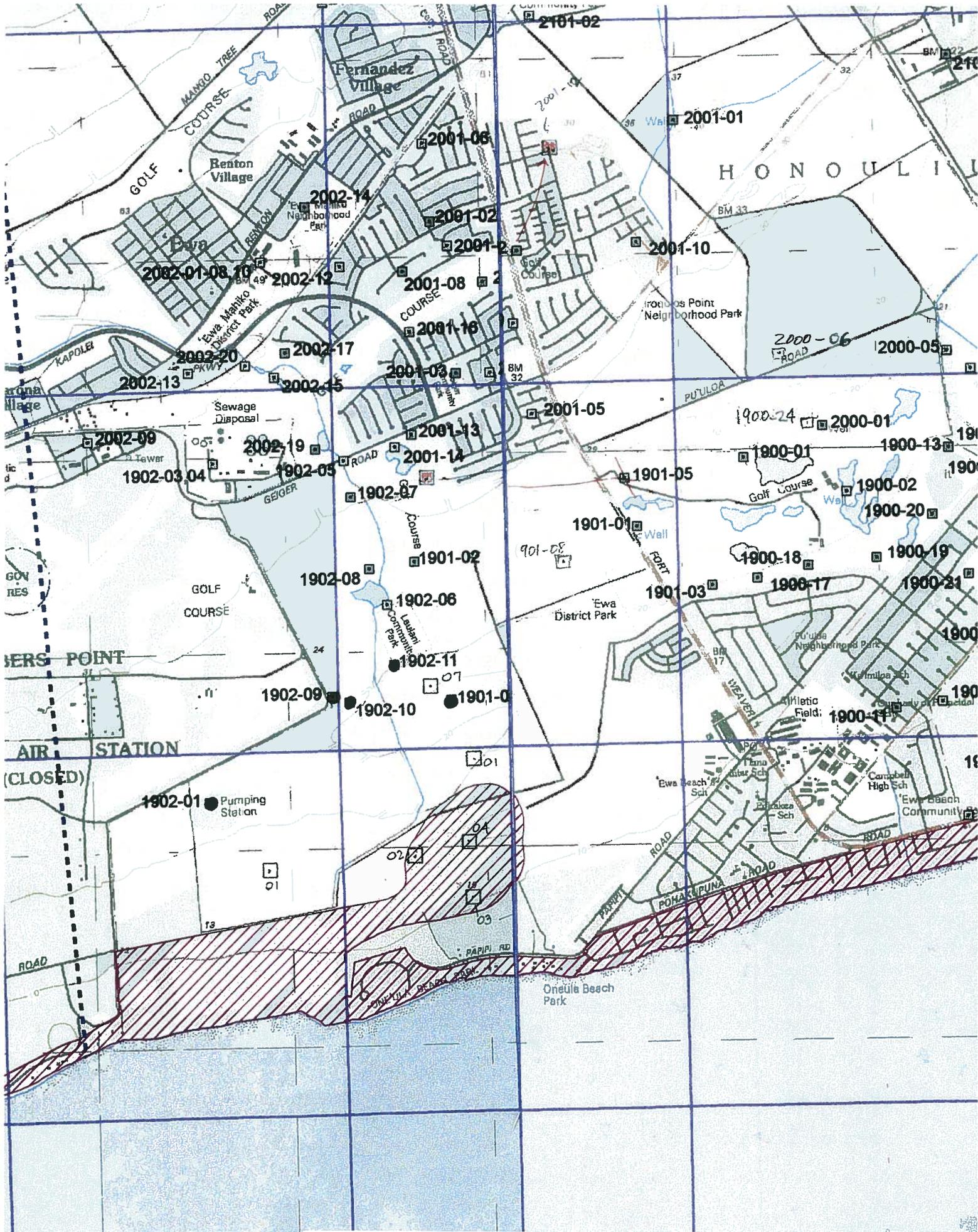


EXHIBIT 1C