April 18, 2017

Department of Land and Natural Resources
Commission on Water Resource Management
1151 Punchbowl Street, Room 227
Honolulu, Hawaii 96813

Dear Mr. Kimura

Subject: WSAG17 – Increasing Recharge Through Detention Basins

Waiahi Water Company, LLC, a division of Grove Farm Company, Incorporated, respectfully submits a proposal to request $100,000.00 to facilitate building three new off-site detention basins that will capture the discharge from the existing surface water treatment plant, and allow for the recharge of groundwater resources.

Additionally, the water that does not percolate in the detention basins will flow to the Kapaia Reservoir and will continue to provide irrigation for surrounding agricultural production.

We appreciate this opportunity and ask for your consideration of our proposal. Should you have any questions, please feel free to contact me at (808) 330-1113 or sshimabukuro@grovefarm.com.

Sincerely,

Shawn Shimabukuro

3-1850 Kaumualii Highway Lihue, HI 96766-8609
P 808.245.3678 F 808.246.9470
www.grovefarm.com

REQUEST FOR PROPOSALS

NO. WSAG17

WSAG17: Increasing Recharge through Detention Basins

for

Waiahi Water Company, LLC

TABLE OF CONTENTS

OFFER FORM OF-1
2017 IMPLEMENTATION OF WATER SECURITY PROJECTS AND PROGRAMS
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES
RFP-WSAG17

Procurement Officer
Department of Land and Natural Resources State of Hawaii
Honolulu, Hawaii 96813

Dear Procurement Officer:

The undersigned has carefully read and understands the terms and conditions specified in the Specifications and Special Provisions; and hereby submits the following offer to perform the work specified herein, all in accordance with the true intent and meaning thereof. The undersigned further understands and agrees that by submitting this offer, 1) he/she is declaring his/her offer is not in violation of Chapter 84, Hawaii Revised Statutes, concerning prohibited State contracts, and 2) he/she is certifying that the price(s) submitted was (were) independently arrived at without collusion.

Offeror is: ☐ Sole Proprietor ☐ Partnership ☐ *Corporation ☐ Joint Venture

☑ Other a Hawaii Limited Liability Company

*State of incorporation: _____

Hawaii General Excise Tax License I.D. No [redacted]

Federal I.D. No [redacted]

Payment address (other than street address below): 3-1850 Kaumualii Highway
City, State, Zip Code: Lihue, Hawaii 96766

Business address (street address): 3-1850 Kaumualii Highway
City, State, Zip Code: Lihue, Hawaii 9676

Respectfully submitted:
Date: APRIL 18, 2017

(x) _____
Authorized (Original) Signature

Telephone No: (808) 632.2525

Shawn Shimabukuro Vice President
Name and Title (Please Type or Print)

Fax No.: (808) 246-9470

** Waiahi Water Company, LLC
Exact Legal Name of Company (Offeror)

E-mail Address:

sshimabukuro@grovefarm.com

**If Offeror is a "dba" or "division of a corporation, furnish the exact legal name of the corporation under which the awarded contract will be executed.

OFFER FORM OF-2

Total contract cost for accomplishing the development and delivery of the services.

$1,283,200.00

Note: Pricing shall include labor, materials, supplies, all applicable taxes, and any other costs incurred to provide the specified services.

I, *Shawn L. Shimabukuro* (Offeror), certify that at the time of award the 1:1 matching fund requirement will be met for *Increasing Recharge Through Detention Basins* (project). The total amount of matching funds will be $1,183,200.00

Shawn Shimabukuro APRIL 18, 2017
Offeror Signature Date

Shawn Shimabukuro Vice President
Print Name Title

TRANSMITTAL and OFFER LETTER RFPWSAG17

Name of Organization: Waiahi Water Company, LLC

Point of Contact: Shawn Shimabukuro

Phone: (808) 632.2525 office or (808) 330.1113 mobile

Email: sshimabukuro@grovefarm.com

Water Security Advisory Group
Department of Land and Natural Resources, Commission on Water Resource Management
1151 Punchbowl Street, Room 227
Honolulu, Hawaii 96813

The undersigned has carefully read and understands the terms and conditions specified in RFP WSAG17, the Special Provisions attached hereto, and hereby submits the following offer to perform the work specified herein, all in accordance with the true intent and meaning thereof. The undersigned further understands and agrees that by submitting this offer, 1) he/she is declaring his/her offer is not in violation of Chapter 84, Hawaii Revised Statutes, concerning prohibited State contracts, and 2) he/she is certifying that the price submitted was independently arrived at without collusion.

A list of secured and required permits necessary to implement the project is hereto attached.

Proposal Title: WSAG17 - Increasing Recharge Through Detention Basins

Total Amount of Proposal: $100,000.00

If awarded, the contract with the State would be made with the following Entity (please use the **exact legal name** as registered with the Dept. of Commercial and Consumer Affairs):

Waiahi Water Company, LLC
Legal name

3-1850 Kaumualii Highway, Lihue, Hawaii 96766
Address (Contract and Billing Address must be the same)

[redacted] [redacted]
State Tax ID No. (GE) Federal Tax ID No.

[redacted] – APRIL 18, 2017
Offeror Signature Date

Shawn Shimabukuro Vice President
Print Name Title

Request for Proposals No. WSAG17

PROJECT TITLE: WSAG17: Increasing Recharge through Detention Basins

APPLICANT: Waiahi Water Company, LLC

APPLICANT BACKGROUND:

Waiahi Water Company, LLC is a division of Grove Farm Company, Incorporated. In late 2005 the Waiahi Water Company opened its state-of-the-art surface water purification facility (See Exhibit A). Also known as the Waiahi Surface Water Treatment Plant (Waiahi SWTP), this facility is capable of producing approximately 3,000,000 gallons of potable water per day. Using a GE Water & Process Technologies membrane filtration system, water is pumped from the Kapaia Reservoir and purified at the plant. The Kapaia Reservoir is sourced via the intricate ditch systems managed and maintained by Grove Farm.

Grove Farm initially proposed to develop residential, commercial and industrial areas in Lihue/Puhi, with an initial water demand of approximately 1.0 million gallons per day (mgd). The Kauai Department of Water (DOW) coincidentally needed 2.0 mgd. An extensive groundwater exploration program through 1997 was unsuccessful in assuring water yields in the Lihue/Puhi area that could satisfy this demand. Furthermore, research indicated that the groundwater levels in the Lihue area appeared to be decreasing – most likely as a result of decreased percolation and recharge from sugar cane irrigation. Consequently, Grove Farm decided to pursue the treatment of surface water.

Today, treated water from the Waiahi SWTP is delivered to the Kauai DOW and serves the Lihue, Hanamaulu, Puhi and Wailua Water Systems. In addition to fulfilling Grove Farm's obligations to provide a water source for its new residential and commercial properties, Grove Farm helps to ensure that Kauai's island community has critical access to water.

SCOPE OF WORK:

a. Budget Narrative:

Our proposed project focuses on a system that will pump discharge water from the existing Waiahi SWTP to three new unlined, earthen basins. This discharge water is a by-product of the purification process and is approximately ten-percent (10%) of the daily potable water production. The water will settle in the detention basins and allow for percolation and recharge of our ground water sources. The construction of this project is estimated to cost $1,283,200, and our request is for the maximum award amount of $100,000. The construction cost for the detention basins are $873,200, while the pump station will cost an additional $410,000. The major components of the detention basins, include:

Detention Basins	Units	Total Cost	Proposed Grant Budget	Matching Funds
Mobilization and Demobilization		$100,000	$-0-	$100,000
Clearing and Grubbing	1.25 AC	$12,500	$-0-	$12,500
Excavation	9,300 CY	$279,000	$100,000	$179,000
Embankment	500 CY	$7,500	$-0-	$7,500
Erosion Control		$20,000	$-0-	$20,000
6' High Chain Link Fence	920 LF	$73,600	$-0-	$73,600
Double Chain Link Gate		$2,500	$-0-	$2,500
Gravel Access and Perimeter Road	1,520 SF	$45,600	$-0-	$45,600
8" Force Main	810 LF	$121,500	$-0-	$121,500
12" Drain Line	700 LF	$140,000	$-0-	$140,000
Drain Manholes		$71,000	$-0-	$71,000
TOTAL: Detention Basin		**$873,200**	**$100,00**	**$773,200**

Another component of the system is the Drain/Reject Water Pump Station that will convey the discharge water to the basin and allow water to return to the reservoir. Components of the pump station include:

Drain/Reject Water Pump Station	Units	Total Cost	Proposed Grant Budget	Matching Funds
Pump Station Wet Well		$150,000	$-0-	$150,000
Drain/Reject Pumps	2	$150,000	$-0-	$150,000
Pump Appurtenances		$20,000	$-0-	$20,000
Pump Control Panel		$90,000	$-0-	$90,000
TOTAL: Drain/Reject Pump Station		**$410,000**	**$-0-**	**$410,000**

Waiahi Water Company will fund 100% of the design and permitting fees. This request will assist with 7.7% of the construction cost to complete this project.

b. Proposed Activity

Currently, a 280,000 gallon detention basin is located next to the plant to capture the discharge water before it returns to the Kapaia Reservoir. The proposed activity is to build three new basins to allow longer settling time of the discharge water.

Taking a step back, it is important to explain why the longer settling time of the discharge water is necessary. The approximate ten-percent (10%) of discharge water results from various components of the water treatment process. The Environmental Protection Agency (EPA) established baseline parameters against which the discharge water is monitored and monthly National Pollutant Discharge Elimination System (NPDES) reports are filed. The Waiahi SWTP has consistently exceeded the EPA's total recoverable aluminum (TRA) parameter. Aluminum chlorohydrate must be added during the water treatment to allow flocculation prior to the membrane filtering process. It was recently discovered;

however, that this is not the only contributing factor to the TRA levels found in the discharge water.

When the EPA baseline was established, it was unknown that high levels of bauxite, an aluminum ore, were inherent in the soil. In fact, in the 1950s and 1960s, aluminum companies considered the surrounding lands for potential mining of bauxite. While the treatment of the water requires the addition of aluminum chlorohydrate, the resulting discharge has been tested to have a TRA level less than what was analyzed in the raw reservoir water. In other words, the treatment process is not contributing any more aluminum than what is already existing in the raw water from Kapaia Reservoir.

As the Department of Health – Clean Water Branch was not willing to change their allowable limits, we sought to repurpose this discharge water for irrigation purposes. Consultants were hired and plans were designed to gravity flow the discharge water into existing agricultural fields. The decant water would be processed via a sand filter and land applied using a drip irrigation system. After all, irrigation of these surrounding fields was already being provided for from the Kapaia Reservoir. Unfortunately, the Department of Health's Wastewater Branch denied our request on the account that there were no rules in place governing such irrigation and they did not want the oversight.

Consequently, we will need to continue with the NPDES permit and return the discharge water to the Kapaia Reservoir. The design of three new detention basins will allow for a longer holding period to settle out the aluminum so it can be returned to the Kapaia Reservoir – ironically, returning the discharge water with a lower trace of TRA than when first entering the facility. On a positive note, while improving its quality before flowing back to the Kapaia Reservoir, the discharge water will percolate and recharge groundwater. Also, the fact that potable water is being produced from surface water, it allows the Kauai DOW to rest their wells and recharge the aquifers.

The water that flows back to the Kapaia Reservoir provides for neighboring lessees who are engaged in agricultural activities, such as cattle ranching, diversified agriculture and industrial application.

c. Deliverables

Deliverables include: three new off-site detention basins, a new on-site drain/reject water pump station, a new 8" force main from the pump station to the off-site detention basins, a new drain man hole and a new 12" gravity decant drain line from off-site detention basins. The design is for one 448,400-gallon basin and two 615,100-gallon basins.

One hundred percent of the discharge water will either percolate to recharge the groundwater or flow back to the reservoir for agricultural users. The discharge equates to approximately ten-percent (10%) of the plant's daily production. Percolation may be measured by metering the discharge water entering the basins and what is returned to the reservoir. While the difference in readings should be the approximate percolation, we will also work with our engineers to factor in the level of evaporation and average precipitation in the area to get a more precise measurement.

EXPERIENCE AND CAPABILITIES:

Waiahi Water Company began planning for the Waiahi SWTP in the late 1990's. The plant took many years to come to fruition. Consultants included Austin, Tsutsumi & Associates, Inc. (ATA) for the design of the plant and Aqua Engineers for the operations and management of the plant. For this detention basin project we intend to utilize the same proven consultants along with Kodani & Associates Engineers, LLC (KAE) as the general engineering contractor. We will seek private bids from qualified contractors – primarily contractors we used in past projects.

STRATEGY / TIMELINE / PLAN / PRICING:

a. Strategy

The strategy to promote the recharge of groundwater is to build the three earthen basins that will allow water to percolate and saturate the ground, thereby rejuvenating the aquifers. The aquifers are further allowed to rest and recharge as the purified surface water from the Waiahi SWTP is being used in place of well water.

With completed designs by KAE and ATA, we intend to seek the County Planning Department's approval to proceed under the existing zoning permit. We also need to file for a grading permit with the Public Works Division and apply for NPDES Construction permit. Concurrently, we are working to re-file our NPDES permit application to allow discharge to the Kapaia Reservoir. Provided all approvals are in-place, we will solicit private bids from contractors.

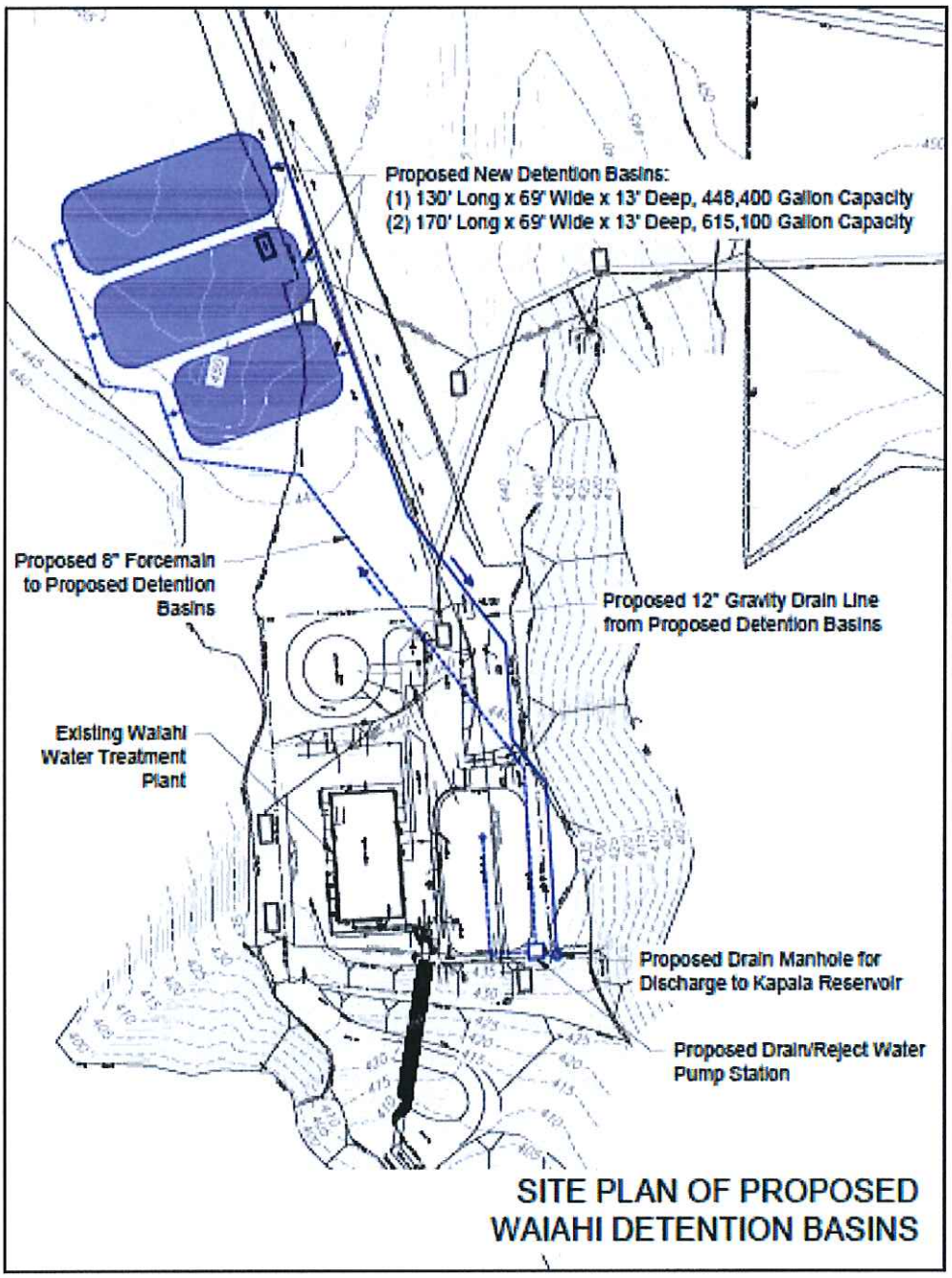
b. Timeline

Present	Design and planning phase
2nd Quarter 2017	Work with DOH on re-establishing the *NPDES permit
4th Quarter 2017	Complete and submit construction plans and *Grading Permit application. Receive *Zoning Permit approval.
1st Quarter 2018	Solicit construction bids
2nd Quarter 2018	Start construction
4th Quarter 2018	Complete construction

* Refers to required permits necessary to implement this project.

c. Plan

Based on the diagram below, the three detention basins will be located just north of the existing plant. The discharge water will continue to flow to the existing detention basin before being pumped to the three newly built basins.



The new off-site detention basins will allow additional gravity settlement of solids prior to the discharge water being returned to the Kapaia Reservoir. These earthen basins would be unlined with maximum depths of about 14 feet. The design will allow the basins to be taken offline, one at a time for emptying and cleaning. While offline, the other two basins will remain in use.

Discharge water that does not percolate to recharge the groundwater will flow via gravity, in a 12-inch drain line, back to the existing Waiahi SWTP site and discharged into the Kapaia Reservoir. Again, this reservoir water provides for the numerous agricultural users in the surrounding area.

If this project proves that we are able to account for significant percolation and recharging of groundwater, there is surrounding unencumbered land that could potentially serve as additional detention basins.

d. Pricing

Prices for the project were based on the Opinion of Probable Construction Cost prepared by ATA and reviewed by KAE. Following the completion of the construction plans being prepared by our engineers, the actual pricing will be further defined through the competitive bid process.

PROPOSED BUDGET:

GRAND TOTAL (including match) $1,283,200

Subtotal for labor $450,300
Subtotal for materials $401,700
Subtotal for other actions $431,200

Budget Category	Proposed Grant Budget	Matching Cash	Total Budget
Salary and Wages		$450,300	$450,300
Materials and Supplies	$100,000	$301,700	$401,700
Equipment		$431,200	$431,200
Total Cost	$100,000	$1,183,200	$1,283,200

The targeted percentage for indirect costs should not exceed 10% of the total costs requested. If there are different indirect costs for different budget categories, please create different spreadsheets for each indirect cost rate.

Compensation and Payment Schedule

#	Deliverables / Task / Activity	Grant Amount ($)	Matching Cash ($)	Total Amount ($)
1	Detention Basins and Appurtenances	$100,000	$511,700	$611,700
2	On-site Pump and Appurtenances	$0	$410,000	$410,000
3	8" Force Main	$0	$121,500	$121,500
4	12" Gravity Drain Line	$0	$140,000	$140,000
	Total	**$100,000**	**$1,183,200**	**$1,283,200**

EXCEPTIONS:

Please note a potential exception to the Request for Proposal of **Section 6.4 Permissions and Authorizations**. In order for the construction of the detention basins to occur, we are seeking the following permissions, including: (1) Zoning Permit through the Planning Department, (2) Grading Permit through the Public Works Division, and (3) NPDES Construction Permit through the Department of Health.

CONTACT INFORMATION:

Primary Contact:	Shawn Shimabukuro
Company:	Grove Farm Company, Incorporated
Address:	3-1850 Kaumualii Highway, Lihue, Hawaii 96766
Phone:	(808) 632.2525
Email:	sshimabukuro@grovefarm.com
Alternate Contact	Todd Ozaki
Company:	Grove Farm Company, Incorporated
Address:	3-1850 Kaumualii Highway, Lihue, Hawaii 96766
Phone:	(808) 632.2531
Email:	tozaki@grovefarm.com

REFERENCES:

William Eddy, P. E., Vice President

Company:	Kodani & Associates Engineers, LLC
Address:	3146 Akahi Street, Lihue, Hawaii 96766
Phone:	(808) 245.9591
Email:	bill@kodani.com

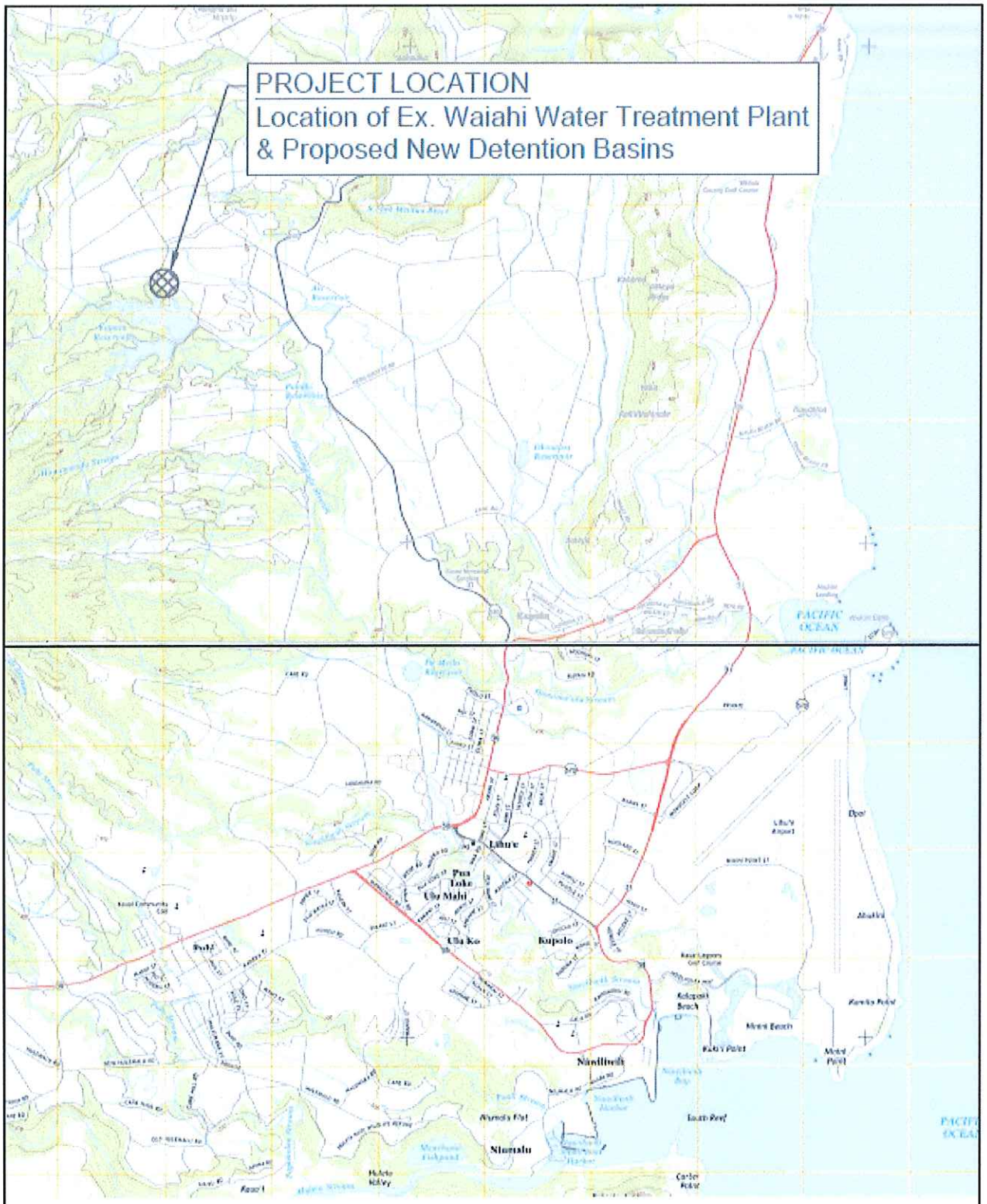
Ivan Nakatsuka, P. E., Chief Environmental Engineer

Company:	Austin, Tsutsumi & Associates, Inc.
Address:	501 Sumner Street, Suite 521, Honolulu, Hawaii 96817
Phone:	(808) 533.3646 ext. 634
Email:	inakatsuka@atahawaii.com

Ann Sokei, Water System Supervisor

Company:	Aqua Engineers, Inc.
Address:	3560 Koloa Road, Kalaheo, Hawaii 96741
Phone:	(808) 240.2214
Email:	ann@aquaengineers.com

EXHIBIT A



LOCATION OF PROPOSED WAIAHI DETENTION BASINS