



Testimony of
Kirk Saiki, P.E.
Manager and Chief Engineer
Before the Committee on Water & Land
Friday, February 3, 2017
9:00 A.M.
State Capitol, Conference Room 325

February 1, 2017

The Honorable Ryan I. Yamane, Chair
And Members
Committee on Water & Land
House of Representatives
State Capitol, Conference Room 325
415 South Beretania Street
Honolulu, Hawaii 96813

RE: HB1512, RELATING TO CAPITAL IMPORTANT PROJECT FOR THE BENEFIT OF THE DEPARTMENT OF WATER, COUNTY OF KAUA'I

The Department of Water (DOW), County of Kaua'i respectfully submits this testimony supporting House Bill 1512 which proposes to provide funding for capital improvement projects for the Kīlauea water system, the Wailua/Kapa'a water system, and the Kalāheo water system.

The DOW's Capital Improvement Projects are designed to address the needs of our Kaua'i community, including public safety and affordable housing. The DOW's current resources are not sufficient to develop the necessary infrastructure to replace aging water systems and satisfy Kaua'i's future needs. The DOW's water systems are not highly integrated and typically rely on a few water sources and storage tanks within separate water systems serving individual communities around the island. Pipelines that were originally installed in many of these systems are now undersized, according to current Water System Standards. Given the high cost of infrastructure development and the DOW's current fiscal capability, assistance from the State is vital in order to meet the drinking water needs of our community and ensure the long-term viability of our water systems.

We have attached a detailed description, cost breakdown, and justification for each project. *(See attached)*

Thank you for the opportunity to testify. Should you have any further questions feel free to call me at (808) 245-5408.

Respectfully,

A handwritten signature in black ink, appearing to read "K. Saiki".

Kirk Saiki P.E.
Manager and Chief Engineer

Enclosure

CAPITAL IMPROVEMENT PROJECTS (CIP)

for the



"WATER HAS NO SUBSTITUTE - CONSERVE IT"

Request for State Aid

2017

Legislative Session

The Department of Water's (DOW) fiscal year 2017 (*July 1, 2017 through June 30, 2018*) request for Capital Improvement Funds are designed to address the needs of our community, including public safety and affordable housing.

1. The **FIRST and TOP PRIORITY** project is to develop new source facilities for the Kilauea area. The Kilauea area source and storage facilities are currently operating at max capacity and are not adequate to allow for substantial new development in the area. Additional source and storage facilities for this area including Kilauea School are needed to meet the current Water System Standards of the DOW. Upon successful drilling and development of the well, the Department will pursue developing the well site and connecting pipeline. **(Project: Drill and Develop Kilauea Well No. 3);** and
2. The **SECOND PRIORITY** project is to develop new storage infrastructure that will provide the adequate fire flow storage capacity for the Kapa'a area including Kapa'a High School and the State's Samuel Mahelona Memorial Hospital. The existing Kapa'a Homesteads 313-foot storage tank is undersized and does not meet the Water System Standards for fire storage capacity. **(Project: Construct Kapa'a Homesteads 313' Tanks, 1.0 MG (Two 0.5 MG Tanks));** and
3. The **THIRD PRIORITY** project is to improve the Kalāheo Water System by developing new storage facilities, connecting water lines and to drill and test a new well. The Kalāheo community experienced a water outage when the DOW's existing well pumps were unexpectedly out of service. The new storage infrastructure is necessary to provide more storage capacity for the area. The additional storage infrastructure will increase storage capacity for fire protection to Kalāheo Elementary School, businesses, as well as other customers in the area including the ability to provide water for future development. **(Project: Kalāheo 1,111' and 1,222' Water System Improvements and Kalāheo Well No. 3);** and

The Board of Water Supply, County of Kaua'i and the DOW are committed to operating in a fiscally responsible manner. The DOW's revenue is derived from water service sales with no direct subsidy from, or contributions to the County General Fund. The DOW's water service revenue is used for the operation and maintenance of each water system. In efforts to provide for adequate funding in the future, the DOW will periodically study its Facilities Reserve Charge (FRC), which is a fee to be paid by new developers or existing developers needing additional water supply from the DOW's water system.

In the meantime, the DOW's current resources are not sufficient to develop the necessary infrastructure to replace aging water systems and satisfy Kauai's future needs. The DOW's water systems are not highly integrated and typically rely on a few water sources and storage tanks within separate water systems serving individual communities around the island. Pipelines that were originally installed in many of these systems are now undersized, according to current Water System Standards. The DOW periodically updates its Water Plan 2020, a comprehensive long-range plan, to address infrastructure, revenue, and water rate needs of Kaua'i's water systems.

Ultimately, given the high cost of infrastructure development and the DOW's current fiscal capability, assistance from the State is vital in order to meet the drinking water needs of our community and ensure the long-term viability of our water systems.

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| PRIORITY NO. | 1 |
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KĪLAUEA WATER SYSTEM
Drill and Develop New Kīlauea Well No. 3
Water Plan 2020 Project No. WKK-02

A. PROJECT DESCRIPTION

The Department is requesting State aid for the drilling and development (testing) of Kīlauea Well No. 3. Upon successful development/testing of the well, the well site will be developed. The well site development includes the installation of a permanent pump in the well, motor control building, SCADA, disinfection system, site drainage, site paving, security fencing, connecting pipeline and other associated improvements that are needed to incorporate the new source into the Kīlauea Water System.

The Department has budgeted for the design to drill and develop Kīlauea Well No. 3. The design is expected to begin in fiscal year 2016-2017.

B. ESTIMATED COST:

| | FISCAL YEAR | | | | |
|------------------------|---------------------|------------------|------------------|------------------|------------------|
| | 5-Year Total | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 |
| A. Land | 100,000 | -- | -- | 100,000 | |
| B. Plans | 300,000 | -- | 300,000 | -- | |
| C. Construction | 1,150,000 | 400,000 | -- | 750,000 | |
| TOTAL | 1,550,000 | 400,000 | 300,000 | 850,000 | |

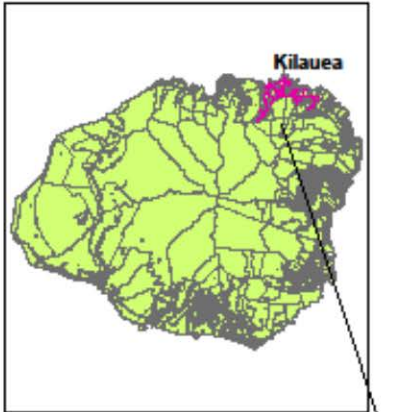
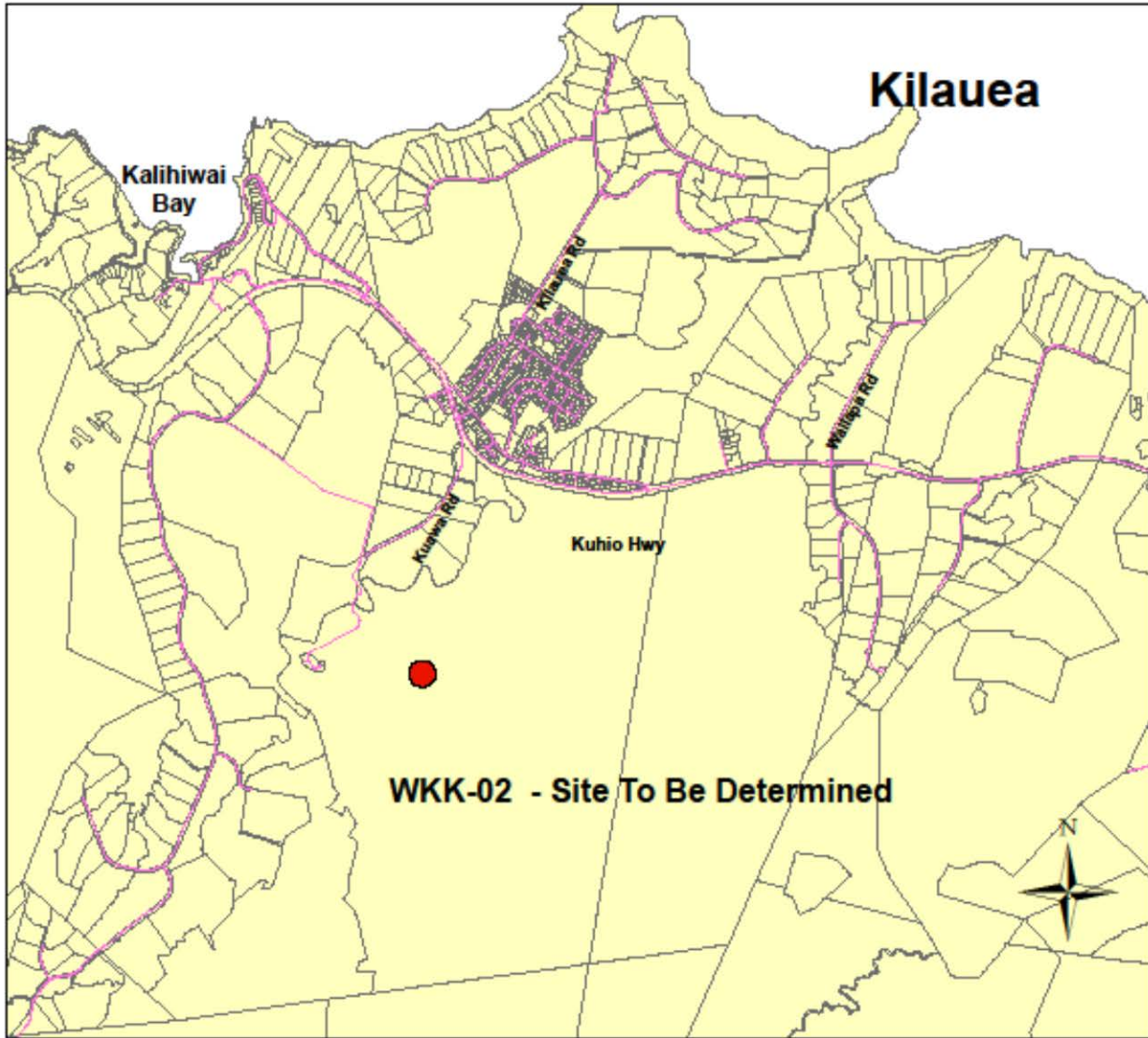
C. JUSTIFICATION:

The existing source and storage facilities for Kīlauea are at capacity. The Department is currently limiting water service for new development in Kīlauea until adequate source and storage facilities are available.

If the well development results are good, the Department will proceed with developing the well site to incorporate the new source into the Kīlauea Water System. In conjunction with the DOW's current project to design and construct a new 1 million gallon storage facilities for the area, additional source will allow for further development of the Kīlauea area including the expansion of the Kīlauea School, if applicable. The additional source would also provide much needed source that may be used for further development for businesses, agricultural use and additional housing in the area.

The existing wells servicing the Kīlauea area are located on the same site with one transmission line from the well site to the Kīlauea service area. The new source is expected to be located on a different site from the existing wells. This would allow the new source to also serve as an emergency back-up source to the 1,466 customers in this service area in the event that the existing wells or transmission line from the existing wells become unexpectedly inoperable or out of service.

1 0.5 0 1 Miles



Project Location

Legend

- Tank
- ▲ Pump
- ~ Pipe
- New Facilities

Water Plan 2020

Project Number: WKK-02
 Project Description:
 Drill and Develop New
 Kilauea Well (No. 3 or No. 4)

2017 Department of Water, County of Kaua'i
Capital Improvement Projects

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| PRIORITY NO. | 2 |
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WAILUA/KAPA'A WATER SYSTEM
Construct Kapa'a Homesteads 313' Tanks, 1.0 MG
(Two 0.5 MG Tanks)
Water Plan 2020 Project No. WK-08

A. PROJECT DESCRIPTION

This project It consists of the design and construction of two (2), 0.5 million gallon storage tanks, drainage, site improvements and connecting pipeline to the Department's Ornellas tank hydraulic zone.

B. ESTIMATED COST:

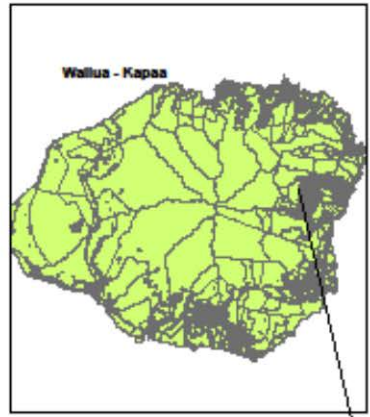
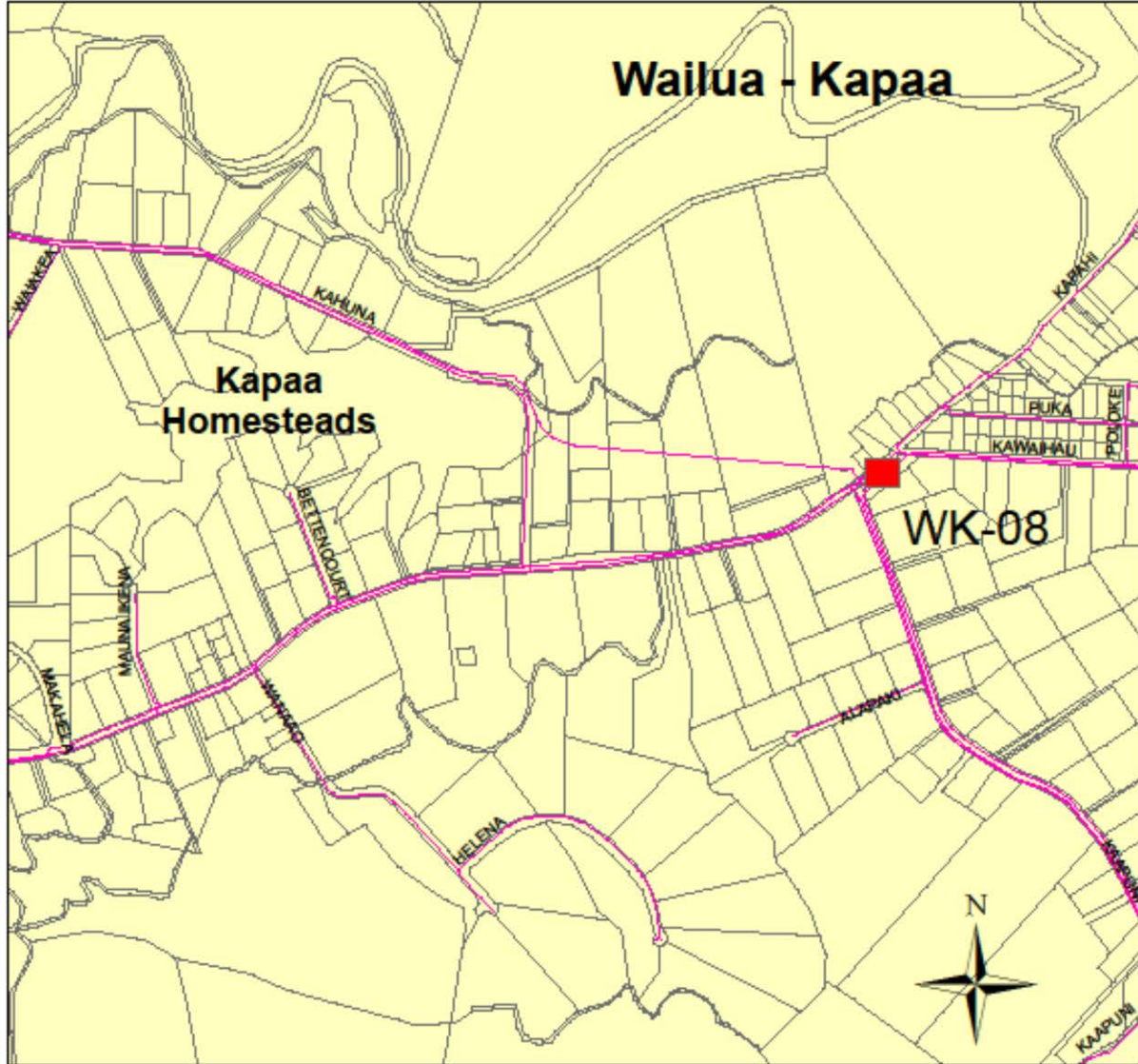
| | FISCAL YEAR | | | | |
|------------------------|------------------|------------------|------------|------------|------------|
| | 2-Year Total | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 |
| A. Land | -- | -- | -- | -- | -- |
| B. Plans | -- | -- | -- | -- | -- |
| C. Construction | 8,000,000 | 8,000,000 | -- | -- | -- |
| TOTAL | 8,000,000 | 8,000,000 | -0- | -0- | -0- |

C. JUSTIFICATION:

The lower Kawaihau, Kapa'a area of the Kapa'a Water System (Ornellas tank hydraulic zone) is deficient in storage capacity. This new storage tanks will provide sufficient storage capacity for fire protection of Kapa'a High School, Kapa'a Middle School and the State's Samuel Mahelona Memorial Hospital. To address this storage deficit, the DOW is currently designing two (2), 0.5 million gallon storage tanks. The design is expected to be completed in fiscal year 2016-2017.

Funds for the construction of this tank and possible associated land acquisitions (easements) are being requested to construct this project. A drainage easement may be determine to be required for the new tank. At this time, a determination on the drainage easement requirement has not been made. Completion of this project will provide adequate storage capacity for fire protection for the high school, middle school, and state hospital in this service area.

0.3 0.15 0 0.3 Miles



Project Location

Legend

- Tank
- Pump
- Pipe
- New Facilities

Water Plan 2020
Project Number: WK-08
Project Description:
Construct Kapaa Homesteads 313' Tanks 1.0MG (Two 0.5MG Tanks)

2017 Department of Water, County of Kaua'i
Capital Improvement Projects

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| PRIORITY NO. | 3 |
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KALĀHEO WATER SYSTEM
Kalāheo 1,111' and 1,222' Water System Improvements
and Kalāheo Well No. 3

Water Plan 2020 Project No. K-01 and K-14

A. PROJECT DESCRIPTION

This project includes two (2) new 0.5 million gallon storage tanks, new and replacement pipelines, and to drill and develop (test) a new well.
The project has been broken up into four (4) packages or separate construction plans.

B. ESTIMATED COST:

| | FISCAL YEAR | | | | |
|------------------------|---------------------|-------------------|------------------|------------------|------------------|
| | 2-Year Total | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 |
| A. Land | -- | -- | -- | -- | -- |
| B. Plans | -- | -- | -- | -- | -- |
| C. Construction | 10,000,000 | 10,000,000 | -- | -- | -- |
| TOTAL | 10,000,000 | 10,000,000 | -- | -- | -- |

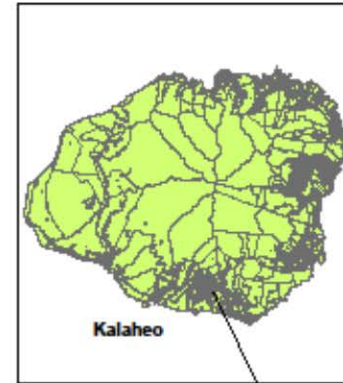
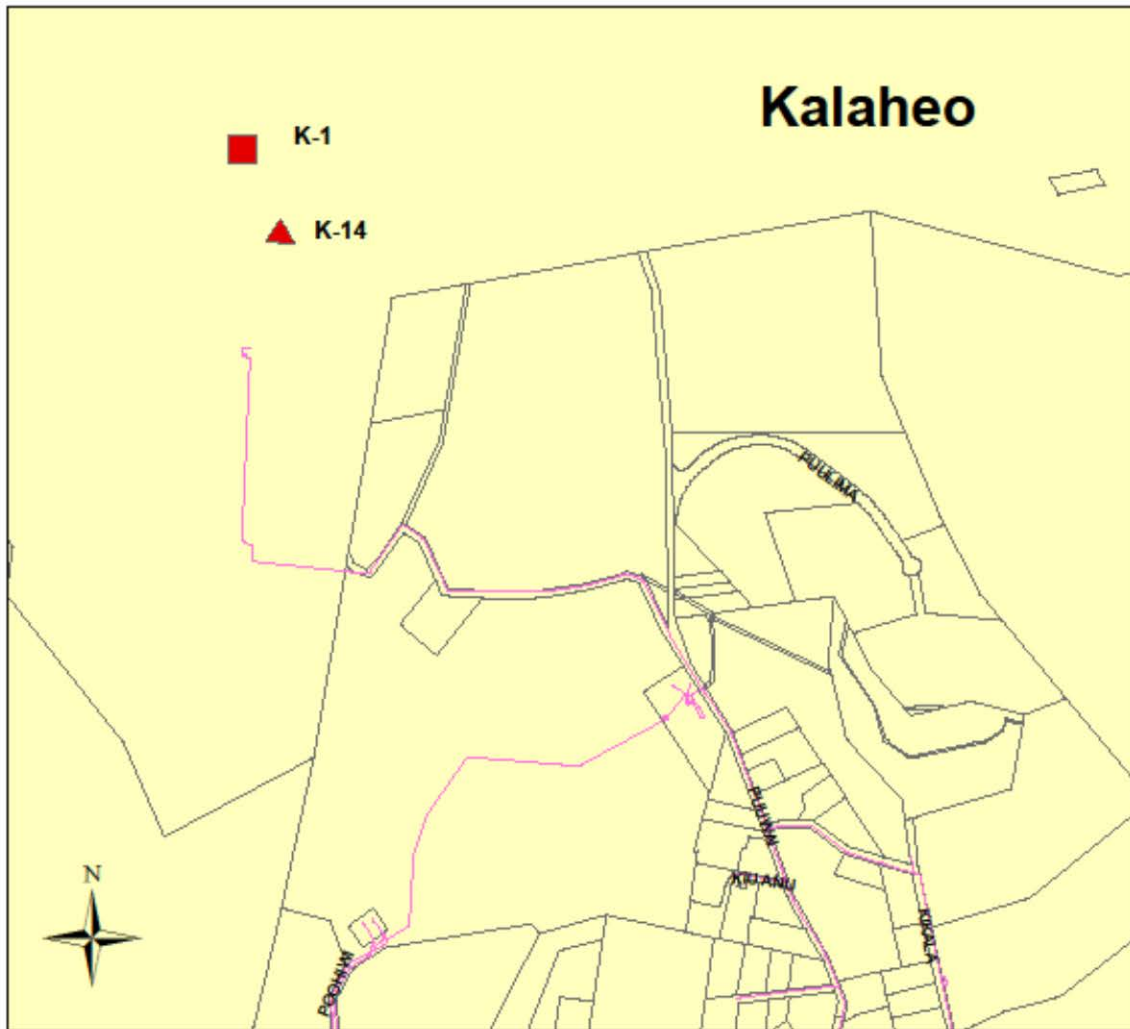
C. IUSTIFICATION:

The new storage tanks are replacing smaller storage tanks that need to be replaced and at the same time are needed to provide adequate storage facilities for Kalāheo.

The proposed pipeline is to replace old, undersized lines that do not meet current water transmission standards with new, larger water lines that will meet current standards for transmission. The new water lines will be able to provide adequate fire flows to these areas and also provide the Department with more flexibility in operating the water system to help keep customers with water service.

The drilling and development (testing) of the new well is successful, and subsequent development of the well site will provide additional source facilities which may be used for new development and growth of the area. The additional well source will also provide a redundant source of water, should the Department's other wells unexpectedly become out of service, as the area experienced in the recent past.

0.1 0.05 0 0.1 Miles



Kalaheo

Project Location

Legend

-  Tank
-  Pump
-  Pipe
-  New Facilities

Water Plan 2020

Project Number: K-1 & K-14
Project Description:
Kalaheo 1,111' and 1,222'
Water System Improvements and
Kalaheo Well No. 3

2017 Department of Water, County of Kaua'i
Capital Improvement Projects

| | |
|--------------------------------------|--------------------------|
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LATE

kong2 - Crystal

From: mailinglist@capitol.hawaii.gov
Sent: Friday, February 3, 2017 12:40 AM
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Subject: *Submitted testimony for HB1512 on Feb 3, 2017 09:00AM*

HB1512

Submitted on: 2/3/2017

Testimony for WAL on Feb 3, 2017 09:00AM in Conference Room 325

| Submitted By | Organization | Testifier Position | Present at Hearing |
|----------------------|---------------------|---------------------------|---------------------------|
| De MONT R. D. CONNER | Ho'omana Pono, LLC. | Support | Yes |

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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