

MINUTES

DEPARTMENT OF WATER SUPPLY
COUNTY OF HAWAI'I
WATER BOARD MEETING

November 28, 2017

West Hawai'i Civic Center, Building G, 74-5044 Ane Keohokalole Highway, Kailua-Kona, Hawai'i

MEMBERS PRESENT: Mr. Russell Arikawa, Vice-Chairperson
Mr. William Boswell, Jr.
Mr. Nestorio Domingo
Mr. Leningrad Elarionoff
Ms. Brenda Iokepa-Moses
Mr. Eric Scicchitano
Mr. Keith K. Okamoto, Manager-Chief Engineer, Department of Water Supply (ex-officio member)

ABSENT: Mr. Craig Takamine, Chairperson
Mr. Bryant Balog, Water Board Member
Ms. Kanoe Wilson, Water Board Member
Director, Planning Department (ex-officio member)
Director, Department of Public Works (ex-officio member)

OTHERS PRESENT: Ms. Jessica Yeh, Deputy Corporation Counsel
Mr. Jeff Zimpfer, National Park Service

Department of Water Supply Staff

Mr. Kawika Uyehara, Deputy
Ms. Kaiulani Matsumoto, Administration Division
Mr. Kurt Inaba, Engineering Division Head
Ms. Candace Gray, Assistant Waterworks Controller
Mr. Clyde Young, Operations Division
Mr. Eric Takamoto, Operations Division
Mr. Warren Ching, Operations Division

- 1) CALL TO ORDER – 10:00 a.m.
- 2) STATEMENTS FROM THE PUBLIC - None
- 3) APPROVAL OF MINUTES

ACTION: Ms. Iokepa-Moses moved for approval of the Minutes of the October 24, 2017, Water Board Meeting; seconded by Mr. Boswell and carried unanimously by voice vote.

- 4) APPROVAL OF ADDENDUM AND/OR SUPPLEMENTAL – None

5) SOUTH HILO:

A. **JOB NO. 1994-590, PIIHONUA-KUKUAU RESERVOIR AND TRANSMISSION IMPROVEMENTS:**

The contractor, Isemoto Contracting Company, Ltd., has submitted a request for a contract time extension of twenty-one (21) working days to compensate for rain-out days.

This would be the first-time extension to the contract.

If approved, the contract completion date will be extended from December 3, 2017, until January 3, 2018. Engineering staff has reviewed the request and finds that the twenty-one (21) working-day extension is justified.

The Manager-Chief Engineer recommended that the Board grant this extension of contract time of twenty-one (21) working days to Isemoto Contracting Company, Ltd., for JOB NO. 1994-590, PIIHONUA-KUKUAU RESERVOIR AND TRANSMISSION IMPROVEMENTS.

MOTION: Ms. Iokepa-Moses moved for approval of the recommendation; seconded by Mr. Boswell.

This was noted as the project the Water Board had a site visit to back in July. The project is 85 to 90 percent complete. This extension is due to rain-out days. The tank is soon to be wire wrapped.

ACTION: Motion was carried unanimously by voice vote.

B. **MEMORANDUM OF AGREEMENT FOR THE CONSTRUCTION OF A SECOND ACCESS GATE FOR THE KULA‘IMANO WELL IN THE DISTRICT OF SOUTH HILO, TAX MAP KEY (3) 2-8-008:111:**

The Department would like to enter into an agreement with Mr. Daniel John Brinkman in order to install an access gate at the entry point to its Kula‘imano Well in order to prevent theft, graffiti, vandalism, and rubbish dumping on the well site and the access road to the well. Although the well is located on an adjacent parcel, the entry point where the gate will be constructed is a portion of Mr. Brinkman’s property, over which the Department has an existing easement, located at Tax Map Key (3) 2-8-008:111. The Department will be responsible for installation and maintenance of the gate.

The Manager-Chief Engineer recommended that the Board authorize either the Chairperson or the Vice-Chairperson, on behalf of the Water Board, to enter into an agreement with Mr. Daniel John Brinkman for the installation and maintenance of an access gate located on a portion of Tax Map Key (3) 2-8-008:111, subject to the review and approval as to form and legality of the Agreement by the Corporation Counsel.

MOTION: Ms. Iokepa-Moses moved for approval of the recommendation; seconded by Mr. Boswell.

The Manager-Chief Engineer stated this property is located off the Old Māmalahoa Highway in Pepe‘ekeo.

Mr. Young stated this has been an ongoing problem for several years. One of the Department’s Operators came to him to report that on the south side of the property, where a stream passes through, people are going there to throw their rubbish. Hunters also go in the area and leave animal carcasses

behind. A couple of years ago while a repair job was being done on the Department's facility, one of the contractor's vehicles and some tools were stolen. Even with the existing gate, people can still bring their vehicles up to the property. It is difficult to see the site from down below. Approximately \$1,000.00 for materials and \$1,000.00 for labor (in-house) will be spent to mitigate this situation. The neighborhood association asked for help from the Department.

In response to Ms. Iokepa-Moses' question of whether the people in the area are in favor of this gate, Mr. Young replied they are. There are two landowners affected by this new gate.

The Manager-Chief Engineer mentioned that the Department wants to be a good neighbor because the landowners allow the Department access over their property. The well site is set away from the main road.

Mr. Scicchitano asked if there was any access from another point on the back of the property.

The Manager-Chief Engineer replied it is private property all around the site. Perhaps people could walk along the stream, but the majority of the problem is from people driving their vehicles in and dumping rubbish.

Mr. Domingo asked if there was a possibility the Department's drinking water could be compromised with anyone having access to the site.

The Manager-Chief Engineer replied that the well site is fenced and marked clearly with signage. The Department routinely monitors for water quality.

ACTION: Motion was carried unanimously by voice vote.

6) SOUTH KOHALA:

A. **JOB NO. 2017-1074, PARKER #1 DEEPWELL REPAIR:**

No responsive, responsible bids were received. Staff will seek alternate methods of procurement per HAR 3-122-35 (b), in accordance with procurement rules.

B. **JOB NO. 2017-1075, PARKER #2 DEEPWELL REPAIR:**

Bids for this project were opened on November 20, 2017, at 2:00 p.m., and the following are the bid results:

Bidder	Bid Amount
Derrick's Well Drilling and Pump Services, LLC	\$575,000.00

This project consists of furnishing all labor, materials, tools and equipment necessary to remove the existing pump, motor, and column assembly; install a submersible pump and motor, column assembly, power cable, sounding tubes, and all appurtenant materials; chlorinate the well and pumping assembly; and complete an efficiency test; in accordance with the specifications.

Project Costs:

1) Low Bidder (Derrick's Well Drilling and Pump Services, LLC)	\$ 575,000.00
2) Contingencies (10%)	\$ 57,500.00
Total Cost:	<u>\$ 632,500.00</u>

Funding for this project will be from DWS's CIP Budget under Deepwell Pump Replacement. The contractor will have 180 calendar days to complete the well repair with the Contractor's furnished equipment and 210 calendar days to refurbish the existing pump and motor set for the Department's future use. The Engineering estimate for this project was \$445,000.00.

The Manager-Chief Engineer recommended that the Board award the contract for JOB NO. 2017-1075, PARKER #2 DEEPWELL REPAIR, to the lowest responsible bidder, Derrick's Well Drilling and Pump Services, LLC, for their bid amount of \$575,000.00, plus \$57,500.00 for contingencies, for a total contract amount of \$632,500.00. It is further recommended that either the Chairperson or the Vice-Chairperson be authorized to sign the contract, subject to review as to form and legality by Corporation Counsel.

MOTION: Mr. Boswell moved for approval of the recommendation; seconded by Mr. Scicchitano.

The Manager-Chief Engineer stated that this is a well repair that needs to be completed as soon as possible. Well No. 2 is operational at this time but is showing signs of potentially going offline. The Department has eight wells in the area. In response to Mr. Boswell's question of whether these two wells have been used in Brown and Caldwell's evaluation, he stated they were not part of that study since this is a different area. There was some testing done in the ARC flash study but not the type of testing being done on the North Kona Wells.

Mr. Boswell asked if this project would result in the Department ending up with a spare pump and motor.

Mr. Takamoto replied yes, and it could be used for Wells 1, 2, 3, or 4.

Mr. Domingo expressed concern about Derrick's Well Drilling getting so many contracts and whether they would be able to handle the stress to their workforce. He asked if it would compromise the quality of their work.

The Manager-Chief Engineer understood the concern; however, the bottom line is that the contractor knows what they are bidding on, the scope of work, and the timeframe they are obligated to meet. For this particular bid, it is unknown why there were no other bids. The other contractor usually seen bidding on these types of contracts did not submit an intent to bid. Although this bid amount was higher than the estimate, this job needs to be done.

Mr. Elarionoff asked if there was a breakdown of labor and material costs.

Mr. Takamoto replied that mobilization and demobilization is \$87,300.00; pump and motor cost is \$235,208.00; materials and services is \$161,992.00; and refurbishing the existing pump and motor is \$90,500.00. The refurbished pump and motor will become a spare.

Vice-Chairperson Arikawa asked how old the pump and motor are that will be removed.

Mr. Takamoto replied they are just over one year.

The Manager-Chief Engineer noted that this is another situation where the Department is trying to figure out what is going on. This is another deep-set submersible well, not as deep as Kona, but 1,200 feet deep. Hopefully, the same type of solutions can be used here as in Kona. In the past, the wells were running a lot longer.

Vice-Chairperson Arikawa asked if the pump manufacturer is the same one the Department has been using in Kona and elsewhere on the island.

Mr. Takamoto replied that the existing equipment is the Byron Jackson brand.

The Manager-Chief Engineer noted this used to be a pretty robust system.

Mr. Boswell thought this is a good reason for the third-party review. Some of the information the Permitted Interaction Group has gained shows that it needs a fresh set of eyes.

The Manager-Chief Engineer replied the Department could approach Brown and Caldwell to see what their fee would be to include this well in their current study for Kona. The reason it was done for Hualālai Well was because it is the shallowest well in Kona; and if any of the wells was a possible candidate for a line-shaft system, it would be that well.

Mr. Boswell stated that on a minimum, it will show the Department is proactive.

The Manager-Chief Engineer stated that the Department will have that discussion with Brown and Caldwell and get information from them on the next steps. The Department is also moving forward with the Asset Management Program, and Mr. Takamoto is tasked with getting information on a replacement schedule.

Mr. Scicchitano asked about the warranty that is carried on the equipment.

Mr. Takamoto replied that the normal warranty is one year on materials and one year on labor.

The Manager-Chief added that one of the challenges the Department has had, for example, is if the Department supplies the motor and it has gone past the warranty period, there really is no warranty provision in the contract. Those are some of the pros and cons about maintaining a spare pump and motor inventory. It is not fair for the contractor to have to warranty that material but at the same time, the Department needs to have some on hand. The Department is still continuing to look at storage capabilities; however, the last bid where it was included resulted in an unfavorable bid amount for the storage.

Mr. Boswell stated that it looked like the contractor took advantage of it because there is an idea of where that price should range. They may have put a margin on top of it.

The Manager-Chief Engineer stated that the Department is still looking into it because if the manufacturer can store it and maintain the warranty, it would overcome that challenge.

Mr. Boswell noted that for this particular project, the Department is going to have a refurbished pump on hand and when it goes into the hole, that contractor will not have a warranty on it. That is where the Asset Management Program would factor in, if the Department paid a fee directly to that manufacturer.

Mr. Domingo asked if a clause might be included where, instead of a one-year warranty, perhaps an extended warranty could be included because there are so many uncertainties involved with the motor and when it might be used, etc.

Ms. Iokepa-Moses doubted the contractor would provide a five-year warranty.

Mr. Boswell added that the contractor would have to buy insurance in order to do that.

The Manager-Chief Engineer stated that the challenges the Department has been having is in the past was in trying to implement a two-year warranty.

Mr. Takamoto stated that a material bid is different from a repair bid. They do have a two-year warranty (from the time of delivery or one year from time of installation, whichever is shortest).

The Manager-Chief Engineer stated that it goes typically beyond the manufacturer's supplied warranty. Somehow, the contractor or the person that the Department contracted to do the material bid is accommodating that request. To be fair to them, it is either they are gambling and not marking it up, or they will have to take out some kind of insurance policy and they would probably include that in the bid amount. Either way, the Department is going to end up paying for it.

Mr. Boswell stated that another question that comes up is if you look at all of the repairs there have been, how many can be associated with warranty and how many have unknown factors. If it was due to power or the alignment of the shaft, the warranty from the pump installer would not be applicable. If they had drilled the hole and installed the equipment for the first time, you might have more control over them on that. However, if it is an in-house problem, it is not warrantied by the contractor.

The Manager-Chief Engineer stated that is a common challenge. You get the pump and motor, it is tested before shipped here, something went wrong that might not have been due to that particular manufacturing process, they will say, example, you have a burned thrust bearing but that is not because they built the motor wrong. There was some kind of external factor. There is never a 100% case to say, no, it was defective.

Mr. Elarionoff noted that this pump is still running and asked how the contractor can bid on something they will be refurbishing when they have not even seen it yet.

Mr. Takamoto replied that they bid on what it would take to do a standard rewind on a motor and general breakdown of the pump and replacing impellers. They are just giving a general breakdown cost and probably have a little cushion in it to cover any unforeseen things since they cannot visually inspect the motor at time of bid.

The Manager-Chief Engineer stated that some of the unknowns may eat into the contingency.

Mr. Boswell asked if the RFP details the scope of work for the refurbishment.

Mr. Takamoto replied it is a complete refurbishing of the motor to bring it back to OEM's specifications.

Mr. Domingo asked about contingency and if it has been utilized on all contracts; if the contractor asks for the 10% at the end of the contract.

Mr. Boswell stated that it is not the contractor's money. The money is retained by the Department. In the event that the contractor has work above and beyond the scope of work that was detailed in their contract, the contingency is set aside so it can be made available. The contractor still has to ask for it and prove what it is for. At the end of the job, they can only bill for their original contract amount and any change orders approved through the contingency process.

Ms. Iokepa-Moses added that they do not get that money, nor is it a refund back to the Department. It is the Department's money.

Mr. Domingo asked if there was a historical record on how often the contingency gets used.

Mr. Boswell commented that after being on the Board for five years, you would have a good idea because change orders have to come before the Board.

Mr. Domingo thought it still was worth keeping track of.

Ms. Iokepa-Moses did not think it is worth the Department's resources to spend time tracking that kind of information.

Mr. Inaba added that it is in there as certified funds so that the Department can make field decisions or field orders and funds are available; otherwise work has to stop in order to come before the Board for approval. The project would get delayed that much longer. The 10% is kind of an industry standard that goes to unforeseen items on the project and it has to be approved before the contractor can proceed.

ACTION: Motion was carried unanimously by voice vote.

7) NORTH KONA:

A. **MATERIAL BID NO. 2017-11, FURNISHING AND DELIVERING MOTORS FOR KAHALU'U SHAFT PUMP #2 & #4 FOR THE DEPARTMENT OF WATER SUPPLY:**

This item was deferred at the October 24, 2017, Water Board meeting.

Bids for this project were opened on October 12, 2017, at 2:00 p.m., and following are the bid results:

Bidder	Bid Amount
Alliance Specialty Motors, Inc.	\$57,918.00
Technology International, Inc.	Non-Responsive
Derrick's Well Drilling & Pump Services, LLC	\$90,000.00
Gexpro	\$102,210.00

Project Costs:

1) Low Bidder (Alliance Specialty Motors, Inc.) \$57,918.00
Total Cost: \$57,918.00

The project consists of furnishing and delivering two (2) motors for Kahalu'u Shaft Pump #2 & #4, including all equipment, materials, taxes, and shipping.

Funding for this project will be from DWS's CIP Budget under Pump Replacement. The contractor will have 120 calendar days to complete the project. The Engineering estimate for this project was \$130,000.00.

The Manager-Chief Engineer recommended that the Board award the contract for MATERIAL BID NO. 2017-11, FURNISHING AND DELIVERING MOTORS FOR KAHALU'U SHAFT PUMP #2 & #4 FOR THE DEPARTMENT OF WATER SUPPLY, to the lowest responsible bidder, Alliance Specialty Motors, Inc., for their bid amount of \$57,918.00. It is further recommended that either the

Chairperson or the Vice-Chairperson be authorized to sign the contract, subject to review as to form and legality of the contract by Corporation Counsel.

MOTION: Ms. Iokepa-Moses moved for approval of the recommendation; seconded by Mr. Scicchitano.

The Manager-Chief Engineer reported that since last month's deferral, Alliance Specialty Motors, Inc., has become Hawai'i Compliance Express (HCE) compliant. This is a first time bid from this company. The Department used the Public Purchase method, and it seems like it reaches out farther than the usual utilization.

Mr. Elarionoff asked why there was such a big difference in the bid amounts.

Mr. Ching stated that in each case, there are different factors which are sometimes hard to predict. Typically, the Department's estimates are based on past projects. Staff uses the highest amount to account for all of the bidders. In this case, the competition was more as it had reached more bidders. In response to Mr. Elarionoff's concern of it being more than double, he stated that it was a concern; but he reached out to the contractor and got reassurance that they double-checked the solicitation documents to make sure they did not miss anything and reaffirmed they wanted to proceed.

Mr. Boswell commented that part of what this insinuates is that the other bidders were substantially padding their bids. The original estimate of \$130,000.00 would have more supported the two local bidders' numbers, and what it ended up with was a mainland contractor using this electronic bidding process which made it easy for them. They did not even have tax clearances to work in the State of Hawai'i yet. The \$130,000.00 is not that far off from what the local bidders were producing for the Department.

Mr. Elarionoff stated that he understood that part, but it comes to the point where it seems like local bidders are not doing the Department any favors either.

The Manager-Chief Engineer stated that was what he took away from this because the Department does not really know what the markups are on the bids. He hopes that overall, the local bidders will see more competition and get a little leaner in their bids and hopes this electronic Public Purchase will continue to reach farther out where better prices can come in on other types of bids.

Mr. Elarionoff stated that he would not want to see the equipment go out three months after installation.

The Manager-Chief Engineer stated that it is a US brand motor and there are warranty provisions in the bid.

Mr. Domingo asked why the Department is always mandated to award the contract to the lowest bidder and what happens if they are not up to the performance standard--if it is possible to award based on the contractor's performance and not just bid amount.

Ms. Iokepa-Moses stated they all meet specifications. The Department has to let them do the contract; and if they fail, then you will know.

Mr. Boswell stated that the Department has the right to vet them out if they do not perform well.

The Manager-Chief Engineer reviewed the Procurement Law. There is the RFP (Request for Proposals) process for projects that are not as well defined. For instance, it was used for the Department's billing system awarded last month where it is not as black and white. For typical material bids or repair bids, there is a well-defined scope of work; therefore, the competitive sealed bid process is used, and that has to be awarded to the lowest responsible bidder.

Mr. Domingo stated that was he was afraid there might be a cost overrun where the contractor comes back and asks for more money.

The Manager-Chief Engineer assured Mr. Domingo that the Department keeps within the contract provisions and has a very good Deputy Corporation Counsel.

ACTION: Motion was carried unanimously by voice vote.

8) MISCELLANEOUS:

A. **MATERIAL BID NO. 2017-15, FURNISHING AND DELIVERING MOLDED CASE CIRCUIT BREAKERS, SURGE PROTECTION DEVICES, POWER MONITORING EQUIPMENT, ZERO-CLEARANCE ELECTROMAGNETIC FLOW METERS AND RELATED APPURTENANCES FOR THE DEPARTMENT OF WATER SUPPLY STOCK:**

Bids were received and opened on November 16, 2017, at 1:30 p.m., and the following are the bid results:

SECTION NO.	DESCRIPTION	OneSource Distributors, LLC	TK Process Hawaii, LLC
1	MOLDED CASE CIRCUIT BREAKERS	No Bid	No Bid
2	SURGE PROTECTION DEVICES	No Bid	\$78,528.10
3	POWER MONITORING EQUIPMENT	\$60,936.43	No Bid
4	ZERO-CLEARANCE ELECTROMAGNETIC FLOW METERS	No Bid	\$549,556.27

The contract period for all Sections is from November 28, 2017, to June 30, 2018. All Sections are established price agreements for materials on an "As-Needed Basis."

The Manager-Chief Engineer recommended that the Board award the contract for MATERIAL BID NO. 2017-15, FURNISHING AND DELIVERING MOLDED CASE CIRCUIT BREAKERS, SURGE PROTECTION DEVICES, POWER MONITORING EQUIPMENT, ZERO-CLEARANCE ELECTROMAGNETIC FLOW METERS AND RELATED APPURTENANCES FOR THE DEPARTMENT OF WATER SUPPLY STOCK, on an as-needed basis, as listed below, and that either the Chairperson or the Vice-Chairperson be authorized to sign the contract(s), subject to review as to form and legality of the contract(s) by Corporation Counsel. The contract period shall be from November 28, 2017, to June 30, 2018.

For Section 1 – Molded Case Circuit Breakers. No bids were received. Staff shall obtain quotations in the best interests of the Department.

For Section 2 – Surge Protection Devices to TK Process Hawaii, LLC.

For Section 3 – Power Monitoring Equipment to OneSource Distributors, LLC.

For Section 4 – Zero-Clearance Electromagnetic Flow Meters to TK Process Hawai‘i, LLC.

MOTION: Ms. Iokepa-Moses moved for approval of the recommendation; seconded by Mr. Boswell.

The Manager-Chief Engineer stated that this is a separate material bid, in addition to the annual bid the Department puts out toward each fiscal year end for what it typically purchases throughout the year. Item No. 1, the molded case circuit breakers, resulted from Brown and Caldwell’s study; and on the QLT (Keauhoulu) Well Repair project, they noticed two circuit breakers were faulty, which is why the Department has not proceeded with the full repair of the well yet. All of the topside components will be taken care of first before pulling the pump and motor out. For this section, where no bids were received, the Department will get quotations. For the other sections, Mr. Takamoto has the breakdowns.

Mr. Boswell asked about the Power Monitoring Equipment, Section 3.

Mr. Takamoto reviewed that it is for two different models of power monitors which the Department typically uses, manufactured by Electro Industries: the Shark Model 200, and their Nexus 1500 Plus models and the upgrades to those particular power meters and related PC’s and CT’s.

Mr. Boswell asked if it is the same models that the Department uses, but they are the upgraded versions of them.

Mr. Takamoto replied that was correct.

The Manager-Chief Engineer stated they are for the Department to put in places where there currently are none, or to replace the existing ones.

Mr. Boswell asked if the installations are done by the Department.

Mr. Takamoto replied that the Department’s staff would install those where the switchgear is 480, but the medium voltage ones will need to go to an electrical contractor.

The Manager-Chief Engineer stated that this is all in line with trying to improve monitoring ability.

Mr. Scicchitano asked if there is an opportunity here similar to the last project to go out bid electronically and see what other options come back.

Mr. Takamoto stated that this bid was solicited on public purchase and these were the only bidders that submitted.

The Manager-Chief Engineer stated that these are more specialty type electrical supplies but there are vendors on the mainland. Hopefully the word will get out. It may be just who happens to be subscribing to Public Purchase.

Ms. Iokepa-Moses stated that we want our local contractors to thrive in Hawai‘i; but at the same time, we need to take caution and watch how this Alliance Specialty Motors, Inc., makes out with the previous bid awarded today. She favors local contractors. They are here and they can be contacted easily to do any repairs, etc.

The Manager-Chief Engineer agreed and that this will at least show there is more competition but we certainly do not want to put local guys out of business.

Mr. Scicchitano stated that it would be good to favor local businesses but still not have to pay double the price.

Mr. Boswell said that everybody is still buying from a mainland manufacturing facility. It is just how many times you touch it on the way over.

ACTION: Motion was carried unanimously by voice vote.

B. RESOLUTION NO. 2017-01, APPROVING THE RECEIPT AND EXPENDITURE OF MONIES FOR DWS CIP PROJECTS FUNDED BY THE DRINKING WATER STATE REVOLVING FUND (DWSRF):

(Note: Resolution requires roll call vote)

The Department of Water Supply submitted a loan application to fund up to \$5,000,000.00 of CIP projects for Fiscal Year 2017 with the Drinking Water State Revolving Fund (DWSRF). One of the prerequisites for the loan is a Resolution approved by the Water Board. This Resolution will be for qualified projects on the State of Hawai‘i, Department of Health, priority list and authorizes either the Manager-Chief Engineer or Deputy to execute a loan and/or grants with the State of Hawai‘i, Department of Health, for up to \$5,000,000.00.

The Manager-Chief Engineer recommended that the Water Board adopt RESOLUTION NO. 2017-01, subject to the approval of Corporation Counsel.

MOTION: Ms. Iokepa-Moses moved for approval of the recommendation; seconded by Mr. Boswell.

The Manager-Chief Engineer explained that this resolution is basically the requirements needed by the Department of Health’s Safe Drinking Water Branch to utilize their revolving fund loan program which the Department has utilized for many years. It is a good funding program. The loans are at a low interest rate. This is somewhat different from the resolutions in the past which were for specific projects. This one is more of a programmatic financing; in other words, it is almost like a line of credit where you might not have the exact projects identified but you will have \$5 million for qualified projects. The Department still needs to get their approval for the particular projects.

Mr. Boswell asked if the times these monies would be exercised would be when the Department has exceeded its repair or capital improvements budgets.

The Manager-Chief Engineer replied that the Department would like to utilize this program whenever possible, even in advance of CIP funding because of the terms of the loan and to keep the CIP reserve for the unexpected repairs. It is more favorable and is something that can be factored in for the term of the loan.

In response to Mr. Domingo’s question of who would this be paid back to, the Manager-Chief Engineer replied it would go back to the State. It is a revolving fund. The State gets the money from the EPA (Environmental Protection Agency).

Mr. Domingo asked about the interest rate.

Ms. Gray stated the interest rates go up to 1½ percent.

In response to Mr. Arikawa's question of whether the other Counties use this, Mr. Inaba replied they do. It is distributed equally. At the end of the fiscal year, the Department can go back for more if the other counties have not used their portion. Last year, the Honolulu Board of Water took a big chunk of the funds, so this Department wants to take advantage of it in the upcoming year.

ACTION: Motion was carried unanimously by voice vote.

C. MONTHLY PROGRESS REPORT:

Mr. Arikawa asked when the Laupāhoehoe 0.5 MG Reservoir would be 100% complete.

Mr. Inaba replied that the well is operational but there is one small punchlist item that needs to be completed and final payment processed.

Mr. Boswell asked if the Wai'aha transmission project and the Wai'aha #2 Development project are running concurrently. The Department was going for the transmission project before Wai'aha #1 went down which has the potential for being a relocation or a new well, or a successful extraction.

The Manager-Chief Engineer stated that they are being worked on concurrently, and these Wai'aha water system improvements will benefit the overall area because of the bottleneck on the mauka road.

Mr. Inaba added that the Department has made contact with the landowners in efforts to get Wai'aha #2 started.

D. POWER COST CHARGE:

The Department proposes to reduce the Power Cost Charge from \$1.73 to **\$1.62** per thousand gallons to reflect a decrease in power costs for the Department's wells and pumps. A Public Hearing will have been held prior to this Board meeting to accept public testimony on this change.

The Manager-Chief Engineer recommended that the Board approve the decrease of the Power Cost Charge from \$1.73 to **\$1.62**, effective December 1, 2017.

ACTION: Ms. Iokepa-Moses moved for approval of the recommendation; seconded by Mr. Boswell and carried unanimously by voice vote.

E. REVIEW OF MONTHLY FINANCIAL STATEMENTS:

Mr. Elarionoff asked "Deferred Outflows," "Deferred Charges," and "Deferred Inflow" shown on Page 2 of the Balance Sheet and what deferred means in this situation.

Ms. Gray explained that the Deferred Outflows (\$5.2 million) is related to the Department's retirement fund. The Deferred Inflows is related to external funding. Deferred means it is deferred to a later period or will be expended in a later period. The deferred charges are for preliminary survey and investigations that are related to professional services or consulting contracts and are already encumbered. The contracts have been executed but no payments made yet.

Mr. Boswell asked if the one column was assets and the other one was liability.

Ms. Gray replied that was correct.

F. **MANAGER-CHIEF ENGINEER'S REPORT:**

The Manager-Chief Engineer provided an update on the following:

1) Matters of interest to the Board

- a. North Kona water restriction – as of last Friday, four wells are out of service. For Honokōhau Well, the VFD (Variable Frequency Drive) was fine-tuned and the well is running consistently and smoothly at 1,000 gpm. The next well up for completion is Keopu and is still expected to be done by its completion date of December 20, 2017. For Wai‘aha Well, the contractor has the fishing tools fabricated and on hand. They were asked to provide a schedule on when they will perform the extraction of the pump and motor.

Mr. Boswell asked about the Wai‘aha Well. At this time, not knowing the condition of the well casing, he wondered if it would make sense to procure a pump and motor in advance, or, if a new well is drilled, it might be a different size or configuration of what would be replaced in the current Wai‘aha Well.

The Manager-Chief Engineer replied that staff is already looking at options, knowing the pump and motor will have to be replaced but not knowing the quality of the casing. He asked Mr. Takamoto to elaborate.

Mr. Takamoto stated that because the Department is planning to move in a different direction for Hualālai Well, instead of reinstalling the existing equipment, the equipment for that well can be reused for Wai‘aha Well. That way, the equipment will still be utilized. In that effort, the capacity will drop; but it will be in a more comfortable position and will not be cycled on and off. About 750 gpm can be expected from using the Hualālai equipment. If more gpm is desired, it could be sent back to the manufacturer to add a couple of stages to get close to 1,000; but the most expedient method is to just install it “as is” in order to get the well running as quickly as possible.

Mr. Boswell thought that was good--some water is better than no water. He asked if there has been any indication yet as to the condition of the casing at Wai‘aha.

Mr. Takamoto replied that the well contractor found, from the video survey in assessing the tools needed, that they only can only go down about 300 feet because that is where the top of the column pipe is. Based on that, they said the column assembly seems to be in a good position. It is centered in the well rather than laying on a side. It will make it easier for them to pull what they need; but whether they can extract everything, they just have to attempt it.

The Manager-Chief Engineer stated that the unknowns are whether or not the equipment kinked or got lodged below the casing or twisted into the casing or wedged against the casing. Sometimes in these efforts, the entire thing does not come up all in one piece. Once everything is taken out, the pump and motor will be at the bottom. Once they get that out, they will go back down with a video camera and see what the casing looks like--if it had gotten damaged, torn, compressed, or crinkled, and that will tell us what we have to deal with and what could possibly still work down that hole or if the hole is lost. That is the worst-case scenario. Until they fish all of that out, we will not know what it looks like on the bottom.

Mr. Domingo asked if Brown and Caldwell has completed their analysis or given any recommendations so far on the North Kona wells.

Mr. Inaba replied that some of their recommendations were received, and their work is being prioritized with the wells that will be coming on line next. To get deeper into what was asked of them, which includes power quality monitoring, the wells need to be running. Three of the wells are not running so they cannot get that power quality data to look deeper into whether external power was a factor and how to deal with it because they need that information to determine what kind of protective equipment or settings should be placed on the existing equipment. Only Honokōhau Well is running so they will continue to monitor that until the next well comes on line.

The Manager-Chief Engineer added that they were able to get some data before Hualālai and QLT went down.

Mr. Inaba stated that for Hualālai, there was a day or so of information. The information they are getting is from looking at something the Department could not spec. out from the utility at this point.

The Manager-Chief Engineer stated that at Hualālai, they did not see a major power quality issue that coincided with the well failure. At least there was that information to at least rule out the utility side. But with the longer-term monitoring, it will help make sure the settings in the VFD's or soft starters are correct, or fine-tuned, and look into if there may be power quality issues on the utility side that might lead to long-term impacts on the motor. Part of the findings from Brown and Caldwell are trying to go to smaller diameter motors, get better cooling, try and eliminate that factor; and that is already being implemented with our replacement pump and motors.

Mr. Inaba stated that they have done a lot of the existing equipment settings, noting that the VFD has over 1,000 settings.

Mr. Domingo asked about the Water Restriction and if the signs are still out on the street asking for 25% reduction.

The Manager-Chief replied that was correct. Once Keopu Well is back online, that will be reduced to the 10% voluntary conservation.

Mr. Domingo stated it has been almost a year now and asked if the Department is still seeing a reduction in water usage.

The Manager-Chief Engineer replied that the Department has not monitored the consumption lately, but there was a significant reduction from the beginning of the year. People can go back to washing their cars, as long as they reduce their usage in some way. Right now, the Department's staff has gotten to a point where they have a much better understanding of how to reconfigure the system; and the tank levels have all been great.

Mr. Domingo indicated he has seen some lawn watering lately so he was wondering what the reduction was in percentage.

The Manager-Chief Engineer stated as long as people are making an effort to be conscious about their water use and not be wasteful, it should be okay.

Mr. Domingo stated he looks forward to those signs coming down.

- b. Hawaiian Ocean View Estates (HOVE) Well Repair – the Deputy reported on this well. It is in Ka‘ū and serves primarily the Hawaiian Ocean View Estates and Hawaiian Ranchos Subdivision. It is one of our 23 regulated public water systems. This system is unique in that there is a single well feeding one tank, and from there, a transmission line goes down to a spigot station for the community’s use and also standpipes for water haulers. There are no customer metered accounts to homes. On November 16, the well went down. Initial suspicion was that it was an issue with the motor. Emergency notice was sent out which informed the community that the spigot station would remain open; but the standpipe facility had to be closed and water haulers were redirected to fill their tankers in Nā‘ālehu. The Department has made arrangements to have water hauled from Nā‘ālehu to replenish the HOVE tank. For the well repair, the Requests for Quotations were opened November 20. The contractor awarded the bid to Beylik Well Drilling and they were out there this past weekend and were able to get the pump and motor out on Sunday. They confirmed that the motor had burned, or it megged “0.” As far as replacements, the Board had already awarded a material bid for a spare pump and motor back in August of this year. That spare motor has been built already, is currently on Oahu, and is expected to be here by early next week. The pump that was extracted was evaluated at the site and needs to be refurbished. It is being sent to California for refurbishing by the pump manufacturer. The pump will be the longer lead item now. The spare motor is here, but not spare pump. For the pump that had been removed, the turnaround time for refurbishing and sending back is early January. Once the refurbished pump is back on island, the reinstallation can take place. With the material bid that was awarded in August, there was a component for a spare pump, but that contract completion date is early February so the fastest repair schedule would be with this pump that was taken out, to be refurbished and sent back to the site for reinstallation. Meanwhile, the Department will continue to haul water, as needed, from Nā‘ālehu to HOVE to make sure the community has water.

Mr. Elarionoff asked what that costs.

The Deputy replied that currently, one hauling truck is making about five or six round trips a day with a 4,000- to 5,000-gallon capacity. The Department puts out a water hauling bid every two years. He can get more exact rates on what they charge by the hour.

The Manager-Chief Engineer added that those figures can be provided by next meeting.

Mr. Domingo asked how deep the well is and what the configuration is.

The Deputy replied it is 2,200 feet with a submersible pump and motor. It is 100 gpm and the horsepower is 150 so it is a lot smaller than the North Kona Wells.

The Manager-Chief Engineer added that is smaller but the conditions are not good. The water is warm to begin with, and as we are all coming to realize, heat is the motor’s worst enemy. The depth of the well plus fluctuations of power in the area have given its challenges since it went into service in 2011.

Mr. Boswell asked how often the pumps go bad in this well.

The Manager-Chief Engineer stated the last time was last year in September. There are a lot of total dissolved solids, or minerals, in this well which affect the pump.

Mr. Boswell asked if the State will play any part in this well. This is a negative cash flow for the Department. They started something that this Department cannot finish and it creates a

false expectation to the people in Ocean View that they have a potential for water source. He understood that for a while, HELCO power was a major factor and the thought was to go to a propane generator. The pump is not that big, although it is lifting a long way up. That may make things last longer, but if the temperature of the water is bad, somewhere along the way, it is going to mean buying more pumps and motors. He asked if the State kicks anything back.

The Manager-Chief Engineer stated that it is all on the Department's customers really.

Mr. Boswell stated that the HOVE customers do not have water bills.

The Manager-Chief Engineer stated the only paying customers at HOVE are the Department of Public Works, who are paying for the use of the spigots, which is taxpayers money, and then the standpipe customers. It is something the Department will probably continue to work on with Legislators. He thought that Mr. Boswell's point was good about looking at other generation possibilities because this issue is not going to just go away.

Mr. Young stated that the site is in a residential area so a generator is going to be a noise problem.

Mr. Boswell's thought was propane which should not be a noise problem. He wondered if it would be better to shut off the well and truck continue trucking water from Nā'ālehu to HOVE tank. That way, you would have more of a fixed cost versus the variables with a well, whereby, the well goes down and the Department does not look good because it cannot manage something that is very unmanageable.

- c. Mr. Elarionoff asked about the letter from Mr. Apothaker, addressed to the Board, dated November 2, 2017. It was very technical in nature. He asked if concerns have been addressed.

Mr. Young stated that he had spoken with Mr. Apothaker, and he has a technology he calls Current Signature Analysis. In some industries, that is used to look at the power to see how it reacts over time, such as when you have a failure of a pump, your voltage and current will change. These are very subtle changes, and he said he has developed some software and hardware to evaluate that data to tell if a pump is starting to fail. He thinks this Department has to start looking at this Current Signature Analysis. As far as Mr. Young knows, it is not being done in the water industry. It does not mean it cannot be looked at. He had talked to the DWS Electronic Technicians, and one of the guys has dealt with this type of thing in the past. It has mostly been used in a factory setting but basically it is a way to troubleshoot impending equipment failures. You need a lot of historical data to look at it so you can come up with software and programming to help with that analysis.

Mr. Elarionoff asked if it could apply to the Department's wells.

Mr. Young replied it is not currently being done, but it may have the potential. It is not something you can walk into a store and buy. He did not know who is using it in the industry, although he was sure there are people using it.

Vice-Chairperson Arikawa asked what the cost of the software is.

Mr. Young replied he was not sure. He has been talking to the Electronics Technician to find out manufacturers or suppliers.

Mr. Elarionoff was glad to hear that at least we are not disregarding the person's suggestions.

The Manager-Chief Engineer indicated that the Department has reached out to him and acknowledged his suggestions.

Mr. Boswell stated that part of what the Permitted Interaction Group has learned that has evolved through this process is that the issues are highly technical in nature and they are mechanical and electrical and have to do with all of the components that are involved in the well. This person is singling out one thing, and that is not the answer. The answer is in the engineering review that Brown and Caldwell is doing with staff to take a look at what we have installed, the diameter of the pumps, the cooling effects, the shrouds; there are so many more components to this. This person's system would be a tattletale that tells you it is failing, but it is not telling you why it is failing. We need inherently to find in our design a more bullet-proof design that allows us to have constantly running wells.

Mr. Domingo stated that he has degrees in mechanical engineering, but that he is also looking at the big picture. He had mentioned some time long ago that this person should be invited here so we could pick his brain and find out what his thoughts are on this matter.

Mr. Boswell appreciated the fact that staff is engaging with him on a technical level, and they are the ones that need to talk to him.

Mr. Young stated that it is not being disregarded all together. It sounds like an idea that is more on the troubleshooting side, but there is a bigger picture.

Ms. Iokepa-Moses stated that obviously, on the Board, we want more diversity than just all technically oriented minds. She appreciated the diversity this Board has that lends itself to the common-sense aspect but having a full board of technically savvy people would probably not be very productive. Vice-Chairperson Arikawa agreed.

G. MANAGER-CHIEF ENGINEER'S EVALUATION FOR CALENDAR YEAR 2017:

The Water Board went into executive session to discuss Manager-Chief Engineer's evaluation and compensation (next item).

H. EXECUTIVE SESSION: MANAGER-CHIEF ENGINEER'S EVALUATION FOR CALENDAR YEAR 2017:

Vice-Chairperson Arikawa called for a motion to convene an executive meeting, closed to the public, pursuant to Hawai'i Revised Statutes ("HRS"), Sections 92-4 and 92-5(a)(2) and (a)(4) in order to consider the evaluations of the Manager for its annual performance review, as authorized by Hawai'i County Charter Section 7-4.6(d) and in order to consult with the Board's attorney on its questions and issues pertaining to the Board's powers, duties, privileges, immunities, and liabilities pursuant to HRS Section 92-5(a)(4).

ACTION: Ms. Iokepa-Moses moved to enter into Executive Session for the above reason; seconded by Mr. Boswell and carried unanimously by voice vote.

(Executive Session began at 11:41 a.m. and ended at 12:00 p.m.)

I. **CHAIRPERSON'S REPORT:**

- 1) Chairperson's report on matters of interest to the Board - Vice-Chairperson Arikawa announced that since Mr. Takamine is not here, he was not prepared to do this; but he reported on his attendance at the Hawai'i Water Works Association/Hawai'i Rural Water Association conference in Kona. He met the Department's Water Operator from Kona, Mr. Alvin Inouye, and he learned a lot from him on how he is keeping the tank levels going during these well outages. He is very energetic and he and the Kona staff are doing everything they can to ensure Kona has water. He met some other Kona staff members and appreciates their hard work.
- 2) North Kona Water Permitted Interaction Group Update – Vice-Chairperson Arikawa mentioned that Mr. Boswell covered some of what this Group has been going through, and plans are to meet again soon. There are a lot of things going on from outside sources. In response to Ms. Iokepa-Moses' question of whether the meetings are open to the public, Mr. Boswell replied they are not. There have been some people from the industry who have been invited. Vice-Chairperson Arikawa mentioned that Mr. Young joined in at the last meeting. As a Mechanical Engineer, Mr. Young talked with the other engineers and Mr. Dawrs from Hualālai Resort about their system; and one of the things they plan to do is go out to Hualālai and see the SCADA units they have in place.

9) **ANNOUNCEMENTS:**

1. **Next Meeting:**

The next meeting of the Water Board is scheduled for December 19, 2017, 10:00 a.m., at the Department of Water Supply Operations Center Conference Room, 889 Leilani Street, Hilo, HI

2. **Following Meeting:**

The following meeting of the Water Board is scheduled for January 23, 2018, 10:00 a.m., at the Department of Water Supply Operations Center Conference Room, 889 Leilani Street, Hilo, HI

10) **ADJOURNMENT**

ACTION: Ms. Iokepa-Moses moved for adjournment of the meeting; seconded by Mr. Boswell. Meeting adjourned at 12:08 p.m.

Recording Secretary