

MINUTES
DEPARTMENT OF WATER SUPPLY
COUNTY OF HAWAI‘I
WATER BOARD MEETING
July 24, 2018

Hilo Operations Center Conference Room, 889 Leilani Street, Hilo, Hawai‘i

MEMBERS PRESENT: Mr. Craig Takamine, Chairperson
Mr. William Boswell, Jr., Vice-Chairperson
Mr. David De Luz, Jr.
Mr. Nestorio Domingo
Mr. Leningrad Elarionoff
Mr. Eric Scicchitano
Mr. Kenneth Sugai
Mr. Keith K. Okamoto, Manager-Chief Engineer, Department of
Water Supply (ex-officio member)

ABSENT: Ms. Kanoe Wilson, Water Board Member
Mr. Bryant Balog, 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. Richard Hardin, Lālāmilo Wind Company LLC
Mr. Richard Horn, Lālāmilo Wind Company LLC
Mr. Will Rolston
Mr. Jeff Zimpfer, National Park Service (10:23 a.m.)
Councilperson Tim Richards (10:38 a.m.)

DEPARTMENT OF

WATER SUPPLY STAFF: Mr. Kawika Uyehara, Deputy
Ms. Nyssa Kushi, Information and Education Specialist
Mr. Kurt Inaba, Engineering Division Head
Mr. Richard Sumada, Waterworks Controller
Mr. Daryl Ikeda, Chief of Operations
Mr. Eric Takamoto, Operations Division
Mr. Warren Ching, Energy Management Analyst
Mr. Mark Yoshioka, Employee of the Quarter (11:44 a.m.)

- 1) CALL TO ORDER – Chairperson Takamine called the meeting to order at 10:00 a.m.
- 2) STATEMENTS FROM THE PUBLIC - None

- 3) APPROVAL OF MINUTES – ACTION: Mr. Boswell moved for approval of the June 26, 2018, Water Board Meeting Minutes; seconded by Mr. Sugai and carried unanimously by voice vote.
- 4) APPROVAL OF ADDENDUM AND/OR SUPPLEMENTAL AGENDA – None
- 5) SOUTH HILO:

A. REQUEST FOR EXECUTIVE SESSION PERTAINING TO STATUS OF FILING OF FIRST AMENDED COMPLAINT IN *HAWAI‘I CONFERENCE OF THE UNITED CHURCH OF CHRIST v. WATER BOARD OF THE COUNTY OF HAWAI‘I*, Civ. No. 18-1-111:

Plaintiff Hawai‘i Conference of the United Church of Christ (“HCUCC”) filed its first amended complaint against the Water Board on May 18, 2018 alleging breach of a lease agreement between the Water Board and HCUCC entered into on January 7, 1977. The Department and Deputy Corporation Counsel, Jessica Yeh, would like to provide an update as to the status of this matter.

The Water Board anticipates convening an executive meeting, closed to the public, pursuant to Hawai‘i Revised Statutes, Sections 92-4 and 92-5(a)(4), for the purpose of consulting with the Water Board’s attorney on questions and issues pertaining to the Water Board’s powers, duties, privileges, immunities and liabilities with regards to the civil suit filed above.

Chairperson Takamine entertained a Motion to go into Executive Session.

ACTION: Mr. Boswell so moved; seconded by Mr. De Luz and carried unanimously by voice vote.

(The Board entered Executive Session at 10:03 a.m., and ended at 10:22 a.m.)

6) SOUTH KOHALA:

A. FOLLOW-UP PRESENTATION TO JUNE 26, 2018 STATUS UPDATE FOR LĀLĀMILO WINDFARM OPERATIONS BY DEPARTMENT AND REQUEST FOR EXECUTIVE SESSION RE: STATUS UPDATE AND LĀLĀMILO WIND COMPANY’S REQUEST FOR ANNUAL COMMITMENT TO PURCHASE:

Per the Board’s request, the Department will provide follow up information to some of the remarks made by Lālāmilo Wind Company LLC (“LWC”) at the June 26, 2018, Board meeting pertaining to the status of Lālāmilo Windfarm operations and the request made by LWC for the Board’s commitment to purchase 8,000 ~~kwH~~ **(Mr. Hardin noted it should be 8,000 megawatt hours)**; and staff acknowledged) per calendar year. The Department is available to comment and/or to answer any questions that the Board may have.

The Water Board anticipates convening an executive meeting, closed to the public, pursuant to Hawai'i Revised Statutes, Sections 92-4 and 92-5(a)(4), for the purpose of consulting with the Water Board's attorney on questions and issues pertaining to the Water Board's powers, duties, privileges, immunities and liabilities with regards to the request made by LWC and its obligations under the Power Purchase Agreement.

Mr. Inaba went over the documents and contracts as part of the Department's presentation.

Chairperson Takamine informed the Board Members that if they had any legal questions regarding the Power Purchase Agreement (PPA) to please reserve those questions for Executive Session to consult with Corporation Counsel.

Mr. Inaba provided an overview of the main contracts the Department had started out with--first, the Request for Proposals (RFP). It was a design build, operate, and maintain RFP. The proposer, or offeror, would design the project, operate, and maintain it. The Department would just be purchasing the power. As Mr. Rolston mentioned earlier, he worked with the National Renewable Energy Lab; and based on the information and studies they did, the Department saw the opportunity to have this type of project where it would purchase wind energy with Hawai'i Electric Light Company (HELCO) as a secondary supplier of power to run the eight wells in the Lālāmilo well field. It was anticipated, at the time, that the wind farm power would be cheaper and be clean power, along with having a stable price. It was based on a 20-year contract where they would sell the Department power for that duration. In order for them to give the Department a proposal, the Department provided them with a significant amount of data, mainly the energy usage, or pump demands. The wind data was also used in the study. The Department did a sample PPA and had some data on the Hoary Bat for some of the bid forms they had to fill out. It was also stated in the RFP that the offeror was to verify the accuracy and the sufficiency of the data that was in the RFP to make sure that all of the information they would be using for their proposal would pan out. The RFP did not have a specific amount of energy required to be provided. It did provide what the Department's total energy use was at the site and the evaluation would be based on their proposal of how much energy they could provide and at what cost, combined with the HELCO cost, to make up the balance if there was any. The RFP also stated that it is likely the State will recommend an impact model and habitat conservation plan be prepared for review by the Department of Land and Natural Resources (DLNR). That was basically for the proposal, which was evaluated, like Mr. Rolston said, and Site Constructors did come out ahead by far. It was looked at as a viable project at that time. Subsequent to the RFP, the PPA had to be executed; and that is basically the terms and conditions, not only for the amount of energy being provided and the rate they would charge the Department, but it also included the construction terms and requirements to have an operating facility. In the PPA, there is no obligation for DWS to purchase a set amount of wind energy; and in there, it is also the provider's responsibility to ensure that while the pumps are running, they are providing us with the available wind energy first and HELCO would make up

the balance or be the secondary source. As far as the rate schedule in the PPA, it was the provider that did the study for their system stating that they expected to provide us 8 megawatt hours, or 8,000 a year and that was based on detailed analysis of the wind resource and the existing pump load data that they have. The rate schedule is an exhibit as part of the entire PPA. That was executed in 2013 and subsequently, we went on to execute the lease between DWS and the State because the project is on State property. That was done in 2015. Subsequent to that, we executed the sublease between DWS and Lālāmilo Wind Farm. Those were the main documents. From our side, it was, and obviously still is, the intent for DWS to utilize as much of the wind-generated power as possible without compromising the ability for DWS to serve its customers. Bottom line is we want to utilize as much wind as we can, but we cannot run out of water in doing so. We continue to work with Lālāmilo Wind Company and have been in communication with them quite a bit in trying to optimize the system to be able to take as much wind energy as we can. Some examples are that we are incrementally lowering tank levels to provide more pump storage when the winds are available, but we are still doing it in a manner and making sure that we do not jeopardize the water system. For the operations, this Department is providing the parameters which are being programmed into the wind farm's controls. They have SCADA (Supervisory Control and Data Acquisition) that will call the pumps when the wind is available or when the tank level gets too low. They are programming everything and it is all in their control. The DWS does not have a switch or anything. The only time would be if there were an emergency and DWS would have to say it had to run the wells on hand. But everything is communicated with Mr. Richard Horn of Lālāmilo Wind Farm. Some of the other things the Department looked at are future storage at the site, possibly putting in a 10-million gallon reservoir to provide pump storage to allow more use of the wind farm; but that was thought of, not because of any shortcomings the wind farm may currently have, but before any of this was known and because it would help improve the efficiency of the system. In summary, DWS is fulfilling its obligations under the contracts and wants and needs Lālāmilo Wind Farm to succeed.

Chairperson Takamine asked if there was anything more being done, on top of the original parameters the Department is trying in order to use more wind power.

Mr. Inaba replied that the Department is currently looking at lowering some of the reservoir levels a little more but that would be at the lower elevation where the service tank is so we have to be careful with that, monitoring at the peak use even with the maximum amount of incoming water, how much more has the reservoir dropped because what is coming in still does not quite match what is going out at the absolute peak use, so we are being very careful about that. We are waiting to see because July is the first full month with the new parameters being implemented so we are waiting to see on the efficiency of the system.

Chairperson Takamine asked if the Board understood about the tank levels, etc.

Mr. Elarionoff stated it did not make sense to him to learn about the tank levels because it is not under the Department's control; it is how much water goes out to the customer and how much is being used besides how far the tank goes down.

The Manager-Chief Engineer stated that the control of when the pumps turn on to start refilling the tank is under the control of the SCADA and the wind farm. If you have the tank lower, you have that amount of buffer for if the wind starts to blow, you can start filling that tank.

Mr. Elarionoff asked what fills up the tank if the wind does not blow.

Mr. Inaba replied that there is a trigger at a certain level to make sure we do not run out of water and that is when they would have to turn it on to use HELCO power.

The Manager-Chief Engineer added that is what the Department wanted to clarify was that there were representations made that DWS was controlling when all of that was happening; but really, it was based on parameters that we provided because we wanted to make sure our wells were able to go on when the tank was low, but not too low where, should an incident occur in the distribution system, you cannot have the tank go dry.

Mr. Rolston asked if he could make a comment. He stated that you cannot do an energy project anywhere in the world without knowing what you are going to be paid so you know what to put up and serve. From 2009 to when the RFP was issued in 2012, they had to give numbers so he thinks the only disagreement he had is with what Mr. Inaba said was that they gave numbers.

Chairperson Takamine stated that what the Board would be looking at what was covered in the Power Purchase Agreement during Executive Session. He appreciated all of the information provided by both sides, and the Board would be looking at what the contract states.

Mr. Rolston mentioned that the Power Purchase Agreement does state that.

Chairperson Takamine asked if there were any further questions from the Board.

Mr. Domingo stated he would reserve his questions for Executive Session.

(Councilperson Tim Richards joined the meeting at 10:38 a.m.)

Chairperson Takamine entertained a Motion to enter into Executive Session pursuant to Hawai'i Revised Statutes, Sections 92-4 and 92-5(a)(4), for the purpose of consulting with the Water Board's attorney on questions and issues pertaining to the Water Board's powers, duties, privileges, immunities and liabilities with regards to the request made by LWC and its obligations under the Power Purchase Agreement.

ACTION: Mr. Boswell so moved; seconded by Mr. Scicchitano and carried unanimously by voice vote.

(The Board entered Executive Session at 10:39 a.m. and ended at 11:42 a.m.)

Chairperson Takamine announced that at the Water Board's next meeting, it will be addressing the proposal that Lālāmilo Wind Company sent over and will need to defer to Corporation Counsel to advise before then. He thanked everyone for attending today.

Mr. Hardin asked if the Board wanted any response to the Counsel's advice.

Chairperson Takamine stated they could provide a written response for the Board to review, but the Board will defer to Corporation Counsel on the legal issues because it is actually the root of what the dispute is.

Mr. Hardin asked if that is where this is resting, is on the legal versus what is in the best benefit of the people. He was shocked because there is this project that has 27-cent energy that is there and have worked for a decade on it. It seems like it should really be addressing from the standpoint of preserving that kind of an asset. That is why, when he addressed the Board, he did not even talk about the consequences.

Chairperson Takamine stated that the issue is the Power Purchase Agreement because it is a contract, and it needs to be reviewed.

Mr. Hardin stated that there are other ways that you become liable, legally, and one would be misrepresentation and when you represent to a company that they should come in and bid on a project to provide primary energy to a site like Lālāmilo/Parker and you provide them data to support the conclusion that there is adequate wind to provide 8,000-megawatt hours a year minimum and 13,100 average, and you provide them energy history utilization so that they are assured that you are going to buy it and they share that with their bank and the two of them prepare a business model and they prepare plans and specifications that you specifically approved.

Chairperson Takamine intervened that the Water Board is not here to argue, but the issue at hand is the Power Purchase Agreement and that is what the Board will discuss at the next meeting.

Mr. Rolston stated his only comment is Section 4.5.1 of the Power Purchase Agreement which talks about unscheduled outages in which the Department of Water Supply is responsible for paying the provider if it goes over two days for any unscheduled outages which includes failed pumps.

Chairperson Takamine stated his request from the Lālāmilo Wind Farm representatives is to have a written statement accompany what they had before, something the Board can review and digest because there is a lot of information and the Board is definitely

not willing to make a determination at this meeting but will take it all into account for the next meeting of August 28. He thanked everyone for coming.

(Messrs. Rolston, Hardin, Horn, and Richards left the meeting at 11:49 a.m.)

7) MISCELLANEOUS:

A. DEDICATIONS:

The Department received the following documents for action by the Water Board. The water systems have been constructed in accordance with the Department's standards and are in acceptable condition for dedication.

1. GRANT OF EASEMENT

(For Guy Wire Purposes)

Grantor: Water Board of the County of Hawai'i

Grantee: Hawaiian Electric Light Company, Inc. and Hawaiian Telcom, Inc.

Tax Map Key: (3) 4-5-010:121 (portion)

2. GRANT OF EASEMENT AND BILL OF SALE

SUB. No. 16-001596

Grantor: W. H. Shipman, Limited, a Hawaii corporation

Tax Map Keys: (3) 1-6-002:Portions 019, 020, 021, 022 and 099

Facilities Charge: \$12,560.00 Date Paid: 4/26/2018

Final Inspection Date: 7/13/2018

Water System Cost: \$101,422.00

3. GRANT OF EASEMENT AND BILL OF SALE

Ninole View Estates

SUB. No. 11-001109

Grantor: Shropshire Group, LLC

Tax Map Keys: (3) 3-2-005 003, 004, 006, 007, and 011

Facilities Charge: \$2,380.00 Date Paid: 7/2/2015

Final Inspection Date: 5/18/2018

Water System Cost: \$50,500.00

The Manager-Chief Engineer recommended that the Water Board accept these documents subject to the approval of the Corporation Counsel and that either the Chairperson or the Vice-Chairperson be authorized to sign the documents.

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

Mr. Inaba explained that Item No. 1 is a little different because the Department is the Grantor. At the Water Board's meeting in July of 2017, it approved a construction right-of-entry for a HELCO guy wire. This Grant of Easement document is to formally

grant that easement, which is why there is no cost breakdown or facilities charge information.

ACTION: Motion was carried unanimously by voice vote.

B. MATERIAL BID NO. 2018-13, FURNISHING AND DELIVERING 750kVA STEP-DOWN TRANSFORMER FOR LALAMILO D DEEPWELL FOR THE DEPARTMENT OF WATER SUPPLY, DISTRICT OF SOUTH KOHALA, COUNTY OF HAWAI'I, STATE OF HAWAI'I:

This bid consists of paying for all equipment, materials, taxes, and shipping necessary to furnish and deliver a 750kVA step-down, pad-mounted transformer for Lālāmilo D Deepwell, to the Department of Water Supply's Pana'ewa Warehouse at 23 Makalika Street, Hilo, Hawai'i.

Bids for this project were opened on July 12, 2018, at 2:00 p.m., and the following are the bid results:

Bidder	Bid Amount
Alpha Electric Supply, Inc.	Non-Responsive
American Electric Co., LLC	\$73,225.46

Project Costs:

1) Low Bidder (American Electric Co., LLC)	\$73,225.46
Total Cost:	<u>\$73,225.46</u>

Funding for this project will be from the Department of Water Supply's (DWS) Capital Improvements Projects (CIP) Budget under Deepwell Pump Replacement. The contractor will have 150 calendar days to complete this project.

The Manager-Chief Engineer recommended that the Board award the contract for MATERIAL BID NO. 2018-13, FURNISHING AND DELIVERING 750kVA STEP-DOWN TRANSFORMER FOR LĀLĀMILO D DEEPWELL FOR THE DEPARTMENT OF WATER SUPPLY, DISTRICT OF SOUTH KOHALA, COUNTY OF HAWAI'I, STATE OF HAWAI'I, to the lowest responsible bidder, American Electric Co., LLC, for their bid amount of **\$73,225.46**. 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. De Luz.

In response to Mr. De Luz's question of whether this was replacing what the Department currently has or adding to it with regards to the transformers, Mr. Ikeda replied it is replacing.

In response to Mr. Boswell's question of whether it is one of the three wells currently down, the Manager-Chief Engineer noted it is.

ACTION: Motion was carried unanimously by voice vote.

C. MAINTENANCE BID NO. 2018-05, REPAIR & MAINTENANCE OF EMERGENCY BACK-UP GENERATOR SETS, DEPARTMENT OF WATER SUPPLY – CONTINGENCY ADDITION:

The Department is requesting to add a contingency amount to the original contract amount to cover costs for materials associated with repairs, on an as-needed basis. The contract (two-year term, from July 1, 2018 to June 30, 2020) includes provisions for call-out repair services on an as-need basis. All materials required for repairs are to be billed to the Department at cost-plus pricing, in accordance with the contract. However, a budgetary amount for these materials were not included in the original contract amount.

Project Costs:

Original Contract Amount:	\$ 82,890.56
Contingency Request (materials only):	<u>\$ 22,109.44</u>
Total Revised Contract Amount:	\$105,000.00

The additional funds will come from the Department of Water Supply's Operations Budget.

The Manager-Chief Engineer recommended that the Board approve the contingency amount of \$22,109.44 for a total contract amount of \$105,000.00 for MAINTENANCE BID NO. 2018-05, REPAIR & MAINTENANCE OF EMERGENCY BACK-UP GENERATOR SETS, DEPARTMENT OF WATER SUPPLY.

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

The Manager-Chief Engineer had Mr. Ching explain the reasoning behind this request.

Mr. Ching stated that this contract was awarded at the May 7, 2018, Water Board Meeting, to the low bidder, Power Generation Services, Inc., at their bid amount of \$82,890.56. There are two parts to this contract. One is standard maintenance procedures and the other is the call-out service for when the Department finds the generators are not working correctly, so that there is a means to call someone from the contractor to get someone out quickly to troubleshoot and repair on an as-needed basis. Their bid amount, however, did not include anticipated costs for materials associated with those repairs because they would not know what will come forth in the two-year

period. The Department felt it was prudent to come to the Board to ask for approval to add the contingency amount of \$22,109.44 to add to the contract to be able to pay for materials associated with any repairs that may be made during the two-year period.

Mr. Boswell asked if there were other bidders who included that contingency.

Mr. Ching replied that no one included the contingency in the bidding documents. It was stated that all materials required for the repairs are given to the Department at a cost, plus pricing, meaning their cost plus a certain set amount of markup.

Mr. De Luz asked if this is to expedite the ability to repair, having the budget approved, and this is the Department's recommendation to make the operation and maintenance run more smoothly.

The Manager-Chief Engineer replied that was correct and that it is transparent and open to the Board and the public to know that the Department is essentially setting a cap. In other words, if it is broken and needs repair, the contractor will supply invoices for Department's review and that there is a ceiling to this.

Mr. De Luz asked if there is a separate provision in case there is a major event where a particular generator has the need to operate but will take longer to repair--if there was an option to offer the Department an interim generation solution within this contract or if it is outside the scope.

Mr. Ching replied there is no provision for that in this contract.

Mr. Domingo noticed that this contract contingency is more than the usual 10% and wondered why that was.

Mr. Ching replied that this is based on previous years' history as far as materials that were required to do certain repairs and taking into account that the generators are getting older and repairs may be more frequent. This contract contingency will be over a two-year period.

The Manager-Chief Engineer noted that the 10% contingency is usually for things like capital improvement projects where the design captures most of the elements of the project. This is a repair and maintenance contract; therefore, the original contract did not factor in costs for replacement of certain materials or components of the generators. It is a bit different and that is why the contingency percentage is higher.

ACTION: Motion was carried unanimously by voice vote.

D. MONTHLY PROGRESS REPORT:

Mr. Inaba gave an update of the Wai'aha Water System Improvements Transmission project which was asked about at the last meeting. It is scheduled to go out to bid the

second week of August. This is a transmission line project. A 16-inch waterline will go along the upper Māmalahoa Highway. Wai‘aha Well, currently under repair, will be the source distributing water both north and south through a corridor. On the south end is the main corridor, a 16-inch line feeding a 1-million gallon reservoir; and a 16-inch line leading to another 1-million gallon reservoir before going down to the Queen Ka‘ahumanu Highway. From there, water will go north through a corridor under contract with Bolton, Inc., of which Kohanaiki was a party to. There is only an 8-inch line up on the highway. When larger quantities of water are drawn, the customers are affected. Currently, service is limited to how much water can go down that corridor. This project will improve the situation and create efficiency.

On the North Kona Well project, which became Wai‘aha Well 2 Development, in order to expedite the process of getting a second well in, the Department’s consultant is looking at the possibility of installing it on the existing site. The Department will continue efforts to acquire another site for a well and storage tank to fall in line with the transmission project. The intent is to put in a second well on the second well site and have redundancy, being able to run both wells at the same time. This will be in line with efforts to downsize existing wells.

Chairperson Takamine asked if that meant there would be three wells in that area.

Mr. Inaba replied it could be as many as four because the Department is looking at placing two smaller wells on the additional site.

The Manager-Chief Engineer added that this is part of what was learned in the past year during the evaluations done by Brown and Caldwell. An example is the existing Wai‘aha Well which was 1,400 gpm, now to be downsized to a 700 gpm pump. By adding another 700 gpm well on the same facility, it will allow the same capacity and provide better redundancy. If one well goes down, the other will still provide 700 gpm. This smaller capacity well gives options for putting two wells on one property.

In response to Mr. Domingo’s question of whether they would be the same depth, he replied they would be.

Mr. Boswell asked how far the transmission line goes in the northern direction.

Mr. Inaba showed it on the map, just short of Keopu. The road is actually called “Water Pipe Road” on a lot of the maps. This is the north corridor that the Department once had an agreement to agree with Mr. Dan Bolton. Mr. Bolton was going to improve that section.

Mr. Boswell asked if it goes down alongside the large coffee farm.

Mr. Inaba pointed out the coffee farm on the map. He stated that some of the improvements were put in with the subdivision so there is some 16-inch line in there.

Mr. Boswell asked if the transmission line is going to tie in to other 16-inch lines on the south side or if it was only going to be on Māmalahoa Highway.

Mr. Inaba replied it would tie in to the other 16-inch lines.

The Manager-Chief Engineer asked if it is a 16-inch line above that, to the north.

Mr. Inaba replied it is not. To the north, there is still going to be a gap from that section to Keopu; actually, down to QLT. It is quite a distance.

Mr. Boswell noted there is less population in that area.

Mr. Inaba stated that eventually, the overall master plan is to interconnect it all, but it has to be done in segments.

The Manager-Chief Engineer added that it will allow the Department to bring the mauka water down through the mauka/makai corridor.

Mr. Inaba stated that the heavy use is in the makai area, which was the reason for getting the corridors put in. They are there now so the Department wants to utilize them. It will also help reduce the use of the Kahalu‘u Shaft because it supplements the water in the Queen Ka‘ahumanu Highway area.

Mr. Boswell asked if it will step in front of the Shaft water.

Mr. Inaba replied it will. The rate of the control valve will be how you affect the amount of water coming in. At each reservoir, there are controls for when the tank level drops to call for water. The Department has to limit how much it can move into the tank or the rate at which it goes out.

E. REVIEW OF MONTHLY FINANCIAL STATEMENTS:

Mr. DeLuz thanked Mr. Sumada for the Auditor’s report and was sure there would be a lot of footnotes in it that will help him understand how the Department records certain things. One thing he was curious about, with regards to the depreciation schedule, was how the Department determines the timeframe of depreciation, especially big-ticket items like valves and tanks. His reason for wanting to understand the depreciation schedule was how it ties in to a replacement schedule and if there are enough reserves to take care of the capital assets that are in place. In the interests of people being very resistant to having to pay more, one consideration, almost like the power charge, may be to have something in there for replacement of capital assets. It could be hundreds of millions in exposure 20 to 50 years out. He said he would first read the audit report as there may be answers in there to help him with that question.

Mr. Sumada pointed out Page 17 of the report, showing major asset groups and the life of each, that may answer questions about their depreciation.

F. **POWER COST CHARGE:**

The Department proposes to increase the Power Cost Charge from \$1.88 to **\$1.94** per thousand gallons, to reflect an increase as a result of Hawai'i Electric Light Company, Inc. (HELCO), billings. 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 increase of the Power Cost Charge from \$1.88 to **\$1.94**, effective August 1, 2018.

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

Mr. De Luz asked if this power cost charge relates only to HELCO or whether it is inclusive of Lālāmilo Wind Farm.

Mr. Sumada replied that it includes Lālāmilo.

Mr. De Luz suggested it read, "all power source charges" in that case. The other thing to point out is this increase is after the fact. The Department will reconcile whatever the period is to see where it is short. It is important that the Department make that statement whenever sending out the bills out so essentially, the consumer had advantage of the lower rate before the Department's attempts to catch up. The Department is only wanting to be made whole, and not trying to add more revenue.

The Manager-Chief Engineer stated it goes the same for when the Department decreases the power cost charge.

Mr. De Luz stated that is why it is important they understand because when they see an increase, they wonder why; they used less water, but have to pay more.

The Manager-Chief Engineer agreed.

ACTION: Motion was carried unanimously by voice vote.

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

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

1. North Kona Wells – the Department still has 10 out of 14 wells operational. Of the four wells under repair, Honokōhau Well is expected to be completed first; then Wai'aha, Hualālai, and Palani. He mentioned the recent discoveries by Brown and Caldwell shed new light on the gyroscopic alignment test, which is proving to be beneficial in providing good information. From what he understood, the old alignment test was done by taking a 40-foot section of pipe that kind of simulates the pump and motor, attaching a cable, and sending it down

to make sure it did not get hung up. If the casing is kinked that is only going to tell you so much because the cable is flexible; and when you send it down for real, it is a pump, motor, and a rigid column. This gyroscopic alignment test provides more information, or more like the real usable casing diameter. With the recent findings, there was some good information on Hualālai Well and he asked Mr. Takamoto to explain.

Mr. Takamoto stated that the Department recently received the reports for Honokōhau and Hualālai wells. The reports were eye opening because comparative to the traditional method of alignment testing, the one completed on Hualālai Well said there was a little drift, but it seemed reasonable. However, after looking at it through the gyroscopic alignment test, the report indicated the well probably should have not been accepted in the first place due to poor alignment. It sheds light on why there were so many failures of that well.

Mr. Boswell said that sounded very good. Although we may not want to hear it, we had to hear it.

The Manager-Chief Engineer stated it was about as eye opening as you can get.

Mr. Boswell commented that it either tells us what size the diameter is all the way down or as we heard in the discussion last month, potentially, where you could reconfigure the placement of the pump and motor so they are not sitting in a bind.

The Manager-Chief Engineer stated it is a more accurate picture of the well.

Mr. Boswell thought that, as a driller, they might want to have their own equipment to test that out.

The Manager-Chief Engineer stated that the Department is contemplating at what point would it be made a requirement to have that test done, such as at what depth the well would have to be. It may not be prudent to do it on a shallow well. Definitely, if it exceeds 1,000 feet, it may be a worthwhile investment at this point.

Mr. Boswell agreed. It is either pay now or pay later.

Mr. Elarionoff asked how long the well worked before it gave out (Hualālai Well).

Mr. Takamoto replied that the longest continuous run was seven years but it has been intermittent all the way through seven years, one year, or two years.

The Manager-Chief Engineer noted that Hualālai Well has been historically problematic as far as frequency of repair.

Mr. Elarionoff asked if staff thinks it is because the alignment was never straight.

Mr. Takamoto replied that was correct. Based on that alignment, where they place the pump and motor, it would most likely be in a bind, so it is being overworked and more likely to burn out or cause the bearings to fail.

Mr. Elarionoff wondered why sometimes it lasted seven years, sometimes two, sometimes one year.

Mr. Takamoto stated it may have been through the various pumps and motors that were used. The seven-year one may have been a slimline configuration, and the other ones may have been larger in diameter and a standard type motor.

Mr. Domingo stated that he read the presentation from last month and heat seemed to be posing a problem. He agreed with that finding and noted his graduate studies were on heat transfer, and you really need a big casing to allow enough flow around the pump to dissipate the heat. If it is a very constricted casing, it will not allow enough flow and, therefore, not dissipate the heat properly. The other option to that may be to add some more fins around the motor. The more fins you have, the more surface area you have, and that will dissipate heat a lot more. He liked this finding. It is in line with what he had been thinking.

Mr. Elarionoff asked how the Department would compensate for the problem of this well, assuming it will still be used.

Mr. Takamoto replied that the best option is to use slimline equipment in a shroud. That way, any binding or effect of misalignment of the casing or alignment of the well will be imposed upon the shroud, which encases the complete pump and motor assembly, so you are not actually imposing that force on the pump and motor and are more likely to keep that pump and motor straight. In answer to Mr. Elarionoff's question of whether it is more expensive, Mr. Takamoto replied that in comparison to the equipment being used before, the Byron Jackson equipment, it would be about the same because Byron Jackson is a premium manufacturer for the standard equipment; and the slimline equipment, including the shroud, would be around the same cost.

Mr. Elarionoff asked the Manager-Chief Engineer for the timeline of the well repair.

The Manager-Chief Engineer replied that for Hualālai Well, the Department will use the spare pump and motor. The motor and the seal section are in already; and the pump is expected late July or early August. The contract is in place for the well driller to do the repair work so it is just a matter of waiting for the equipment to arrive. The timeline is September/October for completion.

- 2) Hawaiian Ocean View Well - Mr. Takamoto stated that the contractor started work yesterday. They brought in the Centrilift technician to inspect all of the equipment yesterday, and they should be out there now working on the coupling of the pump and motor and doing the electrical splicing work. If everything moves accordingly, installation is expected to be completed by the end of the week with the possibility of returning it to service by the end of next week. In response to Mr. Elarionoff's question of whether the water hauling has been going well, without problems, Mr. Takamoto replied it has. In response to Mr. Boswell's question of whether the same pump and motor are going back in or if they are being changed, Mr. Takamoto replied that the existing Centrilift pump will be reused, but the motor will be changed. A complete Centrilift assembly will be installed.
- 3) East Rift Zone Update – The Manager-Chief Engineer noted that Mr. Ikeda or one of his staff members still attends daily meetings at the Emergency Operating Center; but as far as direct impacts to the Department of Water Supply, there really is nothing at this point. The Department has been working with FEMA to see what its eligible reimbursements may be. Mr. Sumada's staff, along with help from Engineering and Operations, are working with FEMA staff, or their liaisons, to make sure we get the necessary paperwork submitted. In response to Mr. De Luz's question of whether these losses will be covered in the next audit, Mr. Sumada replied they should be.
- 4) Employee of the Quarter – Mr. Mark Yoshioka was awarded with the Employee of the Quarter award for the second quarter. He is an Information Systems Analyst V in the Department's Information Technology (IT) Branch. He started with the Department in 1996 as an Engineering Aid and was promoted in 1999 to a Drafting Technician II and then in 2006 to Drafting Technician III. In 2009, he was promoted to his current position. Mr. Yoshioka is a valuable asset and team member for the Department. He takes care of a lot of IT matters, troubleshooting needs, and purchasing of equipment.

H. CHAIRPERSON'S REPORT:

1. Chairperson Takamine stated, that like Mr. Domingo, he was pleased to read Brown and Caldwell's much-anticipated report. He mentioned a report is only as good as the follow-through by the Department, and he was pleased about the things the Department has been doing to follow up on the recommendations and has been doing for quite a bit of time. They talked a bit about potential new wells in Kona on the same properties with smaller pumps and motors; and those are things the Board and Department were talking about months ago. He was pleased it will continue to move forward as a lot of it will probably happen when his term with the Board ends this year. He encouraged continuation of looking at alternatives and other options. With regard to the Lālāmilo Wind Farm, which will be coming up in next month's agenda, he asked the Board to put in their time, do their homework, and come to next meeting well informed and ready to respond

accordingly, although, realizing they do volunteer their own time, he thanked them for being on the Board.

2. Site visit for August - per discussion at the May meeting, a site visit to Waimea Treatment Plant would be a good experience for existing as well as new Board members to see another larger scale project of the Department. As public attendance of the visit to Waimea Water Treatment Plant in August would be dangerous or impracticable due to its status as an active construction site, it is recommended that the Board approve a limited meeting for a site visit for the August meeting pursuant to Hawai'i Revised Statutes § 92-3.1(a)(1). Chairperson Takamine stated that Board would need to vote on holding this limited meeting.

Chairperson Takamine entertained a Motion to hold a limited meeting for a site visit to the Waimea Water Treatment Plant.

MOTION: Mr. Sugai so moved; seconded by Mr. Domingo.

Chairperson asked if there were any issues besides safety for holding this site visit at next month's meeting of August 28, 2018.

Ms. Yeh noted there is a contested case hearing scheduled for that agenda so it may be an all-day meeting for the Board.

Chairperson Takamine asked if everyone was okay with that.

Mr. De Luz noted one thing for consideration is that the August meeting may be consumed a lot with the issue of Lālāmilo Wind Farm. He would suggest the Board look to defer the site visit only because the wind farm issue is more pressing. He also suggested that it may be of use for the Board to have the Chairperson and the Vice-Chairperson visit the wind farm, along with DWS appropriate staff, prior to the meeting, to give the Board a better capacity and understanding of some of these controls being discussed, to see them first-hand. He apologized for making that request but thought it would be invaluable to have that appreciation while not infringing upon Sunshine Law for having to form a permitted interaction group. He asked Ms. Yeh if that would create an issue.

Ms. Yeh stated that the Board should still vote to do a permitted tour of two or more. For the Waimea Water Treatment Plant site visit, the Board can approve it now and determine at another time when it would fit in their schedule, the reason being that it is an active construction site and therefore a safety issue. That notice can go out once the Board decides on an actual date. But for the visit to the wind farm, it needs to be done before the August meeting and that could be approved today. There would be two Motions to be made: one for the site visit and the other one to permit whichever two members will conduct a site tour to investigate for the Lālāmilo Wind Farm.

Chairperson Takamine stated he did not feel it was necessary for him to go to the wind farm because he has visited it and does not feel he needs to go back. He asked if anyone else had been there.

Mr. Boswell indicated he had not been to the site. Being the only one to visit the wind farm, no action was needed.

The Board went on to vote on the Motion to hold a limited meeting for a site visit to the Waimea Water Treatment Plant, date to be determined at a later time.

ACTION: Motion was carried unanimously by voice vote.

3. Update on Board Members' attendance at American Water Works Association National Conference June 11 to 14, 2018

Chairperson Takamine stated that he and Mr. Scicchitano attended the conference in June. It was Chairperson Takamine's fourth conference and Mr. Scicchitano's first. Chairperson Takamine reported that the wealth of information gained at these conferences is amazing and you come to realize this is a very competitive industry. If you are looking at purchasing something to do with water, it is there; and if you are looking for information, it is there. Some of the conference topics cover certain cases that have happened around the world; and he hopes someday this Department may be able to present how they overcame their challenges in North Kona and how they made improvements. He hopes that is in the Department's future once it gets through the well issues and has learned from the challenges that were faced. He asked if Mr. Scicchitano had any feedback on his experience.

Mr. Scicchitano stated he was glad he went. There were a lot of networking opportunities and he encouraged anyone on the Board who has the opportunity to go to take advantage. It was great exposure to the industry, and he would definitely go again.

Chairperson Takamine noted there are four spots available for the Board and encouraged attendance.

He also mentioned the HRWA/HWWA conference coming up this fall.

The Manager-Chief Engineer noted it will be only HWWA (Hawai'i Water Works Association) and will be held on Kauai. Kauai's Department of Water decided not to partner with HRWA (Hawai'i Rural Water Association). It will be November 7 through 9 in Poipu.

Chairperson Takamine asked that the Board be sent the dates and details as soon as it becomes available and it will be first-come-first-served for members if they

want to attend. This is a good opportunity to meet the different department heads and hear about the challenges that we all face.

8) ANNOUNCEMENTS:

1. **Next Regular Meeting:**

The next meeting of the Water Board will be August 28, 2018, 10:00 a.m. at the West Hawai'i Civic Center, **Liquor Control Conference Room (Building B)**; 74-5044 Ane Keohokalole Highway, Kailua-Kona, Hawai'i.

2. **Following Meeting:**

The following meeting of the Water Board will be September 25, 2018, 10:00 a.m., at the Department of Water Supply, Hilo Operations Center Conference Room; 889 Leilani Street, Hilo, Hawai'i.

9) ADJOURNMENT

ACTION: Mr. Boswell moved to adjourn the meeting; seconded by Mr. De Luz and carried unanimously by voice vote.

(Meeting adjourned at 12:34 p.m.)

Recording Secretary

Approved by Water Board 8/28/18