

MINUTES

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

August 27, 2019

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

MEMBERS PRESENT: Mr. William Boswell, Jr., Chairperson
Mr. Nestorio Domingo
Mr. Leningrad Elarionoff
Ms. Julie Hugo
Mr. Zendo Kern
Mr. Bryant Balog (10:27 a.m.)
Mr. Keith K. Okamoto, Manager-Chief Engineer, Department of Water Supply (ex-officio member)

ABSENT: Mr. Eric Scicchitano, Vice-Chairperson
Mr. David De Luz, Jr., Water Board Member
Mr. Kenneth Sugai, Water Board Member
Director, Planning Department (ex-officio member)
Director, Department of Public Works (ex-officio member)

OTHERS PRESENT: Ms. Diana Mellon-Lacey, Deputy Corporation Counsel
Mr. Fred Camero, Beylik Drilling & Pump Services, Inc.
Mr. Grayson Ghen, Hawaii Energy

Department of Water Supply Staff

Mr. Kawika Uyehara, Deputy
Mr. Warren Ching, Energy Management Analyst
Mr. Kurt Inaba, Engineering Division Head
Mr. Richard Sumada, Waterworks Controller
Mr. Daryl Ikeda, Chief of Operations
Mr. Clyde Young, Operations Division
Mr. Eric Takamoto, Operations Division

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

ACTION: Mr. Elarionoff moved for approval of the Minutes of the July 23, 2019, Water Board Meeting; seconded by Mr. Kern and carried unanimously by voice vote.

- 4) APPROVAL OF ADDENDUM AND/OR SUPPLEMENTAL AGENDA - none

5) POWER COST CHARGE:

Departmental power costs from all power sources increased since the last Power Cost Charge rate was determined. The Department proposes to increase the Power Cost Charge from \$1.96 to \$2.00 per thousand gallons as a result of this increase. Power cost charges over the past two years were as follows:

<u>Effective</u>	<u>PCC</u>
June 1, 2019	\$1.96
February 1, 2019	\$1.89
August 1, 2018	\$1.94
April 1, 2018	\$1.88
December 1, 2017	\$1.62
August 1, 2017	\$1.73

Before the Power Cost Charge is changed, a Public Hearing should be scheduled to accept public testimony.

The Manager-Chief Engineer recommended that the Board approve holding a Public Hearing on September 24, 2019, at 9:45 a.m., to receive testimony on increasing the Power Cost Charge from \$1.96 to \$2.00, effective October 1, 2019.

ACTION: Mr. Kern moved for approval of the recommendation; seconded by Mr. Domingo and carried unanimously by voice vote.

6) NORTH KOHALA:

A. **JOB NO. 2018-1102, HĀWĪ #2 DEEPWELL REPAIR – REQUEST FOR TIME EXTENSION:**

The contractor, Beylik Drilling & Pump Service, Inc. (Beylik), has requested to be placed on the agenda for this meeting regarding an extension request for the Hāwī #2 Deepwell Repair project that was submitted to the Department on July 9, 2019. Mr. Fred Camero, General Manager of Beylik, was asked to come forward.

Mr. Camero thanked the Board for giving him the opportunity to discuss this issue. He recounted that on July 12, 2019, Beylik submitted a time extension request for additional days which was subsequently denied. He believed the reason was that he did not provide the proper documentation or it was not provided in time. He provided some background on this project. The reason for the delay was that the contract specifications called for Beylik to provide positive seal check valves. The requirement was that they be made of 3/16 Stainless Steel material, and it needed to have API 8-round threads and be made from Flomatic, the manufacturer. The specifications did not allow for another manufacturer, but it is his understanding that the second manufacturer no longer provides these check valves. Unfortunately, Flomatic does not make a valve that meets all three criteria. They do make a check valve that is Ductile Iron (DI) in API 8-round threads, or they make a 3/16 Stainless Steel material check valve, but only in NPT threads. Essentially, it became an impossible specification to meet. He worked with the Department of Water Supply (DWS) to come up with an alternative to meet their requirements. They ended up with a positive seal check valve from Flomatic; however, it was DI in material and NPT threading. As mentioned earlier, they provide DI in API 8-round threads; but because of the time it would have taken for them to make the API threads--upwards of 12 to 14 weeks--they decided to go with the NPT threads; and in turn, Beylik would also manufacture some cross-overs to convert the NPT threads to the API 8-round threads, which the rest of the column pipe exhibited. He was given the go-ahead from DWS to order these check valves on May 29, 2019. He

placed the order on May 31 and received them on June 28. He had to have them shipped to their Kapolei machine shop so they could machine the cross-overs. Beylik shipped them back to Kona on July 26 and installation began on July 29. The pump was started up on August 14. He added that there were some delays on Beylik's end. Their rig had broken down for one week and their machine shop lathe was down as well so it took a bit longer to fabricate the cross-overs. On August 14, 2019, they had substantially completed the project. The contract completion date was July 26, 2019, which is 19 days over. Mr. Camero concluded that he was before the Board to request the time extension due to the fact that the manufacturer could not provide the positive seal check valves as per specifications.

The Manager-Chief Engineer explained the DWS' side. DWS continues to work with both of the well drilling contractors very well. What Mr. Camero said was true. It was just that DWS did not have the ability to review any documentation that corresponds with his request. DWS does not doubt any of the information presented but needs to be consistent with how projects are managed and what is required from the contractors to help validate their time extension request or additional costs and to have written documentation from the source of whatever the change is. Because some of that was lacking, DWS felt it had no other option than to deny the request. Mr. Camero then requested to present his case to the Board. The Board has the authority to amend the contract and grant time extensions. Ordinarily these are presented to the Board with a recommendation after review of the facts; but in this case, the facts presented to DWS were lacking and resulted in the denial of the time extension.

Mr. Camero stated that he had some documentation, emails, and some purchase orders showing dates when he ordered the valves and some shipping dates showing when he received them to back up his timeline. He added that he does work closely with the DWS in trying to minimize the delays; however, one could argue that if the specification is impossible to meet, as a contractor, the burden to provide a valid specification would fall on the Department. But because of their working relationship and his contacts and relationship with the vendors, Beylik took on that burden and was able to find another manufacturer that could provide the product per DWS' requirements. Beylik has used them in the past and will be using them in the upcoming installation. In defense of the operations crew, they had no idea that the specification was impossible to meet. If you were to go on Flomatic's website, it does advertise that they have valves that meet all of the criteria just mentioned; but one thing found out later was that the specification was for tubing and not piping so the sizes do not match up.

Mr. Elarionoff asked about the material the valves are made of now, and if they are equivalent, better, or what comparison would be, durability and quality-wise, to what was specified.

Mr. Takamoto replied the material that is provided, Ductile Iron, is inferior to Stainless Steel but is superior to standard steel check valves that you would normally see in other applications. It is a better valve, and it is a durable valve.

The Manager-Chief Engineer added that the Department preferred the Stainless Steel, which is why it was specified; but because it could not be built, it was okay to settle for the Ductile Iron.

Mr. Elarionoff asked if there are any additional expenses to the Department because of the delay.

The Manager-Chief Engineer replied that it is not an expense. Normally, in construction contracts, there is a provision in the General Requirements and Covenants for liquidated damages, and there is a schedule based on the contract amount. For this contract amount, it was \$150.00 per calendar day. Nineteen days comes out just shy of \$3,000.00. Actually, that burden would be borne by the contractor for not meeting the deadline. Whether or not the Department was actually damaged

because of the delay, one could state that the Department did not have the ability to pump the well for that amount of time to service the community, which is why that schedule is there.

Mr. Elarionoff asked if that meant there was no disadvantage or any inconvenience to the community.

The Manager-Chief Engineer replied that there was the inconvenience of the lack of redundancy. Should the other well have gone down, the Department would not have had a back-up. Technically, though, the Department did not lose any money because of this delay.

Mr. Kern stated that it sounded like the Department's importance was with the threads, out of the three issues, and asked if he was understanding that correctly.

Mr. Takamoto replied that in the interests of expediting the repair, DWS settled for proceeding with NPT. Typically, in installations of less than 1,000 feet, in the past, they have always been NPT; but in efforts to standardize all materials, DWS decided all submersible installations, regardless of depth, to proceed as API 8-round because of the superior strength of the thread; but it is not required for this depth. The DWS settled on this one for the check valves to have the well repaired expeditiously.

Mr. Kern asked if it was found out early in the contract.

Mr. Camero replied it was found out in February.

Mr. Kern asked how long it took to come to the conclusion that it was impossible to get.

Mr. Camero replied that beginning in February, there was discussion between himself and the DWS and between himself and Flomatic, and it ended up being about three months. Beylik finally got the go-ahead at the end of May to proceed with Ductile Iron NPT valves.

Mr. Kern asked if the Department has reviewed the documentation that Beylik provided.

Mr. Takamoto replied it was reviewed.

Mr. Kern asked if it suffices for documentation that the DWS would require for such a time extension.

The Manager-Chief Engineer replied it was not and that is why it was denied back in July.

Mr. Kern asked why that documentation does not exist.

Mr. Camero replied that it exists, but he was not sure, specifically, what DWS needs from Beylik.

Mr. Kern asked where the gap was.

Mr. Young replied that most of it was telephone calls and not written documentation. There is no way to verify telephone calls and no way to evaluate.

Mr. Kern noted that on other requests, the Board is provided with printouts of emails of the back and forth and asked what the difference was on this one.

Mr. Camero stated that he thought he provided that documentation. He had some documentation he could provide.

The Manager-Chief Engineer stated that going back to Mr. Kern's question about the gap, typically, as part of when the DWS evaluates time extension requests, if there is a claim by the contractor, DWS also looks at whether the contractor followed through adequately where there was no gap in between communication. It is not that DWS does not trust Mr. Camero, there was just the period where the telephone calls were going back and forth and there was no documentation to prove there was no gap. That was part of the challenge for staff when reviewing the request.

Mr. Kern stated it was an unfortunate situation because here is a product that is not quite the best to meet the time period and the three-month delay from going back and forth. He did understand that things go like this sometimes though.

Mr. Camero clarified that it is a nineteen-day delay and not three months.

Mr. Domingo asked if he understood correctly that there was a second manufacturer for this component but they are no longer in business.

Mr. Camero replied that was correct. The specifications allowed for Flomatic or another supplier, RK Supply. He believes they are no longer in business. They have not returned emails or calls for about a year now, and he believed the DWS has also tried and not been successful.

Chairperson Boswell stated that most of his questions had been answered but wondered if the DWS changed its specification for the same application or is there knowledge now that it could purchase what it wanted but would have to allow for more lead time. He noted Mr. Camero had made a comment about twelve weeks of lead time.

Mr. Camero replied that had he stayed with the Ductile Iron, API 8-round threads, that was a 12-week lead time. If they decided to go with the NPT threads, it was only two to three weeks.

Chairperson Boswell asked if the DWS would cause itself the same issue if it were to specify these check valves again.

The Manager-Chief Engineer replied it would. There is another agenda item coming up today where the same thing happened. Now there is good justification from Mr. Camero with email trails. They were specified on another project for the Flomatic Stainless Steel. After it was specified and the project was underway, that is when it was discovered they do not manufacture it. Moving forward on any new repair projects, the Department will not specify that again.

Chairperson Boswell recapped that the Department had a specification that the contractor could not meet, a lack of information that makes it transparent of how the conversations went, but in other cases, the DWS is deferring to the Ductile Iron.

The Manager-Chief Engineer replied that was correct. What Beylik has completed and what is in the ground is all acceptable. It is just the documentation needed to justify the time extension.

Mr. Domingo asked if these parts are on an as-needed basis when they are ordered.

Chairperson Boswell stated that these are the check valves that are being added to all of the well repair jobs.

The Manager-Chief Engineer added that the goal and why the DWS is trying to switch to API 8, regardless of well depth, is that if it is an 8-inch column pipe, if they are all API 8, there is some

interchangeability. This goes back to trying to be better, having redundancy, and standardization of components. However, for this one, time was of the issue because Hāwī has only two wells. With one down, if the other one goes, Kohala does not have water. The NPT thread was allowed for use in this application, and Mr. Camero did work with DWS and the installation is acceptable.

Chairperson Boswell asked Corporation Counsel how the Board could come to a resolution on this.

Ms. Mellon-Lacey stated that the discussion could now lead into someone making a Motion on how they want to proceed or if the Board feels it wants more information, that could be requested.

Mr. Elarionoff stated that he is satisfied that the 19 days is reasonable and the extension is reasonable, based on the information as he understands.

Chairperson Boswell agreed with Mr. Elarionoff in that they are doing the same thing for the DWS in another project and if there was better documentation, the recommendation would have been to grant the time.

Ms. Hugo asked if the Board was moving to reconsider the decision made by the Department.

Chairperson Boswell stated that was what the Board was here to do.

MOTION: Mr. Elarionoff moved to override the Department's decision.

The Manager-Chief Engineer clarified that it would be to grant the time extension, based on the information provided by the contractor and would be for nineteen (19) calendar days. If calculated, 19 times \$150.00 is \$2,850.00.

Chairperson Boswell made a motion that the Board accept the nineteen (19) calendar days of delay and with no liquidated damages.

The Manager-Chief Engineer stated that it basically would be to grant the request for a 19-day time extension.

SECOND: Motion was seconded by Mr. Kern.

ACTION: Motion was carried unanimously by voice vote.

(Water Board Member, Bryant Balog, joined the meeting at 10:27 a.m.)

7) SOUTH KOHALA:

A. **JOB NO. 2018-1085, PARKER #1 DEEPWELL REPAIR – CHANGE ORDER REQUEST:**

The contractor, Beylik Drilling & Pump Service, Inc., is requesting a contract change order for the additional work in association with furnishing one (1) replacement pump discharge case. The description of additional work and associated fees are as follows (see attached):

ITEM	DESCRIPTION	AMOUNT
1.	Furnish (1) replacement pump discharge case	\$ 13,668.00
	TOTAL	\$ 13,668.00

Original Contract Amount:	\$ 83,200.00
Original Contingency amount:	\$ 8,300.00
1 st Additional Contingency request:	\$ 48,620.00 (Additional 4 positive seal check valves)
2 nd Additional Contingency request:	\$ <u>13,668.00</u>
Total Revised Contract Amount:	\$ 153,788.00

The contractor, Beylik Drilling & Pump Service, Inc., is also requesting a contract time extension of 122 calendar days. The Department requested a change in the scope of work to replace the existing pump discharge case based on concern of the reliability of the connection. These delays were beyond the control of the contractor.

Staff reviewed the request for contract time extension and the accompanying supporting documentation and found that only 92 calendar days of the requested time can be considered justified.

1st time extension – 61 calendar days
2nd time extension – 92 calendar days

The Manager-Chief Engineer recommended that the Board approve an increase in contingency of \$13,668.00 to Beylik Drilling & Pump Service, Inc., for a total project cost of \$153,788.00, and approve a contract time extension of 92 calendar days for JOB NO. 2018-1085, PARKER #1 DEEPWELL REPAIR. If approved, the contract completion date will be revised from August 30, 2019, to November 30, 2019.

MOTION: Mr. Kern moved for approval of the recommendation; seconded by Mr. Balog.

The Manager-Chief Engineer stated that part of the scope of this project was to re-use a rebuilt pump. During the rebuild, it was discovered that the old pump had different pipe threading. The Department wanted to go back to the API 8 round threads because of its ability to stay better threaded. He had asked if there were other options such as welding it in. It was explained that Ductile Iron does not hold a weld very well. Because this a deep and higher horsepower well, you want to make sure it is not going to let go. Once it was discovered that it was the straight pipe threading, staff instructed the contractor to change it to the API 8 round, which is the reason for this. Based on the documentation provided by the contractor, the request was for 122 calendar days; but through the vetting process, staff determined that out of the 122 calendar days, they could only see 92 calendar days being justified.

Mr. Young provided the Board with an 11"x17" drawing showing the difference between an API type thread and an NPT thread. He explained that straight threads are usually found on lineshaft pumps. In this case, straight threads and the submersible application has a good chance of becoming uncoupled. Obviously, it did not uncouple in the past because this pump was re-used. However, once discovered that it could, the Department looked at something different. The API is a stronger thread, has better sealing, and is a good way to standardize.

Chairperson Boswell asked if the API 8 is tapered.

Mr. Young replied it is.

Mr. Domingo asked if there is a risk of the bolt coming loose due to vibration or changes in temperature.

Mr. Young replied that is more likely to happen on straight threads where it might come loose.

Mr. Domingo asked if the thread is like a positive lock incorporating the O-rings.

Mr. Young replied there is a pipe, but there is no locking washer or anything like that. On the straight threads, it relies on butt threads. It does not gain that strength in the threads until they butt up against each other. You do not have that in a submersible application and that is why they are not typically used.

Mr. Domingo did not think there was much of an advantage.

Chairperson Boswell commented that the tapered thread compresses when it tightens up, and that would be the advantage and keep it from hammering from the on/off starts. He added that the Board is not here to get involved in the engineering of it.

Mr. Elarionoff asked why the difference from the 122 days and the 92 days.

Mr. Young explained that after staff looked at the time it took to get the casing and the time to ship, it was estimated it would take a minimum two weeks to install. This was thought to be adequate. The Department is a little short on operational wells in the Lālāmilo/Parker system right now.

The Manager-Chief Engineer added that based on the information provided by the contractor, this is what staff felt was realistic, versus 122 days. They could not find where that extra month was justified.

Mr. Kern asked the contractor for his comments.

Mr. Camero stated that he was quoted a 10-week delivery on this new discharge base with API 8 round threads. He has not yet ordered them, which is why this is on the agenda for approval. Assuming it is approved and is ordered tomorrow, it is a 10-week delivery, add one to two weeks for shipping, so that is twelve weeks. That brings it to November 20. Right now, the 92 days would give them to November 30. It would give 10 days to make sure everything is right and then install.

Chairperson Boswell stated that this is based on the delivery coming in at the ten weeks.

Mr. Kern asked for clarification on the 10-week lead time and the extra two weeks.

Mr. Camero replied that two weeks is for the shipping. If he orders it tomorrow, 12 weeks from now, November 20, it will be on island.

Mr. Young's understanding was it was going to be air freight which is the reason staff accounted for a shorter time period.

Discussion followed regarding whether the change order included air freight. Mr. Kern felt it is a critical component to know because air freight is big bucks.

Chairperson Boswell suggested that the two items, cost and time extension, could be separated. The time extension does not have to go down right now, but it needs to get funded so the well can be put back online.

The Manager-Chief Engineer agreed. In order to be transparent, staff is trying to do the realistic thing without over-padding the contractor's request. There is always the opportunity to bring it back to the Board if it turns out there will be a problem.

Chairperson Boswell asked if that meant approving the 92 days right now, the recommendation in the agenda today, and then revisit it in the event that something comes up with the shipping.

The Manager-Chief Engineer agreed; and by that time, Mr. Camero will have additional proof based on what he ordered, whether it had shipped, etc.

Mr. Young added that they would confirm what type of shipping was included in the breakdown that was provided.

Mr. Kern asked if the value of timing to have it air freighted would be worth it.

The Manager-Chief Engineer replied that it could be, depending on difference in cost. If it is only a few hundred dollars, then it would be suitable to air freight it to get it in sooner.

Mr. Balog shared his experience with shipping from the west coast. He ships things every week and shipping lines out of Seattle are every other week. If you get the wrong week, you will be one week behind from the get/go. He wondered if the recommendation should be so tight. It would behoove the Board to have to add on five days later. It would not make sense.

Chairperson Boswell asked if, based on Mr. Balog's comment, it should revert back to the contractor's original request.

Mr. Young replied that it would depend on whether the shipping was surface rate.

Chairperson Boswell suggested that the Board take the Department's recommendation on the amount of time and revisit it later, if needed, but to allow the funding to take place.

Mr. Elarionoff asked Mr. Camero if he could work with that.

Mr. Camero replied that he can work with that. He had thought it would just be easier now, rather than have to come before the Board again for another time extension. He did think the amount of time was tight and relies on the manufacturer being on schedule--something he has no control over. He assured the Board that once he receives the pump, he will install it.

The Manager-Chief Engineer offered that the Board could add two weeks as a compromise, being 106 days. It seems like that was the difference between air freight and shipping. The Board could even go with the 122 days instead of the Department's recommendation of 92.

Chairperson Boswell recapped that the only question left is whether or not it was ordered to be sent by air or by surface. If the Board takes the recommendation as it stands now, this can be revisited in a much shorter order if it is just a time extension. The documents at that time would provide back-up for staff's recommendation. There being no further questions, he moved that the Board accept the recommendation as it is proposed.

ACTION: Ms. Hugo moved that the Board accept the recommendation from the Department; seconded by Mr. Domingo and carried unanimously by voice vote.

B. JOB NO. 2019-1108, WAIMEA DEEPWELL REPAIR – CONTRACT TIME EXTENSION:

The contractor, Beylik Drilling & Pump Service, Inc., is requesting a contract time extension of 45 calendar days. The Department requested a change in the scope of work to change the approved materials of construction for the positive seal check valves, due to manufacturer's inability to meet the original project specifications. The change in the check valve material delayed the order of the check valves. These delays were beyond the control of the contractor.

1st time extension – 45 calendar days

The Manager-Chief Engineer recommended that the Board approve a contract time extension of 45 calendar days to Beylik Drilling & Pump Service, Inc., for JOB NO. 2019-1108, WAIMEA DEEPWELL REPAIR. If approved, the contract completion date will be revised from August 31, 2019, to October 15, 2019.

MOTION: Mr. Kern moved for approval of the recommendation; seconded by Ms. Hugo.

The Manager-Chief Engineer mentioned that this is the one where email documentation was to specify out Stainless Steel check valves but the discovery was made that they were not able to be manufactured.

Mr. Young shared his experience while attending the American Water Works Association conference this year. He had spoken with the president of the company who informed him that they carry the Stainless Steel API product. He was surprised to learn, after Mr. Camero tried to order, that they do not carry it.

Mr. Kern recalled while the Board discussed a previous issue, there was excitement about Stainless Steel, and now it seems to be moving primarily towards the ductile iron, based on time. Instead of sourcing Stainless Steel, which will work better, now we are having to go with this because the repairs are mid-way. He asked if the Department has been looking for another source.

Mr. Young replied that staff is definitely looking into it. There are several other sources and different configurations that can also be looked at. Not only this manufacturer recommended multiple check valves. Staff is trying to find out who makes the Stainless Steel product. Some of these check valves can be made spring-loaded or gravity-loaded and it is being evaluated to see what will work best. The Department does want to go back to Stainless Steel because it saves money in the long run. It is not that ductile iron will not work.

Mr. Kern asked what the timeframe would be for getting that information.

Mr. Young replied that he hopes to have it by the end of this year. They are continually working on it, and availability is a big issue. Unfortunately, Stainless Steel seems to make things difficult. It is not the usual five- to six-month lead time. They are being told it has to be cast from scratch.

Mr. Kern commented that if the right ones are found that will work, by using the same product, it could help the Department have some of them in stock.

The Manager-Chief Engineer stated that is the long-term plan.

ACTION: Motion was carried unanimously by voice vote.

8) NORTH KONA:

A. **JOB NO. 2017-1077, HUALĀLAI DEEPWELL REPAIR – CONTRACT TIME EXTENSION:**

The contractor, Beylik Drilling & Pump Service, Inc., is requesting a contract time extension of 45 calendar days. The Contractor encountered logistical issues with shipment of the power cable as a single 5,000' spool, which required the division of the spool into two spools. The work involved in performing the work to divide and respool the cable, as well as the time required to coordinate the work, causing a delay in the shipment of the cable. This delay was beyond the control of the contractor.

1st time extension – 274 calendar days

2nd time extension – 45 calendar days

The Manager-Chief recommended that the Board approve a contract time extension of 45 calendar days to Beylik Drilling & Pump Service, Inc., for JOB NO. 2017-1077, HUALĀLAI DEEPWELL REPAIR. If approved, the contract completion date will be revised from August 15, 2019, to September 30, 2019.

MOTION: Mr. Balog moved for approval of the recommendation; seconded by Mr. Kern.

The Manager-Chief Engineer stated that this well has been a challenge to get back online for various reasons, which has led the Department down the path toward having a complete unit for this well to hopefully have it warrantied by the contractor. This one will be fully Centrilift, from the pump, motor, seal, motor lead, cable, and including a technician coming out to do the assembly. To go with a cable that Centrilift would be good with, meant that a 5,000-foot spool needs to be ordered because you cannot order just the length you want.

Chairperson Boswell asked how much the Department actually needed.

Mr. Takamoto replied that 1,608 feet will be used.

The Manager-Chief Engineer added that the remainder can be used on another project. Logistically, there was a problem finding someone who could ship it in one spool, so it needed to be split.

Chairperson Boswell asked what it would take to store cable like this with the cut in the cable.

The Manager-Chief Engineer replied you would have to treat the ends.

Mr. Kern asked how the word “hopefully” could be taken out of the Manager-Chief Engineer’s statement about having it warrantied by the contractor.

The Manager-Chief Engineer replied that, as seen in the past, although the Department thinks all the “I’s” are dotted and “T’s” are crossed, there is no guarantee that it is a warrantable claim. In other applications, it was possible to mate a different manufacturer motor to another manufacturer’s pump; however, because Hualālai has been a problem child, the Department wanted all one. In response to Mr. Balog’s question of whether there were any costs associated with buying 5,000 feet of cable, he replied it was previously approved at a previous Water Board meeting.

ACTION: Motion was carried unanimously by voice vote.

(Mr. Camero thanked the Board and left the meeting at 11:59 a.m.)

9) MISCELLANEOUS:

A. SERVICES JOB NO. 2019-05, PROVIDE SMALL UTILITY ENTERPRISE LICENSE AGREEMENT FOR GEOGRAPHIC INFORMATION SYSTEMS (GIS) SOFTWARE:

DWS completed the sole source procurement for GIS software to be provided by Environmental Systems Research Institute, Inc. (ESRI). ESRI's GIS software is the industry standard and DWS' current GIS data has been created and maintained using the ESRI software. Typically, this type of contract is limited to a one-year term. However, per Hawai'i Administrative Rules (HAR) Section 3-122-149 the Water Board may approve a multi-term contract for geographic information system (GIS) software to provide uninterrupted GIS service over more than one fiscal period. The multi-year contract will improve efficiency for DWS by ensuring continuous and consistent information and mapping applications. A multi-year contract will also limit the need for additional start-up costs of a new vendor. The proposed term for this GIS software license agreement is three (3) years with an estimated total cost of \$80,000.00.

The Manager-Chief Engineer recommended that the Water Board approve a multi-year contract for GIS software. 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. Domingo moved for approval of the recommendation; seconded by Mr. Balog.

The Deputy explained that the Department has ESRI/GIS as its main system for electronic mapping and did procurement for this. Corporation Counsel's Office advised to make it a multi-year contract.

Chairperson Boswell asked if GIS tracking is similar to survey layout, were you can take it out in the field.

The Deputy replied that in accuracy, he did not think it was survey grade. It is used for island-wide infrastructure for presentation and internal research purposes. With this new enterprise agreement, the Department is being offered additional analytical tools, which will help staff.

Mr. Kern asked if the Department would get a discount by going with the 3-year contract.

The Deputy replied that it was not a discount but is a reasonable rate for the three years, about \$25,000.00 per year, plus taxes, and depends on number of service connections. Another benefit is not having to turn over an existing data base every year and starting all over again. It is all built into this agreement. In response to Mr. Kern's question of whether the Department has been with ESRI a while, he replied it has.

Mr. Domingo asked if it was for a specific user or whether it was Department-wide.

The Deputy replied that it is Department-wide. The Department will get up to 50 licenses with this agreement, but they would not all be used.

Mr. Elarionoff asked how it would this improve efficiency.

The Deputy replied that from a procurement standpoint, the Department does not have to procure it every year. Also, the Department will automatically receive any updates from the software vendor. The number of users Department-wide is a benefit, as well as having analytical tools to look up certain things.

Mr. Inaba added that the current limited licenses make it necessary for staff to share a computer at the counter to use GIS. This is the full-blown version which adds the capability of staff to use it at their desks.

Mr. Domingo asked if the Department will be asking for multi-year, three-year terms.

The Deputy replied that this will be just one three-year term. There will be a contract written up for this three-year term which will be signed by the Chairperson.

Mr. Balog commented that it is always good to have more licenses than you are going to use.

The Manager-Chief Engineer stated that down the road, there will probably be a need for more users, and even with the new billing system, part of incorporating that will be tablets for some personnel. Right now, the Department is still a little old school. Staff have to go based on their knowledge and with this type of software and the number of licenses with the tablets out in the field, they will have access to that information. The plan is to start off small with the tablets and build upon that.

ACTION: Motion was carried unanimously by voice vote.

B. MONTHLY PROGRESS REPORT:

Mr. Inaba highlighted some projects:

1. Wai'aha Water System Improvements - Transmission

Mr. Inaba stated that 50% of pipe has been installed. The contractor is going to start pressure testing so they can complete it in sections and can actually pave the road in case there are complaints about road conditions. Things might have slowed down since school began. In response to Chairperson Boswell's question whether the rains have affected anything with the two or three water crossings in the area, Mr. Inaba replied that work has not begun on that part yet. They do have to go across and along a head wall. Chairperson Boswell asked if they have to excavate down into the channel. The Manager-Chief Engineer replied they do not.

2. Kahalu'u Shaft Hil-A-Vator

Mr. Inaba stated there may be an update on the Hil-A-Vator for the Board next month. Some information has just been received by the Department and it includes photos and updates on the progress of the cart. He will see if the contractor can make it to the meeting to help explain the cart building process and what they are looking at. When they did an initial test run of the cart on the test track, the gear box was making an unusual noise so they had to send the gear box back to its manufacturer to have it redone. There may be up to a one-month delay because of shipping it back to the manufacturer. Depending on when they actually get it back and tested, there may be a request for time extension.

C. REVIEW OF MONTHLY FINANCIAL STATEMENTS:

Mr. Elarionoff asked what it meant on Page 2, second paragraph - "Inadvertently not recorded."

Mr. Sumada explained that this adjustment is a once a year adjustment, made at year end. Just because it is not done every month, there is a risk it might be forgotten; but it is not missed. It is just delayed a month.

There were no other questions.

D. MANAGER-CHIEF ENGINEER'S REPORT:

The Manager-Chief Engineer to provide an update on the following:

1. North Kona Wells - the Deputy provided an update on the wells. Of the fourteen sources in the North Kona system, nine are online. Five are offline, which are: Makalei, Hualālai, Palani, Wai'aha, and Holualoa wells. Makalei Estates Well was developed by a private developer and turned over to the Department. He understood the owner is getting ready to execute the contract with their consultant and will work with the consultant to redesign the well and are looking at a 350-gpm replacement pump. Their estimated completion is the first quarter of next year. For Hualālai Well, it is a Centrilift complete unit. The contractor has been out there this week installing the motor shroud, and are coupling the motor, seal, and pump together. They will connect the motor lead extension to the pump power cable and expect to start installation today or tomorrow. For Palani Deepwell, the column pipe was delivered, the check valves have been shipped, and the pump is expected to be shipped this Friday. All materials are expected on site by mid-September, with installation thereafter. For Wai'aha Well, there is a litigative hold on the repair of the well; therefore, nothing to comment on. For Holualoa Well, the Notice to Proceed will be September 4, 2019; and the contractor will have 150 calendar days to complete the project, taking it into February of 2020.
2. Department of Water Supply Energy Report - Mr. Ching reviewed his energy report. Total power costs for the second quarter of 2019 were a little over \$4.3 million; and compared to the previous quarter, were down 2.5%. The Department currently has 157 HELCO accounts, all of them under three different rate schedules. The average HELCO energy rate was 31 cents per kilowatt (KW) hour. Compared to the previous quarter, it is up 5.4%. The average HELCO demand rate for the second quarter was \$19/KW. Compared to previous quarter, it did not change.

Mr. Kern asked why it went up 22% from the year previous.

Mr. Ching replied that from the year previous, in October 2018, HELCO did a large base rate change which changed their demand rate a substantial amount. That was a one-time change and since then, it has held steady at that same rate. They do not change it per month like they do the energy rate, which is the KW hour rate. He continued that the current power cost charge is \$1.96 but the Department recommended increasing that to \$2.00. Moving on to the solar energy project for the five baseyards and the main office, the Department is working with Greenpath Technologies, Inc., and Corporation Counsel in negotiating the power purchase agreement (PPA). The Department also brought on a third-party consultant, Noresco, with industry experience to help in those negotiations. The PPA will be a 20-year term contract. The amount of the contract with Noresco was \$33,000.00, and that included an allowance of \$10,000.00 for any work above and beyond because it is not known how many reviews they will need to do. They quoted two reviews of the PPA and anything above and beyond that, such as reviews during construction, would be tapping into that allowance.

Mr. Kern asked what the price is going to be for a kilowatt hour.

Mr. Ching replied it is looking like 18 cents/KW hour with no escalation over the 20 years. He added that once finalized, the PPA will be brought to the Board. Continuing on to the noise loggers, he passed around a sample of one. In an effort to reduce unaccounted water loss due to leaks in the piping system, the Department has invested in them; and what they do is capture noise data. The Department's personnel patrol with a receiver device which the logger transmits data to. That model can actually indicate a potential leak rather than only give the raw

numbers. Staff has a good understanding of what the numbers mean. Decibels is kind of the amplitude of the sound or the loudness, frequency is the pitch, and depending on the type of the material the pipe is. They can look at those two numbers and see if it is above what it normally should, which would indicate a suspected leak. From then on, they do a bit more work to pinpoint the actual location because the loggers will just indicate a leak within two points. Personnel pinpoint where exactly the leak is and put in a request to check it.

Mr. Domingo asked how many loggers the Department plans to acquire and if they will be placed throughout the island.

Mr. Ching replied that it would be tough to cover the entirety because there are 23 different systems. The goal is to get more coverage as much as possible.

Mr. Domingo asked about the initial outlay to purchase these components.

Mr. Ching replied that during this past fiscal year, the Department purchased 226 loggers which brought the total logger amount up to 1,099 throughout the island. Just in 2018, about 350 million gallons was saved due to the leaks found and repaired and close to \$500,000.00 worth of energy charges avoided by repairing the leaks. This is on the basis of the leaks that were found by the loggers would not have necessarily been detected as they are not visible from the surface and would not have caused the customers any affect. They would never have been found, if not for the loggers. The idea is to catch these leaks early on before they become a large enough leak to cause a break in the pipe.

Mr. Domingo asked if there was a break-even point where it will recoup or pay back.

Mr. Ching replied that in terms of energy costs, just under the assumption that the leak will continue for one year, we are looking at about a 2.5-year payback period and that will be reduced if we can get money to help fund the program. Working with Hawai'i Energy this past fiscal year has helped the Department fund the purchase of 50% of the cost of the loggers. That was for the 226 loggers plus two monitors or receivers. They were deployed in June of this year and are already finding leaks.

Mr. Balog asked if there were specific target areas to install them.

Mr. Ching replied that there are not enough to cover the entire system so the focus is on locations that are energy intensive, meaning they have an expensive cost per 1,000 gallons in terms of energy costs. In Hilo, the wells are not as deep so they produce 1,000 gpm at a lower energy cost than the Kona side or South Kona side. Focus is also on systems known to be prone to leaks, such as older infrastructure. With that, a lot of focus is in the South Kona area, in the Lālāmilo area, and also the North Kohala and North Kona areas. There are some in Hilo in the older systems, but just not as much.

Chairperson Boswell asked what happens after the device finds the leak and what staff would go searching for; whether it be mechanical joints and valves, etc., and if they have to dig up every 20 feet or at every known connection.

The Manager-Chief Engineer replied that anything that disrupts the continuity of the pipe is a possible suspect. Other than that, if you are in line with the pipe, that pipe itself either had gotten dinged on installation, or over time, worn from corrosive soil, etc. Apparently, the

device can distinguish between just normal flow through the pipe versus a potential leak. After the area is established, staff can pinpoint the leak more accurately by using different tools.

Mr. Young mentioned that correlators are used in that case.

Mr. Ching added that they physically use a microphone and listen to the sound on the pipe length and then determine the vicinity of the leak.

Mr. Grayson Ghen of Hawai'i Energy commented that one of the other improvements to the loggers is the way they help identify the leaks, making it much easier on the technicians. The new logging systems help determine the severity of the sounds and help pinpoint the leak and can cover twice the distance as the older logging systems. The technology is improving.

Mr. Ching added that they are so sensitive, if a car drives by, it will pick up on it; therefore, they usually take a point somewhere around 3:00 a.m. He thanked Hawai'i Energy's contribution in helping the Department develop this program.

- a. Hawai'i Energy - Noise Logger Rebate Presentation - Mr. Ching introduced Mr. Grayson Ghen of Hawai'i Energy who has been very helpful in helping the Department receive a 50% rebate of the logger purchase, which came out to \$121,558.00. Mr. Ghen was here today to present this saving to the Water Board. The Board took a recess to receive the award. ACTION/RECESS: Mr. Kern moved that the Board take a short recess; seconded by Ms. Hugo and carried unanimously by voice vote.

(The Board recessed from 11:36 a.m. to 11:41 a.m.)

E. EXECUTIVE SESSION REGARDING OPEN LITIGATION:

The Board anticipates convening an executive meeting for the purposes of discussing the legal rights, duties and liabilities of the Board concerning open litigation against the Board, as authorized by Hawai'i County Charter Section 74.6 and Hawai'i Revised Statutes ("HRS"), Section 92-4 and 92-5(a)(4). The Board wishes to have its attorney present, 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). A two-thirds vote of the members present, pursuant to HRS Section 92-4, is necessary to hold an executive meeting, provided that the affirmative vote constitutes a majority of the board.

ACTION TO ENTER EXECUTIVE SESSION: Mr. Kern moved that the Board enter Executive Session; seconded by Ms. Hugo and carried by roll call vote (Ayes: 6 - Ms. Hugo and Messrs. Balog Domingo, Elarionoff, Kern, and Chairperson Boswell; Nays: 0; Absent: 3 - Messrs. Scicchitano, Sugai, and De Luz).

(Executive Session began at 11:43 a.m. and ended at 12:13 p.m.)

F. CHAIRPERSON'S REPORT:

1. Chairperson Boswell stated that he did not have anything to speak about but opened the floor to the other Board Members.

Mr. Kern asked if the Department of Water Supply reviews the General Plan.

The Manager-Chief Engineer replied it does. Mr. Inaba added that this Thursday and Friday, the Department will be participating in Planning's coffee sessions, or speak outs.

The Manager-Chief Engineer suggested if the Board had any issues or concerns, it could be placed on an upcoming agenda. It is worthy to discuss. The Board could even request the Planning Director, or his representative, to come and make a presentation to the Board.

Chairperson Boswell asked if the Board felt that would be warranted.

Mr. Kern stated that he has been involved in it and is supposed to be on one of the working groups. It is supposed to be finalized this December, but he thought that was very ambitious.

Ms. Hugo suggested not waiting too long because of the December target date.

The Manager-Chief Engineer suggested September or October. He could make a request to the Planning Director for a presentation and status to the Water Board and how it involves water. It could either be the Director or his representative.

Ms. Hugo suggested that if Mr. Kern wanted some specific issues addressed, he could email it to the Manager-Chief Engineer.

Mr. Kern stated he could do that and thought maybe to start with a presentation on water, and that will give time to follow up on it. He added that he has a lot of issues.

It was decided to schedule the presentation for the September 24, 2019, Water Board Meeting.

10) ANNOUNCEMENTS:

1. Next Regular Meeting:

The next meeting of the Water Board will be September 24, 2019, 10:00 a.m. at the Department of Water Supply, Hilo Operations Center Conference Room; 889 Leilani Street, Hilo, Hawai'i.

2. Following Meeting:

The following meeting of the Water Board will be October 22, 2019, 10:00 a.m., at the Department of Water Supply, Hilo Operations Center Conference Room; 889 Leilani Street, Hilo, Hawai'i.

11) ADJOURNMENT

ACTION: Mr. Kern moved to adjourn the meeting; seconded by Ms. Hugo and carried unanimously by voice vote. (Meeting adjourned at 12:16 p.m.)

Recording Secretary

APPROVED BY WATER BOARD: 9/24/2019