MINUTES

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

November 26, 2013

West Hawai'i Civic Center, Liquor Control Conference Room, Bldg B, 74-5044 Ane Keohokalole Hwy, Kailua-Kona, HI

MEMBERS PRESENT: Mr. Art Taniguchi, Chairperson

Mr. Kenneth Kaneshiro, Vice-Chairperson Mr. Russell Arikawa (arrived 10:16 a.m.)

Mr. David Greenwell Ms. Susan Lee Loy Mr. Rick Robinson Mr. Jay Uyeda

Mr. Quirino Antonio, Jr., Manager-Chief Engineer, Department of Water

Supply (ex-officio member)

ABSENT:

Ms. Brenda Iokepa-Moses, Water Board member

Mr. Delan Perry, Water Board member

Mr. Duane Kanuha, Director, Planning Department (ex-officio member) Mr. Warren Lee, Director, Department of Public Works (ex-officio

member)

OTHERS PRESENT: Ms. Kathy Garson, Assistant Corporation Counsel

Mr. Steve Bowles

Mr. Riley Smith, Lanihau Properties

Mr. Roy Hardy, Commission on Water Resource Management

Mr. Jeff Zimpfer, National Parks Service Ms. Margaret Masunaga, Corporation Counsel

Mr. Peter Young Mr. Fred Camero Mr. Ken Melrose Mr. Ken Kawahara Mr. Carl Carlson Mr. Joe Root

Ms. Laura Dierenfield

Department of Water Supply Staff

Mr. Keith Okamoto, Deputy

Mr. Kurt Inaba, Engineering Division Head Mr. Richard Sumada, Waterworks Controller

Mr. Daryl Ikeda, Chief of Operations

Ms. Kanani Aton, Public Information and Education Specialist

Ms. Julie Myhre, Energy Management Analyst

¹⁾ CALL TO ORDER – Chairperson Taniguchi called the meeting to order at 10:00 a.m.

2) STATEMENTS FROM THE PUBLIC

The following statements are verbatim.

(Mr. Riley Smith, representing Lanihau Properties, testified regarding Item 8(A), NATIONAL PARK SERVICE PETITION TO DESIGNATE KEAUHOU AQUIFER SYSTEM AREA AS A GROUND WATER MANAGEMENT AREA.)

MR. SMITH: Good morning, Chair Taniguchi and members of the Water Board. My name is Riley Smith. I'm with Lanihau Properties. I just wanted to share some information on one of your Agenda Items. I believe it's 8(A). You know, first of all, Lanihau supports the Department of Water Supply, and has worked collaboratively with the Department over many years. We're a land owner in Kona, and have been a steward of our lands for over 100 years. You know, our feeling on this Item 8(A)...is that it's prudent that science and data that's available should be used to dictate the petition that's being submitted. So you find all the information, make sound decisions based on scientific data. We also feel that the shareholders...the stakeholders...in the area should be sharing all the information, so that everybody can make prudent decisions, as I'm sure that the Water Board will be doing as they pursue this issue. Our feeling is that the petition is counter to good planning. In the last 30 or 40 years under Mayor Yamashiro when he was with the County Council...he started out on the Keāhole to Keauhou Plan. That was an effort to have reason and sound land development planning in the Kona region. Also, recently under Mayor Harry Kim, he initiated the Kona CDP process, which engaged many community stakeholders in sound development practices, focusing with development in the North Kona area. We feel that this petition is potentially detrimental to the community, and potentially very harmful to many of the public projects that all of us will benefit from. This includes the University's West Hawai'i campus at Pālamanui, the proposed Judiciary facility in this area, the Forest City project at Keahoulū, which is intended to have about 60 percent affordable housing, and is a State HHFDC project. The County is planning a 180-, 190-acre regional park just makai of this facility here. Also, the Hawai'i Health Systems Corporation is pursuing a relocation of a regional hospital in this vicinity. Petitions such as this may negatively impact the ability of these public facilities to be constructed to serve the community that it is intended to. It's also a concern that this petition could be divisive to many of the Native Hawaiian Trusts that are located in this area. Many of you know that the plans that Queen Lili'uokalani Trust has at Keahoulū; Department of Hawaiian Home Lands has projects at La'i'opua, just across the street, in this vicinity. Also, Kamehameha Schools owns a lot of lands. All of these lands in their development plans require water, so that they can provide assets to their beneficiaries. If you look at the different criteria that the Commission on Water Resources Management needs to evaluate, one of them is the existing withdrawals in relationship to sustainable yield. I'm sure that in Mr. Hardy's report, he's gonna talk about the current withdrawals in the aquifer, about 14 million gallons a day, and the sustainable yield is estimated at 38 million gallons a day. That equates to about 37 percent withdrawals over the sustainable yield. One of criteria that CWRM uses when evaluating designation is that withdrawals need to be in the neighborhood of 90 percent. So we're not even, you know, 50 percent to that threshold. So again, we just feel it's premature. And we ask that all North Kona stakeholders collaborate with the Department, and maintain dialogue, as has been exhibited through the many meetings of the Kona Water Roundtable has participated in with the Department and the other stakeholders in North Kona. That concludes my testimony.

CHAIRPERSON TANIGUCHI: Thank you very much. Next, we have Jeff Zimpfer. Good morning.

(Mr. Jeff Zimpfer of the National Park Service testified regarding Item 8(A), NATIONAL PARK SERVICE PETITION TO DESIGNATE KEAUHOU AQUIFER SYSTEM AREA AS A GROUND WATER MANAGEMENT AREA.)

MR. ZIMPFER: I've got a copy of what I'm gonna say; I'll get that to you here.

CHAIRPERSON TANIGUCHI: Thank you.

MR. ZIMPFER: Aloha Chairperson Taniguchi and members of the Board. My name is Jeff Zimpfer, and I am an Environmental Protection Specialist for Kaloko-Honokōhau National Historical Park. Long before Western arrival to the Hawaiian Islands, it was recognized that water is life - ola i ka wai. Today in Hawai'i, water is a public trust resource, and public trust uses have priority over other uses of water. Because water supports critical cultural and natural resources in the National Park, the National Park Service has worked with partners to investigate the flow of fresh water through the Park, and began talking to stakeholders about protecting this resource about six years ago. Our work on this issue has shown that the value of fresh water to the Park is real, that threats to fresh water are real, and that neither stakeholder conversations nor the State's sustainable yield alone will lead to sufficient protections. With that knowledge, on September 13, 2013, the National Park Service filed a petition to designate the Keauhou Aquifer System as a Water Management Area for groundwater. The petition is not anti-development. The petition simply seeks the State's assistance in carefully managing fresh water, as land use changes around the Park. The National Park Service filed the petition now, before impacts have been observed in the Park, because our mission requires us to act. Saltwater intrusion in the Kahalu'u wellfield has shown that adverse impacts can occur in the Keauhou Aquifer System at pumping rates well below the sustainable yield. Acting now offers everyone the best opportunity to balance water conservation with water use for future economic growth. On October 16, 2013, the Commission on Water Resource Management extended the review period for the petition until December 2014. The extended review period allows time for us to clarify the basis for our petition and some common misconceptions with you. I will be contacting the Water Board to request an opportunity to share additional information at a future meeting. As the petitioner, the National Park Service is aware of the importance of designation and the impact it would have on the community. We are also working to arrange presentations on this issue to the County Council, the Kona Community Development Plan Action Committee, as well as the Commission on Water Resource Management. Please let me know if you have specific questions you would like the National Park Service to address at these future meetings. Thank you.

Chairperson Taniguchi asked that Item 9(A), DEDICATION OF WATER SYSTEMS, be moved to the top of the Agenda.

3) APPROVAL OF MINUTES

The Chairperson entertained a Motion to approve the Minutes of the October 22, 2013, Water Board meeting.

<u>ACTION:</u> Ms. Lee Loy moved to approve; seconded by Mr. Greenwell, and carried unanimously by voice vote.

4) APPROVAL OF ADDENDUM AND/OR SUPPLEMENTAL AGENDA

None.

9) MISCELLANEOUS

A. <u>DEDICATION OF WATER SYSTEMS</u>:

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 AND BILL OF SALE

Subdivision Application No. 2009-000898

"The Shores at Kohanaiki" Resort Subdivision, Increment 3 (POD 7)

Grantor/Seller: Kohanaiki Shores, LLC

Tax Map Key: (3) 7-3-068:003 portion and 004 portion (Road A)

E.W.O.: E13-044

No. of Lots: 35 Zoning: CV019 (PUD 06-000002)

Facilities Charge: \$258,500.00 Date Paid: 4/9/2013

Final Inspection Date: 11/05/2013 Water System Cost: \$332,350.00

The Manager-Chief Engineer recommended that the Water Board accepts 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.

<u>ACTION:</u> Mr. Uyeda moved to approve; seconded by Ms. Lee Loy, and carried unanimously by voice vote.

5) SOUTH HILO:

A. JOB NO. 98-721, KAWAILANI NEW 1.0 MG CONCRETE TANK AND REMOVAL OF EXISTING 0.5 MG STEEL TANK:

The contractor has completed the liner removal, and subsequent repairs to the interior of the reservoir that were done under force account work. The cost based on the force account sheets that were submitted and under review by DWS staff is \$187,331.83. Also, the additional costs for the disposal of the steel tank and the concrete floor and footing have increased by \$41,806.00, the cost for removal of the soil beneath the steel tank has increased by \$27,920.56, and the cost to remove and dispose of the existing lead based painted fence has increased by \$9,319.31.

The reasons for the increased costs are:

- wage escalation and enhanced hygienist requirements, requiring additional hours that the industrial hygienist has to be on site monitoring the handling and disposal of the potentially hazardous materials;
- the original bid included the disposal of the materials to be done in Hilo; however, the steel tank (as well as the existing fence) will have to be shipped to Oahu;
- the concrete and soil will have to be hauled to the West Hawai'i landfill, where the disposal fee is much higher than what was originally bid for; and
- disposal of the existing fence also requires additional handling, due to the lead-based paint removal and disposal.

The current contract amount, including the two previous change orders, is \$2,275,510.90. The completion date for the project remains December 31, 2013. DWS staff have reviewed the cost proposals and are requesting that \$266,377.70 in additional funds be approved for the contract.

The Manager-Chief Engineer recommended that the Board approve the \$266,377.70 in additional funds for JOB NO. 98-721, KAWAILANI NEW 1.0 MG CONCRETE TANK AND REMOVAL OF EXISTING 0.5 MG STEEL TANK.

MOTION: Mr. Robinson moved to approve; seconded by Mr. Kaneshiro.

The Manager-Chief Engineer said that this was hopefully the last of the change order requests in order to complete this project. The completion date remains at December 31, 2013, and the contractor understands that, he said.

Ms. Lee Loy said that she was very happy to see this Item so high up on the Agenda, considering where it was for so long. She said that the reasons for the cost increase were understandable, because wages have increased so much since the original contract was executed.

Mr. Inaba said that the requirements have also changed since the time of execution.

The Manager-Chief Engineer said that the water tank is already being filled, and once it is filled up, DWS will be able to use the tank. This will trigger the removal of the old steel tank.

Mr. Inaba confirmed that the tank has been filled, and DWS is now waiting for the chlorination results. Once the results are in, DWS expects to be able to put the tank on-line.

Chairperson Taniguchi asked whether a hygienist was required before.

Mr. Inaba said that yes, it was required, but the number of hours has increased and the rates for the hygienist have risen substantially. The bulk of the cost of the change order is actually for the disposal of the material. When the contract was executed, DWS was allowed to dispose of the materials in Hilo. However, DWS must now truck the materials to the West Hawai'i Landfill; the bulk of the cost is the hauling of the materials there, Mr. Inaba said.

Chairperson Taniguchi asked about shipping the existing fencing to Oahu.

Mr. Inaba said the steel product will be shipped there for recycling. Originally, DWS was allowed to recycle the fencing in Hilo; that shipping to Oahu is actually not as costly as trucking the materials to West Hawai'i.

ACTION: Motion carried unanimously by voice vote.

6) NORTH KOHALA:

A. MATERIAL BID NO. 2013-10, FURNISHING AND DELIVERING SPARE DEEPWELL PUMP AND MOTOR SETS FOR HĀWĪ #1 DEEPWELL, HONOKŌHAU DEEPWELL, AND HALEKI'I DEEPWELL FOR THE DEPARTMENT OF WATER SUPPLY:

Bids were received and opened on November 15, 2013, at 2:00 p.m. All Sections are established price agreements for materials.

The estimated cost for the various pump and motor sets were as follows:

Hāwī #1 Deepwell: \$122,000
Honokōhau Deepwell: \$215,000
Haleki'i Deepwell: \$295,000

The Manager-Chief Engineer recommended that the Board award the contract to the following bidders for MATERIAL BID NO. 2013-10, FURNISHING AND DELIVERING SPARE DEEPWEEL PUMP AND MOTOR SETS FOR HĀWĪ #1 DEEPWELL, HONOKŌHAU DEEPWELL, AND HALEKI'I DEEPWELL FOR THE DEPARTMENT OF WATER SUPPLY, as listed below, and that either the Chairperson of the Vice-Chairperson be authorized to sign the contract(s), subject to review as to form and legality of the contract(s) by Corporation Counsel.

SECTION	DESCRIPTION	Beylik Drilling and	Derrick's Well Drilling
		Pump Service, Inc.	and Pump Services, LLC
1	HĀWĪ #1 DEEPWELL	\$141,000	\$133,620
2	HONOKŌHAU DEEPWELL	\$217,500	\$209,128
3	HALEKI'I DEEPWELL	\$381,000	No Bid

MOTION: Mr. Kaneshiro moved to approve; seconded by Mr. Greenwell.

The Manager-Chief Engineer said he wanted to correct the Recommendation, to clarify that the award for Sections 1 and 2 goes to Derrick's Well Drilling and Pump Services, LLC, and the award of Section 3 goes to Beylik Drilling and Pump Service, Inc.

Ms. Garson said that this was just to alleviate confusion.

Mr. Uyeda asked when the warranty period on the pumps and motors begins and ends. He noted that because this involves spare pumps, etc., they will sit on the shelf until they are needed. When the time comes, the pump or motor will be put to work. His question was when does that warranty period begin and end.

Mr. Ikeda clarified that Sections 1 and 2 are being awarded to Derrick's, for a total sum of \$342,748.00. As for ordering spare pumps and motors, DWS has to weigh the pros and cons. In this case, DWS considers these three wells to be critical. If one of the wells goes down, DWS needs to have a spare pump and motor to get things up and running. DWS is likely to lose the warranty, because once DWS takes delivery, the warranty period starts. The spares will sit on the shelf until needed, but if a well goes down, the spare will be there, so the well will be back up in a timely manner. DWS has to weigh the positives and negatives of getting spares, but the Department considers these three wells to be critical ones.

Mr. Uyeda said he agrees that it is better to have spares on the shelf, rather than to wait for a pump or motor to arrive. He noted that it could take six to eight months from when an order is submitted to when the pump gets delivered. He said he just wanted to know when the warranty period starts.

The Deputy said the warranty period is one year from date of delivery.

ACTION: Motion carried unanimously by voice vote.

7) SOUTH KOHALA:

A. **ASSIGNMENT** OF UNITS UNDER PARKER WELLS 3 AND 4 TRI-PARTY AGREEMENT:

Mauna Kea Properties, Inc. (MKP), now known as Mauna Kea Resort Services, LLC, is requesting to assign a portion of their water allocation in the amount of 0.096 million gallons per day (160 equivalent units) to Aina Ho'onanea LLC (AH), who purchased Tax Map Key Nos. 6-2-001:051 and 6-2-013:019.

These properties are identified in the Parker Wells 3 and 4 Tri-Party Agreement dated April 6, 2006, by and between the Water Board, MKP and Mauna Lani Service, Inc. As per the agreement, MKP may assign a portion of its water allocation to a third party for use within the MKP development area, with the written consent of the Water Board.

The Manager-Chief Engineer recommended that the Board approve the assignment of units from MKP to AH under the conditions of the Parker Wells 3 and 4 Tri-Party Agreement. Should the assignment be approved, the water system improvements to allow the use of the water allocation on the lands will be the responsibility of AH.

MOTION: Mr. Robinson moved to approve; seconded by Mr. Greenwell.

The Manager-Chief Engineer said that this is an assignment of water units from the initial developer, Mauna Kea Properties, which had sold some of these properties, and now wanted to assign some of those water units to the new owners of the properties.

<u>ACTION:</u> Motion carried unanimously by voice vote.

8) NORTH KONA:

A. <u>NATIONAL PARK SERVICE PETITION TO DESIGNATE KEAUHOU AQUIFER</u> SYSTEM AREA AS A GROUND WATER MANAGEMENT AREA:

On September 13, 2013, the National Park Service (NPS), through the Superintendent of the Kaloko-Honokōkau National Park, filed a Petition with the Commission on Water Resource Management (CWRM) to designate the Keauhou Aquifer System Area (North Kona) as a Ground Water Management area. CWRM deferred action on the Petition until December 2014.

Mr. Roy Hardy, CWRM's Ground Water Hydrologic Program Manager, provided the Board with copies of his Power Point presentation regarding the petition.

Mr. Hardy showed a map of the island's 24 aquifer system areas, with the Keauhou Aquifer System Area (Keauhou ASA) the focus of the petition. He noted that Keauhou ASA's northern half is in Council District 8 and its southern half is in Council District 7; these are the constituencies of Messrs. Robinson and Uyeda.

The bottom slide on Page 3 of the Power Point presentation notes: "Ground Water Management Areas require *additional* regulation through Commission-approved ground water use permits." Mr. Hardy said that all wells in Hawai'i need to be permitted through the State, and must follow standards created by CWRM to protect the aquifer and to ensure proper construction of the wells. CWRM is the only agency in Hawai'i that has the authority to require water use reporting from everyone who has a well, he said. CWRM pays attention to the beginning of the water source, what the wells are taking, etc. In a *Management Area*, CWRM looks at the end of the pipe, the uses, and there are criteria to ensure that the use is reasonable and beneficial.

Mr. Hardy noted on page 4 there is a flow chart showing the Designation Process itself. There are two parts of the process. At the top of the flow chart, there is a "60 Days or Extend" timeline, and below that is a 90-day timeline. Right now, the process is in that 60 Days or Extend stage. NPS's petition to CWRM initiated the designation process. Petitions can come from the CWRM Chairperson or anyone in the public; NPS submitted this petition. In the current phase, CWRM is consulting with the County and the Mayor, while doing its own independent investigation. The investigation proceeds in accordance with: studies and water use reports, Federal Water agencies input, Department of Health (DOH) input, optional public hearings, and the CWRM Chairperson's Recommendation. CWRM has gotten input from NPS, as well as the U.S. Fish and Wildlife Service, he noted. DOH is an integral part of the process; one of the CWRM Commissioners is the DOH director. DOH is involved with water quality issues and contamination, which are among the concerns raised by NPS in its petition. Mr. Hardy noted that NPS submitted its petition on September 13, 2013, and CWRM entertained the petition at its

October 16 meeting. Mr. Hardy said that County agencies asked CWRM to grant an extension of the review period, which CWRM respected. The deadline for review was extended to December 2014; this allows for more consultation and review of existing and ongoing studies. There is a lot of information that CWRM has to go through. Mr. Hardy noted that part of CWRM's decision was that the Commission could act on the petition *before* December 2014, if they felt that there was enough information. However, the Commission would not delay a decision on whether to proceed *beyond* December 2014.

Mr. Hardy turned to Page 6 to discuss the eight criteria that CWRM will consider for designation:

- 1. Whether an increase in water use or authorized planned use may cause the maximum rate of withdrawal from the ground water source to reach 90 percent of the sustainable yield;
- 2. There is an actual or threatened water quality degradation as determined by DOH;
- 3. Whether regulation is necessary to preserve the diminishing ground water supply for future needs, as evidenced by excessively declining ground water levels;
- 4. Whether the rates, times, spatial patterns, or depths of existing withdrawals of ground water are endangering the stability or optimum development of the ground water body due to *upconing* or encroachment of salt water;
- 5. Whether the chloride contents of existing wells are increasing to levels which materially reduce the value of their existing uses;
- 6. Excessive preventable waste of ground water is occurring;
- 7. Serious disputes respecting the use of ground water; or
- 8. Whether water development projects that have received any Federal, State, or County approval may result, in the opinion of the Commission, in one of the above conditions.

Mr. Hardy said these criteria are not exclusive, and there may be other things that CWRM takes into consideration. Among the criteria that CWRM uses when evaluating designation is that withdrawals need to be around 90 percent of sustainable yield, as mentioned earlier by testifier Mr. Smith. That is not just water use, but also authorized planned use, he said. CWRM relies on DWS to help determine the proposed uses of water.

Mr. Hardy said that CWRM has consulted with DOH about whether water quality is actual or threatened.

Mr. Hardy assumed that the Board was aware that all of the development plans around the National Park are a concern for NPS. He said that the petition by NPS appears to have addressed five of the eight criteria that CWRM will consider:

- Sustainable Yield approach to groundwater management is not adequate to address: 1) potential harm to the biota and potential for limiting the practice of Traditional and Customary Rights cause by the reduction of shoreline discharge from pumping, 2) projected water demands that will exceed (Sustainable Yield), or 3) rising sea-level and declining rainfall.
- Documented Saltwater encroachment: Kahalu'u Area
- Waste: Kona water use is "2.5 higher than other areas of the County"
- Serious Disputes: 1) effects of cumulative future pumping on NPS resources, 2) conceptual models of the hydro-geologic structure of the Keauhou ASA
- Potential development projects will contribute to cumulative withdrawals that will exceed the Keauhou Aquifer System Area sustainable yield.

Mr. Hardy said that the points that NPS raised are a bit different from what is stated in the Code, saying that there was some mixing and matching going on, but basically, NPS is calling into question the Sustainable Yield. NPS mentions things that are not among CWRM's criteria, such as the potential for harming biota and the practice of Traditional and Cultural gathering rights at the National Park by the reduction of discharge from pumping. NPS equates Kona's "2.5 higher" water use with waste; Mr. Hardy said Kona is a dry area, and its water use does not necessarily mean waste.

Regarding serious disputes, NPS is leaning toward serious disputes involving sustainable yield, but that is different from what the Code says (i.e., the Code defines the dispute as being about *actual* use), Mr. Hardy said. NPS is disputing the sustainable use calculations.

Page 8 of Mr. Hardy's presentation dealt with some of the preliminary findings that went before the Commission. In the Keauhou area, sustainable yield is 38 million gallons per day (mgd). Mr. Hardy noted that the U.S. Geological Survey did a study in 2011, which updated recharge in the Keauhou area, as well as the entire island. In some areas, the recharge dropped, but in Keauhou, the recharge rose significantly, to the point where the sustainable yield now is ¼ of the recharge. Total recharge in Keauhou is 152 mgd, leaving three times the amount of the sustainable yield, or 114 mgd, to continue to leak into the ocean. Even removing that ¼ of the recharge, three times of that sustainable yield will go to the ocean, Mr. Hardy said. That is a fact, he said.

The next chart, at the bottom of Page 8, showed a 12-month moving average of the total pumpage of the 105 wells in the area, with 39 major pumping wells which are DWS wells. The 12-month moving average is just under 15 mgd, or about 1/3 of the sustainable yield. That is the **actual use** right now; this is nowhere near the threshold of 90 percent of sustainable yield, Mr. Hardy said.

The top of Page 9 deals with the Code's Section 174C-41, Designation of water management area: "(a) When it can be reasonably determined, after conducting scientific investigations and research, that the water resources in an area may be threatened by existing or proposed withdrawals or diversions of water, the commission shall designate the area for the purpose of establishing administrative control over the withdrawals and diversion of ground and surface waters in the area to ensure reasonable-beneficial use of the water resources in the public interest." Mr. Hardy said this is where things get a bit hazier for CWRM, and this is where the Commission looks to DWS to help provide guidance. The bar charts in this slide were presented in the NPS petition, deriving the information from DWS's Water Use and Development Plan. NPS in its petition was trying to show the sustainable yield of 38 mgd against various projections of uses. Mr. Hardy asked whether these projections of uses were proposed, or authorized planned use; it does not necessarily mean that it will happen. Mr. Hardy said that probably the most salient point is in the bar chart showing County Zoning Full Build-out, which shows potable demands (i.e., areas zoned for domestic uses), along with agricultural use. Based on the zoning, the County plan would prescribe going just up to sustainable yields, which would be 100 percent. However, it does not mean that everything is going to be built out. Mr. Hardy said that traditionally, CWRM has not used zoning as the criteria for authorized prime use, and instead, CWRM looked more towards approved projects, etc.

The last bar chart on Page 9 shows General Plan Full Build-out. As a reality check, Mr. Hardy said that if pumpage were to go to 175 mgd in Keauhou as shown on the graph, that pumpage would constitute more than the recharge – and would be able to serve **a million people** in Keauhou alone. This would in effect mean a doubling of the State's current population. He wondered aloud whether the prospect of a million people in Keauhou could even be considered remotely possible.

Mr. Hardy showed a map of the Keauhou area, with the National Park highlighted. The map shows CWRM's best guess of the demarcation between the basal aquifer and the higher elevations. He noted that the higher level has, in some instances, a few hundred feet of very good water.

On Page 10, there is a slide with some new information regarding the area around CWRM's Keōpū Monitor Well, with a chart showing 152 mgd of fresh water recharge. When this well was drilled, it was a revelation because it is close to 1,000 feet below sea level, and the well went through the fresh water in the basal to brackish water and then to salt water, and then to fresh water again. This meant that there was fresh water underneath salt water, similar to what is found in Hilo; this was a new discovery. The question is whether that water goes all the way under, out to the ocean. Mr. Hardy said that is quite a lot of fresh water to be going into the basal lens, and yet there is very brackish water present. CWRM is undertaking an isotope study with USGS, which will look at the chemistry of the two waters in the basal lens and the high level. Mr. Hardy said that NPS obviously believes that all of that water comes into the area; NPS has made three-dimensional models on that assumption. If that assumption is incorrect, then the models will be incorrect, too. Mr. Hardy said that it is based on a false assumption, and CWRM is trying to get at the science to grasp what is real.

Mr. Hardy said that there has been significant collaboration since 2007, when NPS asked the Commission itself to initiate a designation, but CWRM refused, saying it was premature. That NPS request spurred the formation of the Kona Roundtable and professional group meetings involving professional hydrologists. Since that time, there has also been increased monitoring of wells and water use, etc. There are many wells in the area that are not being used; of the 105 wells, roughly 40 percent are not being used. Of the 60 percent in use, CWRM is monitoring water levels, chlorides and other information. CWRM is doing an Evapo-Transpiration Update Study with the University of Hawai'i, whose final product will have an impact on recharge estimates in the Keauhou area. The data from that study will be incorporated into the Findings of Fact on the petition.

Skipping to Page 11 for the Preliminary Conclusions, CWRM right now believes that NPS's petition rests its case on the potential harm to the near-shore biology, harm to the practice of Traditional and Customary Rights, and future pumpage demands. CWRM needs help from DWS to determine what constitutes this future authorized plan of ground water use, vis a vis the 90 percent threshold criteria. Increased studies and monitoring in this area have improved, Mr. Hardy said. The ongoing studies regarding the petition will be completed in late 2014 (i.e., right around the time that CWRM will make a decision on the first phase of the petition process).

Page 12 of the Power Point presentation deals with the "what if" portion of the process -- that is, what if CWRM in December 2014 decides Yes, to continue the process; or decides No, to put an end to the process. If the Commission chairperson recommends continuing the process of designation, and the Commission agrees with that recommendation, the process goes into the subsequent boxes of the flow chart, Mr. Hardy said. A Public Hearing would be held in Keauhou, and a Finding of Fact report would be made, incorporating all of the investigations and the Public Hearing testimony. A final report would go to the Commission, which would make a final decision on whether or not to designate. All of these steps must take place within 90 days, and no time extension is allowed, Mr. Hardy said. This means that the information-gathering and investigation is front-loaded, and CWRM has about a year to do that work.

Mr. Hardy said that the next question is what happens if the designation occurs. A Public Notice will be issued, and all existing users will have one year to apply for their existing use from the

date of the Public Notice's publication. There will be deadlines to meet, and it will be very important to meet those deadlines, Mr. Hardy said. He cited the example of Molokai Ranch, whose staff thought they had applied on time, but the application was incomplete. When the one-year deadline came, the application was still missing some information. Molokai Ranch contested CWRM's decision, and the State Supreme Court threw it back saying the application was incomplete. Mr. Hardy said that the one-year deadline is a really important deadline to get all of one's ducks in a row. He said that at the time of designation, existing uses are determined before future uses are determined. New projects have to wait until existing uses are established; this can take some time. Mr. Hardy said that a lot of public and agency review is involved on these water use applications.

He noted that domestic users in a designation area are **exempt** from having to apply for these water use permits. In Keauhou, many of these domestic users happen to be along the shore, where much of the Traditional and Customary issues are pertinent. Catchment systems are also exempt from the water permit process, but their owners must come in to report any wells and their water use.

Mr. Hardy referred to the top of Page 13, titled Flow Diagram of GWUPA (i.e., Ground Water Use Permit Application), which some people refer to as the "Horrendo-gram" for its complexity. This diagram, which is on CWRM's website, relates the various sections of the Code and Rules to the process, he said. The application process is a very open, public process.

On the bottom of Page 13, there are two forms: Existing Use and New Use forms. As mentioned earlier, the existing use applications are taken first, and the new use ones have to wait, Mr. Hardy said. The application fee is \$25.00, and government agencies are exempt from the fee. Both well operators and well owners/land owners must sign the application. If the operators and owners are different, they become co-permittees. This may or may not become a problem on the Big Island; it has been a problem on other islands, primarily Maui. In Maui's case, there are private developers who own the wells but have dedicated the wells to the Maui Board of Water Supply while the developers still own the land. That is something to consider if designation takes place here, he said. Applicants must address eight criteria, which Mr. Hardy suggested that Board members read through and think about. The County has input in the application process, to ensure that the land use policies are consistent with State and County general plans, etc. The County has a say in whether or not an application is approved, Mr. Hardy said.

Mr. Hardy said that application timelines are dealt with on Page 14. There is a 90-day decision deadline for action on applications with no objections, and a 180-day decision deadline for action on applications with objections. Public hearings must be held on applications with objections, although uses of less than 25,000 gallons per month do not require public hearings. All applications are subject to contested case hearings if requested at the appropriate time; Mr. Hardy noted that these are always open-ended regarding the timeline.

Mr. Hardy concluded his presentation by saying that CWRM relies heavily on the County Water Use and Development Plan for guidance, for planned and future proposed use. CWRM uses County Water System Standards to estimate daily demand; this encompasses use by hotels, individuals, parks, etc. In existing management areas, CWRM uses a new tool, an irrigation model called IWREDSS version 2.0, to estimate average daily ag water demands based on a five-year drought period.

Mr. Uyeda asked Mr. Hardy to return to the top of Page 10, to explain further the information regarding recharge of the aquifer.

Mr. Hardy said that slide was the profile of the aquifer system area. This information was from a 2006 study done by Water Resource Associates; it was information that was readily available in the scant 30 days that CWRM was trying to get information regarding the petition ahead of the Commission's October meeting. The point that the slide makes is that there is a lot of fresh water in the area, separated by a semi-pervious zone lying at something of a 45-degree angle from an area of salt water. The semi-pervious zone poses many questions to scientists, he added. What is known is that to the right of the semi-pervious zone on the slide are probably 152 million gallons a day of fresh water flux moving through there. The fresh water is higher on that side of the impediment, he said. On the left side of the side, makai of the fresh water is the basal aquifer, where water levels are very low with a lot of influence from the tides, Mr. Hardy said. The water there is very brackish; the chloride levels in that basal aquifer there are reminiscent of the Kahalu'u Shaft. Mr. Hardy said the point of this slide is that there is a lot of fresh water mauka of the basal aquifer, and that fresh water does not seem to be making its way makai in this area. The isotope study mentioned earlier will determine whether that is true or not, he said.

Mr. Uyeda asked about the slide on Page 8, which shows Sustainable Yield for Keauhou as being 38 million gallons per day (mgd). He asked if the high level water that Mr. Hardy just talked about comes into play in this 38 mgd.

Mr. Hardy said yes, it does come into play, because the area encompasses the entire zone: both high level and basal. He noted that an entire presentation could be done regarding how sustainable yield (SY) is determined. CWRM uses a robust analytical model developed in the 1980's by Mr. John Mink. This model was a simple way of figuring out on a regional basis how much water is in the aquifer, and how much water is allowed to go out. Using scientific principles such as Darcy's Law on Water Budgets, etc., CWRM comes up with a way of determining what percentage of recharge should be allowed to go through to protect the aquifer. The ratio that is used for Keauhou is for a basal aquifer, and the percentage is 46 percent. If this area were entirely high level, there would be a much deeper, thicker zone, and CWRM would use a higher percentage – along the order of 75 percent. That is, 75 percent of the recharge would be captured, Mr. Hardy said. Right now, CWRM is looking at the whole area, including the high level, and is sticking with the 46 percent. Actual use in the area is far below sustainable yield, Mr. Hardy said.

Mr. Robinson asked for confirmation that 40 or 45 percent of the sustainable yield in Keauhou is currently being used.

Mr. Hardy said that is roughly correct.

Mr. Robinson asked if the sustainable yield is 38 mgd.

Mr. Hardy confirmed this.

Mr. Robinson asked if it was normal to go through this sort of review process when the area in question has that low of a percentage of sustainable yield in use.

Mr. Hardy said no, he and his colleagues would not consider it normal. Mr. Hardy said that Lāna'i went through that kind of process, but ultimately, it was not designated.

Mr. Robinson said it seemed strange that CWRM is getting into this process despite such a low use of sustainable yield. He then asked who can submit a request to designate an area as a Water Management Area.

Mr. Hardy said anybody can; any interested person from the public can submit a petition.

Mr. Robinson asked what a person would have to prove in order to submit a petition. He acknowledged the eight criteria, but said he was curious about the National Park Service (NPS) and their submission. He asked if NPS is only specifically saying that the aquiline ponds are getting more brackish.

Mr. Hardy said that that was the major thrust of NPS's concerns. That, he said, was something new in the realm of petitions for designation; CWRM has not dealt with that before. He said that the Traditional and Customary issue is a big issue for the Commission; at least, the Commission is making it known that they want to look at this issue more closely. That is the reason, Mr. Hardy believes, why the Commission wanted to continue with this petition, rather than saying an outright "No." Mr. Hardy said that normally, petitions come in where the actual use is much closer to sustainable yield. In the cases Iao and Waihe'e, where there were a number of projects lined up which were actually breaking ground, sustainable yields were not enough to keep up. CWRM in the past concentrated its efforts on cases such as these, Mr. Hardy said.

Mr. Robinson said the submission in those cases would be to ensure that there was a sustainable yield available – not that aquiline ponds were becoming more brackish.

Mr. Hardy said yes, this aquiline pond thing is something new. As he mentioned earlier, there is talk of changing Keauhou's sustainable yield to accommodate; he was not clear if this would ignore the fact that sustainable yield in Keauhou is about ¼ of the recharge. He wondered if, through the studies and investigation, CWRM would find any problem. As it stands now, there is much more water going into the ocean, to continue to provide for the existing needs.

Mr. Robinson asked whether the long-term drought on the Big Island enters into the equation at all.

Mr. Hardy said yes, it does.

Mr. Robinson said that maybe the drought is the reason why the aquiline ponds are getting more brackish; not as much rainfall gets into the embedded ash layer at the National Park.

Mr. Hardy said rainfall levels in the area have declined; there is a lot of speculation as to why. The drought coincides with the long-term eruption of Kīlauea. The reduction in rainfall has corresponded with some declining water levels in the high level area, but on the basal side there has not been much of a drop in water levels, he said. Regarding chloride levels in the National Park, CWRM in fact has seen evidence that the chloride levels at the Park have improved since they started reporting from the Park's monitor wells. Meanwhile, nearby Kohanaiki is desalinating water, and irrigating with fresher water, and the speculation is that some of that fresher water is getting down to the Park now. He said more investigation is needed on those particular criteria.

Mr. Robinson noted that NPS is down-gradient from an old unlined dump which is out of use; he said who knows what was dumped there years ago – and what has been leaching through the water. He thought that leachate could be going into the aquiline ponds at NPS. Mr. Robinson wondered why NPS was not focusing on *that* possibility, and he wondered why instead NPS was trying to prevent water development in West Hawai'i. He asked why NPS did not focus on the elephant sitting in the proverbial living room – the unlined dump which could be leaching into the aquiline ponds.

Mr. Hardy acknowledged that in addition to that, there also have been nutrient issues. USGS found this in dry wells and cesspools, etc. That information has to be incorporated into the findings. Mr. Hardy said he believed that NPS touched on the issue a little bit in its petition.

CWRM is looking at this very thing, among the criteria that it must check, in consultation with the State Department of Health (DOH). The petitioner may not raise the issue very prominently, but if the Commission decides to move forward, CWRM will have to make some kind of finding on it.

Mr. Robinson said that would be good, because it seems that the petition's emphasis seems to be on water, but the issue is also the material that the water is picking up as it flows through the areas near the ocean.

Mr. Hardy said yes, that is correct.

Mr. Robinson said that there are some test wells in the area to the south of the National Park that tested specifically for such material. He said he thought that information would be very helpful. He said he would like to see NPS concentrate on something that is important, instead of just the water.

Ms. Lee Loy asked to turn to Page 12 of the Power Point, regarding the December 2014 date when the Commission makes a decision on whether to continue the process. Ms. Lee Loy asked, if the decision was not to designate, how soon somebody else could file another petition. She asked if there was a waiting period before another potential stakeholder could file a petition on Keauhou again.

Mr. Hardy said there was no waiting period. After the whole process was gone through, including Findings of Fact, it would be reasonable to expect the Commission to deny another petition, unless there was new information.

Ms. Lee Loy asked about Page 13, where it says that a designation "will not interfere with the rights of the Department of Hawaiian Home Lands." She asked for a bit more elaboration.

Mr. Hardy said that all permits issued by CWRM have standard conditions that say that the permit is subject to DHHL rights. He said that DHHL has a degree of first call advantages on water; Designated Water Management Areas are the only areas where CWRM has actually put aside and reserved water for DHHL. This has been done on Molokai, and at Pearl Harbor and Waimanalo on Oahu. Many of the reservations of water for DHHL were made in the mid-to late-1990's, and have never been used. All permits from CWRM stipulate that they are subject to DHHL rights, so getting a permit is not a guarantee, because DHHL may at some point claim its first-call rights.

Assuming DHHL can basically go to the front of the line for water, Ms. Lee Loy asked whether DWS or a private entity would provide the water.

Mr. Hardy said it would be up to DHHL as to who they would want to provide the water to them.

Ms. Lee Loy asked if a potential developer would have to downsize or lower the density of their development in the event that there were not enough water units available to ensure that a Trust like DHHL would have sufficient water.

Mr. Hardy said that was a possibility. He thought that if water were available outside of DWS, the Commission would ask DHHL what its alternatives are, aside from taking from someone else. The Commission would ask if DHHL could drill its own well. DHHL has been leaning towards its water reservations, although they have not even used them on Oahu. Taking from someone else is pretty extreme, but there is more of a possibility of that when the area's water use is close to sustainable yield and all of the available units have been allocated. That is the case in Iao on

Maui, although DHHL does not have water reservations there yet. DHHL is trying to work with the Maui Water Supply, and nobody's water has been taken yet.

Mr. Uyeda said he was trying to understand the petition. He asked if it were correct that pumping ground water upstream above the near-shore will affect the near-shore. That is what the NPS petition seems to be saying. He asked how many other scenarios there were like this in the State, where ground water pumped upstream affects near-shore aquifers.

Mr. Hardy said that is why the Traditional and Customary issue is a big issue right now, because anywhere water is pumped, one basically captures whatever leaks to the ocean. It does not really matter whether one is pumping it upstream or parallel; the point is that one is capturing what is underground that is leaking to the ocean. If the fresh water portion of that water is taken away, what fills the ocean is going to be saltier along the coast, if it is a significant amount of capture. Mr. Hardy said the real question is: are you capturing so much that it is now raising the chlorides to higher levels, and even if it is, so what? This is something that CWRM needs to investigate, including the biological effects. An entire presentation can be done on the different species and how they are affected by the higher chlorides.

Mr. Uyeda asked whether, if the Commission designates Keauhou as a Management Area, the door is then opened to other aquifers in the State being designated, based on how the geological and hydrological connections are. He said that potentially, 80 or 90 percent of the State's aquifers could have petitions filed on them, based on the designation to Keauhou.

Mr. Hardy agreed that depending on what the Commission decides, it could open the door, especially if the Commission decides to designate Keauhou at this low of a pumpage. He said that everywhere it rains, the water goes out to the ocean, and you are capturing it; this affects Traditional and Customary issues and gathering rights. The question is: are these impacts significant? That is what this Commission is tasked to study right now.

The Deputy asked Mr. Hardy whether CWRM can assemble all of the resources in-house to make its evaluation. He noted that biological, hydro-geological, Traditional and Customary and other studies need to be conducted. He asked how CWRM could do all of that in-house, while still doing its other business of reviewing permits for wells, construction, pump installation and other things.

Mr. Hardy said he and his colleagues were asking themselves the same question. On water quality issues, CWRM is relying on DOH's expertise. CWRM is consulting with the Department of Aquatic Resources on biological issues. He added that the Department of Land and Natural Resources, to which CWRM belongs, has some 900 employees; CWRM is spreading the work around.

Mr. Robinson asked who normally submits applications for designation.

Mr. Hardy said community groups, private citizens, and even the Commission itself has submitted applications for designation.

Mr. Greenwell asked if this petition over the one-year period is going to put a hold or a stop on any projects that are coming up, or are already on-line.

Mr. Hardy said no, he did not think so. At least no hold or stop would come from the Commissioners, but developers may be weighing the risks to their projects as the prospect of possible designation looms.

The Manager-Chief Engineer asked about the possibility of more information being provided to the Commission that could lead the Commission to deny the petition even before the December 2014 date.

Mr. Hardy said that if the information was compelling enough, that would be possible. The Commission left open the possibility of making a decision prior to December 2014. The Commission has said that it wants to come over to Keauhou to look at the National Park, and get their boots on the ground, he said. There is a lot of information out there that CWRM has not had a chance to get to yet, and there are a lot of studies. Judging from what Mr. Hardy and his colleagues have been able to peruse very quickly, there does not seem to be much of a concern. However, now with the petition, CWRM has to peer through the microscope more closely.

Ms. Lee Loy asked one last question. She noted that she lives on DHHL Homestead land. She asked, if Keauhou is designated and DHHL is a stakeholder, can DHHL get water units from an existing DWS well, or would DHHL have to construct a new well.

Mr. Hardy said that is a question for DHHL. The Commission would say if there is water available, getting water units from an existing DWS well would be an alternative to harming another user from whom DHHL would be taking water units. If no water is available, it might be cheaper for DHHL to drill their own well, or start taking water from DWS because the pipe is right next to DHHL property, etc.

Chairperson Taniguchi thanked Mr. Hardy for his presentation, and said he was sure that Mr. Hardy would be invited to speak to the Board again.

9) MISCELLANEOUS:

A. <u>DEDICATION OF WATER SYSTEMS</u>:

(Handled earlier in the meeting.)

B. PROFESSIONAL SERVICES AGREEMENT:

Professional services for software development, implementation, training and hosting for management of the Department's contracts and progress payments.

• Consultant: To be determined.

• Estimated Fee: \$60,000.00

The Department recognizes the need to continue to improve its efficiency. This professional service agreement will focus on improving efficiency in the management of the department's projects.

The Manager-Chief Engineer recommended that the Board approve the above project, and that either the Chairperson or Vice-Chairperson be authorized to sign the documents, subject to approval of Corporation Counsel.

MOTION: Mr. Arikawa moved to approve; seconded by Mr. Robinson.

The Deputy explained that as part of the Strategic Plan, the Department recognizes the need to improve its business processes and efficiency. As it stands now, DWS has everybody maintaining their own separate files. DWS wants to consolidate its contract management by using existing software. DWS wants a platform that exists so that the Department is not somebody's guinea pig, and DWS is looking for a local or near-Hawai'i software assistance representative. When DWS needs assistance on the software, it needs somebody readily available

as far as time zone. The idea is to consolidate DWS's contract management, and the cost-to-benefit is going to help the Department. DWS will be able to access progress payments, and the Manager-Chief Engineer and the Deputy will be able, at their fingertips, to see what project is paid up to what amount. Currently, the managers must physically hunt somebody down to find out what has transpired so far on a contract. DWS wants to keep this Professional Services Agreement finite, and to keep it within a specific scope so that it does not get out of hand.

Mr. Greenwell noted that this Item should be 9(B), not 9(C).

Chairperson Taniguchi asked that the item numbering be corrected.

<u>ACTION:</u> Motion carried unanimously by voice vote.

C. AD HOC COMMITTEE PURSUANT TO HRS SECTION 92-2.5(B) TO PRESENT, DISCUSS AND/OR NEGOTIATE FOR LEGISLATION REGARDING THE PLACEMENT OF SUCH LIENS ON REAL PROPERTY FOR NON-PAYMENT OF WATER BILLS:

Ms. Lee Loy reported that she had reached out to various members of the Big Island's Legislative Delegation, who were all very supportive of the Water Board Ad Hoc Committee coming up with language for this proposed legislation. Ms. Lee Loy also approached other counties' water board members, who were also very supportive of the Committee putting together a legislative package. This makes it possible for the Committee to move forward with crafting the legislation, she said.

Ms. Lee Loy did some research related to the Hawai'i Revised Statutes, which she forwarded to Corporation Counsel. The upshot of that review, along with Ms. Garson's comments, is that there are some vehicles already within the Hawai'i County Charter that allow the Committee to draft new legislation. There are also elements in the Hawai'i County Code that the Committee can use, along with elements in the Hawai'i Revised Statutes that the Committee can try to amend, Ms. Lee Loy said. There is still a lot more vetting that needs to occur with Corporation Counsel, she added.

D. AD HOC FINANCE COMMITTEE REPORT:

Chairperson Taniguchi said the Ad Hoc Finance Committee will probably sunset at the Board's January meeting, when DWS's auditors present their report. The Ad Hoc Committee was put together to go over a few specific items, and all of the items have either been mitigated or corrected. He said that there would be a report after the auditors' presentation.

E. MANAGER-CHIEF ENGINEER'S EVALUATION:

Chairperson Taniguchi asked whether this Item was actually for next month's Agenda.

The Manager-Chief Engineer said there had been some confusion regarding the evaluation process. He said he believed that the previous Board action, spearheaded by Mr. Kaneshiro, had the evaluation taking place prior to the beginning of the *fiscal* year (i.e., before the end of June). That has already passed, he said, and then it came up that the evaluation is done during the *calendar* year. The Manager-Chief Engineer said it did not matter to him. He said he assumed that Mr. Kaneshiro was taking the lead over doing the evaluations.

Mr. Kaneshiro said that the Board expects the Manager-Chief Engineer to do his Progress Report, to show what his progress is on meeting various goals for this calendar year. Once the Board receives the report from the Manager-Chief Engineer, the evaluation can be completed.

Mr. Kaneshiro said that hopefully, the evaluation can be done at the next meeting, or before the next meeting.

Chairperson Taniguchi asked whether the upcoming report will be the Annual Progress Report.

Mr. Kaneshiro confirmed this.

The Manager-Chief Engineer asked whether the evaluation will be done before the next Board meeting or just directly with Mr. Kaneshiro.

Mr. Kaneshiro said no, it should be done with the Board present, along with the Board Chairperson.

Chairperson Taniguchi said that the entire Board should be involved.

The Manager-Chief Engineer asked whether, prior to presenting the Annual Progress Report to the entire Board, he should work with Mr. Kaneshiro first, or with the Chairperson.

Chairperson Taniguchi said that the Manager-Chief Engineer could work with the Chairperson.

The Manager-Chief Engineer said he would prepare a report on the completed goals and objectives that will be ready before the next Board meeting in December; he would work closely with the Chairperson. The Manager-Chief Engineer said that he came up with quarterly reports through Ms. Aton; he will follow up on those quarterly reports and finalize those reports for the next Board meeting.

Chairperson Taniguchi said okay.

Mr. Kaneshiro said that hopefully next year, it can be more specific on what is happening throughout the year. There should be a quarterly review, and the progress report should be a report from the Manager-Chief Engineer.

The Manager-Chief Engineer said that is what he has been trying to do – to come up with the quarterly reports. As for the quarterly *review*, it obviously did not occur. He said that he would continue to come up with the quarterly reports; because obviously, goals and objectives change, and when they do change, the Department will let the Board know what the changes are, i.e., what needs to be dropped or added to the Business and Strategic Plan requirements.

Chairperson Taniguchi said it was a great start. The quarterly reports were informative, and brought the Board up-to-date. As the process is refined, it will get more specific. He asked the Manager-Chief Engineer to condense the quarterly reports into one report.

The Manager-Chief Engineer said he would do so.

F. ENERGY MANAGEMENT ANALYST UPDATE:

Ms. Myhre reported that water consumption has increased to 1.6 billion gallons per two-month period. The increase in consumption correlates with DWS's energy costs, which have risen as well. Ms. Myhre said that by taking October's energy bill of \$1,795,000.00 and multiplying it by 12, the electric bill for the year comes to \$21.5 million. That figure correlates with the volume of water that DWS is pumping. That is why the electric bill is rising, Ms. Myhre said. Electric costs have been stable, and so DWS's Power Cost Charge remains constant, too.

DWS's non-revenue water is a little higher than in the past, Ms. Myhre said. The Department's leak detection loggers are being replaced as they stop working due to age.

Mr. Kaneshiro asked if there is a replacement schedule for the loggers.

Ms. Myhre said yes, it is not formal, but every year DWS replaces a few loggers.

Mr. Kaneshiro said that if the answer is yes, he wondered why the loggers are still in use or in operation past their lifespan.

Ms. Myhre said that over the past several years, the replacement has been linked to DWS's budget numbers; DWS has not replaced aging loggers right away because of the lack of money to do it. Now that budget numbers are improving, DWS is looking to replace loggers.

Mr. Kaneshiro said that in other words, DWS does not have a replacement schedule; the budget is a concern. He said DWS should have replacement of loggers in the yearly Budget.

The Manager-Chief Engineer said the Department will prepare a replacement schedule. He noted that the 625 loggers cited in Ms. Myhre's Green Initiatives Report were failed loggers that DWS was able to get replaced by the suppliers. DWS plans to continue its leak detection program, and the only way to do so is to make sure that the loggers are reading and working properly. He said that the Department will come up with a good replacement schedule.

Mr. Robinson asked for confirmation that the amount of non-revenue water was calculated by comparing the amount of water pumped or captured in the system with the billings that DWS sends out. He asked whether the 20 percent non-revenue water represented the amount that was pumped or flowing down by gravity, that DWS never received revenue for.

Ms. Myhre said that is correct. Besides leaks, non-revenue water includes hydrant flushing, theft and inaccuracies due to aging or faulty meters.

Mr. Robinson asked if the 20 percent was standard in the industry.

Ms. Myhre said it was a little high; DWS's non-revenue water percentage is lower than it had been. The standard for the industry is about 15 percent. Turning to DWS's fuel use, fuel use has dropped between January through October 2013, compared with the same period last year. This means that DWS is saving money on its fuel budget this year.

On solid waste recycling, DWS has been consistent in its average amount of recycling over time. She noted that the next Household Hazardous Waste Recycling events will be on the first weekend in December in Hilo, and the following week in Kona.

DWS's hydro-generators continue to provide revenue and electricity. Ms. Myhre noted that the Kaloko generator's generating capacity has decreased as the Palani Transmission System was brought on-line and optimized.

The Rider M contracts are bringing in \$21,000.00 in savings, which is slightly less than last year's amount. Once the Hualālai Well is repaired, the savings should increase. DWS has one timer that has been shut off, so DWS is operating the well during peak HELCO hours, i.e., DWS is not getting energy savings on that well at present. Once the Hualālai Well is repaired, the timer will go back on.

Regarding the Lālāmilo Windfarm project, DWS is processing the Notice to Proceed paperwork. The contractor is poised to move ahead which will enable them to get their Federal tax credits; the contractor has to spend a certain amount of money in order to obtain the tax credit, Ms. Myhre said. The environmental team was on-site last week. The team is the same environmental team that has been used on Maui and Oahu, so DWS is confident that the team knows what it is doing.

The environmental work is the limiting factor to the project at this point, she added. Once the environmental work has reached a certain point, DWS can obtain its new lease to the property from the State, Ms. Myhre said.

Ms. Myhre was unable to attend the November meeting of the Mayor's Energy Advisory Commission, which next meets on January 21. The current focus of the Commission is transportation, education/outreach and community power. The community power initiative is looking to make one area on the island energy-efficient or self-sufficient in energy generation.

Mr. Greenwell said that regarding DWS's power consumption, he was concerned about droughthit Waimea, where the pumps must be running continuously. He asked if Ms. Myhre's power consumption figures took Waimea into account.

Ms. Myhre said that her water consumption figures covered a two-month total through September, and the electricity use figure was for October. She noted that DWS went into a water restriction for Waimea in early November, so the numbers do not correlate exactly. However, the consumption numbers do take into account the pumpage of the wells, as well as the Waimea Treatment Plant.

Mr. Greenwell said his concern was that DWS is using a lot of electricity to pump water during the drought.

The Manager-Chief Engineer said that there will probably be a spike in the numbers next month, when the Power Cost numbers come out.

G. MONTHLY PROGRESS REPORT:

No discussion.

H. REVIEW OF MONTHLY FINANCIAL STATEMENTS:

No discussion.

I. MANAGER-CHIEF ENGINEER'S REPORT:

The Manager-Chief Engineer will provide an update or status on the following:

- 1) Pu'ukala/Kona Ocean View Properties Subdivision Improvement District Update The contract has been executed, and the Notice to Proceed for construction will be going out. The date is December 30, 2013, the Manager-Chief Engineer said.
- 2) Waikoloa Reservoir No. 1 Update Mr. Inaba said the Environmental Assessment (EA) is ongoing, along with the State Historic Preservation Division (SHPD) review of the plans. The consultant has contacted the people involved with the SHPD review; the consultant last week said they were not done with their negotiations with the environmentalist doing the EA. Mr. Greenwell asked about a timeline for completing the Environmental Impact Statement (EIS). Mr. Inaba said that the consultant had raised this question, too, but so far there has been no definitive answer. DWS brought the question up with the State and with the Federal Emergency Management Agency (FEMA), noting that this would delay the project. The environmental studies, etc., are a requirement to obtain FEMA funding. Mr. Inaba figured that on a fast-track basis, the EA would be a three-month process. The Manager-Chief Engineer said Mr. Inaba will work with the consultant and FEMA to get the timeline firmed up so that the project can proceed.
- 3) <u>Waimea Water Restriction</u> DWS issued a Water Restriction Notice a couple of weeks ago for the Waimea Reservoirs. DWS has three levels of Notices; one is when the

- reservoirs reach 100 million gallons, the level that DWS had been below, due to one Waimea reservoir being down. This level of Notice is normal Conservation, the Manager-Chief Engineer said. Because of the current dry period, the water levels dropped below 60 million gallons; that triggered the Water Restriction a couple of weeks ago. Right after the Notice was issued, there was some rain in Waimea, and the levels rose to 77 million gallons, but as of today, the level stood at 75 million gallons. The weather is getting dry again, and DWS wants to monitor the situation before lifting the Restriction. Hopefully, with additional rain, DWS can lift the restriction, but the weather has not been too cooperative so far.
- 4) Public Information and Education Specialist Update The public was notified regarding a main break in Waiākea Uka main break, and damage to a transmission line by construction in the Puna Water System triggered bulletins via text, radio, etc. The Waimea Water Restriction Notice was advertised in the newspaper and via emergency messaging, etc. A Pepe'ekeō Water Source Advisory went out as a hand-carry to the community. DWS got inquiries from the public regarding waste in the Water Restriction area, and advice was given regarding irrigating at night and other measures to save water. Ms. Aton updated the Board on the status of the Hawaiian Ocean View Estates (HOVE) standpipe application process audit. All audits, including the HOVE audit, are on hold, pending the hire of a permanent Legislative Auditor, as well as a Peer Review Assessment. This peer review is required before further audits can continue at the Legislative Auditor's Office. Chairperson Taniguchi asked if the HOVE audit is complete. Ms. Aton said that it is pending, and she was not sure at what stage the audit was. The Legislative Auditor did ask DWS some clarification questions back in September. The Manager-Chief Engineer said he would not consider the audit completed, because it has not been submitted for review by DWS yet. The audit is on hold, he said, adding that he did not know whether the audit was completed. The audit still needs to be reviewed by DWS and the Mayor's Office. Chairperson Taniguchi asked whether it is just a matter of the Department reviewing and responding to the audit, once the audit is completed. The Manager-Chief Engineer confirmed this. Chairperson Taniguchi asked for confirmation that the scope of the audit was simply to determine whether or not DWS followed its own Rules and Regulations. The Manager-Chief Engineer confirmed this. Chairperson Taniguchi remarked that in that case, this should be a pretty simple matter. The Manager-Chief Engineer said that DWS is just waiting on the Auditor's Office. Chairperson Taniguchi said the delay was unbelievable. The Manager-Chief Engineer said that the Auditor had left, and there was somebody next in line who was carrying the ball from there; he was not sure whether any additional work on the audit was done. Chairperson Taniguchi said that the Auditor's Office promised the Board to have the audit by a certain time, along the order of three months or so. Ms. Aton said the reason that DWS checked with the Auditor's Office on the audit's status was because the Auditor's Office said that the audit would be ready sometime in late August to mid-September. Chairperson Taniguchi said this holds up everything else. Mr. Robinson asked what the Peer Review meant. Ms. Aton said that it is some kind of process or assessment that needs to be completed by a particular timeline. The Auditor's Office said that the review is going to be done by the second week of December, and that the Auditor's Office would receive a letter from the peer review by the end of December. Once that letter is received, all suspended audit work can resume, Ms. Aton said. Mr. Robinson asked who was doing the peer review. The Manager-Chief Engineer said he did not know. Ms. Aton said she did not ask; she only took notes from the discussion.
- 5) <u>Recognition of William Y. Thompson Award Winner</u> The Manager-Chief Engineer said that DWS was honored to have one of its nominees selected for this prestigious

award. Mr. Andrew Higa, Water Service District Supervisor in Kohala, was presented with this year's award at the HWWA conference on Maui. Chairperson Taniguchi said that the Board is extremely proud of this statewide recognition of Mr. Higa.

J. CHAIRPERSON'S REPORT:

No report.

10) ANNOUNCEMENTS:

1. Next Regular Meeting:

The next meeting of the Water Board will be held at 10:00 a.m. on December 17, 2013, at the Department of Water Supply, Operations Center Conference Room, 889 Leilani Street, Hilo, HI.

Chairperson Taniguchi noted that there will be a Contested Case hearing at the December meeting.

2. Following Meeting:

The following meeting of the Water Board will be held at 10:00 a.m. on January 28, 2014, at the Department of Water Supply, Operations Center Conference Room, 889 Leilani Street, Hilo, HI.

11) **ADJOURNMENT**

ACTION: Mr. Arikawa moved to adjourn; seconded by Ms. Lee Loy, and carried unanimously by voice vote.

Chairperson Taniguchi adjourned the meeting at 11:53 a.m.

Secretary

Anyone who requires an auxiliary aid or service for effective communication or a modification of policies or procedures to participate in this Water Board Meeting should contact Janet Snyder, Secretary, at 961-8050 as soon as possible, but no later than five days before the scheduled meeting.

The Department of Water Supply is an Equal Opportunity provider and employer.

Notice to Lobbyists: If you are a lobbyist, you must register with the Hawai'i County Clerk within five days of becoming a lobbyist. [Article 15, Section 2-91.3(b), Hawai'i County Code] A lobbyist means "any individual engaged for pay or other consideration who spends more than five hours in any month or \$275 in any six-month period for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials." {Article 15, Section 2-91.3(a)(6), Hawai'i County Code] Registration forms and expenditure report documents are available at the Office of the County Clerk-Council, Hilo, Hawai'i.