SPECIAL BOARD MEETING MINUTES
BOARD OF WATER SUPPLY
Tuesday, September 17, 2013

The Board of Water, County of Kaua‘i, met in a special meeting at its office in Līhu‘e on Tuesday, September 17. Board Chair Randall Nishimura called the meeting to order at 2:05 p.m. On roll call, the following answered present:

BOARD: Mr. Randall Nishimura, Chairperson
Mr. Clyde Nakaya
Mr. Hugh Strom
Mr. Raymond McCormick
Mr. Sherman Shiraishi
Mr. Larry Dill
Mr. Michael Dahilig (entered @ 2:14 p.m.)

Quorum was achieved with 6 members present at roll call.

STAFF: Mr. David Craddick
Mr. Kirk Saiki
Mr. Dustin Moises
Mr. Val Reyna
Mr. Roman Silvestre
Mr. Carl Arume
Ms. Sandi Nadatani-Mendez
Ms. Peggy Yoshioka
Mr. Dan Kittredge
Mr. Alfred Levinthol
Mr. Chris Nakamura
Ms. Christine Erorita
Ms. Mary-jane Garasi
Deputy County Attorney Andrea Suzuki

GUESTS: Mr. Jim Williams, Mears Consultant
Mr. Manabu Tagomori, Oceani Consultant
Mr. Kevin Gooding, Oceani Consultant
Mr. Steve Rapozo, Self
Ms. Janice Bond, Self
Mr. Jack Wilhelm, Self
Mr. Ken Taylor, Self
Ms. Hoku Hokee Cabebe, Self
Ms. Fern Rosenstiel, ‘Ohana O Kaua‘i, Self
Mr. Roy Oyama, Self
Mr. Myron Dobashi, Self
Chief Robert Pa, Kingdom of Atooi
Mr. William Megeo Denic, God, people
Mr. Hall Parrott, Self
Mr. Ron MacDonald, All
Mr. Tom, Godbey, Self

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Ms. Elsie Godbey, Self
Ms. Pua Nani Rogers, Hookipa Network
Ms. Carol Bain, Self
Ms. Katherine Muzik, Kulu Wai
Mr. Dustin Barca, 'Ohana O Kaua'i
Mr. Juan Wilson, Island Breath
Mr. Chris DeAngelo, The Garden Island Newspaper
Mr. Brian O’Brien, Self
Ms. Louise Sausen, Ko pae aina
Ms. JoAnn Yukimura, Self & county politician

ACCEPTANCE OF THE AGENDA:
Mr. Nakaya moved to accept the agenda as circulated; seconded by Mr. Dill; with no objections, motion was carried with 6 Ayes.

NEW BUSINESS:
Re: Discussion and possible action on Kahili Well energy savings project EIS

BACKGROUND
Manager Craddick explained the purpose of the Special meeting was to provide factual information for new Board members about the Kahili Well project. The Board of Water Supply’s goals were to provide safe (no adverse chemicals in the water), reliable (sustainable) and affordable water.

Deputy Manager, Mr. Saiki and Manager Craddick presented the existing water sources which are groundwater sources or vertical wells, tunnels and surface water sources and that the Moku of Puna in the map of existing sources (dots) represented the 50 wells or tunnels. The location of the wells were not shown in the handouts for security reasons.

Deputy Manager, Mr. Saiki explained the Advantages: 1) vertical wells are low in labor cost and 2) wells are interconnected where feasible. Disadvantages: 1) Deep well pumps require high electrical power and 2) Kaua'i’s high electrical power rates are likely to increase in the future.

DISCUSSION:
A guest questioned the power increase and pointed out that solar power is cheaper than oil.

Deputy Manager, Mr. Saiki mentioned that Photo Voltaic (PV) would be discussed as an alternative.

Surface water sources Advantages: 1) Kaua'i has abundant surface waters 2) electrical cost of moving the water is lower. A surface water treatment plant is needed to make the surface water potable, but would be costly.

Manager Craddick added that gravity water is not new. The Makaleiha Tunnel is gravity source. The advantage of gravity source of water is no electrical cost. The project is in a water shed area land zoned conservation where no chemicals sprayed in the ground. This well would result in a lower escalation of water rates. There is the potential to produce hydro power at 1100 foot
elevation (Līhu‘e has 500 foot elevation) with the elevation difference there is no pressure at the well. Gravity water source has full tunnel flow control.

Mr. Brian O’Brien heard that it would cost $30,000 to test the water for chemicals in the wells and wanted to know if the DOW already tested the project area.

Manager Craddock explained that the water would be tested during the Environmental Impact Statement (EIS).

Mr. Jack Wilhelm’s understanding is that the project is not in a watershed area and asked if the watershed area has been declared? What jurisdiction does it fall under?

Manager Craddock clarified that the project is on Grove Farm land and that Grove Farm has restricted public access to the high protected area. There are no official designations according to the Water Commission processes.

Ms. Nani Rogers commented that the area is designated as an Ahupua’a (watershed) which has natural boundaries. If there is a ridgeline, a river, a mountain, coast mauka to makai it is a watershed. Ms. Rogers requested Manager Craddock check the cultural designations because Awapuua are located on Kaua‘i maps.

All public issues would be resolved during the EIS process (site impacts on drilling fluids, archaeological, cultural concerns, storm water, flora and fauna). Adverse impacts on stream flows may limit the water that is sustainably developed. In places where water was developed with vertical wells near streams, stream flows would be reduced. One issue is the high percentage of source in one location. The project would be located in one source and would be addressed in the EIS.

Ms. Rogers understood that this would be the last time a well would be drilled.

Manager Craddock could not say if Kaua‘i would not increase population. If the one source was blown up, this could be an issue with a potential disadvantage.

A guest asked wouldn’t a potential source of development be a disadvantage on population growth? An abundance of cheap water would bring in industry use or suburban use of water.

Manager Craddock commented that customers are already here.

A guest questioned if the water rates go down and there is an abundant water, isn’t that a stimulus to population growth?

Manager Craddock had not heard of this issue and could be brought up in the EIS process.

A cross section of the horizontal well was presented on a figure which also showed vertical wells. Control valves will be used to draw water from and shut off water from the well. The well will be drilled through dike formations in the mountain, shown as vertical lines on the figure. The dikes crisscross the Waimea rock formation. Other islands, Waihee, Lāna‘i City and Honolulu have dikes that control the flow. To prevent water from high pressure dike systems are not drained into a low pressure dike system. During the drilling, which is monitored, a solid
louvered casing can be put across the mountain. There are two lines of casing that were in the Request for Proposal (RFP) that were priced.

The Alakai Swap is five (5) miles away from a possible well location. If the well is drilled, it is unknown what the rock formation will be. The contractor would be required to install blow off prevention equipment in the event the wellhead is damaged. The blow off prevention equipment is rated to withstand a pressure of 15,000 psi, 1,200 psi is expected at the wellhead.

Existing vertical wells are pumped and when the water level goes down, there is no barrier stopping the ocean from coming underneath.

At the EIS scoping meeting, the proposed well alignments went perpendicular to the Kahili Mountain Ridge, where there are two (2) existing tunnel sources. In the late 1990’s, the Newcomb snail was found and this was the reason the DOW has not gone to the ridge line to develop. During the EIS process, this site was not a viable source because of the effect on the endangered species. The DOW would work with the land owner to look at other potential sites which may or may not be used.

Within the Moku of Puna, source is supplying all of the customers. The savings goes outside of the Moku because the water rates are island side.

The DOW is in the investigative phase of looking for sites. Permitting has to be done before the EIS is completed to address the communities concerns.

The National and Scope EIS approving agency is Federal. This project’s approving agency is the Board of Water Supply (BOWS). The law requires water quality, archaeology issues, cultural impacts, flora and fauna, alternatives (D Cell), and energy projects, PV and the economic feasibility.

Informational meetings will continue in October. The draft EIS is scheduled to be completed by July 2014, and the Final EIS is scheduled for completion by March 2015. The EIS will cost about $1.1M. The DOW has a $1M grant from the Environmental Protection Agency (EPA) via the Department of Health (DOH). The remainder of the cost is divided by 23,000 customers. The $100,000 cost = $4.35 for every customer to finish the EIS a one-time cost. Yearly money comes to the State from the Federal Government and is loaned to the Counties. Kaua‘i and Honolulu borrowed almost the same amount of money. The interest payments that the DOW pays back will go back to the state. With the grant, the DOW would be given back the interest that was already paid.

Ms. Elaine Dunbar asked if the project is under the Oceanic consultant and why aren’t they paying for the EIS? Oceanic or Grove Farm would get the profits on the proposed development. She was unclear if the cost would go down and that they don’t have enough water.

Manager Craddick explained that existing customers would benefit because it could reduce operating costs. There is enough treated water and not surface water but did not know if there were any wells.

Ms. Rogers said the water is from Nonou, Waialeale.
Mr. Wilhelm operated Waialeale surface water treatment plant for eight (8) years. The water is from Waiahi stream diverted by a ditch system through a tunnel and feeds into the formerly known Kanaka pond. The treatment process involves hydro choride and liquid foam. As a proven technology, the plant is designed for 4.5M gallons of water that currently averages about 2.8M gallons a day. The water feeds into Lihue and Hanamaulu and supposedly part of the Hui Development. There is need for this to go beyond Wailua River. There is cultural significance in the operation and utilization of surface water. Mr. Wilhelm posed the question if anyone has seen the tunnels that were dug before and developed by the forefathers. This is for the people that should be kept that way.

Public Relations Program – Manager Craddick reported the EIS process requires public input. To date, meetings were held with special interest groups, government officials (Mayor, council members, and state representatives). Two (2) general public meetings held October 2012 and the EIS scoping meeting on April 2013.

Public concerns were identified: Cultural significance of Mt. Waialeale, impact to stream flows and aquatic ecosystems, reliability of the drilling technology, DOW should seek other alternatives for lowering energy costs and other operating costs.

The issue of more water may encourage more development. This has been a major source of confusion in the public. The DOW proposes to shut down existing sources. The treatment plant costs $1.95 including power cost and $1.75 to operate the plant plus 20 cents per 1,000 gallons. In comparison of high energy wells, out of the 90 cents, 75 cents is the electrical cost to operate.

*The purpose of the well is to cut the existing operating costs and not to make new water sources.*

Ms. Dunbar questioned if horizontal drilling through a mountain are permitted on conservation land and if horizontal drilling has been done in Hawai’i as planned by the DOW.

Manager Craddick responded there are a number of dike confined tunnels in conservation land around the State. There has not been horizontal drilling in Hawai’i to develop water.

Ms. Dunbar asked if this is considered a permitted conservation use or would this have to go through the Land Use Commission.

Oceanit consultant, Mr. Kevin Gooding commented that a Conservation District Use Permit would not have to go before the Land Use Commission.

Ms. Louise Sausen inquired if solar panel could be used instead of drilling which would be cheaper?

Manager Craddick stated solar panel would be in the EIS.

Ms. Sausen comes with her Hawaiian cultural background. The islands are Hei motu heivaka (there is only enough sustainably) and Sausen asked where is the water in Kokee? The waterfalls are lost and Kaua’i is only supporting tourism?

Manager Craddick covered cost to ratepayers is a concern. Many people are okay to increase cost to avoid the project. This will also be looked at during the EIS process.
Public Outreach Program - Towards the completion of the EIS process, Manager Craddick stated there will be additional discussions with the community. The DOW would focus on: 1) holding special meetings with cultural, environmental and interest groups, 2) interest groups would be reestablish who the consultants spoke to in the past, 3) develop community-wide educational outreach materials on the project using news media. DOW staff would administer the PR or outreach assistance from contractors to restart the program.

Progress to Date – The DOW’s RFP had no engineers with experience on this type of project. Oceanit hired a sub-consultant, Mears Group, Inc. from Houston, Texas. The DOW needed input to complete a proper EIS. The contract cost for Mears Group to do the EIS investigation, planning, permitting, and project management is $1.9M. The total contract expenditures to date is $450,000 (23%).

Financing to Date - The current funding source is $2.0M (DOH), SRF Grant: $1.0M and State DOH SRF Loan: $1.0M (which is paid back). The Scope of Work: $1.2M site investigation, EIS & permits and Design at $0.7M. If the Board accepts the EIS more money could be spent.

Summary – Kahili gravity high level well would reduce operational costs, increase source reliability 24/7. Being in the upper watershed would minimize contamination sources. Key items in the current contract: EIS preparation and permits. If the EIS is accepted, drilling and testing would be done on the high level well which is currently not part of the contract.

Recommendation to Re-start the Project – Re-start the project with revised public outreach program with better understanding of the project. No additional funds are required. With the Board’s approval, the Manager would authorize the contractor to continue to work based on the contract scope, timeline and costs and require periodic progress reports submitted to the Board.

Chair Nishimura opened up question and answer for the public the next 15 minutes. Each person was asked to state their name and address for the record.

Ms. Fern Rosenstiel, ‘Ohana O Kaua‘i
Question: Is the drilling experimental? There is a misconception in the community.

Manager Craddick: The drilling is not experimental and has never been used in Hawai‘i.

Question: Can this be used throughout the world to tap into water sources?

Mr. Williams, Mears Group: California and North Carolina – drilling into the slopes, hillsides for irrigation and other water sources in a similar manner of drilling.

Question: Clarify the depth you will be drilling?

Manager Craddick: Drilling would start at the elevation of 1,100 ft. which has not been determined until the EIS process is completed. The RFP maximum is 12,000 ft. (2 miles) into the mountain. From all sites, the ridge line is not reached. Some of the dots on the map showed where drilling areas could happen. Drilling close to the ridge would cost less.

Question: What were the comparisons of the ground to the mountain of what was done in North Carolina and in Hawai‘i?
Mr. Williams, Mears: Investigations in Hawai‘i would determine the comparisons.

Question: Would other wells stop other forms of fresh water and replace with the other source?

Manager Craddick: The recommendation would be from the EIS process. In order to obtain the DOW’s goal is to not pay for power that is not being used. To be successful, would be to shut down the other wells and remove the power. If someone blew the source up, generators would have to be run and power would be shut off. There needs to be no net effect of the ground water to the ocean and water would be picked up closer to the source.

Question: Was this project to develop additional water sources to the aggregate development for business development or bio tech corporations?

Manager Craddick: This is not correct. The only water customers would get is to operate their bathrooms, sinks and possible labs.

Question: Does everything come from diverted rivers?

Manager Craddick: Was not sure where it comes from and it was not from the DOW.

Ms. Louise Sausen, Hā‘ena

Question: Did anyone take the cost of solar power so there is no energy cost? With the amounts used to drill into Mt. Waialeale, it seems it would be less. The only thing Ms. Sausen heard is the energy cost of power and nothing to do with the lack of water.

Manager Craddick: Referred to the packet posted on the web site that showed benefit and cost ratios. Solar power would be in the EIS as an alternative. Shutting down the first 3M gallons of water in the treatment plant would be an expensive cost. The electric cost would be very low but to put in photo voltaic would a small benefit. Wells are in gulches and there would be no where to put the solar panel unless it would be on top of the streets. The consult would have to address this issue.

Mr. Jack Wilhelm, Self

Question: Referred to Oceanit - Figure 2-1 - Conception diagram. How are you going to bore (24") up where the dikes are?

Manager Craddick: The State Water Commission requires a 3” annulus around the outside of the casing. The first casing will be 18” with 13” pipe in it (18” + 3” + 3” = 24”) with a hole size that is cemented off. The open hole is 18”. If a casing is put inside and sealed off a lower dike system, it could end up with a 13” hole.

Question: How are you going to maintain the horizontal alignment at 12,000 ft? Will elevation be lost as you proceed into the mountain?

Mr. Williams, Mears: It depends on the type of material you are drilling but if it is rock, then no.

Questions: Why and where are the casings going in and how far is it to put a concrete scaling to apply the control valve to open and close? What are the basic dimensions? Where do you remove the drill pipes? How are shavings going to be extracted with a drilling mud? What application are you going to use?
Mr. Williams, Mears: Would prefer to answer the questions one at a time.

Manager Craddick: The answers would be addressed in the EIS and it is anticipated that we would not have to use mud. The contractor would use a technique called reverse circulation. Water is cleaned out and put back in the hole to circulate the air and no chemicals in the water drilling fluid.

Mr. Wilhelm noted that the public was not familiar with what goes on with the project. In the private sector, maintenance is done on the pumps and generators and inspected monthly and is not allowed to sit for a year. This is a required law by the DOH. Chair Nishimura suggested the public could submit questions to the Department or the Board to be addressed through the process before the project goes forward.

Chair Nishimura opened the floor up for public testimony.

Ms. Dunbar expressed that the community took their time to come to the meeting, there would be 15 minutes of questions and answers, but now the Board was moving to something else.

Chair Nishimura clarified that Ms. Dunbar can make her point during testimony. Many of the questions asked may need to go through the EIS process. Chair Nishimura understood that the public does not want the EIS process and that is why testimony was heard.

Chair Nishimura announced that 15 minutes has passed for question and answers. Testimony and questions was limited to 3 minutes. If time permits, the public could testify a second time.

Private Secretary, Ms. Garasi was the time keeper and would alert the speaker that 30 seconds are left for their testimony.

Chair Nishimura instructed the public to state their name and address and to submit any written testimony.

Mr. Steve Rapozo and Ms. Janice Bond signed in for attendance.

Mr. Jack Wilhelm previously provided testimony.

**Mr. Ken Taylor, Kapahi** – In April, Mr. Taylor was concerned that after the scoping meeting the public was misinformed. He requested another scoping meeting with the proper information. Mr. Taylor questioned how properly was the treatment designed? Are we spending more money pumping water up to the treatment plant? Would the treatment plant be better operated in a different location where gravity feed water goes in and out? The ground water is dropping because the cane fields are not being irrigated and wells are having trouble maintaining their capacity.

Solar panels could be put down where areas have already been disturbed. In 20 to 60 acres a solar field could supply most of the electricity. New technology with battery pack backup would extend the time and could be fed to the grid to move around. He believes that a lot of money is being spent by centrally locating one well and to move the infrastructure from one end of the island to another. All these issues need to be looked at.
Ms. Hoku Cabebe, Wainiha – Is a concerned Hawaiian community member. The places that the project will be is very sacred for her ‘ohana. Wells around her neighborhood are big national security issues. It freaks her out that the DOW is going to stick a well where it is precious to her. Someone could decimate the area to get back at the United States of America and that is a horrible place to put something significant. She begged that the Board should do a better job of taking care of the Hawaiian resources of water. That is why 4,000 people marched last week not because of the GMO bill but because of the future. Ms. Cabebe lived on Kaua’i her whole life and never met most of the Board. This was sad to her and that the Board is in charge of her precious Wai.

Ms. Fern Rosenstiel, ‘Ohana O Kaua’i, Sclf – Is deeply concerned about some of the aspects of the project and thanked the Board for looking at sustainable option sources for clean water. The people she works for are very concerned about the sacred mountain and the drilling of the mountain. Moving forward, Ms. Rosenstiel suggested that detailed answers are provided in advance to explain to the community in a clear and concise manner. Open dialog is required in the next few months and looks forward for answers soon.

Mr. Roy Oyama, Self (P.O. Box 266, Kalâheo) – Is looking forward to this project as a first step on how the island of Kaua’i can be served. The process in government is slow and takes time. Example: If the Facilities Reserve Charge (FRC) was taken care of years ago, the consumer would not be dealing with the high cost of water which is being opposed. Every week, the Honolulu Board of Water Supply encounters problems with water main breaks on the streets. The public in Honolulu are opposed on water delivery cost and are years behind to get back on track like the 2020 Plan on Kaua’i. The 2020 Plan is not perfect but needs to consider the future. The EIS process would need work which is part of the DOW’s responsibility. Mr. Oyama suggested that everyone work together with the state to get the cost down. The project does not need solar panels because it is based on gravity flow. This is not the expectation to replace all the islands water needs but it would replace the high cost of the water plants to be shut down and to spread the savings to the whole island.

Mr. Myron Obashi signed in for attendance.

Chief Robert Pa, Kingdom of Atooi – This raises a big issue on the title for the lands because the title does not belong to Grove Farm. He asked if the EIS allows the title search of the land? Who is giving permission to use the land? It is Polynesia and not the State of Hawai‘i. The water belongs to the people and not for development of this project. This takes it away from the people. The water system is perfect. Mr. Pa does not drink the tap water from his house but drives to Hā‘ena to drink water from Wi Aloha. Every two days, he collects water in six (6) gallon drums 90% of the time which is not contaminated. Bottled water is bought only if needed.

Syngenta needs to be gone because they are contaminating the water source. The DOW needs to look at ways to get rid of contamination. The DOW is feeding water into Syngenta’s restrooms and toilets which is polluting the water that the DOW is feeding them.

The project does not make any sense and is just another job and another million in the bucket for the DOW and the state. The DOW is running with a flag of a fictitious corporate. The people will come together for the right reasons with just one call. Remember, the Board works for the people and should give the people what they want.

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Solar panels as an energy source is the best way to get electricity for the system. Mr. Pa asked why aren’t solar panels being used and in place? Before the EIS starts, there needs to be permission from the people first.

The community hardly knew about this Special meeting and how long it was planned. The meeting should have been open to the public and should not be in a small room. He suggested the meeting should have been at the Convention Hall at a reasonable time. Mother’s and families cannot show up at 2:00 p.m. because the Board has their own agenda to have this meeting at their own time. The meetings should be planned around the public and the people because 90% of the people are left out which appeared to be a plan. This is not Pono (good) and what is not Pono will affect the Board in the long run. If the Board will not involve the Kingdom on what is going on, then the Board is here illegally. There is no clear title of what is being done. The State of Hawaii may be behind your side but the Board does not have God and not to forget the Mānā that is possessed in this land. The Mānā comes before the people and from the people and not from the corporate people.

DISCUSSION:

Mr. Nakaya agreed with Mr. Pa that the presentation should have been at a better time to be transparent and with advanced notice.

Mr. Pa commented that the meeting should be stopped where it left off and brought back to the beginning so that everyone understands the presentation. Mr. Pa agreed a better time would allow everyone else to attend the meeting.

Mr. William Megeo Denie, God, people – had nothing further to add.

Mr. Hall Parrott, Psychologist (5806 Kawai Street, Wailua) – Thanked Mr. Craddick for bringing the public up to speed on the project. Mr. Parrott enjoyed the public’s participation to educate themselves and felt a lot of love for community. He sees a very transparent and rigorous process which he is familiar with. This complicated project is being done on the right path. This project will be seen in the future because of the artisan part where we are not pouring power into something to benefit the community. As a result, there will be a better quality of water at a lower temperature coming out of the ground and will have less of an environmental foot print because of the carbon emissions. Mr. Hall supports the project and will continue to attend future meetings to see the project go through.

Mr. Ron McDonald, All – Supported Mr. Pa’s testimony. Mr. McDonald asked where the Board got the permission to start the project. He understood that the water is a possession of the people of this area and that the people were not asked. The surface water is equivalent to $2.00 for 1,000 gallons of water. Water used by the seed companies in west Kaua‘i ranges at 65M gallons a day which could provide all the water for the people. Mr. McDonald asked if the drilling is on the mountain to accommodate the DOW’s desire as a contract to guarantee water per day? Who are the investors indebted to?

Since the consultants have done this type of drilling before Mr. McDonald asked if the consultants have drilled a 2 mile boar through volcanic stone?

Mr. Williams, Mears answered “no.”
Mr. McDonald then stated since the consultant wants to experiment on Kaua‘i what was the possibility of fracking because he heard the water is encapsulated.

Mr. Williams, Mears answered “no, not at all.”

Mr. McDonald commented that the consultant would try to use water as the drilling fluids. The water would be partly polluted by the time it is out of the ground then would go through a treatment plant before it would be good enough for the people.

Manager Craddick did not think the water would be polluted.

Mr. McDonald commented that the fluids are being put in for drilling. This could be experimental like the 2 mile boor that has never been done before. He asked who is controlling the water on top of Knudsen Gap? All the water falls are gone on the west side of the island and the rivers are flowing with less water. Who is controlling where the water is going? The Hanalei River has 1/3 of the water and the bacteria are thriving. Where did the water go? The Board did not provide any answers and that the DOW controls the water.

Mr. Elsie Godbey, Self (335 Aina Maki Place, Kapa‘a) – asked why were no studies done for wave studies for energy? The island is beautiful and did not see any national parks or world heritage which Mt. Waialeale would be qualify for a historic place. The Hanapepe River has been losing water since she was born and raised in Hanapepe. Why is the water so low and polluted?

Ms. Puanani Rogers, (P.O. Box 4702, Maliehuna Road, Kapa‘a) – Her family is concerned about the aina and resources because this is where they live and raise their children. The water is important in many ways and spoke on the cultural aspect. She is aware of the science and the physical aspects of the project but asked if the dikes are manmade or natural in the mountain?

Manager Craddick … (inaudible) forces its way up into the lava where there is good pressure that solidifies. The hard rock has very little air holes in it.

Ms. Rogers commented when the EIS is done, who is doing the Cultural Impact Assessment (CIA)? Is the person Hawaiian?

Mr. Kevin Gooding, Oceanit responded Cultural Services Hawai‘i (CIA). Some of the CIA are Hawaiian and some are not Hawaiian. They have an office on Kaua‘i.

Ms. Rogers wanted assurance that the CIA contacts the cultural practitioners who live on Kaua‘i that know about the culture impacts. This will potentially impact the community.

Chair Nishimura clarified for Ms. Rogers and the public of a Regular Board Meeting on Thursday, September 19th at 10:00 a.m.

Mr. Rogers further asked if the aquifer is underground and connected to Mt. Waialeale? Is the aquifer water being sucked out of Mt. Waialeale?

Manager Craddick commented that all water underground is floating on top of the ocean which is connected.
Ms. Rogers repeated that Mt. Waialeale is a sacred area where the drilling will be done (like drilling a sword through an Ahupuaa). If another location is preferred with less concerns it may be okay according to Ms. Rogers. Do we need more water or is there enough in the drills and wells? Because this is federally funded and asked if Section 106 was considered?

Carol Bain, Self – This was her first meeting and was present to learn about the project.

Ms. Katherine Muzik, Kulu Wai – is concerned about human behavior (war, violence and drugs). Money could be put into education first and for people to change their behavior by using less water and polluting less. In a previous meeting, gray water was mentioned by Mr. Don Heacock. Half of water used are for washing cars and flushing toilets. Ms. Muzik would like to look at alternatives and changing human behavior before conducting the EIS.

Mr. Dustin Barca, ‘Ohana O Kaua‘i (P.O. Box 1142, Hanalei) – personally found it disrespectful that the meeting was last minute and secretive for the 60,000 people on Kaua‘i. This is a serious issue of drilling without the whole island involved. The water belongs to the people. Mr. Barca travelled the world and said Kaua‘i is like a human being and a natural aquifer. If the face of Kaua‘i was taken away it would look like the inside of a human being with veins which is how the water flows. If you stick a hole in a human being the rest of the body would shut down and focus on the one hole. The island revolves around water (natural resources). This experiment is a threat on people’s natural resources and is a dangerous gamble. There are better ways of reserving power and spending money. To save 1,000% operating cost benefit would be worth it but 50% is not worth putting the natural resources on a possible shut down.

Mr. Juan Wilson, Island Breath - signed in for attendance.

Mr. Chris DeAngelo, The Garden Island Newspaper - signed in for attendance.

Mr. Brian O’Brien, Self – signed in for attendance.

Mr. Jan TenBruggencate, Self - signed in for attendance.

Mr. Dennis Esaki, Esaki Surveying – Acknowledged Mr. Manabu Tagomori and the consultants. He recently participated in a workshop with Mr. Bill Tam and understood what the Board is looking at with the water trends which are receding. The reservoirs are getting less water, are impounded and that regenerates the water table. Mr. Esaki suggested that the engineering expertise look at the options and alternatives.

Ms. Elaine Dunbar, Hawai‘i’s Protection – The project started from a flaky, shaky start and should be more cautious in the future to go slower. This is an invasive experimental procedure into a sacred site. The EIS process stage seems like it is being hurried. The community is more concerned about what the DOW is doing and not the cost of the project. What is being done is getting louder and wrong. The project will affect stream beds, flora and fauna which will take water away. Ms. Dunbar does not want the project to go forward because the surrounding areas would dry up.

Manager Craddick explained that 9M gallons of water a day is the peak maximum day demand. The average day demand is 6M gallons of water a day.
Ms. Dunbar inquired if Grove Farm is not doing their new residential development, would this project be urgent?

Manager Craddick stated that the project is not for Grove Farm’s residential development. Ms. Dunbar was surprised and commented that the DOW project should be scrapped. In order to proceed and the DOW needs to lower cost and there is no need for more water. If there was a need for more water, the DOW would be saying the islands are past carrying capacity in residential population growth. A provision in the Hawai‘i State Constitution covers this.

If Kaua‘i is exceeding its residential population, Ms. Dunbar suggested the DOW to go back to the drawing board to address the residential population growth. She was not satisfied with the sketchy answers the consultants provided. These issues should be straighten out before an EIS. If the project proceeds and if people are not treated right, there would be an uproar. The right maps need to be presented. Confidence was lost with the public because the drilling was not planned for the right mountain. The EIS is not the solution and that the problem solving process with public input should be at community meetings.

Ms. Louise Sausen, Ko Pae aina – When Ms. Sausen came to the meeting to get more information but was not provided in the packet and was not shared with the community on the north shore. Ms. Sausen questioned the consultant if they know how the mountain looks underneath. What if the drilling was in another location? All of the water goes down into the ocean and each island has a lens. Once the lens cracks, Kaua‘i will have no water then the water will go down into the ocean. Kaho‘olawe’s was bombed and lens is cracked with no water. The consultant could not say there was an aquifer. Once the drilling is done, Ms. Sausen asked would the lens be cracked? Ms. Sausen shared the word “Kapu” on her t-shirt. Years ago, people would not mess with mother nature unless you were sure. From a Hawaiian, this would be a desecration on wi apana and would not even put her foot print on it or allow the consultants to do the project. If the island lens it is cracked, nobody would have water. The island is like a canoe with so much sustainability, people and water. Ms. Sausen would like the infrastructure fixed before it is like Honolulu before drilling into wi apana.

Island wide meetings were scheduled but were cancelled. The DOW needs to go back to the communities. Nobody in Hā‘ena knew about the meeting. Ms. Sausen requested a detailed copy of the packet.

Ms. JoAnn Yukimura, Self & County Council politician – appeared before the Board to address a process issue related to this matter. She requested that Board Member, Hugh Strom recuse himself from participating on this issue and voting due to a conflict of interest. Ms. Yukimura and Mr. Strom previously discussed this matter prior to his confirmation before the County Council. At that time, Ms. Yukimura reluctantly voted against his confirmation. Although Mr. Strom has a lot of credentials, she felt there was a conflict of interest as an officer with his company, Aqua Engineers which sometimes is in competition with the Water Board.

The conflict would be if the horizontal drilling goes through, the plan would be to shut down the surface water treatment plant. Aqua Engineers runs the surface treatment plant and would be adversely affected by this decision. Mr. Strom would also be affected and could not be an effective decision maker on this matter. If Mr. Strom will not recuse himself, he would have to go before the Board of Ethics to get a formal opinion.

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Mr. Strom explained that he was cleared by the Board of Ethics and also went before the County Council for approval. Mr. Strom was approved 4-3 and understands and appreciates Ms. Yukimura’s position. Mr. Strom has more to offer on Kaua‘i because he grew up in Kapa‘a, Līhu‘e and currently resides in Kōloa than to be sensitive about potential conflicts. If the Board feels there is a conflict, Mr. Strom would recuse himself. He explained the reasons why the water plant was constructed and looks for the opportunity in future meetings to explain to the community why (not to offer his opinion). He would give the community the education they are requesting and with true and clear information that would assist the community and the Board to make the best decision.

Ms. Yukimura added that the Board of Ethics gave a generalized opinion for Mr. Strom but now there is a specific issue. A disclaimer did not rule on specific facts. If Mr. Strom cannot recognize the conflict, the Board of Ethics could make a ruling on this specific case. Ms. Yukimura believes there is a direct conflict of interest.

Chair Nishimura commented that the Board would take the matter under advisement.

Ms. Sausen expressed that there is a conflict because it cost too much for treatment. Mr. Strom handles the treatment plant which was disclosed. She if this was the reason why the mountain will be drilled but if Mr. Strom is doing the treatment? If the Board would come to her community, 4,000 kapunas would stop the project.

Additional testimony was presented.

Ms. Puanani Rogers, (P.O. Box 4702, Maliehuna Road, Kapaa) – Questioned what happens in the water treatment plant? What is done to the water before it comes to the community?

Mr. Strom explained that the water treatment process serves the Līhu‘e area. The water is filtered through a membrane technology which is ultra pure, lab tested daily with continued water monitoring. The water was originally directed to Hanamā‘ulu Bay which only side streams 36M gallons of irrigation water from sugar cane. The DOW can see the same information electronically with real time information. The water is strained then filtered through the membranes and disinfected with chlorine. Ground water is disinfected with chlorine (not fluoride).

Ms. Rogers inquired if the chlorine is added to the water up to the standards of how many millions of gallons of chlorine in the drinking water and if Section 106 is included in the process?

Mr. Strom commented that the guidelines are through the DOH standards. The system is continuously monitored to make sure it is within the parameters 24/7. The DOH inspects the records annually. The annual Water Quality Report is sent to customers by mail.

Mr. Gooding, Oceanit stated that Section 106 is included in the federal process which goes through the National Park Preservation Act. Section 106 is a process of consultation on traditional and customary properties that may be affected.

Chair Nishimura inquired if Section 106 is part of the EIS and if it will be done.
Mr. Pa questioned the Board if they felt Mr. Strom had a conflict of interest.

Chair Nishimura recognized that there is a potential conflict. If Mr. Strom leaves, his vested interest would be against the horizontal well. If Mr. Strom votes against the well, he would be voting against his own interest.

Mr. Shiraishi acknowledged that Mr. Strom’s interest is against the well.

Mr. Pa mentioned that the public is against the well. The people’s interest is that the water belongs to them. The water is not the Board’s or Mr. Strom’s interest. The Board has a process which does not include the community and the people from the land. The Board’s interest is the money. Since Mr. Pa drove to the meeting from Hanalei (without getting paid), he assumed the Board was getting paid. The process includes discussions and communication with the public of the results on the conflict of interest. The Board allows Mr. Strom to be at the meeting knowing there is a conflict of interest.

Chair Nishimura assured Mr. Pa that none of Board members gets paid to sit on the Board. The only members who get paid are by Charter and by requirement of the positions of the company.

Deputy County Attorney, Andrea Suzuki added that Mr. Strom can be at the meeting but he cannot vote because the Board was not in a voting stage. The Board has discussed the conflict of interest issue and would have to be posted and put on the agenda. Once the Kahili Well project is noticed, the public can attend the meeting.

The next meeting would be posted at least three (3) weeks before there is any action. Chair Nishimura requested that the Board think about the testimony that was received before going forward.

Mr. Pa and the public appreciated Chair Nishimura’s request to get more notice ahead of time. According to Mr. Pa, the pollution is coming from Kekaha and the problem needs to get fixed before the project starts.

More testimony was provided by the public.

Mr. Brian O’Brian, Kapa’a - As the next generation to take care of the water, Mr. O’Brian cares about Kauai. To have all the issues laid out such as using too much water or that the water is taking up too much energy could be based on the Board’s decisions. Drilling in the location of the project may be good, but Mr. O’Brian asked the Board if they could find another spot to drill. The photo presented indicated that all the water is connected and heard that there are chemicals from the sugar cane irrigation. Mr. O’Brian also heard that DDTA and Atrazine was tested in the water and inquired about the cost of the testing.

Manager Craddick indicated that the testing of the water costs $1.5M and that a copy of the test would be provided to Mr. O’Brian after the meeting.

Mr. Ken Taylor, Kapahi – Emphasized the importance to start the project over from the scoping meeting to alleviate challenges in the process. Extra time to move forward from Phase 1 would save the Board action in the future. The Board could consider going back to the community to start over.
Mr. Dustin Barca, Kilauea – Inquired if the ground water is already poisoned and if that was the main reason for the drilling of the water to go higher. Ag is at a much higher level of contamination on drinking water more than what the sugar cane did to the island. To facilitate the consultants to go higher is a point Mr. Barca made than to leave the ground water for drinking alone vs. going higher for water that is less contaminated.

Manager Craddick confirmed that the water all meets EPA requirements and State DOH requirements.

Chair Nishimura opened dialog for the Board to ask the public questions.

Mr. Nakaya asked if the project is specific to the area of the drilling or approachable outside of the zone?

Manager Craddick clarified the north shore area (Hanalei, Wainiha, Ha'ena and possibly Hanapepe) of the same system could work but the population is not justified to spend money. To run a pipeline from those areas into the high population areas is another issue (Moku and Kapuna area). This would not be worthwhile unless it is done elsewhere. Grove Farm land and other areas can be looked at. The DOW would not go into the Blue Hole area (Mt. Waialeale) based on the testimony today and understood the significance of this area. The south fork at the Wailua River was chosen instead.

There is a chance that stream flow may be affected. All the vertical wells can be measured on the effect of stream flow. A one-to-one effect on stream flow is taken from the stream to the treatment plant. This issue will be dealt in the EIS.

The shortest distance of the area is where the transmission is from the source to the population. The well is one portion of the cost and the transmission line to bring it into the population is the portion of the cost which is equal to the well. Further south in Kalaheo are the deepest wells with the highest energy cost. It costs more to run than the treatment plant because water is pumped from 1,000 below sea level at 1,000 gallons a minutes and 1.5M gallons a day. There have been no ideas to go north.

Chair Nishimura followed up on Mr. Nakaya’s question and recalled a previous communication from the Department which showed a broader area. This area is about ¼ of the area that was presented at a public meeting in September. Chair Nishimura questioned why did the area change?

Manager Craddick referred to the map that showed Hanama‘ulu and indicated that there is a high level development tunnel in the area by Knudsen.

Mr. Gooing further explained the areas in the southern region on the map were not suitable because they are further away from the mountain.

Chair Nishimura mentioned the September public presentation discussed a feasibility study which the Board has not seen to date. He agrees with members of the public to do a feasibility study before the EIS. If it is not feasible and if there are options that are justifiable and this may not necessarily be the primary alternative. The Board has not seen explanations of why this particular project is the project.
Manager Craddick explained that a feasibility study and alternatives are required by law and part of the EIS. The Board could segment the EIS process to do the feasibility study first.

Mr. Williams, Mears agreed with doing an economic feasibility study.

Manager Craddick initially told the Board the consultant could do a feasibility study. A letter was sent to the consultant to take out the traffic study which the Board previously sent. There would be a few instructions to set up the Grove Farm area. The land for the traffic study could be taken out of the Grove Farm property under the existing contract at no additional cost.

Mr. Ron McDonald questioned if there would be a conflict of interest for Grove Farm who plans to develop the area to do a feasibility study? If the project is still experimental, how much will it cost? Why doesn’t the Manager admit this is an experimental project?

Manager Craddick mentioned that was an issue but the process is not unusual to hire a contractor to do the study and planning. The RFP process would cost $30M. When details are known, the price could come down.

The DOW does not work that way. The Board members work for the community and are part of the community also. All the work that the DOW does is for the community to have trust in the Department.

Mr. McDonald indicated that before the Board puts the community in debt to do the EIS it would be good to discuss the matter further.

Manager Craddick commented that part of the EIS is a grant and would not put the community in debt. It would cost $4.35 to do the EIS for 23,000 customers.

At 4:24 p.m., Chair Nishimura called the meeting back to order.

On August 13th, Mr. Dahilig requested the Department to put together a Proforma outlining where the cost savings was to pay down the debt service for a potential well. The operation, maintenance and power costs are associated with the current wells if the treatment plant and wells are stopped. If a new well is built, the energy savings would take care of the debt service of drilling the well. Mr. Dahilig added that time should be spent to review a Proforma spreadsheet on the well cost and the savings before $2M is spent on the contract. If a bond is issued it would pay for a drill that would require a debt service over some time.

Mr. Dahilig asked for a Proforma one month ago and received excel sheets which were hard to understand along with two water bills. He felt his questions were not answered. Another question not answered was about other energy type savings (i.e., solar water) to bring down the cost associated with the current operational regime to save power. The energy savings in the long run would not pay the debt service. As a Board member, Mr. Dahilig has a fiduciary duty to the rate payers and needs a financial or business plan analysis before an EIS is done.

Pursuant to Hawaii Administrative Rules Section 3-1.25-6 Section 1 which relates to goods and services is issued an immediate Stop Work Order to give both parties time to justify the EIS. Mr. Dahilig requested the Department one more chance to provide the information to the Board.
Manager Craddick indicated that in April he gave the consultant a Stop Work Notice. The last bill paid in April. The bill provided in the Board packet was the power bill from the treatment plant. Mr. Dahilig appreciated the Stop Work Order but still would like more information from the Manager.

Mr. Dill also did not want to move forward with the EIS. He would like the experts provide a complete economic feasibility portion before moving forward with the project.

Mr. Nakaya cannot vote to support the project based on the presentation and would like to see financial numbers to support where vertical wells are lower in labor costs. Verification of the data would be helpful for the Board not just the Manager’s word. The cultural portion is a big issue with the public.

Chair Nishimura recommended to defer this matter to the October 17th Regular Board Meeting. The Department and the consultant will work on the feasibility study and will receive input from the Board members before moving forward.

Mr. Strom expressed the Manager considers the public testimony, perception, education data and sustainability on the project.

Manager Craddick verified that the economic feasibility study would cost between $50,000 to $100,000. The Department would have to look at the alternatives and recommended consultants provide a Performa to the Board.

In the Board packet, the Benefit Cost Ratio was provided by Electrical Engineer, Lyman Murakawa. The $3M gallons were an example and the cost ratio would be $10 in savings for every dollar in costs and that the well and pipeline would be paid in 20 years.

With photo voltaic use, the sun only shines 6 hours of the day. The DOW could expand the treatment plan and put in storage which would cost $55M or could put in batteries that cost $13M. The benefit would be $1 of cost to $1 in benefit explained Mr. Craddick.

Chair Nishimura was not sure if the Mear’s group looked at the Benefit to Cost ratios.

In a previous meeting, the Board decided not to take action based on a Stop Work Order which Mr. Shiraiishi commented on. The current proposal was to proceed with the project but the Stop Work Order is still in effect. Mr. Shiraiishi proposed that the Board take no action until more information is provided and be put on a future agenda.

Chair Nishimura understood that if the Board needs a consultant for a feasibility study, the Stop Work Order would need to be lifted.

Mr. Dill would support a feasibility study and a strong analysis because this is a significant project.

Mr. Dahilig questioned if there was a study outlined in the scope that could be initiated?
Chair Nishimura mentioned back in September and October this was presented to the public that an alternative water source in the feasibility analysis could incorporated in the EIS review. He questioned if this would be a change in scope.

Mr. Gooding commented that additional alternatives may be reassessed as a result of the EIS comments which would be reviewed by the Manager.

Mr. Tagomori added that financing of additional alternatives would be at no cost increase and the budget would be adjusted. The Board would have to approve the restart of the whole project.

Manager Craddick indicated this would require to a scope change order and to drop the transportation study.

Chair Nishimura inquired why would this be a change of scope? He understood that the economic analysis is included in the proposal.

Mr. Williams added that the cost is identified, not just the pay back. There would be a trade out from the initial studies at a no net cost difference in the proposal. The tasks included the well, solar for the treatment plant and vertical wells, operating cost, capital cost, payback time and the life span. There were no details in the scope to do the detailed work.

Mr. Strom requested a copy of the original proposal with the breakdown for review of what was intended.

The EIS for the whole project is targeted for 2015 as Mr. Tagomori explained. Drilling would be done in 2017 to if there is water or not. If there is no water source, the project would close. To develop source, a transmission pipeline and controls would have to be built. Then there would be an opportunity to put in a hydropower plant. The complete development of the source would be approximately 2020. Currently there has been a four (4) month delay which pushes back the whole process plus the contract price the Board has to consider. The EIS elements can be reprioritized.

Deputy County Attorney, Andrea Suzuki explained the cost impact. The proposal had a traffic impact study with the EIS that may not be required. The funds would be reallocated to the economic feasibility study which Mr. Dill was in favor for but wanted confirmation.

Mr. Dahilig questioned based on the scope and the projected cost, would the energy savings be yielded to eliminate the debt service? He wants a net zero for the rate payers and need to know what the cost benefit ratios are.

Mr. William answered yes but with backup.

Chair Nishimura asked what alternatives have been proposed besides solar?

Mr. Gooding mentioned that the last scope in January included an energy efficiency study that compared powering the water treatment plant with solar and to power various well stations with solar. By comparing the two alternatives with getting the majority of water from gravity flow water on the proposed HGD well. A potential idea is to refurbish existing tunnels that have been shut down.
Mr. Tagomori added that existing plantation tunnels are free flowing and need to look at bulk head.

Manager Craddick clarified that Akulikuli and Kokolau are spring sources, bulk head could not be done there. If bulk head were to be done, it would stop the flow.

At 4:57 p.m., Mr. Nakaya & Mr. Dahilig exited the meeting.

Mr. Rapozo added that the Kaoko tunnel ditch system is intact and free flowing. There are 140M gallons water that flow into Hanalei Bay with normal stream flow each year.

At 4:59 p.m., Mr. Nakaya re-entered the meeting.

Kaapoku stream is the highest elevation feeding Hanalei River. If this system was retapped, Mr. Rapozo explained this would alleviate flooding in Hanalei which is part of the stable storm stream feeding Hanama'ulu. The stream would feed into the proposed plant system which should be looked at. Gravity fed surface water is coming off Alakai and Kawaikini. The surface water overflow is going into Hanalei.

Manager Craddick clarified that the county is looking for solid waste land owned by the state. The Agriculture Development Corporation looked at the feasibility to use it for agricultural land for production with that water. If this water is feasible, it would be used for agriculture first. He does not want to complete with agricultural water.

At 5:01 p.m. Mr. Dahilig re-entered the meeting.

-----Original Message-----
From: Koke'e
Sent: Monday, September 16, 2013 9:09 PM
To: Craddick, David
Cc:
Subject: Re: Kahili High Level Well

MEMORANDUM TO THE BOARD OF WATER SUPPLY, KAUAI COUNTY

SUBJECT: TESTIMONY IN STRONG SUPPORT OF THE KAHIKI HIGH LEVEL WELL

I regret that I am off island and unable to make the meeting on Tuesday, September 17, 2013. I should like to present the following testimony:
The Kahili High Level Well is an elegant and, in the long term, a low-cost solution to the water supply for the area which it serves. Harness the force of gravity for our water, rather than relying on fossil fuels.

I believe that the ancient Hawaiians, who constructed such marvelous auwai, would view the High Level Well as carrying on their traditions of water distribution and management. They would be proud of the engineers who have proposed this solution and the effective use of resources in building the Well.

Me ke aloha,

Frank O. Hay
Kekaha, Kauai

Mr. Dahilig moved to accept the written testimony from Mr. Frank O. Hay and oral testimony from the public; seconded by Mr. Dill; with no objections, motion carried with 7 ayes.

Mr. Dill moved to request from the contractor for a no cost change order and a robust economic feasibility study and include alternatives for the Board that would justify moving forward with the EIS in exchange of the deletion of the traffic study; seconded by Mr. Dahilig; with no objections, motion was carried with 7 ayes.

The feasibility study would be done in 30 to 60 days which includes the change order.

Mr. McCormick advised that the elimination of the traffic study could affect the DOT and may have to be put back in the contract.

There being no further business, Chair Nishimura adjourned the Special Board meeting at 5:05 p.m.; with no objections.

Respectfully Submitted,

Edie Ignacio Neumiller
Commissions Support Clerk

Approved,

Sherman Shiraishi
Secretary – Board of Water Supply