

WATER RESOURCES COMMITTEE
Council of the County of Maui

MINUTES

September 4, 2012

Council Chamber, 8th Floor

CONVENE: 9:04 a.m.

PRESENT: VOTING MEMBERS:

Councilmember Michael P. Victorino, Chair
Councilmember Joseph Pontanilla, Vice-Chair (in 9:08 a.m.)
Councilmember Gladys C. Baisa
Councilmember Elle Cochran
Councilmember G. Riki Hokama (out 9:08 a.m., in 9:11 a.m.)
Councilmember Mike B. White (out 9:08 a.m., in 9:15 a.m., out 10:08 a.m., in 10:26 a.m.)

NON-VOTING MEMBERS:

Councilmember Donald G. Couch, Jr.
Councilmember Danny A. Mateo

EXCUSED: VOTING MEMBERS:

Councilmember Robert Carroll

STAFF: Kimberley Willenbrink, Legislative Analyst
Yvette Bouthillier, Committee Secretary

ADMIN.: Dave Taylor, Director, Department of Water Supply
Pamela Pogue, Planning Program Manager, Department of Water Supply
Edward S. Kushi, Jr., First Deputy Corporation Counsel, Department of the Corporation
Counsel

Seated in the gallery:

Bill Medeiros, Executive Assistant, Office of the Mayor

OTHERS:

Gary Sanchez
Rosemary Robbins
William M. Tam, Deputy Director, State Department of Land and Natural
Resources, Commission on Water Resource Management
Lenore Ohye, Hydrologic Planning Program Manager, State Department of Land
and Natural Resources, Commission on Water Resource Management
Frank R. De Rego, Jr., Program Manager and Education Specialist, Maui
Economic Development Board
Others (5)

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

PRESS: Akaku: Maui Community Television, Inc.

**ITEM NO. 6(4): COMMITTEE'S PRIORITIES AND PROCEDURES;
PRESENTATIONS FROM COUNTY ADMINISTRATIVE
AGENCIES (DEPARTMENT OF WATER SUPPLY PRESENTATION)**

CHAIR VICTORINO: . . .(*gavel*). . . Good morning and welcome to the Water Resources Committee meeting of September 4, 2012. And I hope everyone had a great long weekend honoring our labor force out there. Today we have just one item today and we'll be discussing item W-6(5) [*sic*], Committee Priorities and Procedures. But before I get started, I would like to introduce the Members who are present this morning. Present this morning is our young lady from Upcountry, Gladys Baisa

COUNCILMEMBER BAISA: Good morning, Chair.

CHAIR VICTORINO: Good morning. Our young lady from West Maui, Ms. Elle Cochran.

COUNCILMEMBER COCHRAN: Aloha, good morning, Chair.

CHAIR VICTORINO: And welcome back from --

COUNCILMEMBER COCHRAN: Yes, thank you.

CHAIR VICTORINO: --your, your wonderful trip I understand.

COUNCILMEMBER COCHRAN: Yes, good to be home.

CHAIR VICTORINO: Thank you. And then our Lanai representative, Mr. Riki Hokama.

COUNCILMEMBER HOKAMA: Chairman.

CHAIR VICTORINO: Good morning. And from the Haiku/Makawao/Paia area, Mr. Mike White.

COUNCILMEMBER WHITE: Good morning, Chair.

CHAIR VICTORINO: Good morning. And I'm the Chair, Michael Victorino. Excused at this time is Vice-Chair of the Committee and the Council, Joseph Pontanilla. He'll be joining us shortly. Excused today is Robert Carroll. He's not feeling well and we wish him the best and a quick recovery. From the Administration we have this morning the Director of Water Supply, Mr. David, Dave Taylor.

MR. TAYLOR: Good morning.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

CHAIR VICTORINO: And from the Department also Planning Program Manager from the Department, Pam Pogue.

MS. POGUE: Good morning.

CHAIR VICTORINO: Good morning. Corporation Counsel representative is Ed Kushi.

MR. KUSHI: Good morning.

CHAIR VICTORINO: Good morning. And we are honored this morning. We have a couple, we have special guests to do this presentation. First of all from Maui Economic Development Board, Mr. Frank De Rego, Jr., who is a Program and Educational Specialist. And Mr. De Rego is in the back and he'll be giving us, if the camera would scan back there, if you'd stand and wave, thank you, Mr. De Rego, for being here this morning. Also from the Commission on Water Resource Management we have the Director of the Water, the State Commission on Water Resource, Bill Tam, the Deputy Director.

MR. TAM: Good morning.

CHAIR VICTORINO: Good morning. And the Hydrologic Program...oh boy some of these words is tougher in the morning, Tuesday morning, wait hang on everybody...Hydrologic Planning Program Manager, Lenore Ohye.

MS. OHYE: Good morning.

CHAIR VICTORINO: Good morning. Sorry, I chopped that baby up bad. And then also our Committee Staff which is totally invaluable and we cannot do without them, our Legislative Analyst Kim Willenbrink.

MS. WILLENBRINK: Good morning, Chair.

CHAIR VICTORINO: Good morning. And our Committee Secretary, Yvette Bouthillier. Thank you very much for being here. Good morning, everybody. Okay, if it is alright with the Committee, I would like to put off public testimony until the presentation is completed. I've asked, we have two testifiers, I've asked both of them if they would mind waiting and doing that and they said they had no problem. So without no objections I'd like to hold off on public testimony until after the presentation.

COUNCILMEMBERS: No objections.

CHAIR VICTORINO: Thank you. So what I'm going to do at this point, I am going to ask for a three minute recess so that we can set up...David, is that alright, we set up for the presentation? And then after the presentation is over, we'll let public testimony and then

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

we'll go right into discussion from both the Department, State Water Resource Commission and others that are available. And before I call recess, I'd like to recognize the Vice-Chair of the Committee and the Vice-Chair of the Council, Mr. Joseph Pontanilla's attendance --

VICE-CHAIR PONTANILLA: Good morning.

CHAIR VICTORINO: --presence I should say. Good morning, sir. Okay so with no objections I'm gonna call a three minute recess . . .(gavel). . .

RECESS: 9:08 a.m.
RECONVENE: 9:11 a.m.

CHAIR VICTORINO: . . .(gavel). . . The meeting of the Water Resources Committee will reconvene. At this time I'd like to introduce the Program Specialist Pam Pogue who will take us from here and go ahead Ms. Pogue.

MS. POGUE: Thank you, Chair Victorino. At this point what we'd like to do is to have Frank De Rego from the Maui Economic Development Board give a presentation. It's a fantastic presentation, I know, I did attend it and many folks from Water and other folks around the County have attended this but I believe it's called Water Story and we're going to have Frank start now. Thank you.

MR. DE REGO: Aloha, Chair, and the other members of the Water Resources Committee. As Pam told you this is an abbreviated social and cultural history of water on Maui. It's part of a larger two-hour interactive public education and awareness session about water on Maui. It's sort of a Maui Water 101 if you wish. Ola i ka wai a ka `opua, there is life in the water from the clouds. This is an old Hawaiian saying which essentially means rain gives life. This ancient Hawaiian proverb demonstrates how important water has always been to the economy, environment and culture of Hawaii. Now some of you might or might not recognize this area. This is a picture of Waioka or Venus Falls in Hana. As we know, our islands are surrounded by seawater and yet fresh water for drinking, cooking, bathing, farming and commercial uses is a precious commodity throughout all of Hawaii and in Maui in particular. Water has always been viewed as an extremely valuable resource. Since the time of the ancient Hawaiians, native Hawaiian spirituality has been intimately tied to water. There are numerous Hawaiian words which encompass the meaning and significance of water including the words for wealth, law and resources: wai wai, wealth; kanawai which means law; kumu waiwai which means resources. Relative to the centrality of water in native culture is the fact that the Hawaiian language preserves 138 names or epithets for rain. Here on Maui the Hawaiian name for the West Maui Mountains is Mauna Kahalawai, literally meaning the house of water mountain. Now in precontact Hawaii in 1778, prior to 1778, the ancient Hawaiians had a complex system of land and water management based on the ahupua'a. For the most part the ahupua'a land division extended from the sea to the mountains, makai to mauka, and each ahupua'a was divided into smaller plots, `ili, ku or mo`o `aina, family plots or what

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

we call today kuleanas. In ancient times, access to water was communal and extremely important. The streams were in a central source for drinking water and irrigation. Water for lo'i or irrigated terraces that grew taro was paramount. The Hawaiians were master builders of `auwai or irrigation canals that watered the crops. Water rights were often based on the amount of labor provided to build the irrigation infrastructure. Thus, in some cases a small land division might end up with the same water rights as a very large one. A resource manager called the konohiki oversaw the construction of the `auwai and also managed other resources of the ahupua'a such as fishing. Water flowed from the `auwai into each farmer's field, irrigated it, and then flowed back into the `auwai again and from there it flowed back into the stream. In 1819 under Kamehameha II, or Liholiho, the ancient system of kapu was abolished which led to substantial changes in traditional Hawaiian practices relating to land, water and the traditional social structure. During this same time the islands were slowly influenced by the Western economic system. One of the most momentous changes to Hawaiian culture and land tenure came in what has been, become known as the Great Mahele, literally mahele means division, enacted by Kamehameha III in 1848. The Great Mahele abolished traditional land management and set the stage for land redistribution and private land ownership. The Great Mahele was the trigger that eventually led to the creation of large-scale, privately-owned commercial agricultural businesses. This led to a structural change in the perceptions of water. In other words, water is private property and often created conflicts in water management. Following these changes, Hawaii began moving from a subsistence economy toward an economy based on trade through commercial agriculture. Economic changes attracted peoples to towns and seaports, greatly increasing the demand for water in those areas. The concept of water being closely linked with its watershed began to shift towards the idea that water could be transferred away from the watershed. The Reciprocity Treaty of 1876 created a stable and substantial market for sugar and ensured the viability of the sugar plantation on Maui which required a reliable and significant flow of water. Sugar, or ko, was introduced to Hawaii by the first Polynesian settlers. Sugar began to be grown commercially on Maui in the 1850s. One of the earliest successful plantations on Maui was owned by Samuel Alexander and Henry Perrine Baldwin. Both were descendants of missionary families who arrived in the islands in the 1830s. They secured rights from King Kalakaua to build the infrastructure necessary to collect water from East Maui creating the Hamakua Ditch Company, a forerunner to the East Maui Irrigation Company, or EMI as we know it. Over the next 50 years more than 74 miles of ditches and canals were built and funded by private sources. Unlike Hawaii, water projects in the U.S. mainland were funded and controlled by the government. In contrast the Hawaiian Kingdom was unable to step forward with funding which meant the development of water access in Hawaii was left almost solely to the private sector. Now we'll look a little bit at the creation of the Municipal Water System. It's important to remember that in 1905 County governments were established throughout the Territory of Hawaii, including the County of Maui. Among their powers, the Counties were given the responsibility to construct sewers and waterworks, and this was handled at the time by the Public Works Department. In 1949, the Maui County Waterworks Board was formed. From 1949 to the present, the Board of Water Supply has changed six times from being a semi-autonomous Board that would hire and fire the

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

Water Director and establish the budget in the Department to an advisory, sometimes adjudicatory board that deals with appeals on water permits within the Department of Water Supply. Water rates have always been set by either the Board of Supervisors or now the County Council. The Department of Water Supply is mandated to be a self-financing department with water rates charged by the County to cover the expenses of maintaining the systems and transmission of water. This is often a challenge. The Clean Water Act in 1972 and the Safe Drinking Water Act in 1974 spurred the development of new water infrastructure and mandated new standards for water testing and water quality. In 1998 the EPA passed new regulations requiring an annual report on the quality of drinking water provided to customers by their community water systems. It's called the Consumer Confidence Report Rule. The Department of Water Supply runs over 16,000 tests a year to look for possible contaminants. You might remember, those of you in the gallery and the Council members themselves, getting the County's annual Water Quality Report in the mail, in fact that was just recently. As you might imagine, the requirements to maintain a modern water system has become increasingly sophisticated and complex. Policymakers and elected officials are constantly trying to balance the sometimes conflicting needs and priorities of local residents, traditional cultural uses for water, and the economic viability for agriculture and agricultural in other companies which bring related employment and economic benefits for the Maui community. So just as a little aside, which is not a little aside, so where are we today with agriculture and water? The large sugar and pineapple industries Statewide have declined over the last century. In fact, HC&S, Hawaiian Commercial and Sugar Company, is the last large commercial sugar operation on Maui and in the State of Hawaii. However, with the decline of large agriculture, there has been the growth of other opportunities in Maui's small agricultural sector continuing the tradition of agriculture's importance for Maui's economy. Crops such as pineapple, coffee, macadamia nuts, corn, cabbage, onions, flowers, fruits are being grown and demonstrate the perseverance of farmers and the resilience of agriculture on Maui. This growth also demands the need to address the importance of water supply and demand on Maui. Now you might recognize some of these headlines. Water is a very current, topical, and sometimes controversial issue but is also a very complex issue. With the following slides, we examine why it is still a challenging issue, focusing on the complexity of water supply and demand. So what determines water supply? The supply on Maui depends on several factors like local climate, topography, geology and hydrology which vary greatly depending where you are on the island. Rainfall varies widely depending on elevation, topography and season from year to year. Since Maui's climate ranges from subtropical in the lowlands to temperate on the upper slopes of East Maui, rainfall can vary drastically from 12 inches on the leeward side to about 400 inches on the windward side of the island, that's more than 32 feet of rain in a year. In terms of service water, most streams in West Maui are permanent or perennial whereas some streams in East Maui tend to dissipate quickly. And then there's the issue of demand. A recent report on Maui's water resources say that demand for water is impacted by several main factors, and we'll just look at four of them: de facto population which includes not only resident population but we have about forty, between forty-five and forty-eight thousand tourists a day on our island so that brings up the population to almost 200,000 a day; rainfall; water

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

price; and income per capita. According to the *2011 Maui Data Book*, water production on Maui island is a little over 39 million gallons per day over a 12-month period. According to its latest estimates, the DWS provides 33.5 million gallons per day daily. The difference is the water that's provide by private water companies of which six of them I think exist in West Maui alone. The area which has had the highest recent water use is Kihei-Makena. More than other classes of users, residential users have a particularly cyclical demand for water. Water demand peaks in the summer months due to lots of outdoor water uses and activities including watering lawns. To be prepared for the future, the County has looked at potential water use in the next few decades. By 2030 it's predicted that the County could be using as much as 47 million gallons of water per day but obviously projections may vary. Now all of you are aware of the controversies and legal actions surrounding the determination of Interim Instream Flow Standards or IIFS which will require EMI and Wailuku Water Company especially to release water back into the streams for downstream flora and fauna and for native Hawaiian residents interested in cultivating lo'i. In fact the latest development on August 15th, not more than two weeks ago, the State Supreme Court instructed the State Commission on Water Resource Management to review its ruling on Na Wai Eha, the four great waters. You're also very familiar, especially the Council members here, with what's known as Show Me the Water Bill of 2007 which requires developers to document long-term water sources to support new developments. All of these issues illustrate the ongoing complexity of water on Maui island and the need to balance all the recognized beneficial uses of water. This includes agriculture, large and small, native Hawaiian cultural practice and gathering rights and municipal water supply. In order to balance water needs, we need to take into account social, economic and environmental factors simultaneously. These three areas are all interconnected with each other. At this point I would like to thank Chair Victorino and the Members of the Water Resources Committee for this opportunity to present the history of the growth of our water systems. Water is a vital issue for our County and we at Maui Economic Development Board support outreach to all of Maui citizens as we work toward consensus on our shared future. Mahalo.

CHAIR VICTORINO: Thank you, Mr. De Rego. And, Members, really this is just a educational part, this was not for question and answers. There was no, it was really, for myself I attended the class a couple of months ago, yeah, Mr. De Rego, and I had the pleasure of being there for two hours with a bunch of other people in the water industry and governmental people. And it was very educational to learn these things. So at this time I'd like to move into the part where I know questions and answers will be, questions will be asked, so answers can be made available. And this is the overview of the Hawaii Water Plan. And at this time, Pam, who are we calling upon?

MS. POGUE: Lenore Ohye from Commission on Water Resource Management.

CHAIR VICTORINO: Please, if you'd introduce her and bring her forward.

MS. POGUE: So Lenore is gonna give an overview of the Hawaii Water Plan and then after that we're gonna talk about how the Maui Water Use and Development Plan fits into that.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

MS. OHYE: Good morning, Chair Victorino, Members of the Committee. Thank you so much for this opportunity to present an Overview of the Hawaii Water Plan. We thought it would be a good context for the next presentation on the revised scope of work, our project description for completing the rest of Maui County's Water Use and Development Plan, 'cause the Water Use and Development Plans are one component of a larger planning framework and so I want to sort of put that into context for you this morning. So jumping right on in here, the State Water Code, which Mr. De Rego's presentation, which was a good context for this presentation by the way, stated that it was promulgated in 1987 so it's a relatively new law. And it established the Commission on Water Resource Management as a primary trustee of our State's water resources, and it also recognized as a matter of policy the need for comprehensive long range planning to assure wise management of our water resources. So it calls for the development and it mandates the development of an updating of the Hawaii Water Plan. The objectives of the Hawaii Water Plan are, are several. First one is to set water resource policies to make sure that we protect and wisely manage our, our water resources trust. We also want to ensure that there's proper conservation of water resources and that there is coordinated development of water resources. We also want to ensure and try to achieve maximum reasonable beneficial uses of our water resources and ensure adequate water quality at the same time. We want to be able to control water for public purposes and importantly to provide for the needs of the Department of Hawaiian Home Lands which is a very high priority need under our State's Constitution as well as under the Water Code. And finally the Hawaii Water Plan wants to recognize the County home rule in guiding water allocation decisions. So the Hawaii Water Plan has multiple components. There's actually five different component plans that together comprise the Water Plan. Each of the components is prepared by a different agency, and the four bluish boxes up there are prepared by State agencies, and the whitish box on the bottom, a Water Use and Development Plan is prepared by each of the four Counties. So I'm gonna briefly go through each of the plans and what the objectives are and some of things that you can find in the plans and then finally how they all integrate together. So the Water Resource Protection Plan is the only plan that's prepared by the Water Commission. The objective of this plan is to protect and sustain Statewide ground and natural water supplies as well as our watersheds and stream environments, and we were gonna do this through a comprehensive study of the current sustainability and conservation and augmentation of water resources. So some of the things that are in our Water Resource Protection Plan include protection policies that have been set forth by either the Commission or the State Supreme Court or through our planning document. And one of the most important policies...and I apologize for the resolution of these screens, I actually have a PowerPoint and a thumb drive that I think would give better resolution but I think we can sort of get an idea here for the graphics. The top map on your right shows the island of Maui and what the Commission has done is divided the entire island up into what we call water hydrologic units. And these delineations here represent the different aquifers that the Commission has delineated, the different colors are larger sectors that exhibit hydrologic continuity across, across the area, and the smaller divisions delineated by dash lines are what we call aquifer system areas and for each of those smaller units the Commission has

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

identified what's called its sustainable yield. So through studying and basically a water budget approach, the Commission has limited the amount of groundwater withdrawals that can be taken out of each of those smaller units. And we call those sustainable yields. And so that's one of the policies that the Commission has set forth to make sure that we protect and sustain our groundwater supplies into perpetuity to make sure that we don't over pump our aquifers. The surface water equivalent of that is, is what Mr. De Rego's presentation called instream flow standards and, and that's for surface waters where the Commission will study how much water needs to stay in the stream for instream uses such as environmental uses, scenic value, recreational uses, navigation and, and importantly for the continued exercise of traditional and customary native Hawaiian water rights because those practices depend on an adequate amount of stream flow. So the Commission's Instream Flow Standards should be set such that they do protect the traditional and customary uses and other instream uses while balancing the needs for offstream diversions for beneficial uses such as domestic uses or agriculture or, or other offstream uses. So that's some of the protection policies that the Commission does. The Commission also describes its regulatory programs in our Water Resource Protection Plan. We have various types of permits that we issue that implement our protection policies, and the Commission can designate areas when there is competition for water or threats to the water resources, we can designate those as water management areas and then an additional layer of regulation comes on top of any kind of proposal for taking water out, it's an additional level of scrutiny because of the nature of competition in the area. So, and we also issue permits Statewide for development of water resources, well constructions, pump installations, stream diversions as well as stream/channel alterations. So we describe those as well as the Commission's different declaratory rulings and policies regarding regulatory programs. The Commission also does a lot of resource monitoring and that's important because we have to track what's happening with the resources, what the stream levels are doing, how the aquifer lenses are responding to climatic and land use changes or pumping stresses. And we want to make sure that our regulations are protecting the resources or maybe we need additional regulations. And so we do a lot of resource monitoring. And the graph there on the bottom right-hand side is a graph of the Iao Monitor Well water levels. So you can see, I think this period covers from 2006-2010 about, you can see the water levels are trending generally downward, and, but you can also see a lot of seasonal fluctuations in, in the water levels there...oops, excuse me, there we go. And so the Commission has to continually monitor the resources and we do that through, we have a Deep Monitor Well Program, we collect water use reports as well as water level and chloride information. We also try to compile the best information available on existing and future demands and we describe importantly water conservation programs. We're actually in the process of developing a Statewide Water Conservation program right now. The Plan should be done at the end of this year and we're gonna include that in the next update of the Water Resource Protection Plan and Pam's been participating in that effort so thank you for your help on that. We also do some resource augmentation studies and we do drought planning. Next component of the Water Plan is a Water Quality Plan, ooh, oh my, okay, and that's prepared by the State Department of Health. Its objective is to protect and sustain the, Statewide, the water quality of water resources and it's mostly governed through the, by

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

the Safe Drinking Water Act and Clean Water Act. Whoops, okay, so some of the protection policies and, and regulatory framework that the Water Quality Plan should encompass include the water quality standards. So what kind of water quality do we want in our surface waters as well as in our drinking waters. There's a Polluted Runoff Control program to try to maintain and enhance the quality of surface waters as well as nearshore environments. They have a total maximum daily load program that's related to the Polluted Runoff Control whereby, you know, different load allocation, pollutant load allocations will be developed and then implemented for different water bodies through the NPDES permits. The Department of Health has done source water assessments where they look at every drinking water system, public drinking water system Statewide, and they delineated their capture areas and the two-year time of travel for pollutant if it, if it enters the ground at a certain location if it will, if it, within two years it will be taken up by the drinking water well. So the map there on your upper right-hand corner shows the head of, of West Maui Mountains and it shows the different drinking water systems there, and the concentric circles indicate the two-year time of travel and ten-year time of travel of a pollutant that would infiltrate at that point. And so we want to try to encourage best management practices in those areas to make sure that we don't pollute our drinking water sources. There's also groundwater contamination and that was also mentioned in, in the previous presentation. The map there on your bottom right shows the different contaminants. This is the latest map that DOH has published, it's from 2005. It shows where contaminants have been detected in drinking water sources; however, most of these contaminants are below the maximum contaminant levels specified by the EPA. So, so they're there, but they are not at, at, they're, at an alarming concentration. There's also provisions and rules for controlling underground injection to make sure that that doesn't pollute our water resources as well as underground storage tanks as is lot of gas stations and whatnot have that, those can leak. Those can also create plumes that damage our water resources, and finally another protection policy regarding wastewater treatment and recycling. Okay, and the third component I'm gonna talk about is a State Water Projects Plan. This is prepared by the Department of Land and Natural Resources, Engineering Division. It tries to provide a framework for taking into account all the water demands for important public purpose projects such as parks and schools and hospitals and harbors, and, as well as any plans by the State agencies to develop sources for that, because we want to make sure that there is water available and water allocations have been contemplated for these important public purpose projects as well as to get an idea where they thought they were going to get the water for the, for this project if they did have any plans for that so that we can have some coordinated development between State and County agencies. So what the, what the Engineering Division does, and the last time they updated the Plan was in 2003, is they will survey all of the different State departments to find out what their 20-year water demands are, and then they break it down into annual increments for the first five years and then five-year increments thereafter. And that's one of the things we try to encourage for all of the plans, to do it in those types of increments so that we can integrate them across the board later. So what the Engineering Department has done in 2003, it's looked at how much water is needed for all the different State agencies and this, the chart on, on the right, on the top shows by island...I actually have better graphics . . . (*inaudible*) . . . okay. It's the graph on the

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

right shows by island how the water demands are growing. And Maui is there in sort of the whitish, so you can see it sort of starts out slow and then water demands increase to 2020. The chart, the graph on the bottom shows how much total demand for State water projects will be needed for each of the incremental periods up until 2020, and of particular note is the bottom line there, it's titled Statewide Remaining Balance. That is the amount of water that's needed to be, needed to be I guess provided for by the municipality. That, what the State Water Projects Plan did is look at all the State demands, figure out where State agencies had already planned to develop sources or whether they already had extra source capacity and, and took those out of the equation. But what's left is what State water demands that have no strategy for where they're gonna get the water. And so you see for the island of Maui there, in 2020 you will need about, about thirteen point, a little over 13 million gallons a day of water for State projects in 2020 that needs to be gotten from somewhere on the island. Okay, the next component is the Agricultural Water Use and Development Plan. This Plan is prepared by the Department of Agriculture and this is actually, was just added to the Water Code by the 2000 Legislature when they recognized that the plantations were closing down and that these were valuable assets to the State and they were falling into disrepair. And so the initial law asked that the Department of Agriculture provide a rehabilitation and maintenance plan for all of the agricultural water systems and, and prioritize which ones need to be developed. So this, last time this Plan was updated was in 2004, the official last official Plan, and they studied 13 different agricultural systems so you can sort of see that on the, on the map there on the top. And they looked at to see what kinds of repairs and maintenance were needed, and they estimated that just for rehabilitation costs alone for only ten of the systems, it would cost about \$100 million. So obviously now what the Department of Agriculture is doing is trying to further prioritize which system they're going to work on first, and the Legislature also more recently amended the law to add that the Department of Ag shall also look at private and public agricultural water needs for the future and also identify the sources for where those water, water demands are going to be met through. And so the Department of Agriculture is in the process of updating that Plan. And the Plan also provided an estimate based on metered water uses at one of their systems for diversified ag, because as the plantation lands are transitioning to diversified ag and now maybe biofields, there's a big planning gap in, for the Counties. They don't know how much agricultural water needs are and agriculture does use a lot of water. And so that, the DOA has put forth, I guess, an estimate for diversified ag that the Counties can use as a, as a planning tool. Okay, the last component is the Water Use and Development Plans and again that's prepared by each of the four Counties. The major objective is to set forth the allocation of water to land use. And here are some of the statutory requirements as well as some of the guidelines for updating and developing the Water Use and Development Plans. The Plans need to look at demand, so how much water are we using today and how much water will we need to use in the future. And the Code specifies, or the Rules, I guess, specify a 20-year planning timeframe. One of the things we're encouraging the Counties to do is to look at a longer timeframe and also to look at potential impacts of climate change. This is an emerging issue that has come up recently, relatively recently, at least relative to the Water Code, and so that's one of the things that we're asking people to look at. And so looking at what...and the Plans have

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

to be consistent with State and County land use plans and policies. And so looking at what is your existing demands based on the types of land use plans and policies that are in place now and how are we gonna meet those demands. So, and so this, this Plan shows the County how it's gonna be meeting their potential future demands. It has to be consistent with the policies set forth in the Water Resource Protection Plan, those things like sustainable yields and Instream Flow Standards. And it also has to be consistent with the policies in the Water Quality Plan, so recognizing that you can't be degrading water quality at the same time. And so that is, those are some of the requirements of the Water Use and Development Plans. So just a, a bit of background then. In 1987 again the Water Code was adopted and there was a requirement that each of the component plans be developed within three years. Importantly there was a disincentive for not meeting that requirement in that money for State water projects would be held back from the Counties if they didn't. And so the Legislature also provided funding to develop the initial Hawaii Water Plan. So in 1990 all component plans were developed and adopted by the Commission. Because there were some shortcomings in the 1990 plans, the Commission's adoption was contingent on updating of all the components in two years to address some of the shortfalls. And so in 1992 all the agencies did update their constituent plans but the Commission did not adopt them and some of the reasons were because the plans were fragmented and too narrowly focused. They only looked at only what their little area of concern was but it didn't lend toward a larger integration among all the planning components. There was inadequate consideration of uncertainties. For example, demand, if you just plan for a single point demand in the future, if you should deviate from that end use number then your plan becomes, it's static and it becomes not useful to be implemented. So the, some of the things we need to do is look at more of a range of planning scenarios and, and also importantly to look at tradeoffs. When you're trying to allocate water to demand, there are tradeoffs with every source of supply and every supply strategy that you, you identify, and those tradeoffs needs to be explicitly considered in the planning process so that people are aware that if you plan to target a certain source of water, these are the kinds of tradeoffs that you are, are going to be facing if you develop it. So recognizing that there were shortcomings in the 1992 plans, the Commission in 2000 adopted a document called the Statewide Framework for Updating the Hawaii Water Plan. And this document sets forth additional guidelines and recommended elements so that the Plan can be better integrated with each other. Some of the things the Framework did was establish recommended plan elements. For example that each of the...for example, the, the, the planning periods, annual, annual for the first five years and then every five years thereafter to look at demand and supply numbers, to look at using an Integrated Resource Planning approach for updating the County Water Use and Development Plans. And this Integrated Resource Planning approach, it's not another type of plan but it's a planning process. And so with the hallmarks or principles of Integrated Resource Planning is to look at extensive public participation in your planning document to have the public identify what their planning objectives are and also how they're going to evaluate each of the source strategies against the planning objectives. So for example, a planning objective might be that you want the most, the best quality of water, so that would be your groundwater; most, usually groundwater is of the highest quality. But to look at tradeoffs with using groundwater, if you use it for this

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

use then you can't use it for that use or maybe you want the cheapest source of water, that would be probably surface water because they're all gravity flow, you don't have to pump that. But if you target surface water to meet a need, recognize that you're going to be depleting water from the stream and what are the impacts of that. So those are some of the things that are involved in Integrated Resource Planning and importantly conservation, conservation is a really important part of IRP, to look at conservation as a strategy for meeting future demands. So you might say your 20-year future demand is based on your current level on consumption is this, but if you integrate, if you implement water conservation measures you may be able to meet a portion of demand through conservation. The Framework also established the Hawaii Water Plan as a living document because recognizing that it took a long time for the 1990 Plans to be updated so that the living document approach is that as things change you can just update that portion of the Plan so the Plans are in continual feedback, monitoring and update mode because plans change and land use plans change as well. And finally because every County is different, they have different issues, they have different resources available to them, they have different funding available to them, the Framework advocates flexibility in the County Water Use and Development Plan so that the counties can tailor it to meet the counties' needs. And so because of that flexibility that the Commission wanted to encourage, as well as for innovation by each of the counties, the Commission asked that each county submit what's called a project description prior to undertaking their Plan update, that they tell the Commission what they, what they're planning to do so the Commission is aware of what their approach is going to be. And that's going to be the topic of the next presentation. So again this is just some of the, the, the reasons why the Commission recognized that each county needs to have flexibility in their long range planning. So how the Framework recommends that the Hawaii Water Plan be integrated is at the County level. So you can see everything feeds into the County Water Use and Development Plans at the bottom there. The County Plans need to accommodate Countywide demands so it's not just the municipal demands but it's all water uses within the entire County. The County Plans also have to be consistent with land use, both State and County, and it needs to recognize and incorporate the needs of both State water projects as well as needs of agriculture, and all that needs to be, as they allocate water to land use it has to be within the protection framework and the protection policies that are set forth by the Water Resources Plan and the Water Quality Plan. So this rather complicated graphic just kind of shows how the living document approach works. So in the upper corner here you have the Commission's Water Resource Protection Plan and the Department of Health's Water Quality Plan. Again those are the regulatory framework documents so you have to be consistent with those...whoops. And then we have...whoops...we have the State Water Projects Plans here...whoops, I'm not going to try and do this...and, and the Agricultural Water Use and Development Plan. Okay, and then, and then all of those feed into the County Water Use and Development Plans. They go through their planning process going down to the bottom of the flowchart. Then we, the, all the County Water Use and Development Plans and the State Water Code have to be adopted by County Ordinance as well as by the Commission at one of the regular meetings. And then going up the flowchart on the left side we're going to then implement the Plans and monitor feedback and then go around for another loop of, of

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

planning, as land use plans change. So one of the primary objectives is to integrate land use and water use planning, that's the objective of the County Water Use and Development Plan. A lot of people criticize the, the planning process saying, you know, water should come first, you know planning should be done with regard to where water resources are. But the Framework envisions that it's actually an iterative planning process. Right now you have existing land use plans in place. So what are the impacts of those land use decisions on water? How much water do you need for that? Once you identify that, then you go ahead and allocate where the water is going to come from and then that informs your next round of land use planning. It's your vision of your water future, if you will, and that will help you to decide and determine how you want to do more land use policies and designations as well. I'm just about done here. And this is just a, this is just a brief update of where all the plans are in their, in their updating process. So the Water Resource Protection Plan again was updated in 2008...I got my pointer now that I'm on my second to last slide, thank you. And the Water Quality Plan, the first update since 1990 is in progress, it's an in-house update, and right now it's only focusing on groundwater protection because that's all they have resources for. The State Water Projects Plan again was updated in 2003 and the second update is in progress right now, actually, but because of lack of funding, this update is only focusing on Department of Hawaiian Home Lands' needs because Department of Hawaiian Home Lands is such a high priority need under the, under the Code, as well as because Department of Hawaiian Home Lands has right now such aggressive plans in place and they're moving forward really fast. So we're focusing on that. The Ag Water Use and Development Plan again was first updated in 2003. The second update was in 2004. They actually did a third update in 2008 but there were issues with that and so they are right now trying to resolve some of the factual data in there. The Water Use and Development Plans, Hawaii County actually completed an islandwide update that was adopted by ordinance in 2011 and adopted by the Commission in 2011. Oahu, Kauai and Maui are all in various stages of their first update since 1990 and so we're very appreciative that the counties are moving forward that way. And that pretty much concludes my presentation on the Hawaii Water Plan and if there's any questions, Bill Tam, my Director here with me as well, so we're happy to entertain any questions. Thank you very much.

CHAIR VICTORINO: Thank you, Ms. Ohye, and what we'll do is after the completion, Ms. Pogue will then will raise the screen and we'll have a question period for the Department. Ms. Pogue, do you have anything else you'd like to go with the Water Use and Development update?

MS. POGUE: I have a very brief, I emphasize brief, update on what we're going to be doing for Maui.

CHAIR VICTORINO: Go ahead.

MS. POGUE: Thank you so much for putting this together, Chair Victorino. This is, I think been a really nice context with Frank to start with the Water Story, sort of the background of water and the importance of water issues in Maui and then to have both Lenore and

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

Bill to come over here from the Commission on Water Resource Management. And Lenore's presentation puts into context basically where the Maui County Water Use Development Plan fits into the requirement that the State's mandated for us. I know you all are familiar with Water Use Development planning. You recently approved the Lanai Water Use Development Plan and I know that you had approved a version of the Central Water Use Development Plan. I had been hired almost a year ago to the day and prior to that there was basically a request by the Commission to sort of change the focus, if you will, of the Water Use Development planning effort in Maui. And Lenore pretty much did a great job of putting together why and what these Water Use Development Plans are about and how they fit in the context of the State Water Code. So what are we doing that's different? Two weeks ago Dave Taylor and I, the Director and I, went to the Commission on Water Resource Management to propose to them a different change, a different direction for the Maui County Water Use Development Plan based on advice from the Commission. And essentially what we're going to be doing is one Water Use Development Plan for Maui Island. This Water Use Development Plan, and Lenore had sort of referred to it in her presentation, will include all water systems and all water uses, meaning it will no longer be Department of Water Supply centric, it will include everything on Maui. And I'm glad Lenore showed that slide and I'm sorry that the resolution isn't better here, but what she showed which is a great graphic, and you guys have the handout, are the six aquifer sectors. So if you think about what had been done previously or what had been proposed, and that was one for Central, one for West and one for Central, West and Upcountry. Instead, what we're going to be doing is one remaining plan for the entire island that will include water uses and allocation policies and issues and planning objectives for all those six water aquifer sectors. I think of critical note here which is very important is that the Water Use Development Plan for Maui island, Lenore, if you noticed, had a slide showing the integration and sort of the cycle of land use planning with water allocation water planning. The Maui Island Water Use Development Plan will be the supporting technical document to the Maui Island Plan. Essentially the Maui Island Plan, as I'm sure you are all incredibly familiar with, sets growth, projected rates and so forth and the Maui Island Water Use Development Plan will be more of a technical document to talk about what our resources are, what our capabilities are and what the water demand looking at future as well as existing demand and how we can support whatever is dictated in the Maui Island Plan. I also want you to know and assure you all that a lot of great work had already been done on the Water Use Development planning effort here on Maui County and so I really, and the Director feels very strongly, I want to assure you all that all of that information will not be lost. We will be using it. So much of what you see in front of you is the type of information that was collected for Upcountry, as well as West, as well as Central and South. I do want to touch on the planning objectives since Lenore mentioned that. What the Commission does ask for is how are you going to be doing what you're going to be doing and a very technical method when you're putting together a planning document that is this comprehensive in nature, is something called Integrated Resource Planning. And if you look at what Lenore showed you of the five different elements of the Hawaii Water Plan and you look at what's involved in Maui, I want to emphasize that we will be looking at and identifying planning objectives. Much of that has already been done. That was done

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

in many of the meetings that I'm sure most of you went to for all the various sections in Maui, all the various areas, it's being done right now with the Maui Island Plan as you guys are addressing water issues, but I guess the change and Lenore explained why it was important is we will be looking at how we can, at the various tradeoffs. Because now that we're integrating and using all of the water users and all of the water uses, not just the Department's system, these tradeoffs are going to be absolutely critical in terms of water allocation policies. Lenore also mentioned and I think Councilman Cochran had asked in the last time we came here about conservation programs and what we were doing, the State has had a year-long, it's really been very, very helpful for me being new here to come to find out about conservation and conservation programs in Maui and what other counties are doing as well as mainland areas but mostly here in Hawaii and what's successful. They're about ready to unroll their conservation plan for the State, and Maui County is very, very active in water conservation and we will be taking much of what the State has unrolled and has shared with other Counties and incorporating that into the Maui Island Plan. One of the things that's near and dear to my heart, that's very, very important, is the public process and you all have had a huge amount of public process that has gone on predating the Maui Island Plan, and what I have in front of you is everything that has been basically happened here on Maui predating the Maui Island Plan, including elements within the Maui Island Plan, the Plan Committee, and then I also had information and there's been many, many past public meetings on Upcountry, Central, and West Water Use Development Plans with very copious and detailed notes. So there has been a very strong foundation of public process and public involvement already. In terms of what we'll be doing in the future, what we've drafted so far is essentially a staged approach which the Commission has approved and essentially there will be at each draft stage, if you so desire, an opportunity for briefing, updates and then we will definitely be having regional public meetings. So the technical approach is we will be taking the information from the Maui Island Plan and integrating it, synthesizing many of those components and if you look through that now, you can see where there are responsibilities that have been assigned to the Department of Water Supply, everything from cultural heritage issues to planning and future projected growth and so forth. Again I want to reiterate that in this new technical approach it will not just be the Department of Water Supply system, but we'll be looking at all systems and all uses and users as well. We plan to work very closely with various departments and divisions throughout the County, have already started to do so in terms of Planning, Long Range Planning and Public Works as appropriate. Again I already described the Integrated Resource Planning approach. That is important because of the whole issue that Lenore brought up about tradeoffs so that would be very, very important. And again, I really want to reiterate *[sic]* to you all that the previous work has not and will not be wasted. Much of the information that one of the consultants put together, the Director has used it with engineering and some of these presentations you've seen in terms of the water optimization studies, the Capital Improvement Programs, that has already been gleaned from that work and is currently being used. This is very frightening looking but if anything what you should know are the black bars are the different drafts that we're going to be having and these are the...you have the better hard copy version, but this essentially shows our staged approach. It's not a linear process but it will be moving forward as we identify each

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

one of the stages that we've told the Commission we'll do. The first is the planning objectives and valuation criteria. Essentially as far as that's concerned, much of that has already been done, again I say from the West, from Central, Upcountry, that will be used, put together, updated, will clearly be synthesized and integrated in terms of the outcomes of the General Island Plan to make sure that it is, that it basically it's consistent with that as well. This is obviously very critical and a lot of very good information for this will come from the State, will come from the Hawaii Water Code rather the Hawaii Water Plan, as well as the information we have in terms of collecting data such as our surface water, groundwater, impacts to resources, infrastructure capabilities with the Capital Improvement planning, much of this good work has already been going on and will continue and this is what we'll be including in this section's section. And the third stage, this is the really critical stage of looking at what has been done and based on the data that we have and again the Maui Island Plan and what's been identified for future growth and so forth is looking at the scenarios, the planning objectives, and taking a very hard look at the tradeoffs which again is possible once you're looking at all water systems and all water users to be able to do that. Lenore already went through this so now you understand the various elements of the Hawaii Water Plan and this is going to be particularly critical with the Ag Water Plan because as Lenore pointed out there sort of tends to be a gap in terms of...I'd like to make sure that we really have a very clear understanding in terms of what the water use needs are here in Maui County for ag water and again with the updates which we will be getting on the Department of Hawaiian Home Lands as that is being updated as well for that component. This is public review and again not the greatest colors but each stage, each black bar, indicates a draft, three drafts with a final. Essentially and again I, I leave this to the actual committees but your Committee, the Water Resources Committee as well as the Maui County Board of Water Supply, if you desire we will certainly brief you all at each one of those drafts, those are kind of the pale one, it didn't quite come out and the blue one. Underneath that and after briefings to you all, we plan to have regional meetings around the island to the public, and then we will be updating the Commission I believe twice and then pulling in comments and putting in comments and then preparing each draft as we move forward. So basically it's going to be one document, not four more, but one document encompassing the entire island. It will not be centric to our system but rather all systems and all users for the island. It will be a supporting document to the Maui Island Plan. All information that you guys have been very familiar with and have, used to hearing and is currently being used by the Director and other divisions will be used within this Plan. The public process will continue and we're saying the estimated completion date is probably early 2015 at the latest but again much of that is contingent upon the public process. Obviously the more public process you have, it may, you know, pull it out a little bit longer, but certainly no later than 2015. And that's all I have, thank you.

CHAIR VICTORINO: Well, thank you very much, and what I will do now, it's almost quarter, almost 15 minutes past 10 o'clock, I will call for our mid-morning break and I'd like to ask the Members to reconvene at 10:25 a.m. and so that we'll get the Chamber prepared and ready to start the question aspect and also take our public testimony. So this meeting will now stand in recess until 10:25 a.m. . . .(gavel) . . .

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

RECESS: 10:08 a.m.
RECONVENE: 10:25 a.m.

CHAIR VICTORINO: . . .(gavel). . . The Water Resources Committee for, meeting for September 4, 2012 will reconvene. As I stated earlier, we had put off public testimony until after the presentation. So at this time I will start with public testimony with no objections.

COUNCILMEMBER COCHRAN: No objections.

CHAIR VICTORINO: Thank you. We have two testifiers and if somebody else comes in and wants to testify before we close public testimony, we will take it. Our first testifier is Mr. Gary Sanchez and he's speaking on this his behalf. Mr. Sanchez, if you'd come forward, and he'll be followed by Rosemary Robbins.

.. .BEGIN PUBLIC TESTIMONY. . .

MR. SANCHEZ: Good morning, Council members, Water Chair --

CHAIR VICTORINO: Good morning, Mr. Sanchez.

MR. SANCHEZ: --personnel. I'm here to testify not just on my behalf but on some of my neighbors. One of 'em is 93 years old, the other one is in the late 80s. Where we live down on Omaopio Road, there is no waterline. We have water meters but no water lines. I've been probably the most active one in the community trying to get things resolved with the Water Department. I've been working on it for maybe the past 20 years with no results. Well, I went to the Kula Association meeting and some of you Council members were there in February. Mr. Taylor was there and everybody talked about water rate increases so we could get infrastructure improvements, and I was very skeptical because, you know, how many water rate increases have we had over the years and no infrastructure improvements done on Omaopio Road, so I was very skeptical. Then I read in the newspaper \$30 million, wow, for the Water Department. I got a little excited. I called the Water Department, talked to one engineer, he tells me "sorry, nothing planned for Omaopio." I called another engineer, I said "what are the chances, I mean, you know, my neighbor nineteen forty something, he moved down in Omaopio. He's 93 years old, he's still waiting for waterline." "Um, you know, Mr. Sanchez, I don't think the, the number of water meter users justify the cost of a pipeline." I told him, well so what do you do with our monies? We pay for infrastructure and we don't get anything. We pay taxes on money that the Water Department has to borrow from the General Fund for Capital Improvements so we get a double whammy, but we don't get any infrastructure improvements. It's just insane. How can this guy, 93 years old, with the largest feedlot on Maui, the largest piggery on Maui and no waterlines? He gotta run his own private waterlines down the road, including myself and my other neighbors. Somewhere along the line, we should have become a priority. How can Upper Kimo

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

Road be upgraded from a six- to an eight-inch waterline? Lower Kula Road from Holy Ghost Church to Naalae Road. Couple years ago, six-inch waterline to an eight-inch waterline. South Kihei Road, couple years back from an eight-inch waterline to a twelve-inch waterline. Who lives in South Kihei Road, born and raised on Maui? We pay for all that but what do we get? I can't understand it, there's no logic to it. You know, when, when I was told that the number of water meter users don't justify, well we got nine, I think approximately nine to eleven tax map keys, it all depends how you want to count it. HC&S just sold a piece of property to some people that are going to try make organic whiskey or something so they built their own well, they have their own structure going. The people by the goat farm below me, they dug their own well. I mean all these people are paying taxes on their land but they receive no infrastructure improvements, nada. I mean, it's just insane. Piliwale Road, above me, it's a one-lane farm road, they have an eight-inch waterline coming down the road. Below Piliwale Road, the Water Department in 1972, from what I was told, came down with another eight-inch waterline only to a certain point, reduced it to a six-inch waterline and all of a sudden stopped. They didn't come down the rest of the road. Why? It's, you know, there's no logic to it. So you know, my question to you, Mr. Taylor, do we have hope for a waterline before I reach 93 years old, if I ever reach 93 years old? Do we have hope, Mr. Taylor?

CHAIR VICTORINO: Mr. Sanchez --

MR. SANCHEZ: Yeah.

CHAIR VICTORINO: --this is not a --

MR. SANCHEZ: Oh, okay --

CHAIR VICTORINO: --yeah, not question and answer--

MR. SANCHEZ: --oh, okay.

CHAIR VICTORINO: --but I, I think --

MR. SANCHEZ: I thought I could address...

CHAIR VICTORINO: --we got your point.

MR. SANCHEZ: I, I thought I could address anybody.

CHAIR VICTORINO: Thank you.

MR. SANCHEZ: You know --

CHAIR VICTORINO: Yes.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

MR. SANCHEZ: --somewhere along the line we gotta get an answer, Council members. Mr. Mateo, many, many years ago tried to work with the former Water Director. He couldn't get any response from him, no commitment, nada. It's like, I don't know, you know, who presses what button? I think it's a little discriminatory to tell you the truth. You know, maybe if I had a good lawyer, if I could afford one, maybe we could get something done but how can certain people get and certain people don't get?

MS. WILLENBRINK: Three minutes.

MR. SANCHEZ: I just, I just, I don't know, and I'm not giving up. My neighbor 93 years old, the other neighbor 80, in her late 80s, they cannot come and testify anymore, they've given up. But I'm not gonna give up. And we are not subdivisions, we are private water, I mean private landowners along a main highway, Omaopio Road, and no waterline. So that's all I got to say, Council members. I hope somebody somewhere along the line can help us. That's all I can say because so far I haven't gotten any help.

CHAIR VICTORINO: Thank you, Mr. Sanchez. Questions for the testifier for clarification? Yes, Mr. White.

COUNCILMEMBER WHITE: Thank you, Mr. Sanchez. Could you give me your address please?

MR. SANCHEZ: 3371 Omaopio Road.

COUNCILMEMBER WHITE: Okay, great. It allows me to take a look at it. Thank you.

CHAIR VICTORINO: Yes, Mr. Pontanilla.

VICE-CHAIR PONTANILLA: Thank you. Thank you, Mr. Sanchez. I hear you loud and clear. For my information, can you tell me where is the last water meter on Omaopio Road that from you? How far down?

MR. SANCHEZ: About two years ago, the waterline ended at the Hanzawa property which eventually sold to a developer, and since then two different developers brought down an eight-inch waterline for their developments. They got water meters, I don't even go to how they got the water meters, but they got water meters and they brought in the eight-inch waterline until Mr. Jim Judge's property. And...

VICE-CHAIR PONTANILLA: How far is that from your line?

MR. SANCHEZ: That's about maybe 300 feet, less than 300 feet to my property line but, you know, we have, besides my neighbor across the street, we have about seven more people with water meters that run waterlines also, yeah.

VICE-CHAIR PONTANILLA: Okay, thank you.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

COUNCILMEMBER BAISA: Chair.

CHAIR VICTORINO: Yes, Ms. Baisa.

COUNCILMEMBER BAISA: Yes, thank you very much, Chair, and thank you, Mr. Sanchez, for being here. I know how hard you've been working on this and how long you've been trying to get an answer. You're not allowed to ask the question but I am and so when we get to that I'll try to get an answer for you.

MR. SANCHEZ: Okay, thank you, I appreciate that.

COUNCILMEMBER COCHRAN: Chair.

CHAIR VICTORINO: Thank you, Mr. Sanchez.

COUNCILMEMBER COCHRAN: Sorry, Chair.

CHAIR VICTORINO: Yes --

COUNCILMEMBER COCHRAN: Thank you.

CHAIR VICTORINO: --Ms. Cochran.

COUNCILMEMBER COCHRAN: Good morning, Mr. Sanchez, thank you for being here. The Arakawa family, Mayor Arakawa, are they from this area?

MR. SANCHEZ: Yes, they are.

COUNCILMEMBER COCHRAN: Thank you. Just checking, thank you.

CHAIR VICTORINO: Any other questions? Seeing none, thank you, Mr. Sanchez, and we'll keep working on this for you, Gary.

MR. SANCHEZ: Okay, thank you, I appreciate. Thank you.

CHAIR VICTORINO: Next testifier is Rosemary Robbins and she will, she's with the Upcountry Oversight Advisory Committee. Ms. Robbins...yeah, please.

MS. ROBBINS: I apologize. Good morning, everybody. Special welcome to the people who came from off island, still here. Gladys, feel free to ask are Maui and Lanai islands included in this. We kept seeing all those things that said Maui island, Maui island. I think the people on Molokai would be interested in knowing that. Couple of things. I sort of in my own outlook in life, god _____ and a god grown set of criteria. I think it's excellent and I heard this morning that in this new setup they're going to have best

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

management practices, yay, yay, yay, written in green, alright. Okay, I have some _____ that I think that we need to address. I saw on the video presentation up there on the Commission State Water Code address that one of the objections [*sic*] was adequate water quality. Scratch the adequate, substitute it with excellent, please. If we don't shoot for it, when are we going to get there? If we only aim for adequate, the best we'll get is adequate and the likely that we'll get is less than adequate perhaps. Okay, was crushed that there is no strategy on the State to address this needs. I hope I'm accurately having written that. I'll be happy to hear a correction if that wasn't right. I don't know, it's like Bloody Mary, you gotta have a dream if you're gonna have a dream come true. You gotta have a strategy if you gonna be able to have your objectives there and to be able to measure their successes or not. I'm curious because the Public Land Development Corporation also began in 2011 and that now is being State Bill 55 is hotly contested. I got that 88-page Bill, waded through it, it was supposed to have been 11 people on their board, Hawaiian specialist, ecology specialist. Now they're down to five people on the board. Those people aren't represented and they don't have any oversight. So I'm hoping, especially as having served as the EPA Oversight and Advisory Committee, am very concerned to know and, and will share with you that the public wants to know who's going to be overseeing what's happening here. So it looks like you're off on a good plan. I want people to be comfortable about that. I would also remind you that there is a concern about silos. That was a big thing that came out in the EPA. This division didn't talk to that department's division, such and such, blah, blah, blah. Please don't let that happen again on this one and like I say, I'm concerned about Molokai and Lanai because they seem to be silos that weren't addressed in any of this this morning. So don't do the good work, do the best work, alright. And just count on the fact that there are people including Mr. Sanchez who have been shafted for years. Please don't let that continue to be an SOP. Sounds hopeful, make it a reality. Thank you.

CHAIR VICTORINO: Thank you. Any questions for the testifier? Seeing none, thank you, Ms. Robbins.

MS. ROBBINS: You're welcome.

CHAIR VICTORINO: Appreciate it. At this time I will open the floor with one more opportunity, anybody wants to testify. Seeing no one rush to the podium, I will close public testimony with no objections.

COUNCIL MEMBERS: No objections.

...END OF PUBLIC TESTIMONY...

**ITEM NO. 6(4): COMMITTEE'S PRIORITIES AND PROCEDURES;
PRESENTATIONS FROM COUNTY ADMINISTRATIVE
AGENCIES (DEPARTMENT OF WATER SUPPLY PRESENTATION)**

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

CHAIR VICTORINO: Thank you. Okay, let's start. First of all I want to thank MEDB and Mr. De Rego for that excellent presentation. I was able to attend a two-hour seminar that you had with that and I think it was really enlightening to understand the historic value of what water has meant to this State, to the Kingdom of Hawaii and even before that, yeah. So I want to thank MEDB for their historic perspective. I think the people of Maui County appreciate that and I think now has a better understanding and hopefully helped Council members. Secondly I want to thank the State Water Commission for being here, Ms. Ohye and Mr. Tam, and, you know, you'll be fielding some questions very soon so don't get nervous, your time is time is coming. I think they also gave us a great insight in what's happening now and what the historic and as well as where we are in our Water Use and Development Plans. And Ms. Robbins, let me say, as they mentioned earlier it is all encompassing, it's just not Maui County. The Maui Island Plan is being discussed because it's the Maui Island Plan but this will entail all the County as well as all the private systems that are a part of this County. So it's not just one entity. In fact, if nothing else, I'm very pleased to know that they include everybody which is really, anyone using water whether it's private or public, using a public trust which is called water. So with that in mind I thank you for that overview and now being able to encompass everything, 'cause I think when we first started on the Water Use and Development Plan, that was the real question and I think I brought that up years ago, what about the private sector? Oh, I was told that's not included and yet they're users of water so we have to, we have to have that. So thank you very, very much. And then, Pam, I thank you for your overview and how we're going to change somewhat how we are, how we are developing the Water Use and Development Plan. I think that's important. I think now we're gonna be more encompassing so now it brings everybody together and now all the information is going to be shared together. And I think we'll have a better picture on what water is all about. Okay, so I want to thank all the different entities that are here from our Department, from the State and as well as you Members and the public and MEDB. I think today we have a much better picture. Now I'm not saying it's, it's clear at the end but at least the starting point now we have historic as well as where we were, where we need to go and what we want to do and what it's gonna cost us to do that which Mr. Taylor kind of remind us, reminds us that, of that all the time, right, Mr. Taylor? Thank you. Okay, so at this time what I will start out with is if it's okay, we'll start out with the State 'cause they have to head back. So I'll start with the Water Resource, the State Water Commission and their Water Resource Management Program. And I'll start with Ms. Baisa and we'll work, just work our way down across the board and if we could limit to maybe one or two questions so give everybody a chance if that's okay with everybody. Ms. Baisa?

COUNCILMEMBER BAISA: Yes, thank you very much, Chair, and thank you for the consultants and the staff and the folks that are here today. I really appreciate having you here, it's very important. I'm, of course, very interested in where we are today. You know, I was one of those people that diligently attended dozens of meetings on the Upcountry Water Use and Development Plan and kept waiting for some resolution of well, when do we come here and vote yes or no. And I've been subsequently advised by Mr. Taylor that we were switching to a complete plan for Maui rather than having

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

separate plans. And I'm very happy to see that it's emphasized over and over and over in your presentation that the work that was done will be used. My concern about that is I'm assuming that we've spent a considerable amount of money on planning up until now. And you know we've had a consultant and he spent hours and hours and hours and hours and we all know consultants are not cheap. So I think it's really, really important that, you know, we save that information and that it be incorporated. I guess it's gonna come down not so much in the plan that the State is doing but in the plan that we do here for Maui and where we can get into some nitty gritty questions. One of the things, of course, that concerns me is that we're talking about 2015. You know, it seems like a really, really long time. We hope to be done with the Maui Island Plan by the end of this year, which means that that's 2012 finish and then we are ready to go hopefully in 2013. And that's, you know, that's a couple years beyond the completion of the Maui Island Plan and I don't know this two-year delay how, how that's gonna affect implementation. So I just wondered what your thoughts were about that.

CHAIR VICTORINO: Ms. Baisa --

COUNCILMEMBER BAISA: Yes.

CHAIR VICTORINO: --if I may interject at this point. Once we get through with the Island Plan from the Council level, right, do we not then turn it to the community and the community --

COUNCILMEMBER BAISA: It's --

CHAIR VICTORINO: --then takes, takes it from there?

COUNCILMEMBER BAISA: --it's supposed be finished by the end of the year. We will have gone through the community process.

CHAIR VICTORINO: The community plan will be done by the end of this year?

COUNCILMEMBER BAISA: No, not the community --

CHAIR VICTORINO: Oh, okay, I'm sorry.

COUNCILMEMBER BAISA: --plan, Maui Island Plan.

CHAIR VICTORINO: Maui Island Plan, okay. I just wanted clarification because even I was kind of confused in your question. I'm sorry, I just wanted the clarification.

COUNCILMEMBER BAISA: No, I'm referring to the Maui Island Plan and the difference between us getting through at the end of this year and this Plan hopefully getting done in 2015 so there's that break.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

CHAIR VICTORINO: Uh-huh.

COUNCILMEMBER BAISA: I'd like us to, what I'm trying to say is I wish we could get started. You know, we have testifiers who come, like Mr. Sanchez, and they come with heart-filled emotion about what's gonna happen to me and my area. And I think that's, that's the concern that I have as a Council member is that we keep telling people this plan, that plan, but they want to know when is something is gonna happen for me, whoever can take it, I don't care.

CHAIR VICTORINO: Mr. Taylor, if you would go ahead, please.

MR. TAYLOR: And thank you, Mr. Chair. Member Baisa, thank you for your question. I think your question gets to the heart of what the Water Use Development Plan is and what it isn't. What it isn't is a Department of Water Supply CIP Plan. We don't have to wait for the Water Use Development Plan to be finished or even started, before making Capital Improvement decisions. The Water Use Development Plan is primarily so that the State Water Commission can understand what this community and this Council feels, what sort of decision should be made about water allocations to competing interests. It has nothing to do with the decisions you folks make during our CIP planning about how much to raise rates, what our priorities are for infrastructure and those kind of decisions. In fact, I think the previous versions of the Water Use Development Plan probably went too detailed into Department of Water Supply infrastructure choices. What we've done that Ms. Pogue talked about is we've taken that information that the consultant did and we've moved that into the engineering group for some of these presentations you've seen about our water, our system optimization. We're not dealing with those in the Water Use Development Plan, we're dealing those with our engineering group in our CIP effort. So I think that's, that's key of what we're fundamentally changing is we're not trying to make the Water Use Development Plan all things to everybody. We're dealing with big picture issues, same level that you deal with the Maui Island Plan, really big picture. The more detailed issues of what are we building, what's our CIP program, what's the budget for CIP, we'll handle that outside of the Water Use Development Plan and that can be done simultaneously and faster if you like.

COUNCILMEMBER BAISA: Wonderful. So that then, we don't have to worry about this lag in time for the Plan to be completed where we can take care of our local issues?

MR. TAYLOR: That's correct.

COUNCILMEMBER BAISA: Thank you very much. Thank you, Chair.

CHAIR VICTORINO: Thank you, Ms. Baisa. Ms. Cochran?

COUNCILMEMBER COCHRAN: Thank you, Chair, and thank you, everyone, for being here and our presentations in regards for the State. Just curious what the latest State Supreme Court ruling in the Na Wai Eha case in particular means to us today.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

CHAIR VICTORINO: Mr. Tam.

MR. TAM: Thank you, Council member, for your question. One of the things that is important to understand about how the contested case works is when it goes to the Supreme Court, it is now back on remand to the Water Commission and the Commission acts like a judge in this matter so that the proceedings before the Water Commission will be a continuation of the contested case. Technically what has happened is the Supreme Court has, in effect, reversed the prior decision of the Commission. It is now come back to the Commission to do again the Instream Flow Standards with, under the guidance of the Supreme Court's direction. So that will be taken up, the Commission literally just got a copy of it in its last meeting. It has not yet even had an internal discussion about the question. So the next steps are procedural but what do we need to do in order to go back and continue the contested case in light of the direction of the Court.

COUNCILMEMBER COCHRAN: Okay, thank you. Thank you, Chair.

CHAIR VICTORINO: You're welcome. Mr. Hokama?

COUNCILMEMBER HOKAMA: Chairman, thank you. I going be upfront, coming from Maui County, I don't agree with some of the things you guys shared with us this morning. So stating that, when you shared with us the DLNR does all the State water projects planning, that is for State projects that they gonna go before a State Legislature to get State General Fund appropriations, is that what you folks talking about?

MR. TAM: Generally, yes.

COUNCILMEMBER HOKAMA: Are those prepared by DLNR?

MR. TAM: Yes, generally, or that, or that, for example the Department of Education may have a project and they need water for some reason so it would be either through their, their funding or CIP through the Legislature.

COUNCILMEMBER HOKAMA: Okay, and maybe that's part of the crux of one of my issues, yeah, whether or not you folks gonna listen to the County and the policymakers like the nine of us here on population growth and where we want this County to go versus your State Departments and what they think our population growth should be and what we should have from your State Department's infrastructure perspective.

MR. TAM: Is that a question?

COUNCILMEMBER HOKAMA: Yes.

MR. TAM: Two points real quickly. The particular things in the State project are literally only for a particular State project at a time. In other words, it's not for an overall plan. So it

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

is, for example, there's a new school and they need a well site, they will literally just go for that particular well site, it's not a broad plan. The broader plan which is what we're here to talk about today is the Water Use and Development Plan. That is actually in your jurisdiction and the reason we are asking the counties to prepare those is so when there's a tough choice to be made that the county will have said we want X versus Y, and the difficult part is if that, if you folks haven't made that decision then we're left without any guidance. So it's actually, you can make those decisions about all those growth issues.

COUNCILMEMBER HOKAMA: Uh-huh.

MR. TAM: And basically your Plan will tell the Water Commission what you want. And so therefore when the tough call is, has to be made at the Water Commission level, we open up your Water Use and Development Plan that says what is the County Council said they want to do in this. So the irony is you actually are in, in the driver's seat on that subject and you're in the driver's seat through the Water Use and Development Plan which your staff's developing.

COUNCILMEMBER HOKAMA: Anything for Maui, that was always our intent. But I can tell you from the time comes to pass the Lanai Update Plan and what the Water Department and Director said to us to what we heard this morning on the new approach that we're gonna scrap four regionals and make one island map? That is a different talk to this Committee, okay, and that's why we having questions, because that is not what we were told when we made a decision on the Lanai update for the Lanai Water Use Plan, that being a private system, okay. So we hearing two different things but I want to bring up my, my other point and that is you showed us a graph of interconnections, yeah, on the next page and for I think almost every Member on this Committee that sits on Finance and Budget also, we dealing with agricultural values, agricultural water rates, agricultural property taxes. I think, you know, for people like you to help us work on this kind of plans where you have one component which is a agricultural water use then you need to tell your sister department get off its butt and give us new, accurate updates on valuations of crops, land values and whatnot so we can make appropriate adjustments on valuations as it relates to water and energy costs that is eventually gonna cost us to pump to get from the source to the user. So where are those informations that's gonna help this Committee and this Council make those type of decisions? We dealing with 40-, 50-year old agricultural data, and we can tell you we've been reviewing this for the last two years seriously, and we dealing with information from your sister departments that in public media I'm forbid to express how I actually feel about it.

MR. TAM: I can give you some information on that. The Water Use and Development Plan that was drafted, the second version is being held precisely for that reason and they are going back and getting better crop data. That's one of the problems they had with it. So that's, that's being undertaken now, and I don't know who is actually working on it but I am told that that is being changed and is one of the reasons the second version did not, was not published. One other comment real quickly on your earlier point. There will always be a separate Lanai Plan and a separate Molokai Plan but the one for the island of Maui

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

as opposed to the County of Maui will be one plan as opposed to just a series of subregional plans. That's my understanding.

COUNCILMEMBER HOKAMA: Okay. Is that on a assumption? And I'm asking, I'm not making a statement. Is that an assumption we gonna have an integrated water system, that's why it's only one plan, one island plan, when we...

MR. TAM: Yeah, but for the island of Maui?

COUNCILMEMBER HOKAMA: Yes. You thinking that we gonna to an integrated system and that's why it can be just one plan for one island?

MR. TAM: It may not be connected. I mean, for example, on the Big Island, you have a lot of, because of the distances, there are a lot of disparate, separate systems that aren't connected at all and yet they're still, in fact, here it is, it's on our website. You can look at what they've done with, with their effort to connect the information, but they, I mean obviously Kau is not connected to Hilo so they still have to look at how the water systems work within each hydrologic unit. I mean all water is local in the sense that you have to look at what the groundwater is and the surface water is in that location. And so to that extent you have to take into geographic regions new account, but the effort to, to unify in the sense of thinking about how it works throughout the island as opposed to just having one for Hana, one for Lahaina, they're not, they're not, they don't have a unified approach. So the goal would be to have a unified approach obviously but you have to take each region into account. That's, that's my understanding of how, from your Director, maybe David can add to that.

COUNCILMEMBER HOKAMA: Isn't that what the Commission's job is anyway?

MR. TAYLOR: If I can add just one little bit to what Bill said. If you think about the ditch system from East Maui, you have water that rains in East Maui, it's already coming from the ditch system, we use it, we use it, we take some of that water for Upcountry. Some of that water comes to Central Maui for agriculture, so even though the Department of Water Supply systems are not connected though the areas, the water that rains in one area may go to much different areas so there's still competition from end users for the water in an area. That's why we feel that integrating the Water Use Development Plan is a way to deal with this although the systems themselves, the DWS systems may never be linked to that extent, the water use is, has not been for, you know, roughly a hundred years, has not been limited to where that water falls from the sky to the ground. So that's why the reason for an Island Plan for Maui, an Island Plan for Molokai and an Island Plan for Lanai, why each of the Island Plans needs to be each own water use development plan.

COUNCILMEMBER HOKAMA: And I appreciate your comments, Director, and I'm sure you folks did the legwork to come up to some, be able to make recommendations but, you know, for me dealing with governance for 20 years, we got a long way to go because I don't see it, not for this island. Thank you, Chairman.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

CHAIR VICTORINO: Thank you, Mr. Hokama. Mr. White?

COUNCILMEMBER WHITE: Thank you, Chair. I share some of Mr. Hokama's concerns when I see that the, the unmet demand from the State, State DLNR study shows that we're gonna need to come up with 13 million gallons a day when we're only at 39 now. But the question I had for you was the, the map showing the island aquifers at the top says 427 million gallons a day...and this is for Mr. Taylor. That coincides with the numbers on the map that we get with our, our monthly usage from your Department?

MR. TAYLOR: I believe that's correct.

COUNCILMEMBER WHITE: Okay. And then the other question is, of the 39 million gallons that we use per day, do you know what percentage of that comes from surface water and what percentage comes from groundwater?

MR. TAYLOR: I don't have that number off the top of my head and I was just looking at it this morning and I almost brought a binder that had that, but I think it's about 80 percent groundwater, 20 percent surface water islandwide, something like that.

COUNCILMEMBER WHITE: Okay. So just for the island of Maui, and if, if we are using 80 percent, that means about 30...

MR. TAYLOR: Now remember that's, that's domestic water between Department of Water Supply at around 33½ million gallons plus the private domestic water utilities. That does not include agricultural water which is, you know, in order of magnitude or two greater.

COUNCILMEMBER WHITE: But that's almost all surface?

MR. TAYLOR: That's all surface, yes.

COUNCILMEMBER WHITE: Yeah. So if, if we're looking at 427 million gallons a day, that's, that's what's capable of producing for groundwater only, right?

MR. TAM: I think, there's a real serious problem here in sustainable yield calculations being used to be as firm as people think as a dollar in a bank. The numbers are, are not quite what people think they are. And the reason for that is, while there may be water in the ground, the ability to actually get it out in remote places is very difficult.

COUNCILMEMBER WHITE: So...

MR. TAM: So...

COUNCILMEMBER WHITE: No, we understand that.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

MR. TAM: Yeah.

COUNCILMEMBER WHITE: We go through that all the time when we have CIP discussions. It's where is the water, how much is it gonna cost to _____?

MR. TAM: Where's the cheap water, where's the expensive water? Right.

COUNCILMEMBER WHITE: Right. So, yeah, we understand that. But I guess my, my point is that we've always been talking about how, how little water we have and yet we have a fairly significant amount of water, it's just maybe not in the easiest places to get. My other question, Chair, has to do with the chart on the Iao Deep Monitoring Well and the question for the Water Resource folks, either Lenore or Bill, is what is the difference between the average daily and the static levels?

CHAIR VICTORINO: Maybe, Lenore, you'd like to take that one on --

MS. OHYE: Sure.

CHAIR VICTORINO: --please, thank you.

MS. OHYE: Chair, the average daily in going to be the average of a number of different water level readings averaged out over some time. The little intervals to come out with an average daily one because we take water data at smaller intervals than that. The static one is an actual reading for the day.

COUNCILMEMBER WHITE: Okay. And then when you see the...it looks like the peaks are dropping and the, and the valleys are also moving down, is that due to increased usage or a combination of usage and recharge?

MS. OHYE: We're, we think it's a combination of things. It's probably been the drier weather we've been experienced lately as wells as drier weather increases demand and so you probably been pumping a little bit more.

COUNCILMEMBER WHITE: Okay.

MR. TAM: If I might add one point on that. USGS just published a study in August by one of their, their hydrologists showing over the last 100 years that if you take a baseline of streams across the State and take a period 1910-1945 roughly and then compare the last six years, the evidence seems to be across the State, the base loads of the streams, not the high flow levels or high rain events, but the base loads have declined about 22 percent. And that's a pretty serious decline in the last six years and it seems to be going downward because those base loads are also fairly good surrogates for ground water recharge.

COUNCILMEMBER WHITE: Uh-huh.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

MR. TAM: And if you may be familiar with the work by the, Tom Giambelluca at the University and the *Rainfall Atlas* he just published last year showing that just in the last 15 to 20 years the amount of rainfall hitting the windward sides of the islands has declined somewhere in the order of 10 to 12 percent. And that's partly due to temperature inversion pushing the clouds down and also temperature pushing the bottom side up so that the thickness of the clouds now hitting the windward side of the mountains is thinner so the amount of water actually hitting the mountains is less than the aggregate. It doesn't show up on day-to-day or month-to-month variations but over time. So one of the things that we're experiencing and we're looking at a lot very closely now is those recharge levels are gonna start to show up in declining groundwater levels. Obviously the windward sides of the islands will still be okay but the leeward sides of the islands, we think, are going to start to experience more dry periods. So this is, this is a serious problem so the sustainable yield numbers we've got now, many of those are 20 to 30-year-old data. We're working with USGS to actually redo the data on Pearl Harbor in the next year and a half to see, 'cause that was 19...early 1980s' data .

COUNCILMEMBER WHITE: Uh-huh.

MR. TAM: So we're in the process of looking at that to figure out what kind of sustainable yield numbers are starting to affect us. So when I say the sustainable yield numbers are not even what they are in this number, we are, we are concerned that they're all going down. So it's not a fixed, fixed number.

COUNCILMEMBER WHITE: Okay, thank you. Thank you, Chair.

CHAIR VICTORINO: Thank you, Mr. White. Mr. Pontanilla?

VICE-CHAIR PONTANILLA: Thank you, Chairman. On the slide where you show your agricultural systems and one of the things that caught my eye is the rehabilitation cost for ten systems which is \$100.5 million. And again as far as the ten systems, how many on Maui, if there is one on Maui? One of the things that, you know, really concern me is that, you know, we've been trying to put in this waterline Upcountry for the farmers and it's been taking, I don't know, maybe since I been here, and how do we get the funding from Legislature knowing that the State don't have any money? What becomes priority for the State?

MS. OHYE: Yeah, it does cover some of the water systems on Maui. You can see in the, in the little map there, there's different symbols and so the blue dots, the Select Systems, are the ones that are covered as well as the Department of Ag systems, the red ones, as well as we did do the Molokai irrigation system.

VICE-CHAIR PONTANILLA: So is there like a priority in regards who gets the money first.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

MS. OHYE: And that's, that was one of the dilemmas. So the initial plan sort of just looked at what the state of the all the systems were in, and it came out with repair costs as well as it came up with operation and maintenance costs. So this 100 million is only for the repair to get them back into the shape they were. The next question and, and one of the things that the, the Ag Water Use and Development Plan is working on now is in addition to the crop valuation that Bill brought up is also to prioritize which systems gets it. And that I think is going to be driven by the recent Legislature addition of, you know, the requirement to actually identify future needs. So we'll look at which systems have the most demands gonna be coming up and probably the DOA will want to prioritize the fixes on those.

VICE-CHAIR PONTANILLA: Okay. And the other question in regards to, you know, when you look at 2020, the island need for Maui would be 13 plus million gallons per day. When you look at the rehab costs, I'm sure some of the rehab will probably make the system more efficient. So how much efficiency we gonna get by doing the rehab so that we can somehow meet this 13 million gallons by the year 2020?

MS. OHYE: Yeah, no, that's a really good question in terms of water system efficiency and I, I mentioned a little bit briefly about the Commission's initiative to come up with a Statewide water conservation plan, and Pam also talked about it, and one of those sectors that we're looking very closely at is the agricultural sector because they use so much water and because they're, the difficulties in metering and measuring their water use as well as upkeeping the system, they have a lot of difficulties just because of the nature of, of their source diversions. And so we're actually sort of focusing on ag, agriculture because there is a lot of efficiencies that can be had but of course it comes at a price but it, you know, we're, we're focusing on that and asking the agricultural purveyors to look at that as well. So that's a really good question but we believe that if we can tighten up the systems, make them a little bit more efficient supply side, that would actually allow us to be able to restore some of the stream flows because then less water needs to be diverted.

VICE-CHAIR PONTANILLA: Thank you. You know, as we move forward to attaining that goal, you know, here in Maui County, you know, we have a project that we bonded \$13 plus million to, to do some rehab on a system that hopefully we can gain an additional 1 million dollars, one million gallons, but as, as we go forward though, you know, just to get more water out of the ground is costing this County big money. And one of the things that bother me is that the priority of the Department of Hawaiian Home Lands, knowing that they don't have any funding or lack of funding to develop their own. So there's some disparity where, you know, the general taxpayers are paying for a special group of people in regards to having water for their development. So I don't know how the State is going to address that to support the County in regards to some financing.

CHAIR VICTORINO: Mr. Tam, do you want to take a stab at that?

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

MR. TAM: I suppose, I suppose the question is properly put to Russell Kokubun at the Chair, Department of Agriculture, because he's the one that works with the Governor's office preparing the budget requests for the Ag Department. With regard to the Hawaiian Home Lands, they have certain old established rights under the 1921 Act that give them certain priorities. How that's gonna get sorted out in a practical sense in any given case, I think is going to take some leadership and that's what's gonna really have to come about. With regard to conservation, Lenore talked about like energy, the low hanging fruit for inefficiency is conservation and I think the thing that we need to realize is these are investments, these are long term investments which only have a payback over a period of time but we've gotta make them. They're not, not expenses, although we may pay for a system in a year or two, we gotta look at what's the long term benefit to that? It's the same question we're going to have with dam safety and the, after Ka Loko, the Legislature passed the Dam Safety Act, we have 139 regulated dams in the State and all but one are earthen, most of 'em are 80 or 90 years old. They don't meet modern FEMA standards but for the future we cannot afford not to have our reservoirs. The key to recharge the key to flood control with key to agriculture is having the ability to store water. And there are a lot of things we can do in, in new ways. For example on Kauai they're looking at pump storage issues, they're looking at ways for example you might use the peak drop period during peak load period and then take the pump, pump it back up using photovoltaic and off-peak hours, and so you can mine the difference for example between the photovoltaic costs and the avoided cost of oil. So a lot of very ingenious things that can be done and there're going to be engineering techniques that are specific to that system. But those are the, those are the areas I think that, that if done properly will give us a long term value. And frankly the sooner we get more people back on the land growing things, the sooner we have a cash flow to pay, fix the dam in the system. So while these numbers look large, if our agricultural community was up and running sooner rather than later, we'd have that cash flow back. I mean it all actually ties into the notion if we bought food from farmers in Hawaii instead of buying it from the mainland, we'd keep that \$3½ billion a year we export here and that cash flow properly capitalized could fix these things 'cause, you know, if you know you got the market and people are going to be buying then you can afford to take those investments. So in some ways, ironically, developing our own self-sufficiency in food is the very way we're going to pay for these systems, 'cause without that cash flow back, none of this is going to work anyway. So the answer ironically may be to fix the irrigation systems, and the dams we ought to focus on more productivity in terms of where we buy our food. That sounds indirect, but that's the way it works.

VICE-CHAIR PONTANILLA: Yeah, thank you for your, your comments and response to my question. And one of the things that always bothers me is that, yeah we talk about, you know, buying things local and one of the problems that we face is that the cost to purchase those things and if we can bring down those costs then, you know, I can see your reasoning that hopefully in the near future will, I don't know if near, but, you know, one day that we buy more local produce than buying produce from elsewhere.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

MR. TAM: I actually think there are, if we get control of our cost structure very, I follow groundwater around the world, and the near inexpensive water for ag or consumption is been used up already. If you look at what's going on in China and India and Saudi Arabia they're actually now leasing large tracts of land in East, in East Africa, to grow food to send home. That means their water supplies are in trouble so I think food prices, even if the drought issue aside, on a worldwide basis, both population growth and because of transportation are going to keep going up. So I think if, if we look five years down the line, we're going to be competitive. In fact, we gotta get ready for that date because both energy and food costs are not going to go down and the critical thing for Hawaii is to get control of our cost structure. Even if it's a little bit more, if we look out ten years down the line and look at those energy costs and look at those food costs on an international basis, we gotta get that started because it'll turn out to be more expensive to bring it in later. So I think it's just a matter of understanding the food demands and the rest of the world. And if you look at, I mean even without the drought, and there's, corn prices are going up, China's facing more problems. So I think we just have be five or ten years out there and saying, this, we're not going to be more expensive than importing, we're going to be less expensive at some time, let's get ready for that now.

VICE-CHAIR PONTANILLA: Thank you. Just a, last comment, Chair. You know, I've talked to some farmers up in, it was North Dakota. And one year they sent all their feedstock, yeah feedstock, to Texas for their cattle because Texas was _____ a drought, but now North Dakota is facing drought and what they doing now is they sending their wean-outs to Texas. So, you know, it's like a bad cycle that's going on right now. Thank you.

CHAIR VICTORINO: Thank you, Mr. Pontanilla. And again all the comments and questions are very important to understand what we're trying to do. Let me, let me make some clarification, if I may. Mr. Taylor, I'll start with you first and foremost. You know the Water Use and Development Plan, we're not scrapping or eliminating or doing away with all the research and work we've done, we're just incorporating it to make it one unified plan for the County of Maui when it's all said and done. Am I correct in that statement?

MR. TAYLOR: We are not throwing anything away. Some of the work done is, will end up in the Maui Island Water Use Development Plan. Some of the work done, especially a lot of the consultant work about...if you remember the Central Maui Water Use Development Plan that a lot of the Members here approved, there was a lot of detailed engineering analysis of which system and what, what would be the alignment of different pipe systems. The Water Use Development Plan will not go into that level of detail. So that work is being taken out of the Water Use Development Plan and has been already wrapped into the Engineering Group CIP Optimization Analysis of the water system operation. So we're using it but we're not going to use it in the Water Use Development Plan, we're using it for CIP planning. So nothing is being thrown away. All of that great work will be used somewhere. But again in order to get the Water Use Development Plan to cover the whole island, unless we're going to end up with the thing being, you know, three feet thick, it's going to have to be at a lower level of detail. So we're taking

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

out the engineering detail, keeping it big picture with the water use decisions and putting the engineering detail in something else that will really be an internal document that backs up our CIP plans, not the Water Use Development Plan which as you've heard this morning is more about the decisions of water use allocation not about Department of Water Supply engineering decisions.

CHAIR VICTORINO: Thank you, Mr. Taylor. And this one, this question goes to the Commission, you know, Mr. Tam or Ms. Ohye. From what I can understand, what the Commission is really bringing forth is two things. Number one, a more collaborative working relationship with the counties so that decisions that we make or our plans that as presented to you in totality, you will look at it and, and make, make your, your decision based upon what we're telling you instead of you telling us. Am I correct in saying that?

MR. TAM: Yes.

CHAIR VICTORINO: Okay. And secondly that, you know, some of these other aspects which are very important such as the Na Wai Eha decision or the Waioli decisions and all these other aspects of water that are out there right now which are in a legal manner making you now look at things in a...or making us, you know, and when I say you it's really us, the Counties and the State, take a very hard look in the way water is being distributed, used and as well as will future allocations be made. Am I correct in that assessment of what you're bringing forward?

MR. TAM: One of the things about water that's different from many other values or commodities is, it is inherently an integrated process.

CHAIR VICTORINO: Uh-huh.

MR. TAM: You, you, there is legal structures, there's literally the physical, sustainable yield numbers, there's the instream flows, there's traditional rights. The reason this is complex is because it is the place where a lot of these values in society meet. So by, almost by definition, it must be collaborative because it brings in the values of all the different parts of the community and so it's gotta be brought together so it works. If you, if you think about what it takes to bring a large Matson container into Honolulu Harbor, you know, you've come across the sea, you want to slow down, get a harbor pilot on board and sort of edge up next to the dock, you don't want to ram the dock.

CHAIR VICTORINO: Uh-huh.

MR. TAM: And that's the same situation we have with our water resources. We, we are trying to guide a society not just for today but for future generations. So we've got to, we've got to take into account that the situation is going to be changing and that's why it must be collaborative.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

CHAIR VICTORINO: I thank you, and I, I think that's, that's very important to look at the overall big picture. I mean all what everybody's asked you and all our Committee members have asked and stated have validity in its own respect to the overall picture. But there is an overall picture and being around this water business for the last 11 years with the Water Board and now on the Council, if anything I've seen a real shift towards working together. I think that's important. I mean if we don't, we only end up in court and/or end up with bad decisions. And I think, Mr. Tam, you can agree with that, with that statement.

MR. TAM: We, we all live with each other.

CHAIR VICTORINO: That's correct.

MR. TAM: Water is the place, more than land even, that forces us to deal with our neighbors because if you think about the major rivers in the world, people are up river, down river, they're not going to go away. It's not like somebody, you buy a car from someone, they disappear, you don't know where they are. They're always going to be up river and down river and so we have to talk with our neighbors. We've got to feel like, we got to figure out how we're going to do this. I mean if you think about the Hawaiian culture did it for, you know, 1,500 years and they worked out rules of conduct, and that's what we're doing now, we're working out those rules of conduct.

CHAIR VICTORINO: And the ahupua'a system worked very well and if you realize that there was well over a million Hawaiians in these Islands before Captain Cook arrived, and today we have a very similar population, it's just we haven't figured out how to work together and how to set priorities and make sure everybody's treated fairly. And I think the other part is we have a lot of private systems that now are going to have to be really scrutinized. I think this is the next big challenge in how do we work with water as private purveyors out there and making sure that their, their understanding of water is it's a public trust, bottom line, you know, that they don't own the water, they own the delivery systems but not the water and I think that's something very important. So other questions for the panelists today? Ms. Baisa?

COUNCILMEMBER BAISA: Thank you very much, Chair, a very general question. It was referred to several times in the presentation and in the summary and that, that was we want to continue extensive public process. Can you give me some idea of what that means?

CHAIR VICTORINO: Ms. Pogue?

MS. POGUE: Thank you for asking. I really appreciate that. That is near and dear to my heart. I wanted to recognize, even though I'm a newbie having been here a year almost to the day, that you, there has been a extensive amount of public process in the past with the Water Use Development Plan, and because this document is really a supportive document per Maui County Code to the Maui Island Plan, obviously, as you well know, many of

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

the hearings you've held and meetings you've held and in some cases there have been water resource issues addressed. Going forward we will have a series of kick off meetings, if you will, to basically meet with the various sections around the island such as Upcountry, West, Central and South to explain this change and it is a fairly radical change in terms of the Water Use Development Plan and how it takes place as Director Taylor said, what it is and what it is not. So we plan to do that in the next month or two, to try to meet all around the island. Going forward from that, the point I was trying to make with, with the Gantt chart that you see is that with every iteration or every draft, and there will probably be four, three and then the final, we plan to present it to you all if you would like an update, certainly are more than willing to give an update, as well the Board of Water Supply, and then in addition to you all and of course we know those are public meetings, that we will host and have public meetings around the island after each draft. In addition to that though, so there will, there will be a series of public meetings around the island with each draft but we will also have something on the Web, you know, various draft versions will be available on the Web as well as even something as basic as having hard copy drafts at libraries. So we're trying to make this as, as public and as transparent as possible.

COUNCILMEMBER BAISA: Thank you. I think that's really imperative because this is a very complicated situation we're dealing with here when you're dealing with State plans and our own plans and, you know, things we've heard before, constantly need to update the public on current information so I'm very happy to hear that. But I do want to make one last remark, Chair, and this the end of it. And that is no matter what we plan from what I hear over and over and over, regardless if it's State or County, it all comes down to money and basically what has to come out of us is the policy about money because without money we cannot make any plan happen. Thank you.

CHAIR VICTORINO: You're absolutely correct, Ms. Baisa, thank you. And I think that's something that is the overarching challenge we all face is the monetary whereal [*sic*] to do the things that need to be done as well as want to be done. So I won't disagree with that. I think the other part of this whole equation is the fact, we're very fortunate. We're all little counties, little islands that kinda have their own self-sufficiency and their own reliability. We're not like the mainland where you have six, seven, eight States competing for waters from the same sources, we have our own. And it doesn't make it that, make it easier, but at least we're not dealing with six, seven, eight other States that we're competing for the same water sources like you have in the mainland. And many, many of the NACo as well as the AWWA conferences, this is where the focus has come towards now, how do we meet competing needs from various entities which are states or municipalities, you know, drinking from the same well, if you want to use for lack of a better term. And that's become a major challenge, the next major litigation. And let's be honest, some of the next major wars will be fought over water, not oil anymore, it's water that's become the most treasured of all resources on this earth and yet we are 75 percent made up of water, kinda ironic isn't it? Okay, so if there's no other comments or questions for the Committee...

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

UNIDENTIFIED SPEAKER: Chair.

CHAIR VICTORINO: Okay, Ms., Ms., one question, one question and then we're going to wrap it up. Go ahead, Ms. Cochran.

COUNCILMEMBER COCHRAN: Thank you, Chair. And for Commission, in regards to the updating the agricultural systems and...exactly what is priority? So just to be more specific in that, these ag systems priority will be ag users or development because water is being ...

MR. TAM: The current State ag systems are managed by the Department of Agriculture. We do not run those systems so the water systems that exist already deliver water to State lands and maybe to some other lands, I don't know each system, but they're managed by the Department of Agriculture, not by the DLNR, not by the Water Commission.

COUNCILMEMBER COCHRAN: Chair, can I get one quick follow-up? So because I'm looking at the Maui Land & Pine and Pioneer Mill, this is my end of the island that I'm a representative of, West Maui, now that they are not in particular using the waters that's been allocated to them for ag and you're looking to repair maintenance on that, possibly that particular, those systems in your ten systems Statewide, if we're going to put money into those...

MR. TAM: I believe those are private systems, I don't think they're actually State-owned systems, I may be wrong. And there wasn't any water allocated to them because there's not a water management area. They may have been using water but if they're private systems, I mean maybe they've still convinced the Legislature to appropriate money to them but my understanding is those are private.

COUNCILMEMBER COCHRAN: Okay, alright, thank you.

CHAIR VICTORINO: Thank you. Mr. Pontanilla?

VICE-CHAIR PONTANILLA: Thank you, really fast. Do you see the State going into desal?

MR. TAM: No, and the reason is the, the cost to, I mean, you know, isolated places where there's no other choice you might do it in a small case but those probably would be private systems. Desalinization is very expensive because you have to force water through membranes and it takes a lot of energy and very expensive energy to do that. Now if you have no other choice, you're on the very remote leeward side someplace, I know small hotels in Kona do, have done that, the private enterprise may be able to do it effectively but it's so expensive compared to every other choice. As a practical matter, I think it's unrealistic.

VICE-CHAIR PONTANILLA: Okay.

WATER RESOURCES COMMITTEE
Council of the County of Maui

September 4, 2012

MR. TAM: It, it is done other places. Saudi Arabia does it, South Africa does it, but that's our last resort and it's a very expensive proposition.

VICE-CHAIR PONTANILLA: Good, thank you.

MR. TAYLOR: And if I may, just one --

UNIDENTIFIED SPEAKER: Sure.

MR. TAYLOR: --quick numerical follow-up. Our average price of water is a little under \$4 per thousand gallons, that's the total amount it costs for Maui County Department of Water Supply to do infrastructure, pumping, et cetera, et cetera, that's our total cost. The recently published Environmental Impact Statement for the Wailea 670, I always forget the name of what they renamed that project, is using...Honua`ula I think it's what it's called, they're using desalinization for water and I believe the cost was \$11.65 per thousand gallons was their estimated cost. So at \$12 that's about three times the cost of our current system operations. So that gives you a sense of how much more expensive it is and a big part of that is electricity.

VICE-CHAIR PONTANILLA: Thank you. I remember one conference it was like \$5 per gallon to convert salt water to drinking water. Thank you.

CHAIR VICTORINO: Again, we could get more specific estimations on all of that. And the cost is one factor, then of course disposal of the brine and all the residual is another issue. And again these are different issues that one day we may have to confront. Wasn't there a project in Pearl Harbor, desalinization? Mr. Tam, I, I know there was one.

MR. TAM: There was a demonstration project at Campbell Industrial Park maybe 20 years ago.

CHAIR VICTORINO: Yes.

MR. TAM: The Board of Water Supply was trying to show that they could, they could...I mean, it is done different parts of the world but it, it really is hyper-dependent on electricity costs.

CHAIR VICTORINO: Uh-huh.

MR. TAM: And as Hawaii's electricity costs go higher, it just becomes less and less feasible.

CHAIR VICTORINO: Okay, so I'm glad for that clarification. I think that's important to understand. It's the energy cost along with the disposal and transporting that disposal away from the various areas that other places in the mainland and other parts of the world do not have the same, same challenges, you know. For example when I was in Washington in Wenatchee they pay 8 cents per kilowatt hour and we're paying 42 cents per kilowatt hour. Just that alone is cost prohibitive. So thank you and I'd like to close

WATER RESOURCES COMMITTEE
Council of the County of Maui

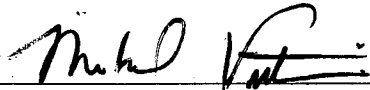
September 4, 2012

by saying thank you, Mr. Tam and Ms. Ohye, for coming today, really appreciate your guys' insight and sharing the time with us. Pam, Ms. Pogue, I would like to thank you for coming today and sharing what you planning, you know, the Department as the Program Planner, what you're planning to do and how you will implement that. And we will, I will assure you, the Committee, that we will keep accurate and updated information and meetings will be brought forward so that not only you here but the public will also keep up with what's happening. And when public meetings are put out for the County, I would hope that Members of this Committee or in the future will be able to attend and make sure that they hear what the public has to say for their various regions. So, and Mr. Taylor, thank you very much for being here today and I thank everyone. Members, if no other questions or comments, the meeting of September 4th for the Water Resources Committee will now be adjourned. . . . (*gavel*) . . .

ACTION: DEFER pending further discussion.

ADJOURN: 11:30 a.m.

APPROVED:



MICHAEL P. VICTORINO, Chair
Water Resources Committee

wr:min:120904:ah

Transcribed by: Annette L. Hoopii

**WATER RESOURCES COMMITTEE
Council of the County of Maui**

September 4, 2012

CERTIFICATE

I, Annette L. Hoopii, hereby certify that the foregoing represents to the best of my ability, a true and correct transcript of the proceedings. I further certify that I am not in any way concerned with the cause.

DATED the 25th day of September, 2012, in Haiku, Hawaii.



Annette L. Hoopii