

# WATER RESOURCE PROTECTION PLAN HAWAI‘I WATER WORKSHOP – KONA

March 24, 2015



The Commission on Water Resource Management (Commission) is currently updating the State Water Resource Protection Plan (WRPP), a long-range plan that provides guidance and direction for protecting and managing Hawai‘i’s water resources. As a part of the WRPP update process, the Commission is hosting seven “Hawai‘i Water Workshops” throughout the state to hear about water management issues and ideas in those communities. This will inform the Commission’s thinking as it formulates the WRPP Update. **These notes are for the sixth workshop, held in Kona on Hawai‘i Island at the West Hawai‘i Civic Center Community Meeting Hale on March 24, 2015.**

## ATTENDANCE

Community Participants: 68 participants signed in  
Water Commissioners: Kamana Beamer, Virginia Pressler  
Commission Staff: Roy Hardy, Lenore Ohye, Jeremy Kimura, Neal Fujii  
Townscape (Consultant): Bruce Tsuchida, Sherri Hiraoka

## PRESENTATION

Roy Hardy welcomed participants to the meeting and thanked everyone for attending, then provided an overview of the Commission on Water Resource Management, Hawai‘i’s ground and surface water resources, the Hawai‘i Water Plan, known water resource issues, and water resource management strategies.

## BREAKOUT GROUPS

Participants broke out into four groups to discuss water resource issues. Groups identified several issues and focused on a few issues to discuss more in depth, along with potential actions to address the issues. All of the topics are recorded below and are consolidated by topic, rather than by

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



COMMENT/ISSUE		RESPONSE
<b>ALTERNATIVE WATER SOURCES</b>		
1	Catchment	Rainwater catchment guidelines available ( <a href="http://www.ctahr.hawaii.edu/oc/freepubs/pdf/rm-12.pdf">http://www.ctahr.hawaii.edu/oc/freepubs/pdf/rm-12.pdf</a> ). Also see Comment 3, below.
2	Wastewater reuse is currently a problem	This comment has been forwarded to Department of Health (DOH). For more information, please contact the DOH's Wastewater Branch at 586-4294.
3	Subsidy of catchments: tax breaks and tax credits	CWRM is now aware of any subsidies for construction of catchment systems. However, DOH currently subsidizes the testing for lead and copper in individual homes served by rainwater catchment systems. Please call the Safe Drinking Water Branch at 586-4258 for more information.
4	Opportunities - Climate Change: SLR - desal for supply, stormwater capture	Section 7 of the updated WRPP will include discussions about alternative water sources and resource augmentation measures.
5	There is a bill in the Legislature to allow County stormwater systems, but it also includes charges.	The bill was signed into law on May 6, 2015 (Act 042).
6	Can rules be put in to require grey water for irrigation?	DOH has developed grey water guidelines that allow, but do not require, the installation of below ground grey water irrigation systems. Please contact DOH's Wastewater Branch at 586-4294 for more information on the grey water guidelines.
7	Need more technology like desalination to augment water supplies. Share experiences using new technologies	The County Water Use and Development Plans would identify if and when desalination technology would be feasible to meet water needs.
8	More recycled water use. County DWS and Environmental Management need to coordinate. State and County agencies need to work together.	While recycled water use generally occurs in response to shortages in supply or to address issues related to effluent disposal, CWRM supports the use of recycled water wherever practicable, provided that there are no unacceptable impacts to human health or the environment. Opportunities for recycled water use should be explored in regional Water Use and Development Plans.
9	OTEC should be looked at as a potential source.	See response to Comment 7 above.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>ALTERNATIVE WATER SOURCES</b>		
10	Storm water - create ponds	CWRM completed an appraisal of large-scale storm water opportunities throughout the State. A summary of the findings will be presented in section 7 of the updated WRPP. One of the technologies proposed is large capture basins to allow for infiltration of storm water following large precipitation events.
11	Golf courses should use recycled water and have their own treatment plant	See response to Comments 4 and 8. CWRM's updated survey of water reuse statewide in 2013 identifies golf courses and other users: <a href="http://files.hawaii.gov/dlnr/cwrmp/planning/conwmp2014.pdf">http://files.hawaii.gov/dlnr/cwrmp/planning/conwmp2014.pdf</a>
12	What about desalination?	See response to Comment 7 above.
13	Preserve rights to catchment water.	Unlike some other states, there are currently no rules or regulations prohibiting an individual household from capturing and using rainwater via a water catchment system in the State of Hawaii.
14	Use reclaimed water for agriculture, golf courses, non-potable uses.	See response to Comment 11 above.
<b>CLIMATE CHANGE</b>		
15	Climate	CWRM recognizes that a changing climate will have an impact on our water resources. The updated WRPP will have a discussion on climate change impacts to water resources.
16	Climate change	See above comment.
17	Ocean acidification	Ocean acidification is an emerging issue of concern. A global response is needed to address the increasing amounts of carbon dioxide in the atmosphere.
18	What are the climate change variables?	Climate change is expected to impact virtually every component of the hydrologic cycle that influences water availability. These include but are not limited to rainfall frequency and intensity, fog drip, air temperatures, evapotranspiration, runoff and recharge. The updated WRPP will have further discussion on climate change impacts to water resources and CWRM's strategies to address potential impacts to water resources.
19	Why is Lake Waiau dry?	The changes in water levels in Lake Waiau are believed to be linked to the amount of snow fall received on Mauna Kea. The USGS recently published a study on changes in the lake levels that have been affected by the recent severe drought, though it has recovered in 2014. The report can be found here: <a href="http://pubs.usgs.gov/sir/2015/5076/">http://pubs.usgs.gov/sir/2015/5076/</a>

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>COLLABORATIVE/INTEGRATED LONG RANGE WATER MANAGEMENT PLANNING</b>		
20	What is the economic impact of designation	CWRM has not studied the economic impacts of designation, nor are we aware of any such study. We will add this study to our list of future studies to be undertaken when funding becomes available.
21	Plan should address coordination between the State and County.	CWRM coordinates extensively with county agencies as well as with other state and federal agencies in our regulatory programs, monitoring and data collection, resource assessments, and long-range planning. The updated WRPP will discuss the CWRM's many program activities and coordination with other agencies. If there is a specific area or areas where more coordination may be warranted, please contact our Planning Branch at 974-4000 (extension 70216).
<b>COMMUNITY REPRESENTATION/INVOLVEMENT</b>		
22	Incorporate BMPs in the community	Efforts to incorporate BMPs include CWRM's statewide water conservation program, which has identified BMPs for various water use sectors. More information about the CWRM water conservation program can be found in section 5 of the updated WRPP. CWRM has also developed and published a handbook on BMPs for stormwater management for homeowners, developers, and planners ( <a href="http://files.hawaii.gov/dlnr/cwrmp/planning/hsrar_handbook.pdf">http://files.hawaii.gov/dlnr/cwrmp/planning/hsrar_handbook.pdf</a> ). BMPs have also been developed by other agencies, for example, DOH has developed BMPs for source water protection. CWRM encourages and promotes the incorporation of applicable BMPs for specific projects in our review of development proposals.
23	Education - schools - conservation	CWRM is discussing ways to improve water conservation education in Hawaii schools. We are involved with the Project WET (Water Education for Teachers) program, which is in the process of working with teachers throughout the State to incorporate water resource education into their curriculum. For more information about Project WET in Hawaii please contact the Kauai Department of Water, which is the lead agency for Project WET, at 808-245-5455.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>COMMUNITY REPRESENTATION/INVOLVEMENT</b>		
24	Be honest with us!	CWRM is committed to transparency and honesty in all our interactions with the public. Please contact CWRM at 974-4000 (extension 70214) or through our website ( <a href="http://dlnr.hawaii.gov/cwrp/aboutus/contact/">http://dlnr.hawaii.gov/cwrp/aboutus/contact/</a> ) if you feel that there has been any infraction of our policy.
25	Outreach to those who cannot attend meetings using video.	The Updated WRPP will include strategies to improve community engagement and outreach.
26	Put contact information that are in papers on blogs.	Please contact CWRM at 974-4000 (extension 70214) to clarify what entity you would like to contact regarding any published studies.
27	Video these meetings and put them on-line.	The water workshops were not videotaped. However, the notes and presentations from every workshop can be found online at: <a href="http://dlnr.hawaii.gov/cwrp/planning/hiwaterplan/wrpp/wrpp2014/hiwaterworkshops/">http://dlnr.hawaii.gov/cwrp/planning/hiwaterplan/wrpp/wrpp2014/hiwaterworkshops/</a>
<b>DATA COLLECTION, MONITORING, AND ANALYSIS</b>		
28	Is County data accurate?	CWRM requires all well owners and stream diverters to report their water use monthly. All wells constructed since 1997 require meters to be installed to help with this effort. If there is a question of data validity CWRM can follow up with the reporter in question.
29	Availability of data - both public and private	All water data collected by CWRM are public information. Please contact CWRM at 974-4000 (extension 70214) if there is any specific data you would like.
30	Monitor - empirical	Section 4 of the updated WRPP will have information on CWRM's data collection program.
31	Need more data	We agree. CWRM is working towards achieving greater compliance in water use reporting and exploring all opportunities to enhance our data collection program.
32	Data is corrupt - can corporations be trusted? Audits are needed	If there is any question of data validity provided to CWRM by water users, staff can investigate. Please contact CWRM at 974-4000 (extension 70214) or through our website ( <a href="http://dlnr.hawaii.gov/cwrp/aboutus/contact/">http://dlnr.hawaii.gov/cwrp/aboutus/contact/</a> ) if you would like more information or would like to formally file a complaint.
33	Uneven data collection across the state	Due to limited resources CWRM has focused data collection in areas where water resources are threatened by increasing withdrawals and competition for water. Section 4 of the updated WRPP will have information on CWRM data collection program.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>DATA COLLECTION, MONITORING, AND ANALYSIS</b>		
34	Who determines how much water we have? How is recharge calculated? Who's qualified to make these determinations?	Pursuant to the Water Code, the Water Commission establishes the limits on water resource availability. CWRM partners with the U.S. Geological Survey to determine recharge based on the best available climatic and hydrologic information and land use. For more information on recharge calculations for specific areas of the State, please go to the USGS publications webpage to view or download recharge studies ( <a href="http://hi.water.usgs.gov/studies/">http://hi.water.usgs.gov/studies/</a> ).
35	What is the quality of the data that generates numbers that are used to determine things like sustainable yield? Use citizen gages and community reporting	CWRM uses the best available data in its management of water resources. We have cooperative agreements with the USGS to collect very high quality data. Other data are contributed by citizen observers, such as rainfall data. We appreciate the offer from community members and groups to help us gather more data. We will continue to explore opportunities and programs to increase community engagement and involvement in data collection.
36	Good data is needed for good decisions, specifically for water management areas	We agree. Section 4 of the updated WRPP will outline the CWRM data collection program and those of other agencies and discuss how the data are utilized.
37	Not enough effort is put into finding water - there is water	CWRM continues to build its foundation of hydrologic data and information. If you have specific ideas or knowledge that may aid in our study of water resource availability, please contact us at 974-4000 (extension 70214) or through our website ( <a href="http://dlnr.hawaii.gov/cwrm/aboutus/contact/">http://dlnr.hawaii.gov/cwrm/aboutus/contact/</a> ).
38	There is a lot of conflicting information	Please contact CWRM at 974-4000 (extension 70214) or through our website ( <a href="http://dlnr.hawaii.gov/cwrm/aboutus/contact/">http://dlnr.hawaii.gov/cwrm/aboutus/contact/</a> ) if there is any information you would like on a particular water resource issue.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>DATA COLLECTION, MONITORING, AND ANALYSIS</b>		
39	Accurate estimate of sustainable yield based on current or best available science today instead of the old approach	CWRM uses the best available information to determine sustainable yields. However, to be precautionary, CWRM will adopt only the most conservative estimate of sustainable yield unless there is a robust monitoring network, hydrologic studies, and numerical models. Section 3 of the updated WRPP will have more information about the process used by CWRM to establish sustainable yields.
40	Does there need to be an adjudication of the aquifer to get data to manage and regulate the aquifer? Can there be more data collection without regulation? Need to plan to obtain the best available data before implementing regulation. Prioritize data acquisition.	An aquifer system area does not need to be designated as a water management area for CWRM to establish a data monitoring program there. West Hawaii has been monitored by CWRM for many years even though there are no water management areas. Section 4 of the updated WRPP will have more details about the CWRM's Kona ground water monitoring program.
41	If monitoring occurs, there won't be salt water intrusion. Are they monitoring recharge? Need better monitoring.	Recharge estimates take into account a lot of different hydrologic data, which includes rainfall, runoff, and estimates of evapotranspiration. Therefore, recharge is not directly monitored, but the components used to estimate recharge are. Section 4 of the updated WRPP will have more information about the CWRM monitoring program.
42	What knowledge do we have - including deep water aquifers?	Section 3 and 4 of the updated WRPP will discuss the recent hydrologic findings of deep fresh water in Hawaii.
43	Need more and better reporting! Mandatory?	Our rules require all owners/operators of wells and stream diversion works to report monthly water use. CWRM plans to step up enforcement of this requirement.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>DATA COLLECTION, MONITORING, AND ANALYSIS</b>		
44	Data collection - what are the costs to obtain and analyze data?	The Survey Branch of CWRM is responsible for coordinating and collecting the hydrologic data necessary for CWRM to properly manage our water resources. CWRM also partners with the USGS to collect streamflow, rainfall and ground water data through a cooperative monitoring program. This program is funded by both the USGS and CWRM. In 2014, CWRM contributed \$433,218, or roughly 62% of the total cost of the program. Unfortunately, these costs do not include any data analysis. Section 4 of the updated WRPP will have a discussion of the CWRM hydrologic data collection program and an analysis of trends. Contact CWRM for more detail on costs for data analysis and special studies.
<b>GOVERNANCE AND COMMUNITY-BASED WATER MANAGEMENT</b>		
45	DOH-Commission-Counties: need one central coordinated effort on water. Nothing gets done.	CWRM coordinates extensively with county agencies as well as with other state and federal agencies in our regulatory programs, monitoring and data collection, resource assessments, and long-range planning. The updated WRPP will discuss the CWRM's many program activities and coordination with other agencies. If there is a specific area or areas where more coordination will help to resolve issues, please contact our Planning Branch at 974-4000 (extension 70216) or through our website ( <a href="http://dlnr.hawaii.gov/cwrn/aboutus/contact/">http://dlnr.hawaii.gov/cwrn/aboutus/contact/</a> ).
46	Counties are the most direct link to the community. Counties should have more control over water.	In the preparation of the County Water Use and Development Plan (WUDP), the County may exercise its home rule authority by setting forth the allocation of water to land use. Comprehensive water use planning through the WUDP process may serve to preclude the need for increased regulation of local water resources.

**WATER RESOURCE PROTECTION PLAN  
HAWAI‘I WATER WORKSHOP – KONA**

March 24, 2015



<b>GOVERNANCE AND COMMUNITY-BASED WATER MANAGEMENT</b>		
47	Keep water decision-making at the County level. Decisions should not be made outside the community.	CWRM continues to work on improving communication and coordination on water resource management with the island communities. When important water management decisions affecting a particular community are to be made, CWRM will make every effort to hold decision-making proceedings in that community.
48	More island-specific management	See above response.
49	Why do we need another level of regulation on water over the County level?	CWRM was created to be an impartial decision making body that does not benefit from the development of water resources. A main function of the County water departments is to develop water resources to allow for the continued growth of our island communities. Coordination between CWRM and the County through the Water Use and Development Plan ensures that economic growth can continue without compromising our water resources.
50	West Hawaii people should be driving the decisions - Home Rule. Commission should do extended workshops on water management	When important water management decisions affecting a particular community are to be made, CWRM will make every effort to hold any decision-making proceedings in that community. CWRM is currently discussing ways to increase our outreach to the community to increase the awareness about water resource management.
<b>GOVERNANCE AND COMMUNITY-BASED WATER MANAGEMENT</b>		
51	West Hawaii people should be driving the decisions - Home Rule. Major water issues should be heard and decided on that island with no time constraints. Notice more days for meetings. Allow for enough time for testimony.	See response to Comment 50.
52	West Hawaii people should be driving the decisions - Home Rule. Use technology to allow more participation by those in remote areas.	CWRM and DLNR are currently evaluating technologies that would allow for the remote participation of stakeholders.
53	Home rule is only as good as the rulers.	Thank you for your comment.

**WATER RESOURCE PROTECTION PLAN  
HAWAI‘I WATER WORKSHOP – KONA**

March 24, 2015



<b>GROUND WATER PROTECTION</b>		
54	Uncertainty regarding ground water regime	We recognize we do not have perfect information, and CWRM must rely on the best available information while continuing to build the foundation of data and information. Section 4 of the updated WRPP will have more information about the CWRM’s data collection programs.
55	Define the sustainable yield accurately	See response to above comment. Sustainable Yield is defined in the Water Code as the “maximum rate at which water may be withdrawn from a water source without impairing the utility of the quality of the water source as determined by the commission” (HRS 174C-3). Section 3 of the updated WRPP will have more information about the process for determining sustainable yields.
56	Commission takes the lowest estimate for sustainable yield, but that may be dangerous because it may cause us to take unnecessary actions.	As pumpage approaches sustainable yield limits, CWRM will increase data collection and conduct studies to increase our understanding of recharge and sustainable yield of the specific aquifer. Section 3 of the updated WRPP will have more information about the process of determining sustainable yields.
57	Will small wells stop being permitted? Is there a saturation point?	Under the common law, landowners have a right to share in the use ground waters underlying their lands provided that the use is reasonable and beneficial. In water management areas, individual domestic users are exempt from water use permitting. When issuing a well construction and pump installation permit, CWRM evaluates the possibility of interference with nearby wells through data provided from a pump test. Total ground water withdrawals may not exceed an aquifer’s sustainable yield.
58	Accurate estimates of sustainable yield. More information is needed on perched water and the significance of new findings in the Saddle area and its implications for sustainable yield.	CWRM continues to work with the U.S. Geological Survey, University of Hawaii scientists, and other public and private hydrologists to better understand the hydrogeology of the Big Island and ground water sustainability.
59	Potential designation of Keauhou aquifer without substantial scientific data and environmental data.	CWRM will consider the legal criteria for designation in light of the best available data in its decision-making on the petition to designate the Keauhou Aquifer System Area.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>GROUND WATER PROTECTION</b>		
60	Accurate estimates of sustainable yield based on best available and current data/science.	CWRM uses the best available information in its estimation of sustainable yield, while also applying the precautionary principle in its management of water resources. Section 3 of the updated WRPP will have more information on the process for determining sustainable yield values.
61	What are the implications of the findings in the Saddle Road area on sustainable yield?	See response to Comment 58.
62	What are the implications of high level/perched water on sustainable yield?	See response to Comment 58.
63	Potential designation of Keauhou aquifer without substantial scientific data and environmental data.	See response to Comment 59.
64	Commission policy is that 75% of high level water is sustainable. Due to the majority of pumping from high-level, Commission policy should raise the sustainable yield for Keauhou.	The Keauhou Aquifer System Area has both basal and high-level water. The hydrogeology is complex and high-level water resources are still being studied as to their sustainability. Our monitoring shows water levels are declining. Therefore, to be precautionary, CWRM is proposing to continue using a more conservative estimate of sustainable yield.
65	No fog drip data in 1990 estimates of recharge. 2011 USGS study uses fog drip. 2011 USGS study created estimate using actual land cover data and climate change, increasing recharge by 77%. By saying that sustainable yield in Keauhou stays the same, it ignores the best available science.	See response Comment 64.
66	Sustainable yield number has many policy implications.	Section 3 of the updated WRPP will have more information about the application of the sustainable yields established by CWRM.
67	Policy of adopting the lower range of sustainable yield needs to be challenged due to current data. Best possible judgements with best possible data.	See response to comment 64.
68	Implications of designation without best available data. Public information shared at the 12/10/14 meeting was not provided to all of the Commissioners.	See response to Comment 59. This issue has been brought to the attention of the CWRM staff handling the Keauhou Designation Petition.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>GROUND WATER PROTECTION</b>		
69	Implications of designation without best available data. Timely distribution of data to all stakeholders and decision-makers.	See response to comment 68.
70	Implications of designation without best available data. D. Thomas review of Oki report should be made available to Commissioners and considered in the decision-making process.	The Oki report and Dr. Thomas' review will be included in the Findings of Fact.
71	Implications of designation without best available data. More allocation of time for presentations to Commissioners by all parties.	See response to Comment 59. The Chairperson may choose to limit the time for presentations and testimony in the future to ensure that all parties present may be heard.
72	What are the sustainable yield baseline numbers?	Section 3 of the updated WRPP will include a table of data used to establish the sustainable yields.
73	Ground water sustainable yield and criteria need to be robust. See criteria for instream flow standards. Need much more sophisticated modeling.	Section 3 of the updated WRPP will have a detailed discussion on the various models and methods for determining sustainable yield and why different models are used in different areas of the State.
74	When were sustainable yields established?	CWRM first established sustainable yields in the 1990 WRPP. Sustainable yield values were last reviewed as part of the 2008 update of the WRPP.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>IMPLEMENTATION OF MANAGEMENT STRATEGIES</b>		
75	Agency resources are limited	We agree. Due to limited resources, CWRM must prioritize management activities and actions. The WRPP will identify priority actions and estimated costs.
<b>INFRASTRUCTURE/CONVEYANCE</b>		
76	Cost of water meters is too high.	CWRM does not have authority over water meters or water infrastructure. Please contact the Hawaii DWS at 961-8070 (extension 1) or through our website ( <a href="http://dlnr.hawaii.gov/cwrm/aboutus/contact/">http://dlnr.hawaii.gov/cwrm/aboutus/contact/</a> ).
77	Water resources in South Hawaii - no distribution to communities	See above response. There are also private water system operators in South Hawaii that are subject to Public Utilities Commission regulation.
78	Water infrastructure and repairs.	See above response.
<b>MANAGEMENT OF WATER AND ENFORCEMENT</b>		
79	Commission enforcement	Due to limited resources, CWRM is developing an enforcement policy to guide enforcement actions.
80	Concern over additional layer of regulation in West Hawaii (water management area designation), making it even more difficult to get water.	Over the years, CWRM staff has strived to streamline the water use permitting process and will continue to look for ways to facilitate the process for users.
81	Water management area designation would be too burdensome on local users	See above comment.
82	How to determine water for development? Do businesses take precedence? Lots of development may change quality of life.	The County Water Use and Development Plan is the means for integrating water and land use planning and inform future decisions about water and land.
83	Penalties for not reporting should be considered.	CWRM is conducting outreach and education prior to assessing fines for non-compliance. Following outreach, CWRM is planning to use the Department's Civil Resource Violation System to obtain better compliance.
84	We need accountability. How can we be proactive?	See above response.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>MANAGEMENT OF WATER AND ENFORCEMENT</b>		
85	Look out "Seven Generations."	Water availability assessments do not have a timeframe but instead rely on the best available information regarding current and future conditions affecting water resources. Regarding water use and development planning, CWRM's administrative rules provide for a twenty-year projection period. However, we are encouraging the counties to look at longer time frames. Full build-out scenarios are included in some of the county plans.
86	How do we balance various uses, demands, and needs?	In designated water management areas, CWRM must consider the cumulative impacts of withdrawals on the four public trust uses of water (resource protection, traditional and customary rights, DHHL reservations, and domestic needs) and require implementation of reasonable measures to mitigate impacts, including the use of alternative sources. In non-designated areas, the County Water Use and Development Plans allow the County to set forth the allocation of water to land uses.
87	What about security issues?	Water Security is taken very seriously by all levels of the government. Please contact CWRM at 974-4000 (extension 70214) or through our website ( <a href="http://dlnr.hawaii.gov/cwrn/aboutus/contact/">http://dlnr.hawaii.gov/cwrn/aboutus/contact/</a> ) if there is a particular water security issue that you would like more information about.
88	Consider industry best management practices. The construction industry is utilizing best conservation practices with regard especially to wasting of water.	Section 7 of the updated WRPP will have more information about the CWRM water conservation program and BMPs for various water use sectors. One way CWRM is supporting water conservation is by encouraging the adoption of new state green building codes that would require the installation of water efficient fixtures in any new building or home constructed.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>STATE WATER CODE</b>		
89	Need to document and address important public trust uses of water up and down the coast that depend upon the continued flow of fresh clean water that flows mauka to makai. In relation to those resources, the Plan needs to include specific protections for public trust uses and the uses of those resources.	The current sustainable yield of Keauhou Aquifer System Area allows over 50% of the ground water flow to the ocean to be sustained. In addition, any water not being withdrawn also supports public trust uses at the coast, which may vary from place to place. Specific impacts from well development are analyzed by CWRM through the required pump testing of all new wells.
<b>STATE WATER CODE</b>		
90	Precautionary Principle should be included in the Plan, especially in the face of climate change, to ensure that there will be sufficient water left in the ground to protect water supply, watersheds, nearshore waters, and reefs.	The Precautionary Principle will be discussed in Section 2 of the WRPP, and its application in CWRM management activities will be discussed in other sections. Climate change impacts on water resources and CWRM's approach to address this important issue will be discussed in the updated WRPP.
91	How different can/will the revised Plan be?	The last update of the WRPP in 2008 was a compilation of CWRM water resource data and management principals, programs and activities. This update of the WRPP will revise and update the information from 2008 and better address important issues such as climate change and Native Hawaiian water rights. This update will also include a separate implementation plan to guide CWRM management activities over the next five years.
<b>STREAM PROTECTION</b>		
92	Mauka to makai flow	Maintaining Mauka to Makai flow is an important consideration when CWRM establishes instream flow standards. Section 3 of the updated WRPP will have more information on the IFS process. See also response to Comment 89.

**WATER RESOURCE PROTECTION PLAN  
HAWAI‘I WATER WORKSHOP – KONA**

March 24, 2015



<b>WASTE AND CONSERVATION</b>		
93	Conservation	Water conservation is a critical and fundamental component of water resource management. Section 7 of the updated WRPP will have more information on CWRM’s water conservation program.
94	Water wasting by golf courses during drought periods.	All water uses must be reasonable and beneficial, and therefore wasting of water is not allowed. If you observe water being wasted, please contact CWRM at 974-4000 (extension 70214) or through our website ( <a href="http://dlnr.hawaii.gov/cwrn/aboutus/contact/">http://dlnr.hawaii.gov/cwrn/aboutus/contact/</a> ). CWRM recently completed a water conservation plan that identified best management practices for various water use sectors, which included golf courses. The plan can be viewed online here: <a href="http://files.hawaii.gov/dlnr/cwrn/planning/hwcp2013.pdf">http://files.hawaii.gov/dlnr/cwrn/planning/hwcp2013.pdf</a> Section 7 of the WRPP Update will also have more information about the CWRM water conservation program.
95	Will the Plan include conservation strategies?	Section 7 of the updated WRPP will also have more information about the CWRM water conservation program, including BMPs for various water use sectors.
96	Hotels are good at conserving water	Thank you for your comment.
<b>WATER QUALITY</b>		
97	Water quality - DOH is not protecting facilities	For more information on source water protection and wellhead protection programs, please contact the DOH Safe Drinking Water Branch at 586-4258.
98	Water Quality - accountability, what are the health impacts?	For more information on the establishment of water quality standards, please contact the DOH Clean Water Branch at 586-4309.
99	Accountability of military - bombing	For more information on the impacts of bombing on water quality, please contact the DOH Hazard Evaluation and Emergency Response Office at 586-4249.
100	Wastewater treatment - PCPs	For more information on PCPs and other emerging contaminants, please contact the DOH Wastewater Branch at 586-4294.
101	Home water filters are simple and safe	Thank you for your comment.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>WATER QUALITY</b>		
102	Cesspools impact the watershed. We should require septic.	The DOH Wastewater Branch is in the process of rule-making to address cesspools. Please contact them at 586-4294 for more information.
103	Nearshore water quality - Puili Bay - there is less spring flow than before	Decreased springflow generally results from lower than normal rainfall or ground water development upgradient. U.S. Geological Survey published a report documenting statistically significant downward trends in annual base flows from selected long-term trend stations statewide, which correspond to long-term downward trends in rainfall for the period 1913-2002. The report is available online at <a href="http://pubs.usgs.gov/sir/2004/5080/">http://pubs.usgs.gov/sir/2004/5080/</a> If you would like information on ground water development in the region, please contact CWRM's Ground Water Regulation Branch at 974-4000 (extension 70225).
104	Water quality - monitor use of pesticides and herbicides near the coast, especially at the National Park.	For more information on pesticide monitoring, please contact the DOH Hazard Evaluation and Emergency Response Office at 586-4249.
105	Municipal water system is salty in some areas, ex: Keei	For more information on drinking water quality standards, please contact the DOH Safe Drinking Water Branch at 586-4258.
106	Hamakua side - there is a concern with water pollution from Eucalyptus trees. Persistent pollution from former plantation operations. Eucalyptus plantations have sprayed a lot of pesticides.	See response to Comment 104.
107	Island Dairy using high amounts of pesticides	See response to Comment 104.
108	Septic tank water - could affect ground water	For more information on allowable individual wastewater systems, please contact the DOH Wastewater Branch at 586-4294.
<b>WATER QUANTITY AND QUALITY</b>		
109	Set the priority for preserving water quality and quantity for human consumption and agriculture.	CWRM is required to balance the protection of the four public trust uses of water (resource protection, traditional and customary rights, DHHL reservations, and domestic needs), while allowing for reasonable and beneficial uses of water in the public interest.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>WATER QUANTITY AND QUALITY</b>		
110	More focus on protection of water quality/quantity for ecosystems.	Ecosystem needs is a criteria that needs to be considered when establishing instream flow standards. In terms of ground water development, CWRM evaluates the impacts of pumping through the required pump testing of all new wells. If there is harm or a potential for harm as a result of water use, CWRM has the means to require mitigative measure be taken.
111	Need to coordinate water quantity and quality.	The Hawaii Water Plan is one of the primary vehicles for the coordinated protection of water quality and quantity. CWRM and DOH staff coordinate meet regularly to coordinate permitting, data collection and monitoring, and long-range planning. Recognizing the water quantity and quality are intrinsically linked, the director of DOH serves as an ex-officio member of the Commission.
<b>WATER RIGHTS</b>		
112	Appurtenant Rights	Section 2 of the updated WRPP will have a discussion of appurtenant rights.
113	Native Hawaiian water rights	Section 2 of the updated WRPP will have a discussion of Native Hawaiian water rights.
114	DHHL rights and reservations, traditional and customary rights	Section 2 of the updated WRPP will have a discussion on DHHL water rights and traditional and customary rights.
<b>WATER SCARCITY / AVAILABILITY</b>		
115	Water for development	The Water Code prescribes a dual mandate to protect and conserve water resources while providing for reasonable and beneficial uses in the public interest.
116	Priority of use should be for people	The highest priority uses for water are referred to as public trust uses. Established by the State Supreme Court, these are: resource protection, domestic needs, DHHL reservations, and traditional and customary uses.

**WATER RESOURCE PROTECTION PLAN  
HAWAI'I WATER WORKSHOP – KONA**

March 24, 2015



<b>WATER SCARCITY / AVAILABILITY</b>		
117	Need more wells. People need to be able to dig more wells. There is currently a restriction on new water.	Anyone can work with a properly licensed driller to apply to CWRM for a permit to construct a new well. For more information please visit our website at <a href="http://dlnr.hawaii.gov/cwrm/info/forms/">http://dlnr.hawaii.gov/cwrm/info/forms/</a> or contact the Ground Water Regulation Branch of CWRM at 974-4000 (extension 70225 or through our website ( <a href="http://dlnr.hawaii.gov/cwrm/aboutus/contact/">http://dlnr.hawaii.gov/cwrm/aboutus/contact/</a> )).
118	Department of Water Supply should investigate skimming off the top of the basal aquifer for more supply.	For more information please contact the Hawaii DWS at 961-8070 (extension 1).
119	What about water for lo'i, cultural practices, and food?	See response to Comment 116. CWRM seeks to protect the public trust uses while also allowing for reasonable and beneficial uses in the public interest.
120	Conserved water is being used for new developments.	The County Water Use and Development Plans should identify water conservation goals and the allocation of water to land uses.
<b>WATERSHED MANAGEMENT</b>		
121	Protect the watershed for now and the future. Ex: expansion of enterprise zones would infringe upon watersheds	The DLNR watershed protection program is headed by the Division of Forestry and Wildlife. For more information please contact them at 974-4000 (extension 70166).
122	Need to coordinate with DLNR watershed protection	Section 9 of the updated WRPP will outline how CWRM intends to support and coordinate with the DLNR watershed protection program.
123	Identification of watershed in West Kohala: erosion into Pelekane Bay and Waiulaula; hunters finding areas fenced and stream alignment moved; more information needed on proper delineation; DLNR is only doing erosion control; DOH Water Quality is not responding to water quality issues in Pelekane Bay (Aha Moku, DHHL, IDP)	For more information please contact the Kohala Watershed Partnership at 333-0976 or the DOH Clean Water Branch at 586-4309.

# WATER RESOURCE PROTECTION PLAN HAWAI'I WATER WORKSHOP – KONA

March 24, 2015

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## NEXT STEPS

- Workshop notes
  - Notes from the Water Workshops will be posted to the Water Resource Protection Plan Update website at:  
<http://dlnr.hawaii.gov/cwrm/planning/hiwaterplan/wrpp/wrpp2014/>
  - The Commission will share the notes from this workshop with other water agencies that had comments and/or questions relating to their missions and purviews.
- Remaining Workshops: The last workshop will be held in Hilo, Hawai'i Island. Please see the WRPP Update website for the date and location.
- Schedule: The Public Review Draft WRPP Update is expected in Summer 2015. Public Hearings on the Draft will be held in late 2015, with the Final Plan report expected in Spring 2016.

## HANDOUTS

- WRPP Update Fact Sheet
- Hawaii Water Workshop Agenda
- Slideshow Presentation
- Comment Sheet