WATER RESOURCE PROTECTION PLAN UPDATE

HAWAI'I WATER WORKSHOPS – OVERALL SUMMARY

March 2015

1 INTRODUCTION

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 held seven public meetings, called "Hawai'i Water Workshops," in March 2015 to inform the Commission's thinking as it formulates the WRPP Update.

Slideshow presentations were made at each workshop to share information on the State Water Code, Commission, WRPP and its current update, known water issues, and management practices engaged by the Commission. After the slideshow, workshop participants broke out into small groups to discuss water management issues and ideas in their communities. The small groups reconvened to share their main issues and suggested solutions before closing the meeting. Participants at the Kaua'i Workshop had so many questions and discussion points after the slideshow that they did not break into smaller groups.

Detailed summaries from each island workshop can be found after the discussion of common water resource issues.

Table 1 Hawaiʻi Water Workshops

Island		Location	Date (2015)	Number of Participants Signed In
1	Oʻahu	DLNR Board Room 1151 Punchbowl Street, Room 132	March 3	40
2	Lānaʻi	Lānaʻi Senior Center 309 7th Street	March 11	21
3	Maui	Wailuku Community Center 395 Waena Street	March 12	76/100*
4	Molokaʻi	OHA/DHHL Kulana Oiwi Halau 600 Mauna Loa Highway, Suite D-2	March 17	24/30*
5	Kauaʻi	Planning Commission Meeting Room 4444 Rice Street, Suite A473	March 19	37/50*
6	Hawaiʻi (Kona)	West Hawaii Civic Center 74-677 Kealakehe Parkway	March 24	68
7	Hawaiʻi (Hilo)	Aupuni Center 101 Pauahi Street, Suite 1	March 30	51
				317/360*

* In some instances, rough visual counts exceeded the number of participants who signed in. The second number provided is an estimate of the number of participants that actually attended the workshop.

1.1 Types of Water Resource Comments

Hawaiʻi Water Workshop participants commented on a wide range of water resource topics. In some cases, comments related to topics that are not under the purview of the Commission and instead come under the responsibility and jurisdiction of other agencies and entities, such as the State Department of Health (water quality), County water departments (water transmission and pricing), or DLNR Division of Forestry and Wildlife (watershed health and management). All comments were recorded, regardless of whether or not the comment pertained to a Commission function or not.

Comments from each of the Workshops were recorded on large chart paper for participants to review. After the workshops, these hand-written notes were then transcribed and posted to the Commission web page on the Water Resource Protection Plan Update Hawaiʻi Water Workshops. Workshop materials, including the Workshop flyer, slideshows, and meeting notes are posted to the Commission website at:

http://dlnr.hawaii.gov/cwrm/planning/hiwaterplan/wrpp/wrpp2014/hiwaterworkshops/

The transcribed comments from each Workshop were sorted into the following water resource topics:

1. **Future Community Outreach – 10 Comments**
2. **State Water Code (includes Water Rights, Public Trust) – 69 Comments**
3. **Governance and Community Based-Water Management – 31 Comments**
4. **Community Representation/Involvement – 21 Comments**
5. **Collaborative/Integrated Long-Range Water Management Planning – 47 Comments**
6. **Management of Water and Enforcement (includes Hawaiian Water Management) – 38 Comments**
7. **Data Collection. Monitoring, and Analysis – 55 Comments**
8. **Stream Protection – 51 Comments**
9. **Ground Water Protection – 48 Comments**
10. **Climate Change – 10 Comments**
11. **Integration of Land Use and Water Use (includes Agricultural Water Needs, Water Uses and Demands) – 26 Comments**
12. **Water Scarcity, Availability of Water, and New Source Development – 31 Comments**
13. **Waste and Conservation – 8 Comments**
14. **Alternative Water Sources – 63 Comments**
15. **Water Quantity and Quality – 37 Comments**
16. **Watershed Management – 30 Comments**
17. **Infrastructure/Conveyance, and Water Pricing – 19 Comments**
18. **Implementation Management Strategies – 10 Comments**

2 ISLAND/REGION SPECIFIC WATER RESOURCE ISSUES

A wide range of topics were discussed over the course of the seven Workshops, with region-specific issues emerging at each Workshop. The following is an overview of the water resource issues and topics that seemed to get the most discussion at each location.

2.1 Oʻahu

There was concern by participants that the Commission did not have the **resources** to fulfill its responsibilities. One noted area that participants felt was in need of improvement was **data collection, monitoring and analysis**. Several comments were made that additional data collection is needed to ensure wise decision-making. To supplement Commission data collection, suggestions were made to partner with other agencies, schools, universities, and communities to contribute data.

As an extension of the discussion on **collaborative efforts**, participants also expressed a desire for the Commission to bring all relevant stakeholders, including private sector, academic, environmental, and community entities, into **long-range planning** for water. At the same time, government agencies that share water resource responsibilities should also come together.

2.2 Lānaʻi

On Lānaʻi, the main discussion topics were related to **local input on decision making**, either through a community-based water management body, greater Commission presence on-island, or both. There was frustration that management decisions were being made at the State and County levels, with little understanding of what was actually happening on Lānaʻi. Participants also expressed a desire to have **access to the water resource monitoring data** that is used to make management decisions.

Additionally, concern was expressed over Lānaʻi's limited water supply and the need for **watershed protection** to maintain ground water recharge, promotion of a **conservation** ethic amongst residents, and investment in **alternative water supply options**, such as desalination.

2.3 Maui

The water resource issue that was raised the most on Maui related to **stream flow** and **impacts to native Hawaiian rights**. Many workshop participants questioned the need for stream diversions that were created decades ago to supply irrigation water to sugar plantations, leaving reduced flows in the streams for traditional and customary practices, including kalo farming for subsistence. Additional discussion focused on providing **water for agriculture**, particularly for DHHL lots and for food products to ensure food security.

A commonly cited strategy to address these and other water resource issues was a **return to traditional Hawaiian management systems**, including incorporation of the ʻAha Moku Council into decision-making, **community management and enforcement**, and **holistic, ahupuaʻa-based thinking**.

2.4 Molokaʻi

Molokaʻi Workshop participants were concerned with **water rights** and the hierarchy of uses. The protection of Hawaiian water rights were of particular concern, with several questions raised regarding the clarification and definition of water rights and the Waiola Case. **Water for DHHL residential and agricultural uses** was another topic that was raised often.

Regarding specific water supplies, many people were concerned with **protecting the Kaulapuʻu Aquifer** from overpumping. Some participants requested data on the sustainable yield of the aquifer and the quality of the water, along with **water resource data** – sustainable yields and pumpage - in general.

2.5 Kauaʻi

Workshop participants expressed frustration with the **level of interaction between the Commission and the Kauaʻi community**. In general, participants said that the Commission is inaccessible to residents and out of touch with their concerns and issues. It was recommended that more time and effort be spent in the places where water resource issues and problems are occurring, either through more time spent on-island by Commissioners and staff, an on-island Commission staffer, or use of technology. Additionally, the Commission should outreach to other agencies such as the County Planning Department and DHHL to help spread the word about meetings and the availability of data.

Another concern was **stream protection** and the impact of diversions on the health of surface water. Participants reported diversions that should be decommissioned, as well as issues with water not being available for **agriculture** due to the closing of reservoirs after recent tightening in regulations.

2.6 Kona

Much of the Workshop discussion was focused on the pending **petition to designate the Keauhou Aquifer as a Ground Water Management Area** (WMA). Concerns ranged from ensuring sustainable protection of the resource to the economic impacts of designation to the use of current data to support decision-making. There were many comments that questioned the validity of how the Keauhou Aquifer sustainable yield was calculated and inclusion of recent data and methods. Many participants were concerned with the added layer of regulation, especially because they said that it was already difficult to get water allocations for new uses.

This sentiment led to the idea that **decision-making should be kept at the county level**, as that provides the most direct link to the issues and people. With the current system, people have limited access to the decision makers (Commissioners). Issues should at least be heard on the island that it impacts and there should be enough time for all testimony. There should also be additional outreach using technology to **include a wider audience in the decision-making process** and to **disseminate data**.

2.7 Hilo

Many of the participants in the Hilo Workshop represented the rural areas of Hawai'i island where there is no County water service. As such, there was much discussion on alternative water sources, and water catchment systems in particular. Many were concerned about the **public health and safety issues related to catchment systems**, such as water pressure for fire protection and the potential for infectious disease from improper maintenance of the systems. Participants requested research on the vulnerabilities of catchment systems, education to users on proper maintenance of the system and treatment of water, and future County water service to eliminate the need for catchment systems.

Several other issues received significant discussion, including the desire for more **collaboration** among agencies, better **data collection**, greater **local control over decision-making**, clarification and protection of **Hawaiian water rights**, including those of DHHL, and protection of **water quality**.

3 COMMON WATER RESOURCE ISSUES THROUGHOUT THE STATE

While each island/region had its own water resource issues and concerns, several topics were raised repeatedly throughout the State. The following is a discussion of some of the issues that were raised at several, if not all workshops.

Participants at nearly all of the workshops discussed the importance of **local involvement in water management**. There was frustration over what is perceived to be a "Honolulu-centric" decision-making body that is not in tune with the local context of the neighbor islands. Some suggestions presented at the workshops included local water committees that are given advisory power, on-island Commission staff, and more access to Commissioners and staff. To assist in local community participation in decision-making processes, it was suggested that Commission meetings be held on the island that will be affected by major decisions, and sufficient time allocated for public testimony; that data be presented in easily understood formats and posted on-line; and that the Commission adopt technology such as video-conferencing for meetings and digital submittals of testimony.

Another universal concern was the identification, clarification, and protection of **water rights**, particularly Hawaiian water rights. All of the workshops included at least some discussion of protecting traditional and customary practices and providing for DHHL water needs. Associated with that was the Commission's task of balancing various uses and water rights. To address this, workshop participants recommended that water rights be clearly defined, that the type of water and water sources be matched with specific water needs, and that traditional Hawaiian water management systems and methods be adopted.

A water use that was supported on every island was **agricultural irrigation**, and in some cases, agricultural water needs on DHHL lots. Water for agriculture was seen as important for food security, warranting a higher priority. There was some tension between private uses of water vs. public uses, with many large private water users evolving from former sugar plantations into diversified private uses, such as residential and resort development.

With so many competing uses for water, workshop participants wondered about the **future availability of water, the potential for drought, the impacts of climate change, protection of water quality, and impacts to surface and ground water**. To prepare for future water needs, participants proposed enforcement of management and monitoring requirements, replenishing ground water supplies via watershed protection, matching water quality and sources with types of water use (i.e., non-potable water for irrigation vs. potable water for drinking), finding ways to decentralize water sources and treatment, emphasis on demand-side management, promotion of conservation through education, exploration of alternative sources of water, proper maintenance of water infrastructure, better integration of land use planning with water use planning and water quality with water quantity, and collaboration with all relevant stakeholders, including government, private, and community sectors.

In order to implement such long-range planning, every island recognized that consistent and relevant **water resource data** needs to be collected. In addition to more data collection, participants wanted to be able to publicly access the data. To supplement the Commission's data collection programs, participants recommended partnerships with other agencies, schools, universities, and community groups. This highlighted a general consensus that the Commission lacks the resources to carry out the responsibilities that they are tasked with. **Additional resources** in terms of budget and staffing were recommended to allow the Commission to perform their duties.

O‘ahu Workshop Summary

March 3, 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 Hawaiʻi's water resources. As a part of the WRPP update process, the Commission is hosting seven "Hawaiʻi 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 first workshop, held on Oʻahu on March 3, 2015.**

ATTENDANCE

Community Participants:	40 participants signed in
Water Commissioners:	Denise Antolini, Michael Buck
Commission Staff:	Roy Hardy, Lenore Ohye, Jeremy Kimura, Neal Fujii, Bob Chenet
Townscape (Consultant):	Bruce Tsuchida, Sherri Hiraoka

"ONE BIG WATER ISSUE"

Participants were asked to share their one big water issue to give the group an idea of where interests lay. Those issues included:

1. Over-watering by State facilities
2. Concern over future water supplies
3. Impacts to the aquifers
4. Instream flow standards (IFS)
5. Restoring taro loʻi
6. Climate change
7. Revisions to the sustainable yields
8. The need to address both water quality and quantity together[1]
9. How water is allocated
10. Water conservation
11. How stream outflows affect the nearshore reef
12. Conservation
13. Management policies

[1] Administration of the State's water quality control program is the jurisdiction of the State Department of Health (DOH), as provided by law. The Commission collaborates with DOH on water quality issues, particularly as they impact water supplies, and will share these notes with them.

ONE WATER ISSUE (CONTINUED)

14. Integrate water quality and quantity
15. Fulfilling State Water Code mandates
16. Water governance Hawaiian ecological management
17. Water for agriculture
18. Keauhou aquifer concerns
19. Innovation around water resources
20. Learn more about water issues
21. Providing for the water needs of Department of Hawaiian Home Lands (DHHL) and traditional and customary (T&C) practices
22. Oʻahu sustainable yields
23. Conservation and reuse
24. Climate change and decreasing rainfall
25. Agricultural water use
26. Agriculture and the Water Use and Development Plans
27. Balance between protection and use of water
28. Water conservation
29. Stream restoration in Waiʻanae
30. Ground water quality in the Red Hill area
31. Central Oahu ground water pollution, e.g., TCP in water
32. Water availability

PRESENTATION

Roy Hardy welcomed participants to the meeting and thanked everyone for attending and Sherri Hiraoka discussed the importance of water and gave a brief introduction to water management in Hawai'i. Jeremy Kimura then provided an overview of the Commission on Water Resource Management, Hawaiʻi's ground and surface water resources, the Hawaiʻi Water Plan, known water resource issues, and water resource management strategies.

QUESTIONS

The following questions were raised after the slideshow presentation:

- How are karsts defined? Who manages them? Are there plans for management?
- Why is Waiʻanae not a designated ground water management area (WMA)?
- Are the water demand projections in the slideshow for all water demands or are they only for municipal water systems?
  The water demand projections in the slideshow are for municipal water demands and are provided by each county.
- Why is development being allowed in our forested watersheds?
- Why is this plan called the Water Resource Protection Plan? Is the Plan comprehensive enough? It should include water quality.

BREAKOUT GROUPS

Participants broke out into four small groups to discuss water resource issues. Groups identified several issues and focused on a few issues to discuss more in depth. All of the topics are recorded below and are consolidated by topic, rather than by what group they came from.

<u>Follow the State Water Code</u>

1. Water Policy: Accommodate growth and resource impacts
   - Balancing water needs: protection with reasonable beneficial use
   - The Precautionary Principle needs to be balanced between protection and use
     - There are many needs and uses of water that are valuable
     - Consumptive and non-consumptive uses need to be considered
2. Protect Department of Hawaiian Home Lands (DHHL) water reservations for all homestead uses.
3. Identify what the Commission needs to do its job.
4. Address the Commission's lack of resources to fulfill its Constitutional mandates
   - The Commission needs to be able to anticipate problems and address issues early. Good data is needed to do this.
   - Emerging issues associated with climate change need to be addressed.
   - Water rights have become increasingly important.
   - The public needs to be educated on the Commission's mission to generate support.

Data Collection, Monitoring, and Analysis

5. There is a lack of monitoring: surface water quality, ground water seeps, wells, etc.
   - Support regulation
   - Data management and dissemination
   - Monitoring and assessments are needed to properly evaluate the status of the resource, identify trends and potential problems, and develop management strategies.
   - The quality of the data is also important.
   - More monitoring wells are needed to be able to track ground water resources.
6. How is the US Geological Survey (USGS) involved in water management?
   - USGS provides data for decision-making. The Commission has a partnership with USGS for monitoring.
   - Does monitoring have to be done by USGS? Are there cheaper options? Is this an opportunity for students, the university, and community to get involved?
7. Find opportunities for citizen scientists and students to contribute data. This will provide the added benefit of getting the public involved in water issues and train the next generation of scientists and managers.
   - Are there opportunities for academic partnerships?
8. Water use reporting is important and needs to continue.
9. Increased funding is needed for research, e.g., estimating sustainable yields, economics, social impacts, hydrology, etc.
   - More research and data collection is needed
   - Could water taxes/fees be a source of funding?
10. Determine the economic value of water resources so people can better evaluate impacts when making decisions.
    - Include the value of the ecosystem services that watersheds provide and the benefits to tourism. This ties back to the energy-agriculture-water-tourism dynamic.
    - Determining the value of the resource will influence political will

Kawainui Marsh

11. Kawainui marsh needs to receive adequate water.
12. Need studies and management

Stream Protection

13. Dry Streams
14. Restoration of streams
15. Instream Flow Standards (IFS) – out-of-watershed transfers should not occur.
16. Oʻahu stream flows and impacts to fisheries, particularly in Waiʻanae
17. Stream flows should be restored in the Waiʻanae District.
18. There are parallels between community health and stream health

Ground Water Protection

19. Wellhead protection
    - Maui County has proposed a wellhead protection ordinance.
20. Oʻahu Sustainable Yields
    - Need to carefully evaluate sustainable yields and consider impacts to residents.
    - Water demand has been decreasing across the island due to conservation efforts.
21. Concern with development negatively impacting ground water flow in the karst.
    - Ground water flow is important to coastal resources.
    - If pillars from development pierce the karst, what are the long term consequences? Will there be sinkholes?
    - How does removing water from the karst impact the ecosystem found there?
22. Target management by prioritizing aquifers.

Agricultural Water Needs

23. Agriculture operates on a thin margin and cannot afford to pay high water rates. Some agricultural users are using domestic/municipal water, which is much more expensive than gravity-fed surface water systems.[2]
24. Agricultural water quality needs to be protected for food safety.
25. Increase kalo production
26. Differentiate between water for food vs. non-food crops
27. Agricultural water use has the secondary benefit of recharging the aquifer, e.g. Central Maui or previously in ʻEwa, Oʻahu.

[2] Water pricing is set by County or private water purveyors and is NOT a function of the Commission. The Commission will share these notes with the County water departments.

Climate Change

28. Impacts to water resources
29. Pauoa Valley: climate change is decreasing water availability for kalo.
30. What is the accuracy of sustainable yield estimates in light of climate change?

Water Scarcity

31. Address the scarcity of water
    - Conservation
    - Wastewater reuse, stormwater
    - Direct potable reuse of recycled water
    - Quantity/quality issues: safety, protect water resources from land uses (see New York Plan).
32. Eliminate wasting and overuse of water
33. Define the role of the Commission in water demand management, i.e., water use efficiency to reduce demands.

Alternative Water Sources

34. Take a careful look at alternative water sources.
    - Stormwater reuse and catchment
    - Infrastructure is expensive so we need to take that into account. Are there ways to decentralize infrastructure? Ex: It doesn't make sense to pipe wastewater to one central treatment plant then pipe recycled water back out to users. Can we use scalping plants to create recycled water regionally?
    - Water scalping: the timing for implementing this is urgent because both the Sand Island and Honouliuli Wastewater Treatment Plants are expanding.[3]
    - We need to find opportunities to use alternative water sources.
    - The Department of Health needs to provide guidance for the use of alternative water and these requirements need to be incorporated into the planning.

[3] Water recycling is planned for and implemented by County wastewater and/or water departments. The Commission provides studies and guidance on opportunities for alternative water sources and venues for collaboration but does not implement projects. These notes will be forwarded to the County water and wastewater departments.

Alternative Water Sources (continued)

35. Storm Water Reuse
    - Storage is key – we need to identify where storage can occur
    - Could be used for agriculture
    - Need to implement a strategy for storm water reuse
    - Restore existing and old loʻi and fishponds, create new loʻi
    - Mat placed by military in Kawainui Marsh prohibits recharge of the storm water captured in the marsh.
    - Reservoirs need to be listed as part of the solution.
    - Modify concrete channels to capture rain water.
        - Doors next to the canals could be installed to capture high storm flows.
        - Allow farming next to the canals to utilize the water in the canals.
        - Utilize resource

Water Quantity and Quality

36. Integrate water quality and quantity
    - The administrative structure for managing water resources needs to be changed to eliminate the separation between water quality and quantity as they go hand in hand.
    - This seems to be an artificial division
    - Planning should cover both potable and non-potable water
    - Water plans for quality and quantity should be integrated

Hawaiian Water Management

37. Restore traditional land uses: fish ponds, loʻi, organic farming practices to make more water and grow supply.
38. Use water wisely.
39. Control development and reduce impervious surfaces to increase ground water recharge.
    - Require infiltration and pervious surfaces.
40. Ecosystem management and ungulate control.
41. Holistic ahupuaʻa management – we need help from community groups.

Watershed Management

42. Invasive species: vines, pigs; too many invasive species in watersheds.
43. Watershed management is needed to protect water resources
44. More people need to understand ecosystem services and the need to protect ecosystems because of their inherent value.
45. "Watershed rights." New Zealand concept of the watershed having rights.
    - The concept of watershed rights is that a watershed has rights similar to how a person has individual rights – apparently which can be protected by the courts.

Water Pricing

46. Conservation via payment: higher water rates will promote conservation.
    - Shut off fixtures
47. The cost of water is too low.
48. Separate the sewer and water bills.[4] Not everyone understands that the water bill also includes the sewer bill and that sewer bill is much higher. Separation will help people realize that water rates are not that high.
49. Earmarking any fees for water management will lead to better acceptance.

Collaborative/Integrated Long Range Water Management Planning

50. Develop a framework for bringing all players to the table when managing water resources.
    - How do we bring the community and private sector into the conversation? What are the needs of each? Consider round table discussions.
    - Develop decentralized regional plans to better identify the water needs, sources, and opportunities for a particular area.
    - Develop metrics for a triple bottom line: environment, economy, community
    - Include all parties, including relevant public agencies. Educate them on the importance of water and the need to plan/manage this way.
    - The lead still needs to come from the government with regard to the framework for planning and the constraints to work within, i.e., permits and regulations.
51. Integrated water management: combine compartmentalized departmental responsibilities.

[4] Billing for the delivery of water and treatment of wastewater is under the purview of the counties and private water purveyors and treatment plant operators. These notes will be forwarded to the County water and wastewater departments.

Collaborative/Integrated Long Range Water Management Planning (continued)

52. We need to seek innovation in advancing the energy-agriculture-water-tourism nexus. Bring all players to the table and seek innovative solutions with technology.
53. Integrated water resource management is needed.
54. Community groups need to understand the responsibilities of government agencies and project funding and how to do community water plans. Need to catalogue government agency responsibilities in watersheds.
55. Communities should take ownership of water management plans and moku management responsibilities.
56. Engage in long-range planning
57. Create a "bank statement" for watershed management. For each watershed, how much water is there, how much is being used?
58. What are other models for water management?

Implementation of Management Strategies

59. Identify costs and implement the plans.
60. Utilize community members in resource management
61. Are there opportunities for the agriculture industry to contribute to water infrastructure development, maintenance, and monitoring?
    - In many cases, the agriculture industry is already assisting in all of these things. Ex: farms pay a fee for the use of Waiāhole Ditch water which is used to improve and maintain the system.
62. There is a lack of government funding for hydrological research and hydrologic data collection.
63. Consider the politics of water: watershed benefits vs. development.
    - How do we level the playing field so the resource has as much political power as big business?

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: Workshops are being held on Lānaʻi, Maui, Molokaʻi, Kauaʻi, Hawaiʻi Island (Kona and Hilo). Please see the WRPP Update website for dates and locations.
- 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

Lānaʻi Workshop Summary

March 11, 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 Hawaiʻi's water resources. As a part of the WRPP update process, the Commission is hosting seven "Hawaiʻi 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 second workshop, held on Lānaʻi on March 11, 2015.**

ATTENDANCE

Community Participants:	21 participants signed in
Commission Staff:	Roy Hardy, Lenore Ohye, Jeremy Kimura, Neal Fujii
Townscape (Consultant):	Sherri Hiraoka

"ONE BIG WATER ISSUE"

Participants were asked to share their one big water issue to give the group an idea of where interests lay. Those issues included:

1. Is there enough water?
2. Department of Hawaiian Home Lands (DHHL) access to water.
3. Sustainability in the face of climate change.
4. Water and land in the ahupuaʻa
5. Watersheds
6. Making sure that we have enough water for development and the next generation.
7. Water on Lānaʻi.
8. There is not enough water for development.
9. WE need updated studies and current information.
10. Sustainability.
11. We need scientific evidence on the human trends that have caused drying on Lānaʻi for the past 200 years. We need solutions to replenish water reserves.

ONE WATER ISSUE (CONTINUED)

12. Concerned about wasting water - why is water being used for swimming pools that are not being used because the owners are not always here?
13. Concerned about aquifer protection – the Company (Pūlama Lānaʻi) is not doing desalination.
14. How does the WRPP ensure drought mitigation?
15. Ungulates and invasive species on Lānaʻi Hale and lack of communication on critical habitat.
16. Preservation of Lānaʻi Hale and watershed.
17. Education on water resources.
18. How long will our water resources last?
19. Degradation of the watershed – runoff, water quality.
20. Change to a culture of water conservation.
21. Watersheds

PRESENTATION

Roy Hardy welcomed participants to the meeting and thanked everyone for attending and Sherri Hiraoka discussed the importance of water and gave a brief introduction to water management in Hawai'i. Jeremy Kimura then provided an overview of the Commission on Water Resource Management, Hawaiʻi's ground and surface water resources, the Hawaiʻi Water Plan, known water resource issues, and water resource management strategies.

QUESTIONS

The following questions were raised after the slideshow presentation:

1. Can you go on-line to find well use data and rainfall data?
2. Please clarify the Precautionary Principle.
3. Where do you get information on private water systems?
4. What is the difference between aquifers and hydrologic units?

BREAKOUT GROUPS

Participants broke out into four small 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 what group they came from.

<u>Follow the State Water Code</u>

1. We need to reverse our policies and put replenishment over use.

<u>Data Collection, Monitoring, and Analysis</u>

2. How much of rain goes to recharge?
3. Lānaʻi is small and in the rainshadow of Maui. There is a potential change in rainfall patterns due to climate change. Sea level rise may also impact ground water. We need to understand the impacts of climate change on Lānaʻi water resources.
4. Who is monitoring water on Lanai? Is there a conflict of interests?
   - The Company hires consultants. There is still a conflict.
   - The State or some independent entity needs to monitor water resources.

Data Collection, Monitoring, and Analysis (continued)

5. How does the public know if water managers are qualified?
6. Is water data analyzed for trends? CWRM should regularly analyze data for water use, pumpage, etc.
7. Potential actions for data availability and dissemination for Lānaʻi.
   - Put data on the internet, especially for Lānaʻi.
   - Resurrect the monthly bulletin on-line.
   - Provide access to understandable information on water resources and use.
   - Need information on water quality and quantity.
   - Develop a State monitoring network for Lānaʻi. We need more monitoring wells and better monitoring of existing wells.
   - Obtain adequate funds for monitoring.
   - Those that most affect the resource should pay more.
   - Revenues go to the general fund, not for specific issues.
   - US Geological Survey (USGS) cooperative agreement for Lānaʻi.
   - Train the Lānaʻi Water Advisory Committee (LWAC) and the community to do monitoring.
   - Enforce reporting requirements. Levy fines to generate revenue for state monitoring and data dissemination.
8. Who tests the quality of ground water?

Governance and Community-Based Water Management

9. Home rule is important.
10. Develop a community water committee.
11. Lanai has a private water system, but CWRM has little to no regulatory presence on-island.
    - LWAC is the eyes and ears for regulatory compliance. The State needs to support their role.
12. Why isn't CWRM participating in the recent water use and quantity issues?
13. When will CWRM annual meetings continue? Issues include desalination and water supply.
14. Fate and power of the LWAC.
15. The County wants to control water and water decisions but they have no water system on Lānaʻi and should not control water. CWRM should be the overseeing agency and needs to be more involved.
16. County land use needs to be in compliance with the Water Use and Development Plan allocation tables and acknowledge that compliance in the decisions.
17. There are rumors of a statewide entity akin to the LWAC, with a representative from each island. Is this true? If so, it should not include water system owners.

Ground Water Protection

18. Concerned about the feasibility of development given the amount of water we have in our aquifers.
19. Replenish the ground water aquifers.
20. Need to revise sustainable yield.

Waste and Conservation

21. How much water is wasted in system losses? How can we address this?
22. Irrigation and swimming pools on the dry side of the island waste water.
23. There is a disparity in the per household use of water.
    - 250 gallons per house per day in Lānaʻi City
    - 2,300 gallons per house per day brackish irrigation
24. .Ways to foster a culture of conservation and reduce water demands on Lānaʻi.
    - Establish water conservation rate structure; tiered water rates.
    - Aggressive water conservation programs targeted at high water users.
    - County ordinance requiring xeriscaping, swimming pool covers, etc.
    - Modify Community Association Declarations of Codes, Covenants and Restrictions (DCC&Rs).
    - Water conservation education and outreach.
    - Compliance with existing Memorandum of Agreement between the Land Use Commission, The Company, Office of Hawaiian Affairs, and Lanaians for Sensible Growth restricting use of high-level water.

Alternative Water Sources

25. Capture runoff.
26. Desalination is needed to adequately supply the land use development plan.
27. Increase water supply via desalination.

Watershed Management

28. Health of Watershed
29. What is being done to protect watersheds on private lands? Concerned about public resources on private lands.
30. What's being done to address watershed issues?
    - Invasive plants, e.g., strawberry guava
    - Trees, such as Cook Island Pine, that are important for intercepting fog, are dying and need to be replaced
    - Feral ungulates, e.g., sheep, are damaging the forest. What controls are there?
    - See LWAC documents for information on what's currently being done.
31. There is a lack of information and communication on watershed actions.
32. There is a lack of access to the watershed for research and conservation groups, such as Sea Grant.
33. Company studies on the watershed are taking too long to complete.
34. Need to invest in a plan to protect watersheds and generate revenue to implement it.
    - Replenish the watershed.
    - Mauka to makai 3-D, include the ocean, fishponds, reservoirs.
    - Develop a reforestation plan
    - Replant native species.
    - Replace thirsty invasives with natives that evolved here.
    - Create a layered understory.
    - Develop a game management plan.
    - Ungulate removal.
    - Use non-native species to generate products revenue to reinvest in the watershed.
    - Reforest previously forested areas.
    - Federal and State funds are available. Requires company buy-in.
    - There is a need for Company cooperation to prioritize watersheds, open them up to partnerships, and provide access.
    - Designate Lānaʻi a ground water management area.
    - Public resources used for private benefit. Recapture private money through fees or annual registration.
    - Need more State Division of Conservation and Resource Enforcement officers on Lānaʻi.

Watershed Management (continued)

- Expand watershed boundaries to better reflect recharge areas.
- Limit demand for water.

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: Workshops are being held on Maui, Molokaʻi, Kauaʻi, Hawaiʻi Island (Kona and Hilo). Please see the WRPP Update website for dates and locations.
- 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

Maui Workshop Summary

March 12, 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 Hawaiʻi's water resources. As a part of the WRPP update process, the Commission is hosting seven "Hawaiʻi 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 third workshop, held on Maui at the Wailuku Community Center on March 12, 2015.**

ATTENDANCE

Community Participants:	76 participants signed in, it was estimated that 100 people were present
Water Commissioners:	Jonathan Starr
Commission Staff:	Dean Uyeno, Lenore Ohye, Jeremy Kimura, Neal Fujii
Townscape (Consultant):	Bruce Tsuchida, Sherri Hiraoka

"ONE BIG WATER ISSUE"

Participants were asked to share their one big water issue to give the group an idea of where interests lay. Those issues included:

1. Department of Hawaiian Home Lands (DHHL) water rights
2. Get agricultural water for the Department of Hawaiian Home Lands
3. Agricultural water for Keokea (DHHL ag lots)
4. Agricultural water use

ONE WATER ISSUE (CONTINUED)

5. Protect water rights
6. Protecting water rights
7. Water rights
8. Water rights
9. Water rights
10. Water rights
11. Protecting the public trust
12. Public trust doctrine
13. Uphold the public trust doctrine
14. Protect traditional and customary practices
15. Traditional and customary practices
16. Kuleana rights
17. Aha Moku representation
18. Maintain mauka to makai stream flow; remove unnecessary diversions
19. Mauka to makai stream flow
20. Mauka to makai stream flow
21. Mauka to makai stream flow
22. Water does not reach the ocean
23. Stream flow
24. Stream flow
25. Stream flow
26. Stream flow
27. Stream flow
28. Stream flow
29. Water flow
30. Impact of community and residential development on stream flow
31. Water restoration in the streams
32. Health and cleanliness of streams
33. Aquifer recharge and sustainable yield
34. Ground water contamination

ONE WATER ISSUE (CONTINUED)

35. Watershed protection
36. Watershed protection
37. Watersheds
38. Watersheds
39. Mauka watershed protection
40. Protecting native ecosystems
41. The island cannot survive without the ecosystem, including nearshore ecosystems
42. Water resource availability
43. Water availability
44. Compliance
45. Enforcement
46. Economic development of water resources
47. Better use of wastewater
48. Increase water storage capacity
49. Storm water recapture
50. Wastewater management
51. Efficient management of water resources

PRESENTATION

Lenore Ohye welcomed participants to the meeting and thanked everyone for attending and Sherri Hiraoka discussed the importance of water and gave a brief introduction to water management in Hawai'i. Jeremy Kimura then provided an overview of the Commission on Water Resource Management, Hawaiʻi's ground and surface water resources, the Hawaiʻi 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 what group they came from.

Public Trust

1. The public trust doctrine is not being followed - defend the public trust.
2. Which public are the resources for? Whose trust? Who protects?
   - If some rights are superior, someone is inferior.
   - Public trust doesn't exist because some rights are superior
   - Interest belongs to kanaka
3. There is a lack of sharing of water.
4. Water is not being used for the best uses and in the public interest.
5. Balance use with protection.
6. Application of reasonable beneficial use seems backward. The hierarchy of who gets water seems like a "hierarchy of need." We need to define water users and priorities.
7. Priority of water use should take into account type of water.
   - Clean fresh water should be used for drinking
   - Streams can be used for agriculture
   - Water should also be allocated for streams to flow!
8. Balance economics with sustainability: do we have enough water to protect ecosystems? Land use is tied to water use.
9. Privately owned water purveyors and systems are a concern
10. What are the impacts on food security?
11. Out of watershed transfers
12. Water rights – possible solutions
    - Convene all stakeholders without lawyers for mediation
    - Manage water as if it were family
    - De-commoditize water
    - More efficient water use
    - Increase use of recycled water
    - Teach correct water uses/practices and have users self-govern
    - Water conservation ordinance
    - Establish a sustainability coordinator position in Maui County
    - Commission should issue a formal statement to HC&S about water use and waste.

Water Rights

13. Prioritize water rights
14. Kanaka rights (Kingdom vested HRS 7-1) vs. non-kanaka, e.g.: appurtenant, riparian rights
15. Traditional and customary rights should be the highest priority
16. All water should be returned uncontaminated.
17. All agricultural water should return to the stream of origin. Current infrastructure does not allow for this.
18. There is a lack of protection for traditional and customary practices and water use.
19. Cannot exercise traditional and customary rights without access to ocean
20. Water is needed for taro – there are unnecessary diversions
21. Restore taro to increase water.
    - Taro is not just food, it is a part of who kanaka are.
    - Disallow waste
22. Stream diversions take away from my culture
23. I fish for the whole people
24. Food program for Hawaiian kids
25. Aha Moku system/community associations.
    - Community-based
    - Takes action to protect
    - Volunteers to assist
26. More education of the public is needed.
27. Establish a konohiki for each stream to allow the community to take ownership of management

Stream Protection/Restoration

28. Stream health/invasive species.
29. Need to look at stream's needs first.
30. Streams need to reach the ocean
31. Stream restoration.
32. Restore streams for traditional practices
33. Restore Waikapū Stream mauka to makai and all streams on Maui.

Stream Protection/Restoration (continued)

34. Stream restoration will help with self sufficiency
35. Why are perennials streams becoming intermittent? We need to know which streams are becoming intermittent and if they are drying up because of human actions.
36. Diversions are still a major problem
37. Are any of the diversions unnecessary?
38. Accountability – there needs to be justification for diversions
39. Limit diversions. Diversions were previously for agriculture, but now they are selling the resource.
    - Revisit Memoranda of Understanding (MOUs); agriculture needs less water now
40. West Maui diversions led to designation
41. Look at all diversions – who profits?
42. Why are diversions and private control of water allowed?
    - There is a lack of mauka to makai stream flow and a political history of HC&S use.
    - Beneficial use needs to be ensured.
    - We need to take into account impacts to coastal resources
    - Where does the water go?
    - There are impacts of lack of stream flow on traditional and customary practices (gathering rights, etc.) and ecosystems.
    - There is a lack of enforcement of IIFS. Commission is not ensuring IIFS flows.
    - There is a lack of fair allocation and equity
43. Where is the water going?
    - There are diversions for uses that are no longer in existence
    - Water is being used for purposes it shouldn't be used for – it is not benefitting the people
44. Water is being used for the wrong type of agriculture: sugar, instead of food. Corporations can grow food instead.
45. Corporations should assist us in restoring streams
46. How do we stop private companies from taking all of the water?
47. Commission needs to enforce existing Interim Instream Flow Standards (IIFS)
48. Commission needs to monitor instream flows

Stream Protection/Restoration (continued)

49. State needs to expand stream monitoring. Do remote monitoring and put data on a public website.
    - Use community monitoring
    - Aha Moku is already doing monitoring. See Acts 212 and 288.
50. Commission not listening, use "hammer."
51. Ensure support of the County system is sustainable. Health implications. Maintenance costs less.
52. Some kuleana depend on the old ditch systems
53. Set up a mechanism and fund to help communities to clean the watershed and streams and maintain overgrowth
54. Stream flow solutions
    - Establish a hotline and app to report violations
    - Get more community involvement and enforcement
    - Enable community authority for enforcement and establish guidelines
    - Community involvement in data collection; do training
    - Communities need to know how to fight for their water. Provide assistance to communities
    - More Aha Moku coordination and connection with the Commission and other government agencies
    - More stream gaging in critical streams
    - List of streams for gaging and associated community members
    - Education for visitors and new community members on the importance of water resources (e.g., airline videos for arrivals) and involvement of the Hawaii Tourism Authority
    - Restore stream flows by stopping diversions and plugging wells
    - Enforcement – remove unneeded diversions so streams will flow
    - Levy fines for violations of IIFS

Ground Water Protection

55. Concerned that we are over-estimating aquifer sustainable yield
56. Sustainable yields need better data to back them up – what are the most current numbers?
    - Monitoring wells
    - How much of sustainable yield is potable?
    - Do we need to designate Maui as a ground water management area?

Water Quality

57. Aquifer contamination
58. Ground water contamination
59. Pollution of the aquifers, ex: Haiku wells
60. Need source protection
61. The Water Department uses pesticides near the streams, but shouldn't
62. EMI is spraying Roundup
63. Need stricter laws on contamination
64. Stop sewage pollution of the ocean

Water Availability/Scarcity

65. Concerns about drought
66. Water availability
67. Impacts of commercial and residential development on water resources
68. Private (HC&S) control of water and waste
69. Private water companies

Water Uses

70. Define sustainable economic development related to water resources
71. Efficient use of water resources
72. Prioritize uses and users
73. Water is being hoarded for a new town
74. Water is needed for agriculture
75. Water for DHHL agricultural lots
76. Make water available for agriculture: kalo, food systems, farms that feed locals

Alternative Water Sources and Water Infrastructure

77. Explore alternative water sources, such as storm water
78. Capture and use storm water runoff
79. Water should not be wasted – wastewater should be reused and not go to the ocean.
80. Upgrade the water system. Identify sources and availability.
81. Water storage
82. Pipes are not water sources

Watersheds and Ecosystem Health

83. Invasive species
84. Restoration of native forests
    - Insufficient funding; how do we not waste money?
    - State should support restoration
    - Protect the mountains from development
    - Agency cooperation to incentivize conservation up mauka
    - Mandate protection
85. Who should get funding for watershed protection/restoration?
    - Public/private partnerships
    - Watershed Partnership Program
86. What are the watershed priorities? What is money spent on: administration vs. restoration?
87. Impacted communities need to be involved and informed and participate in restoration. There needs to be more open and transparent communication with the public.
88. What are the boundaries of protection?
89. Empower the community to form their own watershed partnerships
90. Native ecosystems
91. Watershed protection
92. Ecological systems are threatened by invasive species, which affect the ability of the forests to replenish water resources.

Water Management

93. "Reasonable and beneficial use" needs to be defined
94. There needs to be a vision for water
95. We need a vision for the ecosystem, for management, and for resource allocation. Right now there is no balance.
96. We need effective management strategies
97. The current regulatory system pits the state vs. the county
98. Management should take a broad approach and consider energy, stream flow, and ocean impacts
99. Hydroelectric, if put in properly, can be a reasonable and beneficial use.
100. Commission needs to hold those that harm public trust resources accountable. Enforce with fines and sanctions. Fines should be used to fund gages for monitoring.

Water Management (continued)

101. There is a lack of timely communication, response, and enforcement
102. There is a lack of enforcement
103. Commission accountability
104. Enforce the enforcers
105. Accountability, enforcement
106. Commission is not doing its job
107. Commission/staff is not enforcing
108. Compliance
109. Commission needs an on-island presence
110. Maui-based staff person is needed
111. There needs to be more connection among the Commissioners, staff, and community
112. All Commissioners should come here
113. There needs to be fairness in water use: farmers vs. corporations
114. Water Balance: if we take water, we should be required to replenish the resource
    - Consider the example of the Endangered Species Act "take" permit
115. We need more information
    - How many diversions are there?
    - How much water is being diverted?
    - What infrastructure is in place?
    - What are the water management policies?
116. Combine the Commission with County water departments.
117. Public-based report card for the Commission
118. Native Hawaiians were good stewards. How does the modern economy get factored in?
119. Hawaiians should get 30% of State land lease rents
120. Learn from the traditional Aha Moku system of management
121. Aha Moku councils should be a part of the Commission

Data Collection, Monitoring, and Analysis

122. More monitoring is needed
123. Water use reporting needs to improve
124. Need to better map the streams. Go to the Aha Moku Council representatives and get assistance with walking the streams, mapping them, and identifying diversions
125. Need a good inventory of all features
    - Talk to communities
    - Get in the field
126. If there are no funds to monitor, can Maui folks create their own system to monitor and enforce? What about Aha Moku Councils?

Implementation of Management Strategies

127. The Commission needs more resources to do their job!
128. More funding for DLNR

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.
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Moloka‘i Workshop Summary

March 17, 2015

HAWAIʻI WATER WORKSHOP – MOLOKAʻI

March 17, 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 Hawaiʻi's water resources. As a part of the WRPP update process, the Commission is hosting seven "Hawaiʻi 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 fourth workshop, held on Molokaʻi at the DHHL/OHA Conference Room on March 17, 2015.**

ATTENDANCE

Community Participants:	24 participants signed in, it was estimated that about 30 people were present
Water Commissioners:	Denise Antolini
Commission Staff:	Lenore Ohye, Jeremy Kimura, Neal Fujii
Townscape (Consultant):	Sherri Hiraoka

"ONE BIG WATER ISSUE"

Participants were asked to share their one big water issue to give the group an idea of where interests lay. Those issues included:

1. Really sustainable use for future generations.
2. Department of Hawaiian Home Lands (DHHL) water rights and as it relates to the Molokaʻi Irrigation System (MIS).
3. Water for DHHL.
4. Molokai Ranch's possible negative impacts on water resources.

ONE WATER ISSUE (CONTINUED)

5. Clarification of the Waiola case - non-enforcement; and of the Water Code and water rights – East Maui and Na Wai ʻEhā.
6. Why does the Ranch divert water without regard to ecosystems?
7. Want to see connection between water and planning – community planning.
8. Kualapuʻu Aquifer – what is the latest sustainable yield (SY)? What is the total use? What is the total allocation? How much water is there left? What are the highest uses? There is overpumping.
9. Ensure that there is enough water for DHHL agricultural lots.
10. What is the status of plans for East Molokai Watershed protection?
11. Sustainability.
12. Availability of potable water for homestead development. Impact ton homesteaders from lack of water credits.
13. The State is not following Act 221. The State is charging homesteaders for the transport of water. The Act says that Hawaiians should get water free of all charges. The State is not following or enforcing the law.
14. The State is illegally occupying Molokaʻi. All Hawaiians should have free water. Hawaiians should have free water due to illegal occupation by the State.
15. How to Molokai Homesteaders make proposals to help and empower fellow Hawaiians?
16. Find a way to work with the Hawaiian community.
17. Opportunities for water to sustain agriculture today and additional sources for community needs, e.g., water rights, agriculture, etc.
18. Concerned about the lack of communication between the State and rural communities. The State needs to improve communication.
19. Lack of follow-through from the Commission with salinity levels, data availability, and sustainability.
20. Appurtenant rights need to be upheld.
21. Konohiki rights need to be considered (Manaʻe) before any water is developed.
22. Is Molokaʻi still a single source aquifer? Why did the aquifer go from a single source aquifer to multiple source without any community input?
23. Who has the right to make decisions about water rights? Molokaʻi impacts should be considered in water decisions. Kuleana rights are not heard.

ONE WATER ISSUE (CONTINUED)

24. What is the link with the community?
25. Will all of the water issues be answered?
26. How will these issues be resolved?
27. Activate the Molokai Water Working Group (MWWG) and create a permanent water advisory committee.
28. Need to link to the 'Aha Moku.

PRESENTATION

Lenore Ohye welcomed participants to the meeting and thanked everyone for attending and Sherri Hiraoka discussed the importance of water and gave a brief introduction to water management in Hawai'i. Jeremy Kimura 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 what group they came from.

ALTERNATIVE WATER SOURCES

1. Relationship between DOH and CWRM. Permitting for desalination projects is problematic, putting users in limbo.

CLIMATE CHANGE

2. Sustainability in the face of climate change - recharge of the aquifer
3. What are impacts of climate change vs. diversions on stream flow?
4. Need public education on the impacts of climate change on the resource and how to protect source waters.

COLLABORATIVE/INTEGRATED LONG RANGE WATER MANAGEMENT PLANNING

5. Use other agencies to help outreach.
6. What impact will DHHL's water policy have on the Commission?
7. DHHL may issue subdivisions to create more lots - we need to work together to find solutions.
8. Partnerships are needed to allow everyone's needs to be served.
9. Key players are missing: County, Molokaʻi Ranch, Department of Agriculture, Department of Health
10. What is the Countyʻs role?
11. Kualapuʻu aquifer: Need a stand-alone DHHL plan that is separate from the Hawaiʻi Water Plan.
12. Kualapuʻu aquifer: Have DHHL send a request to the Commission to clarify issues with Kualapuʻu aquifer: lack of data, clarification of rights, status of the water use permit application.
13. Maui never completed its Water Use and Development Plan

COMMUNITY REPRESENTATION/INVOLVEMENT

14. Watershed partnerships - need education on what they do
15. Sustainable yields - how are they determined? Translate them into lay terms
16. Disseminate the USGS 3D model to the public. Feed community data into the model when developing SY for Molokai. When will updates be available?
17. COMMUNICATION! The Commission needs to let the community know what's truly going on so it can be processed for decisions. Employ the Precautionary Principle.
18. Commission approvals only stopped when there was testimony against them. We need avenues to communicate with the Commission!
19. Commission needs to provide more data on water resources. There is a lack of easily accessible data for the public.
20. Kualapuʻu aquifer: There is a lack of access to data: water use, levels, quality.
21. Kualapuʻu aquifer: Have USGS give updates on data for the entire island and current staus of aquifers to community on a regular basis.
22. Kualapuʻu aquifer: Provide updates on the latest studies on water quality and quantity.
23. Kualapuʻu aquifer: The Commission should provide easily accessible data on water resources on the Commission website.

24. East Molokaʻi Customary Native Rights: provide updated information on diversions to the community.
25. Maui never completed its Water Use and Development Plan

DATA COLLECTION, MONITORING, AND ANALYSIS

26. We need good data: water use, withdrawal, watershed partnerships, water conservation
27. Why hasn't the Waiola Supreme Court decision been followed up on?
28. There is a lack of instream monitoring. USGS lost funding. It takes $22,000-$24,000 for each monitoring station. Partnerships ae needed
29. We need data - how much water do we have and how much are we using?
30. Kualapuʻu data: salinity, sustainable yield, total allocation, total use.
31. We need studies on GMO pesticide contamination of the Molokaʻi Irrigation System.
32. East Molokaʻi Customary Native Rights: Verification of active surface water diversions

GOVERNANCE AND COMMUNITY-BASED WATER MANAGEMENT

33. Does the Commission uphold the law?
34. Include on the Commission at least: knowledge of konohiki/kuleana and ʻAha Councils
35. Reconvene the Working Group to vet the water use permit applications.
36. The County should take over Well 17.

INFRASTRUCTURE/CONVEYANCE

37. Who pays for water delivery? Between water infrastructure and water rights, those who own one may not own the other.
38. The MIS was federally funded. The feds and State need to step up for repair and maintenance.
39. Are there additional sources for the Molokaʻi Irrigation System?
40. Molokaʻi Ranch is a purveyor but is not carrying out its responsibilities
41. Ranch needs and easement over DHHL. The Ranch wants a bigger pipe. They have a 6" pipe to Punana and a 5" pipe to the industrial park. Thjey have a 12" pipe, but it's empty; they didn't get the Waiola water use permit. They are using a 8" to 6" pipe.
42. Will there be a new County well in Kualapuʻu?
43. Need to discuss Well 17 issues. Well 17 is still in use without an approved water use permit.

44. Waihanao (DHHL source) not utilized. Need to find out status and possible rehabilitation.

LAND USE/WATER USE

45. Connection between land and water: we need a model and direction for developing community plans and water plans
46. We need to link land use and water to establish carrying capacities. How are water uses denied?
47. Tie water allocations back to the County land use plans
48. Waihānau Valley was taken through eminent domain for water use, but the water from the old mountain system is no longer being used. Return the lands!

MANAGEMENT OF WATER AND ENFORCEMENT

49. Feed all data into decisions for siting future wells and re-siting existing wells, if necessary.
50. Does DHHL have to sue the Commission in order to get water?
51. Enforce law on Molokaʻi Ranch: private benefits vs. public rights. There should be fines for violations and annual fees for private uses.
52. Lack of Commission enforcement leads to a lack of confidence. The public trust is scrutinized. Ranch hasn't been penalized or enforced.
53. Kualapuʻu aquifer: Lack of Commission enforcement on County to leave well field.
54. Kualapuʻu aquifer: The Commission should enforce conditions on the County per agreements on salinity levels and use close to sustainable yields.
55. Kualapuʻu aquifer: Protection is an every day practice, not a policy.

STATE WATER CODE

56. Hierarchy of water - enforce the Water Code
57. Keep the Water Code current! Update data and methodologies.

STREAM PROTECTION

58. Are there interim IFS for Molokai? Yes, but will there be measurable IFS for Molokai?
59. Set instream flow standards for windward streams, including Kawela
60. How are interim instream flow standards set?

WATER QUANTITY AND QUALITY

61. East Molokaʻi Customary Native Rights: lack of source protection

WATER RIGHTS

62. "Who gets to drink first?" How much?
63. Act 221, Hawaiian Homes Commission Act: Homesteads should get free water
64. Who has konohiki and kuleana rights?
65. Who has appurtenant and riparian rights?
66. Define and apply customary rights.
67. Clarification of Waiola Case: impact of water use on the resource and traditional & customary rights; what does it mean for the Kukui decision and use?
68. Defining water rights in Kualapuʻu aquifer. DHHL already has a reservation and should be able to utilize it now.
69. Kualapuʻu aquifer: County, Ranch, DHHL are all users. Who gets priority of rights? Well interference from all users.
70. Kualapuʻu aquifer: The Commission should clarify if there is a conflict of interest in implementing enforcement of the public trust. Discuss priorities and clarification if an entity with lesser rights blocks someone with higher rights
71. East Molokaʻi Customary Native Rights: appurtenant and riparian rights are not being recognized or acknowledged.
72. East Molokaʻi Customary Native Rights: Commission needs to define water rights that will affect watershed partnership projects.
73. East Molokaʻi Customary Native Rights: Need to define hierarchy of rights. Do Native tenants have priority over State uses?

WATER SCARCITY/AVAILABILITY OF WATER

74. Availability of potable water to put people on the land.
75. DHHL's allocation needs to be increased
76. Need to increase system capacity for DHHL.
77. Availability of potable water to put people on the land.
78. The policy that unused allocations of water are teaken away leads to waste (unused allocations are diverted to maintain the appearance of use to preserve the allocation for future needs). We need to monitor actual use and allocation. Can there be a reservation of existing water allocation for future use?

79. There are illegal uses of the Molokaʻi Irrigation System. It should be used for agriculture.
80. Molokaʻi Ranch - illegal uses of water
81. How much can Well 17 provide without importing from other wells?
82. Are there alternate sources?
83. Need permanent transmission
84. Three major users in Kualapuʻu. All interfere. DHHL trying to get more allocation; Commission has not approved an increase in the allocation; there is pending request to increase the water use permit allocation from Kualapuʻu. The Commission is still considering other requests.

WATERSHED MANAGEMENT

85. Streams have standing. The Ranch should replant the forest.
86. East Molokaʻi watershed protection plan proposes to fence the forest, but fencing stresses the zones outside of the fence.
87. The Nature Conservancy East Molokaʻi Watershed Plan: do not agree with fencing. The fence is not continuous. How does it affect kuleana rights?

OTHER COMMENTS

88. Molokaʻi Ranch limited easement and access leads to high costs.
89. Environmental Impact Statement for use of Molokaʻi Irrigation System is pending new lease.
90. Water use categories/priorities: food vs. seed vs. ornamental crops. Food -> lower
91. Commission process permit.
92. DHHL is subject to source water protection guidelines, but not other users subject to the same rules.

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: Workshops are being held on Kauaʻi, Hawaiʻi Island (Kona and Hilo). Please see the WRPP Update website for dates and locations.
- 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

Kaua'i Workshop Summary

March 19, 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 Hawaiʻi's water resources. As a part of the WRPP update process, the Commission is hosting seven "Hawaiʻi 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 fifth workshop, held on Kauaʻi at the Planning Commission Meeting Room on March 19, 2015.**

ATTENDANCE

Community Participants:	37 participants signed in, it was estimated that about 50 people were present
Water Commissioners:	Denise Antolini
Commission Staff:	Lenore Ohye, Jeremy Kimura, Neal Fujii
Townscape (Consultant):	Sherri Hiraoka

"ONE BIG WATER ISSUE"

Participants were asked to share their one big water issue to give the group an idea of where interests lay. Those issues included:

1. Diversions
2. Diversions
3. What is the process? What do management and rules mean for neighbor island folks? The process is Oʻahu-centric
4. Ensure enough water for the Department of Hawaiian Home Lands (DHHL) tenants.

ONE WATER ISSUE (CONTINUED)

5. What water problems can be solved with easy solutions?
6. DHHL water rights and reservations.
7. Fair and consistent application of law for small landlords and water users.
8. ʻAuwai and water pathway health.
   - Water is being diverted and ʻauwai are collapsing.
   - Where is this happening?
9. Diversions, waste, and stream protection.
10. Water conservation
11. Years ago, Kauaʻi Department of Water (KDOW) replaced cast iron pipes with asbestos pipes.
    - Asbestos water pipes are still in the ground.
    - Grove Farm also uses asbestos pipes.
    - How toxic is asbestos in pipes?
    - We need to remove those asbestos pipes.
12. How much water does Kauaʻi have?
13. Responsible water use and reuse of recycled water.
14. Want to learn more about water rights issues and be updated on their ststus.
15. Water rights issues.
16. Availability of water.
17. Management and protection of water resources.
18. Native ecosystems: flora and fauna
19. Advocate for following kūpuna practices for managing water through ahupuaʻa management system. We need and want assistance. Commission should attend ahupuaʻa meetings.
20. DHHL wait-listers are not getting land in Puʻu ʻōpae and Anahola because there is a lack of water. Access to water would reduce the waitlist for homesteaders.
21. Allocation of water among competing users.
22. Water diversions and who does water belong to? Is there enough?
23. Impact of removal of cesspools and replacing them with septic systems – are they better?
24. Concerned about the proposed dairy and possible pollution from allowing it.

ONE WATER ISSUE (CONTINUED)

25. Water Code and Commission – the Commission is supposed to uphold the Code, but laws are only enforced when court action is taken.
26. Wellhead/source water protection.
27. Total management of water resources. Follow up on diversions.
28. Availability of water for agriculture.
29. Availability of water related to drought and agriculture.
30. Coastal zone management, offshore properties, and agriculture.
31. Water conservation and education on water.
32. Concerned about reservoirs drying up in the Puna moku. Why are reservoirs drying up?
33. Major diversions, especially in Kōkeʻe; wastefulness.
34. Protect the water of drinking and ground water.
35. Source water protection.
36. Water diversions.
37. Who owns the water?
38. The Department of Land and Natural Resources (DLNR) and DHHL need to coordinate planning.

PRESENTATION

Lenore Ohye welcomed participants to the meeting and thanked everyone for attending and Sherri Hiraoka discussed the importance of water and gave a brief introduction to water management in Hawai'i. Jeremy Kimura then provided an overview of the Commission on Water Resource Management, Hawaiʻi's ground and surface water resources, the Hawaiʻi Water Plan, known water resource issues, and water resource management strategies.

DISCUSSION

After the presentation, the community shared their water resource issues and concerns, as well as ideas for how to improve any future outreach efforts. Comments from the community are presented below.

FUTURE COMMUNITY OUTREACH

1. Hold the meeting on a weekend so it can be whole day, through lunch. Recap the 2008 WRPP
2. Do the presentation in multiple locations and on different days.
3. Better moderate the meeting.
4. Start with when water will be restored.
5. The community needs more information on the WRPP update process in order to participate. This presentation presented too much information too fast.
6. The community needs to have the 2008 WRPP presented in order to be able to determine what needs to be changed.
7. We need more time to get and digest the WRPP information.
8. Clarify what the Commission can work on as a part of the WRPP. Refer out issues that other agencies can work on.
9. Meet with the County Planning Departments to get the word out. Give them information and resources to share.
10. Invite DHHL and beneficiaries to meetings – water affects people getting onto the land.

MANAGEMENT OF WATER AND ENFORCEMENT

11. Process takes too long – we need action! Water is being diverted and sold.
12. Commission staffer is needed on Kauaʻi.
13. If Kauaʻi were a water management area (WMA), would complaints be heard on Kauaʻi? Issues need to be heard on-island to allow the community to participate.
14. What is the WMA designation process? Anyone can file a petition. Hulēʻia Stream diversions.
15. Do state water laws encapsulate Kingdom law?

COMMUNITY REPRESENTATION/INVOLVEMENT

16. WRPP Update needs to have a strategy for interfacing with communities. Information needs to flow both ways to have good management!

17. Why doesn't the Commission have a representative from Kauaʻi?
18. The community has knowledge of ʻauwai and maps.

DATA COLLECTION, MONITORING, AND ANALYSIS

19. We need maps of water sources. Maps should show physical water boundaries and not just maps of management areas.

STREAM PROTECTION

20. Moloaʻa does not get County water. There are new diversions since 2001 that have not been decommissioned. A stream diversion complaint was submitted.
21. Do Kauai streams have instream flow standards (IFS)?
22. Streams are in bad shape. Growth will require more sources, but they should not come from streams.
23. Can the Commission visit the Hanapēpē River? There is work being done in the back of the valley. Dams. Falls area. Low water flow.
24. Is the Mana Ditch included on the Commission meeting agenda for April?

GROUND WATER PROTECTION

25. Koloa volcanics series: USGS did a study on ground and surface water interaction. They need to return. Water budgets need to be changed. USGS will be updating their recharge estimates for Kauaʻi.
26. Have we addressed carrying capacities? Do the recharge updates and sustainable yields represent this?

AGRICULTURAL WATER NEEDS

27. Farmers should get water in Anahola
28. Diversions came about because reservoirs were closed after the Kaloko Dam break. How do we recapture water for agricultural use? We need to have better understanding and regulation.

WATER QUALITY

29. Does the Commission monitor for pesticides (particularly for glyphosates)?

LAND USE/WATER USE

30. It is difficult to get new meters in Līhuʻe but there is a lot of development planned in the land use plan.
31. Water planning should precede land use. There needs to be integration.

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: Workshops are being held on Hawaiʻi Island in Kona and Hilo. Please see the WRPP Update website for dates and locations.
- 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

Kona Workshop Summary

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 Hawaiʻi's water resources. As a part of the WRPP update process, the Commission is hosting seven "Hawaiʻi 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 Hawaiʻi island at the West Hawaiʻi 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, Hawaiʻi's ground and surface water resources, the Hawaiʻi 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 what group they came from.

ALTERNATIVE WATER SOURCES

1. Catchment
2. Wastewater reuse is currently a problem
3. Subsidy of catchments: tax breaks and tax credits
4. Opportunities - Climate Change: SLR - desal for supply, stormwater capture
5. There is a bill in the Legislature to allow County stormwater systems, but it also includes charges.
6. Can rules be put in to require grey water for irrigation?
7. Need more technology like desalination to augment water supplies. Share experiences using new technologies
8. More recycled water use. County DWS and Environmental Management need to coordinate. State and County agencies need to work together.
9. OTEC should be looked at as a potential source.
10. Storm water - create ponds
11. Golf courses should use recycled water and have their own treatment plant
12. What about desalination?
13. Preserve rights to catchment water.
14. Use reclaimed water for agriculture, golf courses, non-potable uses.

CLIMATE CHANGE

15. Climate
16. Climate change
17. Ocean acidification
18. What are the climate change variables?

COLLABORATIVE/INTEGRATED LONG RANGE WATER MANAGEMENT PLANNING

19. What is the economic impact of designation
20. Economic impact of designation - related to uncertainty and development
21. Economic impact of designation - the economy is based on construction; it will be negatively impacted
22. Economic impact of designation - need water certainty for development
23. Economic impact of designation - A2 moratorium - increased property values
24. Economic impact of designation - water is economic in Hawaii. How do we define economic impacts?
25. Economic impact of designation - traditional management includes the economy
26. Economic impact of designation - water is along-term resource. Sustainability
27. Economic impact of designation - seven billion gallons recharge is based on studies
28. Economic impact of designation - there is lots of submarine flow
29. Economic impact of designation - biotic tolerance for salinity
30. Economic impact of designation - why is Lake Waiau dry?
31. Economic impact of designation - Long-range land use planning: designation may later plans
32. Economic impact of designation - land use pattern deveoped by the community
33. Economic impact of designation - need water to develop
34. Economic impact of designation - need data for sustainability
35. Economic impact of designation - avoid conclusion (inaccurate)
36. Plan should address coordination between the State and County.

COMMUNITY REPRESENTATION/INVOLVEMENT

37. Incorporate BMPs in the community
38. Education - schools - conservation
39. Be honest with us!
40. Outreach to those who cannot attend meetings using video.
41. Put contact information that are in papers on blogs.
42. Video these meetings and put them on-line.
43. Is County data accurate?
44. Availability of data - both public and private
45. Monitor - empirical

46. Need more data

DATA COLLECTION, MONITORING, AND ANALYSIS

47. Data is corrupt - can corporations be trusted? Audits are needed
48. Uneven data collection across the state
49. Who determines how much water we have? How is recharge calculated? Who's qualified to make these determinations?
50. 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
51. Good data is needed for good decisions, specifically for water management areas
52. Not enough effort is put into finding water - there is water
53. There is a lot of conflicting information
54. Accurate estimate of sustainable yield based on current or best available science today instead of the old approach
55. 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 aquisition.
56. If monitoring occurs, there won't be salt water intrusion. Are they monitoring recharge? Need better monitoring.
57. What knowledge do we have - including deep water aquifers?
58. Need more and better reporting! Mandatory?
59. Data collection - what are the costs to obtain and analyze data?

GOVERNANCE AND COMMUNITY-BASED WATER MANAGEMENT

60. DOH-Commission-Counties: need one central coordinated effort on water. Nothing gets done.
61. Counties are the most direct link to the community. Counties should have more control over water.
62. Keep water decision-making at the County level. Decisions should not be made outside the community.
63. More island-specific management
64. Why do we need another level of regulation on waterover the County level?
65. West Hawaii people should be driving the decisions - Home Rule
66. West Hawaii people should be driving the decisions - Home Rule. Commission should do extended workshops on water management

67. 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.
68. West Hawaii people should be driving the decisions - Home Rule. Use technology to allow more participation by those in remote areas.
69. Home rule is only as good as the rulers.

GROUND WATER PROTECTION

70. Uncertainty regarding ground water regime
71. Define the sustainable yield accurately
72. Commission takes the lowest estimate for sustainable yield, but that may be dangerous because it may cause us to take unnecessary actions.
73. Will small wells stop being permitted? Is there a saturation point?
74. 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.
75. Potential designation of Keauhou aquifer without substantial scientific data and environmental data.
76. Accurate estimates of sustainable yield based on best available and current data/science.
77. What are the implications of the findings in the Saddle Road area on sustainable yield?
78. What are the implications of high level/perched water on sustainable yield?
79. Potential designation of Keauhou aquifer without substantial scientific data and environmental data.
80. 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.
81. 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 Keauou stays the same, it ignores the best available science.
82. Sustainable yield number has many policy implications.
83. Policy of adopting the lower range of sustainable yield needs to be challenged due to current data. Best possible judgments with best possible data.

84. Implications of designation without best available data. Public information shared at the 12/10/14 meeting was not provided to all of the Commissioners.
85. Implications of designation without best available data. Timely distribution of data to all stakeholders and decision-makers.
86. 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.
87. Implications of designation without best available data. More allocation of time for presentations to Commissioners by all parties.
88. What are the sustainable yield baseline numbers?
89. Ground water sustainable yield and criteria need to be robust. See criteria for instream flow standards. Need much more sophisticated modeling.
90. When were sustainable yields established?

IMPLEMENTATION OF MANAGEMENT STRATEGIES

91. Agency resources are limited

INFRASTRUCTURE/CONVEYANCE

92. Cost of water meters is too high.
93. Water resources in South Hawaii - no distribution to communities
94. Water infrastructure and repairs.

MANAGEMENT OF WATER AND ENFORCEMENT

95. Commission enforcement
96. Concern over additional layer of regulation in West Hawaii (water management area designation), making it even more difficult to get water.
97. Water management area designation would be too burdensome on local users
98. How to determine water for development? Do businesses take precedence? Lots of development may change quality of life.
99. Penalties for not reporting should be considered.
100. We need accountability. How can we be proactive?
101. Look out "Seven Generations."
102. How do we balance various uses, demands, and needs?
103. What about security issues?

104. Consider industry best management practices. The construction industry is utilizing best conservation practices with regard especially to wasting of water.

STATE WATER CODE

105. 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.

106. 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.

107. How different can/will the revised Plan be?

STREAM PROTECTION

108. Mauka to makai flow

WASTE AND CONSERVATION

109. Conservation

110. Water wasting by golf courses during drought periods.

111. Will the Plan include conservation strategies?

112. Hotels are good at conserving water

WATER QUALITY

113. Water quality - DOH is not protecting facilities

114. Water Quality - accountability, what are the health impacts?

115. Accountability of military - bombing

116. Wastewater treatment - PCPs

117. Home water filters are simple and safe

118. Cesspools impact the watershed. We should require septic.

119. Nearshore water quality - Puili Bay - there is less spring flow than before

120. Water quality - monitor use of pesticides and herbicides near the coast, especially at the National Park.

121. Municipal water system is salty in some areas, ex: Keei

122. 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.
123. Island Dairy using high amounts of pesticides
124. Septic tank water - could affect ground water

WATER QUANTITY AND QUALITY

125. Set the priority for preserving water quality and quantity for human consumption and agriculture.
126. More focus on protection of water quality/quantity for ecosystems.
127. Need to coordinate water quantity and quality.

WATER RIGHTS

128. Appurtenant Rights
129. Native Hawaiian water rights
130. DHHL rights and reservations, traditional and customary rights

WATER SCARCITY / AVAILABILITY

131. Water for development
132. Priority of use should be for people
133. Need more wells. People need to be able to dig more wells. There is currently a restriction on new water.
134. Department of Water Supply should investigate skimming off the top of the basal aquifer for more supply.
135. What about water for loʻi, cultural practices, and food?
136. Conserved water is being used for new developments.

WATERSHED MANAGEMENT

137. Protect the watershed for now and the future. Ex: expansion of enterprise zones would infringe upon watersheds
138. Need to coordinate with DLNR watershed protection
139. 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)

NEXT STEPS

- Workshop notes
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  - 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, Hawaiʻi Island. Please see the WRPP Update website for the date and location.
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HANDOUTS

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Hilo Workshop Summary

March 30, 2015

HAWAIʻI WATER WORKSHOP – HILO

March 30, 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 Hawaiʻi's water resources. As a part of the WRPP update process, the Commission is hosting seven "Hawaiʻi 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 seventh workshop, held in Hilo on Hawaiʻi island at the Aupuni Center on March 30, 2015.**

ATTENDANCE

Community Participants:	51 participants signed in
Water Commissioners:	Milton Pavao
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, Hawaiʻi's ground and surface water resources, the Hawaiʻi 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 what group they came from.

MANAGEMENT OF WATER AND ENFORCEMENT

1. There is a lack of water planning. It shouldn't be first come first served.

AGRCULTURAL WATER NEEDS

2. DHHL water rights, reservations, T&C rights - Opportunity for agricultural tenants to drill wells to enable farming in Panaewa.
3. DHHL water rights, reservations, T&C rights - opportunity to drill to supply agricultural water to enable farming in Panaewa.
4. Insufficient access to water for agriculture and farming, especially for DHHL and in Puna.
5. Lower agricultural water rates
6. No maintenance of agricultural ditches and systems

ALTERNATIVE WATER SOURCES

7. DHHL water rights, reservations, T&C rights - need more capture and distribution of rain water
8. For areas on water catchment, there is a threat from lava flows - there is not enough water to fight fires.
9. Need to address water catchment systems, especially in Puna. Catchment is needed because there is no County water service and no known plans to service Puna - need to expand service.
10. There is no DOH support for those on water catchment.
11. Want to drill well
12. Water catchment - can't manage water of poor quality
13. Water catchment - DOH should provide oversight and regulation of catchment systems.
14. Water catchment - need more integration between water quality and water quantity regulation

15. Water catchment - provide funding for personnel for education
16. Water catchment - provide funding for research on treatment methods and pathways for infectious diseases
17. Water catchment - provide funding for treatment for those who cannot afford treatment

ALTERNATIVE WATER SOURCES

18. Water catchment users need to know how to maintain their systems.
19. Water catchments - catchment water quality research - lack of funding.
20. Water catchments - develop catchment standards in building codes
21. Water catchments - have person available to do inspections and outreach from DOH
22. Water catchments - Lack of education on treatment (filtration) and maintenance
23. Water catchments - lack of education.
24. Water catchments - lack of funding for catchment treatment.
25. Water catchments - lack of funding to support proper treatment by users. No funding for research on proper treatment methods, all infectious diseases can be transmitted in rain water.
26. Water catchments - no inspections or regulations on use of catchment systems.
27. Water catchments - no municipal water available, therefore catchment is the only option.
28. Water catchments - no research to support Center for Disease Control recommendation of 20 micron filter
29. Water catchments - update the catchment handbook released by UH CTAHR
30. When there is drought, catchment users get water from public spigots.

COLLABORATIVE / INTEGRATED LONG RANGE WATER MANAGEMENT PLANNING

31. DHHL water rights, reservations, T&C rights - more coordination amongst state agencies
32. How do we do hydroelectric?
33. Hydroelectric/stream extraction - difficulty with regulatory agencies. Need list of steps. Be proactive in government
34. Hydroelectric/stream extraction - use of stream water for agriculture
35. Hydroelectric/stream extraction - where are the existing extraction points?

36. Need for streamlined regulatory system, e.g., combining water and wastewater functions at the County level and State level (DOH/Commission).
37. There is a lack of coordination between the Commission and the Department of Health.

COMMUNITY REPRESENTATION/INVOLVEMENT

38. Access to the Commission - State Boards are hard to access. How do neighbor islands submit input?

DATA COLLECTION, MONITORING, AND ANALYSIS

39. Are lava tube systems that carry water mapped? Need more water data.
40. Environmental Assessments and Environmental Impact Statements should include climate change scenarios, water impacts, and impacts to traditional and customary practices.
41. Identify consumptive vs. non-consumptive uses of water. We do not know how much water is needed for non-consumptive uses.
42. Marine Life Conservation Districts balance use and protection . Need an update.

GOVERNANCE AND COMMUNITY-BASED WATER MANAGEMENT

43. Add DHHL and DOA as ex-officio members of the Commission.
44. Hawaiian Homes Commission Act - State over federal mandate 221B
45. Home rule - allows for more regional planning and balancing of water uses. Can draw expertise from the State.
46. Home rule for water decisions.
47. Maintain private uses on private lands. Should be able to make decisions for own lands.

GOVERNANCE AND COMMUNITY-BASED WATER MANAGEMENT

48. Transparent, effective decision making.
49. What role does the Environmental Protection Agency play in the Commission? How is catchment (rain) affected by the EPA and the Veterans Administration?

GROUND WATER PROTECTION

50. Commission should focus on high level aquifers and do more studies with respect to sustainable yield estimates. Mauna Kea high level water.

51. Concern that designation of the Keauhou aquifer as a water management area will have negative impacts
52. Designation of Keauhou Aquifer as a WMA may have negative impacts - Commission should get and consider improved data and scientific studies, e.g., D. Thomas, before making decisions.
53. Designation of Keauhou Aquifer as a WMA may have negative impacts - consider the public impacts of Commission designation of Keauhou Aquifer.
54. Designation of Keauhou Aquifer as a WMA may have negative impacts - National Park Service and Department of Interior should stick to their own kuleana.
55. Designation of Keauhou Aquifer as a WMA may have negative impacts - stop accepting federal money for Keauhou and Kaloko-Honokohau
56. Keauhou aquifer water management area designation - there is a lack of information on the process. What will the impact be on development and DHHL? How will this impact DHHL reservations?
57. Problems with DHHL signing well permits (Landowners)
58. The Commission should use best available data before updating sustainable yield and designating the Keauhou Aquifer as a water management area.
59. Update sustainable yields and recharge numbers.
60. Who controls ground water

IMPLEMENTATION OF MANAGEMENT STRATEGIES

61. DHHL water rights, reservations, T&C rights - funding needed to support all state agencies

INFRASTRUCTURE/CONVEYANCE

62. Don't let us end up like Oahu where pipes break all of the time.
63. Expand water delivery service areas to elimnate the need for catchment.
64. Help rural communities gain access to water.

MANAGEMENT OF WATER AND ENFORCEMENT

65. Balance conservation, business (able to get resources), and protection.
66. Can wells be drilled on DHHL lands?
67. County and state regulations for wells and catchment

68. DHHL water rights, reservations, T&C rights - exemption of wells from HRS Chapter 343 requirement
69. DHHL water rights, reservations, T&C rights - Regulatory process is burdensome for DHHL (cost) and tenants. Hawaii Revised Statutes Chapter 343 does not exempt wells.
70. Hawaiian Homes Commission Act - 1920 Federal Act: bottled water - need policy
71. Is it still appropriate for a State overlay telling counties how to manage their natural resources?
72. Lack of urban planning. Plans should be based on the availability of water.
73. Potable vs. non-potable uses should be matched with sources.
74. There is no mechanism to exercise DHHL reservations.
75. What is the carrying capacity of Hawaii? It's related to natural resources.

STATE WATER CODE

76. Need for clarification of definition in the Water Code and Rules - "sustainable yield" clarification based on current or projected future data
77. Need for clarification of definition in the Water Code and Rules - Application and clarification of "authorized planned use"
78. Need for clarification of definition in the Water Code and Rules - Need to define "hydrologic unit"
79. Need for clarification of definition in the Water Code and Rules - simplify Administrative Rule making to amend Hawaii Administrative Rules to clarify definitions.
80. Need for clarification of definition in the Water Code and Rules.
81. When does the Precautionary Principle get triggered? Science needs to support the caution. It is too arbitrary.

STREAM PROTECTION

82. Are there stream water extraction points? Akaka Falls and Piihonua
83. Instream monitoring - flow values. Need measurable flow standards to protect fish. Who is monitoring diversions?
84. Lack of enforcement of stream violations, blocking of downstream flows.

WATER PRICING

85. Hawaiian Homes Commission Act - 1920 Federal Act: tiered water rates are ok, should negotiate (County and DHHL)

WATER QUALITY

86. Cesspools impact ground water and nearshore at Kapoho and Puako
87. Diseases related to parasites - rat lung worm disease
88. Public health - catchment and surface water has rat lung worm disease
89. Public health - leaching of agricultural chemicals into streams. UH did a study but no longer. Diminishment of streamflow. NPDES/TMDL
90. Public health - outside funding, need DOH and CDC help
91. Water pollution related to geothermal, etc.
92. We need to understand the effects of geothermal drilling on ground water quality. There is a lack of monitoring - monitoring is being done by the geothermal industry.

WATER RIGHTS

93. Hawaiian Homes Commission Act - 1920 Federal Act: 221B states that water is FREE OF ALL CHARGE
94. Hawaiian Homes Commission Act - 1920 Federal Act: DHHL "on demand"
95. Water rights vs. land owner rights

WATER SCARCITY / AVAILABILITY

96. Drought is a strain: spigot users, tankers on the road, etc. Need drought monitoring to know the impacts of less rain and more use.
97. Hawaii Volcanoes National Park - hauls water from Puna. Need to monitor and understand the impacts of drawing water from Puna, especially climate change impacts.

WATERSHED MANAGEMENT

98. Watershed management
99. Watershed protection - NATIVE forest. Alien species use more water than natives. Native species capture water better. Need education.
100. Watershed restoration, conservation, and protection is need on both public and private lands. Identify where needs protection.

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.
- 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