

**Department of Environmental Management
Maui Wastewater Community Working Group Meeting
Thursday, January 7, 2010
Kihei Wastewater Reclamation Facility
and
Maui Economic Development Board (MEDB) Kihei Conference Room**

**Meeting Notes
Draft - January 26, 2010**

Site Visit: Kihei Wastewater Reclamation Facility led by Dave Taylor and Tim Hall

I. Welcome and Introductions

Thank you to MEDB for the meeting room and refreshments. Welcome remarks by Leslie Wilkins.

Member introductions: new attendees introduced were Derek Heafy for Hawaii Cane & Sugar; Netra Halpern for Kihei Community Association, Joie Taylor for Sustainable Living Institute of Maui and Howard Hanzawa for West Maui Developers Group.

Tanya Lee-Greig and Mae Nakahata have withdrawn from the CWG.

II. Agenda Review; Reminder re: Ground Rules and Housekeeping

CWG members were reminded to bring emailed materials to these meetings.

Leland reminded the CWG of the ground rules: a) CWG is advisory to the Department of Environmental Management; b) the CWG will strive for conclusions that all can live with (consensus); c) the facilitator is neutral and does not take a side on issues; d) if an alternate is attending for a CWG member, the CWG member is responsible for briefing the alternate and providing them the materials; e) for those joining the CWG, we will not be revisiting issues; f) information is shared with the whole group at the same time; g) meetings are open to the public; and h) the CWG brings the community into these discussions through their representation of their organizations and constituencies.

The County website for the CWG process is up and much easier to navigate. Mahalo to Gregg Kresge and the County's IT staff.

Leland referred to a request Jeffrey, Robin and Irene to form subcommittees. The Project Team considered this matter when Jeffrey suggested it earlier; and discussed it again with this most recent request. The Project Team provided an emailed response to the CWG. The Project Team believes that 12 months is enough time to conclude the work of the CWG.

Jeffrey referred to the Lahaina Reclamation Facility Permit Public hearing testimony submitted by Mayor Tavares relating to the formation of the community working group. Leland indicated that the DIRE Coalition concerns would be discussed in the agenda item on the CWG's mission and guiding principles.

III. CWG II Meeting Summary

No comments or corrections were made to the CWG II Meeting Summary. The CWG II Meeting Summary will be posted on the website

IV. Guiding Principles - Discussion of Revised Draft

Leland summarized the revisions to the Mission Statement and Guiding Principles. The group then discussed the revised draft.

Mission Statement Discussion: After discussion, the group agreed to add the phasing out of injection wells to the mission statement.

Jeffrey: According to the Mayor's testimony, the CWG's purpose is to develop a comprehensive plan. Is the CWG's function to make a plan or is it to make recommendations?

Leland: This CWG process will establish the foundation of community values, guiding principles, and preferred strategies; and sets the direction for where County should go in the future. The Department of Environmental Management will use the CWG's recommendations in developing its plans. These plans will be vetted through a community process.

Kuheha: In the process of inviting CWG participation, she personally spoke to every CWG member with a message from Mayor, that the work of the CWG was to help make recommendations to the Department for planning future wastewater management strategies.

Dave: The Wastewater Division does a lot of large projects; and looks to the community in terms of what is important. WRD and its engineering consultants would then come up with technical drawings for engineering direction; and does the technical engineering work in terms of calculations and technology evaluation and selection.

Irene: Will the CWG consider how improvements will be funded?

Leland: Funding will be the subject of brainstorming sessions that will begin at the February meeting. Later on today's agenda, the CWG will shape the areas for further brainstorming that will occur in March.

Irene: The CWG needs to be clear on recommendations, funding, and ways to educate

the community.

Leland: The CWG will be working on these issues in this process.

Gregg: The Integrated Solid Waste Management Plan (on the website) was a similar process where the group presented recommendations to the Department which the Department adopted. The technical work and operational matters were left for the Department to undertake.

Joie: Could subcommittees be researching various topics?

Leland: The consultant firm Brown & Caldwell will work with staff to provide the CWG with needed information about wastewater options.

Robin provided further thoughts on refining the Guiding Principles. Leland will work with Robin to integrate her suggestions.

V. Continuation of Discussion Re: Wastewater Recycling Presentation

Russell: What % of recycled use for West Maui Plant with pressurized system and elevated storage?

Steve: It opens more reuse. DHHL has a need for agricultural use in the future; more pipelines can be added to distribute to other places. Reuse increase could be from 300,000 to 3-4 million gallons per day. The key is to get the elevated storage and more UV system. This is what happened in Kihei and it opened up to more reuse.

Russell: where are we in the process?

Steve: Need more UV capability; have informal agreement with Honua Kai developers who will provide money to upgrade UV and design for elevated storage. But that agreement is not formalized. UV channels and elevated storage system is \$10-\$12M; and this core system is needed first.

Dave: the further away users are, the more it costs.

Howard: Another factor in reuse waters is salinity of the water; does this require additional funding to repair leaks?

Steve: Front Street work was done for salinity; however, more work needs to be done. The golf course use is fine; but salinity may be more of an issue with agriculture use. Salinity may be addressed by gypsum or other methods. There are potable sources that are already saline; and there's only so much that can be done for leaks and trying to minimize that as much as we can. It is a challenge in Lahaina but not in Kihei or Kahului. In Lahaina chlorides are double that of Kihei or Kahului; the clay pipes systems and gaskets

are old, the area is under water so there is leakage throughout Lahaina town and laterals that extend into peoples' properties also may allow water to leak into the sewer system. It is difficult to seal your underwater system and that's why it's worse.

Fisher: What is the cost to run the facility?

Dave: \$2M for electricity at Lahaina with staffing and operations is another \$2M. Budget this year is about \$42M and \$15M is operations.

Jeff: Rate the limiting factors to phase out injection wells towards more reuse.

Steve: The biggest challenge is seasonal variations of recycled water demand. As purveyor you can provide what you have during peak demand periods. If there is to be 100% reuse, and you extend to use more, the problem is when winter comes and people don't need to water. Where does the excess recycled water go? The acceptance of seasonal water during winter time needs to be addressed. Someone who's on brackish may be able to switch with low demand from recycled to brackish water. The question is what do you do with extra recycled water when there's no use or demand for it?

Don: Lahaina has open irrigation systems, storage, and transport. Can this be used for recycled water?

Steve: It's been done in other places. To get it up that high is expensive. It's best to have storage tanks as low as possible for cost. Pressure is developed when water goes down from tank, not when it goes up.

Russell: There's the potential of getting recycled water lines in Kihei to Monsanto and HCS. Might this happen?

Steve: In the South Maui Verification Study, this was listed as an option. A study performed in 2005 by a consultant identified a few options to get the R-1 water to North Kihei with a few possible routes and respective cost estimates. There's the option of continuing going north with existing 12 inch pipe. But there's only so much water you can get into a 12 inch pipe. An option is to go above the highway going north with larger pipe but it would increase the cost.

Russell: would this address seasonal variability?

Steve: There is the potential for addressing seasonal challenge.

Howard: Lahaina ditches have not been maintained going thru Lahainaluna School. It would not be feasible for irrigation using recycling water.

Don: What about restoring stream flow-- restore Honokowai Valley

Steve: DOH has problems releasing recycled water into the natural environment even if it's been done on the mainland (i.e., River Walk in San Antonio).

Bill: Recycled water is coming from three large Maui plants. Have you looked at scalping plants?"

Steve: That has been looked at and is becoming common. The concept is to intercept flow where it is generated at a scalping plant and treat it; then solids are discharged into the County sewer system. Schofield Barracks has a scalping plant. There is a cost to this.

Scott: Regarding potential expansion of system; there are a lot of agencies involved in outlining urban growth boundaries; and look at Kihei, urban development will occur mauka of Kihei going north. Hope to stay in step with the planning which would call for higher elevation lines needed for those developments; and put reclaimed water within reach of agriculture, which could take care of the seasonal issue. Regarding Lahaina Honua Kai, have they discussed commitment for what they need?

Steve: 185,000 gallons of recycled water commitment was discussed, and they are using some. Starwood thru SMA is required to make a contribution. The intent is to use the formula set for Honua Kai based on wastewater flows.

Scott: When developing capital expenditure for irrigation and water is not available, tolerance for variations is a problem. Exploring the idea of capacity issues for specialized agriculture is worthy of discussion.

VI. CWG Input on Brainstorming Session for CWG IV

Leland asked the CWG to expand and clarify major scenarios for Maui's future wastewater system. Are these the scenarios that the CWG wants to see? Scenarios will be fleshed out from this discussion; then the CWG will work on how we get there.

Scenarios

A. Max. H2O Recycling

- i. Central Maui (Kahului Facility)
- ii. Not disposing wastewater in other ways
- iii. Displacing potable water uses
- iv. Centralized/Decentralized systems
- v. Also includes private systems
- vi. Ocean rise/climate change

B. Phase Out Injection Wells

- i. Public/private wells
- ii. No new wells permitted

- C. Zero Negative Environmental/Ecological Impacts
 - i. No violations of standards - H2O quality
 - ii. Replacement for wells not worse
 - iii. Minimize/acceptable
 - iv. Observable ecological indicators
 - v. Adequate treatment of all waste streams

- D. Minimize Financial Burdens
 - i. Creative approaches
 - ii. "Actually did it"
 - iii. Lack of outcry
 - iv. Demonstrate that investments have a return -- savings, efficiency, infrastructure improvements; sustainability.

- E. Educated Public re. Recycling/Conservation
 - i. More meaningful participation in process (waste generation/use of recycled H2O, peer pressure)
 - ii. WW management integral to larger general planning
 - iii. WW a topic in general education

- F. Ahupua`a Concept
 - i. Way to educate the public (Item E)
 - ii. Signs that people have accepted and understood this concept.
 - iii. Community is proud of WW system

VII. Next Steps/Next Meeting

Next meeting: Kalbert Young (Finance Director), Fred Pablo (Budget Director), Wendy Taomoto (County CIP Coordinator) will be presenting for 1.5 hours at February meeting. CWG will then discuss funding issues in small groups with presenters as resource persons.

VIII. Comments from the Public

Comment: Can we use composting toilets rather than using precious wastewater?

Comment: Look at possibilities of gray water usage.

Comment: Wants CWG to do work in the next few months, not a year. Disappointed that CWG is doing recommendations and not a plan. California and Arizona are examples. Missing cultural impact in Ahupua`a concept.

IX. ADJOURN 4:40 p.m.