CAPACITY COLLABORATIVE

KINGDOM PATHWAYS ESTD 2021 ALOHA ʻĀINA ALWAYS

Wastewater, Cesspool and Septic Conversations in Hawai'i

Report Update: June, 2025

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June, 2025

For More Information, or to implement your own Conversation Mapping event, please contact either of the following.

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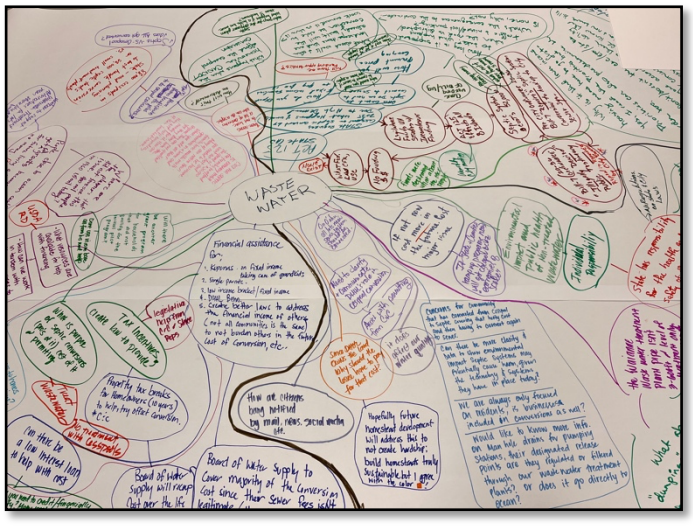
Wastewater, Cesspool and Septic Conversations in Hawai'i

Over the course of eighteen months, The Capacity Collaborative partnered with nonprofits to participate in four stakeholder events on O'ahu and Moloka'i to solicit input on wastewater, cesspool conversion and septic maintenance and management. The first event was held at a local library in Wai'anae on January 22, 2024. This workshop focused on community member input, where a Conversation Map was prepared to reflect individual homeowner and community based organization's (CBO) perceptions about wastewater issues broadly and cesspool conversion more specifically. The second event was held on January 23, 2024 in Pearl City at the Hawai'i Department of Health (DOH) offices, with stakeholders that represented other federal, state and county entities; wastewater professionals; realtors; and two community members. The DOH event included two Conversation Maps, one focused on communicating cesspool conversion and one on communicating septic. In October 2024, WAI invited The Capacity Collaborative to participate in a community event on Moloka'i and most recently, in May 2025, Capacity Collaborative and Kingdom Pathways held a community event in Nānākuli.

The discussion below is an overview of the Conversation Mapping exercise and then an overview of each event. The text of the maps, including the analysis notes are included in an Appendix at the end of this document and contain a much richer picture of concerns, questions, and opportunities, as well as the list of event attendees.

What is Conversation Mapping?



Collecting local information can be a lengthy process where much is said but little is captured. Side bar conversations abound but are never recorded, note taking can be uneven, and just a few individuals (often louder and/or angrier) can hijack an entire meeting. As a result, participants can leave an event feeling frustrated and unheard. In response, The Capacity Collaborative uses Conversation Maps to collect diverse stakeholder input quickly and accurately. Conversation Mapping (shown in the picture to the left) is a hands-on process that allows the user to access stakeholder and community knowledge and concerns in a short time. It can reveal hidden information, identify synergies for issues, and help break through hierarchies that may interfere with the free flow of information.

The exercise starts with a topic, often referred to as the "trigger," which is placed in the middle of an empty Map to start the conversation. During the exercise, participants can write whatever they think and feel about the topic or respond to other participant's comments. They can even argue, but there is no talking. When the Map is complete, the participants perform the analysis to reveal key issues, promote brainstorms, reveal barriers or uncover opportunities, depending on the purpose of the exercise. Ultimately, the goal is to promote inclusion by eliciting multiple perspectives within a brief period of time from all stakeholders. With this tool, even the quietest of attendees has a voice through their pen.

Conversation Mapping Events

COMMUNITY WASTEWATER CONVERSATION MAP, WAI'ANAE

The community wastewater Conversation Map transcription and list of attendees are included in Appendix A of this document. The Map topic was "Wastewater" in order to elicit feedback on multiple wastewater issues and concerns including cesspool conversion, septic management, water contamination and other topics.

Through initial meetings in 2023 with DOH and other statewide offices, the overwhelming assumption was that wastewater challenges broadly, and cesspool conversion more specifically, could be addressed through better communication with homeowners and communities about human and environmental health impacts. However, comments recorded before, during and after the Wai'anae Conversation Map made it abundantly clear that other concerns need to be addressed first, especially fears that DOH was leading a land grab effort by requiring fixes that most community members and Native Hawaiians in particular, could not afford. Many participants stated that they are afraid of losing their homes and that they are being subjected to government bullying. The need for (and lack of) conclusive data was also cited multiple times.

Additionally, multiple questions were asked about financing, system costs, capacities and overall program equity during and after the mapping exercise. DOH will need to answer these questions in order to assuage the reservations and suspicions of community members.

COMMUNICATING CESSPOOL CONVERSION CONVERSATION MAPS, DOH

The DOH wastewater Conversation Map transcriptions and list of attendees are found in Appendix B in this document. For this meeting there were two Maps and two different topics: Communicating Cesspool Conversion and Communicating Septic. The discussion below begins with Communicating

Cesspool Conversion. Before participants started their Map, they were given the opportunity to review the Wai'anae Map so they could be better informed about community concerns.

Much of this discussion centered on who should pay, how to pay and whether or not there were other innovative approaches that might be applied from other Hawai'i programs such as solar funding. Participants also wondered what happens to those homeowners who could not afford to pay for conversion. What does enforcement look like? The lack of available data was also discussed and the need for workforce development to build capacity for conversions was cited. Some of their questions included the following.

- Are there enough professionals to support 88,000 conversions?
- Will conversion deadlines stall housing sales if they cannot be efficiently completed?
- Do people understand the environmental impact? Should we develop better outreach to communities and schools?
- Can the state government control costs? Price gouging is a real fear.
- Do we need new wastewater treatment plants and where should they go?

COMMUNICATING SEPTIC CONVERSATION MAP - DOH

While cesspool conversion has risen to the top of concerns, poorly maintained and failing septic systems are also a problem across the Islands. Understanding how to communicate with septic owners was the focus of the second Conversation Map at DOH yet many of the same points and apprehensions found in the cesspool maps were echoed here.

There was a lengthy conversation around the cost of septic systems (expensive), financial support for homeowners and again, who is responsible for paying. Communications was emphasized, especially around the technical aspects of maintaining a system, and an FAQ was recommended to inform homeowners about their options and resources, to be made available on the website but also through the mail, social media, etc. Currently, most information comes from pumpers which may not be the most reliable resource and could sew distrust around requirements for proper maintenance. Getting past these doubts will require more community engagement and a better understanding of why homeowners do or do not maintain their systems.

Many participants felt that homeowners need to be better informed about how their systems may impact groundwater, however, given the community demands for more data, this may not be the best approach. Participants wanted to see the baseline groundwater data and evidence that septic and/or cesspool conversion has improved water quality. Additionally, some believe that there will not be

community buy-in around better maintenance until large facility wastewater generators are also held accountable. And as referenced in the cesspool conversion conversations, septic maintenance and conversion is also seen as an environmental justice issue, especially because the conversion mandates hurt the most vulnerable homeowners. As one person wrote: "We need to get past people's fears and resistance. People are triggered and feel threatened, they don't like being told what to do, and they don't hear that help will be available."

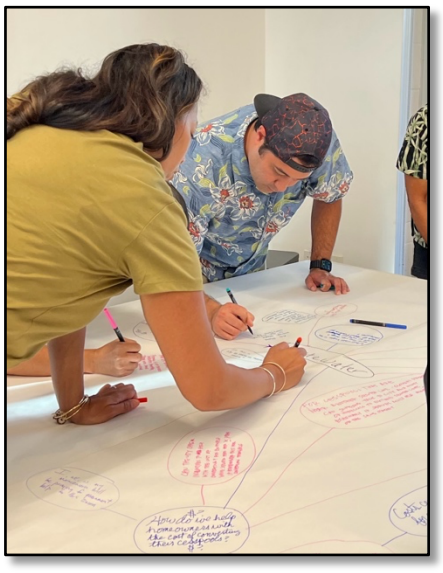
CESSPOOL CONVERSIONS, MOLOKA'I

On October 3, 2024, in Kaunakakai, Moloka'i, community members attended a workshop to learn about and discuss cesspools. Two Conversation Maps were developed which raised several concerns and needs regarding cesspool closure requirements. Not all attendees participated in the maps, however, those that did emphasized a few key topics and concerns.

- Education – A lack of education around cesspools and wastewater treatment in general was cited. People want more information and community meetings about the problem and its alternatives.
- Targeted Workshops – Participants on the maps and in the workshop requested meeting specifically targeting Native Hawaiians.
- Funding – Not surprisingly, many wanted to know how they were going to pay for conversions, who gets priority if funding is available, and what happens if they cannot afford a new system by the 2050 deadline.
- Research and Data – As was the case in Wai'anae, attendees have asked to see the research and data that links cesspools and septic to poor water quality.

WASTEWATER, NĀNĀKULI

The Nānākuli Conversation Maps took place on May 21, 2025 at the Nānākuli Public Library. Participants included community members from Wai'anae and Nānākuli as well as elected officials and people from nonprofits and government agencies. The transcription of the maps as well as the analysis conducted by the participants can be found in Appendix D. Many aspects of the conversations in these two maps reinforce questions and concerns that arose previously in maps conducted in Wai'anae and Moloka'i. Some of those repeated themes include:



- Data – People are interested in water testing and want to see that data.
- Capacity – As in the DOH event, people are circumspect about capacity and/or adequate workforce for the work needed to achieve the conversions.
- Authority – There is confusion and a lack of information on what levels of government and which agencies have what authority and responsibility for wastewater.

- Funding – There are concerns and lack of information about financing/funding for conversions.
- Alternatives – People want more information about options/alternatives including decentralized systems, and how those might be financed.

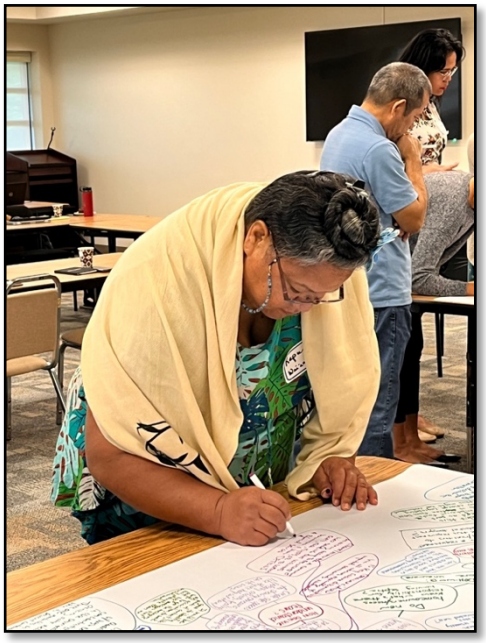
Moreover, a few important, new questions emerged from these maps, which are listed below and have been incorporated into the "Recommendations" section of this report.

- Can cesspools be used as leach fields for new septic systems?
- Will there be programs whereby low-income households get assistance, low-interest rate loans and/or tax credits for cesspool conversion (like Hawai'i Green Infrastructure Authority programs)?
- Could there be pre-approved septic models that would reduce the time and cost of septic permitting and installation?

Recommendations

Develop an FAQ and Hotline

The first step towards better communication can be achieved through the development of a simple Frequently Asked Questions (FAQ) webpage and downloadable handout, easily accessed on the DOH website and disseminated throughout the community via social media, mail, news, neighborhood boards, community meetings, door to door, etc. The FAQ should include the following questions but should be dynamic and grow over time. Additionally, the webpage with the FAQ could also provide a decision tree and/or an explanation of which offices can assist with what issues and can provide a phone number and/or other contact information where people can receive further assistance or direction to resources.

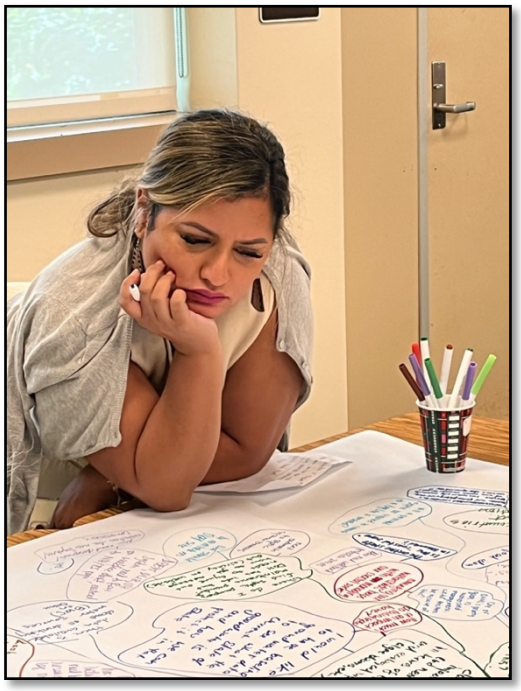


1. What is the purpose of septic conversion to sewer

2. What happens when a home has converted to, or maintains, a septic system and sewer connections become available. Are homes required to hook up to the sewer? Is there any compensation for monetary investments in septic?

3. How will this be funded? Will DHHL assist with the cost? Will Hawaiian beneficiaries receive assistance, compensation and/or low interest loans? Will there be programs whereby low-income households get assistance, low-interest rate loans and/or tax credits for cesspool conversion (like Hawai'i Green Infrastructure Authority programs)?

4. Will there be another grant program for households that did not qualify and/or were not able to apply for the initial pilot program before the money was exhausted?



5. How will you determine per capita income for assistance? Many community members live in multi-generation homes where many members make low-income /poverty level wages, however, if you look at them as a whole, household median incomes may look too high to obtain assistance.

6. What happens if households cannot pay to convert? Is there the possibility that the state would apply a lien and/or take their home?

7. What happens to people who live in places where conversion is very challenging or not possible, such as on the shoreline or at low or high elevations? What options are available to them? Will you assist their conversion? Are there alternatives? Will they be displaced?

8. What other wastewater options available? Smaller systems within neighborhoods (decentralized systems); systems that generate gasses for electricity; self-contained systems within each household so we are not dependent on wastewater treatment plants?

9. Could there be pre-approved septic models that reduce time and cost of septic permitting and installation?

10. When DHHL owns the land, why should the lessee have to pay?

11. What is the conclusive data and research showing the environmental impact from septic systems and cesspools? (If there is data, it should be linked to the FAQ website. If data is not available, the FAQ should advise what studies are being conducted).

12. Who is doing local water testing and where can the information be found?

13. The conversions seem focused on residents. What are businesses doing about conversions? What are they required to do?

14. Please provide more information on manhole drains for pumping stations and their designated release points. Are they regulated or filtered through our wastewater treatment plants or do they go directly into the ocean? Are they inspected and maintained? By whom?

15. What is being done to ensure there is adequate workforce and materials to complete the mandated conversions? What will be done to train workforce, and control materials and contractor costs and prevent price gouging?

16. Too often our wastewater treatment plants and sewers overflow into the ocean, do WWTPs have capacity for all the new households? What are the current flow capacities?

17. Why is it that lower income housing areas have to go first for cesspool conversion?

18. Can a home be sold without converting and/or disclosing the presence of septic or cesspool?

19. What will be done to assist low-income households with new, very high sewer fees?

Clarify Agency Roles and Conversion Dates

A consistent theme from the Conversation Maps, no matter what stakeholder group or community, is confusion over which agency is responsible for what and when septic and cesspool conversions may have to happen: 2030, 2035 and/or 2050. There needs to be an organizational role chart so that community members know who to contact and/or who is responsible for the various elements of septic, cesspool, wastewater and coastal/environmental concerns. Many are also concerned that they may have to convert by 2030. What are the end dates for conversion? How is the information clearly communicated to the public?
A streamlined permit process for septic approval, cesspool conversion and sewer laterals to reduce costs and confusion should be developed and communicated. Additionally, all agencies should be on the same page and coordinate their messaging to increase clarity, transparency and understanding. Concerns continue to be raised about what happens when a conversion to septic is made but then a community is forced into the sewer system. While there seems to be an official exception, no one is aware about it. Ideally this is communicated to all and the process for the waiver is not onerous.

Develop a Funding Guide of Financial Resources that Includes Application Support

Financial assistance captured the majority of the conversation, especially because the initial grant opportunity has been closed. A funding guide that includes local, state and federal opportunities for homeowners and community members was created by The Capacity Collaborative in 2024; however, documents such as this become outdated very quickly. Several opportunities were mentioned on all maps, but most include cumbersome application processes. It is recommended that along with funding opportunities, an office is established to help homeowners apply for grants, loans, subsidies, and tax breaks. Specifically, in Nānākuli, people proposed a program similar to ones that already exist for solar. That same office could also serve as a hotline to address the myriads of concerns and questions and help direct people to the right place for their specific issues.

The funding guide should also include cost estimates and requirements for cesspool and septic conversion options as well as a list of certified contractors, engineers and installers. In order to control costs, the state should consider purchasing supplies in bulk. Some funding agencies may include the following:

- NAHASDA – DHHL
- USDA-RD
- Wastewater branch/DOH (State)
- CWA/SRF
- HUD
- OED – Federal Economic Development

Other options such as conventional loans, and the potential for tax credits should be explored.

Develop a Community Engagement and Outreach Plan

While the legislation was passed in 2017, the first community meeting on cesspool conversion happened on January 22, 2024. Because there has been limited outreach before that date, anger and frustration have taken hold. It is recommended that a community partner (an ombudsman) be identified and funded so that communications with homeowners and community members can be regular and ongoing, while rumors and disinformation can be prevented. In addition, a long-term plan for both communications and conversion support, especially to low-income homeowners, should be prepared.

Consider "adopting" a pilot community for this effort for a whole community approach, which would include wraparound services for communications, financing and engagement. School programs could be integrated into this effort and tested within the pilot community and a task force could be established that includes all stakeholders. Finally, integrate traditional and cultural practices (as appropriate) into the education, outreach and approach.

Provide the Data or Implement the Research

There is significant distrust around the data both for cesspools and septic systems. Community members want proof that the problem is caused by their systems and feel as though the current data is inconclusive. If they are correct, then a cesspool pilot program is recommended to test the validity of the current assumptions.

APPENDICES

APPENDIX A: WAI'ANAE CONVERSATION MAPS

ATTENDEES

Philip Ganaban, Community/Wai'anae Neighborhood Board	Nancy Convard, Department of Health
Austin Salcedo, Community Member	Joseph Simpliciano, DLNR – DOBOR-Streams
Kalei Salcedo, Community Member	Carmen Guzman, Kingdom Pathways
Kika Tapeni, Community/City Council Rep	C. Ted Johns, Hawai'i Rural Water Association
John Naputi Travis, Community	Nancy McPherson, DHHL Planning Office
Noe Nekotani, UH Manoa	Tiana Wilbur, Wai'anae Coast NBM No. 24
Rebecca Candilasa, Department of Health	Jan Makepa, Wai'anae Valley Homestead
Michael Cummings, Department of Health Wastewater Branch	Kapua Keliikoa-Kamai, Community Member, Wai'anae
Scott Miyashiro, DOH – SWPB	Georgiana Navarro, Wai'anae Valley Homestead
Barry Pollock, EPA R9 – Water Infrastructure Office	Helen Wai, Community

MAP TOPIC: "WASTEWATER"

1. There seems to not have a lot of contractors who can do septic
    a. Community college program, trades program/EPA to start building workforce
    b. How will this be determined?
2. Train HWN homes beneficiaries for jobs to do cesspool conversions?
    a. Opportunity
3. 88,000 cesspools in State – need planning to best handle conversion on 88,000 septic tanks vs small treatment plants
4. Will DHHL map property lines
5. Septic vs cesspool does all get converted?
    a. Septic tank is the conversion
        i. Connecting to sewage
    b. No conversion needed! Problem is CCR requiring to hook up to line, not state – Bill 7 20-36 issue
    c. City ordinance to hook up lines, penalties under lien…land tax incentive
        i. Opportunity can septic be hooked to sewer line conversion
    d. Year 2050
6. We need to protect our resources! We need clean water
7. Will DHHL assist 80% of cost?
    a. Operations and admin money to use

b. Look into income restrictions and change it to beneficiaries
c. Loan at 1%
d. Native Hawaiians

8. Where are the planners that did not foresee this issue. 400,000 people in 1960, 1.5 million today
    a. People close to ocean can't get fed grants because no funding for future living, got to move cause no money
        i. People are displaced
        ii. DHHL need to do loan for all regardless of income at 1%
        iii. Need DOH to support wastewater treatment alternatives for lots near shoreline
        iv. DHHL NAHASDA less than 1% loan
            1. Need to be 80% less income and get be used in certain areas, need environmental approval
9. Will there be another grant program for households that did not qualify for the initial pilot program
    a. What about multi-family homes with multiple income
    b. Income based only $20K
    c. Do not use income base all families need help
10. Are there other wastewater options available? Smaller systems within neighborhoods; systems that generate gasses for electricity; self-contained systems within each household so we are not dependent on wastewater treatment plants
    a. Opportunity self-sustaining
    b. Eat sludge
    c. Can our wastewater plants convert to energy
11. Financial assistance for 1) kupuna's on fixed income taking care of grandkids 2) single parents 3) low-income bracket/fixed income 4) DHHLBEN. 5) create better laws to address the financial income of others (not all communities are the same to not burden others in the future, cost of conversion, etc.)
    a. What resources are available for help with financing
        i. USDA RD
        ii. How can we work in tandem with these resources to get the maximum benefit for our DHHL beneficiaries
            1. Will these resources be/have funding available??? Website says application closed.
    b. Income ratio for Wai'anae are system
    c. Create law to provide tax incentives
        i. Legislative help from CC or state reps

        ii. Property tax breaks for homeowners (ten years) to help try offset conversion C and C
            1. Board of Water/Wastewater supply will recoup cost over the life of the conversion
            2. Will this help DHHL
    d. Can there be a low interest loan to help with the cost
        i. Will you need to credit/financially qualify? Many won't need it. Can it be given regardless of credit and finances
    e. Is there specific VA financial help (military HUD)
    f. Board of water supply to cover majority of conversion cost since their sewer fees isn't legitimate (there is no gauge in the people's sewer line to accurately charge)
12. What is the purpose of septic conversions (pros of it) cost of it or permitting
    a. $4,500 engineered design: $50K?: soil test: bedrooms
        i. What is the cost for a system?
            1. So many variables from size of home, septic vs sewer, leach fields, etc.
                a. Between $10,000 and $50,000?
    b. Treat wastewater
        i. No treatment with cesspools
13. What happens to homes in high or low elevations? What remedies are available for them?
14. How are citizens being notified by mail, news, social media, etc.
    a. Notifications neighborhood board
    b. Create survey for input… electronically with QR code
15. Since DHHL owns the land why should the lessee have to pay?
    a. Hopefully future homestead development will address this to not create hardship; build homesteads truly sustainable but I agree with the color (brown)
16. Concerns for community that has converted from cesspool to septic covering that hefty cost and then having to convert again to sewer. Can there be more clarity with data to show environmental impact septic systems cause harm given the technology and systems they have in place today. We are always only focused on residents, is business included in conversions as well? Would like to know more info on manhole drains for pumping stations, their designated release points, are they regulated or filtered through our wastewater treatment plants or do they go directly into the ocean.
17. The Wai'anae wastewater treatment plant pipe isn't 3-600 feet and level of treatment only (primary)
    a. Coral lining
        i. Aging pipes, will it support it

b. What about the coastline "dumping" lines along the coast, are they treated before release, if not why? Ocean lines/piping – when were they last examined? Do they meet today's "standards"? If not, why? (Both Qs)??

18. Convene a group of stakeholders similar to solarized 808 created to facilitate Hawai'i's goal of 100% renewable energy by 2045 (2050 originally)
19. On Oahu all lots near sewer system should be connected
20. Need to clarify and communicate DHHL role in cesspool conversion
    a. Assist with permitting from C and C
21. It does affect our water quality
22. If not now, cost more in the future. Cost major issue
    a. If state and counties ramp up programs now will get cheaper because of "economies of scale"
    b. Does the permit process require conversion
23. Environmental impact and public health of non-treated water
    a. Individual responsibility
        i. State has responsibility for the health and safety of the people
            1. No regulations on state and city laws
            2. HB181 HD1 will there be supported to move date from 2050 to 2030?
            3. Too often our wastewater treatment plants and sewer overflow into the ocean, do WWTPs have capacity for all the new households? If not, why convert the least able to pay higher bills first
24. What are the current WWTP capacity now? Wai'anae, Honouliuli, Aikaahi/Kailui, Waimanalo? What is the new waste flow for CPC? If they are not based on new flow, delay. Don't forget new development. DHHL should only contribute/build for HHL homesteads, not for the larger community they reside in. Stop spending HHCA/DHHL funds for non-beneficiaries.
25. Act 125 State Law
    a. What fed law, CFR used
    b. No funding $$
        i. Funds were depleted, what about the other people
        ii. Act 125 affects all 8 islands
            1. Where city meeting?
            2. Septic system cost $52,000
                a. What's the cost if you're more than 5 rooms?
                b. For how many rooms?
                c. Per city ordinance 20-36 Bill 7 "requires" septic system conversion to hook up to city sewer systems
                    i. Bill 7 (20-36 ordinance) "illegally denied public testimony" – Repeal is required by city council

c. State law requires cesspool or septic convert by 2035, what happens if unable due to high demand
    i. Legislature funds UH studies with inconclusive finding
        1. Clear wording of bill/leg
            a. How long is it supposed to take? What happens when the road is disrupted, traffic and missed/lost parking? What's the consequences to the contractor? If none why not?
    ii. Once convert to septic do, we need to sewer
        1. How will you prevent price gouging
            a. There isn't a lot of licensed contractors who do septic
                i. What about walls and other landscaping items that are already built, will the connection be able to work around vs through it
        2. Why would you need to connect to sewer if you have septic
        3. How do you expect fixed income families to pay for it
            a. Will there be funding opportunities

26. Why is it that lower income housing areas have to go first – yes, I read the priorities, but the priorities can also predetermine the order. Why don't /doesn't the C and C/EPA/State do anyone/everyone according to their own ability to fund/pay for conversion. We all know that sewer conversion results in higher water and now sewer bills.
    a. No communication from state and city official offices
27. What happens when the homeowner cannot afford the cesspool conversion
28. Who pays for the septic engineer plans? What happens if a home has more than five bedrooms?
29. Cost for septic is extremely high for families to afford the grant of $20,000 went out fast and you needed to be low income. Many of our native Hawaiian families have multi-generations in a home and when you add all their income they are not qualified. Yet they don't the money for it. How can they get help regardless of their household income.

ANALYSIS NOTES

- Concerns about how communications happen to local people
    - Door to door
    - Meetings
- Gentrification and government bullying
- Bill 7 made without funding. What funding was available used inappropriate income data
- People are afraid they will lose their homes
    - Will be taken advantage of

- If conversions happen, can treatment plants handle it
- Price gouging for supplies/services
    - Conversion becomes increasingly unaffordable (C-33 sand)
- Lack of adequate licensed specialists
- Requirements for septic w/ ADU make expansions impossible
- Pre-approve plans for communities for septic
- When they sell homes, can they sell without converting? Disclosure?
- The State DOH wastewater management (WWM) needs to get the C&C, BWS, WWM, ENV, county folks to be on the same page and then break it down and come out to the communities for a "coordinated conversion"
- Bill 426 Concerns
    - Last leg to convert septic/cesspool to sewer date change 2050-2030
- State/city communicating better collectively together and also to community
- **Government bullying and gentrification
- Community college for encouragement in studying septic system engineering
- Workforce development with EPA
- Town Hall for all 96792!
- More planning/more conversations
- Need information
    - Cost
    - Environmental impact/studies
    - Data
- Concerns and Clarifications
    - Process for:
        - Permitting
        - Funding
- Cost now compared to cost in the future
    - Should it be individual responsibility or the state?
- **How are we communicating to our people?
    - Door to door
    - Community meeting
    - Community engagement
    - Community also partaking in communication
- We need sewer conversion Hui similar to Solarize 808 that incorporates a collaboration
    - State/county/fed (gov)
    - Contractors/specialists
    - Regulators (PUC)
    - Sewer/wastewater folks/orgs

- Community/environmental orgs and members
  - Not limited to NBs; elected officials or appointed OP
- Individuals that are affected

- Utilize bulk purchase, RFP, process of selection, plus media
- **Need to ensure that supplies, equipment, plus labor isn't/doesn't include a practice of "gouging" thereby making conversion more unaffordable
- **Lack of adequate licensed specialists/contractors in septic/WWM to do affordable conversions
- Need to put $50K plus into ground before expanding home or to add ADU/CPU
- Wai'anae Moku (area) soil needs replacement/upgrades before you can expand/add on
- New Director of DOH Wastewater Branch, may increase IWS: systems approved
  - Example: Using existing cesspools for drain field
- Surfrider Foundation and UH did a study for Waikaloa what did their study provide in terms of solutions, was there a positive impact on the completion of conversions, and did it provide evidence of burden?
- **Large Commercial Companies (hotels, golf, RBB) "LAND GARBBING" at Hawai'i Waikoloa (Puako community)
  - UH made studies of high nitrates found by UH during shoreline analysis
  - Marriott Hotels have septic injector systems of the same geographic area
- District 22 senate supports "45 House Rep" cesspool conversion without funding!!!
- Wastewater
  - What is the cost?
  - Septic and cesspool leaching to sewer – why?
  - What is the reason for conversion
  - No leach field
  - Can dry pipes leach fields depending on soil test and number of bedrooms
  - What is the cleaning process and is it enough?
- State operations with no financial help
- Soil porosity
- Community college create a clean water program for installers/trade program
- Cesspool conversion working group
- Bulk program/Item purchasing
- Climate, sustainability, energy (programs)
- Pre-approved for planning and permitting
- Resolution needed for supplies, C33 sand, concrete
- There are many variables to many different aspects of this conversion. Cost is not the same across the board
  - Dependent on Septic (Appd/failed) or Cesspool
  - Dependent on house size that determines size or quantity of leach field

- Dependent on high or low elevation
- Dependent on type of soil for leach field

❖ Cost of Materials
- As the conversion continues, the need for materials will rise, so will costs and price gouging
  - How will DOH combat that?
- Opportunity for bulk purchase of materials
- Opportunity to train local to hire local.
- Contracts with general contractors

❖ Consultant/Engineers
- Consultants/licensed engineers are hard to come by with the expertise in this field
- Due to this, those that are available may already be overwhelmed by those converting now
- Look to the colleges for those in respective fields for the different levels of licensed Engineers, etc. to fill the gap.

❖ Financing
- Like with all variables the cost to the homeowner is the greatest obstacle
  Grants, below median income but what about those that don't qualify?
- What grants, if any, are available for those above the median income guideline
- These median guidelines are set by the federal government
  - How does the government make the determination
  - Military paid for service AND tax-free living costs by rank in their branch, guidelines should not be determined by this but could well be
  - Low-income families in Hawai'i can be considered poverty level according to median income yet some families fall between the cracks when looking at overall income of multi -generational living conditions that pushed them above the median bracket
- Low interest loans, what banks would finance this, what of families that cannot qualify?
- State wants conversion, state should pay or at least either help to pay or offer incentives

❖ Opportunities
- Smaller treatment facilities within residential neighborhoods
- Septic systems whose gases can be turned to electricity/renewable energy
  - Individual septic systems would not generate enough gasses for renewable energy. Could Wastewater Treatment Facilities be able to harness gasses for this purpose
  - What would distribution of savings look like, PUC involvement maybe?

APPENDIX B: DEPARTMENT OF HEALTH CONVERSATION MAPS

ATTENDEES

Lance Lam, Carollo Engineers	Lisa Webster, OPSD CZM
Scott Miyashiro, DOH – CWB/SWPB	Iris van der Zander, DOHSDWB
Rebecca Candilasa, Department of Health	Cherie Kaanana, DHHL – Planning
Nancy McPherson, DHHL Planning Office	Jon Nagato, DOH WWB
Kapua Keliikoa-Kamai, Community Member, Wai'anae	Roger Babcock, City, Department of Environmental Services
Carmen Guzman, Kingdom Pathways	Sofia Luczak, OPSD CZM
Barry Pollock, EPA R9 – Water Infrastructure Office	Neal Fujii, CWRM
C. Ted Johns, Hawai'i Rural Water Association	Kasandra Shriver, HAR
Lance Owens, HAR 2025 President	Michael Cummings, DOH WWB

TOPIC: "COMMUNICATING CESSPOOL CONVERSION"

1. Hawai'i cesspool conversion hui; meet Hawai'i's goal of conversion by 2035/2050; kahea (call) all stakeholders including – government entities at all levels, regulators, organizations, contractors, community individuals; establish guidelines/methods; develop RFPs possibly by county; communicate with and meet with cmtyz; find funders to facilitate challenges; work with community members; Solarize 808 is using HGIA/GEMS funds for on bill repayment plan 20 years at 5.5% APR
    a. Establish a streamlined permitting process
    b. There was a cesspool conv. working group before. Can it continue as an implementation group including community reps?
2. Ensure WWTP have capacity before conversion within that community
    a. Can… but who will pay for the design/construction and where will the new WWTP go?/Who will operate?
        i. Add new WWTP in more communities, why stress the same cmtyz?
            1. In your neighborhood?
                a. In someone's
    b. Studies are conducted before connecting or considering converting to WWTP… existing treatment plants can handle only its surface area and if you are in the area/boundary, you should have capacity to convert
3. Facilitate $$$ challenges by making the mandate a "cakun" (everyone) pays for benefits of saving our water (clean) for generations to come
    a. Outreach public relations messaging
        i. Pilot a comprehensive whole community approach in one community and branch out if successful

        1. A possibility is using funding from the DOH's 319 program
    b. Housing living expenses need to come down so that communities can afford conversions
    c. Public good-conversion need to be subsidized and incentivized. Assessment districts need to be "legalized" in Hawai'i.
4. Clarity on sale of homes with cesspools, is there a restriction
    a. Is cesspool a disclosure requirement so that buyers don't get stuck with unplanned costs?
    b. Not currently – to impose restriction would reduce affordability even further, not to mention that time necessary for conversion and lender rules would cause issues for many needing to sell by
5. Who/how will pay for this conversion? What funding opportunities are available/ What if I want to convert but can't afford it. Who can I work with to get this conversion?
    a. Can this be communicated to the people better
    b. Try USDA-RD loan
6. Do not allow the county or anyone to put a lien or take a person's home because they couldn't pay to upgrade from the system they had when they bought the home in the first place
    a. Does this happen because of cesspools? Where does this concern come from?
    b. When the deadline is near will this happen? What does enforcement look like?
7. Has there been a study on cesspools that have been converted successfully shown over time a change in environment and health of water quality
    a. Yes, Long Island New York has been successful. Need case studies to communicate how this has been done
    b. Agree on need for <u>proof</u> – challenge is showing benefit would require large # of conversions in one watershed and benefits take several years to realize
        i. Good idea! Pilot study
    c. How can we get ppl to want to dye test and check if they are affecting the waterways? Is it possible to provide incentives, such as credit program, as part of a pilot study?
8. How can HRWA Rural Water communicate to communities about Act 125
9. There were many venders and banks providing interest free loans for solar – can we do something similar for cesspool conversion
    a. <u>More</u> important than energy production
    b. Rebates
    c. PACE option
    d. Great idea
    e. Yes
    f. Is there any benefit financially to those who have already converted
10. Need to develop a local industry to support conversions

a. Legislation needs to be adopted to enable onsite wastewater industry to grow "workforce development" currently some things are voluntary but cost prohibitive for homeowner

11. Should individuals pay for their sewer
    a. Is there a comprehensive list of programs that support conversions and the process
        i. Are there enough professionals to support 88,000 conversions
            1. Most say no
        ii. Good idea
12. 3000 homes sold in 2023 on the big island, 19,000 on cesspool (2/3rds) medium price was $505,000 many were on catchment water, fear of not being able to comply with deadlines is real
    a. Banks stopped loaning on homes that were on gang cesspools on 2005 -20015, conversions had to be completed before close of sale, fear of the same thing happening again
        i. Good regulation
            1. Yes, but mandating deadlines that cannot be met will bring housing to a halt
                a. Could argue that cesspool conversion is also linked to housing, is not just a one-off issue but also a greater issue
                b. Need streamlines conversion process to reduce impacts on housing
                    i. Clarification needed to outline DPP permit (city) process vs DOH-WWB septic approval, they are related but too separate processes
                        1. What happens to permits if DHH gets involved
    b. Cesspools allow pathogens to enter the water table

        i. I would love to see the data on impacts. it's a matter of the degree of impacts. Otherwise, people would be getting sick everywhere. Also, we would be seeing algae blooms everywhere. Impacts are real but maybe not as extreme as some places
        ii. Could this be considered a public health crisis
            1. Not a "nice to have" but a "have to have" – near shore areas of ocean have been suffering for decades
        iii. Which is hard for public health and maritime ecosystems and water
            1. Would showing there's an impact of cesspools to the near shore environment encourage homeowners to convert

    c. Need to have legal requirement to convert as part of home sales
        i. Venders unable to keep up with sales
13. Do people know the threat to the environment that cesspools are? To marine ecosystems? To our water?
    a. Need community outreach and school programs
        i. Would a site visit encourage change
    b. Knowledge doesn't provide support necessary for conversion – most want to care for the environment – but if choosing between basic necessities and converting – most will choose basic necessities
        i. Public health more important! If you are dying of hepatitis, you won't need necessities
14. Are there other forms of wastewater management systems that aren't currently approved but would be cheaper and effective
    a. DOH-WWB had a study that outlines a new approval process – need to implement
        i. Will new director be more receptive to solutions
            1. Need to fill the director position
                a. Who volunteers?
    b. Some communities will need systems other than septic, what are they?
        i. There are ATUs and decentralized package plants and having them connect to an existing sewer system if it is nearby/relative distance
15. Need to replenish funding for DOH conversion fund program
    a. !
    b. Max limit for applicants was reached in two days
        i. Need to get legislature support to allocate more funding
            1. Need more staff resources to help implement grant program
                a. Yes!
16. Need to provide more info on what septic systems will work for each property
    a. Many modifications possible for system
        i. At what cost? More complicated equals greater cost to homeowner
            1. Leads to delay in proactiveness and movement
            2. Companies changing what market will bear – need govt intervention. Mandates can create market failure. This is a public good
17. The cost of conversion is so high – how do we help homeowners overcome this?
    a. Need multiple financing options and county/state/federal help
        i. I agree
    b. Provide other savings, e.g., universal health care
    c. Yes, agree can state revolving funds be used for cesspool conversion. The state and counties should provide funding to homeowners

        i. Not for individuals
    d. Need more outreach on which cesspools are highest impact to environment and prioritization of converting these first
        i. Prioritization study was made and written, needs better outreach so I agree
            1. Adding Molokai in the works verifying number and location/updating inventory
        ii. Call Ted – Hawai'i Rural Water
18. What about properties that cannot convert due to the topography of land – what are the alternatives
    a. Would generating community plans assist with general planning of alternatives?
    b. Possibly with IWS or dependent on if there is a cluster of cesspools or loan wolf or decentralized WWTP
    c. There are alts, but more $ than septic and leach field these are evaporation zero discharge systems
    d. Good to identify first
19. If not already are home encouraged to convert as soon as able to. Don't wait if you don't have to.
20. There is a lack of outreach in many aspects; INCL technology, requirements, process, how, cost, and what county/state/feds are doing
    a. Utilize EPA state and county funds
    b. There is a need to communicate the high priority areas for conversion across the state
        i. There is a prioritization tool in place
    c. DHHL funds are the last resort for homestead lessees
21. Where is an updated list of certified engineers and installers, last updated was 2021. Should be on the DOH site!
    a. This would be good information to share with homeowners and updated regularly! Send me a copy when it's updated, please.
22. State of Hawai'i Water Tax credit
    a. Septic rehab loan
        i. Utilize Closing America's Wastewater Gap Funds through our senator

ANALYSIS NOTES

- Funding/Costs
    - How to Pay (loans, incentives…)
    - Individuals vs govt
    - Subsidy/tax incentive
    - Enforcement can result in liens/foreclosure

- Outreach/Communication
  - Community Approach
  - Need knowledge regarding requirements
  - Need community reps, ombudsman, advocate
  - Additional stakeholders/members of all communities
- Industry/Workforce
  - Sufficient workforce to support conversion?
  - Boost trades/education to support conversion to cover all islands and all communities
- Current Wastewater Opportunities
  - Can it support new septic households
  - NIMBY concerns re: new wastewater treatment
  - Address concerns that conversion will result in improved environmental conditions. Provide the data
- What are the Economic Impacts of Enforcement?
- What does enforcement look like if a household doesn't convert?
- How do we bring in banks to support?
- How are we accounting for sea-level rise?
- How can we analyze and expand the options that are legal
- How can we create more funding opportunities
- Which communities need what?
  - What options are available?
- Communication is key
  - More clarity
  - Eliminate distrust
  - Utilize various methods/medias
    - Direct communication
    - Partnerships for dissemination
      - E.g., advocacy groups, community groups to build trust
    - Focus groups to prioritize messaging
  - Gentrification and bullying
- Lack of government skills/resources and difficult process to communicate
- Not clear whose responsibility it is to maintain nor clear that the responsibility exists
- Opportunity for more education on a technical topic
  - FAQ page on DOH
  - Realtors are able to provide basic information but there's a need for more technical information to be shared/available in an easy-to-understand format
- Even if people understand the need to convert/maintain it is still cost prohibitive
  - Whose responsibility is it to pay for it?

        - Either through the state where it is a shared responsibility (not everyone agrees) or individual homeowners and they have to navigate finances and assistance (unfairly targets lower income)
- Whose responsibility is it?
    - Convert/infrastructure and facilities/to pay etc. – opportunity
- Path forward needs to be clarified so people can make decisions and take the financial risk
    - Need to answer: will people need to connect?
    - Need plan of everyone's responsibility and expectations
- Where is the data? What is the source?
    - Cesspools dye testing kit to test
        - Incentive for participation
        - Demonstration project in a willing community
- Amnesty Program
    - What does enforcement do if system is discharging?
- Costs-Loans
    - NAHASDA – DHHL
    - USDA-RD
    - Wastewater branch/DOH (State)
    - CWA/SRF
    - HUD
    - Conventional loans
    - OED – Federal Economic Development
    - Lobby political reps for tax credits and pass bill
- Advanced technology is available but it's expensive
- Opportunities
    - Community outreach and school programs
    - Share scientific benefits to communities
    - Develop a streamlined process
    - Develop capacity for conversions, inspectors, enforcement
    - Incentivize conversion – rebates – solar incentives as an example
    - Communities share costs

TOPIC: "COMMUNICATING SEPTIC"

1. What is the best way to communicate a new program to the people?
    a. What sources of media are typically used? TV, radio, Facebook, IG, magazine, mail, etc.
        i. Task groups or focus groups would be helpful to prioritize the messaging

1. Are/is their staff that has these skills? where do we get staff (not enough pay and hiring rates takes too long)

2. How much does septic usually cost and is this communicated well
    a. No
    b. $20,000-$60,000 per system
        i. I want to convert but that's a pretty penny
    c. Do costs vary across state/islands? Are there adequate resources (human/engineer, drafts people, construction?) And materials for new septic construction?
        i. May depend on facilities and availability of pumpers
        ii. Should there be a financial incentive in the comm piece to get folks to maintain their septic systems?
            1. More education and awareness are needed
                a. FAQ on site could fix this
            2. Are most people incentivized to take care of septic tank or other household equipment or required by laws or needing it to function?
                a. Cesspool conversion is very expensive for most homeowners. There should be more financial assistance/incentives for homeowners from the state and counties
                    i. This
                    ii. Plus assistance program for septic tank maintenance
            3. Wastewater disposal should be basic duty of the state not one homeowner
            4. In Arizona there is an incentive to convert grass to AstroTurf is there and equivalent we could do to expedite people's moral
            5. Are there opportunities for more community wide solutions? Dev centralized WWTPs? What are counties roles? Can they play a larger role?

3. Topic can be very technical - hard for homeowners/lessees to understand
    a. Communication is key. Ensure dissemination via all avenues especially within impacted communities networks
    b. Create/align for a community advocacy group to facilitate info sharing that includes Q and As, FAQs, flyers, etc. to inform homeowners of their options and referral sources. Some funding needed
    c. Cesspool and septic
    d. Do new homeowners/lessees know what's their responsibility for having septic
        i. From DOH-WWB: most are unaware
            1. Info comes from pumpers mostly

a. Does this lead to distrust and therefore lack of buy-in because these responsibilities are no being communicated upfront
    i. Require disclosure with home sales?
        1. Disclosure of wastewater system (public, cesspool, septic) is required by seller
            a. Add this to FAQ on DOH
    ii. There is a lot of misinformation circulating as well
        1. Is there a requirement for sellers/realtors to disclose this requirement to potential buyers
            a. Yes! To the extent they have knowledge – but limited circumstances (ie death) may mean info is not shared – a good realtor will help a buyer navigate and discover information
            b. Shouldn't this be required as part of material facts. Info is free from DOH no charge. Legislating this might be redundant.
            c. Realtors should look at cesspool maps from state and also be required to disclose.
                i. Yes

4. Create a mail list to go directly to impacted homeowners via bcc * people don't go to all websites with info
5. Need to get past their fears so they're more open to info
    a. How can we understand fears
        i. Surveys NHB
        ii. Create safe spaces for sharing concerns, releasing anxiety, feeling like there's help out there on the way
    b. HOs/Lessees feel threatened by mandates, deadlines, unclear messaging
        i. It would be great to identify points of contact like and association, to work with to get the messaging out. Esp. messages that help alleviate fears and misinformation
6. Not aware, what is the coastal zone management program mentioned. What is it? What impact will it have on communities? How will comms be involved?
    a. Are watershed management plans related to this?
        i. One of DHHLs priority goals is watershed management. Would this then be inclusive of this
            1. Managing our watersheds helps with managing our coastal zones
                a. The entire state is the coastal zone in Hawai'i

i. There are deniers about this

b. Also need wellhead protection zones

b. What about impact to groundwater; needs to be preserved for beneficial use

i. CWRM is aware of areas with high cesspool concentrations and close proximity to drinking water wells. There are guidelines in place to prevent contamination/pollution of drinking water wells

ii. Help HOs/Lessees understand the hydraulic connection – how GW is impacted by OSDS – graphics, infographics, cartoons, simple diagrams

1. Good idea

iii. Drought and water shortage

1. Other threats Red Hill
2. Hard to get enough quality drinking water
    a. Desalinization plants in industrial or cesspool areas for drinking water?
        i. Other countries use frequent desalinization
            1. Very expensive
            2. But does it have to be in the most contaminated area
            3. Environmental concerns here with pumping out the brine. Increasingly salinity of our near ocean areas. Unless deep water?
                a. Agreed
                    i. Other contaminants associated with brine also of concern

b. One water-all H2O is a resource BWS.

c. How are counties involved?

i. C2M funds shoreline planners, Kauai, Maui, Hawai'i counties

ii. We have regular meetings with county planners

d. What is the best way to communicate what the programs like Coast Zone Management does? Do we need a dedicated info person?

i. Yes

ii. This would be cool

7. Will a permitted septic be required to connect to a city line if installed
    a. Can city/county provided sewer be a first priority
8. Die test to ID point of source of pathogens/pollutants
9. Where do I find septic pumpers maintenance provider. DOH has info but needs to figure out how to get message out (already on website)
    a. Need outreach to septic system owners

b. List should be available on DOH website
c. DBEDT, DUR, UH system need to focus on workforce devt for development, outreach to NH/PI
    i. Also needs designers/installers for new systems/conversions
        1. Yes!

10. I would like to see the scientific data on cesspool impacts to shoreline and near shore waters in terms of epidemiology and ecological impacts – (algal blooms, etc.)
    a. How much of an impact do failing septic have
    b. I would like to have baseline groundwater data to see what the current state of groundwater is and how we can protect it in the state
    c. There is data available about all drinking water sources (BWS) on Oahu
        i. Can the data on the website be made easier to navigate? Sometimes it's difficult to find important information.
        ii. Need data about non-drinking water zone between drinking water and coastal zone
    d. UHWRRC has studies – need to include Molokai – need bill funding additional research to pass this legislative session
    e. Looking at Surfrider Foundation study it shows septic almost as bad as cesspool, no real data from state
        i. Where is this study and data
            1. Can we clarify to community septic tanks vs cesspools
11. How does DOH get buy-in from the communities to consider maintenance as a priority for their septic systems
    a. We don't get buy-in if we don't hold large facility (com/ind) wastewater operators accountable that discharge larger volumes
        i. Should it be, or is infrastructure the responsibility of counties/states?
        ii. Incl govt – federal state and county
    b. Yes stress that our resources depend on it
    c. Aloha ʻĀina, Ola I Ka Wai, Aloha I Ke Kai
        i. Suggestion to incorporate traditional native practices depend on healthy environment
            1. T&C practices could only continue if our environment is healthy
                a. Could be a communication opportunity to encourage wastewater management
    d. Regulations need to change the mandate. Also, if $$ not provided assistance will be viewed as tax (regressive?) against low income
        i. Funding for state program to develop regs for implementation
        ii. Need funding for regulation

1. Not only funding but dedicated position to help rewrite staff regulation throughout the year

iii. It needs a lot of time, skills, and resources to do that

e. Can schools/pub education/at the Keiki level be included

i. If we can explain it to the youth then we have reached clarity

12. Conversion mandates hurt the most vulnerable homeowners and may lead to further corruption
    a. What can we do to prevent this
        i. Environmental justice issue
13. What is this in relation to Hawai'i county which is 2/3rds cesspools we are being told to convert and this is confusing to those converting
    a. Many of those systems may convert to septic in which case maintenance may be important
14. What are issues/concerns with septic systems? Are they appropriate technologies in all places? Are there alternatives? How will alt technologies be certified?
    a. Regular maintenance is critical
        i. Besides pumping – what other maintenance is required and who can perform this work?
            1. Annual check of tank
            2. Can this be an opportunity to generate more jobs in the community as well
            3. Hotels are overburdening solid waste sites with very little cost to them Hawai'i Island
    b. There may be some areas where cesspools do not conversion or sewer connection since the concentration of cesspools are small and the impacts are minimal – has this been considered? Have cesspool areas been prioritized across the state
        i. Cesspool and septic areas have been prioritized into three levels. This prioritization tool was developed by UH.
            1. This was generated through an algorithm that didn't include water quality data
        ii. There was a prioritization study and viewer. People got more if in higher proximity area.
        iii. Molokai was left out due to lack of hydraulic data – need bill to pass this legislative session to fund UH WRC study. Coastal areas need conservation ASAP Ho'olehua in much better position
            1. OPSD/UH working on Molokai cesspool prioritization study
            2. This is an equity issue
            3. Data available USGS

c. Need a menu of options - tech, cost, ect., for them to choose from
    i. Cost is a big influencer
d. How can communication reg. septic systems be better clarified to prevent confusion and concerns? Transparency?
    i. Get all agencies on same page, collaborating on messaging, public info campaigns
        1. This would be ideal, but complex as various agencies have different goals/objectives
            a. Can we generate and idea/thought map on how our goals/objectives are inter-linked/connected?

ANALYSIS NOTES

- Are there alternatives to septic systems?
    - Considerations include: technical costs, location, long term O&M, initial and long-term costs
- Consider traditional and cultural practices to get buy-in from communities
    - Need to address not just individual homeowners, but the large facilities as well
    - Education is important
- Regs need to be changed to mandates along with funding for both the public and regulatory agencies (resources are scarce for government)
- Need to prioritize areas – like Moloka'i – that are overlooked
- Understanding roles and responsibilities of government agencies
    - How do government plans related to each other?
    - How do OSDS impact GW and coastal waters, drinking water, aquifers?
        - What are connections?
- Do we have good data on what impacts actually are?
- Need ideas for getting past fears and resistance
    - Maslow's hierarchy of needs
        - People are triggered, feel threatened
        - Don't like being told what to do
        - Don't hear that there will be help available
- Need an intermediary – HOAs, NPs who can help government agencies get the word out
- EJ issues – regulations impact those who can't afford it the most, those who can afford it the least
    - Target federal dollars to the disadvantaged communities
- Desal is not a silver bullet – pros and cons
    - Need a holistic approach, e.g., One Water

APPENDIX C: MOLOKA'I CONVERSATION MAPS

No attendee list is available for Moloka'i.

TOPIC: "CESSPOOLS"

1. Kapoiakoa Homestead – cesspool on the beach overflows on the high tide, water quality going into ocean affecting ocean quality and reef life. Water flow underground increase and seems to move underground. Need new water treatment because of their location – ocean rise and over capacity already. Runoff suffocating reefs! Killing our food source. If we do not have to be relocated, why put septic if I have to remove it. I need funding to remove, install, septic then remove! Cesspool going to get us off the l'aina before the water does.
2. How will you prioritize which area will need to change systems first
3. What happens when we can't find funds for 2050 DHHL deadline for septic?
    a. Real data and studies for Ho'olehua water tables
        i. What is worse, doodoo or fuel leaks?
4. DHHL needs its own meeting
    a. How often would it help to meet? Other ways that are good to share information or communicate?
5. Moloka'i org to coordinate
    a. Who??
        i. Sustainable?
6. What happens if the community can't afford the upgrade?

TOPIC: "CESSPOOLS"

1. More community meetings to advise of funding
2. How did Hawaiians manage waste before cesspools?
3. What do you do with an old cesspool?
4. PA system LOL
5. More communication for DHHL
    a. More communication from state as where we can see follow-up information
6. Who should be involved in meetings?
7. Funding
8. Funding
    a. We need to come together to come up with a plan that can be funded
9. How do we educate students "opio" of Moloka'i?
    a. Partnerships with orgs that are already working closely with opio and sharing creating K12 lessons that have been developed by orgs like WAI
10. What are the other options for cesspools on ocean properties if septic isn't a great option

a. What other options? – Dry systems? – Bioreactor gardens? - Liquid only centralized treatment? Need proof of concept demo projects so people can see alternatives and how they work. – Need support from DOH and county to approve alternate and supplemental technologies.

11. When we convert to septic, who can pay for it?
12. Why must we convert to septic?
    a. Provide data to community that supports this
        i. Nutrients from wastewater is harming the coral reef
        ii. Need water quality monitoring programs to document contamination and impacts – work with science teachers in schools to get students involved
    b. Cesspools are good
        i. Why?
            1. I think this thought came from "if it aint broke don't fix it" mentality. But it is important understand that cesspools are rapidly killing our reefs which has been proven by many studies and it's effecting public health like staph infections and all sorts of diseases
    c. Against septic tanks along shoreline
        i. Agreed! Septic tanks don't properly treat cesspool wastewater to an acceptable level for water and our ocean
    d. DHHL needs to educate homesteaders on information about wastewater management
    e. We need funding
        i. Where are we getting funding?
            1. We need to come together to apply for funding
    f. What about something that mimics a WWTF but is feasible especially if people are saying septics are bad for shoreline?
        i. It is possible to have smaller community scale decentralized systems
    g. We need more information from WAI and Ted
        i. More info with other entities and update on efforts
            1. What's the best way to communicate this info is there someone or an organization that is trusted in the community that we can share information through?
                a. Reach out in multiple ways, video updates, newsletters, etc.
    h. Education meetings with follow-up workshops
        i. Webinars, people can watch when they have time then they can watch. Can be live offer.
        ii. I agree that more follow-up should be done with the community here. Education of the cesspool issue and how we can get funding for these conversions
    i. Bring funding applications to help the people fill it out

i. Mostly since there are so many kupuna that live alone and have tech difficulty

j. How will our community be managed? By districts, Island or homesteads?

APPENDIX D: NĀNĀKULI CONVERSATION MAPS

ATTENDEES

Haunani Momoa, Nānākuli Homestead	Stan Taniguchi, Wai'anae Community
Stan Taniguchi, Wai'anae Community	Joseph Simpliciano, Kingdom Pathways
Kalei Salcedo, Kingdom Pathways	Carmen Guzman, Capacity Collaborative
Cee-Jay Guzman-Simpliciano, Kingdom Pathways	Samantha Decorte, Senator
Niklauz Guzman-Simpliciano, Kingdom Pathways	Malia Agustin, Senator's staff
Jan Makepa, Wai'anae Valley Homestead Assoc.	Pamela H. Aio, Wai'anae Community
Rebecca Candilasa, DOH – SWPB	Dallas Auwae, Mā'ili Community
Michael Cummings, C&C Honolulu	Chris Muraoka, State Representative
Scott Miyashiro, DOH – SWPB	Gabby Saba Zimmer, WAI
Chris Shuler, UH Mānoa	Stuart Coleman, WAI
Vanessa K. Spake, Wai'anae Community	Renee U. Tavares, Wai'anae Community
Helena Kagawa, Nānākuli Community	Fae Amasiu, Wai'anae Community
Nonalyn Amasiu-Wright, Wai'anae Community	LeeAnn Hanabusa
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Ellen Poomaihealani, Wai'anae Community	Aliya Smigel

TOPIC: "WASTEWATER"

1. What department will manage the conversion, what companies will be involved (local only).
    a. Yes, keeping the workforce local is important since good paying jobs are so rare! Also, the DOH is currently managing the conversion but I believe they are understaffed.
        i. DOH is understaffed and their reviewers are so busy, but they are trying to be responsive for the IWS applications
2. When DHHL sells homes to new lessees, who will pay for that? Why is it the owner's responsibility?
    a. Leverage to bring the price down
    b. Disclosure issue
    c. Do a survey for DHHL or community, of enquiries
3. How do we help the owners with the cost of converting their cesspools? $?
    a. Typical cost of conversions on Oahu are on the range of $30K-$60K, this is so much for the typical family in Hawai'i
        i. Costs can be reduced for cesspool conversions by upgrading the DOH regulations

    b. I, we is my main concern. Will be praying for government help for this concern
    c. Can the city offer incentives to help with the cost of converting? For example, waive sewer fees for X years of homeowner pays for conversion themselves
        i. This incentive does exist in ROHCH.3, maybe more should be done to get message out. If homeowner upgrades to sceptic or DOH approves system and city mandates sewer connection, sewer bill is waved for 25 years.
    d. For cesspools that are near another sewer line – close by street – can someone talk to city and county of Honolulu to extend sewer lines, especially if serves multiple homes on the same street
4. Who tested the groundwater?
5. Financing needed for homeowners, homeowner cesspool conversions
    a. Can legislature allocate money or tax credits for homeowners? Similar to solar PV credits?
        i. The legislature almost passed a bill this session to create $30K grants to help homeowners with the cost of cesspool conversions. We need to pass a bill like this next session.
6. The cost of homesteaders for everybody to pay monthly sewer charge is outrageous
    a. Decentralized community cluster systems might be a better option for long term costs of O&M
7. I'm not hooking up to sewer line, I'm staying with cesspool, it's already there
    a. Agree, there may be some properties which are lower risk which should be exempt
    b. My hale is historic since 1931. Never had an issue with cesspool… Every time we host parties we rent lua… Why? If DHHL pays, I'm OK to convert over to C&C.
8. The idea of DHHL helping finance conversion of all our cesspools should happen for homesteaders!
    a. There are resources and answers, DHHL needs to provide for this community, what is their plan?
9. What would happen if the sewer lines were damaged? Would our water get backed up? Would we get [compensation]?
    a. Is there really a problem with the cesspools?
    b. I believe this waste would leach into our precious waters
10. Can septic models be pre-approved for permitting in batches i.e., model 123 to help move along permit process
    a. Can the state work with septic companies to build in bulk-pre-approved septic systems
        i. 4 or 5 models taken to DOH to pre-approve so permitting process is easier
            1. Could have other issues with soil that need to be looked at
11. Can the BWS (or someone) create an online billing system for cesspool conversions? This would be similar to HGIA/GEMS programs for solar for low-income households

a. Is an online billing system a payment plan?

12. Where will money come from?
    a. Should be based on equitable costs. Those who can afford should pay (with little subsidy). Those who cannot afford should receive funding assistance.
        i. I agree! We have to find an equitable and fair way to determine financial status so that no- one is financially strained by a cesspool conversion
13. What is the anticipated sewer fee going to be for a $100, $200, $300… household?
14. How are the sewer fees determined?
15. Are there enough people in the current workforce to do cesspool conversion by the 2050 deadline?
    a. No! There is a massive workforce shortage and lack of training options to convert cesspools and sustainably maintain them long term O&M
16. Pay for -> clean water utilized for cooking and drinking becomes wastewater -> cesspool/sewage/septic -> pay for wastewater
17. Is this a city vs state vs federal issue?
    a. The regulations are statewide and implemented by the state. However, sewers and wastewater treatment plants are city owned. Federal is not directly involved. However, there was some federal funding for communities converting together with a decentralized plant. With the new administration, not sure how much funding is still available.
        i. EPA has Closing America's Wastewater Gap initiative that could help with funding for infrastructure. Would they have funding for individuals, nonprofits, etc.?
            1. WAI is currently helping Hana, Maui to access these funds and work with county of Maui and DHHL and community leaders to find out what the real needs and values are on a community level, provide solutions and apply for funding.

ANALYSIS NOTES

- Pre-approval of permits for septic systems
- Problems with existing sewer environmental impacts
- Can we use other financing mechanisms for cesspool conversion like those used for solar
- New wastewater bill for onsite systems?
- Where does the money come from? How do we pay? Who should we pay? How much? What about indirect costs? Damage to property? (e.g., fence, walls, yards, decks)
    - Cost is more than just the treatment system
- Workforce, who will do it? Shortage of workers.

- It's not clear who the authority is – state mandates, city owns sewer, federal CWA opportunities for local companies
- Money/financing (city, state, federal, DHHL, OHA)
- Legislature bill
- Decentralized community cluster
- Sewer line planning (access)
- Assess homes (older) able to convert or not
- Sewer costs

TOPIC: "WASTEWATER"

1. Can our Wai'anae treatment plant handle the conversions? If not, what is being done to accommodate the issue?
    a. Need to discuss with CCH on the current capacity of the Wai'anae WWTP and what is the design capacity?
    b. How is it current status with the amount of houses connected now? Have there been any discharges like in Hilo? And Kailua?
        i. What are the future plans?
            1. What if we convert to septic and then extend sewer?
                a. Not sure about in the future but heard that city may give credit for connection to sewer so don't need to pay sewer fees for X tears. Need to check if this will be kept in the future.
                    i. Chapter 42 yes this is true
2. Cesspool equals no, septic equals maybe, sewer equals goal.
    a. Septic can be quite costly and doesn't treat water to the highest level but there are also add-ons that can help treat it to a higher level
    b. What has happened to Lualualei Hmstd road and Mill street over 11 years ago sewer line was to be put in.
        i. Who do we contact to find this out?
            1. If right-of-way is city owned, all sewer lines installed will be paid for by C&C Honolulu-Env. The facility plan for Wai'anae wastewater treatment plant will identify this new sewer improvement district.
3. Is there enough capacity at the treatment plant for those who are able and want to connect to sewer?
    a. Big municipal sewer lines and treatment plants are very expensive and take a long time to build. Smaller decentralized treatment plants should be cheaper and quicker to build.

b. Should we be concerned that our treatment plant is so close to the ocean
    i. Yes a mile outfall and current pushes it right into Pokai Bay
c. If not, what are affordable and eco-friendly options for conversion?
    i. Potable water for landscaping irrigation
        1. Yes
        2. Treated water and reuse of the effluent would be a great goal bed=cause the recycled water could be used for irrigation and fire suppression
            a. This is being done and advancing on Maui. That could be an example of how it's done.

4. What's the cure for the cesspool?
5. President Trump has slashed EPA staff and programs. Has he also reduced or eliminated funding for EPA to enforce this cesspool conversion?
    a. Has he signed any executive orders, minimizing, modifying or removing this CC requirement or its enforcement? If significantly modified, is it even enforceable?
6. How many people have cesspool bacteria?
    a. There should be more tracking so we can see data on this
        i. Wai has started a campaign to document wastewater-related health issues with their Sea Sick program
    b. How can we stop the cesspools?
        i. How was the cesspool made?
            1. Which states do not have cesspools?
                a. What if we help clean the cesspools? How?
                    i. What is a cesspool?
                        1. Why is the money so high that we can't afford it? Why?
                            a. Kingdom Pathways wants to clean cesspools so people can swim in clean water! Great idea!
7. Will there be "bulk options" (alternatives) for us to consider as a group to save money
    a. Solution 1. Having a company contracted to build in bulk, 2. Have pre-approved models to push through permitting process for systems
        i. We will probably need many approved companies to help with cluster cesspool conversions, especially in high priority areas with lots of cesspools
    b. Decentralized community cluster systems can help reduce cost, operation and management fees/ labor and service 20-200 homes on a smaller scale = reduced individual cost + homeowner burden.
8. Did you actually test the water and if so, where?

a. There are a lot of community water quality monitoring programs through local orgs like Surfrider, Wai Hawai'i, Wai Ola etc. you can find their data on their websites and social media I know Pokai Bay has had a good amount of testing but I'm not sure of other west side spots.

9. What funding resources or opportunities are available to help with wastewater management from local, state, and federal sources?
    a. Not enough right now!
        i. Who can help get more $$
            1. Let's ask for tax incentives similar to solar
                i. Tax credits, 2. Zero percent interest loans, 3. Sewer credit for those who already/recently converted. These are solutions and possibilities.
10. Do a survey and ask individuals the questions; what do they want to do? Make sure we are getting everyone, not just people who are here.
11. Who will pay for what is being regulated?
12. Where did they receive this data. Was "boots on the ground" included in these studies and what are most recent studies. Is it the same or worse?
    a. What about 'Iwi (burial sites)?
    b. All new construction have septic tanks
        i. New homes S/B sewer not septic
        ii. Is this the best option
            1. It's not the best option but it's better than cesspool. There are other systems that provide more advanced treatment.
13. 42 years at Wai'anae Valley. As far as I know when I was paying my loan our cesspool was included. Yes or no? Where is the rep from DHHL?
    a. What can DHHL do to help?
    b. OHA should be involved $$.
14. The blanket assumption that all cesspools are bad is not correct.
15. How can we efficiently convert cesspools whether there are ways to convert multiple cesspools at once or can we expand sewer
    a. What decentralized (not central sewer) options are there for the community? Onsite or a smaller scale community option?
        i. Will there be a localized base wastewater plant in the community? Where would it go?
16. Can you leach into existing cesspool
    a. What happens if you can convert to septic but due to household size do not have yard space for a leach field? Can above question apply?

i. If the lot is not big enough for a leach field, DOH may allow the cesspool to be converted to a seepage pit. However, still need a septic tank upstream. Talk to an engineer.

ANALYSIS NOTES

- Can we reuse a leach field and up to what capacity?
- What can we convert to?
  - Decentralized
  - Sewer/WWTP
- How will permitting work for septic systems and decentralized systems?
- Can our treatment plant handle conversions (e.g., capacity etc.)?
- Use of recycled water for fire mitigation and landscaping
- Decentralized options are cheaper?
- Is there a credit for sewer fees if you install septic?
- Identifying need for more water quality data
- Need for information on solutions, alternatives and funding
- Need to collaborate with federal, state and local community resources.