




HAWAIIAN HOME LANDS
HAWAIIAN HOMES COMMISSION · DEPARTMENT OF HAWAIIAN HOME LANDS


Wai‘anae Valley Homestead and Ag Lessees Cesspool Conversion Pilot Project Community Meeting #2

**November 24, 2025
6:00 p.m. to 8:00 p.m.**

Virtual Attendees

**Please sign in by providing the lessee’s name and address in the chat.
A link will be in the chat box where you can download the meeting materials.**

1



The Focus on Cesspools—Why? Why Now?

Cesspools are an old...even ancient...method to dispose of our untreated sewage. They are holes in the ground, no liner, that allow waste to leach into subsurface soil or rock. They are often located above our groundwater aquifers, along our streams, coastlines and beaches. Over time, cumulative impacts to our sensitive island environments must be addressed.

**Pathogens
Bacteria
Viruses**

Pose Significant Threats to:

- Human health
- Ecosystems
- Groundwater/drinking water
- Nearshore environments
- Coral Reefs

Island	Number of Housing Units	Number of Cesspools	Percent of Housing Units w/Cesspools
Hawai‘i	82,000	49,300	60%
Kaua‘i	29,800	13,700	46%
Moloka‘i	3,700	1,400	38%
Maui	65,200	12,200	19%
O‘ahu	336,900	11,300	3%
Statewide	517,600	87,900	17%

In 2017, to eliminate the pollution of groundwater and coastal waters from untreated sewage, the State Legislature passed Act 125 which requires the closure and conversion of all cesspools in the State to an approved wastewater system by Jan. 2050.

DEPARTMENT OF HAWAIIAN HOME LANDS – PLANNING OFFICE

2



The State Mandate to Address the Problem

- Significant Lift—amount of cesspools
- Significant Cost—to Close and Convert to approved system
- Responsibility of the Homeowner/landowner—DHHL intends to fund closure and conversion; Lessee pays for maintenance
- Responsible agencies with purview and authority at the Federal (EPA, USDA), State (DOH, DHHL), and County level (ENV)
- Requires Coordination

****Lucky you live on homestead land! Lucky you have homestead leaders with insight and initiative that raised their hand—to get clarification, to get help**

****Mahalo to EPA for the free technical assistance—confidence to proceed**

****You are DHHL's Pilot Project—to figure out how we're going to do this, how to utilize agency resources, how to leverage funding to pay for closure/conversion**

3



Purpose of Meeting/Meeting Agenda

1. To provide a summary review of the Pilot Project

- Origin
- Who's Involved, What they're doing (role)
- Scope of the Pilot Project
- Chronology of Meetings and Work Completed

2. To present findings and recommendations for cesspool conversion

- Existing Wastewater disposal systems
 - Lessees already connected to city sewer system
 - Lessees who are NOT connected to city sewer
- Lessee concerns and ideas shared in the last community meeting
- Alternatives Considered and Evaluated
- Recommended Solutions for each Lessee/Lot

3. Next Steps

4. Facilitated Discussion -- Questions, Concerns, Comments

4



Meeting Logistics

Bear with Us: We are conducting a hybrid meeting tonight. We have people attending virtually and we people who are attending in person.

- Virtual Attendees—please submit your questions and concerns in the chat box while the presentation is being made. When we open for discussion, you can raise your virtual hand and unmute when it's your turn.

Know your color code for your solution: To make it easier, we color-coded the maps, and gave you your color on your name tag, so when you presenter is going through all of the solutions, listen for your color.

Secure the meeting handouts.

5

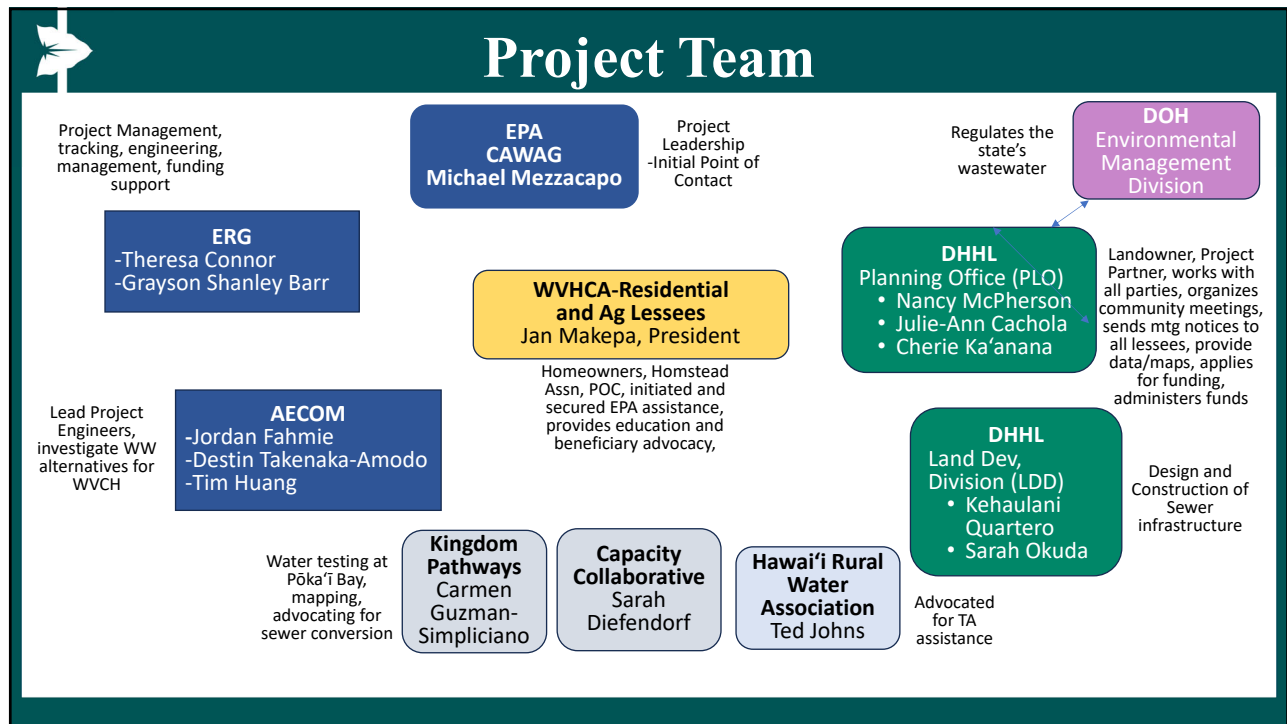


Meeting Handouts

- There are important handouts for this meeting. Virtual attendees should go to the link in the chat and download the handouts.

- ☐ **Presentation Slides**
- ☐ **Map identifying recommended solutions (color-coded) for each Lo**
- ☐ **Fact Sheet on Wai anae Valley Pilot Project**
- ☐ **Fact Sheet on EPA Closing America's Wastewater Access Gap (CAWAG)**
- ☐ **Preliminary Engineering Report (PER) Summary Report**
- ☐ **June 26, 2025 Meeting Notes (yellow)**
- ☐ **February 3, 2025 Meeting Notes (pink)**
- ☐ **Comment Sheet**

6



7

Wai'anae Valley Hawaiian Homestead Closing America's Wastewater Access Gap

Jordan Fahmie, P.E.

Delivering a better world

8 aecom.com

8

Project Purpose and Objectives

- Provide technical assistance to the community for planning adequate sewer infrastructure improvements and options for converting cesspools
- Objectives
 - Observe existing infrastructure (cesspools, City sewer connections, neighborhood layout, topography, features)
 - Listen to community input, concepts, preferences
 - Evaluate viable options, including cost estimates and schedule
 - Provide report to support funding application for improvements

9

 aecom.com

9

Meeting #2 Technical Assistance Presentation

- Summarize project background and history
- Share findings of analysis for cesspool conversions in Wai'anāe Valley Homestead
- Discuss community thoughts and concerns
- Describe next steps
- Questions and answers

10

 aecom.com

10

Project History

- Conversations mapping January 2024
- Community Meeting #1 February 3, 2025
- Conversations mapping May 2025
- Community Meeting #2 June 26, 2025

- Key topics of discussion
 - Costs
 - Technology
 - Process
 - Environmental impacts



11

[aecom.com](https://www.aecom.com)

11

Project History – June 26 Meeting Highlights

- Resiliency – electrical outages
- Water reuse
- Space requirements for septic tank and leach field
- Funding and project scope – who pays for what?
 - Sewer
 - Sewer lateral and plumbing connection to house
 - Cesspool closure

12

[aecom.com](https://www.aecom.com)

12

Pathways to Funding

- The project team is evaluating how funding sources can be identified, applied for, and secured for this project
- For funding application submission, there is currently ongoing coordination between DOH, EPA, City and County of Honolulu
- Clean Water State Revolving Fund (CWSRF), USDA, other sources
- Creative ways to use funds, maybe different from typical capital projects
- Not the focus of this meeting

13

 aecom.com

13

Expectations

- This is not a construction project
- This planning study will support applications for funding
- A future project will design and construct the recommended alternatives

14

 aecom.com

14

Acronyms

- PER – Preliminary Engineering Report (study)
- IWS – Individual Wastewater System
- DOH – Department of Health
- WWTP – Wastewater Treatment Plant
- CCH – City and County of Honolulu
- CAWAG – Closing America's Wastewater Access Gap

15

 aecom.com

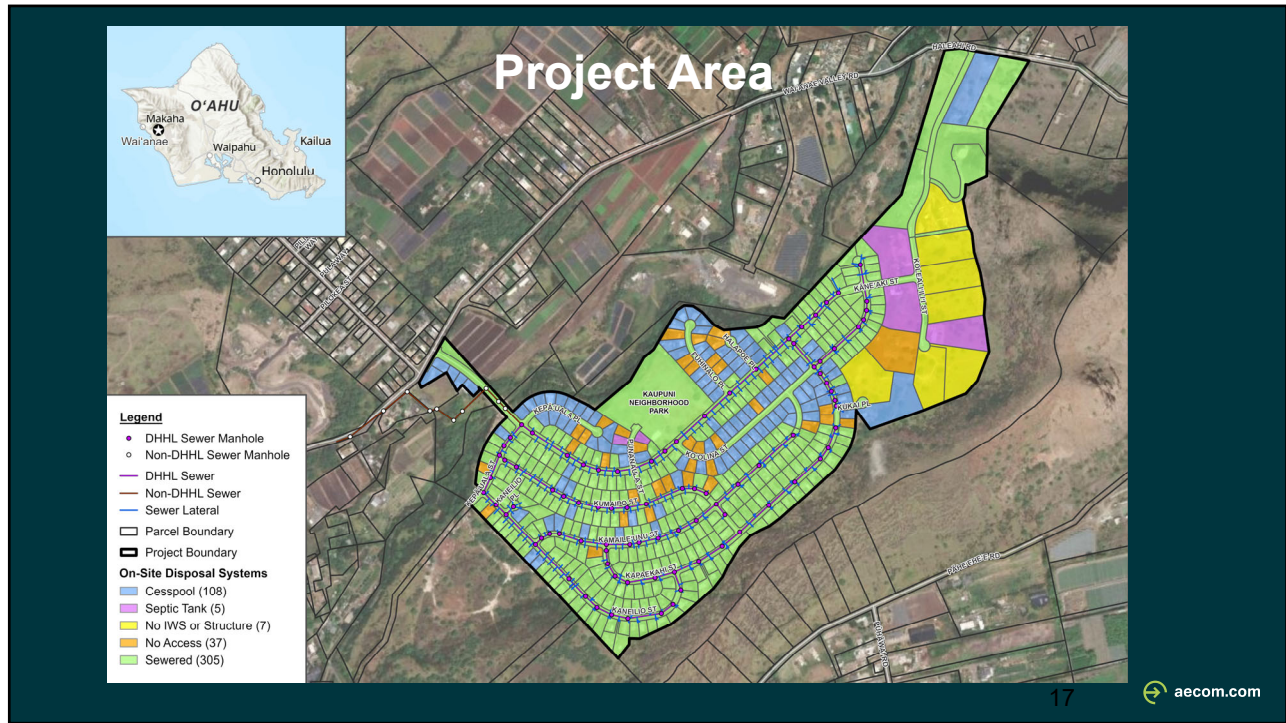
15

Summary of Project Activities

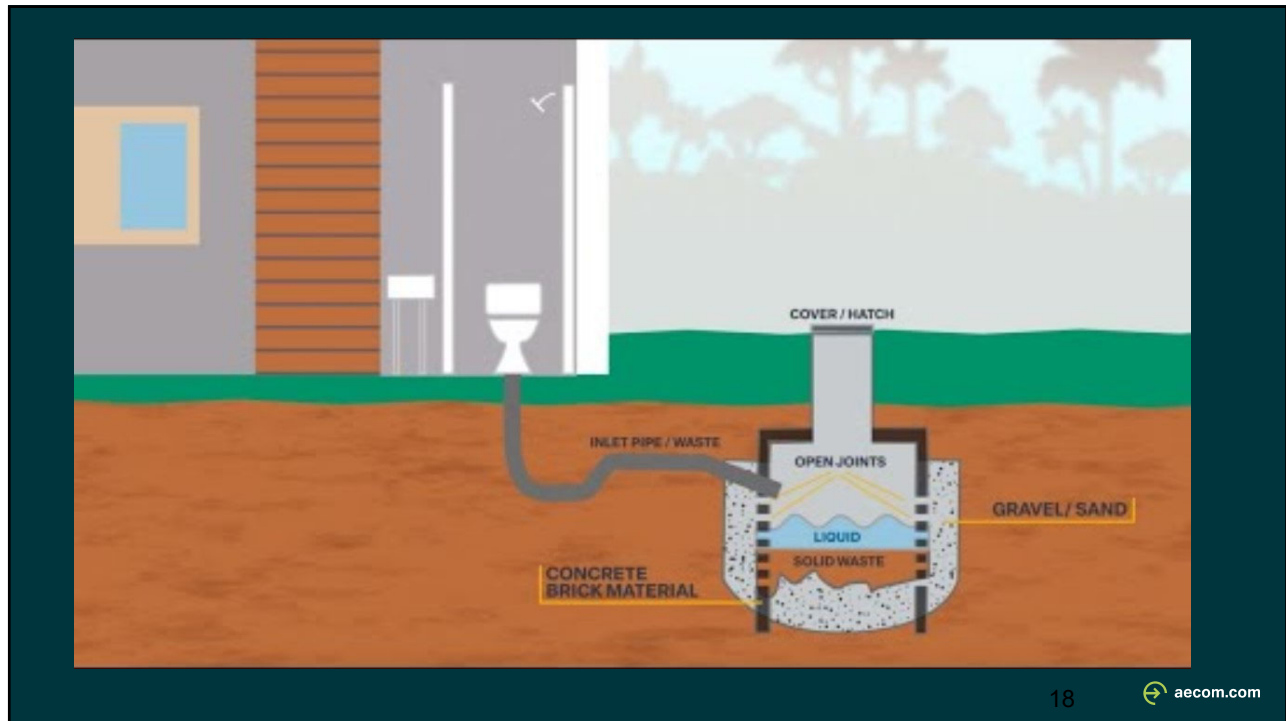
DATE	PROJECT ACTIVITIES
Feb. 3, 2025	Community Meeting #1
April 3, 2025	Site Visit
June 26, 2025	Community Meeting #2
August 29, 2025	Draft Preliminary Engineering Report
November 24, 2025	Community Meeting #3--Study Results, Recommendations for conversion
Feb. 2026	<ul style="list-style-type: none"> • Community Meeting #4 • Present Final Preliminary Engineering Report • DHHL submit Concept Project to DOH • DHHL and DOH submit funding application



16



17



18

Existing Situation

- State legislature passed Act 125 in 2017, requiring all cesspools be converted by 2050
- 112 cesspools will need to be converted in the homestead
- City sewer nearby, connects to Wai'anāe WWTP
- Dense housing, smaller residential lots = limited space for onsite IWS or cluster systems

19

 aecom.com


19

Evaluation Criteria

How to best convert cesspools in a way that is:

- Affordable to lessees
- Affordable to government agencies (DHHL, City)
- Acceptable to the community
- Meets environmental and legal requirements
- Achievable
- Maintainable
- Proven

20

 aecom.com

20

Cesspool Conversion Findings – Preliminary Recommendations

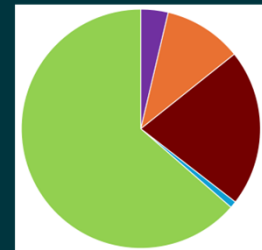
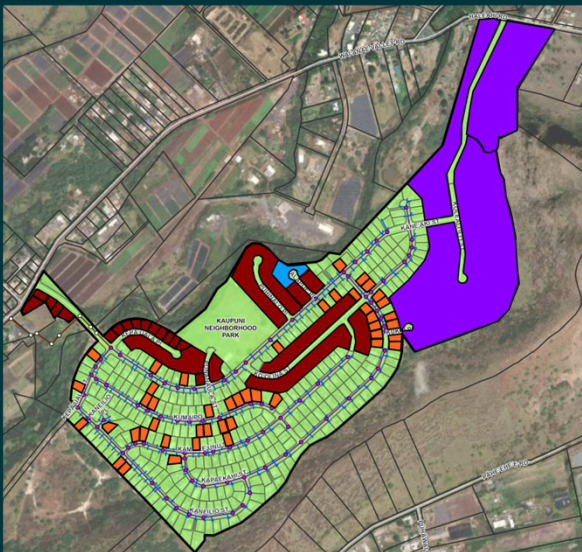
Delivering a better world

21

aecom.com

21

Homestead Cesspool Conversion: No Action-- Already Connected to Sewer Line



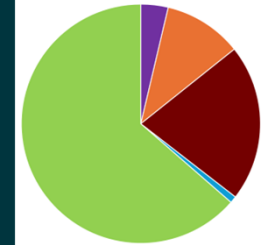
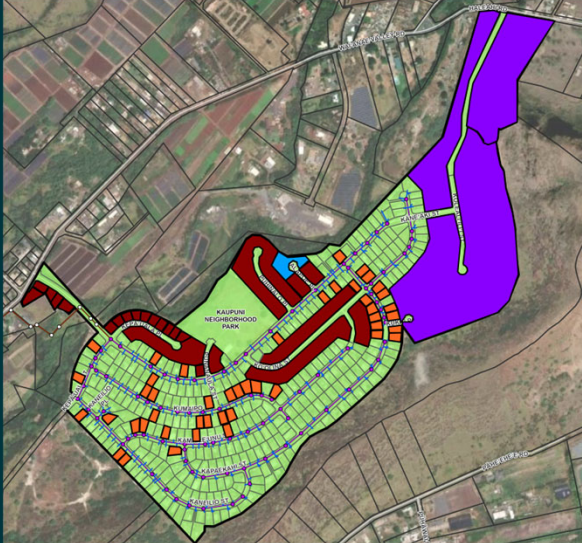
- 276 homes
- Already connected to sewer
- Currently have a sewer bill
- No change
- ~\$1800/year sewer bill

22

aecom.com

22

Homestead Cesspool Conversion: Connect to Existing Sewer Lines



- 46 homes
- New lateral to existing sewer
- Currently no sewer bill
- Lots with permitted IWS may apply for sewer fee exemption for 25 years
- ~\$1800/year sewer bill

23

aecom.com

23

New Sewer Lateral

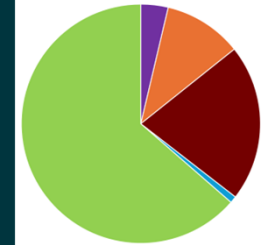
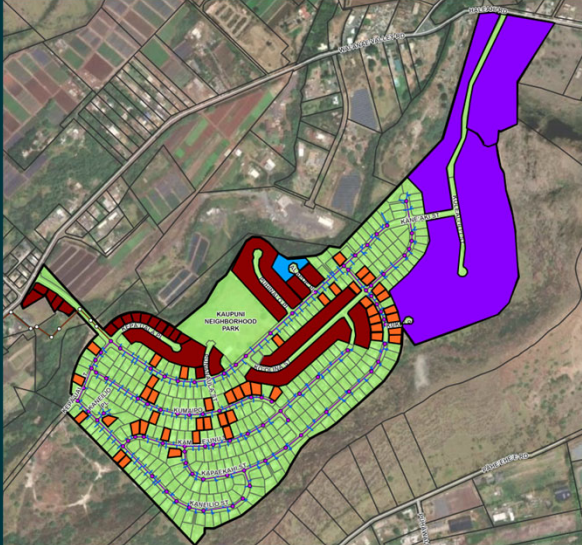


24

aecom.com

24

Homestead Cesspool Conversion: Connect to New Sewer Lines



- 92 homes
- New lateral to new sewer
- Currently no sewer bill
- Lots with permitted IWS may apply for sewer fee exemption for 25 years
- ~\$1800/year sewer bill

25

aecom.com

25

New Sewer Lateral



New Sewer

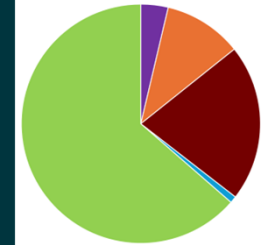
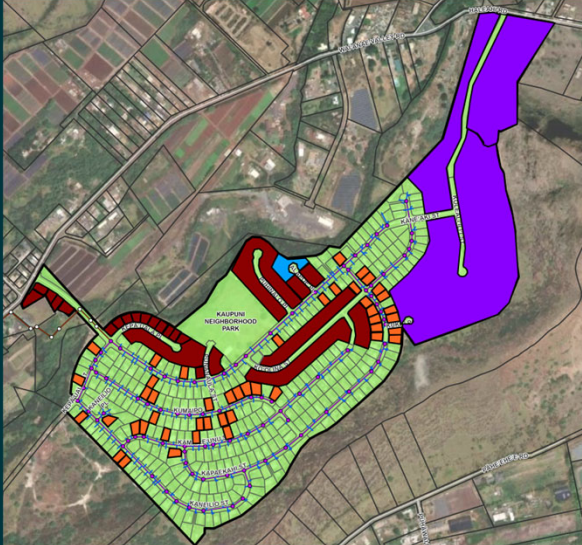


26

aecom.com

26

Homestead Cesspool Conversion: New Septic Tank and Leach Field



- 16 lots (Ag Lots)
- Septic tank and leach field
- Currently no sewer bill
- No sewer bill
- ~\$350/year sludge pumping
- Replace system in 20 years

27

aecom.com

27

New Septic Tank

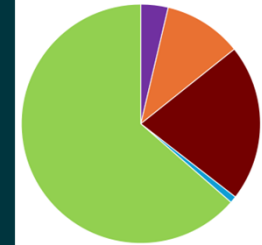
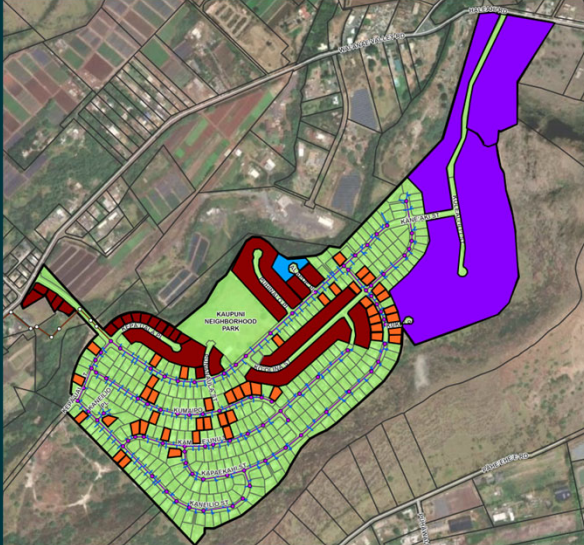


28

aecom.com

28

Homestead Cesspool Conversion: Connect to New Sewer Lines with Grinder Pump



- 4 lots (Halapoe Pl. cul de sac)
- Sewer connection likely
 - Onsite grinder pump?
 - Neighborhood pump station?
- Currently no sewer bill
- \$1800-2400/year

29

aecom.com

29

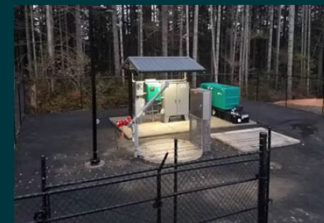
New Sewer Lateral



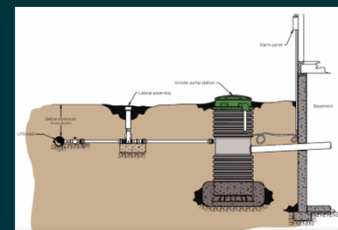
New Sewer



Pumping



or



30

aecom.com

30

Options Evaluated- Not Recommended

- Water Reuse at the community level
- Requires Homestead WWTP
- Significantly more expensive
- Operational and maintenance and staffing risks



33

 aecom.com


33

Options Evaluated- Not Recommended

- IWS for Residential Lots
- Insufficient space for most lots
- Not in conformance with City and State law



34

 aecom.com

34

Options Evaluated- Not Recommended

- Sewer for agricultural lots
- Significantly more expensive than IWS
- Larger ag lots provides sufficient space for IWS



35

 aecom.com

35

Options Evaluated- Not Recommended

- Cross country sewer for Halapoe Place
- Requires 15' wide easement for 15 properties
- Does not meet CCH maintenance requirements
- Does not use mechanical or electrical components
- Sewer would be routed through Kaupuni Park to Kapa'uala Place cul de sac

36

 aecom.com

36

Options Evaluated- Not Recommended

- Incinerator/composting toilets
- Would still require sewer connection for non-toilet sanitary waste (sinks, tubs, washing machine, etc.)



37

 aecom.com


37

m1

Next Steps

- AECOM and DHHL will consider input from this meeting in analysis and final solutions.
- AECOM will finalize PER.
- ERG is working with DHHL and DOH on funding application.
- Will hold Community Meeting #4 (February 2026) to discuss final solutions and path forward.

38

 aecom.com

38

Q&A and Discussion

- Now is the time to share your questions, comments and concerns
- If you'd rather submit questions and comments in writing, please fill out the green comment sheets and hand them to a team member
- If you are joining on zoom, please raise your virtual hand—speak when recognized, or write questions/comments in chat box.

39

 aecom.com

39



Mahalo!

Jordan Fahmie – Jordan.Fahmie@aecom.com

Delivering a better world

40  aecom.com

40