



County of Kaua'i Brownfield Program Update

Kekaha Community Meeting
December 11, 2025





Agenda

1. Introductions
2. Brownfields Program Overview
3. Kekaha Sugar Mill, Lot B (KSM Lot B)
– Sampling Overview
4. KSM Lot B – Soil Testing Results
5. Next Steps



Introductions



ANA ESPAÑOLA
Project Lead
Office of Economic Development



LEONARD FARR
Technical Consultant
Stantec Consulting Services



MATT PATTERSON
Project Manager Consultant
Aloun Farms



Department of Health
Hazard Evaluation & Emergency
Response (HEER) Office

TARYN SHIMABUKURO
Remedial Project Manager (RPM)

SVEN LINDSTROM
Voluntary Cleanup Program
Specialist/ RPM

SHERYL CHAN
Brownfields Manager

What we've done





Brownfield Program Overview (1 of 2)

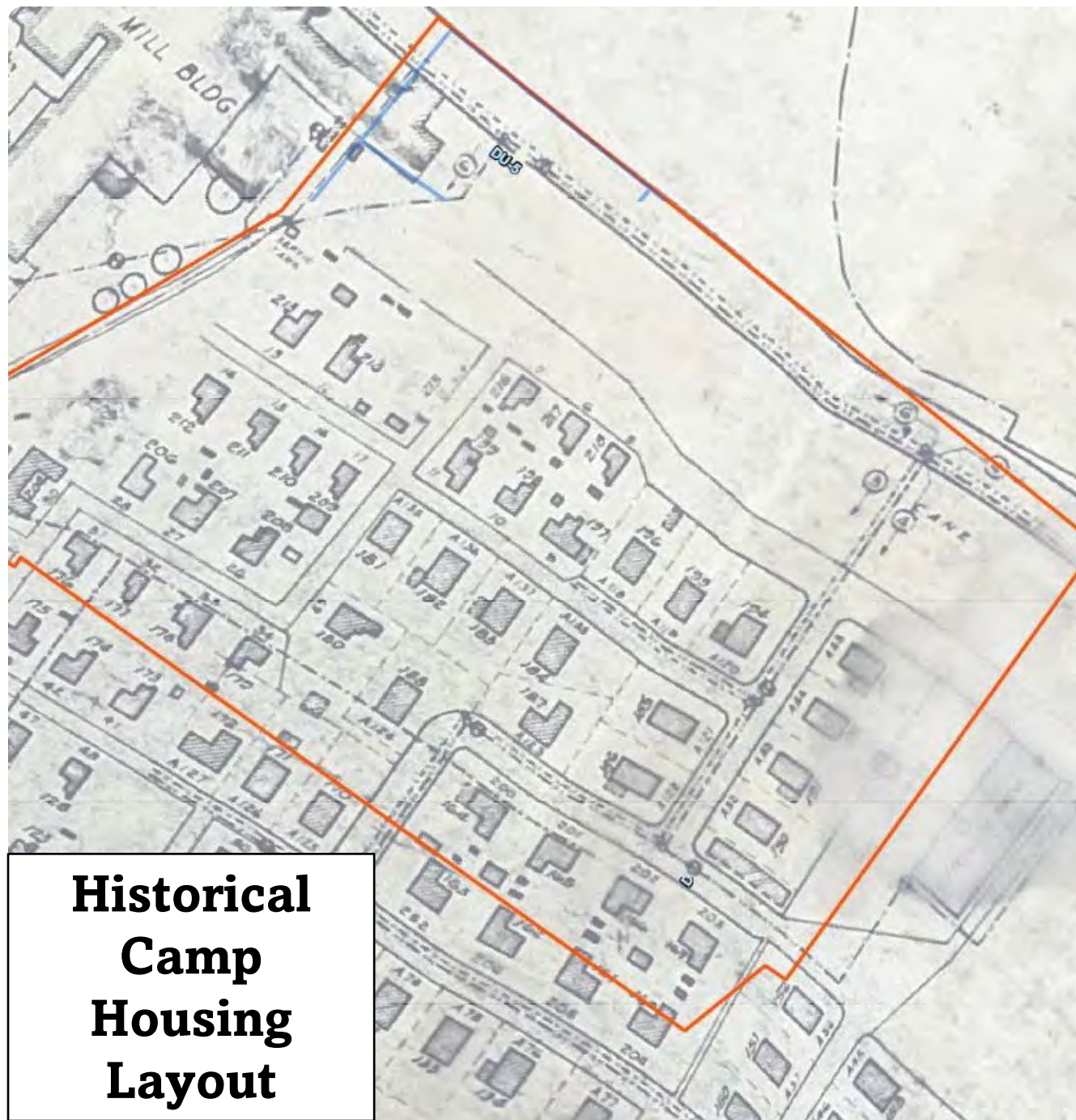
- **October 1, 2021** - County of Kaua'i receives \$300K EPA Brownfield Assessment Grant
- **April 18, 2023** – Secured Stantec Consulting
- **August 2023** – Established advisory group
- **October 2023** – Kekaha Corridor Assessment Completed
- **February 15, 2024** – County invites public to participate in the Brownfields Program at Kekaha Community Meeting
- **March 27, 2024** - Aloun Farms elects to participate in Brownfield Program for KSM Lot B





Brownfield Program Overview (2 of 2)

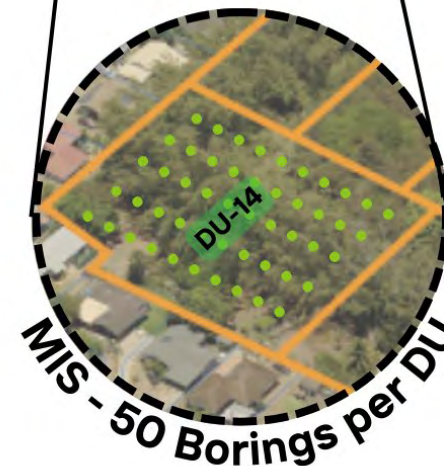
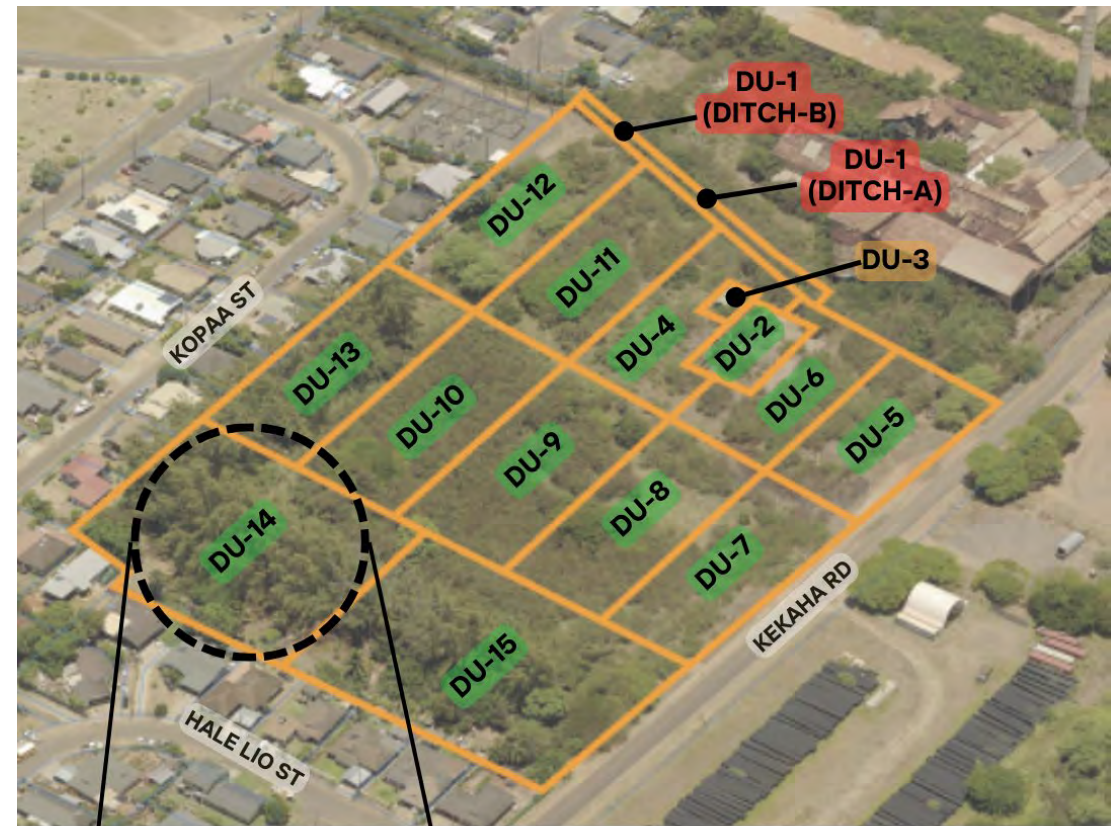
- **February 12, 2025** - Sampling and Analysis Plan (SAP) approved by EPA and HDOH
- **April 1, 2025** - Cultural resource consultation completed
- **April 21 – May 4, 2025** – KSM Lot B, soil sampling completed
- **August 29, 2025** – Soil sampling report completed
- **December 11, 2025** – Kekaha Community Meeting to share results
- **First Calendar Quarter of 2026** – EPA Brownfield Grant close-out will be completed





KSM Lot B- Sampling Overview (1 of 2)

- 10.3-acre property divided into **15 Decision Units (DUs)**
- Each DU was sampled using **Multi-Increment Sampling (MIS)**
 - 50 increments per DU
 - Duplicate/triplicate samples collected in one DU
- Sample were collected from three depths
 - Shallow: **0-1.5** feet below ground surface
 - Middle: **1.5-3** feet below ground surface
 - Deep: **3-4.5** feet below ground surface



THREE DEPTH LEVELS

Shallow: 0 - 1.5 ft

Middle: 1.5 - 3 ft

Deep: 3 ft - 4.5 ft



KSM Lot B Sampling Overview (2 of 2)

- Soil samples collected in 13 of 15 DUs in general accordance with SAP
 - **DU-3 (Former Boiler House):** Due to access limitations (concrete pad and brush) a 5-point composite samples was collected
 - **DU-1 (Ditch Area):** Due to access limitations (brush and infrastructure) a 5-point and an 8-point composite sample were collected.



Sampling around DU-3 (Former Boiler House)

What we've learned

KEKAHA BROWNFIELDS PROGRAM



Project Site:
Kekaha Sugar Mill,
Lot B Property

Stantec
PERMIT TO ASSESS
MD-26
APPROVED DATE
APR 21, 2025

SOIL SAMPLING STARTING APRIL 21

With funding from the U.S. Environmental Protection Agency (EPA) and with permission from the property owner, Aloun Farms, the County will be doing soil sampling at the Kekaha Sugar Mill Lot B site to check for contamination and guide future clean up efforts.

WHY

To check what part of the property is contaminated and extent of contamination

WHEN

Anticipated start date:
April 21, 2025 - May 2, 2025

WHAT TO EXPECT

- A compact direct-push drill rig on-site
- Two support vehicles will move with the drill rig to collect samples
- Noise disturbance from drilling activities
- Stantec staff who was hired by the County as environmental consultant.

Scan to View Project Website



QUESTIONS?

Contact Ana Española

- aespanola@kauai.gov
- kuaiforward.com/kekaha-brownfields-study/

(808) 241-1968



Soil Testing Summary

Contaminant Group	Possible Sources	Was it Detected?	Exceed DOH's Environmental Action Level (EAL)?
Diesel and Heavy Oil-range Hydrocarbons (DRO & ORO)	Fuel storage, machinery leaks, ditch runoff	Elevated levels in upstream ditch sediment	Yes, in DITCH-A
Polycyclic Aromatic Hydrocarbons (PAHs)	Burning of organic material, fuel use	Low levels in soil and ditch sediment	No
Pentachlorophenol (PCP)	Treating wood in seed dipping tanks	Low levels in soil and ditch sediment	No
Up to Eight Metals (Lead, Arsenic, Chromium, Mercury, etc.)	Lead-based paint, pesticide, industrial residues	Lead detected at elevated levels in the ditch. Arsenic detected at very low levels in soil which is typical in Hawai'i.	Yes, lead in DITCH-A and DITCH-B No for arsenic
Organochlorine Pesticides (OCPs)	Pest control, like DDT, used during plantation	Low levels in soil	No
Polychlorinated Biphenyls (PCBs)	Old electrical equipment	Not detected	No
Chlorinated Herbicides	Sugarcane field treatment	Not detected	No
Dioxins & Furans	By-products from burning and industrial processes	Slightly elevated levels in downstream ditch	Yes, in DITCH-B



Soil Testing Results (1 of 3)

METALS: Lead

- Detections – all samples
- EAL exceedance – 2 samples (lead in both DU-1, DITCH-A and DITCH-B samples)
- EAL exceedance when adjusted for high relative standard deviation – 4 samples (lead in DU-6, DU-11, DU12, and DU-13)

PAHs

- Detections – all samples
- EAL exceedances – no samples



Brush and infrastructure in the mill ditch area



Soil Testing Results (2 of 3)

OCPs

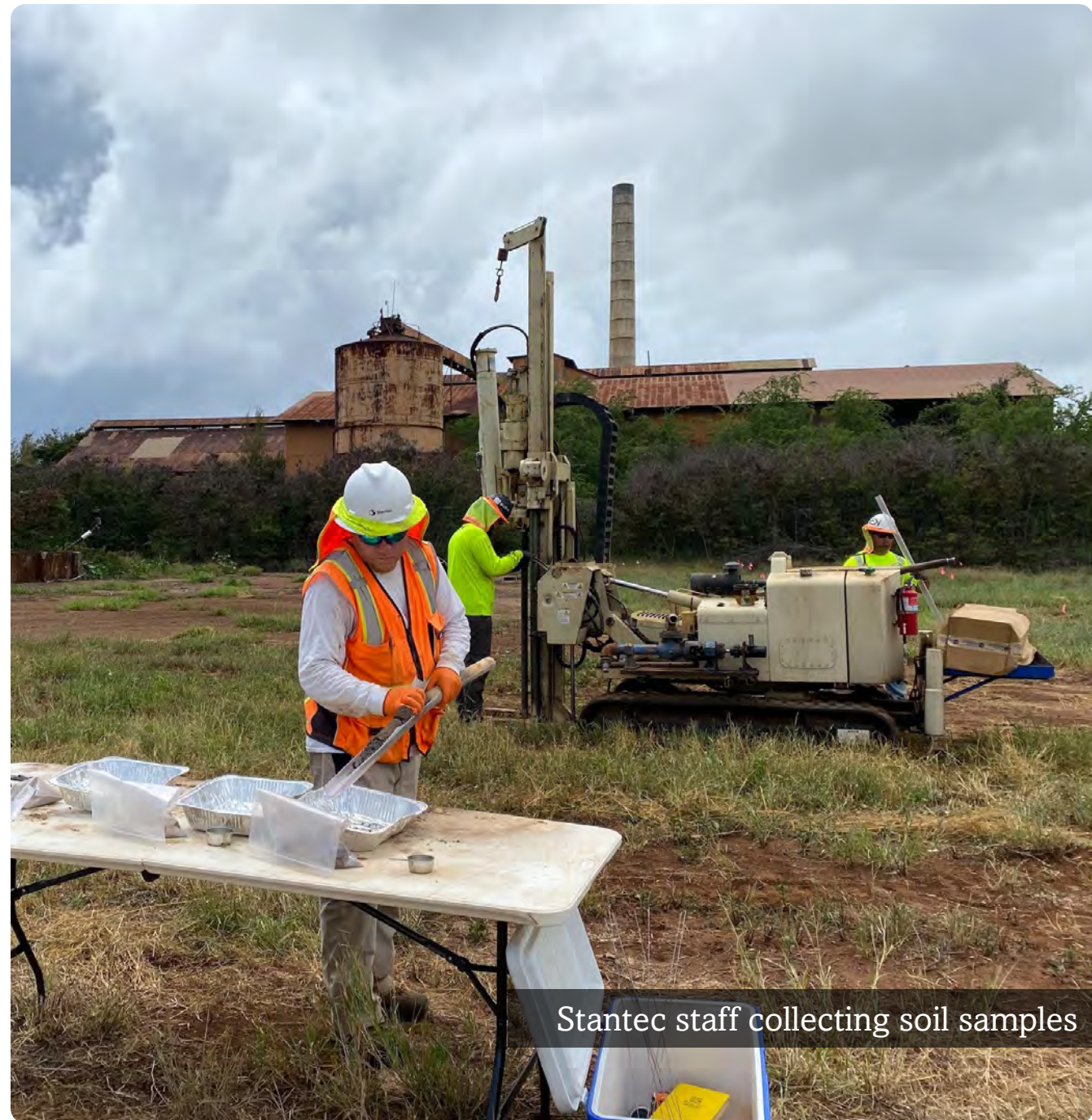
- Detections – 12 samples
- EAL exceedances – no samples

CHLORINATED HERBICIDES

- No detections

PCBs

- No detections



Stantec staff collecting soil samples



Soil Testing Results (3 of 3)

DIOXINS/ FURANS

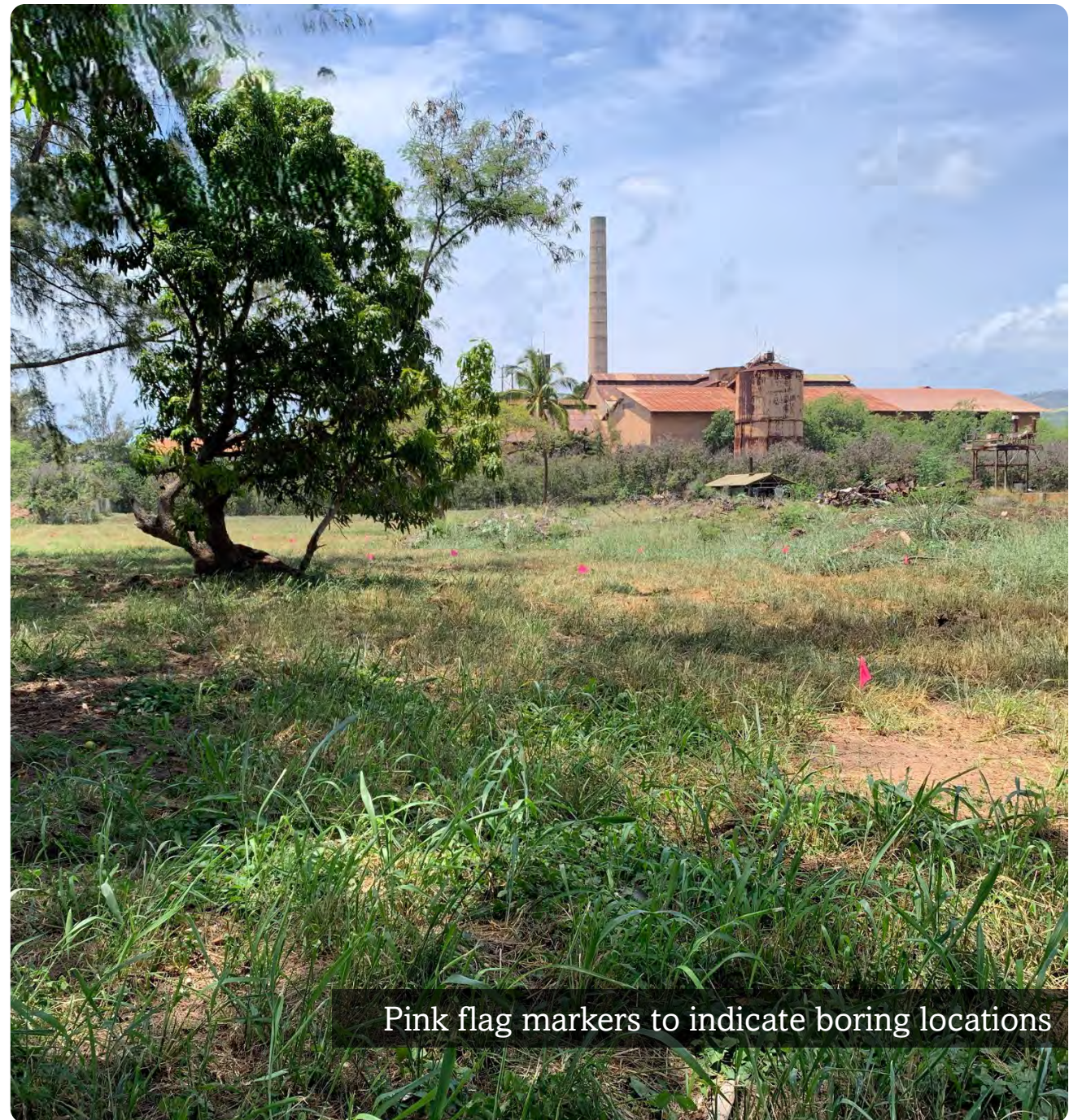
- Detections – all samples
- EAL exceedances – 1 sample (Ditch B)

PCP

- No Detections

DIESEL & HEAVY OIL (Hydrocarbons)

- Detections – 18 samples (mostly heavy oil)
- EAL exceedances – 1 sample (DITCH-A)



Pink flag markers to indicate boring locations



Assessment Conclusions

- **Lead, dioxins/furans, and hydrocarbons** found above residential EALs. Further evaluation needed.
- **DU-3:** No exceedances but more sampling may be needed under existing concrete pad.
- **All other analytes eliminated as contaminants of concern**

Contaminant Group	Exceed DOH's Environmental Action Level (EAL)?
Diesel and Heavy Oil-range Hydrocarbons (DRO & ORO)	Yes, in DITCH-A <i>Further evaluation needed.</i>
Polycyclic Aromatic Hydrocarbons (PAHs)	No
Pentachlorophenol (PCP)	No
Up to Eight Metals (Lead , Arsenic, Chromium, Mercury, etc.)	Yes, lead found in 4 DUs <i>Further evaluation needed.</i>
Organochlorine Pesticides (OCPs)	No
Polychlorinated Biphenyls (PCBs)	No
Chlorinated Herbicides	No
Dioxins & Furans	Yes, in DITCH-B <i>Further evaluation needed.</i>

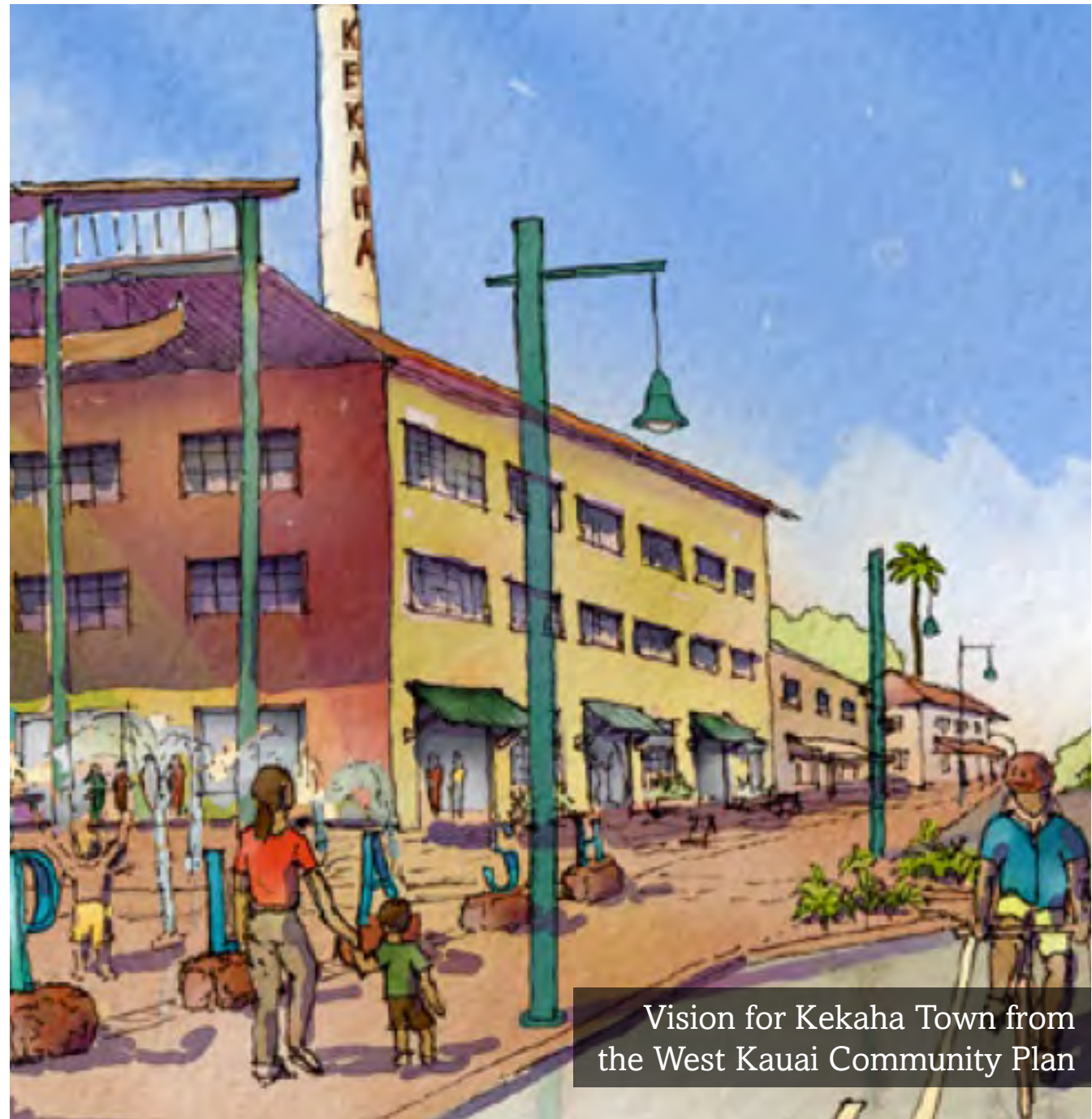
Where we're going



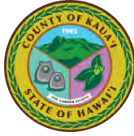


Next Steps

- Complete file summary of KSM Lot A
- Determine property boundary of KSM Lot B
- Currently in discussions with HDOH regarding the following options:
 - A. Partial supplemental sampling**
(\$50K-?)
 - B. Full supplemental sampling**
(\$250K-\$400K)
 - C. Presumptive remedy (soil cap)**
(\$250K-\$400K)
 - D. Abandon property redevelopment**
(lost opportunity cost)





Vision for Kekaha Town from the West Kauai Community Plan



Mahalo!

Contact Ana Española

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QUESTIONS?



PROJECT WEBSITE

kauaiforward.com/kekaha-brownfields-study/