



DRAFT

March 12, 2020

via email: spang@pbrhawaii.com

PBR Hawaii
1001 Bishop Street, Suite 650
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Attention: Ms. Selena Pang

Reference: Draft-Site Inspection and Document Review
DHHL Pulehunui Wastewater System Corridor
Puunene, Maui, Hawaii

EnviroServices & Training Center, LLC (ETC) has completed this Site Inspection and Document Review letter report for PBR Hawaii (PBR). This letter report summarizes ETC's findings for proposed corridor of a future wastewater system, herein referred to as the project site.

1.0 SCOPE OF SERVICES

ETC was contracted by PBR to conduct an environmental review to evaluate the proposed Pulehunui Wastewater Treatment Plant corridor. The scope of services included the following:

- Reviewed ETC's 2017 and 2018 Phase I ESA documents for the Pulehunui project site.
- Reviewed available public records associated with the recognized environmental conditions (RECs) identified for the site at the Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response Office and/or the DOH Solid and Hazardous Waste Branch.
- Conducted a visual inspection of select areas of the proposed corridor (e.g. armory, etc.) as well as the former ordnance landfill (i.e. Feature K), which is located outside of the proposed corridor.
- Conducted consultation with the DOH HEER Office; and interviews with government officials and former tenants regarding the areas of interest, including but not limited to the Maui Airport Military Reservation FUDS site and the former Murray Air tenant space.
- Reviewed files and correspondence with regards to the former landfill and potential UXO within Pulehunui Wastewater System corridor.
- Prepared this letter report documenting ETC's findings, conclusions, and recommendations for additional investigation.

2.0 CONDITIONS AND LIMITATIONS

ETC's findings and conclusions contained herein are professional opinions based solely upon visual observations and interpretation of the historical information and documents available to ETC at the time this site inspection and document review was conducted. Opinions stated in this report do not apply to changes that may have occurred after the services were performed. ETC has performed specified services for this project with the degree of care, skill, and diligence ordinarily exercised by professional consultants performing the same or similar services. No other warranty, guarantee, or representation, expressed or implied, is included or intended; unless otherwise specifically agreed to in writing by ETC and their Client.

This report is intended for the sole use of ETC's Client, exclusively for the project site indicated. ETC's Client may use and release this report, including making and retaining copies, provided such use is limited to the particular site and project for which this report is provided. However, the services performed may not be appropriate for satisfying the needs of other users. Release of this report to third-parties will be at the sole risk of Client and/or said user, and ETC shall not be liable for any claims or damages resulting from or connected with such release or any third party's use or reuse of this report.

3.0 SITE DESCRIPTION

The project site consists of an approximate 3.3-mile corridor along Maui Veterans Highway and Mehamaha Loop between the proposed WWTP site and the proposed north pump station. A map of the subject site is included as an attachment to this report. The groundcover at the project site generally consisted of bare soil with limited areas of asphalt groundcover near and along the Maui Veterans Highway.

4.0 DOCUMENT REVIEW

ETC's review of the 2017 and 2018 Phase I ESA documents for the Pulehunui project site identified several environmental features associated the former Naval Air Station (NAS) Puunene. Specifically, a former landfill and several former USTs were identified along the east side of Maui Veterans Highway. Review indicated that two (2) 50,000-gallon aviation fuel USTs were formerly located along Maui Veterans Highway portion of the project site. Note that the current Maui Veterans Highway was widened; therefore, these former USTs were likely located within proposed corridor. A&B personnel confirmed that these USTs were likely located within the current proposed corridor. Review indicated that confirmation sampling indicated no evidence of a release. Based on these findings, the two former USTs identified along the proposed Pulehunui WWTP corridor are not considered to be a significant environmental concern.

Document review also indicated that four (4) additional aviation fuel USTs/ASTs may have been located along the southwest border of the Parcel 35 along the "North Trunk Sewer" of the proposal Pulehunui WWTP corridor. Specifically, in a 1955 map of the NAS Puunene, four (4) circular structures labeled as "Gasoline Storage – Aviation" was observed. The capacity and status of the suspect USTs were unknown; and no evidence of the suspect USTs were noted during ETC's site reconnaissance activities. A&B personnel could not confirm whether these USTs were removed; however, it was noted the suspect location of these tanks has been used for sugarcane cultivation for over 30 years. ETC could not confirm or disconfirm the presence of these suspect

USTs. Based on these findings, ETC cannot dismiss the possibility that residual contamination associated with the suspect USTs may be present within this area of the proposed Pulehunui WWTP corridor. The suspect location of these USTs are mapped in Figure 1.

Hawaii Department of Health personnel indicated that Murrayair formerly operated at the Puunene Armory site (current Hawaii Army National Guard) which is located north of the Pulehunui South site and east of the proposed corridor. Murrayair reportedly formerly occupied this area for crop dusting operations affiliated with the former sugar cultivation on the surrounding areas. These operations included pesticide rinsing and storage areas. File review indicated that Hawaiian Commercial & Sugar (HC&S) contracted Terrasano, LLC to conduct soil sampling at the two separate pesticide storage and mixing areas formerly used by Murrayair. The samples were reportedly collected from surface soils within areas where runoff water was suspected to flow, representing the maximum soil impacts in the area. These areas were considered runoff areas and areas of reported aircraft exterior wash down. While ametryn, atrazine, and diuron were detected in the soil, concentrations did not exceed applicable action levels at that time. As a result, Mr. Leslie Au of the DOH HEER Office, issued a letter, dated August 14, 2002, to the DAGS indicating that the concentrations found at the former Murrayair site were “sufficiently far below the health-based screening levels” and that it was not considered a “public-health concern.” However, Ms. Laura Young of the DOH HEER Office indicated that wash water from the Murrayair site may have runoff into a nearby ditch with an unknown discharge point. Ms. Young was unable to provide any additional information regarding this ditch. ETC subsequently contacted Mr. Sean O’Keefe of the Alexander & Baldwin, Inc. regarding this reported runoff; however, Mr. O’Keefe indicated that he was not aware of any runoff from the former Murrayair operations discharging into a ditch. Furthermore, Mr. O’Keefe indicated that he was not aware of any drainage features in this area or the former adjacent HC&S fields. Based on the information provided coupled with DOH HEER Office’s August 2002 letter, the impacts associated with the Murrayair operations do not appear to be a significant environmental concern.

The Subject Property was identified to have been part of the former Maui Airport Military Reservation FUDS site, also known as Naval Air Station (NAS) Puunene. As part of the initial FUDS inventory report, potential MECs/UXOs issues in connection with or resulting from Department of Defense use were also evaluated. United States Army Corps of Engineers (USACE) concluded that MECs/UXOs were not considered an issue for the site. Ms. Lori-Ann Wong of the USACE also confirmed that the NAS Puunene is not considered a Military Munitions Response Program (MMRP) site. Client provided documents indicated that a “floating smoke bomb” in an area identified as “Feature K,” located on the northwest portion of Pulehunui South site and south of the proposed corridor. Correspondence with Ms. Wong (USACE) confirmed that smoke bombs are not considered MECs/UXOs. However, Ms. Wong indicated the NAS Puunene site was not identified and is not considered a potential MMRP site, if future evidence is uncovered to indicate otherwise, then the USACE would and will take appropriate actions. Since the majority of the area known as NAS Puunene was extensively and actively used for commercial sugar cultivation from 1969 to 2016, therefore the presence of significant quantities of MECs/UXOs within the Pulehunui site is not likely. Furthermore, Ms. Wong also indicated that while Maui Airport Military FUDS site is considered to be a “closed” FUDS site, any future environmental findings connected to the former NAS Puunene operations could re-activate or open the FUDS.

File review also indicated that a transformer release site and a former landfill were located on the NAS Puunene. Review indicated that both the transformer release site and former landfill are located north of Parcel 34. The transformer release site was cleaned up and included the removal and disposal of approximately 633-cubic yards of PCB-contaminated soil and concrete debris. The release site was subsequently backfilled and restored. As a result, the DOH HEER Office issued the facility a letter indicating that no further action (i.e. No Department of Defense Action Indicated) was required for the site. As such, the former transformer release site is not considered to be a significant environmental concern.

Review indicated that the Maui Airport Landfill reportedly consisted of a 20-acre dump site that was believed to contain the remains of aircraft and other equipment that were deemed surplus for military purposes. Environmental investigations were conducted on the former Maui Airport Landfill site which included both environmental investigations (i.e. soil and groundwater sampling and analyses) and non-environmental investigations (i.e. exploratory trenching). Significant investigative findings indicated the presence of landfilled debris; and elevated concentrations of arsenic, cadmium, lead, and PCBs in the soil. A feasibility study determined that surface capping with institutional controls and natural attenuation with institutional controls were determined to be two highest ranking remedial alternatives. Based on ETC's file review of the available DOH HEER Office files, there is no formal documentation indicating permanent closure status of the Maui Airport Landfill. Document review indicated that the former DOH HEER project manager, Mr. Steven Mow indicated that he believed the Maui Airport Landfill was a "closed" site. Document review also indicated that Mr. Derek Yasaka of Wil Chee-Planning, Inc. (WCP) confirmed that the RI-FS was completed and it was determined that the recommended action by the Navy was "no action." Mr. Yasaka indicated that the 'no action' decision was made in or around April 2014, at which point WCP's involvement with the site was terminated. Mr. Yasaka speculated that no additional actions have taken place at the Maui Airport Landfill. ETC also contacted Ms. Lori-Ann Wong of the USACE regarding the closure status of the environmental issues related to the Maui Airport Landfill. Ms. Wong provided ETC with the *No Action Decision Document*, dated April 2014, which indicated that a human health risk assessment was performed for the site. The HHRA found that while PCBs, dieldrin, arsenic, cadmium and lead were detected in the subsurface soils, the Maui Airport Landfill does not present an unacceptable human health risk under the current and future land use scenarios. Based on the findings of the HHRA, the "no action" alternative was selected for the site. A subsequent public meeting was held on December 2013 to present the alternative to the representative stakeholders, regulatory agencies, and public. No questions or comments were received; therefore, the "no action" alternative was subsequently implemented. While a "no further action" document was issued for the site, according to Ms. Wong, the Maui Airport Landfill site is considered closed. Site reconnaissance and interview findings confirmed that the Maui Airport Landfill site is present on Parcel 1 of the Subject Property. In addition, no evidence of landfill materials was observed within the geotechnical borings conducted along the proposed Pulehunui WWTP corridor. While the Maui Airport Landfill site is considered "closed" and no evidence of landfill materials have been observed; the presence of the unexposed (i.e. subsurface) contaminants at the Maui Airport Landfill site is considered a potential environmental concern.

The proposed Pulehunui WWTP corridor and the surrounding area have been used for commercial sugarcane cultivation since as early as 1910. Activities commonly associated with commercial sugarcane cultivation include the use and application of pesticides. As described in Section 9 of the DOH HEER Office's November 2009 Interim Final Technical Guidance Manual for the Implementation of the Hawaii State Contingency Plan (HEER TGM), with the exception of arsenic, residual pesticides in former sugarcane fields are rarely detected above levels of potential concern. In addition, data gathered by the DOH over the past ten years indicate that dioxins in former sugarcane fields do not pose a significant health risk (DOH, 2009). Review the DOH HEER Office's Summary of Pesticide and Dioxin Contamination Associated with Former Sugarcane Operations indicated that elevated concentrations were not reported in the surface soils of sugarcane field(s) associated with the nearby Puunene Sugar Mill (DOH, 2011). In addition, no pesticide mixing sites are known to have been operated within the proposed Pulehunui WWTP corridor or surrounding areas. Although other contaminants associated with commercial sugarcane cultivation were not evaluated, based on these findings, the former agricultural usage of the site and surrounding areas is not considered a significant environmental concern. While the former agricultural use is not considered a significant concern; the DOH typically recommends that a baseline investigation be completed for potential redevelopment of large former agricultural field areas.

5.0 VISUAL INSPECTION

Visual observation for the use and/or storage of hazardous materials and hazardous waste was performed in July 2019. No evidence of improper generation, storage or disposal of hazardous materials or waste was observed along the proposed Pulehunui WWTP corridor or the surrounding areas such as the areas known as "Feature K." In addition, no ordnance were observed in and around the vicinity of "Feature K" during ETC's July 2019 reconnaissance. While not considered a Recognized Environmental Condition, the general vicinity appeared to be occupied by trespassers and potentially used for squatting purposes. A visual inspection for the presence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) was also conducted. No visual evidence (i.e. vent or fill pipes, dispensers, etc.) of the presence of USTs or ASTs was observed. In addition, with the exception of miscellaneous solid waste, no areas of surface spills, substantial staining was observed. A visual inspection for hydraulic and electrical equipment or electrical components that use fluid that may contain PCBs was conducted. No suspect PCB-containing equipment was observed on the subject site. Note that following ETC's July 2019 site inspection, an area-wide fire occurred along the Pulehunui WWTP corridor and surrounding areas.

6.0 INTERVIEWS AND CONSULTATION

ETC conducted consultation with the DOH HEER Office on December 13, 2019. The meeting notes summarizing the DOH meeting are included as an attachment to this letter report. ETC also conducted interviews with Ms. Lori-Ann Wong of the USACE regarding the potential environmental issues pertaining to the Maui Airport Military FUDS. In addition, ETC interviewed Mr. Sean O'Keefe regarding the former Murrayair operations as well as historical knowledge of the site. The DOH, Ms. Wong and Mr. O'Keefe also provided ETC with various documents associated with the site. The interview, consultation, and provided documents were discussed and summarized in the Section 5.0.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based the findings of this Site Inspection and Document Review, ETC identified three (3) areas in which potential contaminants may be encountered. Specifically, the following areas along the proposed Pulehunui WWTP corridor were identified to be areas in which potential impacts may be present in the surface and/or subsurface soil:

- Potential petroleum impacts may be encountered in the vicinity of the suspect aviation gasoline USTs located along the southwest border of Parcel 35 along the “North Trunk Sewer” portion of the proposed Pulehunui WWTP corridor. ETC recommends that any soil disturbances within the vicinity of the suspect USTs be monitored by a qualified environmental professional.
- The proposed Pulehunui WWTP corridor is situated west of the former Maui Airport Landfill; however, as a precaution, ETC recommends that soil disturbances within this area of the corridor be monitored by a qualified environmental professional to ensure that landfill is not breached.
- While not considered a significant environmental concern; residual contaminants associated with the former agricultural use of the area may be present. Although not required, the DOH typically recommends that a baseline investigation be completed for potential redevelopment of large former agricultural field areas.
- MECs/UXOs were not previously considered environmental issues; and ETC’s July 2019 site inspection indicated no ordnance or evidence other hazardous substances. In addition, interview and document review indicated that MECs/UXOs were not considered an issue for the site. In addition, while the “floating smoke bomb” identified as “Feature K,” was not considered MECs/UXOs; Ms. Wong emphasized that if future evidence is uncovered to indicate otherwise, then the USACE would and will take appropriate actions. ETC believes that the presence of significant quantities of MECs/UXOs within the Pulehunui site is unlikely given that the majority of the site was extensively and actively used for commercial sugar cultivation from 1969 to 2016.

A handwritten signature in black ink, appearing to read "Sharla Nakashima", written over a horizontal line.

Sharla Nakashima

Environmental Professional

EnviroServices & Training Center, LLC

Attachment: Figure 1 – Site Plan
DOH Meeting Minutes, December 13, 2019



PBR HAWAII
& ASSOCIATES, INC.

MEETING NOTES

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DATE: December 20, 2019

MEETING DATE: December 13, 2019

PRESENT:

Department of Health, Hazard Evaluation and Emergency Response Office (Sven Lindstrom, Laura Young)
Enviro Services & Training Center (Sharla Nakashima)
PBR HAWAII (PBR) (Selena Pang)

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SUBJECT: Pūlehunui hazards – clarifying discussion with DOH HEER Office

Handouts: None (referred to Pūlehunui EIS Section 5.6 and Appendix I)

Property History and Proposed Use

- The land was owned by HC&S, used by the State during WWII for the Naval Air Station Pu'unēnē defense site, and then leased to HC&S when the land returned to agriculture.
- PBR provided an overview of proposed land uses as shown in the EIS.

RECs – Military Uses

- ETC: There was a tank site on Pulehunui North. Sean O'Keefe (A&B) wasn't able to confirm if it was removed or not. However the property was cultivated for 30 years with no evidence that the tanks are still there. All other tanks A&B was aware of got investigated and were clean. Therefore contamination risk is low. Potentially the tanks are still buried onsite although it is unlikely, since the tank is designed to come up above ground.
- ETC: There are existing bunkers at Pulehunui South but no big underground structures have been identified (PBR: Archaeologist noted 1 underground structure and the engineering team is aware of it. Not sure of the size. **PBR to follow up with 'Āina/ATA.)** DOH notes Hilo military facilities may have large underground facilities.
- Murray Air washed spray planes at the armory, and wash water ran into the nearby drainage ditch. **ETC to ask HC&S if the ditch drained into Pūlehunui North.**
- Feature K: Reference from a previous AIS. **PBR to get copy from archaeologist; ETC to review/send to USACE.** Fencing as interim management to ensure safety. To clear it, may want to scan it for ordnance (UXO contractor) and take soil samples for ordnance related residue.
- **ETC to follow up and consult with Lori Wong at USACE to determine if the property is a MMRP (Military Munitions Response Program) area**

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RECs – Plantation Uses

- Mill mud (from washing cane) was sampled and generally clean (suggesting field spraying wasn't excessive)

RECs – Landfill

- The road predated the landfill but was subsequently expanded, therefore the ROW is closer to the landfill now than in the past. (Same for many of the region's former storage tanks.) One geotechnical boring in the vicinity of the landfill (in highway ROW) didn't indicate the landfill is in the ROW. A recommendation could be to monitor it when the contractor goes through.
- DOH notes possible asbestos concern
- Generally it seems to be household waste from the military era
- **PBR to check if ATA can run wastewater line above the ground (over landfill).**

Land Use

- DOH's position is that if people are living on the land it should be considered residential from a health standpoint.
- DHHL may opt to test the areas that will be used for general agriculture. (There is no HEER Office concern/authority for that.)

Sampling and Analysis Plan, Management Options

- One option is a random sampling of 59 1-acre lots
- **ETC to look over the HEER Office Technical Guidance Manual, to see what might apply for Pūlehunui.**
- Pūlehunui North will go on hold pending RFP and site plan.
- Landfill area may require a CHMP (Community Hazard Mitigation Plan) and possibly awareness training for workers.
- HUD funding relates to UXO at Waikoloa MA (funding restrictions)

This is our understanding of the topics discussed and the conclusions reached. Please give PBR HAWAII written notification of any errors or omissions within seven calendar days. Otherwise, this report will be deemed an accurate record and directive.