

STATEMENT OF QUALIFICATIONS



COUNTY OF HAWAII HOUSING AND COMMUNITY DEVELOPMENT

NOTICE TO PROVIDERS OF PROFESSIONAL SERVICES

FISCAL YEAR 2023—2024

(July 1, 2023 - June 20, 2024)

OH.4) COMMUNITY PLANNING (ENVIRONMENTAL ASSESSMENT)



98-030 Hekaha Street, Unit 9, Aiea, Hawaii 96701

tel: (808) 488-1200 fax: (808) 488-1300

www.e2hi.com



element environmental llc
environmental · engineering · water resources

"This proposal includes confidential material that shall not be disclosed outside of the Government and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal."



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June 30, 2023

Ms. Susan Kunz, Administrator
Housing and Community Development
County of Hawaii
1990 Kino'ole Street, Suite 102
Hilo, Hawaii 96720
Email: ohcd@hawaiicounty.gov

Subject: **Element Environmental, LLC's Statement of Qualifications in Response to the Housing and Community Development, County of Hawaii's Notice to Providers of Professional Services, Fiscal Year 2023-24**

Dear Ms. Kunz,

Element Environmental, LLC (E2) is pleased to submit our Statement of Qualifications (SOQ) to the County of Hawaii, Housing and Community Development per the "Notice to Providers of Professional Services" solicitation notice for the fiscal year 2023 to 2024.

This serves as our **expression of interest** to provide services for **OH.4) Community Planning (Environmental Assessment)**. In accordance with the notice, we have enclosed our completed Federal Form 330 (SFR330) which includes the following:

- (1) The name of our firm, contact information, and principal place of business;
- (2) The age of our firm and its average number of employees over the past five years;
- (3) The education, training, and qualifications of our key employees;
- (4) A list of recent projects and the names of five clients who may be contacted, including two for whom services were rendered during the preceding year; and
- (5) Promotional/descriptive literature.

Please call me on my cellular phone number (808) 864-3952 or email ryamauchi@e2hi.com should you have any questions regarding this submittal.

Sincerely,

Ryan S.W. Yamauchi, P.E.
President

PROFESSIONAL SERVICES QUALIFICATIONS

PART I - SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. PUBLIC NOTICE DATE
June 1, 2023

2. PROJECT CATEGORY
OH.4) Community Planning (Environmental Assessment)

B. POINT OF CONTACT

3. NAME AND TITLE

Ryan S.W. Yamauchi, P.E., President

4. NAME OF FIRM

Element Environmental, LLC

5. TELEPHONE NUMBER

(808) 488-1200

6. FAX NUMBER

(808) 488-1300

7. E-MAIL ADDRESS

ryamauchi@e2hi.com

C. PROPOSED TEAM

(THIS SECTION MUST BE COMPLETED FOR PROJECT CATEGORIES)

	(Check)			8. FIRM NAME	9. ADDRESS	10. ROLE IN THIS CONTRACT
	PRIME	J-V PARTNER	SUBCON-TRACTOR			
a.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Element Environmental, LLC <input type="checkbox"/> CHECK IF BRANCH OFFICE	98-030 Hekaha Street Unit 9, Aiea, Hawaii 96701	Prime Contractor OH.4) Community Planning (Environmental Assessment)
b.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> CHECK IF BRANCH OFFICE		
c.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> CHECK IF BRANCH OFFICE		
d.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

(Attachment 1)

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Ryan S.W. Yamauchi, P.E.	12. TITLE SERVICE PROVIDED Principal Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 31	b. WITH CURRENT FIRM 18

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) Mstr., Civil/Environmental Engineering, UC Berkeley B.S., Civil Engineering, University of Hawaii at Manoa	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> Professional Engineer, Hawaii - Civil No. 9566 Certified Asbestos Inspector, HIASB-2905 Certified Lead Risk Assessor/Inspector, PB-0117
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

<ul style="list-style-type: none"> OSHA Initial HAZWOPER Training, 40-HR OSHA Refresher Training, 8-HR OSHA Construction Safety and Health Training, 30-HR 	<ul style="list-style-type: none"> Construction Safety Hazard Awareness Training for Contractors, 40-HR Hazardous Waste Site Supervisor Training Bloodborne Pathogens, First Aid, CPR, and AED Training
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18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Kaneohe Bay No. 2 Wastewater Pump Station Force Main Improvements, Kaneohe, Oahu, Hawaii	2017	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Design alternatives analysis for the replacement of the existing 14-inch force main. Alternatives analyzed included horizontal directional drilling, pilot tube microtunneling, and open-cut trenching the new alignment across an existing waterway. Completed design drawings and specifications for the selected alternative, horizontal directional drilling. Prepared the Engineering Design Alternatives Report, completed design calculations for the pumps and force main design, prepared design drawings and specifications, and other necessary permit documents. Fee: \$520,000. Role: Project Manager/Principal Engineer.		
b.	Reconstruction/Replacement of Sewers, Ho'omaluhia Botanical Gardens, Kaneohe, Oahu, Hawaii	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed planning, design, and preparation of construction documents for the reconstruction/replacement of existing sewer lines. Phase I included the cleaning and inspection of CCTV in accordance with the Pipeline Assessment Certification Program. Phase II assessed the sewer line deficiencies from the CCTV data, developed rehabilitation/replacement alternatives for the system, prepared schematic and concept drawings for the recommended alternatives, and prepared a cost estimate for the recommended improvements. E2 is preparing construction documents for phase III. Fee: \$165,350. Role: Project Manager/Principal Engineer.		
c.	Large Capacity Cesspool Closures Hickam Field, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii	2015	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed an engineering design for five facilities' active cesspools. Three of the cesspool facilities were replaced with a septic tank, pump station, and raised leach field. Two of the cesspools were replaced with pump stations that pump wastewater to the existing wastewater collection system. Evaluated present and future wastewater flows, sizing and selecting new septic tanks, pump stations, and leach fields, and completed construction documents. Fee: \$362,372. Role: Project Manager/Principal Engineer.		
d.	Waimanalo Wastewater Treatment Plant Effluent Reuse Feasibility Study, Waimanalo, Oahu, Hawaii	2014	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted a study to assess the technical, environmental, and economic feasibility of wastewater effluent reuse from the Waimanalo Wastewater Treatment Plant. Responsible for the identification of potential users and locations, including the reuse demand, and transmission and storage requirements. Tasks included public outreach, data collection, research of prior studies, and evaluation of costs. Prepared a conceptual layout and cost estimate for the preferred WWTP upgrades and transmission and storage requirements for users with strong interest in reuse. Fee: \$219,345. Role: Project Manager/Principal Engineer.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Roger C. Aoki, P.E.	12. TITLE SERVICE PROVIDED Senior Environmental Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 27	b. WITH CURRENT FIRM 17

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) Mstr., Civil Environmental Engineering, Purdue University B.S., Civil Engineering, University of Hawaii at Manoa	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> Professional Engineer, Hawaii – Civil No. 10019 Certified Asbestos Inspector, HIASB-2902 Certified Lead Inspector, PB-0118
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
<ul style="list-style-type: none"> OSHA Initial HAZWOPER Training, 40-HR OSHA Refresher Training, 8-HR OSHA Construction Safety and Health Training, 30-HR 40-hour Construction Safety Hazard Awareness Training for Contractors Hazardous Waste Site Supervisor Training Bloodborne Pathogens, First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Site Investigation, Abandoned AVGAS/MOGAS Pipeline, Pearl City Peninsula, JBPHH, Oahu, Hawaii	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted a Site Investigation for the abandoned aviation gasoline (AVGAS) and motor gasoline (MOGAS) pipeline running from the former Pearl City Fuel Annex to the waterfront fueling and cargo wharves on Pearl City Peninsula within JBPHH. Delineated and characterized the nature and extent of contamination in the soil, groundwater, and soil gas caused by historic releases of AVGAS/MOGAS, conducted an environmental hazard evaluation, and to provide a basis for developing effective remedial measures and response actions for the area. Fee: \$375,000. Role: Project Manager/Senior Environmental Engineer.		
b.	Stormwater Drainage System Survey, JBPHH, and Outlying Areas, Oahu, Hawaii	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Created an integrated, scaled, and detailed storm drainage map and database. The maps and results of the survey were used to determine areas in need of repair or cleaning. Conducted a survey and condition assessment of all storm drain features, and in specified situations, sediment sampling and analysis, to create a detailed base-wide storm drainage map and database. Fee: \$1,799,119. Role: Project Manager/Senior Environmental Engineer.		
c.	Pier 29 Container Yard Improvements, Honolulu Harbor, Honolulu, Oahu, Hawaii	2012	2012
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Prepared design specifications for the handling of contaminated soil and groundwater to be encountered during the construction. The improvements include a new pavement structure to accommodate a new container yard. E2 prepared design specifications to address air monitoring during construction and the removal of abandoned fuel pipelines encountered. E2 participated in coordination meetings with the Harbors Division and the IDPP. E2 also addressed comments by HDOH who reviewed the construction documents. Fee: \$30,340. Role: Senior Environmental Engineer. *COMMENDATION LETTER - EXCELLENT PERFORMANCE*		
e.	Kalewa Wastewater Pump Station Improvements Design Honolulu, Oahu, Hawaii	2018	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed an engineering design of a new packaged wastewater pump station and new dual relief force main for the Kalewa Street wastewater pump station. Evaluated present and future wastewater flows from the tributary, sizing and selecting the new packaged pump station, and completed construction documents for the new packaged wastewater pump station and new dual relief force main. Integral to the design was planning the phasing of construction, which would allow continued and uninterrupted use of the airport facilities by the tenants during construction. Fee: \$52,000. Role: Senior Environmental Engineer.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Matthew J. Neal	12. TITLE SERVICE PROVIDED Senior Environmental Scientist	13. TITLE SERVICE PROVIDED	
		a. TOTAL 25	b. WITH CURRENT FIRM 17

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Environmental Science/Geology, Willamette University	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
- OSHA Initial HAZWOPER Training, 40-HR
 - OSHA Refresher Training, 8-HR
 - OSHA Construction Safety and Health Training, 30-HR
 - Construction Safety Hazard Awareness Training for Contractors, 40-HR
 - Hazardous Waste Site Supervisor Training
 - Maritime Security Awareness Training (MARSEC)
 - Bloodborne Pathogens, First Aid, CPR and AED Training

18. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Dredged Material Evaluation for Dredging of the Ala Wai Canal, Honolulu, Oahu, Hawaii	2017	-
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>a. Conducted a dredged material evaluation of sediments proposed for maintenance dredging from the Ala Wai Canal. The project involved performing the following tasks: 1) preparation of a Work Plan/Sampling and Analysis Plan that was submitted to and approved by U.S. EPA Region 9; 2) collection and analysis of sediment samples from the canal for chemistry and bioassay testing for ocean disposal of sediments; and 3) preparation of a Sampling and Analysis Report that was submitted to and approved by U.S. EPA Region 9. Fee: \$443,257. Role: Senior Environmental Scientist/Health and Safety Manager.</p>		
Site Investigation, Former Molokai Electric Company Power Generating Station, Kaunakakai, Molokai, Hawaii	2016-2018	-
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>b. Conducted a Site Investigation (SI) of the former Molokai Electric Company (MOECO) site in downtown Kaunakakai. The SI included a comprehensive study of residual near and subsurface contamination from previous MOECO activities, primarily from chemicals of concern polychlorinated biphenyls (PCBs) and petroleum and heavy metals. E2 collected over 700 discrete soil samples as well as 88 <i>MULTI INCREMENT</i>® soil samples, soil-gas, concrete and groundwater samples. In addition, E2 conducted a synoptic water level study to help determine potential migration of subsurface contaminants. Prior to completion of the field portion of the project, E2 completed two Special Management Area (SMA) permit applications for the County of Maui for the project. The results of the SI will be used to determine the most appropriate remedial action for the site. Responsibilities included Project Management, completion of the SMA permits, field oversight and coordination, drafting of the WP/SAP and a final report. Fee: \$830,974. Role: Project Manager/Senior Environmental Scientist/Health and Safety Manager.</p>		
Pearl Harbor Naval Shipyard Intermediate Maintenance Facility Storm Drain Remedial Investigation, JBPHH, Oahu, Hawaii	2017	-
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>c. E2 completed a Remedial Investigation (RI) to assess the nature and extent of contamination associated with the storm drain lines identified in the previous Site Inspection (SI). The project required collection of data of sufficient amount and quality to evaluate the nature and extent of contamination associated with each area of concern at the site identified through the SI, and the degree of risk/hazard any releases may potentially pose to human health and the environment. The field work included soil, groundwater, and soil gas sampling and analysis. A tier 1 human health risk assessment (HHRA), tier 1 ecological risk screening (limited to contaminants of potential concern in groundwater), and tier 2 HHRA were also completed. Fee: \$670,777. Role: Project Manager, Senior Environmental Scientist.</p>		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Arlene H. Campbell, L.G.		12. TITLE SERVICE PROVIDED Senior Geologist		13. TITLE SERVICE PROVIDED	
				a. TOTAL 34	a. TOTAL 17
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii					
15. EDUCATION (DEGREE AND SPECIALIZATION) Graduate Work, Vanderbilt University B.A., Geology, Minor Hydrology, Austin Peay University			16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Licensed Geologist, Washington - No. 1664		
17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • OSHA Construction Safety and Health Training, 30-HR 		<ul style="list-style-type: none"> • Hazardous Waste Site Supervisor Training • Maritime Security Awareness Training (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 			

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Phase I and II Environmental Site Assessments, Environmental Hazard Evaluation, and Environmental Hazard Management Plan, Whitmore Village Property, Wahiawa, Oahu, Hawaii	2015	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE E2 completed a Phase II ESA as part of the due diligence process for a transfer of property ownership. Based on E2's preliminary document review, historic research, interviews with current and former owner employees, and limited site reconnaissance, contaminants of potential concern (COPC) were identified. Conducted <i>MULTI INCREMENT</i> [®] and discrete sampling from shallow and subsurface soil and dry sediment. Prepared an Environmental Hazard Evaluation/Environmental Hazard Management Plan (EHE/EHMP) to address contamination remaining in place at the site. Fee: \$90,000. Role: Project Manager/Senior Geologist.		<input checked="" type="checkbox"/> Check if project performed with current firm
b.	Environmental Site Assessments, Kapalama Container Terminal Yard Project, Honolulu Harbor, Oahu, Hawaii	2015	Estimated 2024
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Characterized the site to provide consistent and effective management practices and to mitigate potential human health and environmental hazards associated with direct exposure to contaminants of potential concern in soil, groundwater, concrete, sediment, and soil gas during proposed construction/dredging activities required for the redevelopment of the site as a container terminal yard. Identified historic land use, reviewed previous construction and environmental work, project design and planning, environmental sampling, data management and evaluation, and report preparation. Fee: \$500,000. Role: Senior Geologist. *2023 ACECH ENGINEERING EXCELLENCE AWARD*		<input checked="" type="checkbox"/> Check if project performed with current firm
c.	Environmental Conditions of Property, Various Sites, Guam	2022	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Gathered and analyzed data and information to classify the property into several ECP types. Reviewed historical records, identified historic land use associated with hazardous materials and wastes, and reviewed regulatory files, environmental reports, and permits, conducted a visual site inspection, oversaw data management and evaluation, report prepared. Fee: \$256,062. Role: Project Manager/Senior Geologist.		<input checked="" type="checkbox"/> Check if project performed with current firm
d.	Preparation of Applications for WQC 401 and 404, Kalaeloa Barbers Point Harbor, Oahu, Hawaii	2012	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Prepared the Section 401 WQC application that described the project, existing environment, and potential environmental effects, chemical and biological, from proposed activities and included information regarding the owner, general contractor, project site, and receiving state water. Fee: \$23,822. Role: Project Manager/Senior Geologist.		<input checked="" type="checkbox"/> Check if project performed with current firm

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Steven R. Spengler, Ph.D.	12. TITLE SERVICE PROVIDED Senior Hydrogeologist	13. TITLE SERVICE PROVIDED	
		a. TOTAL 35	b. WITH CURRENT FIRM 17
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii			
15. EDUCATION (DEGREE AND SPECIALIZATION) Ph.D., Hydrogeology, and Mstr., Geology, University of Hawaii at Manoa B.S., Geochemistry, UC Santa Cruz B.S. Chemistry, UC Riverside		16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • OSHA Construction Safety and Health Training, 30-HR • Construction Safety Hazard Awareness Training for Contractors, 40-HR • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 			

18. RELEVANT PROJECTS

	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
<p>(1) TITLE AND LOCATION (City and State) Hydrogeologic Study to Detect Impact of MILCON P-184 Reject Water, Diego Garcia, British Indian Ocean Territory</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 conducted a hydrogeologic study to evaluate the potential impacts to the water supply aquifer in the Cantonment Area on Diego Garcia resulting from the disposal of reject water created by the recently constructed nanofiltration water treatment plant. A temporary injection well was installed roughly 100 feet south of the nanofiltration plant recharge field. A network of 35 nested piezometers was installed in the vicinity of the temporary injection point and a nine-hour duration injection test was conducted using brackish water spiked with a bromide tracer. The monitoring data collected during this injection test along with a pump test conducted on a nearby water supply well was used to calibrate 2D/3D density dependent groundwater models (SEAWAT) that were used to evaluate the potential for the injected concentrate from the nanofiltration plant to impact the water quality in the nearby water supply wells located inland of the recharge field within the Cantonment Area. Fee: \$476,304. Role: Project Manager/Senior Hydrogeologist.</p>	2016	-
<p>(1) TITLE AND LOCATION (City and State) Kanaha Pond Wildlife Sanctuary Hydrogeologic Study, Kahului, Maui, Hawaii</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 conducted a 10-month long hydrogeological investigation to quantify the seasonal relationships between the various inputs and outputs to the ponds in the refuge. Monitoring included installation of nested piezometers, a meteorological station, tidal gauging stations, and automated rainfall gauges, and the collection of sediment cores. Fee: \$92,000. Role: Senior Hydrogeologist.</p>	2010	-
<p>(1) TITLE AND LOCATION (City and State) Proposed Seawater Desalination Facility Project, Kalaeloa, Oahu, Hawaii</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Principal investigator for a large-scale pump test conducted on a 1,600-foot deep basaltic well located in Kalaeloa proposed for use in a desalination project for the Honolulu Board of Water Supply. The deep well was pumped for three consecutive days at pump rates of between 520 to 540 gallons per minute and the pumped water was injected into a nearby injection well that was screened 300 feet into the underlying caprock aquifer. Water quality measurements were made throughout the duration of the pump test for temperature, conductivity, turbidity, pH, oxygen reducing potential, dissolved oxygen, and silt density index. The drawdown and tidal efficiency of the basaltic well was determined by installing a CDT probe in the pumping well while the efficiency of the caprock injection well was determined using a pressure transducer. A total of six water samples were collected during the duration of the pump test and submitted for analysis for all drinking water constituents including those listed in Appendix A of HAR Chapter 11-20 as well as secondary standards defined by the US Environmental Protection Agency. Role: Senior Hydrogeologist.</p>	2018	-

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Eric M. Lau, P.E.	12. TITLE SERVICE PROVIDED Senior Environmental Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 19	b. WITH CURRENT FIRM 14

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) Mstr., Civil/Environmental Engineering, MIT B.S., Civil/Environmental Engineering, MIT B.S., Biology, MIT	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Professional Engineer, Hawaii – Civil No. 12977 • Certified Asbestos Inspector, HIASB-3198 • Certified Lead Risk Assessor/Inspector, PB-0439
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

- OSHA Initial HAZWOPER Training, 40-HR
- OSHA Refresher Training, 8-HR
- OSHA Construction Safety and Health Training, 30-HR
- Construction Safety Hazard Awareness Training for Contractors, 40-HR
- Hazardous Waste Site Supervisor Training
- Bloodborne Pathogens, First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Non-Domestic Wastewater Management Plan, JBPHH, Oahu, Hawaii	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 evaluated NAVFAC Hawaii's 8,000+ facilities to identify, characterize, and quantify non-domestic wastewater discharges to the sanitary sewer system tributary to the NAVFAC Hawaii Wastewater Treatment Plant (WWTP). Coordinated site visits to and conducted interviews with facility managers of over 750 facilities. The inventory of non-domestic wastewater sources collected in this study will be used to determine additional non-domestic discharges that should be internally permitted and regulated. The project also includes quarterly wastewater sampling efforts to collect both grab and 24-hour composite samples from WWTP influent locations on the Hickam Field flight line and Pearl Harbor, as well as effluent samples from the WWTP. Fee: \$1,154,918. Role: Assistant Project Manager/Senior Environmental Engineer.		
b.	Navy Spill Prevention Control and Countermeasure Plan Update, JBPHH, Oahu, Hawaii	Annually	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed annual SPCC site inspections in accordance with oil pollution prevention guidelines (40 CFR 112) for 170 regulating Above Storage Tanks (ASTs) storing petroleum and oil. Conducted inspections of over 174 ASTs and bulk oil storage areas at NAVFAC Hawaii facilities. Updated the inventory, management, and evaluation of the condition of Navy ASTs. E2 has generated annual SPCC Inspection Reports based on inventory findings in 2013, and 2015-current. Fee: \$143,381. Role: Senior Environmental Engineer.		
c.	Waianae Agricultural Park Improvements, Waianae, Oahu, Hawaii	2017	2018
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed the design of miscellaneous improvements to the drainage system at the Waianae Agricultural Park. The improvements included slope stabilization of drainage ways, diversion of runoff into an infiltration basin, design of overflow protection drainage intakes for the infiltration basin, and repairs to existing concrete drainage swales. Responsible for preparation of construction documents (i.e., plans and specifications) and services during bidding and construction. The construction plans were completed on an accelerated schedule to meet the funding requirements for construction. Fee: \$60,000. Role: Senior Environmental Engineer.		
d.	Reservoirs 155 and 255 Capacity Study, Kunia, Oahu, Hawaii	2010	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted a study concerning the repair, maintenance, and capacity options for Reservoirs 155 and 225 of the Waiahole Ditch Irrigation System for the Agribusiness Development Corporation. Fee: \$30,000. Role: Senior Environmental Engineer.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Bernice M. Balete, P.E.	12. TITLE SERVICE PROVIDED Senior Environmental Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 29	b. WITH CURRENT FIRM 13

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Civil Engineering, University of Hawaii at Manoa	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Professional Engineer, Hawaii – Civil No. 10186 • Certified Asbestos Project Designer/Inspector, HIASB-0499 • Certified Lead Risk Assessor/Project Designer, PB-0449
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • OSHA Construction Safety and Health Training, 30-HR • Construction Safety Hazard Awareness Training for Contractors, 40-HR 	<ul style="list-style-type: none"> • Maritime Security Awareness Training (MARSEC) • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training
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18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	BWS Kawela 228 Reservoir, Kapolei 215 Reservoir, and Wahiawa 1361 Reservoirs No. 1 & 2 Facility Repair and Repainting, Oahu, Hawaii	2017	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Conducted asbestos and lead paint surveys at the Kailua Heights and Waimanalo Booster Pump Stations, prepared letter reports documenting sampling and results, prepared specifications for addressing the handling and disposal of hazardous materials during demolition/construction. E2 also prepared NPDES Permit Applications for the Kapolei and Kawela Reservoirs project sites. Fee: \$28,570. Role: Field Engineer/Project Manager.		<input checked="" type="checkbox"/> Check if project performed with current firm
b.	Environmental Site Assessments, Kapalama Container Yard, Honolulu Harbor, Oahu, Hawaii	2014	Estimated 2024
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Completed a Phase II Environmental Site Assessment (ESA) of the proposed Kapalama Container Yard site to determine the environmental history and condition of the proposed project site. Completed document reviews and site assessments and prepared a Work Plan for the Phase II ESA. Soil, sediment, groundwater, concrete, and soil gas sampling was completed. Additional sampling of the University of Hawaii Marine Center buildings for hazardous building materials including asbestos and lead paint was also completed. The results of the sampling are presented in an Environmental Hazard Evaluation (EHE) report. Contamination issues that may affect the construction of the container yard are being addressed in an Environmental Hazard Management Plan (EHMP) that was prepared by E2. All work was coordinated, reviewed, and approved by HDOH. Fee: \$500,000. Role: Senior Environmental Engineer. *2023 ACECH ENGINEERING EXCELLENCE AWARD*		<input checked="" type="checkbox"/> Check if project performed with current firm
d.	Integrated Solid Waste Management Plan, JBPHH, Oahu, Hawaii	2014	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Prepared an Integrated Solid Waste Management Plan (ISWMP) to accomplish the following: define and document the installation’s current ISWMP; establish goals for improving solid waste management; identify specific actions required to achieve the plan goals; promote compliance with applicable Federal, DOD, and local solid waste management regulations and policies; and evaluate alternative designs for future solid waste management. Responsibilities included field work (including waste stream assessment), data collection and evaluation, and ISWMP preparation. Fee: \$557,999. Role: Assistant Project Manager/Senior Environmental Engineer.		<input checked="" type="checkbox"/> Check if project performed with current firm

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Marvin D. Heskett, III	12. TITLE SERVICE PROVIDED Senior Chemist	13. TITLE SERVICE PROVIDED	
		a. TOTAL 33	b. WITH CURRENT FIRM 9

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Biochemistry, California Polytechnic University at San Luis Obispo	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-4631 • Certified Lead Risk Assessor/Inspector, PB-1150
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)	
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • OSHA Construction Safety and Health Training, 30-HR • Construction Safety Hazard Awareness Training for Contractors, 40-HR • Hazardous Waste Site Supervisor Training 	<ul style="list-style-type: none"> • Sampling for Defensible Environmental Decisions, Basic and Advanced • Shipley Group NEPA Training • Advanced Systems QA/QC 40-hour Course • E3 Data Quality Objective • Maritime Security Awareness Training (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Preconstruction Activities for the Applicable Monitoring and Assessment Plan for the Honolulu Rail Transit Project, Waiawa Tributary and Waiawa Stream WQC0789, Pearl City, Oahu, Hawaii	2019	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed preconstruction monitoring in compliance with an AMAP for construction within the U.S. waterway of Waiawa Stream, prior to the construction of a concrete pier within the high-water mark. This is the first of three phases of stream monitoring to ensure construction does not impact stream water quality. Fee: \$494,104. Role: Senior Chemist.		
b.	Navy Stormwater National Pollutant Discharge Elimination System, Compliance Sampling, Commander Navy Region Hawaii, JBPHH, Oahu, Hawaii	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed NPDES stormwater sampling for CRNH. E2 created supporting documents including a Quality assurance plan, health and safety plan, stormwater monitoring plan and a stormwater monitoring workbook, collection of surface flow samples during the initial first flush of stormwater during a representative storm event from 32 separate monitoring points throughout U.S. Navy facilities on Oahu, and analysis of the stormwater samples for contaminants. Sample collection is accomplished through setup and use of automated samplers and portable samplers and telemetry. Individual storm event reports are generated as well as an end of year annual monitoring report. E2 conducted a site visit and stormwater collection point measurements, field setup and sampling, creation of stormwater inlet collection systems, including stainless steel fabrications, QA Review of Stormwater Reports, and generation of a yearend annual report. Fee: \$426,480 (annually). Role: Senior Chemist.		
c.	Water Quality Monitoring, Rip-Rap Repair and Floating Dock, USCG Station Nawiliwili Small Boat Harbor, Lihue, Kauai, Hawaii	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed an AMAP to monitor impacts on harbor water quality from a U.S. Coast Guard in-water construction project. E2 created a work plan, established baseline conditions by monitoring water quality parameters before construction, monitored water quality from a vessel in and around the construction project, assessed the final water quality post construction, and generated a final report. Fee: \$60,000. Role: Assistant Project Manager/Senior Chemist.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Candace K. Yamauchi, P.E.	12. TITLE SERVICE PROVIDED Senior Environmental Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 18	b. WITH CURRENT FIRM 12

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Earth and Environmental Engineering, Columbia University	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> Professional Engineer, Hawaii – Civil No. 16320 Certified Asbestos Inspector, HIASB-3840 Certified Lead Risk Assessor/Inspector, PB-1135
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

- OSHA Initial HAZWOPER Training, 40-HR
- OSHA Refresher Training, 8-HR
- OSHA Construction Safety and Health Training, 30-HR
- Construction Safety Hazard Awareness Training for Contractors, 40-HR
- Qualified Stormwater Compliance Manager
- Hazardous Waste Site Supervisor Training
- Bloodborne Pathogens, First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Illicit Discharge Survey, Commander Navy Region Hawaii, JBPHH, Oahu, Hawaii	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed an illicit discharge survey for non-stormwater discharges to the CNRH’s municipal separate storm sewer system (MS4) and waters of the U.S. in accordance with the NPDES permit issued. Inspected over 1,300 facilities, developed recommendations for possible corrections, and prepared the associated preliminary cost estimates. Fee: \$393,019. Role: Senior Environmental Engineer.		
b.	Waianae Agricultural Park Improvements, Waianae, Oahu, Hawaii	2017	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed the design of miscellaneous improvements to the drainage system at the Waianae Agricultural Park. The improvements included slope stabilization of drainage ways, diversion of runoff into an infiltration basin, design of overflow protection drainage intakes for the infiltration basin, and repairs to existing concrete drainage swales. Responsible for preparation of construction documents (i.e., plans and specifications) and services during bidding and construction. The construction plans were completed on an accelerated schedule to meet the funding requirements for construction. Fee: \$60,000. Role: Senior Environmental Engineer.		
c.	Waimanalo Wastewater Treatment Plant Effluent Reuse Feasibility Study, Waimanalo, Oahu, Hawaii	2014	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted a study to assess the technical, environmental, and economic feasibility of wastewater effluent reuse from the Waimanalo Wastewater Treatment Plant. Responsible for the identification of potential users and locations, including the reuse demand, and transmission and storage requirements. Tasks included public outreach, data collection, research of prior studies, and evaluation of costs. Prepared a conceptual layout and cost estimate for the preferred WWTP upgrades and transmission and storage requirements for users with strong interest in reuse. Fee: \$219,345. Role: Senior Environmental Engineer.		
d.	Storm Water Management Plan, Commander Navy Region Hawaii, JBPHH, Oahu, Hawaii	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Prepared the Stormwater Management Plan for the Navy in accordance with their NPDES permit. Fee: \$291,000. Role: Senior Environmental Engineer.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Lindsay B. Mason, P.E.	12. TITLE SERVICE PROVIDED Senior Environmental Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 21	b. WITH CURRENT FIRM 14

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Environmental Engineering, Michigan Technological University	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer, MI - No. 6201059411
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
- OSHA Initial HAZWOPER Training, 40-HR
 - OSHA Refresher Training, 8-HR
 - RCRA S30 Certification-Hazardous/Toxic Materials Management
 - Hazardous Waste Site Supervisor Training
 - DOT HM-181 Hazardous Materials Training
 - Bloodborne Pathogens, First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Master Plan for Marine Corps Base Hawaii Sanitary Landfill, Kaneohe, Oahu, Hawaii	2017	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Prepared the Master Plan for the Marine Corps Base (MCB) Hawaii Landfill to fulfill the requirements of their Solid Waste Management Permit. The Master Plan is comprised of three parts: the Landfill Implementation Plan (LIP), the Operations Plan, and the Closure/Post-Closure Plan. The LIP involves evaluating the Final Grading Plan and making revisions as needed, providing a 20-year fill sequencing plan, and Basis of Design (BOD). The Operations Plan has been written to help facilitate the MCB Hawaii Landfill staff to comply with the Landfill's current permit and to operate efficiently. The Closure/Post-Closure Plans details landfill closure procedures in accordance with State and Federal regulations. Fee: \$143,975. Role: Senior Environmental Engineer.		
b.	Landfill Optimization Study for Marine Corps Base Hawaii, Kaneohe, Oahu, Hawaii	2017	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 prepared a Landfill Optimization Study (LOS) for the Marine Corps Base (MCB) Hawaii to evaluate their MCB Hawaii Sanitary Landfill. The purpose of the LOS was to: (1) evaluate landfill operations, equipment requirements, and personnel and to make recommendations as to how the overall operations of the landfill can be optimized; (2) conduct a waste evaluation study to evaluate and optimize waste pickups on base and (3) conduct an alternatives assessment that evaluated keeping the landfill open and operating as is, keeping the landfill open and implementing the LOS recommendations, and closure of the landfill. A detailed cost analysis was conducted for each of the alternatives and E2 provided recommendations to the MCB Hawaii based on the findings of the study. Fee: \$149,025. Role: Assistant Project Manager/Senior Environmental Engineer.		
d.	Landfill Consulting Services for Two Closed Landfills Island of Hawaii, Hawaii	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 provided various consulting services at two closed landfills, including performing a geophysical survey, infra-red photography, and mapping to determine landfill boundaries and fire characterization, and preparing a landfill fire management plan. Prepared a landfill alternative plan to evaluate fire control/extinction, waste mining, and other alternatives. Assisted with an U.S. Environmental Protection Agency (EPA)-supported fire control pilot test to evaluate the efficacy of using waste excavation and the application of foam/water as a method to extinguish fire in landfill hot spots. Tasks included quarterly monitoring of landfill gas and subsurface fire conditions, preparation of quarterly and annual monitoring reports, and periodic fire management activities (i.e., carbon dioxide [CO2] injection, landfill cover maintenance, and landfill fire response, etc.). Fee: \$389,000. Role: Senior Environmental Engineer.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Angela K. Peltier	12. TITLE SERVICE PROVIDED Geologist	13. TITLE SERVICE PROVIDED	
		a. TOTAL 19	b. WITH CURRENT FIRM 17

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Geology and Geophysics, University of Hawaii at Manoa	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

- OSHA Initial HAZWOPER Training, 40-HR
- OSHA Refresher Training, 8-HR
- ASTM E1527 Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process Certification
- First Aid, and CPR Training

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Phase I Environmental Site Assessment, Mauna Kapu Station, Waianae Mountain Range, Waianae, Oahu, Hawaii	2021	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed a Phase I Environmental Site Assessment (ESA) for the 1.113-acre Mauna Kapu Station located near the southern ridgeline of the Waianae Mountain Range. Performed in general conformance with ASTM E1527-21, Standard Practice for ESAs. Researched the current and historical site uses and completed a visual site inspection to assess if current or historical property uses have impacted the soil or groundwater beneath the property that could pose a threat to human health and/or the environment. Several potential sources of soil and groundwater contamination associated with historical sites were identified. Fee: \$41,239. Role: Geologist.		
b.	Phase I Environmental Site Assessment, Waiawa, Oahu, Hawaii	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed a Phase I ESA as part of due diligence to support the acquisition of easements on non-Department of Defense (DoD) land, required for replacement of the U.S. Navy's Waiawa Water Transmission Main. Reviewed literature and agency records and previous landowners, interviewed individuals who might have knowledge of current or past operations, and conducted a visual site inspection of each property. Identified and researched over 99 subject and adjacent property parcels, generated site drawings on AutoCAD, researched and requested information regarding current and historic land use and ownership, identified and request regulatory files, environmental reports, and permits, interviewed property owners and government agency representatives, data management and evaluation, and report preparation. Fee: \$105,181. Role: Geologist.		
c.	Environmental Hazard Evaluation/Environmental Hazard Management Plans, Naval Magazine Lualualei UST Tank NM-34, JBPHH, Oahu, Hawaii	2020	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed an EHE and EHMP to identify and evaluate potential hazards to human health and sensitive ecological receptors posed by subsurface petroleum contamination, impacted groundwater, and soil identified at UST NM-34 site under current and potential future site conditions. The EHE/EHMPs were conducted in general accordance with State of Hawaii Department of Health (HDOH) guidance and included a review of historic land use and environmental investigations conducted at the site; evaluation of the nature, magnitude and, extent of contaminants of potential concern (COPC); evaluation of potential negative impacts on human health and the environment posed by allowing contaminated media to remain in place; and a discussion of impacted media management and disposal of to prevent unmitigated exposure to human and ecological receptors. Identified, requested, and reviewed site specific reports, regulatory files, environmental reports; generated AutoCAD drawings; assisted with identification of COPCs, potential receptors and migration pathways; assisted with the identification of soil and groundwater management practices should exposure to impacted media occur, and prepared report. Fee: \$49,021. Role: Geologist.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Jodie C.A. Tsubone, P.E.	12. TITLE SERVICE PROVIDED Civil Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 11	b. WITH CURRENT FIRM 8

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Civil Engineering, University of Hawaii at Manoa	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> Professional Engineer, Hawaii – Civil No. 17048 Certified Asbestos Inspector, HIASB-4629 Certified Lead Inspector, PB-1151
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)	
<ul style="list-style-type: none"> OSHA Initial HAZWOPER Training, 40-HR OSHA Refresher Training, 8-HR OSHA Construction Safety and Health Training, 30-HR Construction Safety Hazard Awareness Training for Contractors, 40-HR 	<ul style="list-style-type: none"> Erosion and Sediment Control Plan Coordinator (ESCP) Maritime Security Awareness Training (MARSEC) Bloodborne Pathogens, First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Lead in Drinking Water Testing at Priority Areas JBPHH and Naval Computer and Telecommunications Area Master Station Pacific JBPHH and NCTAMS Pacific, Wahiawa, Oahu, Hawaii	2020	-

a. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Check if project performed with current firm
 Conducted drinking water testing for lead as a protective measure at several priority areas and various schools and childcare facilities on Navy Installations. Quick turnaround times were required for sampling, laboratory analysis, and notifications. Initial site investigations were conducted to develop a comprehensive two-step sampling plan, in accordance with updated Navy directives and EPA guidance. Field work involved multiple visits to each facility to prepare and sample over 700 drinking water outlets, conducted during evenings and weekends to minimize the impact on facility operations. Upon completion of the two-step sampling process, corrective actions were immediately developed and provided to the Navy. A Project Summary Report documented the work and findings. **Fee:** \$99,595. **Role:** Assistant Project Manager/Lead Civil Engineer.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Reconstruction/Replacement of Sewers, Ho'omaluhia Botanical Gardens, Kaneohe, Oahu, Hawaii	Ongoing	-

b. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Check if project performed with current firm
 Completed planning, design, and preparation of construction documents for the reconstruction/replacement of existing sewer lines. Phase I included the cleaning and inspection of CCTV in accordance with the Pipeline Assessment Certification Program. Phase II assessed the sewer line deficiencies from the CCTV data, developed rehabilitation/replacement alternatives for the system, prepared schematics, and concept drawings for the recommended alternatives, and prepared a cost estimate for the recommended improvements. E2 is preparing construction documents for phase III. **Fee:** \$165,350. **Role:** Assistant Project Manager/Civil Engineer.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Ozone-Depleting Substances (ODS) Inventory and Management Plan for Naval Air Facility Atsugi (NAFA), Atsugi, Japan	2017	2018

c. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Check if project performed with current firm
 E2 updated the air source inventory to include all ODS containing units regulated or potentially regulated by the Japan Environmental Governing Standard (JEGS) and air emission sources (except ODS) that are regulated by the JEGS. Field work for the project included verification of over 2,400 refrigerant and air emission sources at over 160 facilities. Responsibilities included: preparation of the Work Plan, completion of field inspections, preparation of the updated database inventory, and quality assurance review of the updated Refrigerant Management Plan. **Fee:** \$199,000. **Role:** Civil Engineer.

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Austin A. Lutey, E.I.T.		12. TITLE SERVICE PROVIDED Environmental Engineer		13. TITLE SERVICE PROVIDED	
				a. TOTAL 15	b. WITH CURRENT FIRM 15
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii					
15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Civil and Environmental Engineering, UCLA			16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-3199 • Certified Risk Assessor/Lead Inspector, PB-0440 		
17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)					
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • OSHA Construction Safety and Health Training, 30-HR • Construction Safety Hazard Awareness Training for Contractors, 40-HR • Hazardous Waste Site Supervisor Training • Maritime Security Awareness Training (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 					
18. RELEVANT PROJECTS					
a.	(1) TITLE AND LOCATION (City and State) Closure Activities and Removal of Under and In-Ground Structure at Former JN Chevrolet Location, Haleiwa, Oahu, Hawaii			(2) YEAR COMPLETED	
				PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) -
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE E2 previously completed a Limited Phase II ESA as part of a due diligence to detect any environmental issues for property acquisition in 2017. Areas of concern recommended for additional sampling to evaluate the nature and extent of contamination. Field work included discrete soil sampling and groundwater sampling from the UST excavation. Responsibilities for this project included groundwater sampling. Fee: \$57,1910. Role: Environmental Engineer.			<input checked="" type="checkbox"/> Check if project performed with current firm		
b.	(1) TITLE AND LOCATION (City and State) Asbestos Survey, Naval Base Guam, Guam			(2) YEAR COMPLETED	
				PROFESSIONAL SERVICES 2020	CONSTRUCTION (If applicable) -
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE E2 completed an asbestos survey of 109 buildings with a total survey area of 1,014,904 square feet at NBG for the NAVFAC Pacific. E2 prepared a Work Plan (WP) and Health and Safety Plan (HSP) prior to field work. A total of 7,134 bulk samples were collected by a team of 4 inspectors, over four mobilizations within a year. E2 prepared Draft and Final survey reports that included a summary table of findings, plans with approximate locations of samples taken, extent of most HAs, a closeup and panoramic photo log of samples, and laboratory reports. Responsibilities included preparation of the WP and HSP, coordination of field work, field work, and preparation the Draft and Final Survey Reports. Fee: \$1,065,234. Role: Environmental Engineer.			<input checked="" type="checkbox"/> Check if project performed with current firm		
c.	(1) TITLE AND LOCATION (City and State) Operation and Maintenance and Monitoring for multiple sites, JBPHH, Oahu, Hawaii			(2) YEAR COMPLETED	
				PROFESSIONAL SERVICES 2013-2016	CONSTRUCTION (If applicable) -
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE E2 completed four years of Operation and Maintenance (O&M) of two oily waste collection and treatment facilities within the Pearl Harbor Navy Shipyard. E2 has managed hazardous and oily wastes recovered from two product recovery systems installed at the Building 8 and Oscar 2 Pier former release sites. The Building 8 system includes three Fuel Oil Skimmer System (FOSS) units while the Oscar 2 Pier consists of five FOSS units. E2 conducted weekly, monthly, and quarterly inspections and maintenance to keep both product recovery systems up and running efficiently. E2 completed system repairs, oily product gauging of over 100 wells, fuel profile sampling, NPDES compliance sampling, disposal of recovered product, and system troubleshooting. Fee: \$431,080. Role: Environmental Engineer.			<input checked="" type="checkbox"/> Check if project performed with current firm		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Danny C. Liu	12. TITLE SERVICE PROVIDED Chemical Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 35	b. WITH CURRENT FIRM 8
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii			
15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Chemical Engineering, University of Colorado at Boulder		16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-4653 • Certified Risk Assessor/Lead Inspector, PB-1136 	
17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) <ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 			
18. RELEVANT PROJECTS			
a.	(1) TITLE AND LOCATION (City and State) Construction Engineering and Inspection for Honolulu Rail Transit Project, Honolulu, Oahu, Hawaii	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2020	CONSTRUCTION (If applicable) -
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Mr. Liu served as an Environmental Compliance Monitor for the West Sector of the Honolulu Rail Transit project that spans from Kapolei to Aloha Stadium. Responsible for monitoring the Contractor’s performance of environmental monitoring of the Construction Contract, which includes National Pollutant Discharge Elimination System (NPDES) permit compliance, 401 water quality certification compliance, noise permit compliance, air pollution compliance, and solid and hazardous waste compliance. He conducted weekly inspections of the construction sites to assess compliance with required BMPs, and mitigation measures required under the Final Environmental Impact Statement (EIS) and the Record of Decision (ROD). Fee: \$300,000 (annually). Role: Environmental Compliance Monitor.		
b.	(1) TITLE AND LOCATION (City and State) Illicit Discharge Storm Water Inspections for Commander Navy Region Hawaii, JBPHH, Oahu, Hawaii	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) -
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completing an illicit discharge survey for non-storm water discharges to CNRH municipal separate storm sewer (MS4) and waters of the U.S. in accordance with the NPDES permit issued. The project scope includes inspections of over 1,800 sites at Naval installations throughout the island of Oahu. The inspections are to identify any existing or potential sources of illicit discharges at each facility. To date, the field inspections are near 90% complete and a draft report summarizing the findings is being prepared. Responsibilities include conducting inspections, identifying corrective actions, updating the database for submittal, and preparation of conceptual designs and cost estimates for corrective actions. Fee: \$656,175. Role: Engineer.		
c.	(1) TITLE AND LOCATION (City and State) Asbestos Survey, Commander Fleet Activities Yokosuka, Yokosuka, Japan	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2020	CONSTRUCTION (If applicable) -
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted an asbestos survey of over 100 buildings with a total area of 2,139,464 square feet and constructed between 1914 and 1970 at CFAY, Japan for the NAVFAC Pacific. E2 prepared a Work Plan (WP) and Health and Safety Plan (HSP) prior to field work. Responsibilities include sampling for asbestos and lead, thoroughly documenting all field work activities with notes and photographs, and preparing report summary tables and computer-aided design (CAD) figures. Fee: \$999,976. Role: Asbestos Inspector.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Katie L. Kilway	12. TITLE SERVICE PROVIDED Project Environmental Scientist	13. TITLE SERVICE PROVIDED	
		a. TOTAL 16	b. WITH CURRENT FIRM 13

14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii
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15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Environmental Science, University of Notre Dame	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Certified Asbestos Inspector, HIASB-3284
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)	
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • Construction Safety Hazard Awareness Training for Contractors, 40-HR 	<ul style="list-style-type: none"> • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State) Storm Water Monitoring for Commander Navy Region Hawaii, JBPHH, Oahu, Hawaii	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES 2019	CONSTRUCTION (If applicable) -

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm
<p>a. Conducted stormwater monitoring at over 70 permitted industrial sample locations across the Combined Navy Region Hawaii. Monitoring work was conducted to comply with terms of National Pollutant Discharge Elimination System Permit Number HI S000257 for the Navy’s municipal separate storm sewer system (MS4). Samples were analyzed for a large array of constituents ranging from nutrients and heavy metals to herbicides, pesticides and volatile organic compounds as determined through a Storm Water Pollution Control Process. Automated and manual sample methods were deployed to collect samples from a wide array of sample locations ranging from sheet flow through grassy swales to combined storm drain inlets. To capture flow from a variety of industrial facilities, E2 designed and had various sheet flow sampling devices fabricated. Stainless-steel v-notched weirs were installed in storm drain inlets to isolate flows from each permitted facility. E2 also designed several sheet flow sampling devices which were fabricated out of stainless-steel ranging from flat pans to portable trench drains. High resolution geographic referenced rain data collected from across CNRH helped the Navy to understand the highly variable nature of rainfall in the region and to better predict stormwater compliance measures. Fee: \$448,692. Role: Environmental Scientist.</p>	

(1) TITLE AND LOCATION (City and State) Spill Prevention Control and Countermeasure Plan Update, JBPHH, Oahu, Hawaii	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) -

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm
<p>b. Completed annual SPCC site inspections for the Navy in accordance with oil pollution prevention guidelines (40 CFR 112) for 170 regulating Above Storage Tanks (ASTs) storing petroleum and oil. Project entailed conducting inspections of over 174 ASTs and bulk oil storage areas at NAVFAC Hawaii facilities on Oahu. Worked closely with NAVFAC personnel to update the inventory, management, and evaluation of the condition of Navy ASTs. Fee: \$143,381 annually. Role: Environmental Scientist.</p>	

(1) TITLE AND LOCATION (City and State) Illicit Discharge Storm Water Inspections for Commander Navy Region Hawaii, JBPHH, Oahu, Hawaii	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) -

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm
<p>c. E2 is completing an illicit discharge survey for non-storm water discharges to CNRH municipal separate storm sewer (MS4) and waters of the U.S. in accordance with the NPDES permit issued. The project scope includes inspections of over 1,800 sites at Naval installations throughout the island of Oahu. The inspections are to identify any existing or potential sources of illicit discharges at each facility. To date, the field inspections are near 90% complete and a draft report summarizing the findings is being prepared. Responsibilities include conducting inspections, identifying corrective actions, updating the database for submittal, and preparation of conceptual designs and cost estimates for corrective actions. Fee: \$656,175. Role: Environmental Scientist.</p>	

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Arnold David West	12. TITLE SERVICE PROVIDED Staff Environmental Scientist	13. TITLE SERVICE PROVIDED	
		a. TOTAL 6	b. WITH CURRENT FIRM 6
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii			
15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Applied Physics, Jacksonville University, Florida		16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-4625 • Certified Lead Risk Assessor/Inspector, MI P-08520 	
17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) <ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • Bloodborne Pathogens, First Aid, CPR, and AED Training 			
18. RELEVANT PROJECTS			
a.	(1) TITLE AND LOCATION (City and State) County of Maui Construction & Demolition Landfill Waste Profiling, Maui, Hawaii	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) -
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Prepared and approved waste profiles Construction & Demolition (C &D) at County of Maui Landfills. Fee: \$231,260. Role: Staff Environmental Scientist.		
b.	(1) TITLE AND LOCATION (City and State) Asbestos Survey, Naval Base Guam, Guam	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2020	CONSTRUCTION (If applicable) -
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed an asbestos survey of 109 buildings with a total survey area of 1,014,904 square feet at NBG for the NAVFAC Pacific. E2 prepared a Work Plan (WP) and Health and Safety Plan (HSP) prior to field work. A total of 7,134 bulk samples were collected by a team of 4 inspectors, over four mobilizations within a year. E2 prepared Draft and Final survey reports that included a summary table of findings, plans with approximate locations of samples taken, extent of most HAs, a closeup and panoramic photo log of samples, and laboratory reports. Responsibilities included preparation of the WP and HSP, coordination of field work, field work, and preparation the Draft and Final Survey Reports. Fee: \$1,065,234. Role: Staff Environmental Scientist/Inspector.		
c.	(1) TITLE AND LOCATION (City and State) Asbestos Survey, Commander Fleet Activities Yokosuka, Japan	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2020	CONSTRUCTION (If applicable) -
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted an asbestos survey of over 100 buildings with a total area of 2,139,464 square feet and constructed between 1914 and 1970 at CFAY, Japan for the NAVFAC Pacific. E2 prepared a Work Plan (WP) and Health and Safety Plan (HSP) prior to field work. Responsibilities include sampling for asbestos and lead, thoroughly documenting all field work activities with notes and photographs, and preparing report summary tables and computer-aided design (CAD) figures. Fee: \$999,976. Role: Staff Environmental Scientist/Inspector.		
d.	(1) TITLE AND LOCATION (City and State) Asbestos Survey, U.S. Naval Hospital, Yokosuka, Japan	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2020	CONSTRUCTION (If applicable) -
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted asbestos surveys of U.S. Navy Hospital Buildings 1400 (the Hospital) and Building 3201 (Management Information) for the NAVFAC Pacific. E2 prepared a draft survey report, which included an ACM inventory, summary tables of findings, floor plans with approximate locations of samples taken, asbestos status, a closeup and panoramic photo log of samples, and laboratory reports. E2 is currently preparing the final survey report. As a benefit to the Navy, E2 is also preparing interactive PDF files that present the ACM inventory when a specific room in the Hospital is selected. Fee: \$268,039. Role: Staff Environmental Scientist/Inspector.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Daniel W. Amato, Ph.D.	12. TITLE SERVICE PROVIDED Environmental Scientist	13. TITLE SERVICE PROVIDED	
		a. TOTAL 7	b. WITH CURRENT FIRM 5

14. FIRM NAME AND LOCATION (City and State)
Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION) Ph.D. and M.S., Botany, University of Hawaii at Manoa B.S, Biology, University of Vermont	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-4628 • Certified Risk Assessor/Lead Inspector, PB-1148
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)	
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • Construction Safety Hazard Awareness Training for Contractors, 40-HR • Maritime Security Awareness Training (MARSEC) 	<ul style="list-style-type: none"> • Scientific SCUBA diver, rescue diver, master diver, nitrox certified diver • Bloodborne Pathogens, First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Storm Water Sampling, City and County of Honolulu, Oahu, Hawaii	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Subcontractor to Kennedy Jenks, E2 monitors the weather and collects stormwater samples from five sites across Hawaii from NPDES-qualifying rain events according to permit requirements. E2 reports on the summary of data collected monthly and produces annual stormwater reports. Fee: \$148,328. Role: Environmental Scientist.		
b.	Asbestos Survey, Commander Fleet Activities Yokosuka, Yokosuka, Japan	2020	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted an asbestos survey of over 100 buildings with a total area of 2,139,464 square feet and constructed between 1914 and 1970 at CFAY, Japan for the NAVFAC Pacific. Sampled for asbestos, thoroughly documenting all field work activities with notes and photographs, and preparing report summary tables and computer-aided design (CAD) figures. Fee: \$999,976. Role: Environmental Scientist/Asbestos Inspector.		
c.	Confirmatory Soil Sampling, 84-Acre Portion of Former Voice of America, Maili, Oahu, Hawaii	2019	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted <i>MULTI INCREMENT</i> [®] (MI) sampling to assess the nature and extent of PCBs and metals contamination for the majority of the site. A separate MI sampling approach was used to assess the nature and extent of PCBs, metals, asbestos, and petroleum hydrocarbon contamination in a two-acre portion of the site. Based on the elevated PCB soil sample results and at the request of the EPA, MI sampling of an adjacent concrete building foundation was also completed for analysis of PCBs. Fee: \$178,200. Role: Environmental Scientist.		
d.	State of Hawaii, Department of Transportation, Harbors Division, (1.) Illicit Discharge Detection & Elimination Program. (2.) Industrial & Commercial Discharge Management Program. (3.) Public Education & Outreach Program	2016-2017	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Dr. Amato assisted HDOT-Harbors with the inspection of piers. Lead instructor for 5 IDDE training sessions designed for HDOT-Harbors staff & security personnel. 2. Commercial & Industrial sections of > 50 tenants, Oahu Harbors. (3) Provided in-person stormwater BMP Training to >200 tenant & staff. Assisted Harbors with educational outreach during 2016 Protect our Water Conference. Role: Environmental Consultant.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Joshua B. Agpaoa, E.I.T.	12. TITLE SERVICE PROVIDED Staff Civil Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 5	b. WITH CURRENT FIRM 5

14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii
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15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Civil Engineering, University of Hawaii at Manoa	16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-4791 • Certified Risk Assessor/Lead Inspector, PB-1137
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17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) <ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR 	<ul style="list-style-type: none"> • OSHA Construction Safety and Health Training, 30-HR • Bloodborne Pathogens, First Aid, CPR, and AED Training
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18. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Non-Domestic Wastewater Management Plan, JBPHH, Oahu, Hawaii	Ongoing	-
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm a. E2 evaluated NAVFAC Hawaii's 8,000+ facilities to identify, characterize, and quantify non-domestic wastewater discharges to the sanitary sewer system tributary to the NAVFAC Hawaii Wastewater Treatment Plant (WWTP). Coordinated site visits to and conducted interviews with facility managers of over 750 facilities. The inventory of non-domestic wastewater sources collected in this study will be used to determine additional non-domestic discharges that should be internally permitted and regulated. The project also includes quarterly wastewater sampling efforts to collect both grab and 24-hour composite samples from WWTP influent locations on the Hickam Field flight line and Pearl Harbor, as well as effluent samples from the WWTP. Fee: \$1,154,918. Role: Staff Civil Engineer.		
Asbestos and Lead Paint Survey for Singapore Area Coordinator, Sembawang, Singapore	Ongoing	-
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm b. E2 is conducting an Asbestos Containing Material (ACM) survey, lead-based paint (LBP) inspection including an LBP risk assessment (LRA) and lead content soil samples for unaccompanied housing facilities and lead dust sampling for lodging units in Sembawang, Singapore. Responsibilities include sampling for ACM and LBP, thoroughly documenting all field work activities with notes and photography, and preparing computer aided design (CAD) drawing figures. Fee: \$1,858,355. Role: Staff Engineer/Asbestos Inspector.		
Biosolids Handling and Disposal Plan, Pacific Missile Range Facilities, Wastewater Treatment Plant, Kauai	Ongoing	-
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm c. Conducted a site investigation and sampling at the Pacific Missile Range Facility (PMRF), Kekaha, Kauai, Hawaii. The study included various components of the wastewater treatment systems throughout the Base, with a focus on the existing wastewater treatment plant (WWTP), individual wastewater system (IWS) facilities, sludge drying beds, and the wastewater oxidation pond (WOP). E2 evaluated the current biosolids handling practices and will develop a long-term plan for the proper treatment and disposal of biosolids at PMRF, including IWS septage, WWTP and WOP sludge. Fee: \$128,895. Role: Staff Civil Engineer.		
Asbestos Survey, Naval Base Guam, Guam	Ongoing	-
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm d. Completed an asbestos survey of 109 buildings with a total survey area of 1,014,904 square feet at NBG for the NAVFAC Pacific. E2 prepared a Work Plan (WP) and Health and Safety Plan (HSP) prior to field work. A total of 7,134 bulk samples were collected by a team of 4 inspectors, over four mobilizations within a year. E2 prepared Draft and Final survey reports that included a summary table of findings, plans with approximate locations of samples taken, extent of most HAs, a closeup and panoramic photo log of samples, and laboratory reports. Responsibilities included preparation of the WP and HSP, coordination of field work, field work, and preparation the Draft and Final Survey Reports. Fee: \$1,065,234. Role: Staff Civil Engineer/Asbestos Inspector.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME James D. Tsubone	12. TITLE SERVICE PROVIDED Environmental Scientist	13. TITLE SERVICE PROVIDED	
		a. TOTAL 7	b. WITH CURRENT FIRM 7
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii			
15. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Geology, Mount Royal University Canada		16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-4118 • Certified Risk Assessor/Lead Inspector, PB-0827 	
17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) <ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • OSHA Construction Safety and Health Training, 30-HR • Construction Safety Hazard Awareness Training for Contractors, 40-HR • Maritime Security Awareness Training (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 			

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Radon Diagnostics, Mitigation, and Testing Services for Naval Base Guam Housing, Naval Base Guam, Guam	2022	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted radon testing using E-Perm® detectors in 354 housing units. Radon-resistant new construction (RRNC) was used to mitigate 11 housing units to below the EPA action level of 4 picocuries per liter of air (pCi/L). Post-mitigation testing was also performed in the unit at 4 Flag Circle. A project report and testing report was prepared to document field activities and provide recommended mitigation actions. Provided oversight of subcontractors in the field and assisted with diagnostics and testing field work activities. Fee: \$397,070. Role: Environmental Scientist. *EXCEPTIONAL EVALUATION*		
b.	Asbestos Survey, Naval Base Guam, Guam	2020	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted Asbestos Surveys of 109 buildings with a total floor area of 987,057 square feet at Naval Base Guam. Prepared a Work Plan/Health and Safety Plan. A total of 7,134 bulk samples were collected from identified homogeneous areas for laboratory analysis by a team of four inspectors, over four one-month-long mobilizations completed within a year. For each building, E2 prepared an Asbestos Survey Report that included a summary data table, floor plans with approximate sample locations and the approximate extent of most identified Homogeneous Areas, a close-up and panoramic sample photograph log, and laboratory reports. Fee: \$268,039. Role: Environmental Scientist.		
c.	Environmental Monitoring, Cocos Island, Guam	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Evaluated environmental conditions of former long range navigation station at Cocos Island, Guam for the U.S. Coast Guard. E2 completed a field assessment that consisted of sampling soil, sediment, groundwater, biota, and PCBs for petroleum contamination. After lab results are received, E2 will prepare a report that will include summary of field activities, analysis of findings, and recommendations based on the result of findings. Fee: \$424,535. Role: Field Environmental Scientist.		
d.	Annual Land Use Compliance Certification, Naval Air Station Barbers Point Barbers Point, Oahu, Hawaii	2018	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted annual land use compliance certification of the former Southern Trap and Skeet Range at the former Naval Air Station Barbers Point. A non-time-critical response action under CERCLA was undertaken at most of the site to enable unrestricted land use by removing, stabilizing, and disposing of the impacted surface soil at the site. Existing areas that were contaminated were placed under LUCs, specifically the concrete-lined berms, and perimeter fences. E2 conducted site inspection, cleared vegetation, and repaired concrete berm and fence. Prepared Annual Certificate Report. Fee: \$131,065. Role: Environmental Scientist.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Leslie A. Robinson, E.I.T.	12. TITLE SERVICE PROVIDED Project Engineer	13. TITLE SERVICE PROVIDED	
		a. TOTAL 15	b. WITH CURRENT FIRM 2
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii			
15. EDUCATION (DEGREE AND SPECIALIZATION) Mstr., Civil Engineering, MIT B.S., Civil Engineering, MIT		16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) • Certified Asbestos Inspector – CHC Training, No. 58808275	
17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • Cross Connection Control and Hydraulic Research Specialist Training, University of Southern California • How to Conduct a Sanitary Survey of Surface Water and Ground Water System Course, U.S. Environmental Protection Agency • Bloodborne Pathogens, First Aid, CPR, and AED Training 			

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Storm Water Management Plan Updates for Commander Navy Region Hawaii, JBPHH, Oahu, Hawaii	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 completed storm water inspections and updated the Storm Water Management Plan (SWMP) for Commander Navy Region Hawaii in accordance with their National Pollutant Discharge Elimination System permit. The SWMP contained several program components including public education and outreach, illicit discharge detection and elimination, construction site runoff control, post construction stormwater management, pollution prevention and good housekeeping, stormwater monitoring, and reporting. E2 developed Storm Water Pollution Control Plans for 68 NAVFAC Hawaii industrial facilities. Ms. Robinson’s responsibilities include gap analysis of previous and new permit requirements, writing sections of the SWMP, and addressing comments during the review process. Fee: \$451,956. Role: Project Engineer.		
b.	Cross-Connection Control Survey, Pacific Missile Range Facility Barking Sands, Kekaha, Kauai, Hawaii	2019	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Conducted a cross-connection control survey of high priority facilities at Pacific Missile Range Facility (PMRF) Barking Sands to identify potential cross-connection conditions and evaluate existing backflow prevention (BFP) devices. Created a database to track BFP devices, device deficiencies, cross-connection conditions, and recommended corrective actions. Ms. Robinson’s responsibilities included producing the Work Plan, organizing inspection teams, field inspections, developing the database, and preparing the Draft and Final Reports. Role: Engineer.		
c.	Sanitary Survey for Marine Corps Base Camp Butler and Combined Arms Training Center Fuji, Japan	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Conducted a sanitary survey to evaluate the drinking water system for ten installations at MCB Camp Butler and Combined Arms Training Center (CATC) Fuji. Performed an on-site review of the eight elements: water source; treatment; distribution system; finished water storage; pumps; monitoring, reporting, and data verification; system management and operations; and operator compliance. Ms. Robinson’s responsibilities included water sampling, facility personnel interviews, inspection of on-base and off-base water system facilities, review of water quality monitoring records, and preparation of the report of identified deficiencies and recommended system improvements. Role: Engineer.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Theodore N. Uekawa, E.I.T.	12. TITLE SERVICE PROVIDED Staff Civil Engineer	13. YEARS OF EXPERIENCE	
		a. TOTAL 2	b. WITH CURRENT FIRM 2
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii			
15. EDUCATION (DEGREE AND SPECIALIZATION) Mstr., Civil Engineering, University of Hawaii at Manoa B.S., Civil Engineering, University of Hawaii at Manoa		16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-5084 • Certified Lead Inspector, PB-1257 	

17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)	
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR 	<ul style="list-style-type: none"> • First Aid, CPR, and AED Training

18. RELEVANT PROJECTS		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Asbestos Survey, Commander Fleet Activities Sasebo Japan	Ongoing	-
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>a. E2 conducted an Asbestos Survey of 37 buildings with a total area of 493,367 square feet at Commander Fleet Activities Sasebo, Japan for NAVFAC Pacific. E2 prepared a Work Plan and Health and Safety Plan prior to field work. Two one-month field mobilizations were completed. E2 prepared draft Asbestos Survey Reports for each building; each report includes a summary data table, sample and Homogeneous Area location figures, close-up and panoramic sample photograph logs, and laboratory reports. Mr. Uekawa assisted with sampling for asbestos, thoroughly documenting all field work activities with notes and photographs, and preparing report summary tables and floor plans/figures in computer-aided design and drafting software (AutoCAD). Fee: \$489,996. Role: Staff Civil Engineer/Asbestos Inspector.</p>		
Spill Prevention and Response Plan for Marine Corps Base Camp Butler Okinawa, Japan	Ongoing	-
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>b. E2 is completing a Spill Prevention and Response Plan (SPRP) for Marine Corps Base (MCB) Camp Butler located in Okinawa, Japan. E2 prepared a Work Plan and Health and Safety Plan prior to field work. Field work consisted of a team of six personnel for a duration of three weeks to complete tasks in one site visit. E2 conducted site visits of 329 aboveground storage tanks, 26 underground storage tanks, 34 chemical storage tanks, and 747 electrical transformers that have capacities of 105 gallons and larger, at 12 Sites in Okinawa and the nearby Island of Le Shima. Field work included completion of data sheets for and taking photographs of each feature. E2 is currently preparing the SPRP, which will include sections for pollution prevention and spill response. Mr. Uekawa assisted with site inspections and is assisting with drafting the SPRP. Fee: \$340,216. Role: Staff Civil Engineer.</p>		
Long-Term Monitoring of Groundwater and Soil Vapor at Red Hill Bulk Fuel Storage Facility, JBPHH, Oahu, Hawaii	Ongoing	-
<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm</p> <p>c. E2 is conducting groundwater monitoring and soil vapor monitoring. In 2015-2016, E2 conducted quarterly groundwater monitoring/sampling of ten wells located inside and in the vicinity of the Red Hill Bulk Fuel Storage Facility tunnels. E2 worked closely with the Navy to streamline quarterly reporting and he conducted several informational meetings for the Navy regarding interpretation of analytical data. E2 currently conducts monthly soil vapor monitoring of 48 soil vapor probes within the tunnel and has conducted maintenance and upgrades to the system at no additional cost to the Navy. E2 prepares monthly soil vapor reports following each field event. Mr. Uekawa assisted with weekly and monthly LTM inspections at the Site. Fee: \$2,380,274. Role: Staff Civil Engineer. *EXCEPTIONAL EVALUATION*</p>		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME Maya Matsuoka	12. TITLE SERVICE PROVIDED Staff Environmental Scientist	13. YEARS OF EXPERIENCE	
		a. TOTAL 2	b. WITH CURRENT FIRM 2

14. FIRM NAME AND LOCATION (City and State)

Element Environmental, LLC, Aiea, Hawaii

15. EDUCATION (DEGREE AND SPECIALIZATION)

B.A. Environmental Studies and Economics, University of California, Santa Cruz

16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)

- Certified Asbestos Inspector, HIASB-5085
- Certified Lead Inspector, PB-1254

17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

- OSHA Initial HAZWOPER Training, 40-HR
- OSHA Refresher Training, 8-HR
- First Aid, CPR, and AED Training

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Asbestos Survey, JBPHH, Oahu, Hawaii	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 conducted asbestos surveys at 38 one- and two-story buildings totaling 578,442 square feet, at Pearl Harbor and Hickam Field, Ford Island, Moanalua, Pearl City Peninsula, and Wahiawa Annex, JBPHH. E2 prepared a Work Plan and Health and Safety Plan prior to field work. Field work has been completed, and E2 is currently preparing Asbestos Survey Reports for each building. Each report will include a summary data table, floor plan figures with approximate sample locations and the extent of most identified Homogeneous Areas, close-up and panoramic sample photograph logs, and laboratory reports. Ms. Matsuoka performed sampling for asbestos, thoroughly documenting all field work activities with notes and photographs, and is currently assisting with preparation of report computer-aided design (CAD) figures and photograph appendices. Fee: \$475,088. Role: Staff Environmental Scientist/Asbestos Inspector.		
b.	Asbestos and Lead Paint Survey for Singapore Area Coordinator, Sembawang, Singapore	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 is conducting an Asbestos Containing Material (ACM) survey, lead-based paint (LBP) inspection including an LBP risk assessment (LRA) and lead content soil samples for unaccompanied housing facilities and lead dust sampling for lodging units in Sembawang, Singapore. Responsibilities include sampling for ACM and LBP, thoroughly documenting all field work activities with notes and photography, and preparing computer aided design (CAD) drawing figures. Fee: \$1,858,355. Role: Staff Environmental Scientist/Inspector.		
c.	Asbestos Survey for Commander Fleet Activities Sasebo Japan	Ongoing	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 conducted an Asbestos Survey of 37 buildings with a total area of 493,367 square feet at Commander Fleet Activities Sasebo, Japan for NAVFAC Pacific. Prepared a Work Plan and Health and Safety Plan prior to field work. Two one-month field mobilizations were completed. E2 prepared draft Asbestos Survey Reports for each building; each report includes a summary data table, sample and Homogeneous Area location figures, close-up and panoramic sample photograph logs, and laboratory reports. Mr. Uekawa assisted with sampling for asbestos, thoroughly documenting all field work activities with notes and photographs, and preparing report summary tables and floor plans/figures in computer-aided design and drafting software (AutoCAD). Fee: \$489,996. Role: Staff Environmental Scientist/Asbestos Inspector.		
d.	Asbestos Survey, Commander Fleet Activities Yokosuka, Yokosuka, Japan	2020	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted an asbestos survey of over 100 buildings with a total area of 2,139,464 square feet and constructed between 1914 and 1970 at CFAY, Japan for the NAVFAC Pacific. Prepared a Work Plan and Health and Safety Plan (HSP) prior to field work. Responsibilities include sampling for asbestos and lead, thoroughly documenting all field work activities with notes and photographs, and preparing report summary tables and computer-aided design (CAD) figures. Fee: \$999,976. Role: Staff Environmental Scientist/Asbestos Inspector.		

E. RESUMES OF KEY PERSONNEL PROPOSED WHO WILL PROVIDE SERVICES FOR THIS PROJECT CATEGORY

11. NAME John A. Ellis	12. TITLE SERVICE PROVIDED Field Technician	13. TITLE SERVICE PROVIDED	
		a. TOTAL 7	b. WITH CURRENT FIRM 7
14. FIRM NAME AND LOCATION (City and State) Element Environmental, LLC, Aiea, Hawaii			
15. EDUCATION (DEGREE AND SPECIALIZATION) B.S. In-progress, Earth Systems, Oregon State University		16. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) <ul style="list-style-type: none"> • Certified Asbestos Inspector, HIASB-4117 • Certified Risk Assessor/Lead Inspector, PB-0828 	
17. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			
<ul style="list-style-type: none"> • OSHA Initial HAZWOPER Training, 40-HR • OSHA Refresher Training, 8-HR • OSHA Construction Safety and Health Training, 30-HR • Construction Safety Hazard Awareness Training for Contractors, 40-HR • Maritime Security Awareness Training (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 			

18. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Operation and Maintenance and Monitoring, Multiple Sites, JBPHH, Oahu, Hawaii	2013-2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Completed the operation and maintenance of two oily waste collection and treatment facilities within the Pearl Harbor Navy Shipyard. E2 has managed hazardous and oily wastes recovered from two product recovery systems installed at the Building 8 and Oscar 2 Pier former release sites. The Building 8 system includes three Fuel Oil Skimmer System (FOSS) units while the Oscar 2 Pier consists of five FOSS units. Conducted weekly, monthly, and quarterly inspections and maintenance to keep both product recovery systems up and running efficiently. Completed system repairs, oily product gauging of over 100 wells, fuel profile sampling, NPDES compliance sampling, disposal of recovered product, and system troubleshooting. Fee: \$431,080. Role: Environmental Technician.		
b.	Storm Water Monitoring/Reporting JBPHH, Oahu, Hawaii	2019	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted storm water monitoring within the Pearl Harbor Naval Shipyard (PHNSY) & Intermediate Maintenance Facility (IMF) where two of the three monitoring sites are located within the Controlled Industrial Area (CIA) Dry Dock area at JBPHH. Monitoring was conducted to comply with NPDES Permit. Collected storm water samples, submitted samples to the laboratory for analysis, and provided maintenance of the sampling equipment throughout the project. Prepared a Storm Water Report for each sampling event that included the date, time, duration, and volume of the event, chain of custody records, and laboratory results. Fee: \$249,572. Role: Field Technician.		
c.	Asbestos Survey, Naval Base Guam, Guam	2020	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm E2 completed an asbestos survey of 109 buildings with a total survey area of 1,014,904 sf at NBG. 7,134 bulk samples were collected by a team of 4, over four mobilizations within a year. E2 prepared survey reports that included a summary table of findings, plans with approximate locations of samples taken, extent of most HAs, a closeup and panoramic photo log of samples, and laboratory reports. Fee: \$1,065,234. Role: Asbestos Inspector.		
d.	Phase I Environmental Site Assessment Waiawa, Oahu, Hawaii	2016	-
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Conducted a site visit, requested information regarding current and historic land use and ownership, identified and request regulatory files, environmental reports, and permits, interviewed property owners and government agency representatives, data management and evaluation, and report preparation. Fee: \$105,181. Role: Field Technician.		

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Phase II Environmental Site Assessment, Central Maui Regional Park, Kahului, Maui, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(If applicable)</i> 2017

21. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER State of Hawaii, Department of Land and Natural Resources	b. POINT OF CONTACT NAME Mr. Carty Chang, P.E.	c. POINT OF CONTACT TELEPHONE NUMBER (808) 587-0230
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22. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Scope: Element Environmental, LLC (E2) completed a Phase II Environmental Site Assessment (ESA) of the property proposed for development into the new Central Maui Regional Park. E2 developed a sampling strategy to determine the presence or absence of soil contamination within the areas of concern identified in the Phase I ESA prepared by Pacific Consulting Services, Inc. in 2012.

E2 implemented a multi-increment® [MI] soil sampling approach to characterize the site. In addition, a site reconnaissance of the property was conducted to document piles of solid waste and identify features that may suggest previous use of the site for a training range or bombing target.



Project Highlights:

Based on the sampling results and site reconnaissance, E2 developed an Environmental Hazard Management Plan (EHMP) that was incorporated into the construction documents for the new park.

The EHMP addressed the requirements for solid waste disposal and the screening of the site for unexploded ordnance (UXO) during construction.

E2 assisted DLNR in negotiating a contingency fund to be provided in escrow by the landowner. The contingency fund was used to pay for disposal of solid waste and contaminated soil that may be encountered during construction.

How Successes or Lessons Learned Can Apply to This Contract:

E2 was able to successfully characterize the site, which allowed DLNR to properly negotiate a purchase price with the current landowner and set up a contingency fund for the disposal of solid waste and contaminated soil encountered during construction.

Cost: \$212,540.



23. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Prime Contractor
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Remedial Investigation/Feasibility Study and Remedial Action Work Plan, Remedial Action Completion Report, and Well Decommissioning, Quarry Pit Landfill, Marine Corps Base Hawaii, Kaneohe, Oahu, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(If applicable)</i> -

21. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER NAVFAC Hawaii	b. POINT OF CONTACT NAME Ms. Kelly Morishige, P.E.	c. POINT OF CONTACT TELEPHONE NUMBER (808) 471-4616
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22. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Scope: Element Environmental, LLC (E2) completed a Remedial Investigation/Feasibility Study (RI/FS) and prepared site closure documents for the Quarry Pit Landfill and the adjacent 3rd Marine Motor Pool Wetland on Marine Corps Base (MCB) Hawaii. The Quarry Pit Landfill site, with an approximate area of 18 acres, was active from the 1940s to 1976 as both a quarry and landfill for solid wastes. The Quarry Pit Landfill was the main on-base landfill from 1972 to 1976 and accepted most solid wastes, excluding refuse from residential areas. Previous reports indicated that wastes, including petroleum, oil, lubricants, solvents, paints, thinners, batteries, mercury, transformer oils, pentachlorophenol, and glass beads from paint stripping operations, were historically disposed of at this landfill, as well as general refuse, including cans, paper, plastic, wood, and unidentified organic debris. A focused Site Inspection (SI) was completed in 2007 which confirmed the presence of buried debris, which could potentially impact the landfill soil, soil gas, and groundwater in the vicinity of the project site and possibly the surface sediment and surface water in the adjacent wetland. The objectives of the RI/FS were to determine the nature and extent of the buried debris in the landfill, determine the extent and thickness of the soil cap, determine the nature and extent of contamination in the landfill soil, soil gas, and groundwater, to determine if the adjacent wetland surface sediment and surface water have been impacted by contamination from the landfill, and assess human health and ecological risks posed by the contamination in order to develop appropriate response alternatives. These project objectives were met as follows.

- Data collected from previous environmental reports, aerial photographs, historic topographic maps, geophysical and topographic surveys, 20 trench excavations, and 210 soil borings confirmed the areal extent of the landfill debris to be just over 12 acres with a volume of approximately 90,400 cubic yards. A 3-dimensional model of the landfill debris and soil cap was created to determine the volume of debris and the thickness of the soil cap across the site.
- The nature and extent of contamination in various media were assessed using data from *MULTI INCREMENT®* (MI) soil samples collected from 20 trenches and 210 soil borings from five decision units (DUs) established within the landfill; 2) soil gas and groundwater samples collected within and surrounding the delineated landfill; and 3) surface sediment MI samples and surface water samples collected from two DUs within the adjacent wetland.



Project Highlights:

The connection between groundwater beneath the landfill and surface water in the adjacent wetland was evaluated by conducting hydrological monitoring that consisted of a one-week duration synoptic water level survey. Transducers were placed in groundwater monitoring wells, the adjacent wetland, and wetlands located south of the site to determine the overall direction of shallow groundwater flow and an estimation of the overall hydraulic conductivity of the shallow aquifer beneath the Quarry Pit Landfill.

The State of Hawaii Department of Health and Marine Corps Base Hawaii Environmental had been a part of the approval process from the start of the project.

Cost: \$911,835.

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Remedial Investigation/Feasibility Study and Remedial Action Work Plan, Remedial Action Completion Report, and Well Decommissioning, Quarry Pit Landfill, Marine Corps Base Hawaii, Kaneohe, Oahu, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(If applicable)</i> -

21. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER NAVFAC Hawaii	b. POINT OF CONTACT NAME Ms. Kelly Morishige, P.E.	c. POINT OF CONTACT TELEPHONE NUMBER (808) 471-4616
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- A human health risk assessment, which included an evaluation of all potential exposure scenarios (recreational, residential, and commercial), determined that risks to recreational and commercial receptors were acceptable, but residential use would require further evaluation due to localized PCB contamination encountered in a few trenches excavated within the landfill.
- An ecological risk assessment, which included a biological survey and an evaluation of potential hazards to aquatic and terrestrial habitats in the adjacent wetland area, determined that risks to ecological receptors were within acceptable limits.

A Proposed Plan (PP) and Decision Document (DD) were completed noting regulator and Navy concurrence on the preferred remedial approach for the site of land use controls (LUCs) for future recreational and/or commercial use. A Remedial Action Work Plan (RAWP) was prepared that describes short- and long-term implementation actions (i.e., LUCs) and responsibilities for the actions to ensure long-term viability of the remedy. A Remedial Action Completion Report (RACR) was prepared that documented that the remedial action objective in the DD has been achieved; the requisite institutional controls are in place; annual/as-needed site inspections, maintenance, and 5-year reviews have been initiated; and that the site is protective of human health and the environment. As part of the site closure, a total of 14 monitoring wells installed by E2 and previous consultants were decommissioned, and a Monitoring Well Decommissioning Summary Report was prepared.

23. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Prime Contractor
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

21. TITLE AND LOCATION <i>(City and State)</i> Wastewater Effluent Reuse Feasibility Study, Waimanalo Wastewater Treatment Plant, Waimanalo, Oahu, Hawaii	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2014	CONSTRUCTION <i>(If applicable)</i> -

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER City and County of Honolulu	b. POINT OF CONTACT NAME Mr. David Nagamine	c. POINT OF CONTACT TELEPHONE NO. (808) 768-3486

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Background: The City and County of Honolulu (CCH), as owner-operator of the Waimanalo Wastewater Treatment Plant (WWTP) was considering the production of recycled water for reuse by businesses and public and private entities in the Waimanalo community. The Waimanalo WWTP at the time provided secondary treatment of 0.5 million gallons per day (MGD) of wastewater generated from Waimanalo Town. Wastewater generated in the Waimanalo community was limited to domestic sources and did not include industrial activities. The secondary effluent is filtered using sand filtration, disinfected, and disposed into the on-site injection wells. The WWTP upgrades in 2008 increased the potential capacity of the WWTP to 1.1 MGD. The design also accounted for future upgrades associated with effluent reuse and included an approximate footprint and potential connection point for the required addition of an ultraviolet (UV) disinfection or equivalent tertiary system. The proposed effluent reuse project could reduce the demand for potable water and increase the availability of water for additional crop production in Waimanalo. The State of Hawaii Department of Health (DOH) uses three categories of recycled water, which are based on regulatory definitions, and include R-1, R-2, and R-3 Recycled Water. Hawaii's R-1 recycled water category has the highest recycled water quality standards relative to the other two categories. For R-1 standards to be met, the State required that wastewater effluent be treated by means of oxidation, filtration, and disinfected to a significant reduction in viral and bacterial pathogens. Examples of potential reuses include Unrestricted Urban Reuse, Restricted Recreation Reuse, and Agriculture Reuse (Food Crops and Non-Food Crops). The State has no restrictions on application rates, operation times, or potential human contact when irrigating with R-1 water (*Guidelines for the Treatment and Use of Recycled Water*, DOH Wastewater Branch, May 15, 2002).



Project Highlights:

E2 completed a market survey that identified available potable and irrigation water sources; gauged interest from the potential users; gathered user concerns with R-1 water reuse; and identified potential R-1 water reuse demands. The results of the market survey indicated strong interest in R-1 water reuse from the several potential users such as the Olomana Golf Club and the Waimanalo District Park. The R-1 water reuse demand from these potential users was estimated to be 0.25 MGD or approximately 50 percent of the current average daily flow received at the WWTP. The preliminary conceptual design was completed and identified the required improvements at the WWTP, the distribution system improvements, and the end user improvements. Budgetary cost estimates for the improvements and the operation and maintenance of the treatment system were also developed. The feasibility study determined that Waimanalo WWTP R-1 water reuse is a viable option for the CCH to consider in their long-term management of wastewater and water resources in Waimanalo.

Cost: \$219,345.

Project Scope: Element Environmental, LLC (E2) conducted a study to assess the technical, environmental, and economic feasibility of wastewater effluent reuse in the Waimanalo community. E2 was responsible for the identification of potential users and locations, including the reuse demand, transmission, and storage requirements. Tasks included public outreach, data collection, research of prior studies, and evaluation of costs. E2 completed a preliminary concept design and cost estimate for the preferred WWTP upgrades to meet the reuse requirements. The concept design also included preliminary layouts of transmission and storage facilities for those users that expressed strong interest in R-1 reuse. The project was prepared for the U.S. Army Corps of Engineers but was co-funded by the CCH Department of Environmental Services.

25. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Prime Contractor
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Phase I and II Environmental Site Assessments, Kapalama Container Terminal Yard, Honolulu Harbor, Oahu, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(If applicable)</i> 2018

21. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER State of Hawaii, Department of Transportation, Harbors Division	b. POINT OF CONTACT NAME Mr. Carter Luke, P.E.	c. POINT OF CONTACT TELEPHONE NUMBER (808) 587-1860
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22. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Scope: The proposed Kapalama Container Terminal Yard (KCTY) is a 94-acre site located within the Kapalama Development Area (KDA); land that was set aside by Governor's Executive Orders for harbor use to accommodate a future modern containerized cargo terminal.

The State of Hawaii, Department of Transportation (HDOT), Harbors Division proposed action is required to facilitate the redevelopment of the former Kapalama Military Reservation (KMR) and adjacent lands as a full-scale modern containerized cargo terminal.

The KCTY site is comprised of five main areas, including a major portion of the former KMR, the University of Hawaii Marine Center (UHMC), Island Movers, Inc. leased land, Pacific Shipyards International (PSI) leased land, and the 11.3-acre parcel of ceded land managed by the HDOT, Airports Division. HDOT, Harbors and HDOT, Airports lease the land to various harbor-related businesses.

To facilitate the planning, design, and construction phases of the KCTY development, E2 conducted Phase I and Phase II ESAs for the entire 94-acre site. The Phase I ESA was conducted in accordance with American Society for Testing and Materials (ASTM) Designation E1527-13 and identified recognized environmental concerns (REC) associated with historic and current use of the site. The Phase II ESA was conducted in general accordance with the Work Plan, prepared by E2, and the Technical Guidance Manual (TGM) for the Implementation of the Hawaii State Contingency Plan Interim Final (HDOH 2009), and characterized impacted soil, groundwater, soil vapor, concrete, and harbor sediment, at the site. E2 designed a sampling strategy to address surface and subsurface soil, groundwater, soil vapor, concrete, and harbor sediment contamination resulting from historic use of the site as a landfill, shipyard/construction base yard, and was formerly used as a defense site; and the current use of the site as a shipyard, marine research center, hazardous waste storage and transfer facilities, and for various other commercial/industrial uses by tenants.

An additional site investigation was conducted to evaluate the nature and extent of contamination identified at the Island Movers portion of the KCTY site during the Phase II ESA. The additional investigation included soil, soil vapor, and groundwater sampling and analysis. E2 used the data obtained from historic environmental reports and the data generated during the Phase II ESA and the additional site investigation to prepare an Environmental Hazard Evaluation (EHE)/Environmental Hazard Management Plan (EHMP) for contamination present at the KCTY site. The EHE/EHMP provides consistent and effective management practices to mitigate potential human health and environmental hazards associated with direct exposure to contaminants of potential concern in soil, groundwater,



Project Highlights:

- The Phase I and II ESAs identified the presence of contamination, including heavy metals, polychlorinated biphenyls (PCBs), and petroleum-related contaminants in soil, groundwater, concrete, and/or harbor sediment that needed to be addressed during development activities.
- The Phase I ESA also identified areas of concern regarding the presence of underground storage tanks, underground fuel piping, buried debris, and impacted fill that required consideration in design and construction plans.
- E2 performed all tasks on an accelerated schedule to accommodate planning deadlines.
- No contract modifications were requested for this project.

concrete, soil gas, and harbor sediment at the site; and in impacted soil, groundwater, and/or harbor sediment brought to the surface during construction/dredging activities at the site.

E2 also completed hazardous materials surveys for five UHMC buildings to be demolished, prepared reports, and assisted in the preparation of plans and specifications for the management of these materials during construction.



Project Challenges and How They Were Overcome:

- Detailed research into the historical uses at the site was critical in identifying potential environmental concerns at the site.
- E2 was required to differentiate environmental conditions attributable to previous and current tenants.
- E2 completed the Phase I and II ESAs and the EHE/EHMP on an accelerated schedule to accommodate the HDOT-Harbors design and planning timeline.

How Successes or Lessons Learned Can Apply to This Contract:

- The project included consultation with several government agencies and design consultants.
- The Work Plan and EHE/EHMP were reviewed and approved by the HDOH, who had regulatory oversight of the project.
- In addition, detailed research into the historical uses was critical in identifying potential environmental concerns at the site.

Cost: \$568,200.

23. FIRMS INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION <i>(City and State)</i>	(3) ROLE
a.	Element Environmental, LLC	Aiea, HI	Contractor

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Phase I and II Environmental Site Assessments, Former Voice of America Site, Maili, Oahu, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(If applicable)</i>

21. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER United States Coast Guard	b. POINT OF CONTACT NAME Mr. Dennis Mead	c. POINT OF CONTACT TELEPHONE NUMBER (808) 535-3464
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22. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Scope: Element Environmental, LLC (E2) conducted a Phase I Environmental Due Diligence Audit (EDDA) and Phase II Confirmatory Sampling (CS) for an 84-acre portion of the Former Voice of America site located in Maili, Oahu. The Phase I EDDA and Phase II CS were completed in accordance with the Civilian Federal Agency Task Force's (CFATF) *Guide on Evaluating Environmental Liability for Property Transfers* (August 1998) in support of a transfer of the property to the State of Hawaii.



In support of the Phase I EDDA, E2 conducted a site visit, performed research on the site history, searched regulatory databases, interviewed site managers, and contracted an archeological firm to perform a cultural inventory survey. In support of the Phase II CS, E2 prepared a Project Work Plan and conducted field sampling to investigate potential polychlorinated biphenyls (PCBs), metals, asbestos, and petroleum hydrocarbon contamination related to the historic use of the site.

The field sampling effort consisted of various sampling techniques for multiple sample media. A multi-increment® (MI) sampling approach was utilized to assess the nature and extent of PCBs and metals contamination for the majority of the 84-acre project site.

A separate MI sampling approach was utilized to assess the nature and extent of PCBs, metals, asbestos, and petroleum hydrocarbon contamination in a two-acre portion of the facility. Six groundwater wells were also installed surrounding this area, and groundwater samples were collected and analyzed for PCBs; metals; petroleum hydrocarbons; benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tert-butyl ether (MTBE); polynuclear aromatic hydrocarbons (PAHs); and halogenated volatile organic compounds (HVOCs).

In addition, over 100 discrete soil samples were collected to evaluate the lateral and vertical extent of known PCB contamination at two previously identified locations. E2 operated a field laboratory to reduce the number of off-site PCB analyses and to reduce the turn-around time for analytical results. Ten percent of the PCB samples were analyzed by an off-site laboratory to verify the results of E2's field laboratory. Based on the elevated PCB soil sample results and at the request of the USEPA Region 9, MI sampling of an adjacent concrete building foundation was also completed for PCBs.

Project Highlights:

- Conducted a Phase I EDDA.
- Conducted a Phase II CS.
- MI soil sampling for PCBs and metals throughout 82 acres of the site.
- MI soil sampling for PCBs, metals, asbestos, and petroleum hydrocarbons throughout 2 acres of the site.
- Installation of six groundwater monitoring wells and collection of groundwater samples for PCBs, metals, petroleum hydrocarbons, BTEX, MTBE, PAHs, and HVOCs.
- Discrete surface and subsurface soil sampling for PCBs at two previously identified locations of PCB contamination MI sampling of concrete building foundation for PCBs
- Operation of a field laboratory to reduce the number of off-site PCB analysis and time to obtain analytical results.
- Prepared a Groundwater Monitoring Plan for the site.

Cost: \$ 289,550.

23. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Contractor
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Investigation of Kokee and Kekaha Ditch Irrigation Systems, Waimea, Kauai, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2017	CONSTRUCTION <i>(If applicable)</i> -

21. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER State of Hawaii, Department of Land and Natural Resources, Commission on Water Resource Management	b. POINT OF CONTACT NAME Mr. Dean Uyeno	c. POINT OF CONTACT TELEPHONE NUMBER (808) 587-0249

22. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Scope: Element Environmental, LLC (E2) assessed the physical condition and inventory of diversion and seepage loss volumes within the Kokee and Kekaha Ditch Irrigation Systems for the Commission on Water Resource Management (CWRM).



This investigation was conducted to assist the Commission in the matter of the Complaint for Dispute Resolution and Complaint for Declaratory Order Against Waste in the Waimea River and its Tributaries, Waimea, Kauai, Hawaii, which was filed by Earthjustice on behalf of Po'ai Wai Ola and the West Kauai Watershed Alliance. The project involved performing the following tasks:

1. Met with all parties pertinent to the Complaint as well as the public during CWRM meetings held on the islands of Oahu and Kauai.
2. Performed a comprehensive physical condition assessment of the 19-mile long Kokee Ditch and the 27-mile long Kekaha Ditch Systems.
3. Measured and monitored diverted and seepage loss streamflow throughout both systems over a period of one year to quantify and identify the amount and location of water loss within both irrigation ditch systems.
4. Assessed the current uses of diverted water from both irrigation ditch systems.
5. Prepared a comprehensive report describing the findings from these assessments to the Commission.

Project Highlights:
E2 successfully worked with personnel from CWRM, the Agribusiness Development Corporation (ADC, the current manager of the ditch systems), Earthjustice, Earthjustice's consultants, and the public to generate non-biased scientific information on diversion and seepage loss volumes to answer specific assertions in the Complaint submitted by Earthjustice to CWRM.

The inventory and assessment data generated by E2 was used by CWRM to successfully mediate a settlement between Earthjustice and the ADC and served as the basis for the development of in-stream flow standards that returned water to the Waimea River and its headwaters.

Cost: \$120,000.

23. FIRMS INVOLVED WITH THIS PROJECT			
a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Prime Contractor

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Phase II Environmental Site Assessment (ESA), Additional Sampling, and Preparation of an Environmental Hazard Evaluation (EHE) and Environmental Hazard Management Plan (EHMP) for a Whitmore Village Property, Wahiawa, Oahu, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(If applicable)</i> Ongoing

21. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER State of Hawaii, Agribusiness Development Corporation	b. POINT OF CONTACT NAME Mr. Ivan M. Kawamoto	c. POINT OF CONTACT TELEPHONE NO. (808) 586-0181
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22. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT
(Include scope, size, and cost)

Project Scope: Element Environmental, LLC (E2) completed a Phase II Environmental Site Assessment (ESA) of a Whitmore Village property, located in Wahiawa, Oahu, Hawaii, as part of the due diligence process for a transfer of property ownership. The site consists of a portion of one parcel of land owned by Dole Food Company, Inc., designated as Tax Map Key (1) 7-1-002: parcel 004. Current and future use of the site include commercial/industrial and agricultural activities.

Based on E2's preliminary document review, historic research, interviews with current and former Dole employees, and limited site reconnaissance, contaminants of potential concern (COPC) were identified as gasoline, diesel fuel, waste oil constituents, and organochlorine (OCL) pesticides. Areas of concern were identified in six decision units (DU), including shallow surface and subsurface soils in the vicinity of maintenance buildings, a drainage channel, a former laboratory, and former pesticide storage sheds.

In November 2014, data was obtained from a sampling design that included *MULTI INCREMENT*[®] (MI) and discrete sample collection from shallow and subsurface soil and dry sediment. Total petroleum hydrocarbons (TPH) and polychlorinated biphenyls (PCB) were detected in both MI and discrete soil samples at concentrations exceeding site-specific State of Hawaii Department of Health (HDOH) Commercial/ Industrial (C/I) Environmental Action Levels (EAL). Additionally, OCL pesticides, DDT and/or and DDE, were detected in three DU at levels exceeding the HDOH C/I EAL.

E2 met with Mr. Steven Mow, with the HDOH Hazard Evaluation and Emergency Response (HEER) Office to discuss the Phase II ESA findings and additional work required to obtain a conditional "no further action" status for the site. Additional work included sampling surface soil within the three DUs where OCL pesticide concentrations exceed HDOH alternate C/I EAL for analysis of dioxins/furans. E2 completed the additional sampling and dioxins/furans were detected in the soil at levels below the HDOH C/I EAL. In December 2015 E2 submitted the revised Phase II ESA report, including the additional sampling, results, and findings and an EHE/EHMP to address contamination remaining in place at the site.



Project Highlights:

Prior to preparing the scope of work for the Phase II ESA, E2 conducted document review, historic research, interviews with current and former Dole employees, and limited site reconnaissance, and identified areas of concern at the site in addition to those included in a Phase I ESA.

E2 worked with the HDOH HEER Office to develop a sampling plan that will allow for issuance of a conditional "no further action" status for the site.

Cost: \$90,000.

23. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Prime Contractor
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Phase I and II Environmental Site Assessments, Honouliuli Wastewater Treatment Plant, Ewa Beach, Oahu, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2016/2017	CONSTRUCTION <i>(If applicable)</i> Ongoing

21. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER City and County of Honolulu Department of Design and Construction	b. POINT OF CONTACT NAME Ms. Lisa Kimura, P.E.	c. POINT OF CONTACT TELEPHONE NO. (808) 768-3486
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22. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Scope: Element Environmental, LLC (E2) was retained by R.M. Towill Corporation (RMTC) to conduct Phase I and II Environmental Site Assessments (ESAs) on one parcel of undeveloped land located at Fort Weaver Road and Geiger Road, Ewa Beach, Oahu, Hawaii. The City and County of Honolulu (CCH), owner and operator of the Honouliuli Wastewater Treatment Plant (WWTP), acquired the 48-acre parcel of land to expand their secondary treatment operations. In preparation for the proposed construction, E2 completed a Phase I ESA in 2016 to identify potential environmental issues which may impede construction activities on the newly acquired parcel.



The Phase II ESA scope of work was performed to evaluate the presence/absence and nature of contamination on the site based on relevant findings of the Phase I ESA. Phase II ESA activities were also conducted in the vicinity of an abandoned Navy fuel line located on the adjacent Honouliuli WWTP site, parallel to Geiger Road, where portions of the abandoned fuel line will be removed during the construction of a drainage basin. Phase II activities included surface and subsurface soil sampling and evaluation of stockpiled soil/debris and a historical landfilled area. The subject property was historically used for railroad, plantation, and military purposes. An abandoned Navy fuel pipeline is present on and/or adjacent to the southeast portion of the subject property. A second fuel line runs along the old railroad tracks, parallel to the north boundary of the subject property.



Contaminants of concern were identified for the subject and adjacent WWTP property based on historical property use and included the following.

- Former sugar cane cultivation – organochlorine (OC) pesticides and arsenic.
- Former railroad and plantation employee housing, former military use, and other former and current structures – chlordane and lead.
- Petroleum pipelines on/adjacent to the site – petroleum-related constituents and metals.
- Landfilling and soil/debris stockpiles – volatile and semi-volatile constituents, pesticides, metals, polychlorinated biphenyls (PCBs), and asbestos.
- Miscellaneous industrial use – volatile and semi-volatile constituents, metals, and PCBs.

Project Highlights:

E2 utilized incremental sampling methodology to characterize surface soil at the site.

E2 evaluated the nature and extent of waste materials discovered in the shallow dump site using an excavator.

Cost: \$331,100.

Soil sample results were compared to the State of Hawaii Department of Health (HDOH) Tier 1 Residential and Commercial/Industrial environmental action levels (EALs). Based on the Phase II ESA sample results and observations made during the investigation, E2 concluded the following.

Subject Property:

Lead and arsenic were detected in the surface (lead) in the decision unit (DU-9) (dump site) and near-surface (arsenic) soils at boring B9 on the subject property at concentrations exceeding HDOH Tier 1 EALs. The dump site (DU-9) appeared to occupy a large shallow sinkhole.

- Debris was observed mixed with the soil, and included glass and porcelain shards, bottles, basalt rocks,

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i> Phase I and II Environmental Site Assessments, Honouliuli Wastewater Treatment Plant, Ewa Beach, Oahu, Hawaii	20. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2016/2017	CONSTRUCTION <i>(If applicable)</i> Ongoing

21. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER City and County of Honolulu Department of Design and Construction	b. POINT OF CONTACT NAME Ms. Lisa Kimura, P.E.	c. POINT OF CONTACT TELEPHONE NO. (808) 768-3486
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pots and other household cooking implements, pieces of rusted metal, and wood.

- Petroleum-related analytes were not detected in subsurface soil samples collected from the capillary fringe in the soil borings located in the vicinity of the petroleum pipeline that runs adjacent to the north boundary of the subject property.
- None of the tested analytes were detected in soil samples collected from the three soil stockpiles located in the north-central area of the subject property. This soil can be reused on-site as "clean" fill material.

Adjacent Honouliuli WWTP Site:

- None of the tested analytes were detected in soil samples collected from the soil borings located in the vicinity of the abandoned Navy fuel pipeline that runs along the south side of the Honouliuli WWTP, parallel to Geiger Road.
- Petroleum-impacted material is not anticipated to be encountered within the excavation required for the proposed drainage basin construction.

23. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Subcontractor
b.	(1) FIRM NAME R.M. Towill Corporation	(2) FIRM LOCATION <i>(City and State)</i> Honolulu, HI	(3) ROLE Prime Contractor

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

19. TITLE AND LOCATION <i>(City and State)</i>		20. YEAR COMPLETED	
Reconstruction/Replacement of Sewers at Ho'omaluhia Botanical Gardens, Kaneohe, Oahu, Hawaii		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(If applicable)</i> Ongoing
21. PROJECT OWNER'S INFORMATION			
a. PROJECT OWNER City and County of Honolulu Department of Design and Construction	b. POINT OF CONTACT NAME Mr. Harold Mau	c. POINT OF CONTACT TELEPHONE NO. (808) 768-8405	

22. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Background: The objective of the project is to upgrade the existing sewer system at Ho'omaluhia Botanical Gardens to current City standards, with the intent of facilitating the turnover of the system from the Department of Parks and Recreation to the Department of Environmental Services. The reconstruction of the existing 2-mile gravity sewer system was also in response to spills observed during heavy rainfall events. Work was separated into various stages, including an initial assessment and schematic design of the entire system. The final design and construction services were separated into three phases along the existing 2-mile system.



Project Scope: Element Environmental, LLC (E2) was tasked with completing the initial assessment, schematic design, planning, design, and preparation of construction documents for all phases of reconstruction/replacement of the existing sewer line.

The initial assessment included cleaning and closed-circuit television (CCTV) inspection of the entire sewer system, in accordance with the Pipeline Assessment Certification Program, as well as manhole inspections. E2 then completed the schematic design, which included assessing sewer line deficiencies from the historic spill and CCTV inspection data, developing rehabilitation/replacement alternatives, preparing schematic drawings for the recommended alternatives, and preparing a cost estimate for the recommended improvements. Major deficiencies that were identified in the system included deteriorated pipes, offset joints, and root intrusion. Rehabilitation/replacement alternatives that were considered included slip lining, cured-in-place pipe, pipe bursting, and open-trench repair and replacement. Design sewer flows were calculated based on current and future planned uses at the Botanical Gardens.

Upon acceptance of the recommended improvements, E2 completed construction documents for each phase of work (i.e., plans, specifications, and estimated construction costs) and is currently providing services during construction for Phases II and III.

Project Highlights:

- Completed cleaning and CCTV inspection of the 2-mile gravity sewer system.
- Developed rehabilitation/replacement alternatives for the gravity sewer system.
- Calculating current and future design flows for the system based on planned future uses for the Botanical Gardens.

Cost: \$840,000.

23. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Prime Contractor
b.	(1) FIRM NAME Underground Services, Inc	(2) FIRM LOCATION <i>(City and State)</i> Honolulu, HI	(3) ROLE Subcontractor, CCTV

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE FIRM'S QUALIFICATIONS FOR THIS PROJECT CATEGORY

21. TITLE AND LOCATION <i>(City and State)</i> Waianae Agricultural Park Improvements Waianae, Oahu, Hawaii	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2017	CONSTRUCTION <i>(If applicable)</i> 2018

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER State of Hawaii, Department of Agriculture	b. POINT OF CONTACT NAME Mr. Glenn Okamoto, P.E.	c. POINT OF CONTACT TELEPHONE NUMBER (808) 973-9436
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Project Scope: Element Environmental, LLC (E2) completed the design of miscellaneous improvements to the drainage system at the Waianae Agricultural Park. During large rain events, debris carried by stormwater is known to clog the primary drainage inlet causing flows to overtop the drainage system and flow onto the roadway. This overflow has triggered a washout of the access road and adjacent drainage way slopes. The proposed miscellaneous improvements included the diversion of runoff into an infiltration basin, the design of overflow protection drainage intakes for the infiltration basin, grates to protect the primary inlet from debris, slope stabilization, and repairs to one section of the existing concrete drainage swales.

To mitigate debris blockage of the drainage intake and reduce flows to the primary drainage inlet, E2 designed diversion structures along the existing concrete drainage swale to route stormwater and debris into an infiltration basin. The diversion structures allow stormwater to enter the infiltration basin, even in the event of heavy debris build-up at the primary drainage inlet. An overflow structure was designed downstream of the diversion to allow stormwater from the infiltration basin back into the existing concrete swale system to the primary drainage inlet. An elevated perforated drainage intake pipe was also designed as a secondary overflow protection measure. This intake pipe is located within the infiltration basin to collect stormwater overflow with minimal potential impacts from debris and prevent overtopping of the drainage way. Other major improvements included riprap stabilization of drainage way slopes.

E2 prepared construction documents, plans and specifications, and a construction cost estimate. Due to initial funding concerns for construction, the design was broken up into a base bid and two additive alternatives to allow for phased construction. The final construction bid included all phases of the proposed work except for the additive alternative consisting of repairs to the existing concrete drainage swale. Construction was completed in early 2018.



Project Highlights:

Completion of design and construction of storm drain intake modifications to mitigate debris in runoff, increase overall capacity of the existing drainage system, and reduce and slow large flows to the primary drainage inlet to prevent overtopping of the storm drainage system.

New drainage improvements were designed to be integrated into the existing storm drainage system, while more effectively utilizing the existing infiltration basin.

Innovative elevated perforated drainage intake pipe was designed.

Cost: \$60,000.



< Before



After >

25. FIRMS INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME Element Environmental, LLC	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Prime Contractor
b.	(1) FIRM NAME MKE and Associates, Inc.	(2) FIRM LOCATION <i>(City and State)</i> Aiea, HI	(3) ROLE Subcontractor, Structural Engineer

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

24. NAMES OF KEY PERSONNEL (From Section E, Block 11)	25. ROLE IN EXAMPLE PROJECT	26. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Ryan S.W. Yamauchi	Senior Engineer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Roger C. Aoki	Senior Environmental Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Matthew J. Neal	Senior Environmental Scientist	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arlene H. Campbell	Senior Geologist	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steven R. Spengler	Senior Hydrogeologist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eric M. Lau	Senior Environmental Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bernice M. Balete	Senior Environmental Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marvin D. Heskett, III	Senior Chemist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Candace K. Yamauchi	Senior Environmental Engineer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lindsay B. Mason	Senior Environmental Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Angela K. Peltier	Senior Geologist	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jodie C.A. Tsubone	Civil Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

27. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Phase II Environmental Site Assessment, Central Maui Regional Park, Kahului, Maui, Hawaii	6	Investigation of Kokee and Kekaha Ditch Irrigation Systems, Waimea, Kauai, Hawaii
2	Remedial Investigation/Feasibility Study and Remedial Action Work Plan, Remedial Action Completion Report, and Well Decommissioning, Quarry Pit Landfill, Marine Corps Base Hawaii, Kaneohe, Oahu, Hawaii	7	Phase II Environmental Site Assessment, Additional Sampling, and Preparation of an Environmental Hazard Evaluation and Environmental Hazard Management Plan for a Whitmore Village Property, Wahiawa, Oahu, Hawaii
3	Wastewater Effluent Reuse Feasibility Study, Waimanalo Wastewater Treatment Plant, Waimanalo, Oahu, Hawaii	8	Phase I and II Environmental Site Assessments, Honouliuli Wastewater Treatment Plant, Ewa Beach, Oahu, Hawaii
4	Phase I and II Environmental Site Assessments, Kapalama Container Terminal Yard, Honolulu Harbor, Oahu, Hawaii	9	Reconstruction/Replacement of Sewers at Ho'omaluhia Botanical Gardens, Kaneohe, Oahu, Hawaii
5	Phase I and II Environmental Site Assessments, Former Voice of America Site, Maili, Oahu, Hawaii	10	Waianae Agricultural Park Improvements Waianae, Oahu, Hawaii

H. ADDITIONAL INFORMATION

28. PROVIDE ANY ADDITIONAL INFORMATION AT YOUR DISCRETION. ATTACH ADDITIONAL SHEETS AS NEEDED

Element Environmental, LLC (E2) has been in business since October 2005. E2 offers a wide range of environmental consulting, environmental engineering design, and water resource evaluation. E2 offers a small business personal attention and flexible decision-making capabilities while providing a large firm's breadth of expertise and experience. E2 personnel work closely with a wide range of clients. E2 provides innovative, cost-effective solutions using the latest technology to obtain client objectives while complying with pertinent environmental regulations. E2 has a history of successfully completing projects throughout the State of Hawaii and the Pacific Rim for both the private sector and government clients.

ELMENT ENVIRONMENTAL, LLC

- **Established in 2005**
- **Operating for 18 years**
- **Small Business**
- **39 Personnel (Professional Engineers, Scientists, Chemists, Hydrologists, and Technical Staff)**

DISCIPLINES

- **Environmental Engineering**
- **Civil Engineering**
- **Hydrology/Water Resources**

NAME OF PRINCIPAL, FIRM, AND PRINCIPAL PLACE OF BUSINESS

Ryan Yamauchi, P.E.

Principal-In-Charge

Email: ryamauchi@e2hi.com

Office Phone: (808) 488-1200, Mobile: (808) 864-3952

Website: www.e2hi.com

Element Environmental, LLC

98-030 Hekaha Street, Unit 9, Aiea, Hawaii 96701 (Oahu)

EDUCATION, TRAINING & QUALIFICATIONS OF KEY MEMBERS

E2's technical staff of 39 total professionals (28 full-time, 11 part-time) with over 500 years of combined professional experience in environmental and engineering services with seven (7) licensed professional engineers and one (1) licensed geologist are either life-long residents of the State of Hawaii or have resided in the state for over 17 years. As a result, the staff of E2 is intimately familiar with the local environment, regulations, and community concerns. E2 personnel is comprised of engineers, hydrologists, geologists, environmental scientists, and chemists. Most individuals hold bachelor's degrees with four (4) master's degrees, and two (2) doctorate degrees received from prestigious universities including the Berkeley-University of California, Columbia University, Jacksonville University, Massachusetts Institute of Technology, Michigan Technical University, Mount Royal University, New Paltz State University of New York, Purdue University, The California Polytechnical University at San Luis Obispo, The University of Vermont, University of California at Los Angeles, UC Santa Cruz, University of Colorado at Boulder, University of Hawaii at Manoa, University of Notre Dame, Vanderbilt University, and Willamette University

AT-A-GLANCE PERSONNEL

- **7 Licensed P.E. (6 Hawaii-Civil)**
- **1 Licensed Geologist**
- **1 Ph.D. Hydrology, 1 Ph.D. Botany**

BREAKDOWN (39 PERSONNEL)

- **4 Civil Engineers**
- **8 Environmental Engineers**
- **3 Geologists**
- **1 Hydrogeologist**
- **8 Environmental Scientists**
- **1 Chemist**
- **1 Chemical Engineer**
- **9 Technicians**
- **4 Administrative Staff**

E2 is registered with the State of Hawaii, Department of Health (DOH) as an Asbestos Entity (A-0120) pursuant to Hawaii Administrative Rules, Chapter 11-504, and is also a certified Lead-Based Paint Activities Firm (PBF-0032) pursuant to Hawaii Administrative Rules, Chapter 11-41. Attachment 3 provides E2's staff licenses and asbestos and lead certifications. E2 has an asbestos project designer and inspectors, as well as a lead project designer, risk assessors, and inspectors.

STATE OF HAWAII DOH CERTIFIED

- **20 Asbestos Inspectors**
- **1 Asbestos Project Designer**
- **12 Lead Risk Assessors**
- **20 Lead Inspectors**
- **1 Lead Project Designer**

E2 has demonstrated its ability to manage and execute complex, multi-disciplinary, and concurrent task orders for various clients. E2's principals and Senior Project Managers each have over 25 years of experience in contracting, fee proposal preparation, project management, and subcontractor management. E2's key senior personnel assignments include Program Manager, Ryan Yamauchi, P.E., Technical Director/Quality Assurance Manager, Roger Aoki, P.E., and Health and Safety Manager, Matthew Neal.

Program Manager, Mr. Ryan Yamauchi, P.E., will be responsible for contractual matters, fee proposal preparation and negotiations for task orders, invoicing, and ensuring adequate resources are provided for each task order. Mr. Yamauchi will be the primary point of contact with the Contracting Officer.

Technical Director/Quality Assurance Manager, Mr. Roger Aoki, P.E., will be responsible for assigning the project managers and technical resources for each task order and tracking and ensuring compliance with project schedules and the technical aspects of the contract. Mr. Yamauchi and Mr. Aoki will have the authority to assign additional resources, stop work, and institute changes to ensure projects are completed safely, on time, and in compliance with the contract requirements. Mr. Aoki will also oversee the Quality Assurance (QA) of data and technical review of project deliverables. He will oversee the project chemists assigned to each task order to ensure laboratory data quality objectives are met and laboratory data are properly validated.

Health and Safety Manager, Mr. Neal, will manage and execute the Health and Safety Program for the contract. Mr. Neal will oversee site-specific Health and Safety Plan preparation, assign Site Health and Safety Officers for each task order, conduct health and safety audits, verify personnel has the appropriate health and safety training for the duties that they are assigned, and ensure subcontractor compliance with the contract's health and safety requirements and E2's Health and Safety Program. Mr. Neal will have the authority to immediately stop work for safety reasons and institute changes to the work procedures.

Depending on the nature of the task orders, Mr. Yamauchi, Mr. Aoki, and Mr. Neal may also serve as Project Managers on select task orders. Senior Project Managers, Ms. Arlene Campbell, L.G., Mr. Eric Lau, P.E., Mr. Marvin Heskett, Ms. Bernie Balete, P.E., Ms. Lindsay Mason, P.E., Ms. Candace Yamauchi, P.E., and Ms. Angela Peltier may also be responsible for managing the technical staff assigned to the task order, managing, and coordinating team subconsultants working on the task order, and coordination and execution of all project tasks.

PROGRAM MANAGER

- Mr. Ryan Yamauchi, P.E.
- Contractual Matters
 - Fee Proposals
 - Negotiations
 - Invoicing
 - Ensure the project has adequate resources
 - Project Manager

TECHNICAL DIRECTOR

- Mr. Roger Aoki, P.E.
- Assign Technical Staff
 - Assure Project has Technical Resources
 - Contract Compliance
 - Quality Assurance
 - Project Manager

HEALTH & SAFETY

- Mr. Matthew Neal
- Execute Safety for Staff and Subcontractors
 - Health and Safety Plans for Project
 - Authority to Stop Work
 - Project Manager

PROJECT MANAGERS

- Ms. Arlene Campbell, L.G.
- Mr. Eric Lau, P.E.
- Mr. Marvin Heskett, III
- Ms. Bernice Balete, P.E.
- Ms. Lindsay Mason, P.E.
- Ms. Candace Yamauchi, P.E.
- Ms. Angela Peltier

Please refer to the following for additional information.

Attachment 1 – Organization Chart

Attachment 2 – Qualifications of Key Personnel - education, years of experience, certifications, and training

Attachment 3 – Professional Licenses and Certifications

CLIENT REFERENCES

E2 provides the following client references.

Mr. Glenn Okamoto, P.E.
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State of Hawaii
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Mr. John E. Sato, P.E.
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Command
(NAVFAC) Pacific
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Honolulu, Hawaii 96860
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Email: john.e.sato.civ@us.navy.mil

Ms. Lureen Komoda, P.E.
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Department of Design and Construction
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Engineering Division
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Mr. Steve Joseph
General Manager
PVT Land Company Ltd.
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Waianae, Hawaii 96792
Phone Number: (808) 668-4561
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Professional Services

E2 has a history of successfully completing projects throughout the State of Hawaii and Pacific Rim for both private and government clients for a variety of environmental, engineering, and water resources services. Over the last eighteen years, E2 has provided services to government agencies and private clients including the State of Hawaii, County of Hawaii, County of Kauai, County of Maui, and the City and County of Honolulu, NAVFAC Pacific, the U.S. Army Corps of Engineers; the U.S. Army Garrison Hawaii; the U.S. Coast Guard, Kamehameha Schools Bishop Estate, the Shell Oil Company, Getty Oil, Ball Corporation, and the Samsung Corporation. The large majority of E2's ongoing projects have been awarded by repeat clients who were satisfied with E2's abilities to control costs, provide high-quality work, and maintain and meet schedules. The following is a list of the professional services that E2 provides.

Environmental Services

- Environmental Compliance Audits and Pollution Prevention Planning
- Phase I, II, and III Environmental Site Assessments (ESAs)
- Environmental Site Investigations (SIs), Remedial Investigations (RIs), Remedial Designs (CERCLA and Resource Conservation Recovery Act [RCRA])
- Hazardous Materials Surveys including Asbestos and Lead-Based Paint (LBP)
- Hazardous Waste Management and Corrective Action Studies

- Soil and Groundwater Remediation
- Landfill/Solid Waste: Permitting; Gas and Groundwater Monitoring, Reporting, and SIs; Fire Management; and Global Positioning System (GPS) Services
- Integrated Solid Waste Management Planning
- Underground Storage Tank (UST) Closures and Remedial Investigations
- Dredged Material Testing and Evaluation
- Water Quality Studies (including National Pollutant Discharge Elimination System [NPDES] Permitting and Monitoring)
- Storm Water and Non-Point Source Pollutant Discharges
- Environmental Assessments (EAs) and Environmental Impact Statements (EISs)
- Environmental Permitting
- Environmental Baseline Surveys (EBSs)
- Risk Assessments
- Biosolids Treatment and Composting
- Phytoremediation and Mycoremediation
- Geographic Information System (GIS)-based Mapping and Databases for Environmental Data

Utilities Services

- Design of Water Distribution, Transmission, and Treatment Systems
- Design of Wastewater Collection, Treatment, and Disposal Systems
- Design of Storm Drainage Collection and Disposal Systems

Water Resources Services

- Water Resource Planning
- Well Site Selection
- Hydrologic and Hydrogeologic Studies
- Well Design and Permitting
- Well Installation, Cleaning, Testing, Inspection, and Closure
- Groundwater Monitoring
- Groundwater Modeling

COUNTY OF HAWAII - PROJECT EXAMPLES

Below is a summary table of professional services provided to the County of Hawaii.

Project	Year Completed	Contract Amount	Description
<i>County of Hawaii - Wastewater Treatment Plants</i>			
Kealakehe Wastewater Treatment Plant Feasibility Study, Kona	Ongoing	\$394,800	E2 is currently preparing a Feasibility Study for the Kealakehe Wastewater Treatment Plant to support the United States Bureau of Reclamation Title XVI Program funding.
Kealakehe Wastewater Treatment Plant Headworks Upgrade, Kona	2022	\$20,391	E2 collected 30 bulk samples for asbestos and 15 paint chip samples for lead, conducted a field investigation, and reviewed as-built plans and other available previous survey reports. Prepared report.
Pua Pump Station at Hilo Wastewater Treatment Plant Hazardous Materials	2022	\$19,420	E2 conducted historical research, reviewed records, and conducted a site inspection of the Kealakehe Wastewater Treatment Plant. E2 also prepared a

Project	Year Completed	Contract Amount	Description
			Summary Letter and a Limited Asbestos and Lead Paint Survey Report summarizing field sampling. E2 will prepare construction plans, specifications, and construction cost estimates to address closure of the UST and existing fuel lines if needed.
<i>County of Hawaii - Landfills</i>			
Closed Kona Landfill Fire Monitoring	2016	\$389,000	E2 provided various consulting services at two closed landfills, including performing a geophysical survey, infra-red photography, and mapping to determine landfill boundaries and fire characterization, and preparing a landfill fire management plan. Prepared a landfill alternatives plan to evaluate fire control/extinction, waste mining, and other alternatives. Assisted with an U.S. Environmental Protection Agency (EPA)-supported fire control pilot test to evaluate the efficacy of using waste excavation and the application of foam/water as a method to extinguish fire in landfill hot spots. Tasks included quarterly monitoring of landfill gas and subsurface fire conditions, preparation of quarterly and annual monitoring reports, and periodic fire management activities (e.g., carbon dioxide [CO ₂] injection, landfill cover maintenance, and landfill fire response, etc.).
Closed Waimea Landfill Fire Monitoring			
Closed Kona Landfill Subsurface Landfill Fire Monitoring and Maintenance	2015	\$260,000	E2 provided fire monitoring and control services for the closed Kona/Waimea/Waimea Landfills. The services included: landfill cover maintenance; bi-annual inspections/quarterly monitoring, which includes landfill gas sampling and reporting; semi-annual vegetation control; installation of new gas sampling probes; and fire control and response activities.
Closed Waimea Landfill Subsurface Landfill Fire Monitoring	2015	\$440,000	E2 conducted quarterly or semiannual monitoring of all functioning probes at the Waimea Landfill. Monitoring activities was conducted in general accordance with the Landfill Management Plan and at the interval specified in the previous monitoring report. Monitoring included collecting temperature and gas-composition data from the gas probes, sinkholes, cracks, and other designated areas at the landfill, evaluation of the landfill surface and soil cover maintenance, and evaluation of storm water runoff. Conducted an Infrared Survey and the results of the survey were included in the monitoring report. E2 will prepare monitoring reports with an annual summary included in the

Project	Year Completed	Contract Amount	Description
			fourth quarter report. Summarized all monitoring activities at the site.
Closed Waimea and Closed Kailua-Kona Landfills Fire Management	2015	\$300,000	E2 reviewed historical documents and project files for the Kona Landfill available from the County of Hawaii and the State regulatory agencies to help identify potential measures that could be taken to control and minimize burning/smoldering areas at the landfill. E2 prepared a written summary of historical and environmental activities and provided a basis for recommendations for fire management options. E2 conducted an annual Infrared Survey to compare with landfill gas monitoring data to evaluate the subsurface condition at the landfills. E2 conducted bi-monthly site visits to inspect the Kona landfill surface for new depressions, fissures, sinkholes, odor, smoke, and dead vegetation; and to document the overall conditions at the landfill. E2 conducted quarterly landfill cover maintenance at the landfills, which includes providing suitable cover material and backfilling sinkholes and/or cracks observed in the landfill. E2 conducted quarterly monitoring at the landfills, which includes collecting temperature and gas-composition data from the gas probes, sinkholes, cracks, and other designated areas at the landfill; evaluation of the landfill surface and soil cover maintenance; and evaluation of storm water runoff. Gas data and probe locations are entered into the Surfer® contouring and 3D surface mapping program to illustrate gas concentrations. Problematic areas are delineated based on the resultant gas contours and carbon dioxide is injected into the probes in and around those areas in order to suffocate the fire. E2 prepared quarterly monitoring reports to submit to the County summarizing landfill maintenance and monitoring activities. E2 facilitated the closure of portions of the landfill's dilapidated landfill gas extraction system in 2014 in hopes of reducing the amount of oxygen available to smoldering areas in the landfill.

E2 staff can provide the County of Hawaii with the knowledge and technical expertise related to engineering as below.

Environmental Permitting and Environmental Compliance

- **National Pollutant Discharge Elimination System Stormwater Permitting and Compliance, Various Locations, Statewide, Hawaii.** E2 processed National Pollutant Discharge Elimination System (NPDES) permits for industrial facilities in Campbell Industrial Park, PVT Construction and Demolition Landfill on Oahu, and Princeville Landfill on Kauai. E2 has also processed NPDES permits for a private land owner in Kahala for the discharge of water and wastewater from decorative ponds and water features and for hydrotesting reservoir systems for the Honolulu Board of Water Supply. E2 also completed an industrial discharge connection permit to the City and County of Honolulu's municipal separate storm sewer system (MS4) for an industrial complex in Kalihi.
- **401 and 404 Water Quality Certifications (WQCs) for improvements and embankment repairs to the Barbers Point Kalaeloa Harbor, Oahu, Hawaii.** State of Hawaii Department of Transportation Harbors Division. E2 has experience with environmental permitting and certifications for compliance with Clean Water Act Sections 401 and 404. E2 has processed The 401 WQC was completed in coordination with the USACE Nationwide Permit 13 (NWP-13).
- **401 Water Quality Applicable Monitoring and Assessment Plan for Nuuanu Reservoir, Honolulu, Oahu, Hawaii.** The Honolulu Board of Water Supply repaired the Nuuanu Reservoir No. 4. The reservoir is in Nuuanu Valley adjacent to the Pali Highway, State Route 61, approximately 4 miles northeast of downtown Honolulu. The Nuuanu Reservoir repair project consisted of four primary tasks which required water quality monitoring, reservoir dredging, repairs to the intake tower and gangway, an outlet pipe extension, and roadway and embankment repairs. The Water Quality Applicable Monitoring and Assessment Plan (AMAP) was designed to address monitoring for pollutants in the adjacent stream environment during construction activities and to ensure Best Management Practices are working to minimize potential impacts.

Water Quality Studies/Storm Water Monitoring and Planning

E2 has completed storm water monitoring for Total Maximum Daily Load (TMDL) compliance and for industrial site runoff compliance in accordance with Navy Region Hawaii's municipal separate storm sewer system (MS4) National Pollutant Discharge Elimination System (NPDES) permit annually since 2015. E2 has also completed or is completing several storm water investigations, assessments, and management projects for NAVFAC Hawaii as follows.

- **Storm Water Management Plan for Commander Navy Region Hawaii, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii.** E2 prepared a Storm Water Management Plan (SWMP) for Commander Navy Region Hawaii in accordance with their National Pollutant Discharge Elimination System (NPDES) permit. The SWMP contained several program components including public education and outreach, illicit discharge detection and elimination, construction site runoff control, post construction storm water management, P2 and good housekeeping, storm water monitoring, and reporting. Storm Water Pollution Control Plans were developed for over 100 industrial facilities as part of the SWMP.
- **Storm Water Management Plan for Marine Corps Base Hawaii Kaneohe Bay, Oahu, Hawaii.** E2 prepared a Storm Water Management Plan (SWMP) for Marine Corps Base Hawaii Kaneohe Bay in accordance with their National Pollutant Discharge Elimination System (NPDES) permit. The SWMP contained several program components including, public education and outreach, illicit discharge detection

and elimination, construction site runoff control, post construction storm water management, P2 and good housekeeping, storm water monitoring, and reporting. Storm Water Pollution Control Plans were developed for 25 industrial facilities as part of the SWMP.

- **Illicit Discharge Survey for Commander Navy Region Hawaii, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii.** E2 completed an illicit discharge survey for non-storm water discharges to the Commander Navy Region Hawaii (CNRH) municipal separate storm sewer system (MS4) and waters of the United States of America. The survey was completed in accordance with the National Pollutant Discharge Elimination System (NPDES) permit issued to CNRH. The scope included the inspection of over 1,300 facilities located throughout Joint Base Pearl Harbor-Hickam. The inspections included an assessment of facility operations and work practices that may result in illicit discharges as well as inspections of the storm drain system during dry weather to determine if illicit connections are present. E2 completed the inspections and developed recommended corrective actions and associated preliminary cost estimates based on the survey findings.
- **Hickam Field Industrial Facility Inspections for Storm Water Compliance, Oahu, Hawaii.** E2 completed annual inspections of 38 industrial facilities located within 54 buildings at Hickam Field to determine if facility operations were in compliance with NPDES permit requirements. Facility managers were interviewed and facility inspections were completed in order to identify good housekeeping and best management practices (BMPs), the availability of spill response procedures and spill kits, existing erosion control measures, hazardous materials and hazardous wastes stored on site, material inventory, condition and types of storage lockers and containers for hazardous materials and hazardous wastes, current industrial work activities and work practices, evidence of spills and/or leaks, evidence of dry weather flows and illicit connections, and condition of existing storm drain inlets. Deficiencies were noted and recommended corrective actions including additional BMPs were identified.
- **Total Maximum Daily Load Study Wahiawa Annex, Oahu, Hawaii.** E2 served as the principal investigator for a Total Maximum Daily Load (TMDL) study for Joint Base Pearl Harbor-Hickam (JBPHH)-Wahiawa Annex. This monitoring work was conducted to comply with the terms of National Pollutant Discharge Elimination System (NPDES) Permit for the Navy's municipal separate storm sewer system (MS4). Cutthroat flumes were installed at three areas where runoff exits the facility and flows towards Kaukonahua Stream to allow quantification of the volume of flow exiting the installation. Water quality monitoring of the runoff has been conducted for 2.5 years for Total Nitrogen and its components (ammonia, Kjeldahl nitrogen, and Nitrate/Nitrite as N), turbidity and Total Suspended Solids (TSS)). A predictive analytical model was developed for JBPHH-Wahiawa Annex that allows calculation of the daily nitrogen & turbidity loads exiting the facility towards Kaukonahua Stream using continuous rainfall data collected at the installation. This model will save the Navy money complying with the terms of their NPDES permit.

Sewage/Wastewater and Industrial Waste Collection Treatment, and Disposal Systems Investigations and Assessments

- **Slug Prevention Plan for Commander Fleet Activities Sasebo, Japan.** E2 evaluated facilities and activities with the potential to discharge or spill pollutants that could cause a slug load, which would impact the operation, maintenance, or management of domestic wastewater treatment systems.
- **Non-Domestic Wastewater Management Plan for NAVFAC Hawaii, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii.** E2 initially screened over 8,000 facilities to determine if the facility discharges or could potentially discharge non-domestic wastewater to the collection system. After the initial screening, E2 inspected approximately 800 facilities to determine if non-domestic discharges were occurring and whether proper pretreatment is being completed. Site inspections and interviews with facility managers were completed for those facilities that were confirmed to have non-domestic discharges. The management plan included a list of the inspection findings along with design recommendations to eliminate, divert, and/or pretreat the discharges. Cost estimates to implement the recommendations were provided.

E2 determined the maximum allowable headworks loading (MAHL) for the NAVFAC Hawaii Wastewater Treatment Plant (WWTP). E2 performed an assessment of the impacts of the non-domestic discharges on the NAVFAC Hawaii WWTP, the fate of non-domestic waste streams, sludge impacts (including disposal and potential reuse considerations), whole effluent toxicity impacts and WWTP removal efficiencies. Considering these assessments as well as outfall dilution, water quality standards in the Hawaii Water Quality Standards, and pertinent regulations specified in the National Pollutant Discharge Elimination System (NPDES) Permit, E2 will develop the MAHLs for chemical and biological pollutants of concern and provide recommended revisions to indirect discharge limitations.

- **Waimanalo Wastewater Treatment Plant R-1 Reuse Feasibility Study, Waimanalo, Oahu, Hawaii.** A Feasibility Study (FS) was completed for the United States of America Army Corps of Engineers and City and County of Honolulu to assess the technical, environmental, and economic feasibility of producing R-1 water at the Waimanalo Wastewater Treatment Plant for reuse in the Waimanalo community. The first component of the FS was a market survey that was completed to identify potential users in the community. The survey identified available potable and irrigation water sources; gauged interest from the potential users; gathered user concerns with R-1 water use; and identified potential R-1 water demands. The results of the market survey indicated strong interest in R-1 water reuse from the Olomana Golf Links, Waimanalo District Park, Waimanalo Beach Park, Honolulu Polo Club, and Waimanalo Wastewater Treatment Plant (WWTP). A conceptual design for the first phase of improvements was completed and identified the WWTP improvements, the distribution system improvements, and the end user improvements.
- **Large Capacity Cesspool Closure, Hickam Field, Oahu, Hawaii.** E2 completed the closure design for five Large Capacity Cesspools (LCCs) located within the former Hickam AFB portion of JBPHH. These active LCCs are located at Buildings 2115, 3510, 3220, 3004, and 3435. The design services included determining the closure requirements for the LCC, determining the alternative disposal method (i.e., replacement with septic tank/leach field, or connection to existing wastewater collection system, development of construction drawings, specifications, and detailed cost estimates for the closure of the LCCs as well as completion of draft LCC closure applications for the State of Hawaii Department of Health. The project included historical document review, topographic surveys, geotechnical investigations, and engineering services.

E2 interviewed building tenants regarding their operations to determine the average and peak design flows for the new wastewater facilities. Percolation tests were completed at the three LCC sites that were determined to require leach fields. One of the challenges for the project is the shallow groundwater table that is present at several of the sites located near the shoreline. The shallow groundwater requires the use of packaged pump stations to pump effluent from the septic tank to an elevated leach field. The relatively low flows (about 15 gallons per minute [gpm]) also required the design of packaged low flow progressive cavity pump stations. Waianae Agricultural Park Drainage Improvements. E2 completed the design of miscellaneous improvements to the drainage system at the Waianae Agricultural Park. The improvements included slope stabilization of drainage ways, diversion of runoff into an infiltration basin, design of overflow protection drainage intakes for the infiltration basin, and repairs to existing concrete drainage swales. During large rain events, debris being carried by stormwater has caused the primary drainageway intake to clog and flows to overtop the drainage system causing washout of the access road and drainageway slopes. To mitigate the blockage of the drainage intake, E2 designed diversion structures that will route stormwater into an infiltration basin. The diversion structures will allow for stormwater to enter the infiltration basin even with heavy debris build-up. An elevated backup drainage intake was also designed in the infiltration basin that will collect stormwater overflow and prevent overtopping of the drainageway. Other improvements included riprap stabilization of drainageway slopes.

- **Pier 21 WWPS, Honolulu Harbor, Oahu, Hawaii.** E2 prepared construction documents for the replacement of the existing packaged pump system at the Pier 21 WWPS with a new aboveground pumping system. The Pier 21 WWPS provides wastewater service to industrial facilities located along Pier 21 in Honolulu Harbor. The design included installation of new pumps and related appurtenances while allowing continued use of the existing influent wet well manhole present at the site. The design also included the replacement of the existing force main from the WWPS to the wye connection, which connects the force

main to another existing force main. The total length of the designed replacement was approximately 500 feet.

- **Kalewa Street WWPS, Oahu, Hawaii.** E2 designed a new packaged WWPS and new dual relief force main for the Kalewa Street WWPS. E2 was responsible for evaluating present and future wastewater flows from the tributary, sizing and selecting the new packaged pump station, and completing construction documents for the new packaged WWPS and new dual relief force main (1,300 feet). Integral to the design was planning the phasing of construction, which would allow continued and uninterrupted use of the airport facilities by the tenants while the new WWPS and new dual relief force main is constructed.
- **Lihue WWTP, Lihue, Maui, Hawaii.** E2 compiled and analyzed data to quantify the amount of Inflow and Infiltration that is associated with rainfall events at the site. Predictive equations based on rainfall and flow-monitoring data were developed using multiple linear regression methods. The analysis was used to evaluate whether the sewer system had the necessary capacity for potential future development. The objective of this project was to determine if reserve or additional capacity still exists within Lihue's Wastewater Collection System for future developments within the Hanamaulu Triangle development. SewerCAD was used to model the Lihue wastewater collection system.
- **Honouliuli WWTP Phase IC – R3 Water Reuse Pump Station Design, Ewa Beach, Oahu, Hawaii.** E2 evaluated the R3 water system demands provided by the client and select an appropriate pumping system to meet demands. The design will include the selection and sizing of pumps; section of process control equipment, and pump station configuration. E2 will provide design calculations and text for the Basis of Design. E2 will also assist with construction cost estimates for the pump station.
- **He'eia WWPS Improvements, Kaneohe, Oahu, Hawaii.** E2 assisted in providing edits to the section for "Closure of Underground Storage Tanks" for required demolition work. E2 also provided a rough abatement cost estimate. E2 be provided services during bidding and construction

Solid Waste Planning and Management

- **Hazardous Waste Management Plan, Commander Fleet Activities Yokosuka, Japan.** E2 developed a Hazardous Waste Management Plan (HWMP) in accordance with all the applicable regulations and requirements and conducted a Closure Plan for the HWSA and PCB Storage area for Commander Fleet Activities Yokosuka. Field work associated with a detailed review of existing Hazardous Waste Documents; (i.e., HWMP, Polychlorinated Biphenyl (PCB) Management Plan, Spill Prevention and Response Plan, and existing pertinent documentation, and any other Hazardous Waste plans/reports/assessments (i.e., Hazardous Waste profile sheets [HWPSs], Hazardous Waste shipment logs, Hazardous Waste Accumulation Points [HWAPs] summary sheets, etc.). Field work associated with a detailed survey of all Hazardous Waste generation points, HWAPs, and HWSAs; and field work associated with an on-site review of existing Hazardous Waste procedures for characterization and verification testing.
- **Hazardous Waste Management Plan, Marine Corps Base Camp Butler, Okinawa, Japan.** E2 prepared a Hazardous Waste Management Plan (HWMP), Waste Analysis Plan (WAP), and Hazardous Waste Storage Area Closure Plan. The HWMP and WAP provide guidance on implementing a comprehensive plan for managing hazardous waste generated at Marine Corps Base Camp (MCB) Butler for each of the camps, tenants, and contractors in the Camp Butler area of responsibility. The plan assigns responsibility and provides guidance on waste management procedures to ensure proper management of Hazardous Waste and conformance with applicable hazardous waste regulations. The HWMP also establishes hazardous waste management procedures applicable to all military, civilian, and contractor employees at MCB Camp Butler. E2 toured each major tenant command to evaluate hazardous waste generating activities and hazardous waste accumulation points to assess proper management and characterization of waste streams. The plan provides recommendations on pollution prevention and hazardous waste minimization as well as recommendations to improve the overall Hazardous Waste Management program.

- **Integrated Solid Waste Management Plan for U.S. Fleet Activities Sasebo, Japan.** E2 developed an Integrated Solid Waste Management Plan (ISWMP) for Commander Fleet Activities (CFA) Sasebo. The CFA Sasebo existing ISWMP was updated including solid waste management programs (including source reduction, recycling, and composting) by optimizing their design and operation through an integrated analysis of all comprehensive, cost-effective alternatives. The ISWMP will aid CFA Sasebo in maximizing its non-hazardous solid waste diversion. Documenting, quantifying, and providing options for diverting food waste (food service (galley), restaurants, food courts, and commissary), wood, organics, and other recyclable material and maximizing the amount for revenue generated from the installation of Qualified Recycling Program (QRP). The plan will include estimated costs and timeframes for the implementation of installation-approved recommendations. The plan also provided ship off-load guidance criteria to control waste offloaded from homeport and to also provide a feasibility study of the QRP recyclables. The plan incorporated current Final Governing Standards, local, Department of Defense, Navy, and Federal laws, regulations, instructions, orders, and directives as well as innovative information about recycling, waste diversion, waste reduction awareness, composting, and affirmative procurement.
- **Integrated Solid Waste Management Plan for Hawaii Army National Guard, Oahu, Molokai, Maui, Hawaii.** E2 updated the existing Integrated Solid Waste Management Plan (ISWMP) dated October 2012 for Hawaii Army National Guard (HIARNG). E2 completed the Work Plan and Health and Safety Plans before conducting site visits. E2 conducted site visits to HIARNG Sites on Oahu, Molokai, Hawaii, and Maui. E2 updated the ISWMP with a contemporary and systematic approach to solid waste management at all HIARNG sites. IWSMP identified how to reduce, reuse, recycle, and manage waste that is protective of human health and the environment in local conditions.
- **Integrated Solid Waste Management Plan Marine Corps Air Station Iwakuni, Japan.** E2 prepared an Integrated Solid Waste Management Plan (ISWMP) that defined and documented the installation's current ISWMP, established goals for improving solid waste management, identified specific actions required to achieve the plan goals, promoted compliance with applicable Federal, Department of Defense, Marine Corps, and local solid waste management regulations and policies, and evaluated alternative designs for future solid waste management. Conducted field work that included a waste stream assessment, data collection, and evaluation to prepare the final ISWMP.
- **Integrated Solid Waste Management Plan, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii.** E2 prepared an Integrated Solid Waste Management Plan (ISWMP) to define and document the installation's current ISWMP, establish goals for improving solid waste management, identify specific actions required to achieve the plan goals, promote compliance with applicable Federal, Department of Defense, and local solid waste management regulations and policies, and evaluate alternative designs for future solid waste management. The ISWMP will aid Joint Base Pearl Harbor-Hickam in maximizing its non-hazardous solid waste diversion. E2 prepared a Work Plan and a Health and Safety Plan prior to the field work. The field work included waste stream assessment, data collection, and evaluation used to prepare the final ISWMP.

Spill Prevention and Countermeasures Plans

- **Spill Prevention, Control and Countermeasure Plan, Pier 2 Cruise Terminal, Honolulu, Oahu, Hawaii.** E2 completed a Spill Prevention, Control and Countermeasure Plan (SPCC) for Pier 2 Cruise Terminal for the State of Hawaii, Department of Transportation, Harbors Division. E2 conducted a site visit for the location, prepared a site plan figure, and prepared the SPCC plan update.
- **Spill Prevention and Response Plan for 12 Sites in Okinawa, Japan.** E2 completed a Spill Prevention and Response Plan for Marine Corps Base Camp Butler, Okinawa, Japan. E2 inspected 324 aboveground storage tanks (ASTs), 29 underground storage tanks, 23 Chemical Storage Tanks, and 681 Electrical Transformers at 12 sites in Okinawa. E2 is currently preparing the reports.
- **Annual Spill Prevention Control and Countermeasures Plan Inspections of NAVFAC Hawaii Aboveground Storage Tanks and Oil Drum Storage Areas, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii (2013, 2015-Ongoing).** E2 completed the inspection of 170 ASTs and oil drum facilities annually

since 2015 and has prepared a report which included locations, conditions, and recommendations for each tank.

- **Spill Prevention, Control and Countermeasure Plans for three Honolulu Board of Water Supply Sites, Kalihi Corporation Yard, Halawa Shaft, and Kunia Wells 1, Oahu, Hawaii.** E2 conducted site visits and documented the capacity, type, contents, and condition of each ASTs/drums at three City and County of Honolulu Board of Water Supply sites; Kalihi Corporation Yard, Halawa Shaft, and Kunia Wells 1. E2 prepared a separate SPCC plan for each of the three sites meeting the requirements of Federal Clean Water Act and Oil Pollution Act.
- **Spill Prevention, Control and Countermeasure Plan Update, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii.** E2 completed a five-year update of the Navy SPCC plan for ASTs at all Navy facilities on Oahu, including Joint Base Pearl Harbor-Hickam (JBPHH)-Hickam Field and NAVFAC Hawaii facilities. A total of 456 ASTs were inspected and assessed by E2. An updated SPCC plan was developed for use by the Naval Supply Systems Command Fleet Logistics Center Pearl Harbor (NAVSUP FLCPH), NAVFAC Hawaii, JBPHH-Hickam Field, JBPHH-Naval Station, JBPHH-Wahiawa Annex, JBPHH-Lualualei Annex, Radio Transmitter Facility (RTF) Lualualei Annex, West Loch Annex, Beckoning Point, Kalaeloa, Pearl City Peninsula (PCP), and Manana Fire Station. E2 inspected and assessed 40 additional ASTs and integrated several more rounds of historical data into the SPCC Plan Update document that were not included in the Scope of Work, all at no additional cost to the Navy. E2 worked closely with NAVFAC Hawaii personnel to tailor the SPCC plan to specific Navy operations and to ensure the document could be easily used as a guide for Navy technical personnel and aid in spill prevention/response planning and management.

Hazardous Materials, Asbestos, Lead Paint Surveys

- **Asbestos and Lead-Based Paint Survey, Singapore Area Coordinator, Sembawang, Singapore.** E2 is conducting Asbestos and Lead Based Paint Surveys of Family Housing (FH), Unaccompanied Housing (UH), and Navy Gateway Inns and Suites (NGIS). Lead dust wipe samples were collected from 80 NGIS units. Asbestos and lead paint sampling were conducted at 12 UH units. Asbestos and lead risk assessment/paint sampling or X-ray fluorescence (XRF) testing will be conducted for 188 wall panels in 61 FH units. Asbestos and lead risk assessment/paint sampling or XRF testing will be conducted at 113 FH units (76 buildings). Asbestos bulk and lead paint sampling or XRF testing, and a lead risk assessment will be conducted at 80 NGIS units. E2 prepared a Work Plan and Health and Safety Plan for the work, and has completed a portion of the field work. Detailed survey reports will be submitted upon completion of field work and laboratory analysis.
- **Asbestos Survey, Naval Base Guam, Guam.** E2 completed an asbestos survey of 109 buildings with a total area of 1,014,904 square feet at Naval Base Guam. The work was completed in general accordance with applicable federal, Guam, and Navy laws, rules, regulations, orders, instructions, and industry-standard practice. E2 prepared a Work Plan and Health and Safety Plan prior to conducting field work. The field survey included the identification of Homogeneous Area (HAs), collection of survey information onto data sheets and building floor plans, collection of representative building material samples for each HA identified; collection of closeup and panoramic photographs of sample locations and assumed asbestos-containing material; and repair of sample locations. A total of 7,134 bulk samples were collected for laboratory analysis. For each building surveyed, E2 prepared a Draft and Final Survey Report, which included the findings in a summary data table, floor plans with approximate locations of samples taken, the extent of most HAs, a closeup and panoramic photo log of samples, and laboratory reports.
- **Hazardous Materials Survey, Former Sears Store Unit, Windward Mall, Kaneohe, Oahu, Hawaii.** E2 conducted a comprehensive demolition-level hazardous materials survey for the former Sears store unit. Suspect asbestos-containing material, lead paint, and arsenic-containing canec panels were sampled and submitted for laboratory analysis. The survey also included visual inventories of fluorescent light fixtures for PCB-containing ballasts, mercury-containing lamps, thermostats, and light switches. E2 prepared a report, including a review of as-built drawings, summary data tables, sample location figures, and sample photographs.

- **Hazardous Materials Surveys, Honouliuli Wastewater Treatment Plant Secondary Treatment Project, Ewa, Oahu, Hawaii.** E2 completed a hazardous material survey of over 30 buildings/structures that will undergo whole or partial demolition or renovation. Suspect asbestos-containing material, lead paint, and arsenic-containing canec panels were sampled and submitted for laboratory analysis. The survey also included visual inventories of fluorescent light fixtures for PCB-containing ballasts and mercury-containing lamps. E2 prepared a survey report, including summary data tables, sample location figures, and sample photographs. E2 also prepared hazardous materials specifications and construction cost estimates for the bid package, responded to requests for information, and reviewed pertinent contractor submittals.

Hazardous Materials/Substances Site Investigations and Testing

- **Phase I and II Environmental Site Assessments for Kaunakakai Harbor, Molokai, Hawaii.** E2 completed a Phase I Environmental Site Assessment (ESA) of the State of Hawaii, Department of Transportation, Harbors Division owned portion of Kaunakakai Harbor to identify Recognized Environmental Conditions (RECS) based on historic and current land uses. A Phase II ESA was also completed to investigate the RECs. The Phase II ESA consisted of the collection of surface and subsurface *MULTI INCREMENT*[®] soil samples from four decision units across the pier area, and installation of eight groundwater monitoring wells and the collection of groundwater samples. The soil and groundwater samples were analyzed for petroleum-related contaminants, heavy metals, polychlorinated biphenyls (PCBs), and pesticides. A Phase II ESA report was prepared to summarize the sampling results. Prepared an Environmental Hazard Evaluation and Environmental Hazardous Management Plan to manage potential risks posed by contaminated soil to human health and the environment.
- **Site Investigation at Former Molokai Electric Company and Galierher-Ono Parcels, Kaunakakai, Molokai, Hawaii.** E2 conducted a site investigation (SI) of the former Molokai Electric Company (MOECO) site in downtown Kaunakakai. The SI included a comprehensive study of residual near and subsurface contamination from previous MOECO activities, primarily from chemicals of concern polychlorinated biphenyls (PCBs), and petroleum and heavy metals. E2 collected over 700 discrete soil samples as well as 88 *MULTI INCREMENT*[®] soil samples, soil-gas, concrete, and groundwater samples. In addition, E2 conducted a synoptic water level study in order to help determine the potential migration of subsurface contaminants. Prior to the completion of the field portion of the project, E2 completed two Special Management Area permit applications for the County of Maui for the project. The results of the SI will be used to determine the most appropriate remedial action for the site.
- **Puna Agricultural Park Phase I Environmental Site Assessment, Puna, Island of Hawaii, Hawaii.** E2 completed a Phase I Environmental Site Assessment (ESA) for Puna Agriculture Park located in Puna, Hawaii Island, Hawaii for the DOA. The Phase I ESA was to identify environmental issues as part of a Puna Agricultural Park Feasibility Study of undeveloped land. E2 also drafted a Feasibility Study to determine the suitability of proposed parcels for agricultural use. E2 provided additional data collection from three parcels totaling 5,845 acres to support this Feasibility Study. E2 reviewed the existing conditions and conducted a market survey to determine public interest in developing the agricultural park.
- **Navy Environmental Hazard Evaluation/Environmental Hazard Management Plans for Ford Island Fuel Farm and UST NS-29, Oahu, Hawaii.** E2 completed an Environmental Hazard Evaluation (EHE)/Environmental Hazard Management Plan (EHMP) to identify and evaluate potential hazards to human health and sensitive ecological receptors posed by residual gasoline-impacted groundwater and/or soil identified at the Ford Island Fuel Farm and Underground Storage Tank (UST) NS-29 sites under current and potential future site conditions. The EHE/EHMPs were conducted in general accordance with the State of Hawaii Department of Health guidance and included a review of historic land use and environmental investigations conducted at the site, evaluation of the nature, magnitude, and extent of contaminants of potential concern, evaluation of potential negative impacts on human health and the environment posed by allowing contaminated media to remain in place, and a discussion of impacted media management and disposal of to prevent unmitigated exposure to human and ecological receptors. Based on the EHEs, a “No Further Action with Restrictions” status was recommended for both sites.

Hydrographic Surveys/Dredged Material Evaluations

- **Hydrographic Survey and Dredged Material Evaluation for Maintenance Dredging at the Inner Apra Harbor Entrance Channel, Alpha-Bravo Turning Basin, Finger Piers, And Lima, Mike, and November Wharves, Apra Harbor, Guam.** E2 conducted a characterization of dredge-sediment at three Confined Disposal Facilities (CDFs); Orote Point, Field 5, and the Ship Repair Facility, to determine the suitability of the sediment for reuse/disposal. About 30 acres of vegetation were cleared or transects cut and surveyed. Over 30 *MULTI INCREMENT*[®] soil samples were collected from about 280,000 cubic yards of sediment material in the three CDF units. Unexploded ordinance clearance was required at each of the sites during all field operations. E2 managed multiple crews of both subcontractors and E2 personnel simultaneously. A Dredge Material Management Plan was completed detailing the results with possible reuse alternatives for the sediment.
- **Apra Harbor Sediment Sampling and Hydrographic Survey Naval Base Guam, Apra Harbor, Guam.** E2 completed a dredge material evaluation of the Northern Inner Apra Harbor area at Naval Base Guam. Four composite samples were collected from four project sub-areas; Alpha/Bravo Wharves, Entrance Channel, and Turning Basin area; Finger Piers; Lima/Mike Wharves; and November Wharf. A total of 20 locations were sampled to comprise the four composite samples. The composite samples were subjected to chemical and biological testing to determine if the sediment was suitable for ocean disposal at the designated Guam Deep Ocean Disposal site.

Potable Water Source, Treatment, and Distribution Assessments

- **Lead in Drinking Water Testing at Priority Areas Joint Base Pearl Harbor-Hickam and Naval Computer and Telecommunications Area Master Station Pacific JBPHH and NCTAMS Pacific, Wahiawa, Oahu, Hawaii.** E2 conducted drinking water testing for lead as a protective measure at several priority areas and various schools and childcare facilities on Navy Installations. Quick turnaround times were required for sampling, laboratory analysis, and notifications. Initial site investigations were conducted to develop a comprehensive two-step sampling plan, in accordance with updated Navy directives and Environmental Protection Agency guidance. Field work involved multiple visits to each facility to prepare and sample over 700 drinking water outlets, conducted during evenings and weekends to minimize the impact on facility operations. Upon completion of the two-step sampling process, corrective actions were immediately developed and provided to the Navy. A Project Summary Report documented the work and findings.
- **Potable Water Master Plan for Commander Fleet Activities Okinawa for NAVFAC Pacific, Okinawa, Japan.** The Potable Water Master Plan (PWMP) consisted of an engineering evaluation of the condition, reliability, and quality of the installation's utility system, and the system's capability to meet present and future requirements. The Commander Fleet Activities Okinawa areas evaluated under this study included Camp Shields, White Beach, Awase Transmitter Site, and Tengan Pier. Field investigations were conducted at the facilities to verify water system components, review drawings, obtain water meter readings, and interview facility personnel. Pressure recorders were installed on select fire hydrants in the distribution system and fire hydrant flow tests were completed to obtain pressures at various locations in the distribution system to aid with the calibration of a computer model.
- **Water Efficiency Survey for the United States Army Corps of Engineers Honolulu Engineer District, Oahu, Hawaii.** The Water Efficiency Survey assessed 29 facilities within Fort Shafter and Fort Shafter Flats with the purpose of identifying water uses and potential water conservation options to meet the U.S. Army Garrison (USAG) Hawaii's sustainability goals. The surveyed facilities included office and industrial buildings, various community and activity centers, barracks, housing, the Hale 'Ikena restaurant, and the golf course. In addition to indoor fixtures, the scope of work included a landscape survey at Palm Circle and the golf course. The collected data were used to identify potential water savings, and repair and capital improvement projects that merit further consideration and exploration by USAG Hawaii. If implemented,

the repair and capital improvement projects identified during the survey would result in water savings of approximately 9% annually or 16 million gallons per year with a resultant payback period of one year.

Air Quality and Monitoring Studies

- **Ozone-Depleting Substances Inventory and Management Plan for Naval Air Facility Atsugi, Japan.** E2 updated the air source inventory to include all Ozone-Depleting Substances (ODS) containing units regulated or potentially regulated by the Japan Environmental Governing Standard (JEGS) and air emission sources (except ODS) that are regulated by the JEGS. Field work for the project was completed in 2017 and included verification of over 2,400 refrigerant and air emission sources at almost 230 facilities (70 additional facilities from the initial scope of work). Based on the results of the field work, E2 and HDR prepared an updated air source inventory database and maps of survey results, which were included in a Field work Summary Report. The field work findings were then used to update the ODS Management Plan (title changed to “Refrigerant Management Plan (RMP)”) to reflect revisions to applicable regulations. Responsibilities included preparation of the Work Plan, completion of field inspections, preparation of the updated air source inventory database and maps, Field work Summary Report, and quality assurance review of the RMP.
- **Long-Term Groundwater and Soil Vapor Monitoring Red Hill Bulk Fuel Storage Facility, Joint Base Pearl Harbor-Hickam, Oahu, Hawaii.** E2 completed groundwater monitoring and soil vapor monitoring at the Red Hill Bulk Fuel Storage Facility. E2 conducted quarterly LTM groundwater monitoring and sampling of ten wells located inside and in the vicinity of the Red Hill Bulk Fuel Storage Facility tunnels. E2 worked closely with the Navy to streamline the quarterly reports and conducted several informational meetings for the Navy regarding the interpretation of analytical data. E2 is currently conducting monthly soil vapor monitoring of 48 soil vapor probes within the tunnel and has conducted maintenance and upgrades to the system at no additional cost to the Navy. Quarterly groundwater monitoring reports were completed during the groundwater long term monitoring and monthly soil vapor reports are completed following each field event.

CIVIL ENGINEERING - PROJECT EXAMPLES

E2’s civil engineering design experience includes the Design of Water Distribution, Transmission, and Treatment Systems, Design of Wastewater Collection, Treatment, and Disposal Systems, Design of Storm Drainage Collection and Disposal Systems. Example projects include the following.

- **Construction of the Pier 29 Container Yard, Honolulu, Oahu, Hawaii.** Construction improvements which included a new pavement structure were completed at Pier 29 to accommodate a new container yard. As a subconsultant to RMTC, E2 prepared design specifications for the handling of contaminated soil and groundwater to be encountered during the construction. Historic releases of petroleum products have led to contamination in both the soil and groundwater including the presence of free-floating products on the groundwater surface. E2 also prepared design specifications to address air monitoring during construction and the removal of abandoned fuel pipelines that may be encountered. E2 participated in coordination meetings with the Harbors Division and the IDPP. The project design team received a commendation letter from HDOT Harbors after the construction was completed.
COMMENDATION LETTER - EXCELLENT PERFORMANCE
- **Reconstruction/Replacement of Sewers, Ho’omaluhia Botanical Gardens, Kaneohe, Oahu, Hawaii.** Completed planning, design, and preparation of construction documents for the reconstruction/replacement of existing sewer lines. Phase I included the cleaning and inspection of CCTV in accordance with the Pipeline Assessment Certification Program. Phase II assessed the sewer line deficiencies from the CCTV data, developed rehabilitation/replacement alternatives for the system,

prepared schematic, and concept drawings for the recommended alternatives, and prepared a cost estimate for the recommended improvements. Phase III, E2 is preparing construction documents.

- **Sand Island Wastewater Treatment Plant Site Assessment and Remedial Design, City and County of Honolulu.** E2 conducted a site investigation and Toxic Substances Control Act (TSCA) cleanup of contaminated soil. Responsibilities included overall project management, coordination of subconsultants, development of the technical approach for all environmental investigations and the remedial design and negotiating with the USEPA Region 9 and the State Department of Health (DOH) for all investigative and remedial activities. Supervised the preparation of the Phase I Environmental Site Assessment (ESA). Conducted and prepared the Phase II ESA, the Human Health Risk Assessment, the TSCA Notification Remediation Report, and the Soil Management Plan. Prepared construction plans and specifications and a construction cost estimate for the TSCA remediation. Performed services during construction including oversight and review of the TSCA cleanup. Coordinated the investigation and cleanup work for the two ongoing construction projects. Negotiated with the USEPA Region 9 and the State DOH throughout the duration of the project to allow construction to proceed concurrently with the investigation and cleanup. A follow-on remedial design including the completion of construction documents for the reuse of remaining low level PCB contaminated soil was completed for 76,000 cubic yards of stockpiled soil. Mr. Yamauchi served as the senior design engineer and designed a geofabric retaining wall system to contain the contaminated soil, which allowed for immediate future use of the site as a construction staging area.
- **Waianae Agriculture Park Drainage Improvements, Waianae, Oahu, Hawaii.** E2 completed the design of miscellaneous improvements to the drainage system at the Waianae Agricultural Park. The improvements included slope stabilization of drainage ways, diversion of runoff into an infiltration basin, design of overflow protection drainage intakes for the infiltration basin, and repairs to existing concrete drainage swales. Responsible for preparation of construction documents (i.e., plans and specifications) and services during bidding and construction. The construction plans were completed on an accelerated schedule to meet the funding requirements for construction.

HYDROLOGY/GROUNDWATER MODELING - PROJECT EXAMPLES

E2 has conducted hydrogeological studies involving groundwater availability assessments for potable water systems and contaminant fate and transport within groundwater aquifers over the past years. Some of these projects are listed below.

- **Hydrogeological Study to Determine Impact of MILCON P-184 Reject Water, Diego Garcia, British Ocean Territory.** E2 conducted a hydrogeologic study to evaluate the potentially harmful impact to the water supply aquifer in the Cantonment Area on Diego Garcia resulting from the disposal of reject water created by the recently constructed nanofiltration plant.
- **Makua Valley Numerical Modeling Study, Makua, Oahu, Hawaii.** A surface water and groundwater modeling study was performed for the live firing range at Makua Valley. The simulation results were used to estimate future environmental impacts resulting from releases of munitions-related chemicals during live fire training exercises conducted by the Army within the range. Streamflow and groundwater data collected from wells and monitoring devices were used to calibrate the numerical groundwater (MODFLOW/MT3D/SEAWAT) and watershed runoff (GSSHA/WMS) models used. The simulation results were integrated into an EIS prepared for the firing range.
- **Numerical Modeling Study for Proposed Field Optimization Phase Injections.** E2 conducted a series of modeling simulations to evaluate the effects resulting from the injection of an oxidant (sodium persulfate) into a contaminated, shallow unconfined aquifer. The oxidant was being injected in order to induce the chemical breakdown of the dissolved phase contamination (predominately benzene) present at a former industrial property. The 2-D, finite difference BIOPLUME III model was used to simulate the degradation of benzene resulting from the injection of the oxidant compound into four injection wells screened in the

shallow aquifer on the property over a one-week treatment period. The model was used to simulate the change in benzene concentration in the shallow aquifer over a six-month period after the oxidant was injected. The numerical simulation results were used to allay the concerns of surrounding property owners about the effect of the proposed remediation approach on the groundwater quality on adjacent properties.

- **Hoakalei Lagoon Groundwater Modeling Project, Ewa Plain, Oahu, Hawaii.** E2 conducted a hydrologic study to estimate the flux of groundwater entering a recently constructed lagoon located in the Ewa Plain of the island of Oahu. A density-dependent, numerical groundwater model (SEAWAT) was created for the area to estimate the groundwater influx rate into the lagoon. The model was calibrated using average water levels and recent vertical chloride concentration profile data measured in monitoring wells located in the vicinity of the lagoon. The model-derived groundwater flux data was combined with groundwater nutrient data to develop a maintenance program to limit the spread of an algal species, *Chara* spp. (muskgrass), within the lagoon while maintaining sufficient biomass of algae to maintain the good clarity and low overall nutrient levels present in the lagoon water.
- Additional scientific projects related to hydrology that E2 has previously conducted related to the movement, distribution, and management of water including the water cycle, water resources, and drainage basin sustainability are described below.
- **Investigation of Central Maui Landfill, Maui, Hawaii.** The purpose of the project involved analyzing the existing groundwater monitoring well network at the County of Maui Landfill (CML) and designing an improved monitoring network that is approved by the regulators at the State of Hawaii Department of Health (DOH). To accurately locate additional compliance monitoring wells at the facility, a two-month duration synoptic water level study was conducted on the existing network of monitoring wells as well as at the new water supply well. The tops of the existing compliance monitoring wells were resurveyed to allow delineation of the subtle gradient of the deep basal groundwater aquifer (~300 feet to water from the landfill surface) that underlies the CML. The overall direction and magnitude of the groundwater system underlying the landfill determined during the synoptic study were then used to design a compliance well network for CML that effectively monitors potential landfill impact on the basal groundwater aquifer beneath the CML.
- **Hydrogeologic and Condition Assessment for Kokee and Kekaha Ditch Systems, Waimea, Kauai, Hawaii.** E2 collected physical inventory information and stream flow measurements for both ditch systems to assist the Commission on Water Resource Management (CWRM). Assisted the CWRM in the matter of the Complaint for Dispute Resolution and Complaint for Declaratory Order Against Waste in the Waimea River and its Tributaries filed by Earthjustice on behalf of Poai Wai Ola and the West Kauai Water shed alliance. E2 investigated and conducted fact-gathering work that included meetings with the parties pertaining to the complaint, conducting an inventory and assessment of the existing infrastructure of the Kokee and Kekaha Ditch Irrigation Systems, measuring and monitoring streamflow throughout both systems, assessing the existing uses of water from both systems and preparation of a comprehensive report describing the findings from these assessments to the Commission.
- **Waimanalo Wastewater Treatment Plant R-1 Reuse Feasibility Study, Waimanalo, Oahu, Hawaii.** A Feasibility Study was completed for the US Army Corps of Engineers and City and County of Honolulu to assess the technical, environmental, and economic feasibility of producing R-1 water at the Waimanalo WWTP for reuse in the Waimanalo community. The first component of the FS was a market survey that was completed to identify potential users in the community. The survey identified available potable and irrigation water sources; gauged interest from the potential users; gathered user concerns with R-1 water use; and identified potential R-1 water demands. The results of the market survey indicated strong interest in R-1 water reuse from the Olomana Golf Links, Waimanalo District Park, Waimanalo Beach Park, Honolulu Polo Club, and Waimanalo WWTP. A conceptual design for the first phase of improvements was completed and identified the WWTP improvements, the distribution system improvements, and the end user improvements.
- **Water Supply and Numerical Analysis of the Mahukona Aquifer System in Kohala, Hawaii.** A potable water source assessment was completed for the Mahukona aquifer system. A detailed, GIS-based water

budget recharge analysis was performed for this aquifer system, located in an area undergoing rapid development. A 3-D, density-dependent numerical flow model (SEAWAT) was used to predict the increase in salinity within the aquifer that will result from the projected future increases in groundwater withdrawal from the aquifer system.

- **Groundwater Availability Assessment, Kawaiiloa, Oahu, Hawaii.** A potable water source assessment was completed for the 40.75-square mile Kawaiiloa property owned by Kamehameha Schools on the North Shore of Oahu. The groundwater availability for the area was determined by creating a GIS-based model that accounted for spatial variation in rainfall, evapotranspiration, irrigation, crop, and soil type, as well as the temporal variation in rainfall and evapotranspiration across the property.

COMMUNITY PLANNING – PROJECT EXAMPLES

E2 provides comprehensive services for planning studies and master plans. E2 has prepared environmental documents under NEPA, compliance with federal and state environmental laws and regulations, and has an understanding of Section 7 of the Endangered Species Act and Section 106 of the National Historic Preservation Act, Air Quality, Water Quality/Water Quality Permits, Benthic Communities, Biological Assessments, Essential Fish Habitat, Land Use and Infrastructure.

E2 has direct significant experience in successfully completing NEPA documentation and process for Federal and State interests in Hawaii. E2 engineers and environmental professionals, along with specialty team members, provide substantial expertise in supporting natural and cultural resources assessments and consultations, with a successful completion of agency/stakeholder interactions and detailed technical investigations, documentation and formal clearance. The E2 team can also provide expertise in water resources planning and application of a systems approach, with the representative project experience in Hawaii, Japan, and the United States.

- **Site Investigation at Former Molokai Electric Company and Galierher-Ono Parcels, Kaunakakai, Molokai, Hawaii.** E2 conducted a Site Investigation (SI) of the former Molokai Electric Company (MOECO) site in downtown Kaunakakai. The SI included a comprehensive study of residual near and subsurface contamination from previous MOECO activities, primarily from chemicals of concern polychlorinated biphenyls (PCBs) and petroleum and heavy metals. E2 collected over 700 discrete soil samples as well as 88 *MULTI INCREMENT*[®] (MI) soil samples, soil-gas, concrete and groundwater samples. In addition, E2 conducted a synoptic water level study in order to help determine potential migration of subsurface contaminants. Prior to completion of the field portion of the project, E2 completed two Special Management Area (SMA) permit applications for the County of Maui for the project. The results of the SI will be used to determine the most appropriate remedial action for the site. Responsibilities included Project Management, completion of the SMA permits, field oversight and coordination, drafting of the WP/SAP and a final report.
- **Puna Agricultural Park Feasibility Study and Phase I Environmental Site Assessment, Puna, Island of Hawaii, Hawaii.** E2 completed an Environmental Site Assessment (ESA) and prepared a Feasibility Study (FS) for the development of an agricultural park in Puna, Island of Hawaii. The three parcels at the site encompass a total land area of 5,845 acres. E2 reviewed the existing conditions and conducted a market survey to determine public interest in developing the agricultural park.
- **Remedial Investigation/Feasibility Study for Quarry Pit Landfill, Marine Corps Base Hawaii, Kaneohe, Oahu, Hawaii.** This project involved landfill and soil cover characterization using geophysical survey and intrusive verification methods; soil, groundwater, soil gas, and sediment investigation and sampling; and site assessment and characterization using discrete and *MULTI INCREMENT*[®] sampling as part of the Remedial Investigation/Feasibility Study process to evaluate future remedial alternatives. Identified historic land use, reviewed previous construction and environmental work, project design and planning, data management and evaluation, and prepared report

Ability to Meet Schedules

Not all E2 personnel are currently being utilized full-time. E2 is actively pursuing new work and has the capacity to provide Environmental Engineering consulting services to the County of Hawaii. In addition, E2 has extensive partnering experience with several independent consultants (engineers, geologists, and field technicians) and subcontractors whom we can rely on to assist as needed with periodic work overloads, producing high-quality deliverables while under E2 management. E2 has an excellent history of meeting schedules within the allotted project constraints by submitting deliverables on time or in advance of client deadlines.

DISCIPLINE	NAME OF FIRM
Civil Engineering and Surveying	R.M. Towill Corporation
Surveying	ControlPoint Surveying, Inc.
Drilling Services	GeoTek Hawaii, Inc.
Civil Engineering	HDR
Environmental Planning	HHF Planners
Waste Management, Environmental Construction	Pacific Commercial Services
Analytical Services	Eurofins, TestAmerica Laboratories, APPL, Inc., Torrent Laboratory, Inc., Enthalpy Analytical
Asbestos and Lead Paint Analytical Services	SGS Forensic Laboratories
Data Valuation	Laboratory Data Consultants, Inc.

Cost Control

E2 is conscious of our role as stewards of our client's funds and is committed as partners to meeting the challenge of "doing the best with less". We control project costs through realistic cost estimating, competitive procurement of materials and services, developing and implementing innovative methods and design, and using cost accounting tools. Every project is approached in the following manner.

Cost Estimating. E2 cost estimating is done by senior staff with years of relevant experience. An accurate and realistic project cost estimate is a key component to controlling project budgets.

Competitive Procurement. E2 seeks competitive bids for procuring goods and services for subcontracted work. Whenever possible preferential consideration is given to small, small disadvantaged or women-owned small businesses.

Cost Accounting Tools. E2 is committed to a disciplined approach to controlling project costs and schedules using our fully automated, interactive, Intaact Project Management Information System (PMIS). PMIS integrates planning, scheduling, cost control, budgeting, and cost accounting.

Value Engineering. E2 approaches each project as a value engineering project, whether the value engineering is done informally with our in-house staff or formally utilizing the third-party process. Clients are assured that when alternatives are recommended, the recommendation is based on the collective wisdom of a team of experienced professionals.

Quality of Work

E2 is committed to providing clients with quality service and work products. This is achieved through the implementation of a Quality Assurance/Quality Control (QA/QC) system by the Senior Management of the firm. E2's project planning process calls for the development of detailed project schedules that identify task and milestone completion dates and strict adherence to quality and cost control programs. Schedules are discussed and agreed upon by all parties involved with the project. Once schedules are in place, monitoring becomes the key responsibility of the project manager. Deviations from the schedule are assessed by the project manager and brought immediately to the client's attention.

The repeat work received from clients of E2 is the best indicator of success at controlling the quality of our projects. E2's QA/QC program consists of a series of reviews for every project within the firm. Mr. Aoki is responsible for overseeing this program and ensuring that the independent review is unbiased and utilizes Value Engineering techniques. These independent reviews are conducted at every submittal stage from concept to final design.

The following is a checklist utilized by our QA/QC managers:

Compliance: Assuring the design is in accordance with all applicable design standards, codes, environmental regulations, etc.

Feasibility: Assuring the investigation/design is feasible in accordance with the client's budget.

Errors and Omissions: Assuring the elimination of errors and omissions that could result in change orders and possible liability.

Correctness and Clarity: Assuring that plans and reports are clear and correct.

Appearance: Assuring that the plans and GIS maps are prepared in accordance with the drafting standards of the client and comply with their profession's standards.

Comments generated through our QA/QC program are discussed with the design team and incorporated into the plans and specifications and/or reports prior to submission to the client.

E2 has also established a QA/QC Manual for its contracts. The QA/QC Manual establishes the quality systems to be used on contracts. It also establishes the positions and personnel responsible for the implementation of the quality systems. The QA/QC Manual defines the lines of authority and the QA/QC personnel responsibilities. The QA/QC Manual outlines the QA/QC tasks to be implemented, provides QA/QC checklists and forms to be completed, and provides procedures for the implementation of corrective actions. The QA/QC Manual includes the following sections that identify the quality systems to be used: 1.) Introduction; 2.) Organization and Responsibilities; 3.) Quality Control Program Scope; 4.) Personnel Training and Qualifications; 5.) Procurement Control and Supplier-Subcontractor Evaluation; 6.) Procedures, Instructions, Drawings and Technical Documents; 7.) Document Control; 8.) Chemical Sampling and Analysis Controls; 9.) Waste Management; 10.) Identification, Control, and Correction of Nonconforming Conditions; 11.) Records Management; 12.) Quality Audits and Surveillances

Examples of quality systems that will be implemented include:

- Fee Proposal Preparation – As mentioned in the key personnel section, fee proposals will be prepared by the Program Manager with assistance from the Technical Director, Senior Scientist, and other key Senior Project Managers who have the requisite project experience and technical knowledge to understand the various project complexities and develop a technical approach that will meet the project objectives and contract requirements. All fee proposals will be reviewed by the Technical Director or a Senior Project Manager who was not involved in the initial proposal preparation to provide an objective review. The Program Manager will then complete a second back-check prior to submittal.
- Planning Documents and Reports – All planning documents and report submittals will go through a three-phase review process. The first review will be by a Technical Editor. The second review will be by a Senior Project Manager not involved in the document preparation to provide an objective review. The third review will be by the Project Manager.
- Field Audits – Field audits may include Health and Safety audits by the Health and Safety Manager, and audits of field sampling procedures and field notes documentation by the Project Chemist, Senior Scientist, or QA Manager.
- Laboratory Analytical Data – E2 will utilize third-party data validation of laboratory analytical data when appropriate.
- Communications – Regular staff meetings will be conducted to discuss and improve the project procedures and communicate new procedures to be implemented and changes to contract requirements and regulations.

The QA Manager will be responsible for ensuring that the quality systems and procedures provided in the QA/QC Manual are followed. The Program Manager will assist the QA Manager by providing the necessary resources and

staff to implement the QA/QC Program and providing the project staff with the resources and training required to accomplish their assigned duties.

Innovative Technologies

E2 personnel have applied a wide array of innovative technologies and characterization tools to facilitate the cost-effective characterization and remediation of sites containing hazardous materials. E2 personnel used portable XRFs to delineate areas of elevated heavy metals contamination in a cost-effective manner in backyards of homes in agricultural areas on Kauai, in public parks and preschools on the Big Island, at a former military site in leeward Oahu, and at a high school in Central Oahu. E2 chemists have used immunoassay techniques to test soils and surfaces for PCB content at contaminated sites on the island of Oahu and in remote locations, including landfill sites on Kure Atoll and the island of Guam. The use of XRFs and immunoassay methods saved significant amounts of time and money during characterization and remediation work at multiple contaminated sites since the determination of the extent of contaminated soils can be determined instantaneously (in the case of metals contamination (XRF)) or within one day (in the case of PCB or pesticide contamination (immunoassay methods)). This rapid turn-around time in receiving information on the contamination levels at the site expedited the remediation work conducted at these sites. At Kure Atoll, E2 personnel developed a novel remediation approach for landfill soils that involved the introduction of native saprophytic fungi capable of degrading PCBs in soils. This technology was later used to in-situ remediate the interior of decommissioned military vessels that are currently mothballed in West Loch on the island of Oahu. E2 has also used a combination of abiotic and biological amendments to degrade PCBs in situ at landfill sites. At project sites contaminated with petroleum products, E2 has experience using bio-stimulation agents (RegenOx and PersulfOx™) to accelerate the degradation of fuel-related contamination in site soils and groundwater.

Most recently at Cocos Island in Guam, E2 is using Clean Sediment Technology with ecoSPEARS (Sorbent Polymer Extraction and Remediation System) technology. This is a transformative in-situ green cleanup system for polychlorinated biphenyls (PCBs), dioxins, PAHs, DDT, and other persistent toxins from contaminated sediment. ecoSPEARS is a truly sustainable approach using less water, energy, and emissions than traditional cleanup methods. ecoSPEARS is a plastic mat technology that is filled with their solvent and then inserted into a scalable geosynthetic mat liner. The mat liners are then deployed down into the contaminated sediment where they act like a "sponge", passively absorbing PCBs from the sediment around it.

E2 personnel have worked with the State of Hawaii Department of Health (HDOH) Office of Hazard Evaluation and Emergency Response (HEER) to augment a new laboratory soil sub-sampling strategy (*MULTI INCREMENT*® sub-sampling) and have worked with HEER staff in the effort to utilize field instruments to obtain real-time defensible data. As a result of this collaboration, E2 personnel authored multiple papers (often with co-authors from the Hawaii Department of Health) on the use of increment sampling to characterize contaminated properties, to comply with 401/404 permitting requirements in offshore harbor waters, and for Applicable Monitoring and Assessment Plan (AMAP) monitoring of streams and waterbodies impacted by construction activities.

E2 personnel also pioneered innovative incremental sampling methodology techniques for the characterization of contamination in sediments present in streams and harbors. E2 recently hosted a webinar on contaminated sediment characterization for personnel from the EPA Office of Research and Development's Office of Science Policy and for consultants from around the nation.

ENDORSEMENTS

E2 completed a study of the Wahiawa Irrigation System for the State of Hawaii Agribusiness Development Corporation (ADC). E2 was able to successfully coordinate with multiple government agencies and private stakeholders involved in the use of Lake Wilson and the irrigation system to investigate and identify the financial, legal, and environmental liabilities and responsibilities should ADC take ownership of the system. The study was completed within nine months and in time for ADC's board to evaluate their options before the next meeting of the State Legislature in 2008. A comprehensive presentation of the study was completed by E2 to the ADC board members. The presentation was covered by three of the four major local television stations. **A few hours after the presentation, E2 received an acknowledgment email from Mr. Alfredo Lee, Executive Director of ADC. The email stated "The board members really liked your presentation. Thanks for the good work."**

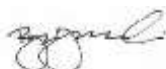
Two other projects that exemplify E2's excellent past performance was the Integrated Solid Waste Management Plan and Pollution Prevention Plan developed for the Commander Fleet Activities Sasebo (CFAS) through NAVFAC Pacific. Review comments received from the CFAS Project Lead, Mr. Frank Floros, on the two plans included: **"The plan (Integrated Solid Waste Management Plan) is excellent, concise and provides great attainable recommendations to improve the CFAS SW and Recycling Programs. CFAS appreciates your effort."**

Another example project that demonstrates E2's ability to deliver a quality work product on-time and within budget is the design of the Pier 29 Container Yard for the HDOT Harbors, Harbors Division. As a subconsultant to RMTTC, E2 prepared design specifications for the handling of contaminated soil and groundwater to be encountered during the construction of the new container yard. Historic releases of petroleum product have led to contamination in both the soil and groundwater at the site including the presence of free-floating product on the groundwater surface. In addition, E2 prepared specifications to address the removal of abandoned fuel pipelines and air monitoring during construction. E2 participated in coordination meetings with HDOT Harbors and the Iwilei District Participating Partners (IDPP), a stakeholder for the soil and groundwater contamination, to ensure effective communication and project acceptance by all parties involved. E2 also addressed comments by HDOH who reviewed the construction documents. The project team was able to meet the one year accelerated design schedule required to receive stimulus funds from the Federal government. The design team received a commendation letter from HDOT Harbors Division for "excellent performance" on the project including **"going beyond the contract with extensive coordination that was done for the handling of petroleum contaminated soils at the project site with the IDPP."**

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

29. SIGNATURE



30. DATE

June 30, 2023

31. NAME AND TITLE

Ryan S.W. Yamauchi, P.E., President

PROFESSIONAL SERVICE PROVIDER QUALIFICATIONS	1. PROJECT CATEGORY OF INTEREST OH.4) Community Planning (Environmental Assessment)
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PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

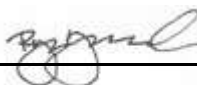
2a. FIRM (OR BRANCH OFFICE) NAME Element Environmental, LLC			3. YEAR ESTABLISHED 2005	4. UNIQUE ENTITY CODE CGL8P3GH6JW3
2b. STREET 98-030 Hekaha Street, Unit 9			5. OWNERSHIP Limited Liability Company	
2c. CITY Aiea	2d. STATE Hawaii	2e. ZIP CODE 96701	b. SMALL BUSINESS STATUS Small Business	
6a. POINT OF CONTACT NAME AND TITLE Ryan S.W. Yamauchi, P.E., President			7. NAME OF FIRM (If block 2a is a branch office)	
6b. TELEPHONE NUMBER (808) 488-1200		6c. E-MAIL ADDRESS ryamauchi@e2hi.com		
8a. FORMER FIRM NAME(S) (If any)			8b. YR. ESTABLISHED	

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
12	Civil Engineer	4		C15	Construction Management	3
23	Environmental Engineer	8		D04	Design Build-Preparation of Requests and Proposals	1
24	Environmental Scientist	9		E09	Environmental Impact Studies, Assessments or Statements	2
30	Geologist	3		E11	Environmental Planning	2
34	Hydrogeologist	1		E12	Environmental Remediation	3
11	Chemist	1		E13	Environmental Testing and Analysis	6
10	Chemical Engineer	1		G04	GIS Services	1
02	Administrative	4		S04	Sewage Collection Treatment and Disposal	2
58	Technician/Analyst	8		S07	Solid Wastes; Incineration; Landfill	3
				S13	Storm Water Handling and Facilities	4
				W02	Water Resources, Hydrology, Groundwater	3
	Total	39		W03	Water Supply, Treatment, and Distribution	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS <i>(Insert revenue index number shown at right)</i>		PROFESSIONAL SERVICES REVENUE INDEX NUMBER			
a. State of Hawaii Work	3	1. Less than \$100,000	6. \$2 million to less than \$5 million		
b. Non-State of HI Work	7	2. \$100,00 to less than \$250,000	7. \$5 million to less than \$10 million		
c. Total Work	7	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million		
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million		
		5. \$1 million to less than \$2 million	10. \$50 million or greater		

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE c. NAME AND TITLE: Ryan S.W. Yamauchi, President		b. DATE June 30, 2023
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ATTACHMENT 1

**ELEMENT ENVIRONMENTAL, LLC
ORGANIZATIONAL CHART**



RYAN S.W. YAMAUCHI, P.E.

Principal-In-Charge/President
Program Manager
Senior Civil/Environmental Engineer

Years of Experience: 31
Years with Firm: 18



ROGER C. AOKI, P.E.

Technical Program Manager
Quality Assurance Manager
Senior Environmental Engineer

Years of Experience: 27
Years with Firm: 17



MATTHEW J. NEAL

Environmental Investigation Manager
Health and Safety Manager
Senior Environmental Scientist

Years of Experience: 25
Years with Firm: 17



ARLENE H. CAMPBELL, L.G.

Environmental Compliance Manager
Senior Geologist

Years of Experience: 34
Years with Firm: 17

TECHNICAL STAFF

ERIC M. LAU, P.E.
Senior Environmental
Engineer
Years of Experience: 19
Years with Firm: 14

STEVEN R. SPENGLER, PH.D.
Senior Hydrogeologist
Years of Experience: 35
Years with Firm: 17

AUSTIN A. LUTEY
Environmental Engineer
Years of Experience: 15
Years with Firm: 15

JOSHUA B. AGPAOA, E.I.T
Staff Civil Engineer
Years of Experience: 5
Years with Firm: 5

BERNICE M. BALETE, P.E.
Senior Environmental
Engineer
Years of Experience: 29
Years with Firm: 13

DANNY C. LIU
Senior Chemical Engineer
Years of Experience: 35
Years with Firm: 8

DANIEL W. AMATO, PH.D.
Environmental Scientist
Years of Experience: 7
Years with Firm: 5

**THEODORE N. UEKAWA,
E.I.T.**
Staff Civil Engineer
Years of Experience: 2
Years with Firm: 2

MARVIN D. HESKETT, III
Senior Chemist
Years of Experience: 33
Years with Firm: 9

DEREK Y. YASAKA
Senior Environmental Specialist
Years of Experience: 33
Years with Firm: 1

JAMES D. TSUBONE
Environmental Scientist
Years of Experience: 7
Years with Firm: 7

MAYA MATSUOKA
Staff Environmental Scientist
Years of Experience: 2
Years with Firm: 2

**CANDACE K. YAMAUCHI,
P.E.**
Senior Environmental
Engineer
Years of Experience: 18
Years with Firm: 12

JODIE C.A. TSUBONE, P.E.
Senior Civil Engineer
Years of Experience: 11
Years with Firm: 8

JOHN A. ELLIS
Environmental Technician
Years of Experience: 7
Years with Firm: 7

ARNOLD DAVID WEST
Staff Environmental Scientist
Years of Experience: 6
Years with Firm: 6

LINDSAY B. MASON, P.E.
Senior Environmental
Engineer
Years of Experience: 21
Years with Firm: 14

STANLEY C.T. NG
Senior Environmental Specialist
Years of Experience: 45
Years with Firm: 3

KATIE L. KILWAY
Environmental Scientist
Years of Experience: 16
Years with Firm: 13

ERICA E. ADAMCZYK
Staff Geologist
Years of Experience: 16
Years with Firm: 0.1

ANGELA K. PELTIER
Senior Geologist
Years of Experience: 19
Years with Firm: 17

LESLIE ROBINSON
Project Engineer
Years of Experience: 16
Years with Firm: 2

LOGAN N. YAMAMOTO
Staff Environmental Scientist
Years of Experience: 0.1
Years with Firm: 0.1

ATTACHMENT 2

**ELEMENT ENVIRONMENTAL, LLC
QUALIFICATIONS OF KEY PERSONNEL**

KEY PERSONNEL	QUALIFICATIONS	
RYAN S.W. YAMAUCHI, P.E.	Professional Title: Program Manager Principal Engineer	Years of Experience: 31 Years with Current Firm: 18
<p style="text-align: center;">REGISTERED PROFESSIONAL ENGINEER, HAWAII CIVIL No. 9566 Certified Asbestos Inspector, Hawaii No. HIASB-2905 Certified Lead Risk Assessor/Inspector, Hawaii No. PB-0117</p> <p>Education:</p> <ul style="list-style-type: none"> • Mstr. Civil and Environmental Engineering, UC Berkeley • B.S. Civil Engineering, University of Hawaii at Manoa <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA Construction Safety and Health Training, 30-HR • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
ROGER C. AOKI, P.E.	Professional Title: Senior Environmental Engineer	Years of Experience: 27 Years with Current Firm: 17
<p style="text-align: center;">REGISTERED PROFESSIONAL ENGINEER, HAWAII CIVIL No. 10019 Certified Asbestos Inspector, Hawaii No. HISAB-2902 Certified Lead Inspector, Hawaii No. PB-0118</p> <p>Education:</p> <ul style="list-style-type: none"> • Mstr. Civil and Environmental Engineering, Purdue University • B.S. Civil Engineering, University of Hawaii at Manoa <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA Construction Safety and Health Training, 30-HR • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
MATTHEW J. NEAL	Professional Title: Senior Environmental Scientist	Years of Experience: 25 Years with Current Firm: 17
<p>Education:</p> <ul style="list-style-type: none"> • B.S. Environmental Science and Geology, Willamette University <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Maritime Security (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 		

KEY PERSONNEL	QUALIFICATIONS	
ARLENE H. CAMPBELL, L.G.	Professional Title: Senior Geologist	Years of Experience: 34 Years with Current Firm: 17
<p style="text-align: center;">LICENSED GEOLOGIST, WASHINGTON No. 1664</p> <p>Education:</p> <ul style="list-style-type: none"> • Graduate Work, Geology, Vanderbilt University • B.A. Geology, Minor Hydrology, Austin Peay University <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA Construction Safety and Health Training, 30-HR • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Maritime Security (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
STEVEN R. SPENGLER, PH.D.	Professional Title: Senior Hydrogeologist	Years of Experience: 35 Years with Current Firm: 17
<p>Education:</p> <ul style="list-style-type: none"> • Ph.D. Hydrogeology, University of Hawaii at Manoa • Mstr., Geology, University of Hawaii at Manoa • B.S. Geochemistry, University of California, Santa Cruz • B.S. Chemistry, University of California, Riverside <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
ERIC M. LAU, P.E.	Professional Title: Senior Environmental Engineer	Years of Experience: 19 Years with Current Firm: 14
<p style="text-align: center;">REGISTERED PROFESSIONAL ENGINEER, HAWAII CIVIL No. 12977 Certified Asbestos Inspector, Hawaii No. HISAB-3198 Certified Lead Risk Assessor/Inspector, Hawaii No. PB-0439</p> <p>Education:</p> <ul style="list-style-type: none"> • Mstr. Civil and Environmental Engineering, Massachusetts Institute of Technology (MIT) • B.S. Civil and Environmental Engineering, MIT • B.S. Biology, MIT <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 		

KEY PERSONNEL	QUALIFICATIONS	
BERNICE M. BALETE, P.E.	Professional Title: Senior Environmental Engineer	Years of Experience: 29 Years with Current Firm: 13
<p style="text-align: center;">REGISTERED PROFESSIONAL ENGINEER, HAWAII CIVIL No. 10186</p> <p style="text-align: center;">Certified Asbestos Project Designer/Inspector, Hawaii No. HISAB-0449</p> <p style="text-align: center;">Certified Lead Project Designer/Risk Assessor/Inspector, Hawaii No. PB-0449</p> <p>Education:</p> <ul style="list-style-type: none"> • B.S. Civil Engineering, University of Hawaii at Manoa <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Maritime Security (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
MARVIN D. HESKETT	Professional Title: Senior Chemist	Years of Experience: 33 Years with Current Firm: 09
<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-34631</p> <p style="text-align: center;">Certified Lead Risk Assessor/Inspector, Hawaii No. PB-1150</p> <p>Education:</p> <ul style="list-style-type: none"> • B.S. Biochemistry, California Polytechnic University at San Luis Obispo <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Sampling for Defensible Environmental Decisions, QE3C • E3 Data Quality Objectives • Shipley Group NEPA Training • Advanced Systems QA/QC Course, 40-HR • Maritime Security (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
CANDACE K. YAMAUCHI, P.E.	Professional Title: Senior Environmental Engineer	Years of Experience: 18 Years with Current Firm: 12
<p style="text-align: center;">REGISTERED PROFESSIONAL ENGINEER, HAWAII CIVIL No. 16320</p> <p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-3840</p> <p style="text-align: center;">Certified Lead Risk Assessor/Inspector, Hawaii No. PB-1135</p> <p>Education:</p> <ul style="list-style-type: none"> • B.S. Earth and Environmental Engineering, Columbia University <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • 40-HR Construction Safety and Health Training • Hazardous Waste Site Supervisor Training • Qualified Stormwater Compliance Manager • Bloodborne Pathogens, First Aid, CPR, and AED Training 		

KEY PERSONNEL	QUALIFICATIONS	
LINDSAY B. MASON, P.E.	Professional Title: Senior Environmental Engineer	Years of Experience: 21 Years with Current Firm: 14
	<p style="text-align: center;">REGISTERED PROFESSIONAL ENGINEER, MICHIGAN CIVIL No. 6201059411</p> Education: <ul style="list-style-type: none"> • B.S. Environmental Engineering, Michigan Technological University Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • DOT HM-181 Hazardous Materials Training RCRA S30 Certification • RCRA S30 Certification Hazardous/Toxic Materials Management • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 	
ANGELA K. PELTIER	Professional Title: Senior Geologist	Years of Experience: 19 Years with Current Firm: 17
	Education: <ul style="list-style-type: none"> • B.S. Geology and Geophysics, University of Hawaii at Manoa Training: <ul style="list-style-type: none"> • ASTM E1527 Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process Certification • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 	
JODIE C. TSUBONE, P.E.	Professional Title: Civil Engineer	Years of Experience: 11 Years with Current Firm: 08
	<p style="text-align: center;">REGISTERED PROFESSIONAL ENGINEER, HAWAII CIVIL No. 17048 Certified Asbestos Inspector, Hawaii No. HISAB-4629 Certified Lead Inspector, Hawaii No. PB-1151</p> Education: <ul style="list-style-type: none"> • B.S. Civil Engineering, University of Hawaii at Manoa Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Construction Safety and Health Training, 40-HR • Maritime Security (MARSEC) • Erosion and Sediment Control Plan Coordinator (ESCP), Department of Planning & Permitting (CCH) • Bloodborne Pathogens, First Aid, CPR, and AED Training 	

KEY PERSONNEL	QUALIFICATIONS	
AUSTIN A. LUTEY, E.I.T.	Professional Title: Environmental Engineer	Years of Experience: 15 Years with Current Firm: 15
<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-3199 Certified Lead Risk Assessor/Inspector No. PB-0440</p> Education: <ul style="list-style-type: none"> • B.S. Civil Engineering, University of California Los Angeles (UCLA) Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Maritime Security (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
DANNY C. LIU	Professional Title: Chemical Engineer	Years of Experience: 35 Years with Current Firm: 08
<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-4653 Certified Risk Assessor/Inspector No. PB-1136</p> Education: <ul style="list-style-type: none"> • B.S. Chemical Engineering, University of Colorado at Boulder Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Hazardous Waste Site Supervisor Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
KATIE L. KILWAY	Professional Title: Environmental Scientist	Years of Experience: 16 Years with Current Firm: 13
<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-3284</p> Education: <ul style="list-style-type: none"> • B.S. Environmental Science, University of Notre Dame Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety Hazard Awareness Training • Construction Safety and Health Training, 40-HR • Maritime Security (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
ARNOLD DAVID WEST	Professional Title: Staff Environmental Scientist	Years of Experience: 06 Years with Current Firm: 06
<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-4625 Certified Lead Risk Assessor/Inspector, Michigan No. P-08520</p> Education: <ul style="list-style-type: none"> • B.S. Applied Physics, Jacksonville University of Florida Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 		

KEY PERSONNEL	QUALIFICATIONS	
DANIEL W. AMATO, PH.D.	Professional Title: Environmental Scientist	Years of Experience: 07 Years with Current Firm: 05
	<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-4628 Certified Lead Risk Assessor/Inspector, Hawaii No. PB-1148</p> Education: <ul style="list-style-type: none"> • Ph.D. and Mstr. Botany, University of Hawaii at Manoa • B.S. Biology, University of Vermont Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • Construction Safety and Health Training, 40-HR • Maritime Security (MARSEC) • Scientific SCUBA Diver, Rescue Diver, Master Diver, Nitrox Certified Diver • Bloodborne Pathogens, First Aid, CPR, and AED Training 	
JOSHUA B. AGPAOA, E.I.T.	Professional Title: Staff Civil Engineer	Years of Experience: 05 Years with Current Firm: 05
	<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-4791 Certified Lead Risk Assessor/Inspector, Hawaii No. PB-1137</p> Education: <ul style="list-style-type: none"> • B.S. Civil Engineering, University of Hawaii at Manoa Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 	
JAMES D. TSUBONE	Professional Title: Environmental Scientist	Years of Experience: 07 Years with Current Firm: 07
	<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-4118 Certified Lead Risk Assessor/Inspector, Hawaii No. PB-0827</p> Education: <ul style="list-style-type: none"> • B.S. Geology, Mount Royal University Canada Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • Construction Safety Hazardous Awareness Training for Contractors, 40-HR • OSHA 30-HR Construction Safety and Health Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 	

KEY PERSONNEL	QUALIFICATIONS	
LESLIE A. ROBINSON, E.I.T.	Professional Title: Staff Civil Engineer	Years of Experience: 15 Years with Current Firm: 02
<p style="text-align: center;">Certified Asbestos Inspector, CHC Training, No. 58808275</p> Education: <ul style="list-style-type: none"> • Mstr. Civil Engineering, MIT • B.S. Civil Engineering, MIT Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • Cross Connection Control and Hydraulic Research Specialist Training, University of Southern California • How to Conduct a Sanitary Survey of Surface Water and Ground Water System Course, U.S. Environmental Protection Agency • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
THEODORE N. UEKAWA, E.I.T.	Professional Title: Staff Civil Engineer	Years of Experience: 02 Years with Current Firm: 02
<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-5084 Certified Lead Inspector, Hawaii No. PB-1257</p> Education: <ul style="list-style-type: none"> • Mstr. Civil Engineering, University of Hawaii at Manoa • B.S. Civil Engineering, University of Hawaii at Manoa Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 		
MAYA MATSUOKA	Professional Title: Staff Environmental Scientist	Years of Experience: 02 Years with Current Firm: 02
<p style="text-align: center;">Certified Asbestos Inspector, Hawaii No. HISAB-5085 Certified Lead Inspector, Hawaii No. PB-1254</p> Education: <ul style="list-style-type: none"> • B.A. Environmental Studies and Economics, University of California at Santa Cruz Training: <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • Bloodborne Pathogens, First Aid, CPR, and AED Training 		






















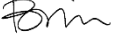


KEY PERSONNEL	QUALIFICATIONS	
JOHN A. ELLIS	Professional Title: Field Technician	Years of Experience: 06 Years with Current Firm: 06
	<p style="text-align: center;"> Certified Asbestos Inspector, Hawaii No. HISAB-4117 Certified Lead Risk Assessor/Inspector, Hawaii No. PB-0828 </p> <p>Education:</p> <ul style="list-style-type: none"> • B.S., In progress, Natural Science Courses, Oregon State University <p>Training:</p> <ul style="list-style-type: none"> • OSHA 40-HR Initial HAZWOPER and Current 8-HR Refresher Training • OSHA 30-HR Construction Safety and Health Training • Construction Safety and Health Training, 40-HR • Hazardous Waste Site Supervisor Training • Maritime Security (MARSEC) • Bloodborne Pathogens, First Aid, CPR, and AED Training 	

ATTACHMENT 3

**ELEMENT ENVIRONMENTAL, LLC
PROFESSIONAL LICENSES AND CERTIFICATIONS**





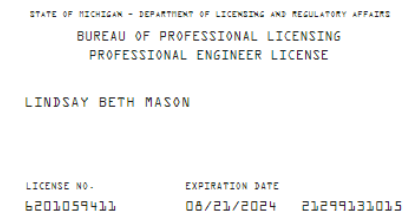

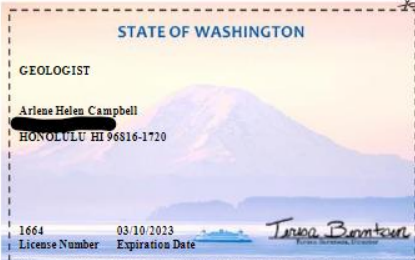
Element Environmental, LLC

Personnel Registered Professional Licenses

NAME	LICENSE NUMBER	EXPIRATION DATE
<p>RYAN S.W. YAMAUCHI</p>	<p>P.E. - No. 9566, HAWAII</p> <p style="text-align: center;">STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS</p> <p style="text-align: center;"> BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS</p> <p style="text-align: center;"><i>heretofore certifies that on the date hereof</i> RYAN S W YAMAUCHI <i>was duly licensed as a</i> PROFESSIONAL ENGINEER <i>and is therefore authorized to practice this Profession within the State of Hawaii.</i> <i>In witness whereof, this License has been issued and the Seal of the Board affixed hereto,</i> <i>this 21st of October, A.D. 1988 at Honolulu, Hawaii.</i></p> <p style="text-align: center;">  No. 9566 Chairperson</p>	<p>Expires: 4/30/2024</p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;">License Number PE-9566</div> <div style="border: 1px solid black; padding: 2px;">Expiration date 4/30/2024</div> </div> <p style="font-size: small;">STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS PROFESSIONAL ENGINEER CLASS(ES): CE CIVIL</p> <p>RYAN S W YAMAUCHI </p> <p style="text-align: right;">  SIGNATURE OF LICENSEE</p> 
<p>ROGER C. AOKI</p>	<p>P.E. - No. 10019, HAWAII</p> <p style="text-align: center;">STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS</p> <p style="text-align: center;"> BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS</p> <p style="text-align: center;"><i>heretofore certifies that on the date hereof</i> ROGER C AOKI <i>was duly licensed as a</i> PROFESSIONAL ENGINEER <i>and is therefore authorized to practice this Profession</i> <i>within the State of Hawaii.</i> <i>In witness whereof, this License has been issued and the Seal of the Board</i> <i>affixed hereto, this 18th day of July, 1987, A.D. 2011 at Honolulu, Hawaii.</i></p> <p style="text-align: center;">  No. 10019 Chairperson</p>	<p>Expires: 4/30/2024</p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;">License Number PE-10019</div> <div style="border: 1px solid black; padding: 2px;">Expiration date 4/30/2024</div> </div> <p style="font-size: small;">STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS PROFESSIONAL ENGINEER CLASS(ES): CE CIVIL</p> <p>ROGER C AOKI </p> <p style="text-align: right;">  SIGNATURE OF LICENSEE</p> 
<p>BERNICE M. BALETE</p>	<p>P.E. - No. 10186, HAWAII</p> <p style="text-align: center;">STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS</p> <p style="text-align: center;"> BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS</p> <p style="text-align: center;"><i>heretofore certifies that on the date hereof</i> BERNICE M BALETE <i>was duly licensed as a</i> PROFESSIONAL ENGINEER <i>and is therefore authorized to practice this Profession</i> <i>within the State of Hawaii.</i> <i>In witness whereof, this License has been issued and the Seal of the Board</i> <i>affixed hereto, this 20th day of March, 1987, A.D. 2011 at Honolulu, Hawaii.</i></p> <p style="text-align: center;">  No. 10186 Chairperson</p>	<p>Expires: 4/30/2024</p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;">License Number PE-10186</div> <div style="border: 1px solid black; padding: 2px;">Expiration date 4/30/2024</div> </div> <p style="font-size: small;">STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS PROFESSIONAL ENGINEER CLASS(ES): CE CIVIL</p> <p>BERNICE M BALETE</p> <p style="text-align: right;"> SIGNATURE OF LICENSEE</p> 
<p>ERIC M. LAU</p>	<p>P.E. - No. 12977, HAWAII</p> <p style="text-align: center;">STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS</p> <p style="text-align: center;"> PROFESSIONAL ENGINEER</p> <p style="text-align: center;"><i>This is to Certify that</i> ERIC M LAU <i>was duly licensed as a</i> PROFESSIONAL ENGINEER <i>In the State of Hawaii.</i></p> <p style="font-size: x-small;">and is therefore authorized to practice this Profession within the State of Hawaii. In witness whereof, this License has been issued and the Seal of the Board affixed hereto, this 27th Day of June, A.D. 2008</p> <p style="text-align: center;">  No. 12977 Chairperson</p>	<p>Expires: 4/30/2024</p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;">License Number PE-12977</div> <div style="border: 1px solid black; padding: 2px;">Expiration date 4/30/2024</div> </div> <p style="font-size: small;">STATE OF HAWAII DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS PROFESSIONAL ENGINEER CLASS(ES): CE CIVIL</p> <p>ERIC M LAU 98-030 HEKAHA STREET UNIT 9 AIEA, HI 96701</p> <p style="text-align: right;"> SIGNATURE OF LICENSEE</p> 

Element Environmental, LLC

Personnel Registered Professional Licenses

NAME	LICENSE NUMBER	EXPIRATION DATE
<p>CANDACE K. K. H. BORGES YAMAUCHI</p>	<p>P.E. - No. 16320, HAWAII</p> 	<p>Expires: 4/30/2024</p> 
<p>JODIE C. TSUBONE</p>	<p>P.E. - No. 17048, HAWAII</p> 	<p>Expires: 4/30/2024</p> 
<p>LINDSAY BETH MASON</p>	<p>P.E. - No. 6201059411, MICHIGAN</p>	<p>Expires: 8/21/2024</p> 
<p>ARLENE HELEN CAMPBELL</p>	<p>L.G. - No. 1664, WASHINGTON</p> 	<p>Expires: 3/10/2023</p> 

Element Environmental, LLC Asbestos Certifications



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	04/19/24	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

Adamczyk
Erica E.
Element Environmental, LLC
HIASB-5331
State Exp. Date **05/10/2024**



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	08/15/23	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

Agpaoa
Joshua B.
HIASB-4791
State Exp. Date **09/27/2023**



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	08/15/23	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

Amato
Daniel W.
Element Environmental LLC
HIASB-4628
State Exp. Date **09/13/2023**



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	12/27/22	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

Aoki
Roger C.
Element Environmental, LLC
HIASB-2902
State Exp. Date **12/15/2022**



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	09/09/23
INS	09/19/23	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

Balete
Bernice M.
Element Environmental, LLC
HIASB-0449
State Exp. Date **05/04/2024**



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	01/31/24	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

Ellis
John A.
Element Environmental, LLC
HIASB-4117
State Exp. Date **04/28/2024**



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	08/15/23	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

Heskett
Marvin D.
Element Environmental, LLC
HIASB-4631
State Exp. Date **09/17/2023**



State of Hawai'i Asbestos Certification

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	07/25/23	PM	n/a

W= Worker
CS= Cont./Sup.
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

Hunter
Lauren K.
Element Environmental, LLC
HIASB-4292
State Exp. Date **05/31/2023**

Element Environmental, LLC Asbestos Certifications




**State of Hawai'i
Asbestos Certification**

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	01/18/24	PM	n/a

W= Worker
CS= Cont./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

**Ito
Garrett M.
Element Environmental, LLC
HIASB-5159
State Exp. Date 01/24/2024**




**State of Hawai'i
Asbestos Certification**

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	01/31/24	PM	n/a

W= Worker
CS= Cont./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

**Kilway
Katie L.
Element Environmental, LLC
HIASB-3284
State Exp. Date 10/05/2023**




**State of Hawai'i
Asbestos Certification**

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	09/23/23	PM	n/a

W= Worker
CS= Cont./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

**Lau
Eric M.
Element Environmental, LLC
HIASB-3198
State Exp. Date 10/11/2023**




**State of Hawai'i
Asbestos Certification**

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	10/17/23	PM	n/a

W= Worker
CS= Cont./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

**Liu
Danny C.
Element Environmental, LLC
HIASB-4653
State Exp. Date 12/10/2023**




**State of Hawai'i
Asbestos Certification**

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	12/14/22	PM	n/a

W= Worker
CS= Cont./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

**Lutey
Austin A.
Element Environmental, LLC
HIASB-3199
State Exp. Date 05/24/2023**



**State of Hawai'i
Asbestos Certification**

Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	05/11/23	PM	n/a

W= Worker
CS= Cont./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

**Matsuda
Robin
Element Environmental LLC
HIASB-5211
State Exp. Date 05/16/2023**



CHC Training
Environmental Compliance Certification Experts

CERTIFICATE OF ACHIEVEMENT

This certificate is awarded to:
LESLIE A. ROBINSON

In recognition of satisfactory completion of the EPA-approved annual asbestos refresher training provided in accordance with the Model Accreditation Plan (MAP) (40 CFR Part 763, Subpart E, Appendix C) and AHERA of the Toxic Substances Control Act (TSCA) entitled:

BUILDING INSPECTOR

COURSE COMPLETION:	SEPTEMBER 21, 2022
EXAMINATION DATE:	SEPTEMBER 21, 2022
EXPIRATION DATE:	SEPTEMBER 21, 2023
COURSE HOURS:	40

CHC TRAINING INC. ACCREDITED COURSE

CHC Training Certificate No. 822-0088-41-0



**State of Hawai'i
Asbestos Certification**







Training Course Exp. Dates

W	n/a	MP	n/a
CS	n/a	PD	n/a
INS	06/17/23	PM	n/a

W= Worker
CS= Cont./Sup
INS= Inspector
PD= Project Designer
MP= Mgmt. Planner
PM= Project Monitor

**Matsuoka
Maya
Element Environmental
HIASB-5085
State Exp. Date 07/02/2023**

Element Environmental, LLC Asbestos Certifications

 <p style="text-align: center;">State of Hawai'i Asbestos Certification</p> <p style="text-align: center;"><u>Training Course Exp. Dates</u></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">W n/a</td> <td style="width: 33%;">MP n/a</td> <td style="width: 33%;"></td> </tr> <tr> <td>CS n/a</td> <td>PD n/a</td> <td></td> </tr> <tr> <td>INS 02/06/24</td> <td>PM n/a</td> <td></td> </tr> </table> <p style="font-size: small;">W= Worker CS= Cont./Sup. INS= Inspector PD= Project Designer MP= Mgmt. Planner PM= Project Monitor</p> <p>Tsubone James D. Element Environmental, LLC HIASB-4118 State Exp. Date 04/29/2024</p>	W n/a	MP n/a		CS n/a	PD n/a		INS 02/06/24	PM n/a		 <p style="text-align: center;">State of Hawai'i Asbestos Certification</p> <p style="text-align: center;"><u>Training Course Exp. Dates</u></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">W n/a</td> <td style="width: 33%;">MP n/a</td> <td style="width: 33%;"></td> </tr> <tr> <td>CS n/a</td> <td>PD n/a</td> <td></td> </tr> <tr> <td>INS 03/15/23</td> <td>PM n/a</td> <td></td> </tr> </table> <p style="font-size: small;">W= Worker CS= Cont./Sup. INS= Inspector PD= Project Designer MP= Mgmt. Planner PM= Project Monitor</p> <p>Tsubone Jodie C. Element Environmental, LLC HIASB-4629 State Exp. Date 09/14/2023</p>	W n/a	MP n/a		CS n/a	PD n/a		INS 03/15/23	PM n/a	
W n/a	MP n/a																		
CS n/a	PD n/a																		
INS 02/06/24	PM n/a																		
W n/a	MP n/a																		
CS n/a	PD n/a																		
INS 03/15/23	PM n/a																		
 <p style="text-align: center;">State of Hawai'i Asbestos Certification</p> <p style="text-align: center;"><u>Training Course Exp. Dates</u></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">W n/a</td> <td style="width: 33%;">MP n/a</td> <td style="width: 33%;"></td> </tr> <tr> <td>CS n/a</td> <td>PD n/a</td> <td></td> </tr> <tr> <td>INS 06/17/23</td> <td>PM n/a</td> <td></td> </tr> </table> <p style="font-size: small;">W= Worker CS= Cont./Sup. INS= Inspector PD= Project Designer MP= Mgmt. Planner PM= Project Monitor</p> <p>Uekawa Theodore N. Element Environmental, LLC HIASB-5084 State Exp. Date 07/02/2023</p>	W n/a	MP n/a		CS n/a	PD n/a		INS 06/17/23	PM n/a		 <p style="text-align: center;">State of Hawai'i Asbestos Certification</p> <p style="text-align: center;"><u>Training Course Exp. Dates</u></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">W n/a</td> <td style="width: 33%;">MP n/a</td> <td style="width: 33%;"></td> </tr> <tr> <td>CS n/a</td> <td>PD n/a</td> <td></td> </tr> <tr> <td>INS 12/07/22</td> <td>PM n/a</td> <td></td> </tr> </table> <p style="font-size: small;">W= Worker CS= Cont./Sup. INS= Inspector PD= Project Designer MP= Mgmt. Planner PM= Project Monitor</p> <p>West Arnold D. Element Environmental, LLC HIASB-4625 State Exp. Date 12/15/2022</p>	W n/a	MP n/a		CS n/a	PD n/a		INS 12/07/22	PM n/a	
W n/a	MP n/a																		
CS n/a	PD n/a																		
INS 06/17/23	PM n/a																		
W n/a	MP n/a																		
CS n/a	PD n/a																		
INS 12/07/22	PM n/a																		
 <p style="text-align: center;">State of Hawai'i Asbestos Certification</p> <p style="text-align: center;"><u>Training Course Exp. Dates</u></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">W n/a</td> <td style="width: 33%;">MP n/a</td> <td style="width: 33%;"></td> </tr> <tr> <td>CS n/a</td> <td>PD n/a</td> <td></td> </tr> <tr> <td>INS 01/31/24</td> <td>PM n/a</td> <td></td> </tr> </table> <p style="font-size: small;">W= Worker CS= Cont./Sup. INS= Inspector PD= Project Designer MP= Mgmt. Planner PM= Project Monitor</p> <p>Yamauchi Candace K.K.H. Element Environmental, LLC HIASB-3840 State Exp. Date 05/15/2024</p>	W n/a	MP n/a		CS n/a	PD n/a		INS 01/31/24	PM n/a		 <p style="text-align: center;">State of Hawai'i Asbestos Certification</p> <p style="text-align: center;"><u>Training Course Exp. Dates</u></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">W n/a</td> <td style="width: 33%;">MP n/a</td> <td style="width: 33%;"></td> </tr> <tr> <td>CS n/a</td> <td>PD n/a</td> <td></td> </tr> <tr> <td>INS 01/31/24</td> <td>PM n/a</td> <td></td> </tr> </table> <p style="font-size: small;">W= Worker CS= Cont./Sup. INS= Inspector PD= Project Designer MP= Mgmt. Planner PM= Project Monitor</p> <p>Yamauchi Ryan S.W. Element Environmental, LLC HIASB-2905 State Exp. Date 04/23/2024</p>	W n/a	MP n/a		CS n/a	PD n/a		INS 01/31/24	PM n/a	
W n/a	MP n/a																		
CS n/a	PD n/a																		
INS 01/31/24	PM n/a																		
W n/a	MP n/a																		
CS n/a	PD n/a																		
INS 01/31/24	PM n/a																		

Element Environmental, LLC Lead Based Paint Activities Certifications

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	05/10/2026
Supervisor-	n/a
Risk Assessor-	n/a
Project Designer-	n/a
Worker-	n/a




Adamczyk
Erica E.
Certification # PB-1359

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	n/a
Supervisor-	n/a
Risk Assessor-	12/24/2025
Project Designer-	n/a
Worker-	n/a



Agpaoa
Joshua B.
Certification # PB-1137

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	n/a
Supervisor-	n/a
Risk Assessor-	12/24/2025
Project Designer-	n/a
Worker-	n/a




Amato
Daniel
Certification # PB-1148

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	03/21/2022
Supervisor-	n/a
Risk Assessor-	n/a
Project Designer-	n/a
Worker-	n/a




Aoki
Roger
Certification # PB-0118

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	n/a
Supervisor-	n/a
Risk Assessor-	07/21/2025
Project Designer-	10/29/2024
Worker-	n/a



Balete
Bernice
Certification # PB-0449

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	n/a
Supervisor-	n/a
Risk Assessor-	01/10/2026
Project Designer-	n/a
Worker-	n/a



Ellis
John A.
Certification # PB-0828

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	n/a
Supervisor-	n/a
Risk Assessor-	12/30/2025
Project Designer-	n/a
Worker-	n/a



Heskett
Marvin
Certification # PB-1150

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	03/20/2023
Supervisor-	n/a
Risk Assessor-	n/a
Project Designer-	n/a
Worker-	n/a



Hunter
Lauren
Certification # PB-0923


Element Environmental, LLC
Lead Based Paint Activities Certifications

State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	01/24/2025
Supervisor-	N/A
Risk Assessor-	n/a
Project Designer-	n/a
Worker-	n/a

Ito
Garrett M.
Certification # PB-1272



State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	05/24/2022
Supervisor-	n/a
Risk Assessor-	10/01/2025
Project Designer-	n/a
Worker-	n/a

Lau
Eric
Certification # PB-0439




State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	10/14/2022
Supervisor-	n/a
Risk Assessor-	12/24/2022
Project Designer-	n/a
Worker-	n/a

Liu
Danny C.
Certification # PB-1136




State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	n/a
Supervisor-	n/a
Risk Assessor-	12/18/2025
Project Designer-	n/a
Worker-	n/a

Lutey
Austin
Certification # PB-0440



State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	06/06/2025
Supervisor-	n/a
Risk Assessor-	n/a
Project Designer-	n/a
Worker-	n/a

Matsuda
Robin Ken
Certification # PB-1291



State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	07/01/2024
Supervisor-	n/a
Risk Assessor-	n/a
Project Designer-	n/a
Worker-	n/a

Matsuoka
Maya
Certification # PB-1254




State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	03/13/2023
Supervisor-	n/a
Risk Assessor-	n/a
Project Designer-	n/a
Worker-	n/a

Miguel
Mark
Certification # PB-0919



State of Hawai'i
Lead Based Paint Activities Certification

Expiration Dates: 1959

Inspector-	n/a
Supervisor-	n/a
Risk Assessor-	12/17/2025
Project Designer-	n/a
Worker-	n/a

Tsubone
James
Certification # PB-0827



**Element Environmental, LLC
Lead Based Paint Activities Certifications**

**State of Hawai'i
Lead Based Paint Activities Certification**

Expiration Dates: 1959 HAWAII

Inspector-	01/07/2023
Supervisor-	n/a
Risk Assessor-	07/15/2026
Project Designer-	n/a
Worker-	n/a

**Tsubone
Jodie C.**
Certification # PB-1151



**State of Hawai'i
Lead Based Paint Activities Certification**


Expiration Dates: 1959 HAWAII

Inspector-	07/19/2024
Supervisor-	n/a
Risk Assessor-	n/a
Project Designer-	n/a
Worker-	n/a

**Uekawa
Theodore "Teddy"**
Certification # PB-1257




MDHHS



ARNOLD WEST
LEAD INSPECTOR/RISK ASSESSOR
EBL INVESTIGATOR

P-008520

ANNUAL FEE DUE:		TRAINING & EXAM DUE:
03/31/23		03/31/25

LEAD CERTIFICATION AND
COMPLIANCE ASSURANCE SECTION

**State of Hawai'i
Lead Based Paint Activities Certification**

Expiration Dates: 1959 HAWAII

Inspector-	n/a
Supervisor-	n/a
Risk Assessor-	02/07/2026
Project Designer-	n/a
Worker-	n/a

**Yamauchi
Candace K.K.H.**
Certification # PB-1135



**State of Hawai'i
Lead Based Paint Activities Certification**

Expiration Dates: 1959 HAWAII

Inspector-	03/21/2022
Supervisor-	n/a
Risk Assessor-	10/07/2025
Project Designer-	n/a
Worker-	n/a

**Yamauchi
Ryan**
Certification # PB-0117



ATTACHMENT 4

ELEMENT ENVIRONMENTAL, LLC
CERTIFICATE OF VENDOR COMPLIANCE
CERTIFICATE OF GOOD STANDING



STATE OF HAWAII
STATE PROCUREMENT OFFICE

CERTIFICATE OF VENDOR COMPLIANCE

This document presents the compliance status of the vendor identified below on the issue date with respect to certificates required from the Hawaii Department of Taxation (DOTAX), the Internal Revenue Service, the Hawaii Department of Labor and Industrial Relations (DLIR), and the Hawaii Department of Commerce and Consumer Affairs (DCCA).

Vendor Name: ELEMENT ENVIRONMENTAL, LLC

DBA/Trade Name: ELEMENT ENVIRONMENTAL, LLC

Issue Date: 06/22/2023

Status: **Compliant**

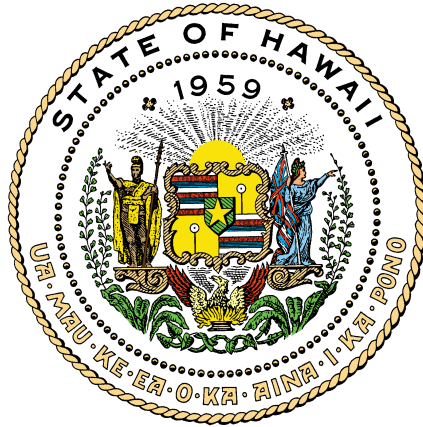
Hawaii Tax#: 27137955-01
New Hawaii Tax#: GE-1660416000-01
FEIN/SSN#: XX-XXX4479
UI#: No record
DCCA FILE#: 40203

Status of Compliance for this Vendor on issue date:

Form	Department(s)	Status
A-6	Hawaii Department of Taxation	Compliant
8821	Internal Revenue Service	Compliant
COGS	Hawaii Department of Commerce & Consumer Affairs	Compliant
LIR27	Hawaii Department of Labor & Industrial Relations	Compliant

Status Legend:

Status	Description
Exempt	The entity is exempt from this requirement
Compliant	The entity is compliant with this requirement or the entity is in agreement with agency and actively working towards compliance
Pending	A status determination has not yet been made
Submitted	The entity has applied for the certificate but it is awaiting approval
Not Compliant	The entity is not in compliance with the requirement and should contact the issuing agency for more information



Department of Commerce and Consumer Affairs

CERTIFICATE OF GOOD STANDING

I, the undersigned Director of Commerce and Consumer Affairs of the State of Hawaii, do hereby certify that according to the records of this Department,

ELEMENT ENVIRONMENTAL, LLC

was organized under the laws of the State of Hawaii on 10/10/2005 ; that it is an existing limited liability company in good standing and is duly authorized to transact business.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Department of Commerce and Consumer Affairs, at Honolulu, Hawaii.

Dated: April 11, 2023

Director of Commerce and Consumer Affairs

ATTACHMENT 5

**ELEMENT ENVIRONMENTAL, LLC
CERTIFICATE OF LIABILITY INSURANCE**



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

03/24/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Atlas Insurance Agency, Inc. 201 Merchant Street Suite 1100 Honolulu HI 96813	CONTACT NAME: Scott LaRue PHONE (A/C, No, Ext): (808) 533-3222 E-MAIL ADDRESS:	FAX (A/C, No): (808) 533-8777
	INSURER(S) AFFORDING COVERAGE	
INSURED ProService Advantage Inc PEO for Element Environmental, LLC 6600 Kalaniana'ole Hwy Ste 200 Honolulu HI 96825	INSURER A: Hawaii Employers' Mutual Ins Co Inc. NAIC # 10781	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES**CERTIFICATE NUMBER:** 23-24 CCG31**REVISION NUMBER:**


THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y / N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		WC0057022	01/29/2023	01/01/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$ \$1,000,000 E.L. DISEASE - POLICY LIMIT \$ \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Proof of insurance certificate provided for coverages indicated.

CERTIFICATE HOLDER**CANCELLATION**

Element Environmental, LLC 98-030 Hekaha Street Unit 9 Aiea HI 96701	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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