

Araujo, Jaclyn

From: Ann Mello <amello@aecos.com>
Sent: Tuesday, June 20, 2023 7:52 AM
To: Planning Internet Mail
Subject: professional services
Attachments: AECOS Qualification submittal to Planning department.pdf

Aloha

We are interested in qualifying for professional services for Botany, Wildlife Biology, and other environmental services. Please see our letter of interest and statement of qualifications submittal, attached.

If you have any questions or need any additional information, please do not hesitate to contact me.

Sincerely,

Ann Mello
AECOS, Inc.
45-939 Kamehameha Hwy #104
Kaneohe HI 96744
(808)234-7770



AECOS, Inc.
45-939 Kamehameha Hwy, Suite 104
Kāneʻohe, Hawaiʻi 96744
Phone: (808) 234-7770 Fax: (808) 234-7775
Email: aecos@aecos.com

June 20, 2023

Planning Director, County of Hawaiʻi
planning@hawaiiicounty.gov
ATTN: Mr. Zendo Kern
101 Pauahi Street, Suite 3
Hilo, HI 96720

Re: Professional Services Qualifications for the Fiscal Year 2023-2024

Dear Mr. Kern;

AECOS Inc. would like to take this opportunity to submit our qualifications for professional services to the County of Hawaiʻi. *AECOS* performs terrestrial, stream, and marine flora/fauna and water quality surveys. *AECOS* also performs jurisdictional water determinations and provides biological monitoring, water quality monitoring, and laboratory services. The following itemized list corresponds to the numbered items in your Notice to Providers of Professional Services.

- 1) *AECOS, Inc.*
45-939 Kamehameha Hwy., #104
Kaneʻohe, HI 96744
There are no other office locations, however a few biologists work from home on Oʻahu and Hawaiʻi island.

Contact: Susan Burr
sburr@aecos.com

- 2) *AECOS* was established in 1971 and is 52 years old. The average number of employees over the last five years is 20.
- 3) Resumes of these key employees are included in the attached statement of qualifications:

Eric Guinther, Ecologist, BA in biology, over 48 years of experience designing, implementing biological surveys.

Susan Burr, Environmental Scientist, BA in biology and MS in marine resources management; over 25 years of experience in the environmental field.

Reginald David, Project Manager, vertebrate biologist; over 40 years in avian and mammalian surveys.

Stacey Kilarski, Marine Resource Specialist, BA in biology and MS in marine resource management; over 13 years of experience in marine surveys.

Bryson Luke, Biologist, BS in Natural Resources and Environmental Management; over 5 years of experience in biological surveys with AECOS, Inc. and additional experience with his prior employers.

4) A list of recent projects with brief project descriptions as well as additional client contact information can be found in the statement of qualifications. Listed here are a few that pertain to botany and wildlife biology:

- Ongoing. Avian Monitoring, Predator Control, and Reporting for the Kealahou WWTP. Contracted by County of Hawaii. *AECOS* No. 1627.
- 2022-2023 Biological monitoring for threatened and endangered birds and seabirds at Punaluu during construction activity. Contracted by ICF Stokes. *AECOS* No. 1402.
- 2020. *Faunal survey for the proposed Circuit Hawai'i Raceway Park, Kapolei, O'ahu, Hawai'i*. Prep. for HHF Planners, Inc., *AECOS* No.1619.
- 2020. *Natural Resource Assessment for Kapolei Parkway Lots, Ewa, O'ahu, Hawai'i*. Prep. for the Kobayashi Group, LLC., *AECOS* No. 1614.
- 2019. Marine Mammal Observation/Monitoring. Contracted by Sound and Sea Technology. *AECOS* No. 1399.
- 2018. *Endangered Species Act Monitoring at Hilea Gulch and Nīnole Gulch Repair Project, Ka'ū District, Hawai'i*. Prep. for Hawaiian Dredging and Construction Co., *AECOS* No. 1564
- 2018. *Hanalei Bridge Biomonitoring, Hanalei, Kaua'i*. Prep. for Hawaiian Dredging and Construction Co., *AECOS* 1570.

List of clients that can be contacted:

- RM Towill Corp., Brian Takeda, BrianT@rmtowill.com, (808)842-1133
- Wilson Okamoto, Keola Cheng, KCheng@wilsonokamoto.com, (808)946-2277

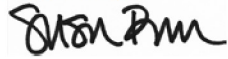
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- EKNA Services, Inc., Brian Ishii, BIshii@eknahawaii.com, (808)591-8553
- HHF Planners, Scott Ezer, SEzer@hff.com, (808)457-3158
- G70, Jeff Overton, Jeff@g70.design, (808)523-5866

5) A statement of qualifications with brief project descriptions and key employee resumes along with a company brochure is being submitted with this letter via email. A certificate of insurance is also included in this email.

AECOS looks forward to working with the County of Hawai'i. Any questions or comments regarding these submitted documents should be addressed to Susan Burr at sburr@aecos.com or via phone at cell (808)722-4145.

Sincerely,



Susan Burr
President

**STATEMENT OF
QUALIFICATIONS**

AECOS, Inc.
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June 2023

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INTRODUCTION TO *AECOS*

AECOS, Inc. is a small, Hawai‘i-based business providing environmental consulting and analytical laboratory services to government, industry, commercial, and private clients throughout the Pacific Basin. We offer a variety of services, with special emphasis in ecology, aquatic sciences, and water quality. Established in Hawai‘i in 1971, our company's dedication to excellence has produced a reputation for quality and integrity for 50 years.

Our services include, and are not limited to, the following:

- ◆ Ecological Assessments
- ◆ Biological Stream Surveys
- ◆ Marine Surveys
- ◆ Wetland OHWM Delineations
- ◆ Natural Resource Inventories
- ◆ Water Quality Studies
- ◆ Analytical Chemistry
- ◆ Toxicity Testing
- ◆ Environmental Permitting
- ◆ Environmental Impact Assessment
- ◆ Essential Fish Habitat Assessment
- ◆ Biological Evaluation

In our 50 years, *AECOS* has prepared over 1500 technical reports for clients, mostly in Hawai‘i but also covering work on numerous Pacific Islands, and as far west as Japan. Our staff includes biologists, ecologists, water quality specialists, chemists, microbiologists, oceanographers, database specialists, and technicians. *AECOS* scientists have extensive knowledge of terrestrial, marine, and freshwater ecology throughout the Pacific area. This collective expertise provides a multi-disciplinary capability for addressing a variety of environmental issues and challenges faced by our clients.

AECOS maintains an extensive library of environmental reports, texts, and reference collections of marine and aquatic flora and fauna. Networked computers with a variety of database, spreadsheet, statistical, and word-processing software enable rapid data analysis and timely submission of reports. Documents are prepared using Microsoft® Word for Windows™. Data tables can be provided digitally in either Word or Microsoft® Excel formats. *AECOS* maintains a home page on the World Wide Web (www.aecos.com) which provides more information on our company, project experience, and various environmental data, and as a community service, maintains links to other environmental sites of interest.

AECOS laboratory annually participates in EPA certified provider water pollution and water supply performance evaluation samples for the analyses we do in-house. Our microbiology laboratory is Hawai‘i Department of Health (HDOH) certified for drinking water analyses. *AECOS* is an accepted laboratory for Underground Injection Control (UIC) sampling and analyses and is accepted by HDOH Clean Water Branch as qualified samplers for 401 WQC monitoring programs.

RECENT AECOS, INC. PROJECTS
Flora/Fauna, Water Quality, Stream & Marine Surveys

2014 – present. New Kapālama Container Terminal Wharf and Dredging Project, Essential Fish Habitat Assessment & Coral Transplantation, Honolulu Harbor, O‘ahu, Hawai‘i. Department of Army File No. POH-2012-00081. AECOS No. 1354A-H. Daniel Lutz, Senior Project Manager, Moffatt & Nichol. (808) 533-7000. William Makanui, HMP Engineer, DOT, Harbors Division, Special Projects Group, (808) 586-2525 (Office), (808)291-0356 (cell)

Designed and conducted marine surveys (including benthic composition, coral size frequency distribution macro-invertebrate density, and fish diversity, size, density and biomass) to quantify marine resources in the proposed dredge and fill areas and other areas that may be impacted indirectly. Supported NOAA-NMFS, USFWS, and Department of Transportation consultations and consisted of a MSA, EFH assessment, ESA Section 7 consultation, DA permit and amendment preparation, coral transplantation plan, and implementation of long-term monitoring. Long-term monitoring was built into project scope. AECOS organized coordination and communication among HDOT Harbors and planning team.

2012 – 2021. Pier 12 and 15 Improvements, Coral Transplantation, Honolulu Harbor, O‘ahu, Hawai‘i. AECOS No. 1300A-H. Ben Ahakuelo, P.E., Construction Manager, Yogi Kwong Engineers, LLC, (808) 942-0001 Mel Travens, DOT, Harbors Division, (808) 586-2461 (Office), (808)291-0851 (Mobile)

Conducted surveys identifying and quantifying coral reef species for preparation of an EA and to assist in developing project alternatives and selecting a design with the least amount of impact to marine resources. Prepared a coral transplantation plan and worked with commercial divers to transplant corals. A post construction assessment was conducted immediately following completion of the project work at each pier, and a one-, three-, and five- year postconstruction assessment of transplanted corals was conducted. Long-term monitoring to evaluate success was built into project scope.

2021. A natural resources assessment of two sites at the Ellison Onizuka Kona International Airport, North Kona, Hawai‘i Island. AECOS No. 1671.

Landrum & Brown (513) 530-1271

The State of Hawai‘i, Department of Transportation, Airports Division is proposing to make improvements on two sites that are currently undeveloped within the airport footprint. The northern site is approximately 75 ac in size and the southern

site is approximately 33 ac. AECOS was tasked by Landrum & Brown with conducting flora and fauna surveys and assessing critical habitat and jurisdictional waters on the two sites for project permitting. Our report recommended appropriate avoidance and minimization measures to avoid impacts to listed species, including the endangered Blackburn's Sphinx Moth and threatened and endangered seabirds.

2021. *Natural resources and functional assessment of Honouliuli Stream for the Ewa Shaft Tunnel Improvements Project 'Ewa, O'ahu. Prep for RM Towill Corp., AECOS No. 1557b.*

Honolulu Board of Water Supply (BWS) proposes to use the 'Ewa shaft irrigation system for a potable water supply. BWS consulted with the Honolulu District (HD) of the U.S. Army Corps of Engineers (USACE) in 2018 and the USACE determined a "functional assessment" of Honouliuli Stream would be required as part of the permit application. The purpose of a functional assessment is to allow the USACE and federal resource agencies to compare current conditions in Honouliuli Stream with anticipated functions and values of the stream after the Project has been completed. In 2019, AECOS was contracted by R. M. Towill Corporation to conduct water quality and biological surveys, delineate the CWA jurisdictional limits or ordinary high water mark (OHWM) of Honouliuli Stream in the Project area and conduct a functional assessment of the stream. In 2020, the Project area was expanded both up and downstream along Honouliuli Gulch and AECOS was contracted to extend the scope of the initial. The results of the survey and functional assessment will be used by USACE to make permitting decisions.

2020. *Kamehameha Highway Resurfacing and Widening Project, Wahiawa, Hawai'i. Prep. for EKNA Services, Inc., AECOS No. 1621.*

HDOT-Highways Division, together with the Federal Highways Administration, are preparing to repave and widen approximately 11.5 miles of Kamehameha Highway and portions of Kamananui Road and Wilikina Drive. AECOS, Inc. was contracted by EKNA Services, Inc. to conduct a natural resources survey of the project site along the length of the Project, including staging areas, to identify presence/absence and potential impacts to federal and state ESA-listed threatened and endangered species. AECOS prepared a report of findings to be submitted to USFWS.

2020. *Faunal survey for the proposed Circuit Hawai'i Raceway Park, Kapolei, O'ahu, Hawai'i. Prep. for Helber Hastert & Fee Planners, Inc., AECOS 1619.*

Build The Track, LLC. proposes to construct "Circuit Hawai'i Raceway Park" in Campbell Industrial Park, Kapolei, O'ahu. AECOS, Inc. was contracted to survey fauna for the subject property by HHF Planners in support of the environmental

planning and permitting efforts for the Project. *AECOS* biologists used avian point-counts, time-dependent waterbird counts, and pedestrian transects through the property to determine if any fauna of concern, including listed threatened or endangered under federal or state ESA statutes occur on the Project site. *AECOS* prepared a report of findings to be included in a Conditional Use Permit application with the Hawai‘i Department of Planning and Permitting.

2020. *Natural Resource Assessment for Kapolei Parkway Lots, Ewa, O‘ahu, Hawai‘i. Prep. for the Kobayashi Group, LLC., AECOS No. 1614.*

The Kobayashi Group propose to construct an apartment complex at three lots of an undeveloped parcel along Kapolei Parkway. *AECOS*, Inc. conducted preliminary survey of flora and fauna at the parcel to determine if any species of concern, including listed threatened or endangered under federal or state ESA statutes, occur on the Project site.

2020. *Environmental surveys for Koa Ridge community development in Mililani, O‘ahu, Hawai‘i. Prep. for Engineering Concepts Inc., AECOS 1186i.*

Castle & Cooke are developing former agricultural land in central O‘ahu into a residential community at Koa Ridge in Mililani. Development of Koa Ridge includes construction of several storm water drainage systems that will discharge into nearby Kīpapa Gulch via offsite drain lines. *AECOS* most recently conducted biological surveys, CWA federal jurisdictional waters surveys, and prepared and implemented AMAPs for CWA Sec. 401 permitting for a storm drain for the Project. *AECOS* has conducted environmental surveys and reporting for the Koa Ridge Project effort since 2008. Biological surveys include a survey for aquatic species and riparian flora and fauna.

2020. *Marine biological and water quality surveys for Kalaeloa Fuel Pier & Terminal Improvements, Kalaeloa Barbers Point Harbor, O‘ahu, Hawai‘i. Prep. for Belt Collins Hawai‘i, AECOS No. 1546.*

DOT-Harbors Division proposes to improve portions of Kalaeloa Barbers Point Harbor to improve function and capacity for liquid-bulk (i.e., petroleum products, biofuels and asphalt) and dry-bulk (i.e., coal, cement, sand and aggregate) cargo. The purpose of the Project is to increase capacity, flexibility and reduce congestion. *AECOS* was contracted by Belt Collins Hawai‘i to conduct marine surveys at the Project to support the EIS development. Surveys included water quality assessments and marine SCUBA transects along the sea floor to identify species and quantify habitat. *AECOS* prepared a report to support Project preparation of Essential Fish Habitat Assessment and a Biological Evaluation.

2020. *Natural resources assessment of an unnamed tributary to Kahauiki Stream for a project to replace a water line at Fort Shafter Flats, Honolulu, Island of O‘ahu.* Prep. For R.M. Towill, AECOS No. 1615.

The Department of Army proposes to replace a water line across a stream at Fort Shafter, O‘ahu. AECOS, Inc. conducted surveys of the biological flora/fauna resources at the site, assessed water quality, and delineated the extent of federal jurisdictional Waters of the U.S. Results of the surveys support the permitting process for the Project, and include compliance with Sec. 10 of the Rivers and Harbors Act, as well as Clean Water Act Sec. 402 NPDES, Sec. 404 permitting, and Sec. 401 water quality certifications. To delineate the federal jurisdictional limits of Waters of the U.S., AECOS biologists marked stream ordinary high water mark, measured tidal shift to determine mean higher high water, and evaluated soil pits to determine the presence/absence of adjacent wetlands.

2019. *Natural resources survey for the Waihe‘e Riparian Learning Center in Kahulu‘u, Ko‘olau Poko District, O‘ahu.* Prep. for G70, AECOS No. 1559.

The City and County of Honolulu Board of Water Supply proposes to create the “Waihe‘e Riparian Learning Center” in Waihe‘e Valley, O‘ahu. to educate the public about the importance of streams, watersheds, and regenerative agriculture. AECOS Inc., was contracted by G70 to complete a natural resources survey and assess potential environmental impacts from the proposed Project. Surveys included an assessment of water quality, and fauna surveys which included in-water snorkel surveys at several reaches of Waihe‘e Stream at the Project site.

2019. *Daniel K. Inouye International Airport Taxiway A Improvements at Manuwai and Kumumau‘u Canal.* Prep. For Jacobs Engineering Group – CH2M, AECOS No. 1590.

HDOT-Airports proposes to reconstruct Taxiway A at the Daniel K. Inouye International Airport. Project work includes improvements in- and adjacent-to Manuwai Canal and Kaloaloo Canal. AECOS, Inc. was contracted by JACOBS to conduct natural resource surveys at the canals to identify species of concern and characterize water quality at the canals. AECOS also delineated boundaries of federal jurisdictional waters at Manuwai Canal and identify wetland function. Work supports CWA Sec. 401 WQC, 402 NPDES, and 404 permitting for the Project, as well as Sec. 10 of the Rivers and Harbors Act.

2019. *A natural resources assessment of Maunawai Canal and Kaloaloo Canal for Taxiway A reconstruction at Daniel K. Inouye International Airport.* AECOS No. 1590. Jacobs (808) 772-3606

The Hawai‘i Department of Transportation proposed to reconstruct Taxiway A at Daniel K. Inouye International Airport; project components included construction of a structure over Manuwai Canal, removal and replacement of a culvert and headwall in Kaloalua Canal, and regrading the infield area west of Manuwai Canal. AECOS was tasked by Jacobs with assessing the extent of “waters of the US,” water quality in the two canals, sediment toxics in Manuwai Cana, flora and fauna, functions and values of Manuwai wetland. Results of our surveys and impact analysis were used for the National Environmental Policy Act (NEPA) process and the Hawai‘i Environmental Policy Act (HEPA) process and Clean Water Act (CWA) permitting program.

2018 – 2019. Environmental surveys and jurisdictional delineation of waters of the U.S. for the Sand Island Wastewater Treatment Plant improvements project at Sand Island, Honolulu, O‘ahu, Hawai‘i. AECOS No. 1516A-B. Brian Takeda, Planning Project Manager, R. M. Towill Corporation. (808) 842-1133.

Conducted terrestrial and marine biological surveys, water quality analyses, and a jurisdictional waters determination and delineation at the Sand Island Wastewater Treatment Plant to support the design of and permitting for proposed upgrades to the plant. Terrestrial surveys included botanical, avian, and mammals and biologists assessed project impacts upon endangered birds and those protected under the Migratory Bird Treaty Act (MBTA). Marine surveys (including benthic composition, coral size frequency distribution macro-invertebrate density, and fish diversity, size, density and biomass) quantified marine resources in the direct and indirect impact areas. Our water quality analysis assessed construction-related impacts and suggested management measures to reduce impacts. We conducted a jurisdictional determination and delineation of surface waters, including a tidally-influenced drainage ditch and areas with ponded water. Our survey report supported NOAA-NMFS, USFWS, and CCH consultations, including, EFHA, ESA Section 7, and a DA permit. Each member of the AECOS team assigned to this project brought specialized expertise, including that in marine biology, wetland sciences, botany, and ornithology, allowing us to utilize local specialists and conduct the surveys at a competitive cost. In-water work in Honolulu Harbor requires advanced coordination with the Harbor Master and harbor tenants, scheduling around cruise ship and contain vessel arrivals and departures, and awareness and flexibility to work around tug boats.

2018. *Endangered Species Act Monitoring at Hīlea Gulch and Nīnole Gulch Repair Project, Ka‘ū District, Hawai‘i. Prep. for Hawaiian Dredging and Construction Co., AECOS No. 1564.*

Hawai‘i Department of Transportation and Federal Highways plan to reconstruct Hīlea and Nīnole Bridges along Māmalahoa Highway on Hawai‘i Island. Hawaiian Dredging Construction Co. (HDCC) contracted *AECOS* to conduct preliminary biological surveys for Federal and State ESA-listed threatened and endangered species,F

specifically for Hawaiian Hoary Bat (*Lasiurus cinereus semotus*), Hawaiian Hawk (*Buteo solitarius*), Nēnē (*Branta sandvicensis*), listed waterbirds, and Blackburn's sphinx moth (*Manduca blackburni*).

2018. Hanalei Bridge Biomonitoring, Hanalei, Kaua'i. Prep. for Hawaiian Dredging and Construction Co., AECOS 1570.

AECOS was contracted by HDCC to provide Endangered Species Act construction monitoring guidance and training for several Hanalei Bridge repair projects along Kuhio Highway. The endangered and threatened species covered include Hawaiian seabirds, Hawaiian hoary bat, *nēnē*, waterbirds, and endangered Hawaiian monk seal and sea turtle. *AECOS* provided on-site training, reference material, ESA BMPs and site-specific guidelines, as well as performed initial preconstruction surveys for waterbird and *nēnē* nesting.

2018. Ordinary High Water Mark (OHWM) Delineation for the Koukou'ai Bridge Replacement Project, Hana Maui. Prep. For Wilson Okamoto Corp., AECOS No. 1537.

The County of Maui, Department of Public Works are preparing to conduct repairs to the Koukou'ai Bridge on the Hana Highway. *AECOS*, Inc. was contracted by Wilson Okamoto Corp. to delineate the OHWM of Koukou'ai Stream in the vicinity of the Koukou'ai Bridge Repair Project.

2018. Waiāhole Bridge Replacement Project. Wetland Delineation field assistance for Hart Crowser, AECOS No. 1519.

AECOS was subcontracted by Hart Crowser, Inc. to provide wetland delineation assistance for the Waiāhole Bridge Replacement Project on Kalaniana'ole Highway. *AECOS* provided field delineation guidance to Hart Crowser staff. Delineation work was conducted to accommodate an extension of the Area of Potential Effect for the Project.

2017. Survey for Nēnē nesting activity and Blackburn's sphinx moth feeding activity in the Lahaina Bypass Road project area. Prep. for Hawaiian Dredging and Construction Co., and Wilson Okamoto Corp., AECOS No. 1495.

AECOS biologist conducted a survey to establish whether or not nests of the endangered Hawaiian goose or *nēnē* (*Branta sandvicensis*) were present in the proposed Lahaina Bypass and whether any tree tobacco (*Nicotiana glauca*) plants over 3 ft in height occur within the footprint of the grading plan for the Project. Tree tobacco

are a potential food source utilized by larvae of the endangered Blackburn's Sphinx moth (*Manduca blackburni*).

2014 – 2016. Applicable Monitoring and Assessment Plan (AMAP) for Clean Water Act (CWA) Section 401 Water Quality Certification (WQC) and construction monitoring for Ma‘alaea Small Boat Harbor. AECOS No. 1080. Richard Aoki, Project Manager, HDCC. raoki@hdcc.com and Dickey H. Lee, HDLNR (808) 587-0280.

Prepared an AMAP and received approval by Hawai‘i Department of Health (HDOH) to support CWA Section 401 WQC for repairs at Ma‘alaea Small Boat Harbor. Collected preconstruction, during construction, and post construction water quality samples from June 2015 through February 2016, and submitted data to HDCC and HDLNR (permittee), who then submitted them to HDOH to ensure the project was completed in compliance with the WQC. AECOS has HDOH-qualified field samplers who are skilled in collecting water samples and experienced in making field measurements to fulfill CWA Section 401 WQC monitoring requirements. AECOS laboratory director and staff worked closely with HDOH to modify required elements of the AMAP to adapt to field conditions. With over 50 years of business in Hawai‘i, AECOS has cultivated excellent relationships with state and federal natural resource agencies and has successfully worked with most of the construction contractors doing business in Hawai‘i.

2015. Biological surveys for the Māmalahoa Highway (Route 19) Widening Project, Kamuela (Waimea) Island of Hawai‘i. Prep. for RM Towill, AECOS 1434.

Biological surveys were conducted along Māmalahoa Highway (County Rte. 19) east of Kamuela, South Kohala, Hawai‘i Island. The biological surveys identified sensitive biological resources (flora, fauna, potential wetlands) located within or utilizing the Māmalahoa Highway right-of-way.

2013 – 2015. Coral surveys and follow-up surveys for Honolulu Harbor molasses spill damage assessment. AECOS No. 1369. David Gulko, Director, Hawai‘i Coral Restoration Nursery HDLNR, (808) 587-0318.

Designed and conducted reconnaissance surveys and a census of coral resources from the 2013 molasses spill in Honolulu Harbor. Supported HDLNR's impact assessment of state resources in Honolulu Harbor, which resulted in a \$15.4 million settlement package. AECOS dive team was able to quickly mobilize and work with HDLNR to conduct in-water surveys immediately after the molasses spill. Open lines of communication and excellent coordination between HDLNR and the AECOS team enabled a successful rapid assessment and data exchanges. Legal ramifications of the project required a substantial amount of QA/QC and data storage. Due to the number

of photos, videos, and data collection, this project required significantly more oversight and management than previous projects. AECOS biologists and management were able to cooperatively work with HDLNR to quickly and thoroughly assess impacts and maintain clear communications, expectations, and project needs. AECOS biologists learned techniques to collect and store data such that they will be admissible evidence for litigation. Our experience from this project led AECOS to apply for and obtain American Academy of Underwater Sciences (AAUS) certification for scientific diving in 2020

PERSONNEL

AECOS employs a diverse staff of personnel who are highly experienced in designing and implementing environmental studies and conducting analyses in support of such studies. Personnel are cross trained in different fields. Key personnel are listed below. Brief resumes of senior staff are provided on the following pages.

<u>Name</u>	<u>Title / Field of Expertise</u>
Eric B. Guinther	CEO, Ecologist, Botanist, Project Manager
Susan Burr	President Environmental Scientist, Project Manager
Ann Mello	Secretary/Treasurer, Office Manager, Data Technician
Dr. S. Allen Cattell	Water Quality Specialist
Jessica Withrow	Laboratory Manager, Biologist
Rachel Knapstein	Microbiologist, Marine Biologist
Stacey Kilarski-Jacobson	Marine Resource Management Specialist, Marine Biologist
Reginald David	Vertebrate Biologist, ESA Specialist
Bryson Luke	Biologist
Carmen Hoyt	Biologist
Kamryn Yoneshige	Biologist
Gioconda Lopez Vargas	Botanist

RESUMES OF KEY PERSONNEL

ERIC B. GUNTHER

Eric B. Guinther, *AECOS* CEO, is an ecologist/botanist and aquatic biologist with over 45 years of experience conducting environmental studies throughout the central Pacific Basin. His responsibilities at *AECOS* include corporate and project management, as well as the production of environmental survey reports, water quality assessments, and plant and animal identifications. Mr. Guinther does the final QA review of all *AECOS* reports prior to sending to clients. His educational background encompasses geology and botany in addition to his major area of study in invertebrate zoology. In recent years, Mr. Guinther has been involved mostly with conducting surveys assessing the distribution of aquatic biota, conducting plant surveys to document potentially sensitive species (native or listed species), and interpreting water quality data to assess the impact of projects on the natural environment.

Mr. Guinther has conducted marine, terrestrial, and coastal zone surveys for *AECOS* throughout the Hawaiian Islands and in other parts of the western and central Pacific, including Guam, American Samoa, Kwajalein Atoll, Canton Atoll, Fanning Atoll, Christmas Island, Yap, Saipan, Tinian, Palau, and Japan. He has completed numerous terrestrial botanical resource and aquatic resource (streams and wetlands) surveys in the Hawaiian Islands.

Recent projects underway or completed include numerous botanical surveys for private and public clients on Lanai, Maui, Hawaii, Oahu, and Kauai. He was a technical advisor to the TMDL studies for Kawa, Kaneohe, and Waikele streams funded by the State of Hawaii, Dept. of Health, and is recently served as botanist for stream improvements under an Army Corps project involving Honolulu urban stream (Manoa and Palolo streams) and an assessment of the impacts of invasive plants on Kawai Nui Marsh on windward Oahu.

Mr. Guinther has completed the 40-hour basic health and safety training required for hazardous waste workers under OSHA 1910.120 and continues to maintain his certification through the annual refresher courses. He is also certified in Standard First Aid, CPR/AED and Wilderness First Aid.

Mr. Guinther is an active participant at Na Pohaku o Hauwahine in Kailua, a community project to restore native vegetation and marsh habitat in Kawai Nui Marsh.

SUSAN BURR

Susan Burr, Environmental Scientist, is President of *AECOS* and has over 25 years of experience in the environmental field. Her responsibilities at *AECOS* include project management, marine and freshwater biology, preparation of environmental survey and assessment reports, and wetland delineations. Ms. Burr has been project manager at *AECOS* for numerous environmental and water quality studies throughout the Pacific area. Her project list includes projects in nearshore coral reefs, deep-draft and small boat harbors, mangroves and coastal wetlands, sandy beaches, perennial and intermittent streams, and various construction sites.

Ms. Burr received a B.A. degree in Biology in 1991 from Pomona College and a M.S. degree in Marine Resources Management in 1993 from the College of Oceanic and Atmospheric Sciences at Oregon State University. She has worked for the Washington State Office of Marine Safety, Commonwealth of the Northern Mariana Islands Division of Environmental Quality, Hawai'i Department of Health Environmental Planning Office, and has been with *AECOS* since 2001.

Recent projects Ms. Burr has managed while at *AECOS* include coral reef monitoring for beach nourishment projects in Waikiki; assessment of marine biotic resources for harbor development in Guam; wetland delineations for public works and development projects; and stream surveys on O'ahu, Kaua'i, Maui, Moloka'i, and Hawai'i. Ms. Burr is a member of the Society of Wetland Scientists, Hawai'i Association of Environmental Professionals, and The Wildlife Society Hawaii Chapter.

Ms. Burr is currently certified for OSHA hazardous waste site worker (1910.120), open water SCUBA, NITROX diving, first aid, CPR/AED, Wilderness First Aid, oxygen administration for divers and she holds a transportation worker identification credential (TWIC) for working in and around harbors.

REGINALD DAVID

Reginald David is biologist specializing in avian and mammalian fauna with over 40 years of experience conducting environmental studies throughout the central Pacific Basin. He has worked with *AECOS* for over 30 years under his company, Rana Biological Consulting, and started employment with *AECOS* as an integral employee in February 2020. Mr. David is our senior biologist conducting vertebrate surveys. He specializes in avian species with an emphasis on endangered species. His responsibilities at *AECOS* include project management, designing and implementing faunal surveys as well as the production of environmental survey reports and fauna identification. Mr. David reviews faunal reports from staff prior to final edits. His educational background includes attending the University of Denver. His experience includes conducting faunal studies for the USFWS, State of Hawaii DOFAW, and private entities on all of the Hawaiian Islands.

Mr. David has conducted over 1000 terrestrial faunal surveys under Rana Biological Consulting, many in collaboration with *AECOS* throughout the Hawaiian Islands and in other parts of the western and central Pacific, Korea, eastern Siberia and the western United States. He is the co-discoverer of a seabird new to science which has been described as Bryan's Shearwater (*Puffinaus bryanii*).

Mr. David has a good working knowledge of USFWS, State of Hawai'i, and the Federal Department of Transportation environmental laws and regulations. He is experienced in preparing biological assessments (BAs) required under Section 7 of the Endangered Species Act (ESA) and in negotiating mitigation under Section 7 and Section 10 of the ESA as well as under Hawai'i State Statute 195D. Mr. David also has experience in preparing Natural Resource Management Plans (NRMP), DOD Integrated Natural Resource Management Plans (INRMP), Habitat Conservation Plans (HCP), and State of Hawai'i Section 343 Environmental Assessments. He has experience in writing faunal sections for NEPA and HEPA documents.

Mr. David is certified in Standard First Aid, CPR/AED and Wilderness First Aid.

Mr. David has served on numerous boards and committees of agencies and private NGO groups.

STACEY KILARSKI-JACOBSON

Stacey Kilarski is a Marine Resource Management Specialist/Marine Biologist with *AECOS* and has been with the firm since 2009. She has experience in the marine resource management field in positions including Applied Scientist, Sustainable Fisheries Support Associate, and Marine Biologist. She is experienced in SCUBA-based coral reef surveys, knowledgeable in resilience concepts for incorporation into monitoring protocols and strategies, and has an understanding and working experience with marine and coastal management policies of the Pacific Islands region. Her primary responsibilities at *AECOS* include: project coordination, marine biological surveys and analysis, water quality surveys, and preparation of environmental surveys, assessment reports, Biological Evaluations, Essential Fish Habitat Assessments, coral transplantation and mitigation plans. She has experience working with federal and state resource agencies on ESA Section 7 and MSA consultations. Her project experience includes projects in nearshore coral reefs, deep-draft and small boat harbors, mangroves and coastal wetlands, sandy beaches, and various construction sites

Stacey received a B.A. degree in Natural Resources in 2002 from the University of Michigan and a M.S. degree in Marine Resources Management in 2006 from the Bren School of Environmental Science & Management from the University of California. Before joining *AECOS*, Stacey was an Applied Scientist with The Nature Conservancy's Global Marine Team. In this role, Stacey worked with international teams and scientists in coral reef and fisheries management and conservation initiatives. Specifically, she provided technical support to projects related to marine protected areas (MPAs), coral reef resilience, climate change adaptation strategies and socioeconomics of coral reef systems. Stacey also worked with NOAA NMFS Pacific Islands Regional Office of Sustainable Fisheries where she consulted with Federal and state agency scientists and managers to draft enforceable Federal regulations of fishery resources in the western Pacific region.

Stacey is currently certified for open water SCUBA, NITROX diving, first aid, CPR/AED, oxygen administration for divers and she holds a transportation worker identification credential (TWIC) for working in and around harbors.

Bryson Luke

Bryson Luke joined the *AECOS* team in 2017 and brings over 8 years of experience in the environmental field. His work includes wetlands and jurisdictional waters delineations for U.S. Army Corps permitting, water quality monitoring for Hawai'i Dept. of Health permitting, and numerous project work involving endangered species conservation, biological surveys, and stream biology. His work experience is centralized in Hawai'i, but ranges as far west as Midway Atoll in the Papahānaumokuākea National Monument, and as far east as Oklahoma.

Bryson contributes a variety of natural resource skills and local knowledge to *AECOS* projects. His responsibilities include conducting reconnaissance surveys for biological resources (flora/fauna) and identifying potential impacts to species from project-related activities. Field surveys and reporting for aquatic resources (streams, wetlands) that involve examinations of water quality, USACE jurisdictional determination, and biology. Preparation, planning, and execution of project deliverables.

Bryson has experience with projects under his previous employer where he worked with a team to delineate the jurisdictional extent of anchialine pools and survey 'ōpae 'ula and other biological resources at the Makalawena site. He also procured Special Activity Permits (SAPs) from the Hawai'i Dept. of Land and Natural Resources (DLNR), Div. of Aquatic Resources (DAR) for the collection of larval 'o'opu in an ongoing evaluation of streams managed by Kamehameha Schools. In his work with *AECOS*, Bryson has done jurisdictional waters delineations, aquatic and terrestrial biota surveys, water quality monitoring, and biological monitoring of endangered water birds.

Bryson graduated from Kamehameha High School Kapālama Campus in 2005, and received a B.S. in Natural Resources and Environmental Management from the University of Hawai'i at Mānoa in 2010. Bryson has training in hazardous waste operations (HAZWOPER), first aid, CPR, basic helicopter safety, and work in airport AOAs. He also holds a Maritime Security (MARSEC) badge and Transportation Workers Identification Credentials (TWIC) card for working in and around harbors.

ALLEN CATTELL

Dr. Allen Cattell is formally trained in oceanography and has 30-years experience in water quality studies. His primary responsibilities at *AECOS* include senior review, statistical analysis, and preparation of environmental survey and water quality assessment reports. He has participated as a major contributor in numerous water quality studies throughout the Pacific area including: Alaska, British Columbia, California, Hawaii, Christmas Island, Johnston Island, Canton Island, Fanning Island, American Samoa, Kwajalein, Palau, Guam, and Thailand.

Dr. Cattell received his B.S. degree in Biology in 1963 from the University of the Pacific a M.S. degree in Marine Science in 1965 from the University of the Pacific, and a Ph.D. in Oceanography in 1969 from the University of British Columbia.

While at *AECOS* his consulting experience has included a wide variety of water quality studies in Hawaii and throughout the Central and Western Pacific area, including: the effects of disposal of thermal and sewage effluents and also dredge spoils into aquatic environments; the effects of various land development and watershed uses on the water quality of rivers, streams and coastal environments. Dr. Cattell served as an original member of the Technical Committee on Water Quality Standards for the State of Hawaii Department of Health and was responsible for the development of the State's marine water quality standards.

SERVICES INCLUDE

Environmental Monitoring & Laboratory Analyses



- Streams
- Seawater
- Drinking Water
- Groundwater
- Wastewater
- Sediments
- Sludge & Tissue

We design and implement monitoring programs according to Federal, State, and local regulating agencies and provide a wide range of physical, chemical and biological analyses on a variety of sample types.

Field Surveys



- Coral Reefs
- Wetlands
- Streams
- Uplands

Knowledgeable staff provide comprehensive ecosystem surveys including identification of flora and fauna.

Technical Writing

- Environmental Assessments (EA)
- Environmental Impact Statements (EIS)
- Environmental Permits
- Natural History

We produce clear, concise, well-researched documents to meet your company's needs.

AECOS, Inc.
45-939 Kamehameha Hwy., Ste. 104
Kaneohe, Hawaii 96744
Phone: (808) 234-7770
Fax: (808) 234-7775
E-mail: aecos@aecos.com
Website: www.aecos.com



AECOS, Inc.

45-939 Kamehameha Hwy., Ste. 104
Kaneohe, Hawaii 96744



AECOS, Inc. is a Hawaii owned and operated environmental consulting firm providing quality analytical laboratory and field services for governmental, industrial, commercial, and private clients throughout the Pacific Basin.



With over 30 years of dedication to excellence, AECOS staff has maintained a reputation for quality and integrity since its founding in 1971.

AECOS offers a wide variety of ecological and environmental services with special emphasis in water quality and aquatic sciences.

COMMITMENT TO QUALITY

- Water Quality Monitoring
- Ecological Assessments
- Terrestrial, Aquatic & Marine Surveys
- Wetland Delineations
- Analytical Chemistry
- Environmental Permitting



Ka'ena Point, Oahu.

SAMPLING AND ANALYTICAL CAPABILITIES

FIELD SURVEYS

& SAMPLING

Field studies are designed using established techniques for onsite sampling, organism collection, identification of flora and fauna, and measurement of environmental parameters.



Kawa Stream overgrowth, Oahu.

LABORATORY SERVICES

- Analytical Chemistry
- Microbiology/Bacteriology
- Inorganic and Organic Nutrients
- Toxicity Bioassays
- Fluorometry
- Spectrophotometry

Please visit www.aecos.com/aecoslab.html for an extensive listing of services. If we do not offer the particular analyses needed we can forward samples to another quality laboratory.

TECHNICAL WRITING SERVICES

We provide quick and accurate Environmental Assessments (EA) and Environmental Impact Statements (EIS). We prepare and submit permit application materials and obtain permits for clients (Shoreline Setback Variance, Stormwater Runoff, Sec. 401 Water Quality Cert., NPDES, Construction Dewatering, Zone-of-Mixing, Conservation District Use, and CZM Consistency).

QUALITY ASSURANCE

AECOS STAFF

AECOS has a diverse staff, highly experienced in designing and implementing environmental studies and conducting laboratory analyses.

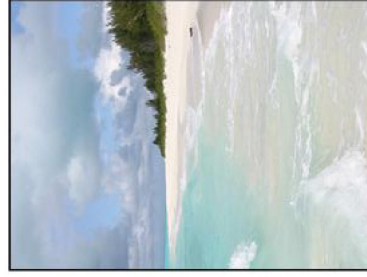
Staff are trained and certified to handle hazardous materials (OSHA) and our laboratory is Hawaii State Certified to conduct drinking water analyses.



Sampling channelized Kapunahala Stream.

AECOS is regularly improving field and laboratory protocols to meet the environmental objectives of today's clients.

DATA FIDELITY



Sandy atoll shoreline.

To ensure the reliability of reported laboratory results, we participate in performance evaluations for the Safe Drinking Water Act (SDWA), National Pollutant Discharge Elimination System (NPDES), and other water pollution programs. Performance evaluation samples are obtained from Environmental Protection Agency (EPA) certified providers.

Please call us for further details and pricing.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

09/30/2022

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: Robert P. Silverstein PHONE (A/C, No, Ext): (808) 533-3222 FAX (A/C, No): (808) 533-8777 E-MAIL ADDRESS:																						
INSURED AECOS, Inc. 45-939 Kamehameha Hwy., Room 104 Kaneohe HI 96744		<table border="1"> <thead> <tr> <th colspan="2">INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A:</td> <td>*Evanston Insurance Co.</td> <td>35378</td> </tr> <tr> <td>INSURER B:</td> <td>North River Ins. Co.</td> <td>21105</td> </tr> <tr> <td>INSURER C:</td> <td>Hawaii Employers' Mutual Ins Co Inc.</td> <td>10781</td> </tr> <tr> <td>INSURER D:</td> <td>American Alternative Insurance Corp. (HIMI)</td> <td>19720</td> </tr> <tr> <td>INSURER E:</td> <td>*Broker: Synapse Services, LLC</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A:	*Evanston Insurance Co.	35378	INSURER B:	North River Ins. Co.	21105	INSURER C:	Hawaii Employers' Mutual Ins Co Inc.	10781	INSURER D:	American Alternative Insurance Corp. (HIMI)	19720	INSURER E:	*Broker: Synapse Services, LLC		INSURER F:		
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INSURER E:	*Broker: Synapse Services, LLC																							
INSURER F:																								

COVERAGES **CERTIFICATE NUMBER:** 22-23 MISC2 **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
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> BI/PD Deductible: \$2,500 GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			*This insurance contract is issued by an Insurer which is not licensed by the State of Hawaii and is not subject to its regulation or examination. If the Insurer is found insolvent, claims under this contract are not covered by any guaranty fund of the State of Hawaii. *MKLV2ENV103066 Broker Name: Synapse Service, LLC License #: 374802 Address: 3322 Route 22 West, Suite 1105, Branchburg, NJ 08902	09/27/2022	09/27/2023	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 25,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$ COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ 1,000,000 BODILY INJURY (Per accident) \$ 1,000,000 PROPERTY DAMAGE (Per accident) \$ 1,000,000 \$
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			1337522589	09/27/2022	09/27/2023	\$ \$ 1,000,000 \$ 1,000,000 \$ 1,000,000 \$
A	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			*MKLV2EFX100990	09/27/2022	09/27/2023	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
C	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	WC0011755 (Incl. USL&H)	09/27/2022	09/27/2023	<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
	Professional Liability / Maritime Liability			See Attached Remarks	09/27/2022	09/27/2023	See Attached Remarks

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.

RECEIVED OCT 05 2022

CERTIFICATE HOLDER

AECOS, Inc.
 45-939 Kamehameha Hwy. Rm 104
 Kaneohe HI 96744-0000

CANCELLATION

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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ADDITIONAL REMARKS SCHEDULE

AGENCY Atlas Insurance Agency, Inc.		NAMED INSURED AECOS, Inc.	
POLICY NUMBER			
CARRIER	NAIC CODE	EFFECTIVE DATE:	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 **FORM TITLE:** Certificate of Liability Insurance: Notes

Insr Ltr A: Professional Liability
 Policy #: *MKLV2ENV103066
 Policy Term: 09/27/2022 -- 09/27/2023
 \$2,000,000 Each Claim
 \$2,000,000 Aggregate

Insr Ltr D: Maritime Liability
 Policy #: 1VAOM1000115-03
 Policy Term: 09/27/2022 -- 09/27/2023
 \$1,000,000 Limit