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**ABOUT ME:** Interdisciplinary environmental scientist and engineer with supervisory and federal grant management experience interested in program development to protect natural resources. Based in Honolulu since 2007, supporting science decisions for partners and stakeholders, strategy development and project management. Proficient in technical writing and diverse communications.

**RESEARCH THEMES:** Investigating connectivity between land and sea through stream and groundwater pathways; predictive tools for surface water, groundwater and sediment discharge; innovation in graphic design and user experiences for predictive tools

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## **EDUCATION**

### **DOCTOR OF PHILOSOPHY, TROPICAL PLANT AND SOIL SCIENCE, 2016**

Title: "Predicting sediment export into tropical coastal ecosystems to support ridge to reef management"

Completed M.S. coursework in Oceanography, Division of Marine Geology

### **MASTER OF SCIENCE, AGRICULTURAL AND BIOLOGICAL ENGINEERING, 2009**

Certificate in International Agriculture

### **BACHELOR OF SCIENCE, ELECTRICAL SCIENCE AND ENGINEERING, 2002**

### **Professional Engineer**

Civil Engineering (Water Resources, Wastewater), State of Hawaii  
License ID: PE-17867

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## **AFFILIATIONS**

UNIVERSITY OF HAWAII AT MANOA,  
WATER RESOURCE RESEARCH CENTER &  
EARTH SCIENCES, MARINE BIOLOGY – AFFILIATE FACULTY

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## **CURRENT PROFESSIONAL ROLES**

**THE NATURE CONSERVANCY**, Honolulu, HI, August 2015-current  
Coastal and Estuarine Scientist

### **Management responsibilities**

- Project management of \$100k-\$5M projects, including writing proposals and managing diverse federal budgets and awards; Support on the ground work to restore and protect key wetlands and coastal ecosystems
- Lead strategic planning for the chapter as a senior expert to protect ecosystems from water quality pollution
  - Facilitate planning meetings with diverse stakeholders to develop a two-year and five-year plan, include opportunities for funding, a new Wastewater Initiative
- Manage and mentor employees, students and interns to complete tasks within budget and on time
- Provide senior technical guidance to State and Federal agency partners, including the State Dept of Health and USGS

### **Science and engineering responsibilities**

- Provide technical guidance on key water quality and hydrologic research needed to prioritize projects, evaluate effectiveness, and communicate success for The Nature Conservancy's marine program
- Coordinate projects that use hydrologic, rainfall, pollutant and land use change forecast products to develop plans, including watershed management plans and team strategies
- Collaborate with diverse stakeholders to develop modeling and data products for user groups to explore data tools in ArcGIS, Google Earth Engine and R markdown

- Prepares findings into technical reports, including water quality analyses, civil and environmental engineering scope of work, compliance documents
- Lead development of innovative technical solutions for water quality impairment
- Collaborate with the National Estuarine Research Reserve to provide understand the ecohydrological impacts of He'eia agriculture and wetland restoration, including
  - Develop methods to measure sediment and nutrient retention in areas with removed invasive species and traditional Hawaiian taro fields,
  - Monitor vegetation, fish and invertebrate populations within the estuary and watershed
- Develop quality assurance protocols and training materials to support statewide community based water quality programs, in collaboration with the Hawaii Department of Health for Maui, Hawai'i island and Maunalua Bay. ([huiokawaiola.com](http://huiokawaiola.com), [hawaiiwaiola.com](http://hawaiiwaiola.com))

#### **Communications and outreach responsibilities**

- Create communication products, including Instagram posts, website content, public presentations and two-pagers that simplify scientific material
- Engage policy makers through briefs, testimony and supporting documents to communicate key issues
- Attend and participate in community meetings as a technical advisor

**UNIVERSITY OF HAWAII AT MĀNOA**, Honolulu, HI, 2010-current  
 Affiliate Faculty, Water Resources Research Center

#### **Project management**

- Co-develop proposals with full faculty members
- Participate as a committee member for Masters and Doctoral students

#### **Science and engineering responsibilities**

- Created a decision support tool to map that both analyzes past patterns and predicts future hydrologic and water quality conditions using land use change to consider coral reef ecosystems in west Maui; including surface and groundwater modeling, field surveys and remote sensing data.
- Led a team that designed retrofit for Honokowai #8 reservoir to reduce sedimentation on west Maui reef.

## **OTHER PROFESSIONAL ROLES**

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**NALO MELI HONEY**, Waimanalo, HI, 2007-current; [www.nalomelihoney.com](http://www.nalomelihoney.com)  
 Owner, Beekeeper

#### **Project management**

- Manage a honey company grossing \$100-\$200k that produces honey on local farms and sells at farmers markets and restaurants, including six part time employees working in production and sales
- Procure all materials and manage human resources
- Play an active role in communicating with legislators about the value of bees in agriculture
- Collaborate with farmers for pollination services and value added products. Member of the Hawaiian Honeybee Coop and Hawai'i Farm Bureau.

**TETRA TECH EMI, INC**, Honolulu, HI, 2014-2015  
 Environmental Scientist III

- Created and executed a sediment sampling and analysis plan and quality assurance plan for a \$1 million project to provide contaminant data for a federal, Hawaii-wide harbor dredging project.

**OCEANIC INSTITUTE**, Waimanalo, HI, 2007-2009  
Research Assistant, Finfish Department

- Designed a 500L microalgae bioreactor to support Hawaiian aquacultured fish species, especially yellow tang and moi.

**CAPE ELEUTHERA INSTITUTE**, Deep Creek, Eleuthera, The Bahamas, 2004-2006  
Research Assistant, Aquaponics and Constructed Wetlands

- Worked with students and the community to design recirculating systems to treat waste and grow food on an isolated part of Eleuthera Island
- Designed a semester long seminar in Sustainability

**STUDENTS PARTNERSHIP WORLDWIDE**, Pahli VDC, Nawalparasi, Nepal, 2003-2004  
Community Advocate

- Assisted a remote community in Nepal with building a library, connecting with NGOs, and developing workshops on agricultural and wastewater best management practices for rice/wheat systems

## **PUBLICATIONS AND PRESENTATIONS**

**MORE AT [HTTPS://WWW.RESEARCHGATE.NET/PROFILE/KIM-FALINSKI](https://www.researchgate.net/profile/Kim-Falinski)**

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- Robinson, S., **Falinski, K.**, Johnson, D. *et al.* Evaluating the Risk Landscape of Hawaiian Monk Seal Exposure to *Toxoplasma gondii*. *EcoHealth* (2024). <https://doi.org/10.1007/s10393-024-01678-7>
- Wenger, A., Juárez, E., Thomas, J., Amaya, T., Corbin C, Edmond, J, **Falinski, K.** et al. A Guide for Integrated Conservation and Sanitation Programs and Approaches. WCS Publications (2024).
- Gove, J, Williams, G, Lecky, J., **Falinski, K.** et al. Mitigating local human impacts promotes coral reef persistence under climate change, August 2023, *Nature*.
- Minton, D., **Falinski, K.**, Carr, R., Lynch, H., Rose, J., Conklin, E. (2022). Coral reef and water quality surveys of the Keōmuku Reef Tract, Lānaʻi. Reported submitted to the National Fish and Wildlife Federation.
- Panelo, J., Wiegner, T.N., Colbert, S.L., Goldberg, S., Abaya, L.M., Conklin, E., Couch, C., **Falinski, K.**, Gove, J., Watson, L., Wiggins, C., 2022. Spatial distribution and sources of nutrients at two coastal developments in South Kohala, Hawaiʻi. *Mar. Pollut. Bull.* 174, 113143.
- Geiger, E, Heron, S, Hernandez, W, Caldwell, J, **Falinski, K.**, Callender, T, Greene, A, Liu, G., De La Cour, J, Armstrong, M., Donahue, M. (2021). Optimal Spatiotemporal Scales to Aggregate Satellite Ocean Color Data for Nearshore Reefs and Tropical Coastal Waters: Two Case Studies. *Frontiers in Marine Science*, 8(382).
- **Falinski, K.**, Minton, D., Most, R., Seidel, B. (2021) Survey of Fishpond Complex and Marine Resources at Kalāhuipua ʻa, Hawai ʻi (2018-2019). Report compiled for NOAA.
- Marrack, L, Wiggins, C., Marra, J., Genz, A., Most, R., **Falinski, K.**, Conklin, E. (2021) Assessing the spatial-temporal response of groundwater-fed anchialine ecosystems to sea-level rise for coastal zone management. *Aquatic Conservation: Marine and Freshwater Ecosystem*. 31(853-869).
- Mezzacapo, M., Donahue, M., Smith, C., El-Kadi, A., **Falinski, K.**, Lerner, D. (2020). Hawaiʻi's Cesspool Problem: Review and Recommendations for Water Resources and Human Health. *Journal of Contemporary Water Research and Education*, 170(35-75).
- Winter, K., Lincoln, N., Berkes, F., Alegado, R., Kurashima, N., Frank, K., ..., **Falinski, K.**, McClatchey, W. (2020). Ecomimicry in Indigenous resource management: optimizing ecosystem services to achieve resource abundance, with examples from Hawaiʻi. *Ecology and Society*, 25(2).

- Oleson, K. L., Bagstad, K. J., Fezzi, C., Barnes, M. D., Donovan, M. K., **Falinski, K. A.**, ... & Wong, T. M. (2020). Linking Land and Sea Through an Ecological-Economic Model of Coral Reef Recreation. *Ecological Economics*, 177, 106788.
- Barnes, M. D., Goodell, W., Whittier, R., **Falinski, K. A.**, Callender, T., Htun, H., et al. (2019). Decision analysis to support wastewater management in coral reef priority area. *Marine Pollution Bulletin*, 148, 16-29, doi:https://doi.org/10.1016/j.marpolbul.2019.07.045.
- **Falinski, K.**, Oleson, K., Lecky, J., Hamel, P., El-Kadi, A., Yost, R., El Kadi, A., Sutherland, R. (2017). Development of a subtropical, volcanic geology-specific model for sediment delivery in the Hawaiian Islands. *Ecological Modeling and Software*, Submitted Feb 2020.
- Bremer, L. L., Wada, C. A., Medoff, S., Page, J., **Falinski, K.**, & Burnett, K. M. (2019). Contributions of native forest protection to local water supplies in East Maui. *Science of The Total Environment*, 688, 1422-1432.
- **Falinski, K.**, T. Callender, E. Fielding, A. Hodges, R. Newbold, D. Reed, A. Yurkanin, Honda, M. (In review). Disentangling land-based influences on West Maui's coastal water quality through quality-assured long-term monitoring programs: the volunteer monitoring experience. *Marine Policy*.
- Bremer, L., **Falinski, K.**, Ching, C, Wada, C., Burnett, K., Kukea-Schultz, K, Reppun, N., Chun, G., Medoff, S, Oleson, K, Ticktin, T. (2018). Biocultural restoration of traditional agriculture: assessing the multiple outcomes of lo'i restoration in He'eia, O'ahu. *Sustainability* (Special Issue).
- Wenger, A; Atkinson, S; Santini, T; **Falinski, K.**, Hutley, N, Albert, S, Horning, N, Watson, J, Mumby, P, Jupiter, S. (2018). Predicting the impact of logging activities on soil erosion and water quality in steep, forested tropical islands. *Environmental Research Letters*.
- Wedding, L.M., Lecky, J., Gove, J.M., Walecka, H.R., Donovan, M.K., Williams, G.J., Jouffray, J.B., Crowder, L.B., Erickson, A., **Falinski, K.** and Friedlander, A.M., (2018). Advancing the integration of spatial data to map human and natural drivers on coral reefs. *PloS One*, 13(3), p.e0189792.
- **Falinski, K.** Penn, D. (2017). Loss of reservoir capacity through sedimentation in Hawaii: management implications for the 21st century. *Pacific Science* 72:1.
- Rocha, A., Maria, R., Waite, U. S., Cassimo, U. A., **Falinski, K.**, & Yost, R. (2017). Improving grain legume yields using local Evate rock phosphate in Gürué District, Mozambique. *African Journal of Agricultural Research*, 12(22), 1889-1896.
- Hamel, P., **Falinski, K.**, Auerbach, D, Frank, J, Sanchez-Canales, M. (2017) Sediment delivery modeling in practice: Comparing the effects of watershed characteristics and data resolution across hydroclimatic regions." *Science of the Total Environment*.
- Oleson, K. L. L.,**Falinski, K.**, Lecky, J, Rowe, C, Kappel, C, Selkoe, K, White, C. (2017). "Upstream solutions to coral reef conservation: The payoffs of smart and cooperative decision-making." *Journal of Environmental Management* 191: 8-18.
- **Falinski, K.**, Penn, D. (2015). An inventory of reservoir sedimentation in Hawaii using mixed methods. In the *Proceedings for the 10<sup>th</sup> Annual Federal Interagency Conference on Hydrology and Sedimentation*.
- Stock, J. **Falinski, K.** Callender, T. (2015). Reconnaissance sediment budget for selected watersheds of West Maui, Hawaii, USA. *Open File Report*, USGS.
- **Falinski, K.**, Yost, R., Sampaga, E., Peard, J. (2014). Arsenic accumulation by edible aquatic macrophytes. *Ecotoxicology and Environmental Safety*, 99.

PRESENTED PAPERS AND CONFERENCE PRESENTATIONS (SELECTED):

- Falinski, K. (2024) Wetland restoration increases freshwater fish diversity. American Fisheries Society. Honolulu HI.
- Falinski, K. (2023) Ola i ka Wai: A vision for Olowalu reef tract. Pacific Water Conference. Honolulu, HI.
- Falinski, K. (2022) Confounded stressors: persistent high coral cover on subtropical reef despite sedimentation and low fish biomass. International Coral Reef Society. Bremen, Germany.
- Falinski, K. (2021) *A Recipe for Success*: One way to cook up a Community-based Water Quality Sampling Program for Regulatory Purposes. Reef Resilience seminar.
- Falinski, K. (2019) Design Considerations In Using Wetland Taro Fields as Retention Basins. Pacific Water Conference.
- Falinski, K. (2017). Down in the weeds: Estimating sediment export to inform management. UH Manoa, Geology, Seminar Series.
- Falinski, K. (2017). Prioritizing green infrastructure options for water quality improvements on a watershed scale. UH Manoa NREM, Seminar Series, Promise to Pae'aina.

## FUNDED GRANTS AND AWARDS (EXAMPLES)

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- 2024. NOAA Transformational Habitat. **Olowalu Mauka to Makai restoration**. Total \$9.5M, with a \$4M subaward to TNC. Lead PI is DOFAW. Supporting a stormwater retention basin and wetland restoration projects.
- 2023. **TNC Science Catalyst (internal)**. Developing a new wastewater program strategy for the HI/Palmyra Chapter. \$95,000. Lead PI
- 2023. National Marine Fisheries Service. **Understanding sediment thresholds for coral reef ecosystems in Olowalu, Maui**. \$255,000, co-PI with Lillian Tuttle, USGS and UHH
- 2022. Seagrant. **Characterizing network-wide, spatially explicit current and future stream temperature distribution in Ala Wai Watershed**, \$92,000. co-PI with Dulai, Tsang
- 2021. National Fish and Wildlife Federation. **Assessing sedimentation, coral and fish resources in northeast Lāna'i**, \$142,000. co-PI.
- 2020. Hawaii Department of Health, EPA 319 Non-point source pollution funding opportunity. **He'eia Watershed Ungulate-Exclusion Fencing for Erosion Control**. \$248,000, lead PI
- 2020. Maui County Office of Economic Development. **Community development and stream water quality monitoring**. \$148,000, lead PI
- 2019. National Fish and Wildlife Federation. **Wetlands Restoration for Ecosystem and Community Resilience in He'eia, O'ahu**. \$768,000, co-PI
- 2017. NOAA Coastal Resilience. **Restoration of a Hawaiian wetland and stream in He'eia, O'ahu to increase ecosystem and community resilience**. \$1,082,215, lead PI
- 2017. CWRM Water Security. **Lo'i Kalo as Retention Basins: A New Approach to Designing Constructed Wetlands in Hawai'i** \$136,012, lead PI
- 2016, NFWF Coral Reef Conservation Fund. **Evaluating the Role of Herbivores in Mediating Impacts of Coral Bleaching on Reef Health and Coral Recruits**. \$75,000, co-PI
- 2014. NFWF Coral Reef Conservation Fund. **Nutrient and Sediment Contributions from Urban Storm Water**. \$80,000, co-PI
- 2013. WRRIP. **Acquire sedimentation data to promote reservoir sustainability and advance watershed science**. \$80,000, co-PI (and lead-PI at the end of the project)

## **SERVICE**

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- **STATE LEGACY LANDS CONSERVATION, COMMISSIONER, 2023-2027**
- **CITY AND COUNTY OF HONOLULU, STORMWATER UTILITY** – Advisory Council
- **OCEAN SEWAGE ALLIANCE**, - Steering Committee, 2022-
- **SOCIETY OF WETLAND SCIENTISTS**, Western Chapter, Hawaii representative
- **CLEAN WATER NATURAL LANDS COMMISSION**, City and County of Honolulu, 2019-2020
- **BIG BROTHERS, BIG SISTERS**, Big Sister, 2015-2019

## **STUDENTS**

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- Committee member: Madison Berger, Doctor of Philosophy, Marine Biology, University of Hawaii at Manoa, 2025
- Committee member: Edward Cho, Master of Science, Tropical Conservation Biology and Ecology, University of Hawaii at Hilo, 2025
- Committee member: Jessica Glazner, Doctor of Philosophy, Marine Biology, University of Hawaii at Manoa, 2024
- Committee member: Haley Pantaleo, Masters of Science, Earth Sciences, University of Hawaii at Manoa, 2024 (complete)
- Committee member: Casey McKenzie, Masters of Science, Earth Sciences, University of Hawaii at Manoa, 2022 (complete)
- Committee member: Nicholas Hutley, Doctor of Philosophy, University of Queensland, 2023 (complete)

## **REFERENCES**

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Dr. Megan Donahue, Director, Hawaii Institute of Marine Biology, [REDACTED]

Amy Zimmer Faust, [REDACTED] former Wastewater Pollution Director, The Nature Conservancy, supervisor

Tova Callender, [REDACTED], DAR, West Maui Ridge to Reef, and Hui o Ka Wai Ola, long-time colleague