

# Sarah McLane Bryan

## Objectives

Develop and support effective, creative, engaging and efficient GIS, Education and Project Management programs to support the conservation of natural & cultural resources.

## Education

**Master's in Geography**                      **University of South Carolina**      Aug 2005 – Dec 2007  
**Bachelor of Arts in Geography**      **University of South Carolina**      Aug 2000 – May 2004  
Collegiate All American Scholar - 2004; University Scholar and Life Scholarships – 2000-2004  
**National Student Exchange**              **University of Hawaii – Hilo**              Jan 2003 – May 2003

## Experience

- Founder/Senior GIS Consultant**                      **The Makali'i Group**                      Sept 2008 – Present
- ♦ **Geographic Information Systems (GIS) and Program Management consultant for business and conservation efforts:** GIS and GPS employee training, GIS/Watershed Curriculum creation for Maui Economic Development Board, Archeology GIS for Sixth Sense Archeology Consulting, Historical data analysis and reporting for the West Maui Mountains Watershed Partnership, On site and aerial photography interpretation for a Haiku, HI farm, geodatabase creation and management for Pūlama Lāna'i, Pu'u Kukui Watershed Preserve, Auwahi and Leeward Haleakalā Watershed Restoration Partnership
  - ♦ Project Management and PR projects include: Grant writing and reporting, 501C3 submissions for new non-profits, Website development for the World Conservation Congress events on Maui (ICBF), Maui Conservation Alliance, Leeward Haleakalā Watershed Restoration Partnership and Maui Mauka Conservation Awareness Trainings; Environmental Film Consultant for a major sports drink company. Other projects found on: [www.makaliigroup.com](http://www.makaliigroup.com)
  - ♦ Technical Rep for the Maui Conservation Alliance: Maui County Office of Economic Development (OED) Grant writing and reporting, Rapid Ohia Death Mapping projects & 2016 IUCN World Conservation Congress (Sept 2016).
- GIS & Sustainability Coordinator**                      **Sustainable Pacific Consulting**      March 2017 – present
- ♦ GIS data creation, analysis, training, cartography, online app creation for State and private contracts
  - ♦ Proposal and report writing
  - ♦ Sustainability reporting for Hawai'i companies: Graphics, report writing, data mining
- GIS Educational Specialist**                      **UH Maui College**                      Feb 2014 – Sept 2016
- ♦ Management of a 5 island GIS Certificate program, including instruction for workforce development training and developing job opportunities in the local economy
  - ♦ Industry approved curriculum development - Desktop and online GIS in Ecosystem Management training, program review, articulation statewide, and organization of hands-on GPS field experiences with local NGOs in conservation.
  - ♦ Marketing and industry engagement with over 100 local companies and NGOs to build partnerships in local industry, including industry leaders (ESRI, National Geographic etc.)
  - ♦ Event planning for semi-annual GIS Showcase Networking events: over 340 attendees
  - ♦ Quarterly and annual reporting to Dept. of Labor, including creation of Best Practices document: See copy of my 2016 Program Report: <http://maui.hawaii.edu/gis/report/>
  - ♦ GIS database management, technical review, and data collection for statewide efforts (ArcGIS online front-end display and back end data maintenance)

**Executive Director**      **Maui Nui Marine Resource Council**      June 2012 – Oct 2013

- ◆ Leader for 2 year Strategic Plan effort with a diverse 28 member council, to restore clean water, healthy reefs and abundant native fish populations in the islands of Maui Nui – through workshops, building relationships with scientific and community expertise to solve complex environmental problems, and committee/staff management.
- ◆ Developed public outreach tools, press releases, quarterly newsletter, social media and developing marketing strategy to cultivate informed citizens.
- ◆ Grant and program development, funding strategy – **tripled incoming grants in year 1**.
- ◆ Writer, editor of the Maui Coral Reef Recovery Plan – still an adviser for this effort.

**Founder**      **Pono Project, Maui HI**      [www.ponoproject.org](http://www.ponoproject.org)      July 2012 – Sept 2016

- ◆ Streamline charitable giving to environmental organizations statewide and track the impact of donations for donors and builds community by engaging businesses with attractive PR/Marketing as a result of their contribution.
- ◆ Award grant money to conservation organizations statewide for environmental work.
- ◆ Coordinate *Pono* events and fundraisers (Save Water, Drink Beer Fundraiser, Rain Garden Buildout)

**Program and Data Manager**      **West Maui Mountains Watershed Partnership**

Aug 2007 – Dec 2012

- ◆ Grant writing and fund development/management for an \$800K per year budget.
- ◆ Creation and integration of new and innovative GIS and remote sensing tools to better identify threats to watershed health – including Invasive Habitat Suitability models, aerial photography georeferencing, analysis and interpretation.
- ◆ Manage & create new GIS watershed layers for invasive weed and ungulate ranges and wildfire infrastructure mapping (with GPS and digitization)
- ◆ GIS Geodatabase maintenance and Access database links
- ◆ Creation of Public Involvement Program (PIP) for interpretive hikes and volunteer work
- ◆ Co-Author and multi-agency facilitator of the Weed Management Plan, as well as the WMMWP 5-Year Management Plan, including hosting expert review panel.
- ◆ Facilitate meetings, deliver presentations and demonstrate watershed management strategies for stakeholders and for the Public Involvement Program (PIP) (co-author).
- ◆ Participate and support invasive species removal in remote locations - aerial helicopter surveys, fence building, weed and rare plant transects/surveys and feral animal control.

**GIS Assistant**      **USDA Forest Service**      August 2006-August 2007

- ◆ Update, maintain and analyze GIS database/GIS Server for four districts of the National Forest Service in South Carolina
- ◆ Develop Aviation Hazards and Motor Vehicle Use records, Endangered Species habitat suitability modeling, Loblolly Pine stand locator mapping

**Researcher – Hazards and Vulnerability Research Institute**      **University of South Carolina**

Aug 2005-Aug 2006

- ◆ Hazard vulnerability assessments and GIS data updates for South Carolina counties
- ◆ Manage SHEL DUS database on hazard occurrences across the U.S.

**Laser Safety Officer**      **Keck Telescopes – Mauna Kea**      Aug 2004 - June 2005

- ◆ Calibrate telescopes during Sodium Laser Guide Star system, monitor weather conditions, error prevention management, record airline trajectories at 14,000 feet in extreme winter weather conditions

## Community Service and Professional Affiliations

- ◆ Board Member: Hawaii Geographic Information Coordinating Council (HIGICC) (Elected for July 1, 2016 – June 30, 2018 Years); Nā Koa Manu (VP); Mālama Maui Nui (VP)
- ◆ Member: Maui Conservation Alliance (and longest running officer)
- ◆ Steering Committee Member – West Maui Kumuwai Project (Current); Ka Ipu Kukui Fellows (2011-2015)
- ◆ Hawaii Representative - Islands of the World XIII at Penghu National University, Taiwan
- ◆ Volunteer: National Geographic BioBlitz (GIS/Plant Inventory Leader – 2015); Maui 4H Club – 2016; Coral Reef Alliance on Maui (2011 – present), Hawaii Wildlife Fund (2011 – present), Waihe'e Dunes Coastal Land Trust Restoration (2010-11), Kahakuloa Valley Taro Restoration (2010), Leeward Haleakalā Watershed Native Plant Restoration (2009)
- ◆ Memberships: - HIGICC and ESRI Maui Usergroup (2007-present); Founding Member - Maui Data Hui (2008 – present); Fundraising Committee Member and volunteer – The Maui Farm (2011 – 2012); Member – West Maui Fire Task Force (2011 – 2012)

## Professional Development

- ◆ Coastal Community Resilience Training – National Disaster Preparedness Training Center (NDPTC) (2015)
- ◆ Playbook Essentials – Leading Organizational Change Workshop (2015)
- ◆ Maui Conservation Alliance – Strategic Planning Workshop with John Parks (2015)
- ◆ ESRI User Conferences (2015, 2014)
- ◆ Grant Writing Workshops: NOAA (2013), Hawai'i Community Foundation (2013), Holmes, Radford and Avalon, Inc. (2010)
- ◆ Social Marketing and Communities Training: SEAWeb Asia Pacific (2013)
- ◆ Rain Garden Build-out Training – Horsley Whitten Group (2013)
- ◆ HR, Financial Systems and Management Training through Research Corporation for the University of Hawai'i (2012, 2011)
- ◆ **Fellow – Ka Ipu Kukui Fellowship** – Year long leadership training by Maui County (2011)
- ◆ Financial Accounting Training – Professional Business Services (2010 – 2011)

## Skills

- ◆ Mapping Soft/Hardware: ArcGIS platforms, ERDAS Imagine, multiple GPS platforms
- ◆ Field Surveying – plot analyses, transects, bio-geographical surveying
- ◆ Remote computer and server management – QNAP, cloud data management
- ◆ Website creation, design and maintenance
- ◆ Fundraising: Grant writing, fundraiser event planning
- ◆ Social Marketing: Facebook, Twitter, Blogger, Instagram, Pinterest
- ◆ Fiscal Management software – Quickbooks, Microsoft Money, Excel
- ◆ Design Elements - Adobe Photoshop; MS Office – Publisher, Powerpoint, Infographics
- ◆ Water Quality Testing – Trained by Digital Bus and Water Quality Consultants
- ◆ Small boat crew – led rafting and snorkeling tours of reefs on Lanai and around Maui
- ◆ Photography, music composition, technical and pleasure writing

## Publications and Presentations

- ◆ **McLane, Sarah, Peter King and Victor Rasgado.** Curriculum for GIS 150 and GIS 180 Certificate courses – shared on Skills Commons (summer 2015).
- ◆ **McLane, Sarah et.al,** 2013. West Maui Mountains Watershed Partnership – 5 Year Management Plan, Lahaina, December 2013.

- ◆ **McLane, Sarah et.al**, 2013. West Maui Mountains Watershed Partnership – 5 Year Weed Management Plan, Lahaina, December 2013.
- ◆ **McLane, Sarah**, 2013. Maui Coral Reef Recovery Plan Resolution – Maui County Council's Infrastructure and Environmental Management Committee. Wailuku, December 16.
- ◆ **McLane, Sarah**, 2013. "Operation Olowalu Reef: The Future of Conserving Maui's Most Diverse Coral Reef Ecosystem." Making Waves Lecture Series – Pacific Whale Foundation. Ma'alaea, October 24, 2013.
- ◆ **McLane, Sarah**, 2013. Maui Coral Reef Recovery Plan – Poster Presenter at the 2013 Hawai'i Conservation Conference. Honolulu. July 16-18, 2013.
- ◆ **McLane, Sarah**, 2013. Crossroads Live on Akaku guest. Kahului. July 9, 2013.
- ◆ **McLane, Sarah**, 2012. "West Maui Mountains Watershed Partnership." Making Waves Lecture Series – Pacific Whale Foundation. Ma'alaea, March 15, 2012.
- ◆ Kupfer, J.A., Myers, A.T., **McLane, S.E.** and Melton, G., 2008. Factors associated with forest damage in a South Mississippi landscape following Hurricane Katrina. *Ecosystems*. 11:1, pp. 45-60.
- ◆ **McLane, Sarah E.**, 2007. *An integrated approach to modeling invasive species as a part of a watershed management partnership in the Kohala Mountains, Hawaii. Master's Thesis. University of South Carolina: Columbia.*