Growth & Retention of Hawai‘i’s Local Workforce for Biocultural Resources Conservation
A position paper developed by the Nāhululehiwakuipapa (Next Gen) Subcommittee of the Hawai‘i Conservation Alliance

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This position paper was drafted by the Hawai‘i Conservation Alliance (the Alliance) member representatives currently working to support capacity-building for stewardship of biocultural resources in Hawai‘i. As with all Alliance position papers, the views expressed are not meant to exclude or censure any of its members. We recognize that organizational policies and mandates may preclude or limit implementation of any of the Alliance’s recommendations by that member. Final draft approved and adopted by the Alliance on June 6th, 2024.

Table of Contents
Section 1 – Position Statement
Section 2 – Background
Section 3 – Compensation Bright Spots
Section 4 – Recommended Actions
Section 5 – Citations
Section 6 – Additional Resources

Section 1 - Position Statement
For biocultural resources conservation in Hawai‘i to be sustainable and effective, passionate and skilled individuals need to enter and remain in the conservation and natural resources management workforce. To achieve this, compensation (salary, benefits, professional development, training) for stewardship professionals must enable workers, families, and communities to thrive in Hawai‘i.

Section 2 – Background
Hawai‘i is one of the most isolated island chains in the world, with diverse, vulnerable, and breathtaking ecosystems. To care for these resources requires a committed and well-trained workforce, yet compensation for the people and communities who do this work remains low. In this position paper we make the compelling case that better supporting our biocultural resources workforce through increased wages and improved benefits will enhance the effectiveness of Hawai‘i’s conservation efforts. Such expanded investment will in turn lead to better protected and restored priceless lands, waters, and associated resources of Hawai‘i and provide numerous benefits to the people of Hawai‘i. This section highlights the importance of Hawai‘i’s biocultural resources and the people who care for them, showcases data on the importance of employee retention, and highlights the current state of salaries and benefits in Hawai‘i for biocultural resources conservation jobs.

A) Value of Hawai‘i’s Biocultural Resources

In Hawai‘i, as in the rest of the world, the environment is the fundamental infrastructure of our economy and our way of life. In an island ecosystem, we are especially aware of the importance and vulnerability of our biocultural resources. The people and communities of Hawai‘i depend on healthy land and water for social, cultural, and economic well-being. As people do not pay for
these life-sustaining ecosystem services from their pockets, they are often overlooked, as are the frontline workers who stand between wholesale degradation and loss and the perpetuation of native species and native dominated ecosystems.

The quantifiable value of Hawaiʻi’s biocultural resources has been estimated many times by many different organizations. For example, the National Oceanic and Atmospheric Administration conducted a 2009 Survey of more than 3,200 households, resulting in an estimated total economic value of Hawaiʻi’s reefs at $13.57 billion ($19.8 billion in 2024 dollars) (Bishop et al., 2011). In another study, the University of Hawaiʻi Economic Research Organization (Roumasset, 1997) examined the various services provided by Oʻahu’s Koʻolau forests including water recharge, water quality, climate control, biodiversity, and cultural, aesthetic, recreational, and commercial values. These services were calculated to have a net present value of between $7.4 and $14 billion (between $10.2 and $19.4 billion in 2024 dollars) (Department of Land and Natural Resources, 2011) These are just two methods of contextualizing the ecosystem services that biocultural resources provide. The totality of values that natural systems provide in support of Hawaiʻi’s diverse lifeways are varied and inestimable (e.g., spiritual values).

B) Value of Hawaiʻi’s Biocultural Resources Workforce

Effective conservation and biocultural resources stewardship, like many sectors such as infrastructure development and education, can only be achieved with the help of a committed and skilled workforce. As the Hawaiʻi Conservation Alliance, we recognize that vital capacity and leadership are needed to effectively conserve and restore native ecosystems and species. To be truly successful, stewardship must also be grounded in and guided by Hawaiian knowledge, values, and practice, that all contribute to an inclusive culture of conservation. Furthermore, we must ensure that we develop a professional biocultural resources workforce that complements and fosters, rather than supplants, community stewardship efforts.

In 2023, the size of Hawaiʻi’s workforce was inclusive of at least 4,994 employees (SMS Research Hawaiʻi, 2024). For a sense of scale, this is equivalent to the number of elementary school teachers across the State of Hawaiʻi (U.S. Bureau of Labor Statistics, 2024). According to Kupu’s Natural Resources Jobs Report (2023), 75% of respondents who currently work in the natural resources sector identified Aloha ‘Āina as a key motivator in their career choice. This suggests that people enter the natural resources sector first and foremost because they value natural resources or place, and that valuing motivates the work. Furthermore, the growth in the attendance and interest among our local and Native Hawaiian youth at the annual Hawaiʻi Conservation Conference continues to demonstrate the desire to better care for our environment and show that there is a bright future ahead. However, this bright future can only be assured over the long term if it is accompanied by financial stability and security.

C) Importance of Employee Retention

There is a quantifiable cost to employee turnover that makes it worth investing in retaining skilled individuals. In a 2015 survey of 974 people, PeopleMatter found the annual turnover rate for hourly
employees to be 49% (Maurer, 2015). The average cost to this turnover was found to be $4,969 per employee; furthermore, Forbes reported in 2019 that the cost of someone leaving a position can be as high as 33% of that position’s annual salary (Percy, 2022).

Overall, high turnover rates create an unsustainable cycle of having to hire and train new employees which costs employers money and reduces overall productivity. According to PwC research (2024), 26% of survey respondents said they were likely to change jobs in the next 12 months (up from 19% in 2022). Compensation is often the main driver of employee turnover as, according to a 2021 report by Lattice, 55% of employees quit to take jobs with higher compensation (deBara, 2022). In fact, studies show a direct link between competitive compensation offerings and higher rates of retention. Recent research by Harvard University revealed that increasing pay among warehouse workers by just one dollar per hour resulted in a 2.8% retention boost (Emanuel & Harrington, 2020). Results also showed that every dollar per hour pay loss caused a 28% increase in turnover. In a study conducted by Emanuel and Harrington (2022), it was found that, on average, a 5.5% increase in pay halved workers’ departure rates with that same increase in pay leading to a 6% boost in productivity. Overall, this led to the conclusion that reductions in turnover and increases in productivity fully defrayed the increased labor costs associated with higher pay.

Overall, there are known benefits to attracting and retaining employees. MAU Workforce Solutions notes that offering competitive wages not only ensures that an employer attracts the best people for the job but also makes potential candidates view the business positively, as it reflects how much they value their employees’ work (Pizzemento, 2023). Making sure people feel secure and appreciated in their jobs also helps ensure long-term loyalty, which yields greater productivity through increased morale and a better overall working environment.

D) Status of Compensation for Biocultural Resources Workforce in Hawai‘i

One of the best examples of the mismatch between valuing and investment in biocultural resources conservation is the State of Hawai‘i annual budget, where currently what is invested is less than 1% of the total state budget. This is in stark contrast to our demonstrated dependence on the environment for our livelihood and overall tourist driven economy. This trend needs to be reversed to ensure the health of our environment and the local populations that depend on it.

The conservation field is undervalued and underfunded and has fallen behind other sectors in terms of wages that compete for local workers. As reported in the 2024 Characterizing Hawai‘i’s Natural Resources Management Sector: Jobs, Education, Salaries, and Expenditures Report conducted by Hau‘oli Mau Loa Foundation and SMS Research, starting salaries do not meet living wage standards – 65% of technician starting salaries are $50K or below, living wage for Hawai‘i in Honolulu County is $55,961 a year for one adult with no children as reported by the Massachusetts Institute of Technology’s Living Wage Calculator (2024). Inflation in Hawai‘i, particularly the cost of housing in urban and residential areas, is extraordinary. In a recent Forbes article, the median house price in Hawai‘i reached $750,000 in 2023 an increase of 206% since 2000 (Fontinelle & Jennings, 2024). According to the Consumer Price Index (2024), average costs for goods and
services have also increased from roughly 3% to over 7% in the last two years. Collectively, these costs contribute to the reason why more than 50% of Native Hawaiians currently reside offshore (Office of Hawaiian Affairs, 2023) and local families constantly struggle to afford the cost of living in Hawai‘i (Rico et al., 2023). In addition to the challenge of affording basic living expenses, organizations also face difficulties recruiting and retaining local professionals. Another important consideration and impact of inadequately funded positions is that the biocultural resources conservation profession may be restricted to people who already have adequate financial support (e.g. from family or spouses) thereby limiting the diversity of workers in the field.

The workers’ perspective was clearly illustrated at the 2023 Hawai‘i Conservation Conference, “Forum 266: How do we better retain and grow local professionals?” The forum and concurrent survey clearly identified an overwhelming dissatisfaction with conservation salaries. Sixty percent (60%) of survey respondents indicated that their current salary does not provide a reasonable “livable” wage for Hawai‘i. When split by work role, more than 80% of nonsupervisory workers felt they do not earn a living wage compared to 40% of program leads. Similarly, according to Kupu’s Natural Resources Jobs Report (2023), 40% of survey respondents identified pay as a barrier to working in the natural resources sector. This tension between the growing need for staffing and inadequate compensation across the conservation field directly impacts our ability to protect and preserve our precious biocultural resources for future generations.

Many of Hawai‘i’s conservation organizations are increasingly struggling to recruit, hire, and retain local professionals to complete our conservation goals. Organizations have been experiencing (a) smaller applicant pools, (b) competition with higher paying positions in other industries, and (c) shorter tenures. To add to these challenges, organizations can also invest a large amount in training and outfitting of new hires (e.g., Wilderness First Aid, helicopter safety/crewmember, chainsaw, rappelling, field gear) without any guarantee that those hires will stay for a long tenure. One example of the damaging effects of failing to recruit and retain a conservation workforce is in botanical conservation. According to a 2014 report from the Native Plant Society of the US authors report: “If botanical capacity continues to erode at its current rate, the nation’s science, sustainability, and land management agenda will suffer, opportunities to economically and efficiently solve environmental challenges will be lost, and our public and private lands will continue to degrade” (Karmer & Havens, 2015). In addition to shrinking applicant pools, anecdotal evidence, along with preliminary data, suggests that those organizations that offer the highest compensation (i.e., federal jobs) “were least likely to receive applications from local candidates and to hire local candidates” (Natural Resources Careers Report, 2023). A 2022 survey of natural resources professionals in Hawai‘i (n = 77) found that, when compared to respondents from state, post-secondary education, and non-governmental agencies, respondents from federal agencies (n = 12) were least likely to receive applications from and to hire local candidates (Natural Resources Careers Report, 2023). Further investigation is needed before these results can be considered representative given the relatively few federal respondents, and that procedures may vary between agencies.
Another factor causing potentially large negative impacts for natural resources compensation is lack of transparency in pay rates. According to the Natural Resources Careers Report, 42% of natural resources job postings do not list a salary range. Not including a number for actual or potential salaries contributes to pay inequality, takes power away from applicants who might otherwise advocate for living wages, and could be a nonstarter for potential natural resources job applicants. Being transparent about pay can help to build trust between employers and potential and current employees (Forbes, 2022). Pay transparency can allow applicants to make more informed decisions in applying for jobs, such as determining whether starting salaries will sufficiently cover basic expenses and help them meet financial goals. Transparency may also help to close pay gaps by identifying discrepancies that might exist due to gender and/or ethnicity and thereby increase inclusivity within the workforce (Institute for Women’s Policy Research, 2010). This is partially addressed by a new law in effect as of 2024 to require salary transparency for organizations with more than 50 employees. Although salary transparency is a tool for greater equity, the full impact of this new law has yet to be seen.

In summary, as a state we do not adequately invest in our natural environment, workers are clearly unhappy with compensation for biocultural resources jobs, and most entry level and field jobs pay well below a living wage. These issues are compounded by the high cost of living, rapid inflation, and unaffordable housing prices. There are serious costs to the lack of investment in our biocultural resources workforce – if we do not invest in the talent and expertise we need to address the degradation of our biocultural resources, we will watch them degrade, and our communities along with them. Together we need to work to address this situation for a better future for Hawai‘i’s ecosystems and our future generations.

**Section 3 – Compensation Bright Spots**

Although there is still much work to be done, there are some recent successes and bright spots highlighted below that aim to improve wages and compensation that may be able to serve as models and examples for the broader natural resources industry.

**Hawai‘i Association of Watershed Partnerships (HAWP)**

The Hawai‘i Association of Watershed Partnerships (HAWP) comprises ten Watershed Partnerships, working collaboratively with approximately 75 public and private partners across five islands. The Watershed Partnerships collectively employ over 95 people and cover over 2.2 million acres – roughly half the land in the entire state.

HAWP’s primary mission includes raising capacity, and a goal of individual Partnerships includes retention of the existing skilled workforce. This institutional knowledge is invaluable, takes years to develop, and is very difficult to replace. In support of this mission and goals, in 2023, HAWP successfully advocated for a 5-8% equity increase to current field crew salaries (approximately 78 workers) to assist with employee retention, better align with comparable job positions from outside organizations, and inflation.
While this was a step in the right direction for HAWP, many entry level positions still pay below a living wage. HAWP recognizes the importance of continually assessing current market situations to ensure wages are competitive and up to date. The watershed partnerships plan to make a similar request again in 2024.

**Army Natural Resources Program on Oahu (ANRPO)**

The Army Natural Resource Program on Oahu (ANPRO) conducts conservation actions on Oahu to offset impacts of Army training on Oahu. In these efforts the ANRPO employs around 50 staff in technician, biologist, supervisor, coordinator, and manager positions.

In recent years ANRPO has struggled to recruit and retain staff to complete the necessary conservation actions. Due to these difficulties, ANRPO conducted a series of raises in 2023. In January 2023, ANRPO conducted 2-8% wage increases organized by job description ranking, with the higher raises focused on the entry level positions (technicians). In November of 2023, 6% raises were implemented for positions at the biologist-level and higher. Even with these efforts ANRPO starting wages are still below the living wage for Honolulu County. ANRPO is actively working to continue raises in 2024 with a focus on bringing entry level employees closer to a living wage.

**The Nature Conservancy - Hawaiʻi and Palmyra (TNC – Hawaiʻi & Palmyra)**

TNC adopted a Fiscal Year ‘24-'28 Strategic Plan, which includes typical conservation-focused strategies, as well as a strategy focused on “organizational excellence”. This strategy identifies priorities across organizational capacity, excellence, and sustainability that reflect a dedication to creation of a healthy workforce culture. A variety of key actions support conservation career pathways. Examples include support for funding early-career fellowships, routine salary equity reviews, development of transparent salary progression opportunities, establishment of competitive wage structures, and support for career planning and upward mobility opportunities that empower staff to innovate and lead. These are a few of the approaches TNC is employing to develop and retain a healthy, stable workforce.

**DLNR Division of Forestry & Wildlife (DOFAW)**

The Civil Service Natural Resources Management Specialist series, one of the most common in DOFAW’s staff, was re-written to allow individuals with technical backgrounds such as fence building and invasive weed removal to substitute their experience year-for-year for the 4-year college degree that is otherwise required for that specialist position. This model may serve as an alternative for hiring requirements for other organizations, particularly federal agencies and the Research Corporation of the University of Hawaii (RCUH) employees.

**Section 4 – Recommended Actions**

It will take the investment and action of all stakeholders to retain and equip a passionate, skilled, and stable biocultural resources workforce for Hawaiʻi. The following are recommended actions to improve
wages as well as the overall perception of the conservation and biocultural resources field to ensure we are continuing to move toward a more sustainable Hawai‘i. We hope that undertaking this collective effort will signal to prospective and current employees that their work is seen and valued, not just within the conservation community, but throughout the whole of Hawai‘i. The following recommendations may be taken by the Hawai‘i Conservation Alliance, the State of Hawai‘i, federal agencies, or other partnerships and organizations.

- **Compensation**
  - Investigate and analyze pay scales across Hawai‘i, in biocultural resources jobs as well as other fields as a comparison.
  - Establish, publish, and maintain transparent recommended pay scales for conservation and biocultural resources positions across Hawai‘i.
  - Conduct systematic and regular compensation/salary reviews to keep pay competitive.
  - Develop added incentives associated with conservation work including housing opportunities, tax breaks, educational loan support, retirement matching, and others.

- **Training and Access**
  - Increase access to skill development and knowledge training (e.g. certifications) for conservation professionals through coordinated and collective resourcing.
  - Directly support skill development through internship, volunteership, and fellowship options for emerging professionals.
  - Promote equitable access to appropriately compensated biocultural resources jobs.

- **Position Requirements**
  - Reexamine education requirements in position descriptions to reduce unnecessary barriers.

- **Career Mapping and Mentoring**
  - Develop systems and provide mentorship, training, and networking opportunities to overcome bureaucratic hurdles that impede prospective employees from entering and/or advancing within the field.
  - Publish transparent, user-friendly conservation career mapping tools.
  - Provide prospective employees with resources and training on how to plan their career in conservation, including what higher level jobs require in areas of knowledge, skills, and education.

- **Public Awareness**
  - Improve public awareness and perception of conservation by increasing public access to resources and natural areas, promoting media coverage for resource-related news, increasing political support of the conservation industry, and other relevant strategies.

**Section 5 – Citations**


Section 6 – Additional Resources

