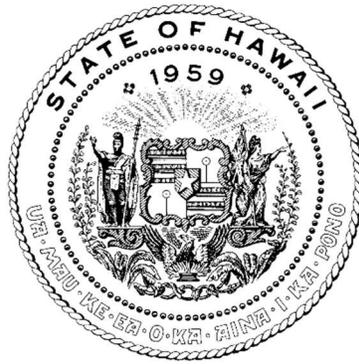


**REPORT TO THE THIRTY-SECOND LEGISLATURE
STATE OF HAWAI‘I
2024 REGULAR SESSION**

**HAWAI‘I STATEWIDE TRAIL AND ACCESS SYSTEM
“NĀ ALA HELE”**



Prepared by:

THE STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
Nā Ala Hele Trail and Access Program

In response to Section 198D-9, Hawai‘i Revised Statutes

Honolulu, Hawai‘i
December 2023

HAWAI‘I STATEWIDE TRAIL AND ACCESS SYSTEM

“NĀ ALA HELE”

INTRODUCTION

The Hawai‘i Statewide Trail and Access Program, known as Nā Ala Hele (NAH), was established in 1988. Section 198D-2, HRS, directs DLNR to plan, develop, and acquire land or rights for public use of land, and construct, restore, and engage in coordination activities to implement a trail and access system in Hawai‘i. The program operates within the DLNR’s Division of Forestry and Wildlife. This report has three sections:

- Program Functions
 - Staffing
 - Funding

- Program Highlights
 - Maintenance Activities
 - Volunteers
 - American Rescue Plan Act (ARPA) Funding
 - Administrative Rules Revision
 - Nā Ala Hele Program Plan Update
 - Other Capital Improvement Projects
 - International Trails Summit
 - 2023 Legislative Session
 - Visitor Industry Field Experiences

- Looking Ahead

This report addresses the requirements of the Nā Ala Hele Program enabling legislation. Administratively, NAH is a part of the Outdoor Recreation Section of the Division of Forestry and Wildlife, which has a broader array of responsibilities, including trails and roads not formally designated as NAH program features.

PROGRAM FUNCTIONS

STAFFING

Statewide staffing through FY23 remained minimal, as it has been for many years. Professional level staffing included:

- Forester VI, Statewide Program Manager
- Abstractor VII (1)
- Trail and Access Specialist V (one each for the Kaua‘i, O‘ahu, Maui, and Hawai‘i Branches)
- Trail and Access Specialist IV (one, Hawai‘i Branch)

- Forestry and Wildlife Technician (two, Hawai‘i and Maui Branches).

Across the state, available labor for program maintenance and management work is handled in different ways at the Branch level:

- Hawai‘i Branch has labor available to it via the Branch Operations Section, which includes when all positions are filled, three work crews of either 4 or 3 staff, each with a crew leader (Forestry and Wildlife Worker III) and crew staff (Forestry and Wildlife Worker II). Additionally, mechanized heavy equipment operators and professional carpentry staff are available for program project needs.
- On the Maui Branch, five (5) Forestry and Wildlife Worker II positions are organizationally within the Outdoor Recreation/NAH section rather than the Branch Operations Section, and they work under the direct supervision of the Forestry and Wildlife Technician.
- On the O‘ahu Branch, there is one (1) Forestry and Wildlife Worker III and one (1) Forestry and Wildlife Worker II position, working directly under the Trail and Access Specialist V, with labor available as needed from other Division programs (Forestry, Wildlife, or Native Ecosystem Protection and Management).
- On the Kaua‘i Branch, there is one (1) General Laborer position in the Outdoor Recreation/NAH section, working directly for the Trail and Access Specialist V, with an additional Forestry and Wildlife Worker III and II, one each, administratively assigned to the program from the Branch Operations Section.

The 2022 Hawai‘i State Legislature also approved and funded one (1) new professional position for the Program, which is being created to provide a new Program Specialist position in the Administrative Section of the Division, reporting directly to the Outdoor Recreation/NAH Program Manager. This will be the first addition to the professional support staff the Program has had since the inception of the Program in the early 1990s, and we are tremendously grateful for that. The position creation and delegated re-organization process has been underway for some time now, in concert with other personnel changes managed by DNLR’s Human Resources Office and the Department of Human Resources Development.

FUNDING

Before FY22, most of the Nā Ala Hele Trail and Access Program (Program) day-to-day operational funding came primarily from the Federal Highways Administration’s Recreational Trails Program, funded nationally by fuel tax dollars. Funding to the states is formulaically apportioned. In FY23, that apportionment for Hawai‘i amounted to \$856,000. It should be noted there are limitations on the use of these funds – primarily maintenance activities. Equipment purchases, including vehicles, are not permitted. Further, pending a programmatic review, RTP funding expenditures for specific maintenance activities are precluded.

Funding is also available to the Program via state fuel tax dollars, commercial use fees, camping fees, and donations. In FY23, this amounted to just over \$26,000.

The 2022 Legislature appropriated an additional \$2,000,000 in the LNR804 budget line item to help fund the Program. That funding was immediately put toward three large projects, two on Maui and one on Hawai‘i island, including:

- \$683,000 for contract services for repairs to Waipoli Road, the primary access to the popular and heavily used Kula Forest Reserve and Polipoli State Park in upcountry Maui. The road suffered severe damage during a Kona Low storm in late 2021 and remained closed due to a lack of repair funds. These funds allowed the Maui Branch to secure contract services for significant repairs to several drainage culverts and stream crossings on the damaged road.
- \$572,916 for repairs to the Waiakoa Loop Trail, also in the Kula Forest Reserve, was severely damaged in the late 2021 Kona Low storm. The repair work included the reconstruction of a small footbridge and the hardening and rerouting of several stream crossings. See the attached Maui Branch Report for more details on this work, including images.
- \$466,000 on Hawai‘i Island for repairs to and hardening of a heavily trafficked roadway recreational access adjacent to the Koai‘a Tree Sanctuary and accessway to the Pu‘u o ‘Umi Natural Area Reserve off the Kohala Mountain Road in North Kohala.
- \$85,000 for a new vehicle for the Kaua‘i Branch NAH program.
- The balance of the FY22 funds went to small, mechanized equipment across the Branches.

PROGRAM HIGHLIGHTS

Several of these highlighted projects are carried over from FY22 and subsequent into FY24 and beyond.

MAINTENANCE ACTIVITIES

Routine trail maintenance activities continue across Nā Ala Hele and other recreation program features across the state, including trails (both historic and contemporary) used for hiking, mountain bike and horse riding, roads, off-highway vehicle parks, and mountain bike parks. There are over 1,600 features in the Forestry and Wildlife recreational trail inventory, with 167 formally designated as Nā Ala Hele program features.

Maintenance needs and challenges abound. The Division continues to work towards the development of routine maintenance standards for quality and frequency, but staffing remains a challenge. We utilize contract maintenance opportunities, and we take advantage of those whenever possible. Coupled with that is the ability to react and respond promptly to damage caused by storms, ongoing blowdown tree removal, and other immediate responses interrupting routine maintenance activities.

VOLUNTEERS

Volunteers are an asset in conducting maintenance and restoration work on recreational roads, trails, and managed areas. Highlights for the year include:

- Maintenance and restoration work on select trails on Kaua‘i spearheaded by Nā Ala Hele Advisory Council members and other volunteers. Their work also includes maintaining and replacing trail rest benches and picnic area shelters.
- Regular maintenance of various trails on the lower sections of the Makiki Valley trails on O‘ahu by a Kapiolani Community College student organization.
- Utilization of a paid KUPU intern on Hawai‘i Island to organize and lead volunteer projects and dedicated long-term volunteers and user organizations (OHV and mountain bike) continue to conduct routine maintenance of features they regularly use, including the Upper Waiākea OHV Park and the Kulanihāko‘i Mountain Bike Park.
- Trail maintenance, vegetation management, and conservation/restoration work at multiple locations on Maui, including the popular Waihe‘e Ridge Trail in West Maui and Kahakapao Recreation Area in the Makawao Forest Reserve.

The program is also moving forward with plans to utilize RTP funding to hire Volunteer Coordinators in each Branch to utilize volunteers across the state more efficiently.

Appended to this report are the island-specific reports submitted by Branch staff for further details.

AMERICAN RESCUE PLAN ACT FUNDING

The American Rescue Plan Act (ARPA), administered by the U.S. Economic Development Administration (EDA), allocated a total of \$3 billion “... to assist communities nationwide in their efforts to build back better by accelerating the economic recovery from the coronavirus pandemic and building local economies that will be resilient to future economic shocks.” Funding via the ARPA was allocated to each state via a per capita formula, and the Governor of each state had the authority to determine which state agency was to receive and administer the funding.

The funding was allocated in six separate grant opportunity types, funding “silo,” so to speak, and the EDA issued Notice of Funding Opportunities, or NOFOs, for each. Among them was the Travel, Tourism and Outdoor Recreation silo. The Governor decided to have the Department of Business, Economic Development, and Tourism administer the funding via the Hawai‘i Tourism Authority. Included in the decision was a directive to have the Hawai‘i Tourism Authority work with DLNR to collectively develop a series of proposed projects and share the funding.

DLNR and HTA established a working group, led partly by Nā la Hele staff for DLNR, and working with other Divisions within the Department to develop project proposals. Through a thoughtful and rigorous process, working closely and collaboratively with our partners at the

HTA, we settled on a series of projects and produced a Grant Application Package. The funding via this grant is available for use through December 2026.

Several projects eventually approved by the EDA for funding are Nā Ala Hele-driven, including:

- **Nā Manu ‘Elele Stewards Program** **\$3,850,000** **Statewide**
 - This program will utilize a total of 20 paid stewards state-wide, hired through our close working relationship with KUPU, stationed at high-use trailheads and other features, to provide information on location-specific cultural and natural resources, health and safety of both the users and the resources, track user numbers and trail or resource conditions, and help to ensure proper behavior by all. Nā Ala Hele is administering this program.
- **Napu‘u Recreation Plan** **\$400,000** **Hawai‘i Island**
 - Funding for this plan will enable contracting professional planners to develop a recreation-specific plan for the Division of Forestry and Wildlife-administered lands comprised of two large, adjacent ahupua‘a on Hawai‘i Island, Pu‘u Anahulu and Pu‘u Wa‘awa‘a, which total over 110,000 acres of state lands.
- **Ala Kahakai Interpretive Plan** **\$300,000** **Hawai‘i Island**
 - Funding will be used to contract a consultant to develop a comprehensive Interpretive Plan in cooperation with communities and descendants within the Ala Kahakai Trail Corridor and in coordination with the Ala Kahakai National Historic Trail. Template and content design for interpretive signage, digital content, and other features will be included.
- **Statewide Trail Capacity Study** **\$1,100,000** **Statewide**
 - Increased use of program features and assets places stressors on the resources and local communities adjacent to these assets. Data on current use, limits of acceptable change, tangible community impacts, and other socio-environmental factors is critical to adequate resource protection, management, and planning efforts. This study, to be conducted by the University of Hawai‘i at Mānoa’s Natural Resources and Environmental Management Program, aims to provide decision tools that can be utilized on trails statewide to determine, among other things, use capacity based on natural and socio-environmental factors and standardized methods for assessing resource condition, user satisfaction, and community support for trail resources.

DLNR’s Divisions of Aquatic Resources and Conservation and Resource Enforcement also received project funding through the EDA grant.

Additionally, Nā Ala Hele staff on the Hawai‘i Branch applied for a received \$600,000 in competitive grant award funding to enhance the Nā Manu ‘Elele Stewards Program on Hawai‘i island.

ADMINISTRATIVE RULES REVISION

This effort essentially took a hiatus through FY23 as the Policy Support Specialist (a.k.a. Legal Fellow) working on the process went on maternity leave and returned to a new, permanent position with the Division. In late 2023, a new Policy Support Specialist was brought on board, and the effort has regained momentum. We look forward to completing this critical process and task in FY24.

PROGRAM PLAN UPDATE

In FY22, \$450,000 in Capital Improvement Project funding was approved by the Legislature to hire a firm to conduct a thorough planning process involving multiple stakeholders and community interests and update the 1991 Nā Ala Hele Program Plan. In the second half of FY23, Governor Ige released the funding, and we secured PBR Hawai‘i as our planning consultant for this effort. Workplan development ensued rapidly, with Program staff working closely with PBR Hawai‘i to design a process that will run through 2026 and ultimately present a revised Program Plan for review and approval by the Board of Land and Natural Resources.

A thorough and thoughtful information-gathering process has been developed and initiated that includes a progressive approach to reaching out to agency and community stakeholders and partners, including:

- Questionnaires and/or interviews with DLNR leadership, division heads, forestry and wildlife professionals, and technical staff.
- Other agency partners that interact with the Program, including:
 - Federal Highways Administration
 - HI Department of Transportation
 - Hawai‘i Tourism Authority
 - Other public and private agencies and landowner stakeholders.
- Island-based program Advisory Council members.
- Targeted individuals with historical and current knowledge of the program, such as former staff who have either retired or moved on, retirees, and other community members.

Following this initial phase will be:

- Legislator briefings.
- A public engagement process, including a stakeholder database, website and mapping tools, and community meetings.
- A compilation of all this effort into an Existing Conditions Analysis and a Financial and Organizational Staffing Analysis.
- Lastly, Draft and Final Plan Update development, vetting, completion, and submittal to the BLNR for consideration of approval.

As noted, the original plan was approved in 1991. This new plan will have a few of the same elements as the original. Still, much of it will be completely new, providing the Program with a solid, contemporary, and current framework for moving forward into the next ten years, including calling for a timely update at that time.

OTHER CAPITOL IMPROVEMENT PROJECTS

- **Pololū Trailhead Planning, Hawai‘i Island**
 - \$500,000. Initially, this funding was to plan and design parking and restroom facilities at the Pololū Trailhead and Lookout in North Kohala, utilizing land offered by a private landowner adjacent to the State lookout by a private landowner. Strong community opposition led to a pivot in the use of the funding. In consultation with Rep. David Tarnas, who played a leading role in securing the funding, we secured the services of planning consultants Townscape, Inc. to engage in a targeted and sensitive community outreach effort to help determine options for how best to accommodate the dramatic increase in visitor traffic to this site and down the trail. This planning and community outreach effort is in progress.
- **Ka‘iwa Ridge (Lanikai Pillbox) Trail Master Plan and Environmental Assessment**
 - \$1,300,000 total: \$400,000 planning and compliance; \$900,000 construction. Funding was allocated for developing a Master Plan and Environmental Assessment to improve the Ka‘iwa Ridge Trail, also known as the Lanikai Pillbox Trail, in Windward, O‘ahu. The combination of a sharp rise in visitors/users, causing severe degradation and erosion of the trail and adjacent areas, and a complete lack of any public parking aside from street parking in the adjacent neighborhoods prompted the need for a proper master plan including trail realignments the development of restoration and soil erosion mitigation measures. The Plan and EA are complete and reviewed for approval and publication in the OEQC Environmental Review. That will initiate the public review and comment period. Following that, we will prepare to submit the Plan for approval by the BLNR.

OTHER PLANNING AND ACCESS INITIATIVES

- **Kamehameui addition to the Kula Forest Reserve, Maui**
 - A planning effort has been underway to develop various management types for the recently acquired 3,400-acre addition to the Kula Forest Reserve in the ahupua‘a of Kamehameui. Private donation funding is being utilized to create this plan, with community input. This remarkable property spans from roughly 3,700’ in elevation in Kula to nearly 9,500’ near the summit of Haleakalā. The long-range plan includes upper elevation, high-quality ecosystem protection, reforestation of former pasture lands, and a robust recreation component including hiking, mountain bike, and equestrian trails for the recreating public.
- **Historic Trail Access, Maui**

- Staff on Maui continue to engage with private landowners over ownership of public trust resources, primarily historic trails and pathways protected by law as public trails. Two have been at the forefront recently, and we are coordinating with the Office of the Attorney General to ensure those public resources remain accessible. They include:
 - Ho‘olawa Trail on the north side of Maui.
 - Onau Trail on the south side near Makena.
 - The legal process is well underway, and the historical evidence is clear.
 - Assuring legal access over these historic pathways is a cornerstone of the Nā Ala Hele program’s charge, and we remain fully engaged in seeing to it that these pathways are protected for the use of the public.
- **Forest Reserve Access, Moloa‘a, Kaua‘i**
 - Similarly, we are engaged with a private landowner on Kaua‘i, in the Lands of Moloa‘a on the eastern side of Kaua‘i, where title documents require public access to adjacent Forest Reserve lands. Still, the title language is vague as to the specific alignment. We are also seeking a resolution with the Attorney General’s office.

These ongoing efforts represent part of the core mission of Nā Ala Hele – protecting and preserving the precious community resources for the enjoyment and utilization of all.

INTERNATIONAL TRAILS SUMMIT

In April 2023, Nā Ala Hele program staff from across the state, as well as Administrator David Smith and O‘ahu Branch Manager Marigold Zoll, attended the International Trails Summit in Reno, Nevada, hosted by American Trails and the Professional Trail Builders Association. Attended by over 900 people from countries across the globe, the Summit offered over 140 sessions, including plenary and concurrent sessions, an all-day field demonstration session with the newest innovations in trail building and maintenance equipment, as well as two days of Field Seminars and Technical Training Workshops that spanned from one to five days in length. The staff took advantage of these seminars and workshops focused on:

- Trail assessments.
- Backcountry rigging techniques for handling large boulders, logs, root balls, and stumps.
- JEDI (Justice, Equity, Diversity, Inclusion) assessments in the planning and design of trails.

Oahu Branch Equipment Operator Kahai Nakamatsu also completed the five-day Mechanized Trail Equipment and Certification course offered post-summit.

As is often the case with these types of gatherings, the networking benefits, the sharing of experiences and techniques, and the relationship-building were of tremendous value to all in attendance, so much so that we are currently in discussions with a world-renowned trail

designer/builder about a series of multi-week trail building and maintenance training and certification sessions for staff across the state, to be held in Spring, 2024.

2023 LEGISLATURE

Regarding positions and funding via the 2023 state legislative session, new recurring funding of \$2,000,000 annually was included in the FY24-25 budget, along with four (4) new positions for the Program. Those positions include:

- Three (3) new Trail and Access IV positions, one each for the Kaua‘i, O‘ahu, and Maui Branches.
- One (1) new Forestry and Wildlife Technician IV position for the Kaua‘i Branch.

The 2023 legislature reinstated a previously abolished Forestry and Wildlife Technician IV position for the O‘ahu Branch. These additional positions will bring Program staff on the Branches to equivalent staffing across the state – two (2) professional and one technician staff on each Branch.

VISITOR INDUSTRY FIELD EXPERIENCES

In FY23, working with staff at the Hawai‘i Tourism Authority with the encouragement of Deputy Director Robert Masuda, we (Nā Ala Hele staff along with other Forestry and Wildlife programs) planned and initiated a series of “field experiences” for our partners in the visitor industry, including staff at the Hawai‘i Tourism Authority, members of the HTA Destination Management Action Plan steering committees on each island, and staff from the Island of Hawai‘i, Maui, O‘ahu and Kaua‘i Visitors Bureaus. Trips were hosted on O‘ahu and Hawai‘i Island, with more planned for Hawai‘i Island that involved site visits to areas where active resource management is underway, including, but not limited to, areas of interest to visitors. Early planning discussions have taken place for Kaua‘i visits. These field experiences are designed to provide an opportunity to share with leaders in the visitor industry the broad scope of the work of the Division’s *kuleana* – what we do, how we do it, WHY we do it, and the challenges we face trying to get it done. The hope is that through these relationship-building opportunities, visitor industry leaders and natural resource managers can get to know and understand each other and foster enhanced awareness of each other’s vision and goals.

LOOKING AHEAD

As we move through Fiscal Year 2024, we continue to make strides on and progress with several large, multi-year projects, including, among many:

- The administrative rules update is expected to be completed by the close of FY24.
- Program Plan Update, ongoing with a tentative completion date of December 2026.
- EDA-funded projects such as the multi-year Trail Capacity Study and the Nā Manu ‘Elele Stewards Program.

- The hiring of Volunteer Coordinators in each Branch to enhance the many positive impacts volunteers bring, not just in work accomplished but in community-building and buy-in.

Working with others to see to it that resources are protected, and public access and use is preserved, including the Department of the Attorney General to assure legal challenges are satisfactorily resolved, and with partners in the visitor industry to develop and nurture relationships to improve collective awareness of each other's missions and goal.

We continue to work with DLNR's Human Resources Office to complete the delegated reorganization process to enable the recruitment and hiring of a total of six recently approved new positions to help build professional staff capacity for this vital public resource management program. This new staffing will go a long way toward protecting resources and enabling responsible public enjoyment.

Mahalo nui.

Respectfully submitted by:

William T. Stormont, Program Manager

Outdoor Recreation | Nā Ala Hele

DLNR, Division of Forestry and Wildlife

Appendices

FY2023 Hawai‘i Island Update:

Newly allocated LNR 804 operating funds were used to improve the severely eroded Koai‘a Corridor road outside Waimea, North Kohala. This project is projected to be completed by October 2023 and will pave 600 feet of eroded dirt road. This project will facilitate a parking area that will pull trail users away from the dangerous Kohala Mountain Road, Highway 250.

At Pololū Valley in North Kohala, program staff have been working closely with the community to develop solutions to the over-use of the trail and lookout area. Capital Improvement Project funds (\$500,000) for planning were released in December 2021, and a consultant firm, Townscape, Inc., was selected. They have conducted several meetings with the community and stakeholders to develop a plan to manage the area best.

The Economic Development Administration awarded economic recovery monies to the State in response to the dramatic economic impacts of COVID-19 on the Tourism and Recreation industries. The Hawai‘i Island Program will use these funds to continue the Pololū Trail Stewards and expand the Steward program state-wide (Nā Manu ‘Elele Steward Program) for several years. In addition, we will be using the funds for an Interpretive Plan for the Ala Kahakai Trail and a Recreation Plan for Pu‘uwa‘awa‘a Forest Reserve.

Nā Ala Hele program staff continue to negotiate with private landowners for access to public lands and trails, including: Honokōhau Trail; Miloli‘i Beaches Subdivision (major historic trails through Pāpā 2); Kōhanaiki Trail to the sea coast; Hōnaunau-Ho‘okena Trail; Keauhou-Ka‘awaloa trails; Makalawena (Ala Loa trail); Keahuolū, and access to the Kaiwiki Section of the Hilo Forest Reserve. Staff also offered trail consultation advice to sister government agencies regarding historic trail preservation and access: Queen Ka‘aumanu Highway Widening Project (Māmalahoa Trail) (DOT), Waipi‘o Valley Road (County), ‘Ala‘ē (County), and Pōhue (NPS),

The program hosted an AmeriCorps KUPU member beginning October 2022, providing that individual an opportunity for career development. Dedicated volunteers continue to augment program staff on Hawai‘i Island in the maintenance of Waiākea ATV and Dirt Bike Park, the Mauna Kea ATV riding area (roads R1 and R10), Kūlanihāko‘i Mountain Bike Park, Pololū Trail, and Makāula-‘O‘oma Trails.

Routine maintenance is ongoing, including minor grading, signage, and trash collection at numerous sites, including ‘Āinapō Trail and Road, Mauna Loa Observatory Road, Manukā Loop Trail, and trails at Kāheawai, Humu‘ula, Pu‘u ‘Ō‘ō, Kaluakauka, Ala Kahakai, Pu‘u Huluhulu, Puna, Onomea, Kaūmana, Muliwai, Kahauale‘a, and Pololū. Brushing, tree removal, sign maintenance, helicopter support, and reconstruction comprise the bulk of the work. Maintenance is also done on facilities, including ‘Āinapo Cabin, halfway shelters along Muliwai Trail and Waimanu Valley campsites, and various trailhead composting units. Due to Rapid ‘Ōhi‘a Death affecting Hawai‘i Island, boot-cleaning stations installed at all trailheads are routinely cleaned and maintained.

Due to the Hawai‘i Island Mayor’s February 2022 emergency proclamation closing Waipi‘o Valley Access Road, the Muliwai Trail and Waimanu Campgrounds were closed, and permits were refunded. Additionally, a significant windstorm in February 2023 severely damaged the trail. The mayor’s proclamation was modified to allow Hawai‘i Island residents access, and in May 2023, staff completed the trail rehabilitation. The trail and campgrounds reopened in May 2023. Staff maintains the trail and campgrounds to keep the features from becoming dilapidated.

Due to the December 2022 Mauna Loa Eruption, the Mauna Loa Observatory Road has been closed and is impassable at the 8,895-ft elevation. The staff is working closely with NOAA and FEMA to reconstruct the road when lava temperatures are cool and stable enough for safe work.

The Hawai‘i Island Program continues to have more work than staff capacity. The vacant Trails and Access Specialist IV position’s funding was restored by the 2022 Legislature and is currently in the process of being filled.

FY2023 Maui Branch Update:

This year, several personnel changes occurred within Maui’s Nā Ala Hele (NAH) program. The Trails and Access Specialist V position was filled in November 2022, and the Forestry and Wildlife Technician IV position was filled in April 2023. Of the three vacant Forestry and Wildlife Worker II (FWWII) positions within the Maui NAH branch, one was filled with an 89-day hire in May 2023.

NAH hosted a five-person Hawai‘i Youth Conservation Corps (HYCC) crew for one week in June 2023 (Figure 1). The interns worked with the NAH trail crew at Kula Forest Reserve (KFR) on Boundary Trail. They rebuilt and widened 1.4 miles of the surface tread using hand tools to regrade the outslope of the trail to reduce erosion.



Figure 1. HYCC crew performing tread work on Boundary Trail.

Maui NAH received a generous donation to support two summer Student Conservation Association (SCA) interns. The SCA members worked alongside our NAH staff, performing general trail maintenance, tread repair and reconstruction, vegetation management and removal through weed-eating and herbicide use, and facility maintenance (Figure 2).



Figure 2. SCA members performing trail maintenance.

The Kula Forest Reserve (KFR) remained closed for most of the 2023 fiscal year due to the substantial damage to the roads and trails from the Kona Low Storm in December 2021. Contractors and NAH staff worked to cut and clear trails and mitigate safety concerns for the public. Contractors were hired utilizing \$683,280 of the \$2 million legislative funding granted to NAH to repair cement crossings, spillways, and culverts damaged on Waipoli Road (Figure 3), the main access road through KFA. This road provides access to the forest reserve for hiking, biking, hunting, camping at Polipoli State Park, nature/wildlife viewing, and cultural practices. In March 2023, the repairs of two culverts and one cement spillway crossing on Waipoli Road were completed (Figures 3 and 4). An additional \$572,916.69 from the \$2 million funding was used to contract repair work for Waiakoa Loop Trail. Nine stream crossings were repaired by installing steel reinforced spillways on the loop trail, and the footing to an existing damaged bridge was repaired this fiscal year (Figures 5 and 6). Work is ongoing to repair one more stream crossing with a spillway and two more large bridge crossings. On April 3, 2023, KFR was reopened to the public. Due to the ongoing work and safety concerns, Waiakoa Loop Trail and #5 Access Road remain closed at KFR. However, all other NAH trails within KFR were opened for public use.



Figure 3. Storm damage to a cement stream crossing on Waipoli Road in the KFR and the same crossing after repairs.



Figure 4. Newly reconstructed culverts and spillways after repairs.



Figure 5. Kona Low Storm damage to stream crossing spillway #6.



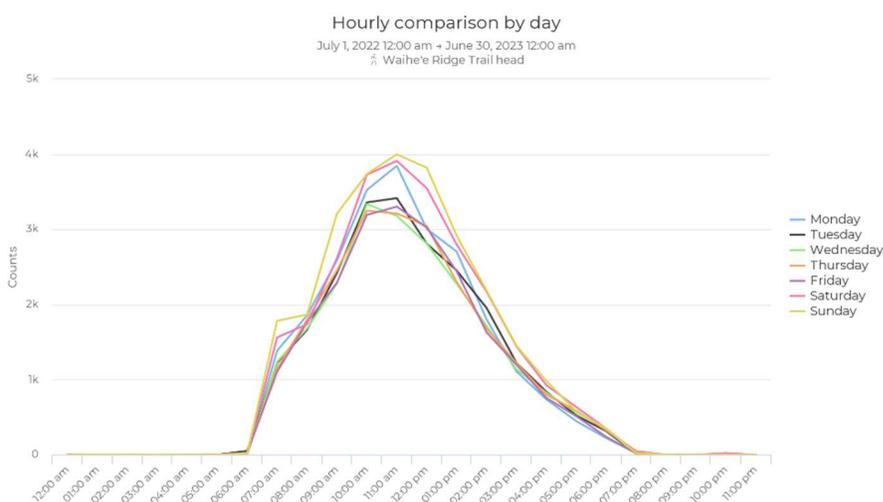
Figure 6. We repaired spillways #6 and #13 with steel-reinforced cement crossings.

The Maui Nā Ala Hele program continued to utilize three automatic trail counters, two (Kahakapao Trailhead and Secret Trail) at Kahakapao Recreational Area (KRA) and one at Waihe‘e Ridge Trail on Maui during 2023 (Table 1). Waihe‘e Ridge Trail has continued to be a popular trail this year, recording a total of 158,645 visits, with an average of almost 450 people/day utilizing the trail and a one-day high count of 900 people. KRA in the Makawao Forest Reserve continues to be heavily accessed by the public, recording 44,470 visits between the two trails combined. The Kahakapao Trailhead counter had an average count of 113 people/day and a one-day high count of 246. Kahakapao’s Secret Trail showed lower numbers of visitors, with an average of 13 people per day and a high count of 76 people per day. At the end of March 2023, the Secret Trail counter began giving inaccurate counts; it was removed from KRA at the beginning of April 2023.

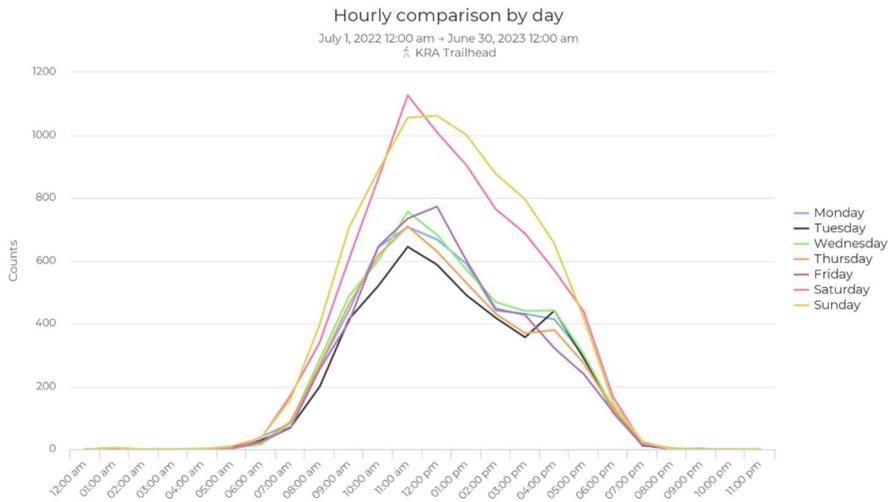
MONTH	TOTAL			DAILY AVERAGE			PEAK DAY		
	WAIHE'E	KAHAKAPAO	SECRET	WAIHE'E	KAHAKAPAO	SECRET	WAIHE'E	KAHAKAPAO	SECRET
JULY	12,008	4,038	620	400	135	21	766	214	42
AUGUST	18,308	4,252	778	610	142	26	900	230	76
SEPTEMBER	13,782	3,330	514	475	115	18	834	194	38
OCTOBER	11,753	3,444	430	392	115	14	578	172	30
NOVEMBER	10,624	3,118	398	366	108	14	562	184	39
DECEMBER	13,118	3,194	412	437	106	14	754	245	37
JANUARY	13,204	3,487	620	440	116	21	668	230	50
FEBRUARY	9,838	1,929	228	364	71	8	570	156	35
MARCH	14,696	3,107	526	490	104	19	793	189	52
APRIL	12,716	3,088	0	438	107	0	637	182	0
MAY	13,888	3,050	0	463	102	0	638	214	0
JUNE	14,710	3,907	0	507	135	0	736	246	0
TOTAL	158,645	39,944	4,526	449	113	13			

Table 1. Trail counter information from three NAH trails.

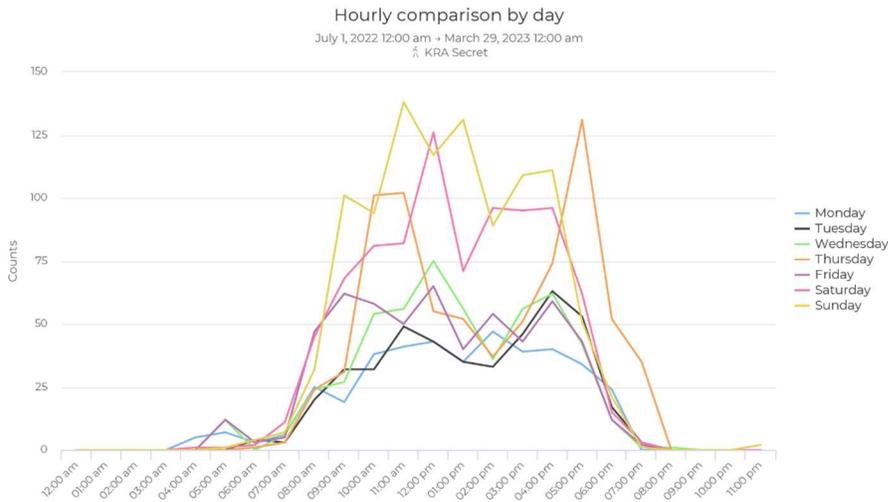
Counter data showed that all three trails had the highest use during the weekends on Saturdays and Sundays (Graphs 1, 2, and 3). Secret Trail at KRA also showed a spike in use on Thursdays, with 131 visits at 5:00 pm (Graph 3).



Graph 1. Waihe'e Ridge Trail hourly use by day. Waihe Ridge Trail had its highest count of 3,998 visits on Sunday at 11:00 am.



Graph 2. Kahakapao Trailhead hourly use by day. Kahakapao Trailhead had its highest count on Saturday with 1,126 visits on Saturday at 11:00 am.



Graph 3. Secret Trail hourly use by day. Secret Trail had its highest count of 138 visits on Sunday at 11:00 am.

Standard monthly trail and access road inspection and work duties included routine maintenance procedures on NAH trails, including grading, water diversion, tree and brush removal, herbicide application, facility maintenance, and sign maintenance. Work occurred at: Ke Ala Loa O Maui/Piilani Trail, Hoapili Trail, Lahaina Pali Trail, Waihe‘e Ridge Trail, Waihou Spring Trail, Waikamoi Ridge Trail, Ohai Loop Trail, Mokuleia Stairs, Keanae Arboretum, the multiuse trail system of Kahakapao Loop Trail, Fong Ridge Road, Pa‘ahao Road, Tweener Trail, Pineapple

Express Downhill Flow Trail, Renegade Trail, Secret Trail, Ravine Trail and the skills areas (‘Akahi Akahi Skills area, Pauma Pump Track, and Akamai Skills area) at Kahakapao Recreational Area (KRA), and Kula Forest Reserve’s multiuse trails including Plum Trail, Polipoli Trail, Tie Trail, Redwood Trail, Mamane Trail, Upper Waiohuli Trail, Boundary Trail, Lower Waiohuli Trail, Waiakoa Loop Trail, Upper Waiakoa Trail, Skyline Trail, Haleakalā Ridge Trail (Table 2).

Trail Name	TRAIL MAINTENANCE							
	Vegetation Management (miles)				Tread Work (miles)		Erosion Control (# of Water Dips)	
	Tree Mgt.	Grass Mgt.	Brush Mgt.	Herbicide	Surface Work	Stairs/Steps	Maintenance	Construction
Waihe‘e Ridge	0.5	6.25	0.25	7	4.25	0.5	80	8
Ohai Loop	1.25	2.25	2.25	0.5	0	0	0	0
Waikamoi Ridge	5	4.5	2.5	0	0	0	0	0
Kula Forest Reserve Trail System	64	10	0.75	1	6	0	0	0
Kahakapao Recreation Area	71.5	0	1.75	2	0.25	0	0	0
Waihou Spring	7.75	0	0	0	0	0	0	0
Mokuleia Stairs	0.25	0.5	0	0.25	0	0	0	0
Lahaina Pali	0	2.5	0	0	0	0	0	0
Keanae Arboretum	0	0	0	0	0	0	0	0
Ke Ala Loa O Maui / Piilani	0	5	0	0	0	0	0	0
Hoapili	4	0	0	0	0.25	0	0	0
Haleakalā Bridle	0	0	0	0	0	0	0	0
Ho‘olawa Bay Access	0.5	0	1	0	0	Installed stepover	0	0
TOTAL	154.75	31	8.5	10.75	10.75	0.5	80	8

Table 2. Summary of maintenance projects completed by the NAH program.

All NAH signage was maintained, and 151 signs were cleaned of graffiti. Eight informational signs and eighteen directional signs were replaced on trails and access roads that were damaged or missing. For hazard mitigation, two temporary high King Tide/ high surf warning signs were posted at the Hoapili trail. Temporary closure signs were placed at Waihou Spring’s trailhead, gate, and fence due to safety issues posed by storm damage.

All-access roads, structures, and parking lots were maintained throughout the year. Access roads leading to trails were continually managed for vegetation by weed eating, chain sawing, and herbicide spraying. All trail parking lots were regularly cleared of vegetation and cleaned of trash. NAH staff painted permanent stripes for individual parking stalls at the Waihe‘e Ridge Trail upper paved parking lot, and the Waihe‘e Ridge Trail lookout deck was painted this year. The rusted fence around the ADA access lookout at Ohai Loop Trail was removed, and a new fence was installed.

Ho‘olawa Bay access was added as one of NAH’s maintenance projects to ensure public access to the shoreline. Staff cleared trees and brush within the state parcel adjacent to the Ho‘olawa state trail, and a stepover was installed over a fence to allow access to the state trail (Table 2).

This year, no maintenance work was done on Haleakalā Bridle Trail (Table 2). NAH staff hiked the entire trail this year to improve GIS mapping and marking of the trail for guided hikes. Haleakalā Bridle Trail guided hikes continued to be led quarterly by the Sierra Club and Haleakalā Ranch staff. Four guided hikes were given this fiscal year in August 2022, October 2022, January 2023, and April 2023.

Flow Farm continued its contract to maintain eleven miles of biking trails at Kahakapao Recreational Area in Makawao Forest Reserve. They visually inspected the riding surfaces monthly for any lumber damage and hazards. Quarterly physical inspections were done on features to find loose boards and hardware that might have loosened from usage. All frame and footing connections were physically inspected annually to ensure the connections remained tight. They repaired any damage that was noted. They organized volunteer groups, along with Maui Mountain Bike Coalition, and held trail repair days (Table 3) and family skill course outings.

Maui staff continued to support the Maui Motocross Track, including maintenance, portable toilet rentals, and equipment servicing.

The planning and management of Kamehamenui Forest Reserve continued this fiscal year. Consultant planners continued to draft the management plan. The contractors completed the plan's first draft, distributed internally to Maui Division of Forestry and Wildlife (Division) staff for review and comments. Division staff led a site visit to Kamehamenui for the Trust for Public Land in September 2023 (Figure 7). The plan and management goals were discussed, and areas of interest were visited. Contractors have completed two miles of fencing in the upper phase 1 section of Kamehamenui, and one pedestrian walk-through gate has been constructed for future hiking access (Figure 8). Division staff has started implementing some invasive species removal in the upper phase 1 section.





Figure 7. Trust for Public Land site visit to Kamehamenui Forest Reserve.



Figure 8. Kamehamenui Forest Reserve fencing and pedestrian walk-through gate.

NAH continued to utilize volunteers and volunteer groups in trail maintenance and conservation activities (Figures 9 and 10). Four groups/individuals participated in volunteer workdays this fiscal year at NAH trails (Table 3).

Organization	Area	# of Trips	Total # of people	Total # of hours	Activities	Comments
Boy Scouts of America	Waihe'e Ridge Trail	6	1	30	Vegetation Management	Mowed 1 mile of Waihe'e Ridge Trail Access Road
Maui Mountain Bike Coalition	Kahakapao Recreation Area	6	57	173.5	Trail maintenance Pump track repair	Raked tree debris, tread work, and fixed wooden features (Pineapple Express and 'Akahi Akahi and Pauma Pump Tracks)
Mauna Kahālāwai Watershed Partnership	Waihe'e Ridge Trail	8	119	595	Conservation	Native outplantings (510 plants) and seed collection
Torrie Nohara	Kahakapao Recreation Area	1	2	10	Signage	Replaced 15 directional arrows on 4 miles of Kahakapao Loop Trail
Total		21	179	808.5		

Table 3. List of fiscal year 2023 volunteer outings, including work activities performed, number of volunteers, and total hours volunteered.



Figure 9. Mauna Kahālāwai Watershed Partnership volunteer work along Waihe'e Ridge Trail.

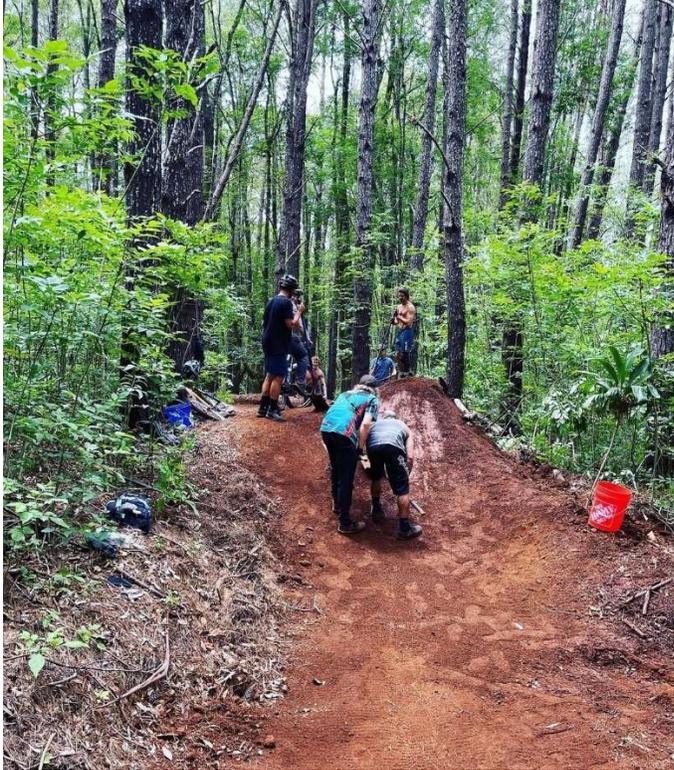


Figure 10. Maui Mountain Bike Coalition volunteer workdays at Kahakapao Recreation Area.

The Maui Advisory Council (AC) meetings continued this year for seven meetings throughout the fiscal year. In June 2023, a council member seat opened and has not yet been filled. Currently, Maui's AC comprises eight council members out of the nine available positions.

FY2023 Oahu Branch Update:

Oahu continues to work on plans for both managed trail access and expansion. This includes the following:

- Maunawili Falls Plan and Improvements - \$75,000 recurring G804 – Planning for Management plan focusing on managed access and preserving sensitive archaeological sites. Improvements may include parking and trail realignment.
- Maunawili Ditch Trail - \$250,000 CIP. For Planning, Design, and Construction. Planning is needed to ensure community input and support, minimize user conflict (mountain bike vs. horse vs. hunter vs. hiker), maximize the safety of users, and expand equestrian use to OGR. The Design phase will focus on converting the existing trail to sustainable equestrian trail standards (max slope, trail bed material (dirt), minimum height clearance), rerouting mountain bike trails to minimize crossings and conflict with horses, parking for horse trailers and other users at both ends of the trail if possible, and informational signs at both ends of the trail. The Construction phase will implement sustainable design trail standards, installation of rerouted mountain bike trail alignments, installation of parking for horse trailers and other users, installation of gates to control users at both ends of the trail, and installation of informational signs to reduce user conflict.
- Kaiwa Ridge Plan and Improvements –\$900,000 CIP Construction for restoration of hiking trail and installation of hardened surface, ground, and site improvements. The Oahu program works with the adjacent landowners on stormwater run-off mitigation. The draft environmental assessment is currently available for review.
- Kamananui Valley Road Improvements – (\$300,000 GIA) Plans design and construction for Kamananui Valley Road repairs, realignment, restoration, and site improvements.
- Peacock Flat Trail – \$10,000.00 to determine alignment/survey (hiking, MB, EQU)

Pending Expansion – Addition of Trail/Trail Systems to the Oahu NAH Inventory

- Helemano – Na Ala Hele is providing funding for the third phase of the management plan. Potential permitted gate/signs/permit (hunting, hiking, mountain biking, equestrian)
- Honouliuli – MOU/permit/gate/parking/signs/trail restoration (hunting, hiking, mountain bike, equestrian)
- Lulumahu –parking/signs/trail stewards/attendant (hiking)

Potential expansion projects:

- Koolaupoko Trail Complex (OGR, Maunawili Ditch and Demonstration, Ohana, Connect to Pali/Koolau Golf Course, Youth Correctional Facility) (hunting, hiking, mountain bike, equestrian)

- Wailupe – C&C MOU/signs (hunting)
- Pupukea Paumalu Mountain Bike – DSP MOU, Bike club MOU, map, signs (MB)

Program trail maintenance and improvements:

The program continues to keep the trails safe and user-friendly by clearing trail-side vegetation, removing large, downed trees, and mitigating other potentially hazardous conditions. While some of the program's trails continue to have urban interface issues, the social media feedback is overwhelmingly positive. Most of the work is carried out by a full-time trail crew of two, including chainsaw work in removing fallen trees obstructing the trail. Other tasks include brushing, grubbing, rock removal, trailhead maintenance, trail grade reconstruction, armoring water diversions, installing educational signs, and out-planting native plants. In addition to staff support for trail maintenance, the Oahu program has implemented an annual trail-clearing permit system for experienced volunteers. The Oahu program continues to issue five of these permits annually. This permit system has proven successful, with multiple trails being cleared and maintained independently of staff labor.

O'ahu staff provided continued support of the Waiale'e Off-Highway Vehicle Park. Park volunteers were recognized this year for their outstanding service to the Park and the State. The state continues to provide Recreational Trail Program money for the park for a portable toilet contract.

The Oahu program continues to adjust to the challenges of high use on its trails and roads by working with State Parks, The Hawaii Visitors Bureau, and The University of Hawaii.

Trail maintenance priorities continue by keeping trails safe and user-friendly by clearing trail-side vegetation, removing large, downed trees, and mitigating other potentially hazardous conditions. Major work includes brushing, grubbing, tree/rock removal, herbicide application, trailhead maintenance, sign installation/replacement, and rockwork. Other projects included trail grade reconstruction, armoring water diversions, installing educational signs, and out-planting native plants. Oahu staff provided continued support of the Waiale'e OHV Park.

Some highlight accomplishments this year were:

1. The Oahu Program had its first Volunteer Appreciation Awards Ceremony – The DLNR chairperson awarded special certificates to outstanding volunteers.
2. The Kupu Youth Conservation Corps worked on the Manoa Falls trail and the Pauoa Flats Boardwalk. The crew removed recycled plastic sections, changed signs, installed water diversions, and added 60 feet of new boardwalk.
3. Members from the Kapi'olani Community College continued to maintain lower sections of the Makiki Valley trails.

Permits:

- (6) Active Commercial Trail Tour Activity Permits (CTTA)
- (5) Volunteer trail clearing permits
- (4) Trails and Access Activity permits – mostly trail-running races
- (8) Film permit reviews

FY2023 Kaua‘i Branch Update:

Motorized

Maintenance and repairs to all designated motorized roads. The Kaua‘i District maintains approximately 50 miles of roads. We do brush clearing, removal of hazardous trees, road grading, and landslide debris removal on all these roads. To keep up with maintenance, we also apply herbicide on an as-needed basis.

We have assisted with the motocross tracks here on Kaua‘i to help support their operations of the track.

Non-motorized

- Kohua Ridge trail: Brushing and removing large trees from the trail was essential to create a safe hiking experience for all users.
- Trail Shelters: Maintenance and repair of all non-motorized trail shelters (repaired framing, benches, painting). Some shelters are designated for camping, and some are for day use only. They allow users to take a break during their hikes; some allow for breathtaking views.
- Nounou East Trail: Regular trail brushing and clearing, removal of small rocks, and widened trail treads to maintain safe hiking conditions for all users.
- Nounou West Trail: Maintenance and repair of the entire trail to improve user safety. Removed a large tree blocking the entire trail. Mowed the trail right of way to control the excessive growth of vegetation.

Diversified

- Moalepe Trail: This trail is a little more unique than most because it has several user groups, such as hikers, mountain bikers, and equestrian riders. Maintenance included regular trail brushing and clearing, removal of several large trees, and repair of a damaged bridge. The crew repaired a fence of an abutting Land Division lease to keep the boundary separation.
- Kuilau Trail: This trail also allows hiking, mountain biking, and equestrian use, so it creates quite a challenge to maintain it. Several water mitigation techniques have been implemented because this trail has had heavy rain throughout the year. Quarterly brush maintenance of vegetation and removal of large trees have also been done to ensure the trail is safe for all users.
- Koaie Canyon Trail: This trail is used by pedestrian hikers and equestrian users. Maintenance of the entire trail included removing trees, rocks, and brush obstructing trail tread. Widened narrow sections to make it safer for users. Treated new growth with herbicide to keep vegetation down. Some sections are very steep and have huge drop-offs, so keeping the vegetation low is critical for the safety of hikers and equestrian riders.
- Pu‘u-Ki/Waialae: Trail maintenance campouts for a week to repair damaged sections, cut large trees blocking the trail and brushing back vegetation.
- Trail Shelters: Maintenance and repair of diversified trail shelters (repaired framing, benches, painting).