Clean Water Act Section 319

Annual Report

Federal Fiscal Year 2025

Hawai‘i State Department of Health
Surface Water Protection Branch

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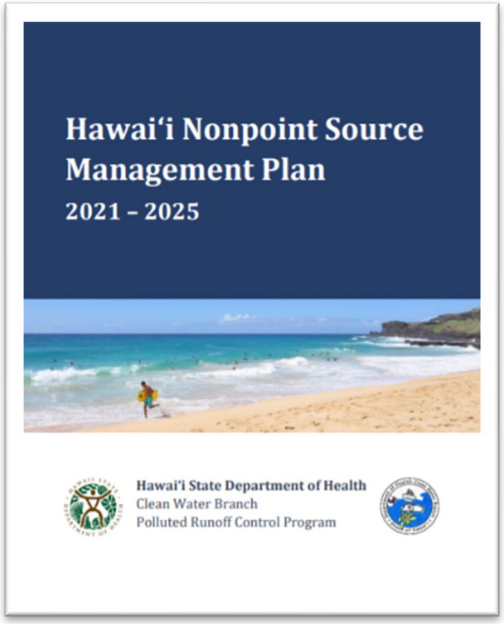
I. Introduction

In 1987, Congress enacted Section 319(h) of the Clean Water Act (CWA), establishing a national program to control nonpoint source (NPS) pollution, also known as polluted runoff. Administered by the U.S. Environmental Protection Agency (EPA), the CWA §319(h) program provides funding to implement state NPS programs. The State of Hawai‘i Department of Health (DOH) Surface Water Protection Branch (SWPB) administers the state's NPS program to protect and improve the quality of Hawai‘i's water resources by preventing and reducing NPS pollution. DOH SWPB and its partners implement the 2021-2025 *Hawai‘i Nonpoint Source Management Plan* (*NPS Management Plan*), which includes implementation of NPS pollution control projects and watershed planning activities.



The purpose of this report is to track the progress the State has made in achieving the *NPS Management Plan* objectives and milestones for the Federal Fiscal Year 2025 (FFY25; October 1, 2024 – September 30, 2025) and to fulfill the annual reporting requirements of CWA §319(h).

II. Major Program Accomplishments & Highlights in FFY25

The state's NPS Program had the following major program accomplishments and highlights for FFY25:

A. **Pollutant load reductions** – The following load reductions were estimated to be achieved by projects being implemented in FFY25 (see Appendix A):

Sediment (tons/yr)	Nitrogen (lbs/yr)	Phosphorus (lbs/yr)	**N**itrate (lbs/yr)	Biochemical Oxygen Demand (BOD) (lbs/yr)	Ammonia (lbs/yr)
2,241	7,862	3,174	5,439	3,683	876

B. **Seven (7) NPS projects implemented across sixteen (16) watersheds** – A total of 7 NPS projects were implemented across 16 watersheds on the islands of Maui, O‘ahu, and Hawai‘i in FFY25. These projects were subawarded a total of $1,684,627 in 319 grants and have committed $540,592 in matching non-federal funds and/or in-kind services. More information on these projects, including the project status and amount of federal funds expended to date, is provided

in Appendix A. Load reductions estimated to be achieved by these projects are summarized by project type in Table 1.

C. **Three (3) projects completed** – 3 out of the 7 NPS projects reached completion in FFY25, including one riparian rehabilitation and wastewater reuse project, one stream restoration project, and one invasive species control project. A total of $560,868 in 319 grant funds was expended by these projects. In addition, subawardees fulfilled their match requirements with non-federal funds and in-kind contributions totaling $166,754. The following provides a description of each of the completed projects:

1. The **Utilization of R-1 Wastewater to Mitigate Axis Deer Damage** project was completed in FFY25 by the Central Maui Soil and Water Conservation District (Central Maui SWCD) in collaboration with Haleakalā Ranch, the County of Maui, the Natural Resources Conservation Service, and Maui Environmental Consulting, LLC. The project redirected R-1 recycled water from injection wells in Kīhei to degraded lands in the Hāpapa watershed in Southwest Maui to support revegetation efforts in areas heavily impacted by axis deer. Restoring vegetation helps stabilize soils, reduce erosion, and mitigate deer damage. Additionally, using R-1 water for landscape restoration promotes aquifer recharge and reduces nitrogen and phosphorus inputs into injection wells, which is expected to contribute to improvements in nearshore water quality and coral reef health.

2. The **Agricultural Stewardship and Stream Restoration in Ki‘iki‘i and Paukauila Watersheds** project was led by the O‘ahu Resource Conservation & Development Council (now referred to as Agricultural Stewardship Hawai‘i) and implemented in collaboration with local farmers to promote sustainable land management and restore stream health. Through the project, five conservation plans were developed, and funding was provided to co-finance the implementation of best management practices (BMPs). A total of 656 linear feet of streambank was also restored through the project to help reduce erosion and improve water quality. In addition to on-the-ground work, the project included community field days, educational activities, and outreach efforts to engage local residents and raise awareness about watershed stewardship.

3. The **He‘eia Ungulate-Exclusion Fencing and Erosion Control** project focused on improving water quality in the He‘eia watershed by reducing sediment, total nitrogen, and total suspended solids. Led by the Nature Conservancy, the project aimed to reduce pollutant loads by removing and excluding feral ungulates from a forested section of the watershed. A key milestone was construction of an ungulate exclusion fence around a 26.5-acre area located above the He‘eia estuary. This area directly influences the downstream wetland, restored agricultural lands, and fishpond. In coordination with community partners, the fenced area was cleared of feral pigs, allowing vegetation to reestablish. To track progress and outcomes, baseline water quality data was collected through storm and discharge sampling, regular grab samples, and continuous monitoring at key watershed locations. In addition, vegetative cover and erosion pin plots were established to monitor changes in erosion and land cover over time.

D. **Three (3) projects awarded in FFY25** – In FFY25, $591,023 in 319 grant funding was available for watershed-based implementation projects, in addition to any unspent and unencumbered funds from previous grant years. A request for proposals (RFP) was issued on February 4, 2025 to solicit proposals for projects that implement approved watershed-based plans or acceptable alternative plans. The following provides a brief description of the three awarded projects:

   1. The **Kawela Watershed Ungulate Control to Prevent Erosion** project was awarded $119,950 to reduce erosion in the upper Kawela watershed, which is one of the primary sources of sediment impacting Moloka‘i’s south shore reef. The project aims to increase plant cover by removing feral ungulates, which disturb soil and vegetation, leading to accelerated erosion and sediment runoff. Building on over two decades of erosion control efforts, this project is estimated to prevent approximately 540 tons of sediment from entering the reef each year.

   2. The **Agricultural Stewardship and Watershed Restoration of Kaiaka Bay** project was awarded $574,296 to reduce NPS pollution using several management strategies outlined in the Kaiaka Bay WBP. Key activities include removing invasive grasses and replanting native riparian vegetation along approximately 5,250 linear feet of the Kaukonahua and Ki‘iki‘i Streams to stabilize streambanks and reduce sediment runoff. BMPs will also be implemented on agricultural lands to reduce NPS pollution, with support from conservation planning and cost-share assistance. The project also includes community engagement activities such as training sessions, community field days, and educational materials to raise awareness about NPS pollution and encourage long-term community investment in water quality and health.

   3. The **Pollutant Reduction in Wailupe Watershed for Improved Maunalua Bay Health** project was awarded $149,027 to help reduce NPS pollution and improve water quality in Maunalua Bay. Project efforts will focus in two key areas of the watershed: the forest zone and the urban zone—both known sources of sediment and associated pollutants. In the forest zone, the project will support restoration of upper elevation ecosystems through weed management and biocontrol efforts near a recently constructed ungulate exclusion fence. In the urban zone, the project will expand the use of residential rain barrels to capture rainwater and reduce stormwater runoff. Watershed-wide outreach will include educational activities designed to raise awareness about pollution reduction strategies and promote local stewardship. These efforts will complement ongoing work to address NPS pollution holistically from mauka to makai throughout the region.

E. **Implemented priority watershed projects and achieved load reductions** – In FFY25, 4 out of 7 active projects were implemented in priority watersheds (Table 2). Funding was directed to five priority watersheds of West Maui to address turbidity and nutrient impairments, coordinate NPS control efforts and monitoring among partners, and support outreach activities. Additional restoration and protection projects were funded in the priority watersheds of Kawaihae (South Kohala, Hawai‘i island) and He‘eia (O‘ahu), where efforts focused on revegetating the landscape and restoring areas degraded by feral ungulates. Estimated pollutant load reductions achieved through these priority watershed projects are summarized in Table 2.

Table 1. Federal Fiscal Year 2025 watershed-based plan implementation project information

319 WBP IMPLEMENTATION PROJECTS						Load Reductions				
Project Status & Type	No. Projects	No. Partner-ships*	No. Water-sheds**	319 Funds Awarded	Match	TSS (ton/yr)	Sediment (ton/yr)	Nitro-gen (lb/yr)	Phospho-rus (lb/yr)	Enteroco ccus (CFU)
IMPLEMENTED	7	4	18	$ 1,684,627	$ 540,592		2,241	7,862	3,174	-
Coordinator	1	1	12	$ 155,840	$ 51,947	-	-	-	-	-
Protection	1	1	1	$ 234,000	$ 58,500	-	-	-	-	-
Restoration	5	2	5	$ 1,294,787	$ 430,145	-	2,241	7,862	3,174	-
AWARDED	3	2	4	$ 843,273	$ 340,596		869	600	300	
Restoration	3	2	4	$ 843,273	$ 340,596	-	869	600	300	-
Grand Total	**10**	**6**	**22**	**$ 2,527,900**	**$ 803,424**	**-**	**3,110**	**8,462**	**3,474**	**-**

**Refers to the number of projects that were implemented by a watershed partnership or is within a watershed where a watershed partnership is active.*

***Some watersheds have been counted more than once if it fell into multiple project type categories.*

Table 2. Federal Fiscal Year 2025 priority watershed project information

PRIORITY WATERSHEDS					Load Reductions				
Project Status & Type	No. Projects	No. Partnerships*	319 Funds Awarded	Match	TSS (ton/yr)	Sediment (ton/yr)	Nitrogen (lb/yr)	Phospho-rus (lb/yr)	Enteroco-ccus (CFU)
IMPLEMENTED									
He‘eia	1	1	$ 210,934	$ 52,734	-	100	400	35	-
Restoration	1	1	$ 210,934	$ 52,734	-	100	400	35	-
South Kohala	2	2	$ 491,125	$ 122,797	-	1,648	-	-	-
Protection	1	1	$ 234,000	$ 58,500	-	-	-	-	-
Restoration	1	1	$ 257,125	$ 64,297	-	1,648	-	-	-
West Maui	1	1	$ 155,840	$ 51,947	-	-	-	-	-
Coordinator	1	1	$ 155,840	$ 51,947	-	-	-	-	-
Grand Total	**4**	**4**	**$ 857,899**	**$ 227,478**	**-**	**1,748**	**400**	**35**	**-**

**Refers to the number of projects that were implemented by a watershed partnership or is within a watershed where a watershed partnership is active.*

F. **Made progress on restoring impaired waters** –The 5 restoration projects implemented in FFY25 targeted 17 impaired waterbodies. These include Kaukonahua Stream, Ki‘iki‘i Estuary, and He‘eia Stream and Estuary, as well as the nearshore waters of Kaiaka Bay, Pelekane Bay, and the Hāpapa, Kawaihae, and He‘eia watersheds. Most of the projects focused on addressing turbidity impairments, which is the State’s most common waterbody impairment. See Section 4, Objective 2 milestones for more information on water quality improvements.

G. **Made progress on protecting waters** – One (1) protection project was implemented in FFY25 to safeguard the source waters of the Kawaihae watershed on Hawai‘i Island. This project focuses on preserving a critical section of intact native forest—referred to as the ‘Eke Unit—to minimize erosion and reduce sediment entering streams that flow into Pelekane Bay. By maintaining healthy forest cover, the project also helps increase groundwater recharge by allowing rainfall to soak into the land.

H. **Environmental and water quality improvements**

1. According to the final 2024 Integrated Report published in April 2024, water quality improvements were observed in the nearshore waters of the Honokahua and Kahana watersheds where restoration projects have been active since 2022. Although a direct link

between the projects and the water quality improvements cannot be confirmed by the data, it is likely that the projects did contribute to the attainment of water quality standards. More information on this and other water quality improvements are discussed in Section 4, under the Objective 2 milestones.

2. For projects completed in FFY25, the following environmental improvements were achieved:

    a. Protected 26.5 acres of forest in the He‘eia watershed from the harmful impacts of feral pigs, helping to prevent soil erosion and reduce sediment runoff into downstream ecosystems.
    b. Implemented BMPs to reduce NPS pollution across 41 acres of agricultural land within the Ki‘iki‘i and Paukauila watersheds through a cost-share assistance program.
    c. Developed 5 conservation plans to guide land management practices that reduce NPS pollution.
    d. Restored and stabilized 656 linear feet of streambank to reduce erosion and naturally filter pollutants before they reach the stream.
    e. Increased community awareness and stakeholder engagement through various volunteer opportunities, educational programs, and outreach events.
    f. Re-established groundcover and protected 11.25 acres of land previously stripped of vegetation due to overgrazing by axis deer.
    g. Redirected up to 288,000 gallons per day of R-1 recycled water, along with excess nutrients that would have otherwise gone to injection wells, back onto the landscape to support revegetation efforts in Kīhei.

3. For active projects implemented in FFY25, progress was made towards the following:

    a. Planning and implementation of pollution reduction projects that focus on reduction of nitrogen and turbidity across various watersheds in Leeward Maui.
    b. Improving coordination between watershed partners and stakeholders conducting water quality research and water quality monitoring in the priority watersheds of West Maui as well as watersheds in Leeward Maui.
    c. Installing ungulate control fencing to increase ground cover and reduce sediment loads.
    d. Implementing BMP/conservation practices that reduce nutrient and sediment loads.
    e. Restoring native vegetation in critical watershed areas.
    f. Implementing agricultural BMPs that minimize sediment and nutrients delivered to surface and ground waters.
    g. Conducting education and outreach activities that encourage nonpoint source pollution reduction and foster long-term community investment.
    h. Restoring 180 acres of (mostly) agricultural lands by implementing various BMPs/conservation practices that reduce nutrient and sediment loads.
    i. Installing, repairing, and retrofitting dozens of miles of feral ungulate fencing to reduce erosion, restore native forests, and protect drinking water sources.

I. **Satisfied conditions on the Coastal Nonpoint Pollution Control Program (CNPCP)** – On October 10, 2024, the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) issued an interim decision finding that Hawai‘i has satisfied the condition placed on its Coastal Nonpoint Pollution Control Program (CNPCP) related to monitoring, which was the last remaining condition. NOAA and EPA are now working to update older interim decision documents to prepare a comprehensive proposed decision for public comment. DOH-SWPB has been providing responses to questions and clarifications to ensure the updated rationales accurately capture the current status of the CNPCP in the state. Responses were provided for all questions received to date.

J. **Built capacity for local communities** – While the review and approval process for the CNPCP continues, DOH SWPB has remained focused on building local capacity to support implementation of the Operating OSDS Management Measure. In collaboration with the Capacity Collaborative and a local nonprofit, Kingdom Pathways, DOH-SWPB has been engaged in efforts to strengthen community engagement and understanding around wastewater issues. On May 21, 2025, DOH SWPB participated in a conversation mapping session in Nānākuli, hosted by Kingdom Pathways and facilitated by the Capacity Collaborative. The session aimed to explore community perceptions of wastewater management, including cesspool conversions and septic system maintenance. A similar session was held in October with residents of the Hau‘ula/East O‘ahu community.

   To further support community education, Kingdom Pathways is developing a set of frequently asked questions (FAQs) and, in partnership with Capacity Collaborative, will conduct focus groups in early FFY26. These efforts will inform the development of a communication plan for DOH SWPB being prepared by the Capacity Collaborative as part of technical assistance provided through the U.S. EPA’s Rural, Small, and Tribal Wastewater System program.

K. **Supported wildfire recovery in Lahaina** - On November 7, 2024, EPA issued technical direction (TD) to its contractor, Tetra Tech, to begin work on the “Lahaina Watersheds Management Plan”—a technical assistance project focused on the Kahoma and Kaua‘ula watersheds, both impacted by the August 2023 wildfires. The project aimed to develop an alternative watershed-based plan incorporating available data to support a nine-element plan framework and leverage contractor expertise. Work under this TD was completed on June 29, 2025. The final deliverable was left in draft form, as input from local stakeholders could not obtained within the project timeframe.

   To ensure the work remains useful, DOH SWPB finalized the draft and reframed it as a *Preliminary Watershed Planning Framework,* recognizing its broader scope and potential to guide future planning efforts. With input from the West Maui Watershed Coordinator, DOH SWPB summarized key elements of the framework to produce the *Alternative Watershed Plan for Kahoma and Kaua‘ula Watersheds in West Maui, Hawai‘i*. This plan was completed by the end of October 2025 and is currently under EPA review. Once approved, it will enable the use of Section 319 funding to support recovery and water quality improvements in Lahaina.

In addition, on August 7, 2025, DOH SWPB was awarded $505,000 through the EPA's OSG Program. This funding will support subawards to local municipalities in Hawai'i for planning, design, and construction of eligible water quality improvement and protection projects. Specifically, the funding will be directed toward stormwater infrastructure projects identified in the Drainage Master Plan for Lahaina. The state's cost-share contribution for this effort is $693,750.

L. **Updated existing WBP to address the impact of invasive species on water quality** – DOH SWPB completed an update of existing watershed-based plans to include an addendum that specifies procedures for estimating pollutant load reductions resulting from control and removal of invasive plant and animal species and establishment of native species on conservation lands. The addendum also includes recommended BMPs for implementation to address the ecological threats posed by invasive species, which destabilize soils, alter hydrology, and degrade water quality. The invasive species addendum was completed in September 12, 2025 and the updated watershed-based plans have been posted online for the public. The addendum will also serve as a standalone guidance document for any watershed-based plans developed in the future.

M. **Updated the 5-Year NPS Management Plan** – DOH SWPB has been working to update the current NPS Management Plan for the next 5-year planning period from 2025 to 2030. This process included meeting with partners to discuss major projects and priorities, updating the legal framework to reflect new and relevant laws and regulations, reviewing relevant planning documents for consistency and strategic alignment, updating information on water quality conditions based on the 2024 Integrated Report, and identifying priority watersheds for project implementation and planning. A draft of the updated *NPS Management Plan* will be shared with EPA for review in January 2026.

N. **Supported integrated watershed management by building collaborative relationships and leveraging resources** - This year one of DOH SWPB's priorities was building collaborative relationships with relevant state agencies and non-governmental entities to improve watershed management and leverage resources for NPS control. One example includes engaging in quarterly sharing sessions with the Department of Land and Natural Resources (DLNR) to facilitate coordination between agencies on relevant projects such as the Division of Aquatic Resources (DAR) and UH SeaGrant's Pili Nā Moku project (https://seagrant.soest.hawaii.edu/moku-resilience-and-stewardship/). DOH SWPB also collaborated in a multi-stakeholder working group, the Mauka to Makai Water Quality Hui, organized by DLNR DAR to inform a Water Quality Action Plan that will integrate water quality into DAR's management of aquatic resources. Another example includes engaging in a cross-sector coalition focused on finding solutions to wastewater challenges and advancing wastewater initiatives. Participation in these coalitions and working groups is anticipated to strengthen the program's effectiveness by aligning efforts, avoiding duplication, and maximizing limited resources.

O. **Collaborated with DOH CWB on a statewide watershed monitoring program strategy** – The statewide monitoring program is envisioned to provide a framework and guidance for evaluating Hawai'i's watersheds and assist with multiple goals, including:

- Developing a robust and sustainable monitoring framework to characterize the condition of Hawai‘i’s inland waters.
- Assessing water quality through physical, chemical, and biological parameters, including trend analyses.
- Identifying watersheds that could be contributing point and nonpoint source pollution of streams and beaches. Identify watersheds that may not meet state water quality standards and prioritize areas in need of further data collection.
- Supporting Total Maximum Daily Load (TMDL) development and antidegradation requirements.
- Supporting ongoing tracking of watershed improvement and compliance efforts for both point and nonpoint sources.
- Standardizing the process by which water quality is collected, reported, and evaluated across the state. Enhance coordination among regulatory agencies, permittees, and stakeholders.
- Addressing emerging contaminants, including PFAS and heavy metals.
- Incorporating indicators to water quality health, including biological and habitat assessment frameworks.

A draft monitoring approach was completed in September 2025. This draft approach will now go to EPA for review and approval before work continues to develop a strategy to implement the program. Additional resources and funding will be needed to support implementation.

III. Section 319 Grant Administration

A. **FFY24Grant (C9-96978724-0)** – DOH was awarded $1,244,974 from the FFY24 CWA 319(h) Grant to be encumbered in FFY25. To date, DOH SWPB used $555,150 of the grant to fund program staff while $591,023 of the Watershed Project Funds was subawarded to three projects on O‘ahu and Moloka‘i to reduce and prevent NPS pollution from entering coastal waters. These projects were awarded funding through a RFP process that was posted to the Hawaii Awards & Notices Data System (refer to Solicitation #CWB-PRC 24-01). The remainder of the grant will be spent on water pollution control projects or on program costs consistent with the *NPS Management Plan*. The total non-federal match for the FFY24 Grant was $829,982. DOH provided approximately $652,676 in matching funds through general-funded salaries of personnel supporting NPS management, and the remaining $177,307 will be provided by a 30% match requirement for grantees implementing WBPs. In total, approximately $2,074,956 will be spent on CWA 319 NPS pollution mitigation projects and implementing Hawai‘i’s NPS program for FFY25.

B. **Open CWA 319 Grants (FFY20 – FFY24)** – In the past year, the DOH SWPB Program managed five EPA CWA §319(h) grants (FFY20, FFY21, FFY22, FFY23, and FFY24). The FFY20 grant was fully expended and there is no unliquidated obligations (ULO) to report. The period of performance

for this grant closed as of September 30, 2025 and a final financial report will be submitted to EPA.

C. **Supplemental Environmental Projects (SEP)** – The DOH SWPB Program also managed a SEP fund (received by DOH from the City & County of Honolulu (CCH) as part of a settlement agreement for CWA violations), which was awarded to Hui Ku Maoli Ola in 2015 (Notice to Proceed (NTP) received in February 2016) to implement a restoration project in Ma‘ili‘ili watershed. There were significant delays in obtaining the permits to conduct the project, and the project was canceled before it was implemented because it could not be extended beyond five years per State procurement law. DOH SWPB will evaluate potential projects in FFY26 to expend the SEP fund.

D. **FFY25 Grant** – DOH received the FFY25 CWA 319(h) Grant in the amount of $1,364,000 from EPA on September 5, 2025. This award included $120,000 of EPA In-Kind Assistance for the development of a nine-element watershed-based plan for Lahaina should the additional funding become available. DOH SWPB is planning to release a request for proposals (RFP) to encumber the Watershed Project Funds available from the FFY25 Grant. It is estimated that $583,954 will be available for watershed projects that mitigate NPS pollution and implement approved watershed-based plans or alternative plans.

IV. Milestones and Progress Towards Achieving Goals & Objectives

In FFY25, the State continued to implement the *NPS Management Plan.* The primary objectives of the *NPS Management Plan* are listed in Table 3. This section reports on the milestones and progress achieved from 2021 to 2025 to implement this plan.

Table 3. The State’s primary NPS goal and objectives set forth in the Hawai‘i NPS Management Plan (2021-2025)

Goal	To achieve and maintain water quality standards and designated uses of State waters by implementing a comprehensive NPS pollution control program that conducts watershed-based restoration and protection activities.
Objective 1	Develop WBPs or acceptable alternatives to guide effective NPS pollution control projects.
Objective 2	Restore and protect water quality.
Objective 3	Utilize partnerships and cooperate with other agencies to leverage resources available for NPS management.
Objective 4	Expand the NPS management program to include regulatory activities and additional watershed planning support.
Objective 5	Develop and implement the Coastal Nonpoint Pollution Control Program
Objective 6	Conduct and Support Water Quality Monitoring

A. **Milestones for Objective 1 – Develop WBPs or acceptable alternatives to guide effective NPS pollution control projects.**

1. **Increase in the number of WBPs** – A total of four (4) WBPs have been approved since 2021 along with an alternative WBP that was developed in 2025 and is currently under review:

    a. *Waikele Watershed Plan* (May 2022)

    b. *Kamōhio Watershed Plan on Kaho‘olawe* (October 2022)

    c. *Pōhākea Watershed Plan* (January 2023)

    d. *Ma‘alaea Bay Watersheds Management Plan* (December 2023)

    e. *Alternative Watershed Plan for Kahoma and Kaua‘ula Watersheds in West Maui, Hawai‘i (Under Review)*

    The Ma‘alaea Bay Watersheds Management Plan for the Waikapu and Waiakoa watersheds on Maui was the most recent plan approved in FFY24. There is another WBP currently in development for the Honokoa watershed on the island of Hawai‘i. However, the status of it is unclear as it is not being prepared by DOH SWPB.

    Data collection and outreach efforts have been completed related to a KWRAS update in line with the NPS Management Plan. However, the timing to release an RFP and coordinate WBP development is dependent upon completion of the Ka‘elepulu TMDL and priorities of DOH SWPB at that time. The State also plans to use the Ka‘elepulu data and He‘eia National Estuarine Research Reserve (NERR) monitoring data to inform the KWRAS update. The Forest Service’s completed STEWMAP for Oahu (2022) also provides information relevant to an update.

2. **Nine-element WBPs** – DOH SWPB continued to work closely with plan preparers and provided technical assistance to those developing WBPs to ensure the WBPs include the nine elements, reflect stakeholder participation, highlight opportunities to leverage resources with partners, and identify ready-to-implement NPS pollution control projects.

    In March 2023, DOH SWPB conducted a workshop with watershed partners to identify challenges in the watershed planning process. Approximately 25 participants representing various organizations, including NOAA, NRCS, counties, OP-CZM, non-profits, and EPA, were engaged to identify barriers to development of a WBP and discussed ways to improve the planning and development process. The outcomes of this meeting continue to inform the strategy for developing WBPs. The draft NPS Management Plan identifies priority watersheds for planning over the next five years and promotes movement towards a coordinated interagency approach to watershed management, which may help guide how and when WBPs are developed. DOH SWPB also held internal discussions on ways to improve the WBP review and approval process. Some of the strategies considered include conducting field visits during plan development and formalizing the plan review process.

3. **Expand State capacity for WBP development** – DOH's Environmental Management Division is currently in the process of procuring a contractor for Multi-Program Environmental Health Support Services. This contract may be used to support WBP development, contingent on available funding and demonstrated community interest. In the meantime, DOH SWPB continues to collaborate with various partners to identify potential projects and resources that align with WBP development priorities. This includes collaborating on the development of decision support tools that help identify priority areas for conservation practices, model pollutant runoff, and evaluate the cost-effectiveness of BMPs. Additionally, DOH SWPB is exploring ways to build on existing plans and determine whether they can be developed into 9-element WBPs or acceptable alternative plans.

4. **WBP data –** The GIS layer for watersheds with approved WBPs was completed and shared publicly via the DOH SWPB website. This information has also been shared directly with watershed partners and interested stakeholders as well. Additionally, DOH's Environmental Management Division is planning to develop dynamic hosted feature layers for various data sets, of which a layers for watershed projects and watersheds plans is being evaluated for development.

B. **Milestones for Objective 2 – Restore and protect water quality.**

1. **Restoring Waters – Projects**

   a. Work continued on five (5) watershed restoration projects during FFY25. Two (2) of the projects are located in priority watersheds, Kawaihae on Hawai‘i Island and He‘eia on O‘ahu. The remaining projects are located in the Ki‘iki‘i and Paukauila watersheds on O‘ahu and the Hāpapa watershed on Maui. More information about these ongoing projects is provided in Appendix A.

   b. Work was completed on two (2) of the restoration projects during FFY25, one in the priority watershed of He‘eia on O‘ahu and one in the Hāpapa watershed on Maui. These projects aimed to reduce erosion and sediment loads by protecting native forests or restoring native vegetation along riparian corridors. These two projects were estimated to reduce pollutant loads of sediment by 1,418 tons/yr, nitrogen by 7,069 lbs/yr, and phosphorus by 2,491 lbs/yr.

   c. Since FFY21, the DOH SWPB Program has funded implementation of thirteen (13) new watershed projects. Of those projects, eight (8) projects involved restoration activities that reduced pollutant loads of sediment by 3,982 tons/yr, nitrogen by 7,805 lbs/yr, and phosphorus by 2,821 lbs/yr.

      i. Seven (7) of the eight (8) new restoration projects have been completed with the last project expected to be completed by FFY 2027.

      ii. All restoration projects were awarded either through the annual CWA 319 RFP or through watershed partnerships consistent with procurement rules and objectives of the *NPS Management Plan*.

iii. At least one (1) new restoration project has been implemented in each of the priority watersheds of West Maui, South Kohala, and He‘eia. These projects address the pollutants causing impairments in these watersheds, particularly sediment (turbidity).

d. Looking ahead, DOH SWPB will be funding five (5) new restoration projects that were awarded CWA Section 319(h) grant funds. The projects include an implementation project from the Kamōhio Watershed Plan on Kaho‘olawe, reducing excessive sedimentation in the upper Waiakoa watershed on Maui, agricultural stewardship and stream restoration in the Kaiaka Bay watersheds on O‘ahu, feral ungulate control activities in Kawela on Moloka‘i, and forest restoration and installation of green stormwater infrastructure in the Wailupe watershed on O‘ahu.

2. **Restoring Waters – Water quality improves annually in at least one priority watershed**

a. The nearshore waters of Honokahua were assessed and delisted for nutrients (ammonium and nitrate+nitrite) in the 2024 Integrated Report. DOH funded two projects—the West Maui Ungulate Fencing project implemented by DOFAW (Figure 1) and the Treatment Train project implemented by MLP (Figure 2)—that aim to reduce sediment and phosphorus loads in the West Maui watersheds, including the mauka portions of the Honokahua watershed. The Treatment Train project is estimated to reduce nitrogen by 516 lbs/yr and may have contributed to the reduction in nutrient concentrations. The West Maui Ungulate Fencing Project had also been retrofitting fencing in the upper watersheds since 2018 and may have contributed to a reduction in nutrient concentrations by substantially reducing sediment transport (40 tons annually) to surface waters. Attainment of WQS for ammonium and nitrate+nitrite was confirmed in the 2024 Integrated Report. The nearshore waters of

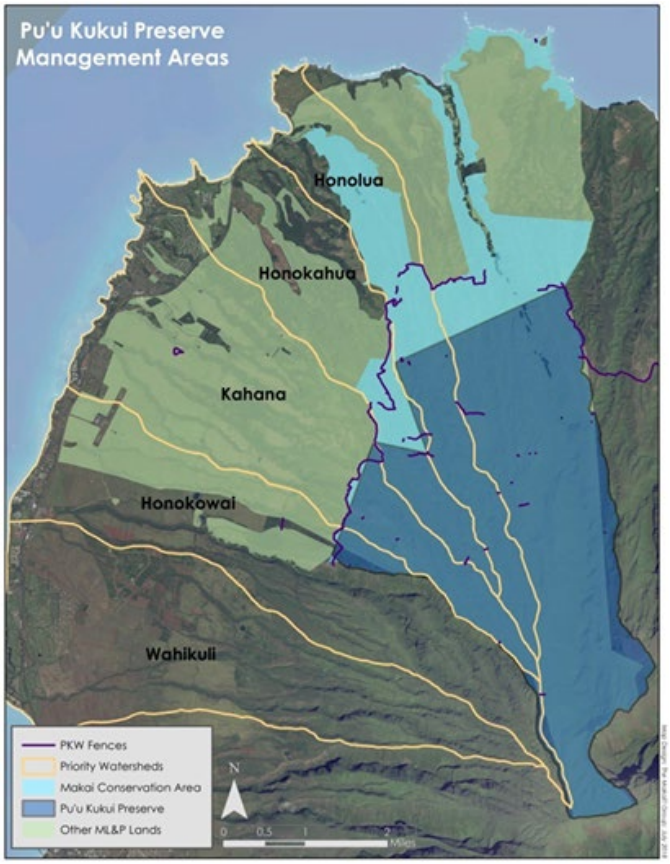


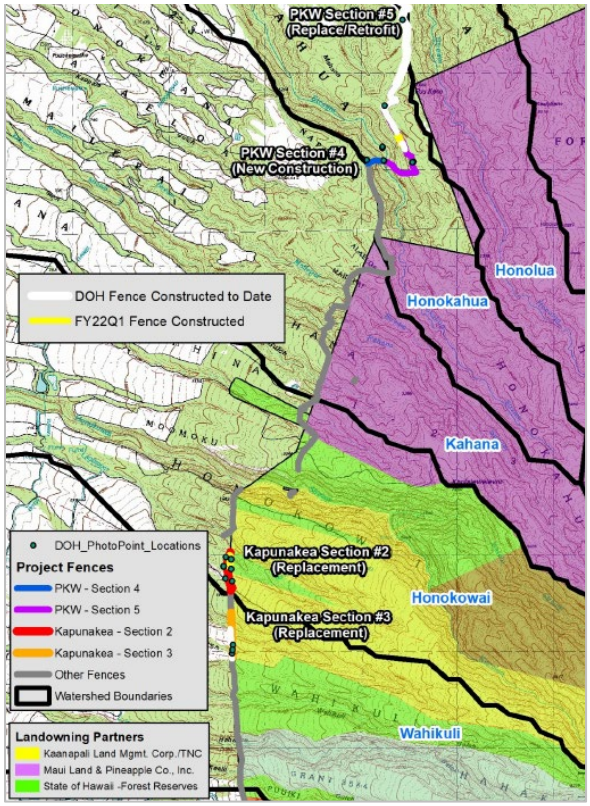
Figure 1. Map of ungulate fence installed and maintained by DOFAW in West Maui watersheds

Honokahua are still listed for turbidity and chlorophyll a. Both projects were completed in FFY24.

b. The nearshore waters of Kahana watershed attain WQS for total phosphorus (2024 Integrated Report). DOH funded two projects—the West Maui Ungulate Fencing project implemented by DOFAW (Figure 1) and the Treatment Train project implemented by MLP (Figure 2)—that aim to reduce sediment and phosphorus loads in the West Maui watersheds, including the mauka portions of the Kahana watershed. As previously discussed, the projects may have contributed to a reduction in phosphorus concentrations by substantially reducing sediment transport to surface waters. Both projects were completed in FFY24.

c. Although not within a priority watershed, DOH SWPB submitted an EPA Success Story for the Waipā watershed implementation project. Water quality improvements were achieved through a holistic approach to watershed management and implementation of BMPs targeting different sources of pollutants throughout the watershed. Waipā Stream is now attaining WQS for turbidity and nutrients. In addition, monitoring results showed measurable improvements to aquatic habitat and a return of native species in the stream.

Figure 2. The Pu‘u Kukui Preserve Management Areas addressed by the Treatment Train project



3. **Protecting waters**

a. Since FFY21, the DOH SWPB Program has funded implementation of three (3) projects that involved protection activities, including Sustaining the Source Waters of Kawaihae Watershed, Native Forest Restoration in the Ko‘olau Mountains, and Protection and Restoration of the Honokowai and Wahikuli Watersheds.

i. Priority watersheds addressed by these projects include the watersheds of West Maui, South Kohala, and He‘eia.

ii. All of the projects were supported via partnerships with DOFAW:

1. DOFAW and DOH SWPB collaborated to develop a protection project (Sustaining Source Waters of Kawaihae) in South Kohala that was initiated in FFY22 and is anticipated to be completed in FFY26.
2. DOFAW held its WPPG RFP from July through September 2021. DOH SWPB participated on the evaluation committee and selected the Protection and Restoration of the Honokowai and Wahikuli Watersheds project that will control ungulates and conduct planting activities in West Maui. This project is in the contract development phase.
3. DOH also provided funding for the Ko‘olau Mountains Watershed Partnership to conduct planting activities in two (DLNR high priority) watershed areas. Work under this project was initiated in FFY22 and was completed ahead of schedule in FFY24.

b. Looking ahead, DOH SWPB will be providing funding to implement a project in the Waiakoa watershed that will help to mitigate erosion across land affected by the August 2023 wildfires on Maui. DOH SWPB will also be working to develop a protection project in the upper watersheds of South Kohala. The project will be jointly funded using the CWA§319 grant, a portion of the 15% set-aside from the Drinking Water State Revolving Fund (DWSRF), and general funds from the County of Hawai‘i. The project aims to protect source waters through removal of invasive species and protection of native forests.

4. **Implement Priority Initiatives**

a. **Sustainable Hawaii Initiative** – Under the Watershed Protection 30x30 goals, the State aims to protect 30% (approximately 253,000 acres) of priority watershed areas by 2030. In 2011, only 10% (90,000 acres) of these priority watersheds were protected. However, that number has more than doubled with approximately 22%, or 185,460 acres, of high priority watersheds protected through installing and maintaining fencing as of 2025.

i. In state FY25, DLNR completed construction of about 11 additional miles of fencing while maintaining about 424 miles of fencing to control ungulates and the negative impacts they have on native ecosystems and water quality. More information about ungulate control can be found in DOFAW’s Report to the Legislature for the 2026 Regular Session.

ii. In FFY24, DLNR completed a project using 319 grant funding to install 1,200 ft of new fencing and retrofit/maintain approximately 15,000 ft of existing boundary fences to protect the Pu‘u Kukui Watershed Preserve (PKW). The Treatment Train project also completed in FFY24 included a feral ungulate management component in the PKW.

iii. DLNR and The Kohala Center are also working on a project to protect the forested summit region surrounding Pu‘u ‘Eke from further degradation caused by feral pigs and Himalayan ginger. This work includes enclosing a 614-acre unit with a pig-proof fence. A grant from the 319-program will help to implement a feral ungulate program and conduct vegetation and water quality monitoring. This project is anticipated to be completed in 2026.

b. **National Water Quality Initiative (NWQI)** – There are currently two regions in the NWQI implementation phase: Hilo Bay and Pelekane/South Kohala. The West Maui region is in the readiness phase. No new NWQI watersheds were added in FFY25.

i. **Hilo Bay –** The Hilo Bay watershed assessment was completed and EQIP funding is available for the region. Water quality monitoring will be conducted in several streams that flow into Hilo Bay. The data may be assessed in the biennial Integrated Report produced by DOH and used in the development of a WBP for Hilo Bay.

ii. The **Pelekane/South Kohala** NWQI watershed assessment has also been completed and EQIP funding is available for the region. DOH assisted partners in the Pelekane / South Kohala watersheds by reviewing and providing feedback on the NWQI watershed assessment they prepared for NRCS. DOH has been working with partners in South Kohala to conduct water quality monitoring associated with active 319 projects.

iii. **West Maui** NWQI watershed assessments were in progress although implementation under the NWQI program will depend on the priorities of NRCS.

c. **WMR2R** – In addition to 319-funded projects in West Maui, there are several ongoing water quality improvement / pollution control projects being implemented in the region:

i. Protecting Ka‘opala’s critical coastal infrastructure through flood management design (Kahana watershed; funded by the National Fish and Wildlife Foundation);

ii. Enhancing the Effectiveness of Restoration in Honokowai and Kapunakea Preserve (Honokowai Watershed; funded by NOAA and implemented by Ridge to Reefs, The Nature Conservancy (TNC), Coral Reef Alliance, and other partners); and

iii. Gulch Restoration to Increase Reef Resilience (Wahikuli watershed; funded by NOAA and implemented by Coral Reef Alliance).

5. **Annual CWA 319 Grant RFP reflects new priorities for NPS management** – The FFY21 and FFY22 RFP included climate change-related criteria, including how proposed project BMPs will mitigate climate change related impacts and/or be resilient to the effects of climate change. Within the past few years, record-setting rainfall accompanied by flooding, as well

as wildfires, have provided challenges for NPS pollution control. DOH SWPB did not conduct its annual RFP in FFY23 and instead subawarded Watershed Project Funds directly to eligible recipients meeting state procurement requirements using selection criteria consistent with the current 2021-2025 *NPS Management Plan*. This decision was made based on the need to obligate funds as expeditiously as possible to address water quality and nonpoint source pollution concerns related to the August 2023 wildfires in Hawai‘i. DOH SWPB will continue to support projects contributing to water quality restoration and watershed resilience.

C. **Milestones for Objective 3 – Utilize partnerships and cooperate with other agencies to leverage resources available for NPS management**

1. **Projects** – DOH SWPB and its partners in priority watersheds funded six (6) of the twelve (12) new NPS projects implemented since FFY21. DOH SWPB also participated in DOFAW's WPPG evaluation committee in September 2021 and selected two watershed protection projects to jointly fund.

2. **Events** – DOH SWPB, CCH, UH, and Waikiki Aquarium jointly sponsored the 18th Annual Mauka to Makai Environmental Expo to celebrate Earth Day (Figure 3). The event promoted the importance of keeping Hawai‘i clean and free of pollution, from the mountaintops to the ocean, through keiki activities, educational videos, and more. The event also offered native plant giveaways and free admission to the Waikiki Aquarium exhibits. The event drew over 2,000 guests from the public and successfully educated and engaged the community in environmental conservation and marine stewardship. The Expo was featured on TV newscasts as well as newspaper articles and online media publications.

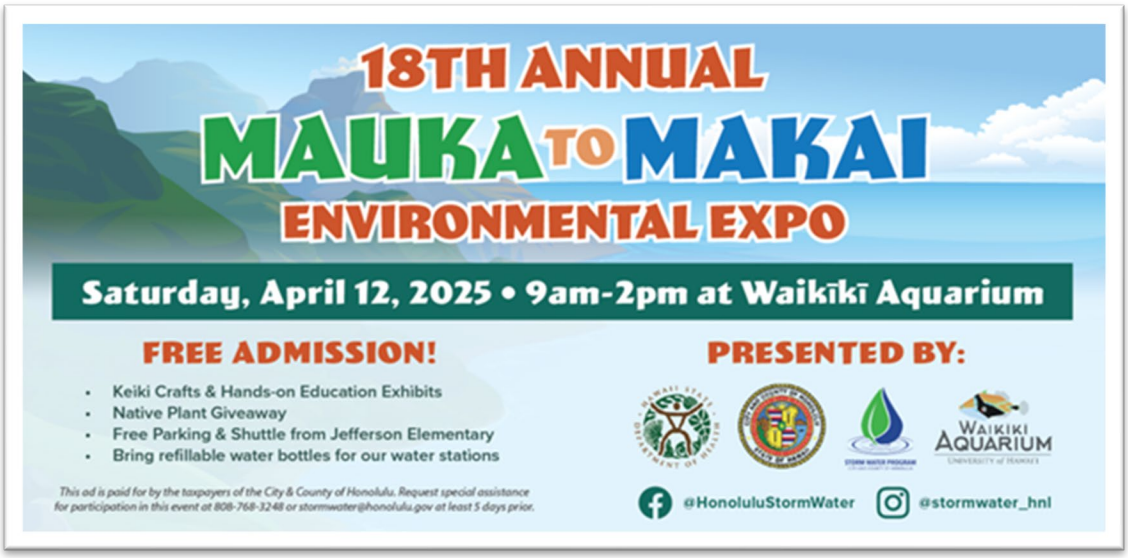


Figure 3. The annual Mauka to Makai event in April was sponsored through a partnership between DOH, UH, CCH, and Waikiki Aquarium

3. **New partnerships** – DOH/DOH SWPB joined Ko‘olau Mountain Watershed Partnership (KMWP) in FFY23 as a general partner. DOH/DOH SWPB also continues to be an active member in the South Kohala Coastal Partnership (SKCP), the Ala Wai Watershed

Collaboration (AWWC), and the West Maui Ridge to Reef Initiative by attending quarterly meetings. Participating in these partnerships allows DOH/DOH SWPB to work with a large network of partners to protect and restore the watersheds of Hawai‘i. The South Kohala watersheds are priority watersheds for DOH and are also in the NWQI implementation phase. Priority watersheds in West Maui and He‘eia are also covered through DOH's participation in these partnerships. In addition, DOH continues to participate in the working group focused on implementation of the Office of Planning and Sustainable Development's (OPSD) Ocean Resources Management Plan (ORMP). DOH/DOH SWPB also participated in the East Molokai Watershed Partnership's annual meeting in September 2024 and is part of the Mauka to Makai Water Quality Hui established by DLNR-DAR to develop a Water Quality Action Plan for their agency.

4. **Cesspool Conversion Work Group** (CCWG) – The CCWG Final Report to the 2023 Regular Session Legislature was completed in November 2022. The report includes recommendations from the CCWG regarding cesspool conversions in Hawai‘i. Members of the CCWG include representatives from the DOH Wastewater Branch (WWB), Safe Drinking Water Branch (SDWB), county wastewater agencies, the wastewater industry, the financial/banking industry, UH Hawai‘i Institute of Marine Biology, the UH Water Resources Research Center, the Hawai‘i Association of Realtors, Surfrider Foundation, the State House, and the State Senate.

   In March 2023, the Hawai‘i Cesspool Hazard Assessment & Prioritization Tool (HCPT) was released to the public. The HCPT shows critical areas where the State should focus resources to upgrade cesspools. It was also used as part of the statewide Cesspool Pilot Grant Program (CPGP) that was launched in 2023 to assist low- and moderate-income property owners with converting, upgrading, or connecting cesspools to a more environmentally appropriate method of managing and treating wastewater. The CPGP had an initial funding amount of $5 million. There was an overwhelming demand to participate in the program and the full amount of the grant money was encumbered to assist 225 applicants soon after the program launched. In FFY24, the County of Kaua‘i launched their own Residential Cesspool Conversion Grant Program utilizing Clean Water State Revolving Funds (CWSRF). The program offered grants of $20,000 to 100 applicants. Similar programs are also being considered for development in the County of Hawai‘i and the County of Maui.

5. **Coastal Zone Management Program (OPSD-CZM)** – DOH and OPSD-CZM met monthly to discuss strategies for meeting CNPCP management measure requirements. In August 2024, NOAA and EPA determined Hawai‘i had satisfied conditions related to the CNPCP management measures. A formal review for full approval of the CNPCP was initiated and continued into FFY25.

D. **Milestones for Objective 4 – Expand the NPS management program to include regulatory activities and additional watershed planning support.**

1. **Nonpoint Source Pollution Control rules adopted** – Chapter 11-56 (Nonpoint Source Pollution Control), HAR was adopted in June 2021. The rules codify the majority the CNPCP management measures for Agriculture, Forestry, and Marinas and Recreational Boating. The rules primarily apply to publicly owned lands. Subject landowners must register with DOH and develop water pollution protection plans to control NPS pollution from their properties/facilities. These plans must incorporate applicable NPS pollution management measures, specify BMPs that will be implemented, and provide a description of BMP monitoring and inspection methods. Annual reports from subject landowners are required to demonstrate that the water pollution protection plan is being implemented and controlling NPS pollution.

   During the public notice process prior to adoption, which included a public hearing, Chapter 11-56 received eight public comments that were all in support of the proposed rules. DOH is currently working to codify the CNPCP management measures for development related activities in urban areas under Appendix D. A draft of Appendix D was developed in FFY24. DOH SWPB will need to go through the rulemaking process to adopt Appendix D.

2. **DOH Surface Water Protection Branch (NPS Branch) in final approval stage** – The NPS Branch/reorganization package was approved by Governor Ige in October 2021. The new branch is developing the position descriptions and requesting approvals from the Director to fill the vacant six new positions. Additional administrative support from within DOH has been assigned to this effort. It is anticipated that the new NPS Branch will formalize voluntary and regulatory NPS management programs and provide a more comprehensive approach to addressing polluted runoff and improving water quality statewide. The new branch will include the DOH SWPB/Section 319 Program and six new positions to implement and enforce the recently adopted NPS rules (HAR Chapter 11-56).

E. **Milestones for Objective 5 – Develop and implement the Coastal Nonpoint Pollution Control Program**

1. Management measures for New Development; Planning, Siting, and Developing Roads and Highways; and Bridges were submitted in FY21 and approved. DOH worked with OPSD-CZM to obtain approval on the remaining conditions related to management measures for Operating and Maintaining Roads, Highways and Bridges; Operating OSDS; and Monitoring and Tracking in FFY23 and FFY24. Conditions on the remaining management measures and administrative elements were approved in August 2024. Formal review for final approval of the CNPCP has been initiated and continued in FFY25.

2. **Approved management measures implemented** – Ten (10) projects awarded between FFY21 and FFY25 implemented multiple CNPCP management measures (Table 4). Agriculture, conservation-related forest practices, and riparian restoration management

measures were implemented somewhat evenly amongst the projects. All 10 projects were also monitored for effectiveness, including one project that conducted WQ monitoring as part of their scope of work. Regional water quality was also monitored in the priority watersheds of West Maui under a separate water quality monitoring project.

Table 4. CWA 319 projects by Coastal Nonpoint Pollution Control Program category from FFY21 to FFY25

319 PROJECTS BY CNPCP CATEGORY						Load Reductions				
Management Measure Category	No. Proje-cts	No. Water sheds	319 Funds Awarded	Match	Total (319 Funds + Match)	TSS (ton/yr)	Sediment (ton/yr)	Nitrogen (lb/yr)	Phosphorus (lb/yr)	Enteroco ccus (CFU)
Agriculture	3	3	$ 963,953	$ 340,611	$ 1,304,564	-	2,098	900	350	-
Forestry*	3	4	$ 341,979	$ 88,542	$ 430,521	-	-	-	-	-
Riparian	4	3	$ 595,795	$ 180,951	$ 776,746	-	1,884	6,905	2,471	-
Grand Total	10	10	$ 1,901,727	$ 610,104	$ 2,511,831	-	3,982	7,805	2,821	-
**Includes conservation-related forest practices not tied to commercial forestry operations*										

F. Objective 6 Milestones – Water quality monitoring

1. **Community-based water quality (WQ) monitoring** – DOH completed a project with the County of Maui to support local WQ monitoring efforts in FFY23. The subcontractor, Hui O Ka Wai Ola (HOKWO), conducted and coordinated WQ sampling with DOH in the nearshore waters of West and Southwest Maui. DOH also began discussing WQ sampling and monitoring needs for development of a watershed-based plan for the Hilo Bay watersheds with the County of Hawai‘i and WQ monitoring initiatives occurring in South Kohala.

2. **Water quality information remains updated and available through the DOH website and CWB System** – The CWB System is updated regularly with water quality-related notifications, including sewage spill advisories and brown water advisories. In addition, the CWB developed a GIS layer of 303(d) impaired waters.

3. **New inland waters monitored by 2024**

   a. **Ka‘elepulu Stream** (Ka‘elepulu watershed) – The CWB continued to collect WQ data for Ka‘elepulu Stream, which was assessed for the first time in the 2022 Integrated Report using quantitative data that meets current CWB data acceptance requirements. (The current impairments for Ka‘elepulu Stream are based on visual assessments conducted prior to 2000.)

   b. **Inland WQ monitoring** – Twelve inland waters were assessed in the 2022 Integrated Report and seven inland waters were assessed in the 2024 Integrated Report. In partnership with DOFAW, monitoring will begin in at least one high quality stream in South Kohala as part of a protection project. A Quality Assurance Project Plan (QAPP) was approved for the project and the data will be assessed in DOH’s Integrated Report. DOH is exploring options to expand inland WQ monitoring through development of a statewide watershed monitoring strategy. Approval of this strategy is ending.

c. **NWQI monitoring** – DOH and NRCS discussed stream monitoring in Hilo, where the NWQI resumed implementation in FFY22, and South Kohala (Waikoloa watershed). DOH SWPB planned to sample 10 to 14 streams to collect the required number of samples (30) by October 2023 for assessment in the 2024 Integrated Report. However, due to a shift in priorities, this task was put on hold while DOH works to find a partner to help with data collection.

4. **Water quality monitoring and data coordination**

   a. **Ke‘ehi Lagoon** (Moanalua watershed)

      i. Beginning in July 2021, CWB began collecting recreational water quality samples to assess Ke‘ehi Lagoon. Data from a recent UH study indicate there may be a potential to delist Ke‘ehi Lagoon for enterococci. Land use changes in the surrounding area may have contributed to the removal of the possible source. CWB executed a contract with UH to deploy three continuous monitoring sensors to collect WQ data in Ke‘ehi Lagoon for one year (until 9/2022). The data for these monitoring efforts were used in the 2022 Integrated Report and will provide data for the Ke‘ehi Lagoon TMDL. UH will make available to CWB continuous physical water quality data.

      ii. UH and TNC are working to do a probabilistic nearshore and offshore monitoring study of Ke‘ehi Lagoon. (This study is separate from the current lagoon monitoring with UH in subsection i.)

      iii. CWB is working with CCH to establish and implement a probabilistic stream sampling strategy for Moanalua and Kalihi Streams, the main inland water sources of Ke‘ehi Lagoon.

   b. **He‘eia** – DOH SWPB continues to discuss and coordinate WQ monitoring with He‘eia NERR partners. Due to the flashy nature of the stream during the project implementation period, the He‘eia Stream sampling was modified as part of the 319-funded ungulate fencing project being carried out by TNC. TNC continued to work with NERR on downstream nutrient sampling. The results for the ungulate fencing project were included in a final report and entered into GRTS.

   c. DOH SWPB has been working with the Monitoring Section to find additional WQ data collection opportunities and has become more aware of WQ monitoring efforts by other agencies, such as DLNR DAR, UH Hilo, and the National Park Service. DOH SWPB has been working with partners (e.g., DLNR DAR, SKCP, NRCS) to find additional data that can be potentially assessed in this Annual Report or the Integrated Report.

5. TMDLs

a. **Ka‘elepulu TMDL** – The initial assessment of Ka‘elepulu Stream was completed in January 2021 and presented to the Kailua Community, including representatives from the Enchanted Lake Residents Association, in February 2021 and again during a Kailua Neighborhood Board meeting in March 2021. CWB is currently collaborating with major stakeholders to utilize an existing watershed model of Ka‘elepulu to potentially inform the TMDL. CWB is also currently negotiating a contract for the adaption of an existing Hydrologic Simulation Program – FORTRAN (HSPF) model of the Ka‘elepulu watershed. The model will estimate the current pollutant loads from existing sources within the watershed. The Ka‘elepulu TMDL may be ready for EPA approval 5-6 months after the completion of the model.

b. **Ke‘ehi Lagoon TMDL** – The Ke‘ehi Lagoon TMDL for *Enterococcus* is currently in its initial phase, in which the lagoon is being monitored to collect baseline data. Additional monitoring of the lagoon and its stream sources is currently being explored (see section 4a). No completion date for the TMDL has been set yet, but the earliest completion date would be at least two years after the deployment of the continuous monitoring sensors (section 4a) – the sensors will need to collect data for at least one year in order to account for seasonal variation, and a model will need to be built to estimate pollutant loading.

APPENDIX A

Clean Water Act Section 319(h) Projects Implemented in FFY25

Clean Water Act Section 319(h) Projects Awarded, Active, and Completed in FFY25

Grantee	Project Name	Status	End Date	Federal Share	Federal Share Expended	Federal Share Balance	Non-Federal Share	Non-Federal Share Expended
Central Maui Soil and Water Conservation District	Utilization of R-1 Wastewater to Mitigate for Axis Deer Damage (MOA 23-01)	Completed	1/10/2025*	$119,900	$119,900	$0	$36,800	$97,858
Department of Land and Natural Resources/DAR	Leeward Maui Ridge to Reef Priority Watershed Coordination for Sustained Momentum and Continuity (MOA 24-3)	Active	1/22/2027	$155,840	$155,840	$0	$51,947	$0
Hawaii Department of Land and Natural Resources	Sustaining the Source Waters of Kawaihae Watershed (Also referred to as Water Quality Monitoring & Watershed Vegetation Cover Measurement to Assess Impacts at Pelekane Bay; MOA 21-3)	Active	2/10/2026	$234,000	$170,195	$63,805	$58,500	$57,653
Kahoʻolawe Island Reserve Commission	Kamōhio Watershed Phase I	Awarded	TBD	$366,051	$0	$366,051		
Kula Watershed Alliance	Reducing Excessive Sedimentation in the Upper Waiakoa Watershed of Maui	Awarded	TBD	$294,840	$0	$294,840	$660,325	$0
Mālama Maunalua	Pollutant Reduction in Wailupe Watershed for Improved Maunalua Bay Health	Awarded	TBD	$149,027	$0	$149,027	$58,004	$0
O'ahu Resource Conservation & Development Council	Agricultural Stewardship and Stream Restoration in Kiʻikiʻi and Paukauila Watersheds (22-083)	Completed	12/31/2024	$230,034	$230,034	$0	$77,220	$83,220
O'ahu Resource Conservation & Development Council	Agricultural Stewardship and Stream Restoration in Kaukonahua (22-196)	Active	10/19/2025	$476,794	$466,279	$10,515	$199,094	$198,894
O'ahu Resource Conservation & Development Council	Agricultural Stewardship and Watershed Restoration of Kaiaka Bay	Awarded	TBD	$574,296	$0	$574,296	$192,118	$0
Queen Emma Land Company	Mitigating Erosion in the Pelekane Watershed Using Ungulate and Wildfire Management (22-084)	Active	7/10/2027	$257,125	$158,304	$98,821	$64,297	$7,507
The Nature Conservancy	Heʻeia Watershed Ungulate-Exclusion Fencing and Erosion Control (20-165)	Completed	11/22/2024	$210,934	$210,934	$0	$52,734	$52,734**
The Nature Conservancy	Kawela Watershed Ungulate Control to Prevent Erosion	Awarded	TBD	$119,950	$0	$119,950	$35,985	$0
University of Hawai'i	Protection and Restoration of the Honokowai and Wahikuli Watersheds	Awarded	TBD	$209,951	$0	$209,951	$62,985	$0
TOTAL				**$3,398,742**	**$1,511,486**	**$1,887,256**	**$1,550,010**	**$497,866**

*A no cost extension has been requested for this project.

**Quarterly reports from the Grantee reported an additional $2,473.53 of non-federal match provided; however, $52,734 was shown as the total non-federal match contribution in the Final Report.

UTILIZATION OF R-1 WASTEWATER TO MITIGATE AXIS DEER DAMAGE

Island:
Maui

Watershed(s):
Hāpapa

Contractor:
Central Maui Soil and Water Conservation District (Central Maui SWCD)

Project Type:
Restoration

Status:
Completed

START-END DATES: 1/11/24 - 6/30/25*
**Extended from original end date of 1/10/25*

FUNDING AMOUNT: $119,900 §319(h) GRANT AWARD | $36,800 MATCH AMOUNT

POLLUTANT LOAD REDUCTIONS:

SEDIMENT	PHOSPHORUS	NITROGEN
1318 TONS/YEAR	2456 POUNDS/YEAR	6669 POUNDS/YEAR

% OF §319(h) GRANT AWARD DISBURSED ($119,900)
100%

% OF NON-FEDERAL MATCH CONTRIBUTED ($97,858)
266%

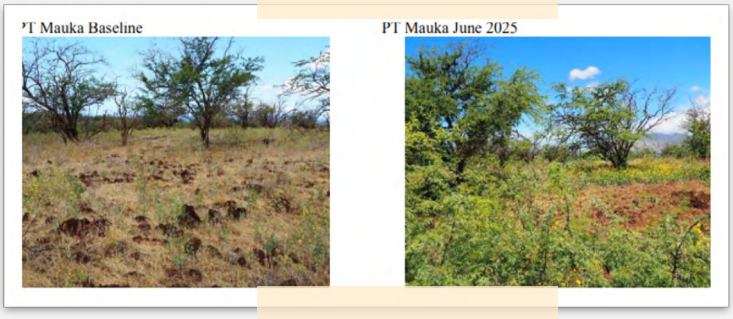
% OF PROJECT COMPLETED
100%

PROJECT DESCRIPTION

This project will redirect R-1 water from the injection wells in Kihei to large swaths of land in the Hāpapa watershed in Southwest Maui to help revegetate the landscape that has been denuded by axis deer. The restored vegetation will armor the soils from erosion while providing mitigation for axis deer damage.

Redirecting R-1 water from injection wells for revegetating the landscape will also have an added benefit of promoting aquifer recharge and reducing the amount of nitrogen and phosphorus entering the injection wells. These added benefits are anticipated to have a positive impact on near shore water quality and coral reef health.

This endeavor is spearheaded by the CMSWCD in collaboration with Haleakala Ranch, Maui County, the Natural Resources Conservation Service, and Maui Environmental Consulting, LLC. Implementation of this project will supplement the successes of the Keokea Riparian Rehabilitation project.



Photos showing baseline conditions compared to post-project conditions in the middle of summer when the landscape is normally dry.

PROJECT UPDATE

This project was completed in June 2025. Over the course of the project, 11-acres of denuded land were revegetated. This was done by installing 2700 linear feet of deer fence, installing irrigation infrastructure, and placing approximately 20,692,000 gallons of R-1 water on to the ground instead of having it injected into the ground. Over 1,300 pounds of nitrogen and 480 pounds of phosphorus were removed from injection wells and coastal waters. It is estimated that over 180 tons of sediment has been prevented from polluting nearshore waters due to revegetation of the landscape. Fuel loads were managed using livestock provided by Haleakala Ranch.

Press Releases:
https://mauinow.com/2024/05/14/maui-project-aims-to-restore-landscape-mitigate-axis-deer-damage-and-reduce-erosion-above-kihei/ *(5/14/24)*

https://www.mauinews.com/news/local-news/2024/05/project-aims-to-restore-landscape-mitigate-deer-damage-and-reduce-erosion-above-kihei/ *(5/15/24)*

https://mauinow.com/2025/08/05/work-concludes-on-maui-project-to-restore-11-acres-damaged-by-axis-deer-protect-water-quality/ *(8/5/25)*

LEEWARD MAUI RIDGE TO REEF PRIORITY WATERSHED COORDINATION FOR SUSTAINED MOMENTUM AND CONTINUITY

Island:
Maui

Watershed(s):
ʻĀhihi Kīnaʻu, Hāpapa, Honokahua, Honokōwai, Honolua, Kahana, Moʻoloa, Pōhākea, Wahikuli, Waiakoa, Waikapū, Wailea

Contractor:
Department of Land and Natural Resources (DLNR)
Division of Aquatic Resources (DAR)

Project Type:
N/A

Status:
Active

START-END DATES: 1/23/25 - 1/22/27

FUNDING AMOUNT: $155,840 §319(h) GRANT AWARD | $51,947 MATCH AMOUNT

POLLUTANT LOAD REDUCTIONS: N/A

% OF §319(h) GRANT AWARD DISBURSED ($155,840)*

100%

% OF NON-FEDERAL MATCH CONTRIBUTED ($0)

0%

% OF PROJECT COMPLETED

38%

PROJECT DESCRIPTION

This project is for a Watershed Coordinator that will conduct education and outreach and coordinate various water quality improvement projects among partners in the West Maui and Southwest Maui watersheds. The Watershed Coordinator will also initiate, coordinate, and track monitoring activities in the West Maui watershed. Watershed planning will also be supported through coordination with the West Maui Ridge to Reef Initiative (R2R) Funding and Agency Support Team and the R2R Working Group.

Map of the thirteen watersheds in West and Southwest Maui with approved watershed management plans that will be addressed by this project.

PROJECT UPDATE

The project has made significant progress in community engagement, interagency coordination, and education around watershed and water quality issues. Key accomplishments include convening multiple Ridge to Reef (R2R) and working group meetings to align partners and advance shared priorities, chairing the Hui O Ka Wai Ola Technical Team to support citizen science and data quality, and delivering targeted outreach through presentations and tours for resort staff, students, legislators, and community groups.

Over the next several months, efforts will focus on advancing water quality monitoring and reporting, convening collaborative watershed working groups across Maui, supporting strategic planning and outreach at both the state and county levels, and contributing to national discussions through the U.S. Coral Reef Task Force.

**For state and local government projects, the full amount of the award may be disbursed upfront and administered by the responsible agency.*

SUSTAINING THE SOURCE WATERS OF KAWAIHAE WATERSHED

Island:
Hawai'i

Watershed(s):
Kawaihae

Contractor:
Department of Land and Natural Resources (DLNR)

The Kohala Center (TKC)

Project Type:
Protection

Status:
Active

START-END DATES: 2/11/22 - 2/10/26

FUNDING AMOUNT: $234,000 §319(h) GRANT AWARD; $58,500 MATCH AMOUNT

POLLUTANT LOAD REDUCTIONS: TBD

% OF §319(h) GRANT AWARD DISBURSED ($170,195)

% OF NON-FEDERAL MATCH CONTRIBUTED ($57,653)

% OF PROJECT COMPLETED

PROJECT DESCRIPTION

DLNR will work with TKC to institute an ungulate removal program and vegetation and water quality monitoring in the 'Eke Unit, an area located in the upper region of the Kawaihae Watershed, to determine the impacts of ungulate fencing and feral pig removal on vegetation ground cover and sediment load reduction in streams that feed into Pelekane Bay. This project is also referred to as "Water Quality Monitoring and Watershed Vegetation Cover Measurement to Assess Impacts at Pelekane Bay."

Fenced in 2004, Kilohana stream unit (left) neighboring 'Eke has thrived under pig-free conditions as indicated by the abundance of native plants covering the ground like 'ama'u, maile, and hapu'u. (Photo credit: Mahina Patterson)

PROJECT UPDATE

TKC continues to provide educational and outreach activities to build awareness about the impact of nonpoint pollution on Kohala's water sources. These activities have also helped to increase stewardship knowledge and skills and promote stronger pilina (relationship) with Kohala amongst community members and the youth through teacher education.

Other recent activities include kilo (field observations) as well as water quality and photo point monitoring. These monitoring activities will continue through the end of the project. Ungulate exclusion fencing activities have also been completed and a draft ungulate removal plan has been prepared to guide ongoing ungulate removal efforts.

Press Releases:
https://www.hawaiinewsnow.com/2022/11/01/hawaii-island-major-effort-is-underway-save-critical-watershed/

https://kauainownews.com/2022/10/30/project-on-kohala-mountain-will-protect-cloud-forest-and-source-of-fresh-water-for-big-island/

https://www.bigislandvideonews.com/2022/10/27/project-aims-to-protect-kohala-mountain-native-cloud-forest/

https://www.khon2.com/local-news/234k-to-protect-native-cloud-forest-on-kohala-mountain/

AGRICULTURAL STEWARDSHIP AND STREAM **RESTORATION IN KI‘IKI‘I** AND PAUKAUILA WATERSHEDS

Island:
O‘ahu

Watershed(s):
Ki‘iki‘i, Paukauila

Contractor:
O‘ahu Resource Conservation & Dev. Council (ORC&D)

Project Type:
Restoration

Status:
Completed

START-END DATES: 9/30/21 - 12/31/24*
*Extended from original end date of 9/29/23

FUNDING AMOUNT: $230,034 §319(h) GRANT AWARD | $77,220 MATCH AMOUNT

POLLUTANT LOAD REDUCTIONS

SEDIMENT	NITROGEN	PHOSPHORUS
193 TONS/YEAR	193 POUNDS/YEAR	483 POUNDS/YEAR

% OF §319(h) GRANT AWARD DISBURSED ($198,554)
100%

% OF NON-FEDERAL MATCH CONTRIBUTED ($83,220)
107%

% OF PROJECT COMPLETED
100%

PROJECT DESCRIPTION

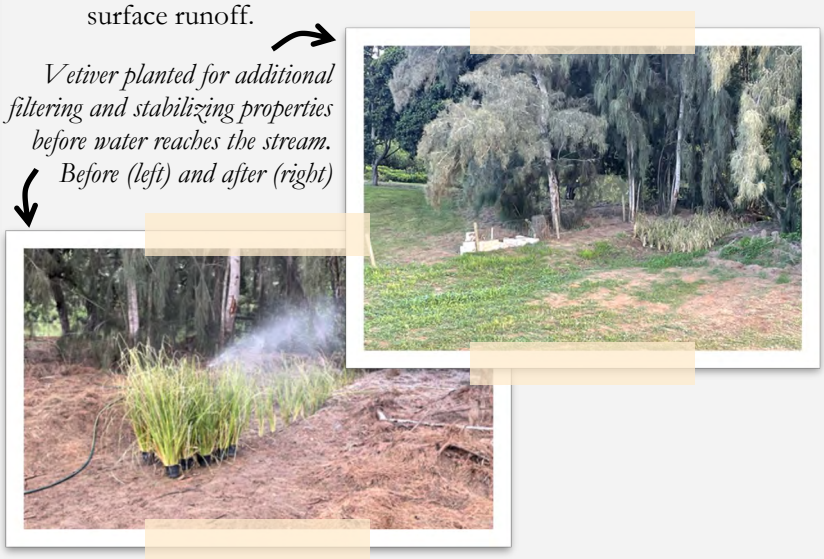
ORC&D proposed to restore 300 linear feet of native vegetation in critical watershed areas (riparian buffers), develop five new conservation plans, implement agricultural BMPs that minimized sediment and nutrients delivered to surface and ground waters, and conduct education and outreach activities (with the goal of engaging approximately 200 stakeholders at 2 on-farm field days and 1 community forum) that encourage NPS pollution reduction and foster long-term community engagement.

PROJECT UPDATE

The project was completed with ORC&D allocating funds to co-finance implementation of BMPs to seven (7) farms across 41 acres of agricultural land within the targeted watersheds. ORC&D developed and executed five (5) conservation plans with Matsugoro Farms, Waialua Estates (Dole Food Company Hawaii), Kokua Hawaii Foundation, Thrive Farms, and Haleiwa Plantation to further support BMP implementation. Additionally, farms near the streams restored a total of 656 linear feet of streambank. Two community field days and one forum at participating properties were also held to raise community awareness and foster long-term investment in watershed health. These events focused on riparian restoration techniques and agricultural BMPs suitable for mitigation of erosion and surface runoff.

Participants in a community field day removing invasive grass species from the taro ponds.

Vetiver planted for additional filtering and stabilizing properties before water reaches the stream. Before (left) and after (right)



AGRICULTURAL STEWARDSHIP AND STREAM RESTORATION IN KAUKONAHUA

Island:
Oʻahu

Watershed(s):
Kiʻikiʻi

Contractor:
Oʻahu Resource Conservation & Development Council (ORC&D)

Project Type:
Restoration

Status:
Active

START-END DATES: 10/20/22 - 10/19/25

FUNDING AMOUNT: $476,794 §319(h) GRANT AWARD | $199,094 MATCH AMOUNT

POLLUTANT LOAD REDUCTIONS:

SEDIMENT	NITROGEN	PHOSPHORUS
300 TONS/YEAR	600 POUNDS/YEAR	200 POUNDS/YEAR

% OF §319(h) GRANT AWARD DISBURSED ($466,279)

% OF NON-FEDERAL MATCH CONTRIBUTED ($198,894)

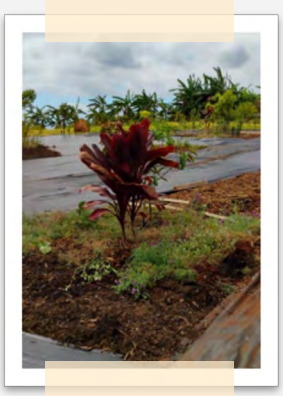
% OF PROJECT COMPLETED

PROJECT DESCRIPTION

ORC&D will expand opportunities to reduce nonpoint source pollution contributions on agricultural lands and riparian areas in the Kaukonahua drainage area (a subunit of the Kiʻikiʻi watershed). The primary pollutants identified for the entire Kiʻikiʻi watershed, including Kaukonahua, are nutrients and turbidity. Erosion and sediment control on actively farmed lands is identified as a top priority by the Kaiaka Bay Watershed-based Plan, along with community education to engage and educate farmers and landowners on BMPs. Funds will be used to:

1) Implement agricultural Best Management Practices (BMPs) that minimize sediment and nutrients delivered to surface and ground waters; and
2) Conduct education and outreach activities that encourage nonpoint source pollution reduction and foster long-term community investment by engaging around 200 local stakeholders and community groups.

Conservation cover species were planted in "islands" around all tree and shrub plantings at one site.



PROJECT UPDATE

ORC&D surpassed its goal of developing six new conservation plans with a total of seven new plans approved. Efforts this quarter were focused on scheduling and conducting site assessments and drone-based monitoring, and providing technical support to meet contract deliverables. Staff also worked with all project Cooperators to finalize Operation and Maintenance Agreements.

In the final quarter, ORC&D will work with Cooperators to complete the remaining BMPs, conduct monitoring activities, and plan a community field day to highlight NPS pollution reduction strategies. Press releases and the final project report will also be prepared. Currently, the project is on track to finish on schedule and exceed the annual reduction goals established in the original project proposal.

Crop beds were planted with cover crops and will be incorporated into the soil before planting bananas.

MITIGATING EROSION IN THE PELEKANE WATERSHED USING UNGULATE AND WILDFIRE MANAGEMENT

Island:
Hawai'i

Watershed(s):
Kawaihae

Contractor:
Queen Emma Land Company

Project Type:
Restoration

Status:
Active

START-END DATES: 7/11/22 - 7/10/27

FUNDING AMOUNT: $257,125 §319(h) GRANT AWARD | $64,297 MATCH AMOUNT

POLLUTANT LOAD REDUCTIONS: SEDIMENT 1,648 TONS/YEAR

% OF §319(h) GRANT AWARD DISBURSED ($158,304)

62%

% OF NON-FEDERAL MATCH CONTRIBUTED ($7,507)

12%

% OF PROJECT COMPLETED

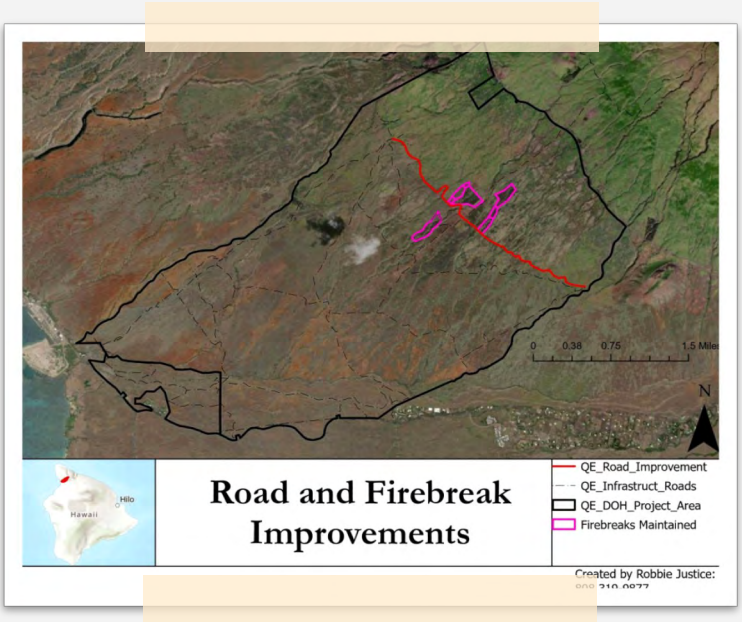
62%

PROJECT DESCRIPTION

This project seeks to implement landscape-scale strategies to: 1) restore groundcover by excluding ungulates from an existing 180-acre denuded, erosion hot spot; 2) minimize wildfires within the watershed's dry lowlands through managed grazing to reduce fuel loads, improved fire infrastructure, a network of fuel breaks established during 4.5 miles of road improvements, and increased fire-fighting access and water availability for fire suppression; and 3) maintain 6,500 goat-free acres thru monitoring and fence repairs.

PROJECT UPDATE

A 180-acre enclosure fence was recently completed in addition to the already completed improvements to 2.09 miles of existing ranch roads for fire response access, establishment of 3.01 miles of fire and fuel breaks, goat removal, and continued monitoring and maintenance of the perimeter fence. Ongoing project activities include reducing fuel loads with strategic grazing, continuing to organize goat removals, and vegetation and sediment monitoring. The contractor expects to continue with vegetation cover monitoring, sediment monitoring, and road improvement monitoring over the next several months.



Locations of the 2.09 miles of road improvements (red) and 3.01 miles of firebreak maintenance (pink) completed between 12/7/22 and 12/11/22.

Completed portion of the 180-acre enclosure fence.

HE‘EIA WATERSHED UNGULATE-EXCLUSION FENCING AND EROSION CONTROL

Island:
O‘ahu

Watershed(s):
He‘eia

Contractor:
The Nature Conservancy

Project Type:
Restoration

Status:
Completed

START-END DATES: 11/23/20 - 11/22/24*
**Extended from original end date of 11/23/23*

FUNDING AMOUNT: $210,934 §319(h) GRANT AWARD | $52,734 MATCH AMOUNT

POLLUTANT LOAD REDUCTIONS:

PHOSPHORUS	NITROGEN	SEDIMENT
35 POUNDS/YEAR	400 POUNDS/YEAR	100 TONS/YEAR

% OF §319(h) GRANT AWARD DISBURSED ($210,934)
100%

% OF NON-FEDERAL MATCH CONTRIBUTED ($52,734)
100%

% OF PROJECT COMPLETED
100%

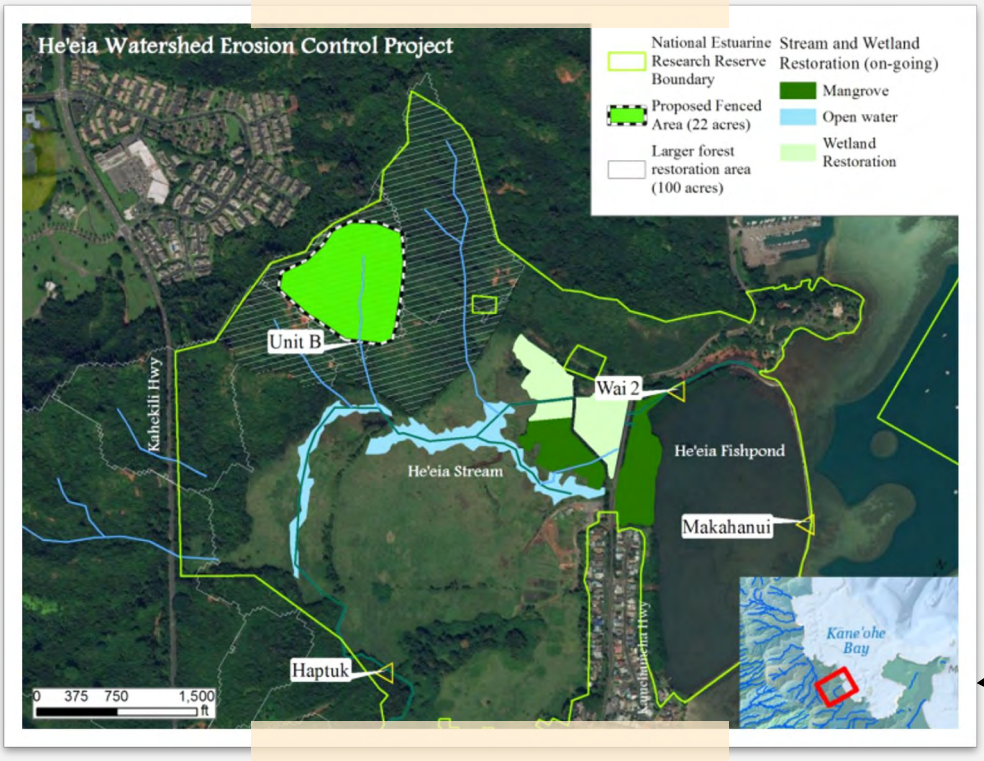
PROJECT DESCRIPTION

This project focused on reducing sediment, total nitrogen, and total suspended solids in the He‘eia watershed by installing an ungulate fence in the 22-acre sub-watershed above the He‘eia estuary and coordinating with community partners/groups to remove feral ungulates in the fenced area and restore native vegetation.

PROJECT UPDATE

The Nature Conservancy (TNC) successfully completed construction of an ungulate exclusion fence to reduce pigs from an area of the watershed that directly impacts the downstream wetland, restored agricultural lands, and fishpond. The restoration project targeted the reduction of total nitrogen (TN) from the fenced area and at the stream outlet. Baseline water quality data was collected through a combination of discharge and storm sample measurements at the sub-watershed outlet, regular grab samples at the stream mouth, and continuous water quality monitoring. Vegetative cover and erosion pin plots were also established along representative hillslopes with this project.

Site visits after installation of the fence confirmed the presence of pigs outside the fence. None were observed inside the fence, suggesting exclusion efforts are successfully reducing animal pressure inside the enclosed area. Continued monitoring is recommended to determine how successful the fence will be long-term.



Map of the proposed fenced area within the He‘eia watershed.