Te Komiti mō te Kaupapa Here me te Whakamahere
Policy and Planning Committee

Te taiao taketake me ngā reiti kounga wai kua āta whakaritea
Natural environment and water quality targeted rates

Ngā mea hirahira 2023/2024
Highlights 2023/2024

Te Kaunihera o Tāmaki Makaurau
AUCKLAND COUNCIL

Rārangi kōrero
Contents

Message from Policy and Planning Committee Chair 4

Natural environment targeted rate 6

Water quality targeted rate 7

Targeted rates working for our region 8

Section 1

Natural environment targeted rate programmes 10

Plant pathogens 12

Mainland 14

Islands 16

Marine and pathways 20

Marine ecology 24

Expanding community action 27

Enabling tools 30

Biodiversity Focus Areas 32

Section 2

Water quality targeted rate programmes 36

Waitematā Harbour water quality improvement 38

Safe Networks 42

Safe septic 44

Urban and rural stream rehabilitation 46

Contaminant reduction 48

Southern Catchments Alignment 50

He kupu nā te Kaihautū o te Komiti mō te Kaupapa Here me te Whakamahere (2023/2024)

E koa ana au ki te whakatakoto i tēnei pūrongo e pā ana ki te tawhiti o te ahu whakamua a Te Kaunihera o Tāmaki Makaurau i te whakapainga ake o te taiao māori, i te whakanuitanga ake o te kanorau koiora, i te whakatikahanga ake hoki o ō tātou arawai i te tau 2023/2024.

I kaha te tautoko a te hunga o Tāmaki Makaurau i ngā hōtaka mō te reiti whāiti, mā te Tahua Pūtea a Te Kaunihera o Tāmaki Makaurau mō te Tekau Tau i 2024-2034. Nā te Kāhui Hautū i whakaae kia hāngai te $350 miriona hei reiti whāiti mō te taiao māori e rere ai ngā mahi e arahina nei e te kaunihera me te hapori hei whakahaumaru, hei haumanu hoki i ngā pūnaha hauropi e mātāmua ana, i ngā momo anō hoki e noho whakaraerae ana, tae atu ki te tukuhanga o te pūtea hei tautoko i te urupare hei aukati i te horapatanga o te rimurimu Caulerpa nō tāwāhi e whakararuraru nei i ngā pūnaha hauropi o tō tātou moana tongarerewa. Kua whakapūmautia te whakapaunga o te $661 miriona ki tētahi reiti whāiti e pā ana ki tētahi tūāhanga wai e hou ana e hua mai ai he taunga ora mō ngā tipu me ngā kararehe i te wā tonu e whakapaingia ana ō tātou tāhuna, ō tātou pūwaha, ō tātou arawai hoki. Ka whai wāhi ki tērā ko te pūtea e rere tonu ai ā mātou mahi ki te whakatika i ngā rarururu kua roa e pā ana ki te kounga o te wai, otirā, koia tērā, ko Te Hōtaka mō te Whakapainga ake o te Kounga o te Wai i te Rāwhiti me te Uru o te Kūititanga o Tāmaki.

E whakaatu ana te pūrongo nei i te āhua o tā ā tātou reiti whāiti tiaki tonu i tō tātou taiao māori, o tā ngā reiti whakapai ake hoki i te kounga o te wai i te roanga o te tau 2023/2024, ka mutu, e whakanuia ana anō hoki ngā mahi i oti rā i te taha o ō tātou mana whenua me ngā hoa patui i te hapori.

I te tau tuaono o te reiti whāiti mō te taiao māori, ka tautoko te pūtea i a Tū Mai Taonga, i te kaupapa mahi nā ngā mana whenua o runga o Aotea i arahi hei whakakore i ngā kiore me ngā ngeru mohoao, hei haumanu anō i te kanorau koiora. Ka rawe te kitenga ake o ētahi tohu e whakaatu ana i te hokinga mai o te korimako, ka mutu, ko te whāinga e manako nuitia ana, ko te tautoko i te hokinga mai o te kōkako.

Mīharo ana hoki te kitenga o te whakatūnga o Te Wharekura ki te wharau hoko mō te tuku ihotanga, kei te Tiriti o Quay, hei wāhi whakaako i ngā āhuatanga o te ahurea me te taiao. Ko te whakaaturanga matihiko e pāhekoheko ana, ka whakahaeretia e Ngāti Whātua Ōrākei me Te Kaunihera o Tāmaki Makaurau, he huarahi ahurei, he huarahi auaha hoki hei whakaaweawe i te katoa e toro atu ana, ki te whakakore i ngā uauatanga, ki te takahi hoki i ngā ara wātea kei te aroaro o Tāmaki me Waitematā e pā ana ki te taiao.

I te tau tuaono o te reiti whāiti mō te kounga o te wai, ko tētahi o ngā miramira, ko te hōtaka whakaheke i te matū tāoke, e arotahi nei ki te whakahekenga o te rapihi, o te waipara me ngā parakino e uru nei ki ō tātou awa māpuna i te tāone, i tuawhenua hoki. Ka āpitihia atu ki ērā ko ngā mahi rawe e mahia ana kia āta mahi i te taha o ngā pakihi kei te rāngai ringarehe, e tatū ai ngā tikanga taiao tika ka pā tonu mai ki te kounga o te wai, i eke ai te taumata o te tautukunga i te 10 ōrau ki te 55 ōrau i te tau 2024.

E mihi ana au ki ngā mana whenua e noho nei hei kaitiaki, hei rangatira hoki mō Tāmaki Makaurau, ā, e rere nei ngā whakamānawa i tā rātou noho hei hoa patui, i ā rātou mahi hoki ki te haumanu i te mauri o te taiao. E pūmau ana tā mātou whai ki te tautoko tonu i tā ngā mana whenua whakatinana i te kaitiakitanga i te taiao.

Ā mohoa nei, he rite tonu te pūmau o te whai, ngā mahi hoki a ngā whakahaere o te hapori, a ngā tūao me ngā pakihi i te taha o ngā kaimahi kua whai wāhi mai ki te whakatutukitanga o ō mātou manako whakahirahira e pā ana ki te taiao me te kounga o te wai i tēnei tau.

Richard Hills
Te Kaihautū o te Komiti mō te Kaupapa Here me te Whakamahere

Message from Policy and Planning Committee Chair

I am pleased to introduce this report on the significant progress Auckland Council has made towards improving our natural environment, increasing biodiversity and cleaning up our waterways in 2023/2024.

Through Auckland Council's 10-year Budget 2024-2034, Aucklanders submitted strongly in favour of the targeted rate programmes. The Governing Body approved $350 million for a natural environment targeted rate for council and community-led action to protect and restore priority native ecosystems and threatened species, including funding to support the response to stop the spread of the exotic Caulerpa seaweed threatening the ecosystems of our treasured moana.

Another $661 million was committed for a water quality targeted rate for new water infrastructure to create healthy habitats for plants and animals while also cleaning up our beaches, harbours and waterways. This includes funding that has allowed us to continue work on resolving long-term water quality issues, notably the Eastern and Western Isthmus Water Quality Improvement Programme.

This report shows how our targeted rates continued to protect our natural environment and improve water quality throughout 2023/2024 and recognises the mahi undertaken in collaboration with our mana whenua and community partners.

In year six of the natural environment targeted rate, funding supported Tū Mai Taonga a mana whenua-led project on Aotea / Great Barrier Island which aims to remove rats and feral cats and restore biodiversity. Its great to see because of this work, early signs of Korimako / bellbird, with the ultimate goal of supporting the return of the kōkako.

I acknowledge mana whenua as kaitiaki and rangatira of Tāmaki Makaurau and thank them for their partnership and work in restoring the mauri of te taiao (the environment). We are committed to continue to support mana whenua to actively exercise kaitiakitanga of te taiao.

As always it is the tireless commitment and mahi from community organisations, volunteers and businesses alongside kaimahi / staff who have contributed to achieving our exceptional environmental and water quality aspirations this year.

Richard Hills
Planning, Environment and Parks Committee Chair

Reiti taiao taketake kua āta whakaritea

Natural environment targeted rate

Biodiversity Focus Areas

11 forest monitoring plots established on Kawau Island to track ecosystem level changes as a result of the planned wallaby and possum eradication.

605 bird counts undertaken across **6 local and regional parks** as part of a regional bird monitoring programme.

Regional conservation status of **31 freshwater fish species** and **230 bird species assessed** to inform future management needs.

13ha of **stream area assessed** for Hochstetter's frog habitat quality.

56 long-tailed bats captured to learn more about the population, **7** of which were **tagged and radio-tracked** in Franklin to find roosting sites and study habitat use.

Mainland

2800ha of **pest plant control** in regional parks.

52,500ha of ground-based **possum control** to below ecological damage thresholds delivered region-wide by contractors and community.

649 low incidence **pest plant infestations** undergoing **active management** across the Auckland region.

900ha of **pest plant buffers** around high value parkland controlled.

28,000ha of **aerial surveillance** for feral deer and goats completed to guide present and future control works.

Enabling tools

286,000+ page views on the Tiaki Tāmaki Makaurau / Conservation Auckland website this year and **141,000 unique users**.

241 contractors from 48 companies and 203 Auckland Council staff use Ruru, our conservation data management system.

17 sites of ecological significance or biosecurity risk **surveyed or monitored** utilising drones.

Marine and pathways

8 pest detection dogs and their **3 handlers** are **working to target pest species** – Argentine ants, rodents, mustelids (stoats) and kauri dieback.

782 scheduled and unscheduled vehicle and passenger **ferry sailings inspected**.

30 relocated houses inspected by dog inspection teams before transportation to the Hauraki Gulf islands.

1362 vessel hulls surveyed for marine pests and level of biofouling.

Plant pathogens

5.1km of **tracks in local parks** and **16km** of **tracks in regional parks** were **upgraded**.

552 points surveyed as part of the Hūnua Ranges kauri health baseline survey, delivered in partnership with mana whenua.

99.7 per cent of kauri areas managed by Auckland Council have site-based measures in place to reduce kauri dieback spread.

Islands

201 stoats caught to date by Te Korowai o Waiheke, a partnership between council and other funders to eradicate stoats and trial rat eradication on Waiheke Island.

300 per cent increase in kākā calls recorded on Waiheke Island since 2017.

3500 plants planted in high value wetlands on Aotea / Great Barrier and Waiheke Islands.

5000+ pest animals trapped on Hauraki Gulf islands this year.

261 low incidence pest plant infestations on Aotea / Great Barrier Island and **15 sites** across the inner Hauraki Gulf Islands **undergoing active management**.

666ha of site led **pest plant control achieved** on Waiheke and Aotea / Great Barrier Islands.

Expanding community action

520 community-led conservation initiatives supported with $2.4 million, including:

- **$704,829 awarded to 44 projects** through the Community Coordination and Facilitation Grant with an additional **$265,450 awarded** from Healthy Waters.
- **$575,924 awarded to 35 conservation initiatives** through the Regional Environment and Natural Heritage Grant **with an extra $71,455** allocated from Healthy Waters.
- **$515,000 value of supplies provided to 348 community-led conservation groups** for pest animal and weed control and ecological monitoring equipment.

Marine ecology

14 seabird species were **monitored/researched** this year.

Reiti kounga wai kua āta whakaritea

Water quality targeted rate

Western isthmus water quality improvement

29.7ha of land served by installed stormwater treatment.

221 properties separated from combined network.

3334 houses to benefit from storm water separation.

Eastern isthmus water quality improvement

944 houses to benefit from storm separation.

12.2km of stormwater pipe identified to be separated.

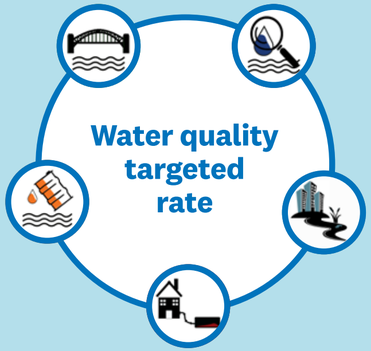
Safe Networks

40 stormwater catchments investigated.

2000 properties visited to inspect private drainage connections.

Safe Septic

9000 inspections to private onsite wastewater systems, **80% operating well, 20% requiring action**.



Urban and rural stream rehabilitation

Over 1100 green infrastructure assets maintained by 2 in a Ute programme.

17 grants awarded through Waterways Protection Fund which will **protect 32.8ha of riparian area**.

Contaminant reduction

Closing The Gap completed a total of **14,100 site visits** to construction sites across Auckland. 21% of construction sites found to not have appropriate sediment controls in place.

Over 750 abatement notices and **200 infringement notices** issued as a result of the inspections.

Over 340 landowners involved in Kaipara Moana Remediation programme, with **over 450km of fencing completed or committed to be installed**, **over 800,000 plants planted or committed to be planted** in riparian, lake, or wetlands areas, and **over 300ha of afforestation, space planting or biodiversity planting** not in riparian, lake, or wetlands margins **completed or contracted**.

284,350 litres of litter recovered from Waitemata Harbour, Manukau Harbour and Southern Kaipara Harbour through Sea Cleaners Trust, a WQTR grant recipient. Included over **2121 volunteer hours**.

Installed stormwater treatment of 34.7ha (HW10A - Improving public health by reducing contamination of waterways with wastewater).

Blackgate Reserve stream restoration project

Ngā reiti kua āta whakaritea mā tō tātou rohe

Targeted rates working for our region

Water quality targeted rate programmes

Waitematā Harbour water quality improvement

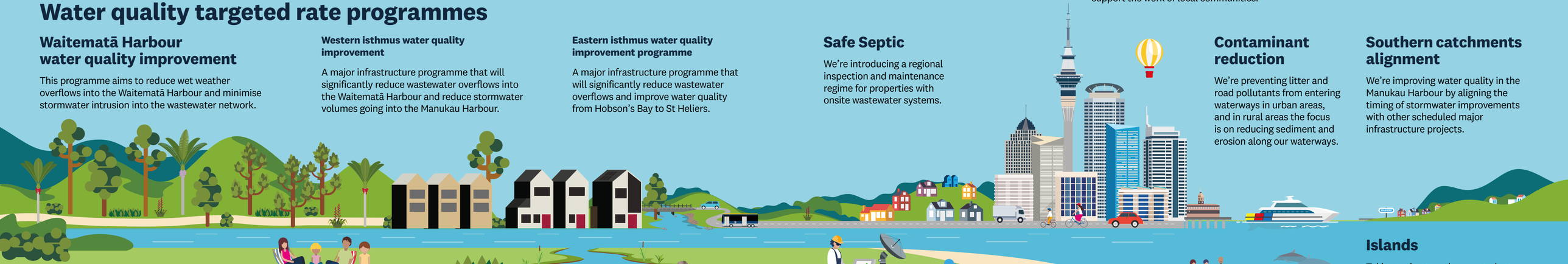
This programme aims to reduce wet weather overflows into the Waitematā Harbour and minimise stormwater intrusion into the wastewater network.

Western isthmus water quality improvement

A major infrastructure programme that will significantly reduce wastewater overflows into the Waitematā Harbour and reduce stormwater volumes going into the Manukau Harbour.

Eastern isthmus water quality improvement programme

A major infrastructure programme that will significantly reduce wastewater overflows and improve water quality from Hobson's Bay to St Heliers.



Natural environment targeted rate programmes

Plant pathogens

Investing to reduce the risk of spread of plant pathogens threatening native species, in particular kauri dieback.

Expanding community action

Supporting community conservation, environmental innovation and Māori-led projects.

Biodiversity Focus Areas

Protecting a range of species and ecosystems.

Mainland

Increasing pest plant and pest animal control in and around public parks and in important habitats on private land.

Safe Networks

We're investigating issues with our water networks and identifying solutions to make popular Safeswim sites more swimmable.

Urban and rural stream rehabilitation

We're investing to restore local waterways across the region, and to support the work of local communities.

Safe Septic

We're introducing a regional inspection and maintenance regime for properties with onsite wastewater systems.

Contaminant reduction

We're preventing litter and road pollutants from entering waterways in urban areas, and in rural areas the focus is on reducing sediment and erosion along our waterways.

Southern catchments alignment

We're improving water quality in the Manukau Harbour by aligning the timing of stormwater improvements with other scheduled major infrastructure projects.

Islands

Taking action to reduce pest plants and pest animals to protect unique island ecosystems and native species.

Enabling tools

Improving data management and developing digital tools for connecting Aucklanders with conservation activities.

Marine ecology

Conducting research into marine habitats and seabirds so we can better protect them.

Marine and pathways

Managing and educating about pest pathways and preventing pest spread.

“The natural environment targeted rate has continued to successfully deliver programmes which are protecting and restoring priority native species and ecosystems through both council delivery and through empowering communities to take action in their local area.

This year we delivered on our budget commitments, adapting to obstacles and effectively balancing competing priorities and new threats such as caulerpa and freshwater gold clam.

A key feature of our work this year has been our collaborations and partnerships with others, leveraging investment and delivering shared outcomes. We have also invested time in understanding more about the critical threats to our natural environment and evaluating our approach to managing them.

Our work traverses local and landscape scales with innovative approaches and tools being used to tackle the range of issues. It is with innovation, focused investment, partnership and collaboration that we will continue to make a difference to the natural environment of Tāmaki Makaurau and deliver enduring outcomes for future generations.”

Samantha Hill
General Manager Environmental Services

Wāhanga Tuatahi: Reiti taiao taketake kua āta whakaritea

Section 1: Natural environment targeted rate

The natural environment targeted rate (NETR) provides critical additional investment, along with business as usual funding from general rates, to protect and enhance our natural environment. This funding enables us to deliver on our Regional Pest Management Plan, the council's Indigenous Biodiversity Strategy, and our responsibilities under the Biosecurity Act, Local Government Act, and other legislation, plans and strategies. Some of the work enabled by NETR includes:

- significantly increasing weed and pest animal control in and around local and regional parks, and important habitats on private land to enable indigenous species to thrive
- reducing the spread of kauri dieback disease and other plant pathogens
- providing greater protection for indigenous ecosystems and species, including on the terrestrial mainland and in the islands and marine and freshwater environments.
- developing better systems and support to empower community-led stewardship of the natural environment.

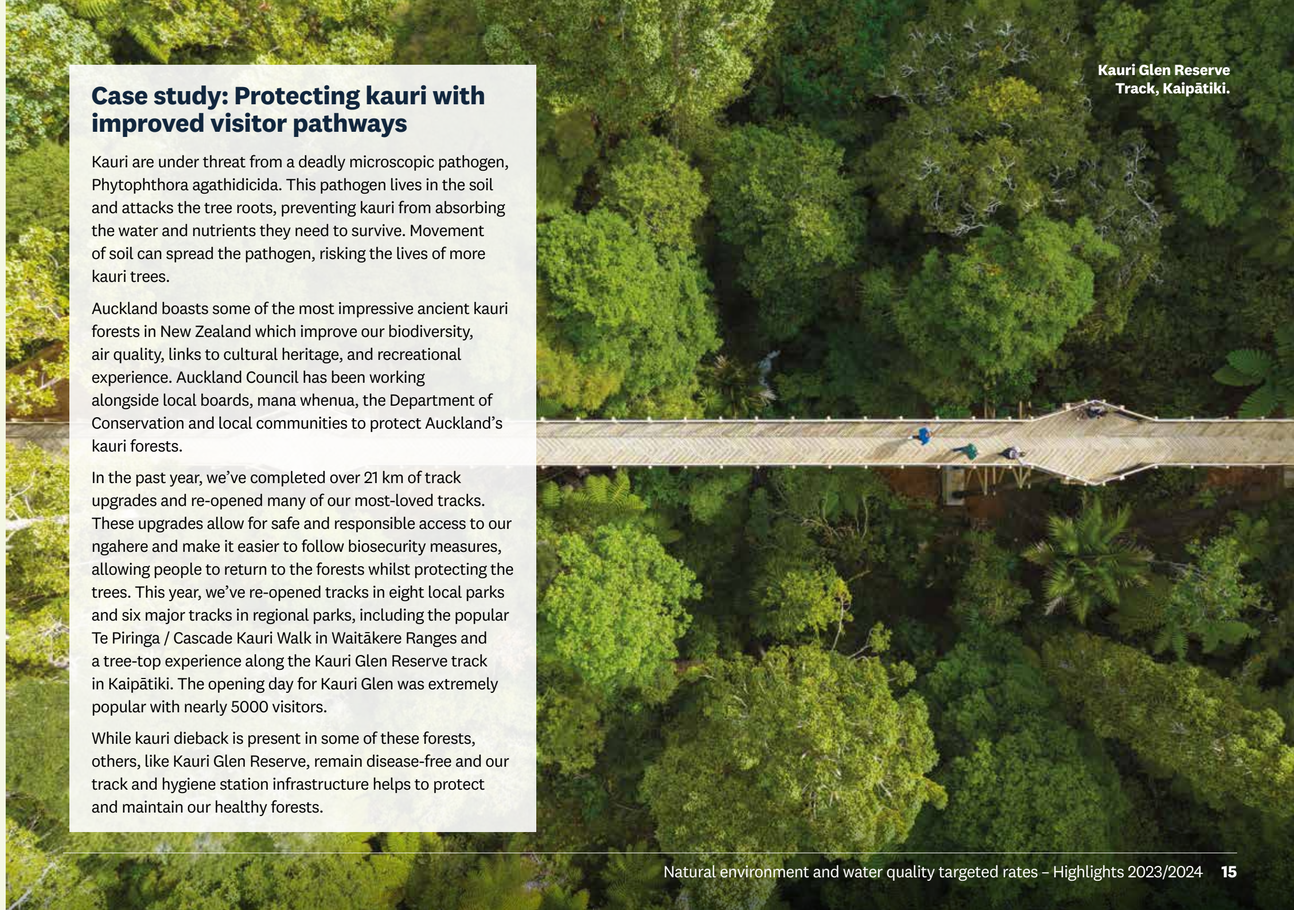
This year, key programmes included preparing for and responding to new biosecurity threats, such as exotic caulerpa seaweed and freshwater gold clam, controlling mammalian pests and pest plants, deepening our understanding of threatened species in the region, and enabling and partnering with mana whenua and communities on survey and biodiversity management activities.

Protecting our iconic kauri and threatened myrtle speacies

Hōtaka: Ngā iro kitakita ā-otaota
Programme: Plant pathogens

The Plant Pathogens programme works with mana whenua, scientists, industry, and community to protect our iconic trees and their supporting ecosystems from the impacts of kauri dieback disease, myrtle rust and other emerging plant pathogens.

- Council supported the opening of the Hūnua Traverse and cyclists' bike hygiene station with a team of kauri champions. These champions assisted cyclists with bike hygiene and provided education around keeping kauri safe while enjoying the new cycle track network. The aim of our advocacy and education work is to increase the number of people using hygiene stations. This is vital in the effort to keep the Hūnua Ranges and other healthy areas free of kauri dieback disease and limit the spread in forests where the disease is present.
- We worked with community nurseries and mana whenua to protect the endangered plant rōhutu from myrtle rust by trialling fungicide spray intervention and collecting seeds that can be germinated in a protected nursery. Together with mana whenua, we've identified three new sites for rōhutu planting, and hope to find naturally resistant seedlings that will help the survival of rōhutu in Auckland.
- We supported the community and community trusts to protect kauri by carrying out soil testing and providing phosphite treatment of infected kauri on private land. We have also provided training to members of the community to allow them to work around kauri safely. Many community members do volunteer work in parks that contain kauri. With training, they know and can follow necessary hygiene procedures and can confidently carry out their important work in a way that doesn't impact kauri.
- We undertook kauri health monitoring in the Hūnua Ranges in partnership with the Department of Conservation and ngā iwi mana whenua o Te Ngāherehere o Kohukohunui: Ngāi Tai ki Tāmaki, Ngāti Tamaoho, Ngāti Whanaunga, and Ngāti Tamaterā. During this survey, kaimahi surveyed tree health and sampled soil from the base of over 500 kauri. This work sought to verify the healthy status of Hūnua kauri and provides a baseline for kauri health into the future. Similar to the recent survey in the Te Wao Nui o Tiriwa / Waitākere Ranges carried out with Te Kawerau ā Maki, the Hūnua survey integrated mātauranga Māori, scientific expertise, and the latest technical innovations. Mana whenua partnered with council through the entire design and delivery of the project, and the work will help inform management decisions into the future.
- A joint research project between Auckland Council, the Waipapa Taumata Rau / University of Auckland and Manaaki Whenua, with support from Plant and Food Research was carried out into the use of detection dogs to sniff out Phytophthora in soil. These detector dogs are now used to scan vehicles and high-risk goods at wharves, ensuring kauri dieback is not spread to healthy kauri forests in the Tīkapa Moana / Te Moananui-ā-toi / The Hauraki Gulf. The research results were published in the Conservation Science and Practice journal this year.



Kauri Glen Reserve Track, Kaipātiki.

Case study: Protecting kauri with improved visitor pathways

Kauri are under threat from a deadly microscopic pathogen, Phytophthora agathidicida. This pathogen lives in the soil and attacks the tree roots, preventing kauri from absorbing the water and nutrients they need to survive. Movement of soil can spread the pathogen, risking the lives of more kauri trees.

Auckland boasts some of the most impressive ancient kauri forests in New Zealand which improve our biodiversity, air quality, links to cultural heritage, and recreational experience. Auckland Council has been working alongside local boards, mana whenua, the Department of Conservation and local communities to protect Auckland's kauri forests.

In the past year, we've completed over 21 km of track upgrades and re-opened many of our most-loved tracks. These upgrades allow for safe and responsible access to our ngahere and make it easier to follow biosecurity measures, allowing people to return to the forests whilst protecting the trees. This year, we've re-opened tracks in eight local parks and six major tracks in regional parks, including the popular Te Piringa / Cascade Kauri Walk in Waitākere Ranges and a tree-top experience along the Kauri Glen Reserve track in Kaipātiki. The opening day for Kauri Glen was extremely popular with nearly 5000 visitors.

While kauri dieback is present in some of these forests, others, like Kauri Glen Reserve, remain disease-free and our track and hygiene station infrastructure helps to protect and maintain our healthy forests.

Hōtaka: Te tuawhenua
Programme: Mainland

The Mainland Programme significantly increases the protection of priority ecosystems and species across Tāmaki Makaurau, both on public and privately managed land and water bodies, by suppressing the damaging effects caused by pest plants and animals. This is achieved by a range of interventions, from direct control of pest species, their exclusion from priority ecosystems, managing pest pathways and raising public awareness.

- Following a review in 2022, we adopted new feral deer control methods, including using certified indicator dogs and aerial surveillance, to enhance the effectiveness of our control work in the North Waitākere area. These advanced tools resulted in a 65 per cent decrease in feral deer numbers controlled this year compared to last, indicating successful population management. No feral deer have been detected within the Waitākere Regional parkland since September 2020, highlighting the success of these methods and supporting the natural regeneration of the ngahere.
- Pest plants which have not yet become widespread and common within the Auckland environment present an opportunity for eradication. Completely removing these species from Auckland's environment helps protect our unique biodiversity from future threats. Last year, we managed 27 species of pest plants across 649 sites in the Tāmaki Makaurau region and moved five infestation sites from active into a monitoring phase as no more plants were being found. We also declared three infestation sites to have been eradicated.
- We built exclosures and fenced off areas with nets in Lake Rototoa to protect kākahi / freshwater mussels and native bullies from pest fish such as perch and tench. These pest species eat the native species' eggs and young and compete for food and resources. The exclosures allow for the natural interaction of kākahi and native bullies, which is vital for the recruitment of young kākahi. Kākahi are natural filters and help keep the water of Lake Rototoa clear and the water quality high.
- We maintained possums to low numbers across 141,266 hectares of rural mainland Auckland this year. To maintain this coverage, we carried out 52,500 hectares of ground-based control with 22,000 hectares of this delivered by contract, and 30,500 hectares maintained by community-funded and led control. Removing possums in rural areas reduces grazing competition for livestock as seven possums can consume the same amount of grass as one sheep. It also helps protect sites of high ecological and biodiversity value and provides protection for revegetation efforts on rural properties.
- Auckland Council trade inspectors monitor the sales of animal and plant species that are banned for sale. This year we visited 203 nurseries, garden centres and markets, and 49 pet stores and breeders. This work safeguards our region by significantly reducing the trade of plants and animals that pose environmental risks. By visiting retailers, breeders and nurseries, we ensure compliance with regulations and educate the public and businesses about the potential dangers of invasive species. These efforts help prevent the introduction and spread of harmful species and promote responsible practices in gardening and pet ownership.

Red eared slider turtles can grow to the size of dinner plates. Photo: Nick Ling

Case study: Educating communities on responsible pet ownership

History has taught us that the introduction of non-native species into new environments can lead to unforeseen and significant ecological and economic consequences. Cherished pets, such as parrots, turtles, and fish, have the potential to cause substantial ecological harm if they escape or are released into the wild, competing for food and habitat or preying on native species. For instance, red ear slider turtles released into our fragile waterways can reduce water quality and biodiversity in affected areas. Roaming cats or an oversupply of unhomed kittens can impact our native wildlife. Likewise, dogs not kept on a leash or trained properly can pose a threat to native bird species by attacking or disturbing them.

Responsible pet ownership can ensure the safety and well-being of both pets and wildlife. This year, Auckland Council partnered with the SPCA for the third consecutive year to provide vouchers for free desexing, microchipping, and registration ('snip and chip') to 470 cats living near threatened wildlife areas. We also worked with local veterinarians to offer this service on Waiheke and Aotea / Great Barrier Island.

In addition to the 'snip and chip' initiative, we are supporting local communities in learning about responsible pet ownership practices. This includes educating owners on the benefits of constructing outdoor cat enclosures or cat fences to keep cats and wildlife safe, preventing the escape of pet birds, responsibly rehoming unwanted pets and ensuring responsible dog ownership by following advice to keep people, pets and native wildlife safe.

Protecting our islands from pests

Hōtaka: Ngā moutere
Programme: Islands

The Islands programme protects and restores biodiversity on our Hauraki Gulf islands through pest management and restoration programmes, working alongside partners on many of these projects.

- In partnership with Auckland Council, Te Korowai o Waiheke has made good progress in eradicating stoats on the island and is now focussed on removing the remaining individual animals, using a range of methods including detection dogs to do so. Te Korowai o Waiheke are continuing to engage strongly with the community to encourage them to report stoat sightings, using local media and innovative bus art advertising, engaging local schools to design the art. They have also begun their third pilot project to control rats, as they continue to investigate the feasibility of a rat eradication on the island.
- We are working towards eradicating wallabies, possums and rats from Te Kawau Tūmārō o Toi / Kawau Island in partnership with Manuhiri Kaitiaki Charitable Trust and the Department of Conservation and in collaboration with members the Kawau Island community. Following extensive engagement with the Kawau Island community, we have started operational planning for the removal of wallabies and possums in the first instance, while the proposal for rodent eradication will be revisited at a later date.
- We continued to control wilding conifers across 12 priority sites on Aotea / Great Barrier Island. The changes in species composition where we previously controlled pine trees are noticeable and rewarding for both the contractors and the community. We are now managing these areas with a broader approach, targeting a variety of pest plants such as pampas, coastal banksia, acacia (wattle) species, and conifer seedlings. This enables native regeneration to come through under the controlled pines. An Aotea pines video was also produced to promote positive advocacy towards the programme and help connect private landowners that need support to control pines and other pest plants on their land.
- We carried out pest animal control with traps and bait stations at the giant kōkopu site in the Awaawaroa wetland on Waiheke Island, a key spawning site for the species. Monitoring has showed a reduction in the number of rodents, which is particularly important during the spawning season, as they can prey on kōkopu eggs. Habitat restoration is also very important for protecting these populations as it helps provides the necessary conditions for giant kōkopu to recover and thrive. This year over 50 volunteers from Environmental Services, Waiheke Resources Trust, Free the Tree, Gulf Trees, and the community planted 2750 trees in the Awaawaroa wetland.

Wilding pine control work on Aotea.

- We controlled the invasive mile-a-minute vine on predator-free Ruapuke / Maria Island to protect areas of significant biodiversity value. By controlling the species, we are helping the island to regenerate and to develop and maintain a healthy and functional ecosystem over the long term. It also ensures that native species like the ōi / grey-faced petrel, Raukawa gecko, takahikare-moana / white-faced storm petrel, and kororā / little penguin can thrive. Thanks to these efforts, native plants such as taupata / coprosma, which is threatened and at risk, are already beginning to flourish in the absence of the invasive vine.
- We created the Aotea High Risk Weeds initiative to raise community awareness of uncommon pest plants and encourage people to report any sightings. The iNaturalist project 'Aotea High Risk Weeds,' which has received strong local support, invites residents and visitors of Aotea to participate. Plant sightings and infestations have been reported in areas not previously surveyed. Additional funding has helped map and define the current distribution of several species, notably kahili ginger, bushy and climbing asparagus, and madeira vine. We are currently monitoring several infestations, including tree privet, cape pond weed, oxygen weed, egeria, and grey willow, with efforts ongoing to manage and potentially eradicate these species.

Case study: Mana whenua lead conservation on Aotea

Tū Mai Taonga is a mana whenua-led project on Aotea which aims to remove rats and feral cats and restore biodiversity. The project is under the leadership, guiding vision and tikanga of Ngāti Rehua Ngātiwai ki Aotea, and Auckland Council is a part-funder of the project through the Natural Environment Targeted Rate (NETR) and Māori Outcomes Fund. The project also has Jobs for Nature (central government COVID stimulus) funding through Predator Free 2050 Limited and the Department of Conservation.

The project has started in the north of Aotea, targeting rats on offshore islands like Rangiāhua and is well into the knockdown phase of feral cat eradication in Te Paparahi, which had, at last count, the lowest bird population on Aotea. With eradication underway, a korimako / bellbird has been spotted there. This is a hopeful sign and just a snippet of the bird life they hope to bring back to the island, with vulnerable kōkako the ultimate species whānau hope to see return and thrive again on Aotea.

Tū Mai Taonga project lead, Makere Jenner, says NETR has allowed the team to stretch their Jobs for Nature funding, and helped them bridge towards the medium-term funding they are now seeking. Employment for the project has allowed whānau to stay on Aotea for work or return to reconnect with the whenua and moana and work to benefit future generations. At full capacity, there are 30 kaimahi on the Tū Mai Taonga team, with most people out in the field setting, checking and clearing some of the 1887 pest control devices in place. The methodology is slow and careful, with 98 per cent of traps and 90 monitoring cameras accessed by foot across 60km of tracks. NETR funding has also contributed to 130 training sessions, including first aid, pest trapping and driving qualifications, and 61 formal qualifications have been gained by Tū Mai Taonga kaimahi.

Tū Mai Taonga kaimahi setting traps on Aotea.

Protecting our island and marine environment

Hōtaka: Te moana me ngā ara kawe riha

Programme: Marine and pathways

The Marine and Pathways programmes helps to protect our islands and marine ecosystems from invasion by new pest species through pathway management (interrupting the ways that pests can move around). This involves using detection dogs, artificial intelligence and underwater cameras for surveillance, responding quickly to new pest incursions and educating and engaging with the community.

- We help keep our islands pest-free by conducting biosecurity checks on high-risk goods, vessels, and craft headed to the Hauraki Gulf islands. Our pest detection dog teams inspected 30 relocated houses before transportation, and 782 commercial vehicle and passenger sailings. By island, our teams inspected 443 sailings to Waiheke, 266 to Aotea / Great Barrier Island, and 61 to Rakino and identified 297 risk goods on sailings. Even an international fishing vessel that ran aground received an inspection to ascertain its risk to the Noises Islands. Our experts look for signs and traces of pests from dog indications to detect rodents, plague skinks, Argentine ants and plant pathogens causing kauri dieback disease. This work has attracted international attention and members of the Hawaiian Conservation Dogs Programme spent time with our team learning from each other given the similar challenges they face.
- We are trialling innovative solar-powered AI cameras on two island sites in the Hauraki Gulf. The cameras are focussed on traps and wait and watch for predators to come past. All images taken are assessed by the software that is trained to distinguish between a native species and a pest. It then sends an alert in real-time if there is a possible threat. Monitoring remotely this way saves time and money, helps us to direct effort where it's needed, and respond to a biosecurity incursion more quickly. It can also give us more confidence in the pest free status of isolated and unstaffed islands.

Case study: Te Wharekura: he mana tō, he mauri tū

Ngāti Whātua Ōrākei and Te Kaunihera o Tāmaki Makaurau / Auckland Council have undertaken an innovative mana-based partnership approach to deliver Te Wharekura. Te Wharekura stands to celebrate the cultural richness of Tāmaki and Waitematā Kupenga Rau, aiming to inspire public awareness and appreciation of these taonga.

Te Wharekura is a cultural and taiao education venue, centrally located on Quay Street in one of heritage kiosks. It provides a new cultural anchor for the much-loved public space at the edge of Waitematā, Te Wānanga. Interactive digital displays enable visitors to engage with the environmental challenges and opportunities currently before Tāmaki and Waitematā, and invite participation through highlighting how to join environmental conservation volunteer groups and elevating public environmental literacy.

The ahi-kā of Ngāti Whātua Ōrākei burns bright, clear and hot and is made evident for visitors through considered cultural design, physical and digital taonga and the constant presence of uri amongst the team of kai manaaki who service this public facility. It is truly a place for all, with its features thoughtfully designed to inspire, inform and delight all ages of visitors, from tamariki to pakeke / adults.

Te Wharekura is open to the public four days a week and is free to visit. An outreach education programme has just been initiated, looking to encourage kura / schools from across Tāmaki Makaurau to engage with the cultural and taiao offerings within as part of a suite of offerings within Te Pokapū Tāone.

With kaitiakitanga for Te Wharekura being held by Ngāti Whātua Ōrākei as ahi-kā and tangata whenua for the central city and isthmus, in future, Ngāti Whātua Ōrākei will apply their tikanga to provide opportunities for other iwi to share their mātauranga in this space. The space will deliver a rich display of environmental values, and mātauranga Māori that share the historical relationships and stories fundamental to the past, present and future of the Waitematā and Tāmaki.

- Pest Free Warrants became mandatory for commercial operators working across the Hauraki Gulf in January this year. To date, we have issued 142 Pest Free Warrants enabling Hauraki Gulf transport operators to help keep islands pest free. Training and support are also included, ensuring operators are equipped with the knowledge and tools to detect biosecurity threats. The Pest Free Warrant programme, developed by Auckland Council and the Department of Conservation, is crucial in helping to prevent pests from making their way to pest-free islands. It not only safeguards the environment but also fosters a culture of vigilance and responsibility among all participants. As a result, we are seeing more coordinated and effective protection efforts, contributing to the long-term preservation of the Hauraki Gulf's biodiversity.
- We supported Biosecurity New Zealand in the exotic caulerpa response efforts within the Auckland region. Auckland has six of the nine known caulerpa sites in Aotearoa. Our work included surveillance, trialling treatment tools and developing monitoring tools for this invasive seaweed. Trialling new ways of controlling this pest seaweed included diver-assisted suction dredging, benthic mats and chlorine, and using UV-C light. We also funded a kaitiaki ambassador programme on Aotea – both on land and on water. On water caulerpa ambassadors covered 131 days and approached 253 vessels. In total 185 vessels were anchored in the no-anchor zone. Land-based kaitiaki ambassadors engaged a total of 2616 wharf visitors on Aotea, to provide advice and education to people who were unaware of the issue and rules.
- We engaged with boat owners to reduce the spread of marine pests around the Hauraki Gulf by ensuring boats aren't moving pests on their hulls or in their gear. Our hull surveillance programme aims to improve compliance and helps us monitor the overall level of hull fouling of Auckland's in-water boat fleet. We surveyed 1362 vessel hulls with 62 per cent meeting the required standards for hull cleanliness. 158 boats (12 per cent) were recorded with one or more marine pests present. Mediterranean fanworm and lightbulb ascidian were the most common pest present on vessel hulls. 206 boats (15 per cent) were not compliant and are actively being followed up with to provide a cleaning plan and ensure their hulls are cleaned.
- We developed clear and consistent messaging and collaborated with neighbouring regions to educate the boating community about caulerpa, biofouling, hull cleaning and marine pests. Marine biosecurity champions engaged with more than 4500 people over summer. They were located at busy marinas, wharves and boat ramps, speaking to boaties, island residents and visitors.

> "This space, this 'vessel' we've created (Te Wharekura), it's more than just a building. It's a living declaration of our ahi-kā…every time someone walks past and feels its mauri, it's a reminder, anchoring us visibly in the landscape of Tāmaki Makaurau."

Interactive displays at Te Wharekura engaging and educating visitors

Protecting our seabirds and marine habitats

Hōtaka: Te hauropi ā-moana
Programme: Marine ecology

The Marine Ecology programme builds our knowledge of marine habitats important for biodiversity by conducting a range of seabird monitoring projects across both the mainland and offshore islands. This includes studying population dynamics, breeding habits, behavioural drivers, and threats to various seabird species.

This year we continued the process of validating and verifying data about marine habitats in the Hauraki Gulf using towed video cameras to identify and confirm areas of valuable habitat for biodiversity. This year's seabird monitoring provided positive insights, with important seabird populations showing improved numbers compared to previous years.

Despite interruptions from weather events and unforeseen circumstances, we were able to continue building the evidence of seabird populations in the Auckland region through our established monitoring, as well as starting monitoring projects in new locations. We successfully monitored 14 seabird species, established new collaborations for monitoring research and supported community groups' monitoring activities.

Case study: Seabird detector dog surveys on Aotea

Tāiko / Black petrels are endemic to the Auckland region meaning they breed nowhere else in the world. Though once widespread on the mountains and hills of the North Island, they are now reduced to a small population on the top of Hirakimata / Mount Hobson on Aotea / Great Barrier Island, and a few hundred pairs on Te Hauturu-o-Toi / Little Barrier Island. As Aotea is not predator free, tāiko are killed every year by rats, cats and pigs. Introduced predators have also nearly completely wiped out Titī / Cook's petrels, another endemic species of Aotearoa, from Aotea.

Glenfern Sanctuary is a regional park on Aotea with a pest-proof fence and predator control in place, making it an ideal location for seabird restoration. Although both petrel species were reported breeding in the sanctuary in the past, we found very few individuals during previous surveys. This year we employed a seabird detector dog to locate more burrows and gain better insights into the tāiko and titī populations in the sanctuary.

We also partnered with Oruawharo Medlands Ecovision, a local community group conducting intensive conservation and pest trapping work, for a detection dog survey in their area. This helped increase our knowledge about areas outside of the main colony on Hirakimata where tāiko might be.

The detector dog identified a substantial number of new burrows of both petrel species in Glenfern and tāiko burrows in Medlands, which will all be monitored from now on to assess population dynamics and trends in the future. Tāiko and titī numbers outside the main colony are still low, but higher than what was initially thought. This highlights the importance of expanding predator control to create a safe habitat for these species to breed if we want to see their population grow.

Detector dogs help identify petrel burrows on Aotea.

- Aotea: Seabird monitoring was established for the first time on the Broken and Grey Islands with the collaboration and support of Ngāti Rehua Ngātiwai ki Aotea and Tū Mai Taonga showing great potential for seabird population recovery on these islands. We also started tītī /Cook's petrel monitoring on Hirakimata to evaluate possible population recovery after the new rat trapping lines were established (by DOC) for the protection of the local tākoketai / black petrel colony. Insights will come from repeated surveys.
- The Noises: We continued our population and breeding monitoring of takahikare-moana / white-faced storm petrels on Ruapuke / Maria Island; and of ōi / grey-faced petrel, kororā / little penguin and pakahā / fluttering shearwaters on Ōtata. While ōi and takahikare-moana showed slightly higher numbers than previous years, this was a catastrophic year for kororā, with almost no birds breeding. We also set temperature recorders to monitor the effects of temperature fluctuations in the long-term on breeding success
- Tarahiki / Shag Island: We continued the population monitoring and tracking the movements of kawau tikitiki / spotted shag, one of our most regionally threatened seabird species, with the aim to understand the threats they face and the factors affecting their population.
- Waitākere Ranges: Data collection for a PhD project on ōi / grey-faced petrel, pest animal monitoring and attitudes of Waitākere residents about native bird restoration was completed in collaboration with the University of Auckland. Data will now be analysed and reported, including management recommendations for pest control for mainland seabird colonies.
- We implemented and continued to monitor our other priority seabird species and breeding locations, including:
  - Continuing the population monitoring of tākoketai / black petrel on Te Hauturu-o-Toi / Little Barrier Island. This year, we found higher nest occupancy and breeding success than previous surveys.
  - Surveying kāruhiruhi / pied shag, kawau paka / little shag, māpunga / black shag and kawau tūī / little black shag numbers at several key mainland colonies and sites in the Hauraki Gulf to understand the distribution of these species in the region and inform management needs. A new collaboration was established with the South Auckland branch of BirdsNZ to gather more data on colonies and populations.
  - Supporting community-led monitoring of tākapu / Australasian gannets at Muriwai to track population health (breeding success) and inform management of the area.

Hōtaka: Te whakawhānui i ngā kaupapa mahi a te hapori
Programme: Expanding community action

Community-led conservation activity continues to grow across Tāmaki Makaurau. The Expanding Community Action programme provides a range of assistance to over 520 community-led conservation initiatives with the suite of support offerings evolving to meet the different and emerging needs of our conservation community.

- We granted over $2 million in support for community-led conservation activities through a variety of funding, including:
  - the Community Coordination and Facilitation Grant, where 44 projects shared $704,829 with an additional $265,450 from Healthy Waters
  - the Regional Environment and Natural Heritage Grant allocated $575,924 and $71,455 from Healthy Waters to 35 successful applicants
  - 168 entities across Tāmaki Makaurau were given $515,000 in tools and equipment and we supported the restoration and protection of priority biodiversity sites on private land through $388,842 in private landowner grants.

  This support for conservation groups, iwi, schools and individuals included resourcing for coordinators, help with developing strategic action plans, native plants for restoration, fencing for priority biodiversity sites and practical weed and pest animal control tools. The aim of this support is to enable and grow conservation activities that protect and enhance native biodiversity across Tāmaki Makaurau.
- The Trees for Survival partnership programme supports school students to grow and plant native species, mainly along waterways. Four new schools joined the programme, bringing the total to 112 schools. With the support of 2799 volunteers (including students, teachers, parents, sponsors and community helpers) 65,324 native plants were planted along 1.49km of stream riparian edges, restoring a total of 6.52 hectares.
- The Golf is Green partnership, a collaboration between Auckland golf clubs, Auckland Golf Inc and Auckland Council, is focused on encouraging improved sustainability and environmental outcomes across 38 golf clubs, encompassing over 2000 hectares of green space across Tāmaki Makaurau. Council has developed three more ecological plans, bringing the total to 21 golf clubs we have provided guidance to helping them prioritise sustainability initiatives and undertake pest plant and animal control and restoration activities across their properties. A $24,000 grant has helped support five initiatives enabling at least three more golf clubs to start their sustainability journey. The grant funds will promote environmental activities of the group and its members, provide for conservation tools and resources and support growing connections within their local conservation community.

- Enviroschools and Te Ahu Tū Roa are programmes that engage young people to explore ways in which they can learn and take action together to care for and regenerate te taiao. The regional Enviroschools programme has grown, welcoming 10 new schools and 12 early childhood centres (ECEs) this year. There are now 233 schools, 100 ECEs and over 143,000 tamariki and students now actively engaged in the programme across Tāmaki Makaurau. Enviroschools held 27 events and clusters attended by 1570 people, with activities including professional development on biodiversity planting, whole of catchment restoration at Te Puhinui and Te Whau, and water quality assessments and engagement with local communities through restoration planting. Seventy schools and 19 ECEs involving 1980 students carried out projects such as pest animal control and weed removal work, restoration planning for indigenous flora and fauna and sharing their learning with whānau and communities.
- The Te Aho Tū Roa programme works with kōhanga reo / puna reo, kura kaupapa Māori, wharekura, whānau and communities. It embraces te ao Māori, te reo Māori and mātauranga to learn and teach resilience and increase capability and desire to care for te taiao while creating meaningful connections. This year the programme supported nine Māori Medium Schools, 770 collaborations/partnerships, six events, workshops and projects and involved 1099 participants in the kaupapa, of which 477 were rangatahi. Actions for te taiao included set up of a kai nursery, composting, kūmara harvesting, mentoring, regenerative learning, maramataka, rongoā Māori, restoration of soil and local awa, native tree planting, pest animal and weed management, environmental monitoring and building resilience in communities.
- Promoting and celebrating community, iwi mana whenua and council conservation efforts is an important way to highlight and acknowledge our collective efforts, gain support and inspire more Aucklanders to get involved. This was done through radio and social media campaigns and sharing of videos and stories across various communication channels like Our Auckland, Auckland Council's Biodiversity Facebook page and YouTube channel and our monthly Pest Free e-newsletter. Highlights include several great videos and stories including Finding Franklin Bats; Myrtle rust: what you need to know to stop the spread; Te Korowai o Papatūānuku (the Āwhitu Peninsula project); Tū Mai Taonga on Aotea; Nicola MacDonald (Ngāti Manuhiri) - NZ Environment Hero of the Year; Te Kawerau ā Maki and Ngāti Manuhiri cultural inductions and many more.
- Community parks across Tāmaki Makaurau provide a great opportunity to inspire schools, groups and the wider community to connect with nature, learn new skills and to get involved in conservation. Highlights from the range of engagement programmes included: providing advice and practical support to over 180 groups undertaking conservation activities on local parks; hosting planting days with 1995 volunteers (including students, teachers, parents, sponsors and community helpers) planting 15,454 native plants along 2.9km of stream edges; 25 training workshops upskilling 363 volunteers and providing 7460 people opportunities to connect with nature through guided experiences, ranger walks, nature activations, the Adopt a Park programme and other activities.

Case study: Guiding conservation with Te Haumanu Taiao

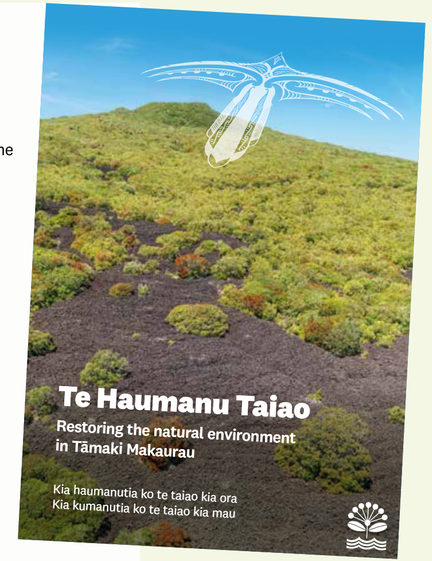
In partnership with Ngā Iwi Mana Whenua o Tāmaki Makaurau, Auckland Council co-created Te Haumanu Taiao: Restoring the natural environment in Tāmaki Makaurau, released in November 2023.

This important guide provides practical planting advice, alongside the expertise and aspirations of mana whenua for te taiao, including advice on how to engage with mana whenua. This helps nurture the growing understanding and respect for our Te Tiriti partners shown by those involved in conservation efforts across the region.

Te Haumanu Taiao is an essential guide for ecosystem restoration and has been shared widely across the council family, with external stakeholders and our wider conservation community. The detailed ecological information, alongside iwi mana whenua perspectives, are being embraced by council planting specialists, the private sector and community conservation groups alike. Council's community parks volunteer restoration training has been redeveloped to incorporate the resource as the key reference document for restoration projects.

We developed a video to support the use of the karakia that was crafted for the resource, He Karakia Haumanu Taiao. Ngā Iwi Mana Whenua o Tāmaki Makaurau encourage the informed and respectful use of the karakia by Aucklanders to open and close the conservation activities like planting, trapping, removing pest plants, species monitoring and conservation meetings or gatherings. Further information is also provided online explaining the patterns used in the guide and what they symbolise. These are important in understanding what Haumanu represents by connecting the past, present and future. Te Haumanu Taiao: Restoring the natural environment in Tāmaki Makaurau is more than a resource and is a testament to what can be achieved when we unite our knowledge and passion around a common vision.

It sets a precedent for future collaborations between Ngā Iwi Mana Whenua o Tāmaki Makaurau and Auckland Council. It guides us towards our future together, where kaitiakitanga / stewardship of our natural environment are the norm. The resource can be found on the website **tiakitamakimakaurau.nz/te-haumanu-taiao/**

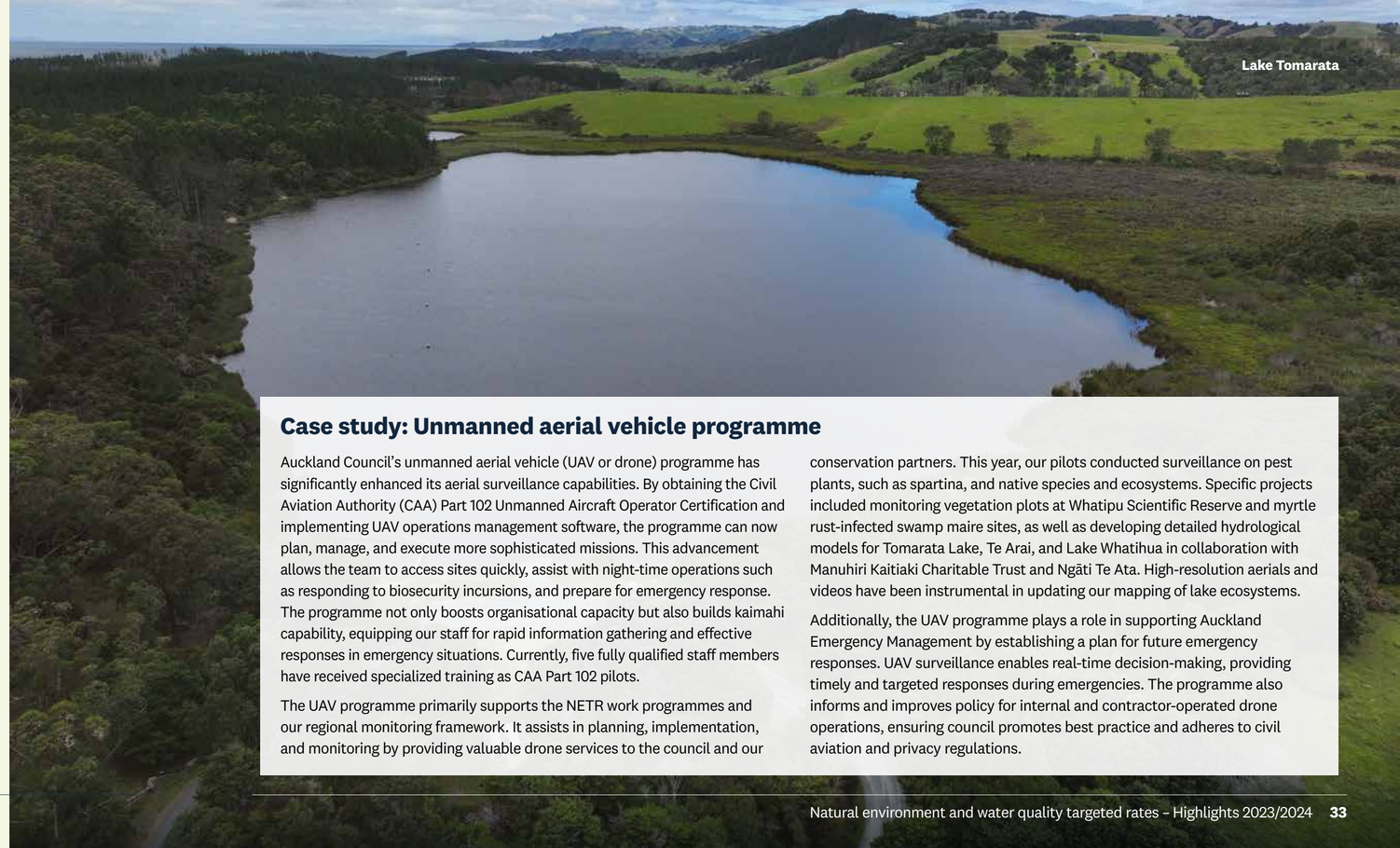


Digital tools to capture, display and share conservation data and information

Ngā āhuatanga e āhei ai te mahi
Programme: Enabling tools

The Enabling Tools programme continues to enhance and administer several digital conservation tools that support natural environment conservation planning and delivery within Environmental Services and with our NETR co-delivery partners across council.

- Enhancements to Ruru, our Conservation Management System, has lifted our data management and decision-making capability. Ruru supports the portfolio of NETR programmes in delivering and monitoring conservation efforts, allowing council to remain responsive, cost-effective and adaptive to site specific management needs.
- The Natural Environment Stakeholder Engagement (NESE) customer relationship management system enhances our customer service by providing council staff with comprehensive oversight of interactions and actions between Auckland Council and the conservation community. NESE enables efficient reporting on community conservation efforts, including those supported by NETR funding, and helps inform regional conservation priorities, ultimately fostering better communication and collaboration with our partners and stakeholders.


Lake Tomarata

Case study: Unmanned aerial vehicle programme

Auckland Council's unmanned aerial vehicle (UAV or drone) programme has significantly enhanced its aerial surveillance capabilities. By obtaining the Civil Aviation Authority (CAA) Part 102 Unmanned Aircraft Operator Certification and implementing UAV operations management software, the programme can now plan, manage, and execute more sophisticated missions. This advancement allows the team to access sites quickly, assist with night-time operations such as responding to biosecurity incursions, and prepare for emergency response. The programme not only boosts organisational capacity but also builds kaimahi capability, equipping our staff for rapid information gathering and effective responses in emergency situations. Currently, five fully qualified staff members have received specialized training as CAA Part 102 pilots.

The UAV programme primarily supports the NETR work programmes and our regional monitoring framework. It assists in planning, implementation, and monitoring by providing valuable drone services to the council and our conservation partners. This year, our pilots conducted surveillance on pest plants, such as spartina, and native species and ecosystems. Specific projects included monitoring vegetation plots at Whatipu Scientific Reserve and myrtle rust-infected swamp maire sites, as well as developing detailed hydrological models for Tomarata Lake, Te Arai, and Lake Whatihua in collaboration with Manuhiri Kaitiaki Charitable Trust and Ngāti Te Ata. High-resolution aerials and videos have been instrumental in updating our mapping of lake ecosystems.

Additionally, the UAV programme plays a role in supporting Auckland Emergency Management by establishing a plan for future emergency responses. UAV surveillance enables real-time decision-making, providing timely and targeted responses during emergencies. The programme also informs and improves policy for internal and contractor-operated drone operations, ensuring council promotes best practice and adheres to civil aviation and privacy regulations.

Protecting a range of species and ecosystems

Hōtaka: Ngā Wāhi ā-Kanorau Koiora ka Aronuitia

Programme: Biodiversity Focus Areas

The Biodiversity Focus Area Programme aims to protect the full range of ecosystems and species in the Tāmaki Makaurau region and guide the delivery of biodiversity management across both council and private land.

- We continued to survey for threatened plants across the region. We recorded 500 new threatened plant observations, including six of the 10 target species across 10 key sites. These findings have helped us identify three new sites that we can add to our schedule of priority areas for management. With over 450 threatened plant species in the region, findings from these surveys enable us to better understand the critical threats to species and improve our management actions to protect them.
- The first of several lizard and frog survey visits to Te Paparahi, Aotea / Great Barrier Island was successfully completed in partnership with Ngāti Rehua Ngātiwai ki Aotea and with assistance from Tū Mai Taonga. Copper, ornate and moko skinks as well as pepeketua / Hochstetter's frog and pāpā / Pacific gecko were detected. Information from these surveys will be used to identify and prioritise where we and our partners can undertake management and monitoring of these threatened species to ensure their long-term survival.
- Pekapeka-tou-roa / long tailed bats were successfully tracked across the Franklin landscape this financial year with the collaborative initiative involving Ngāti Te Ata, EcoQuest, community groups and Auckland Council. The focus of this year's survey efforts was to detect which trees were being used as roosting sites. The findings have helped further refine how priority sites for bat species need to be mapped in the south of the region. In turn, this will help us prioritise management efforts around these important areas. Auckland is one of the only cities in New Zealand that still has resident populations of long-tailed bats and a Regional Conservation Status Assessment in 2023 classified them as regionally critical.
- We completed the Regional Conservation Status Assessments for freshwater fish and birds, adding to the published assessments for plants, lizards and amphibians. These assessments are an important component of our biodiversity programme and are used to prioritise species survey, management and research.

A fish courier holding a shortjaw kōkopu, ready for release.

Fish courier releasing shortjaw kōkopu into the streams.

Case study: Securing the future of the shortjaw kōkopu

A collaborative effort between Auckland Council, Te Kawerau ā Maki, Manāki Whitebait, NIWA and Watercare has led to the release of 1000 juvenile shortjaw kōkopu (Galaxias postvectis) into five streams within Te Wao Nui o Tiriwa / Waitākere Ranges.

The ground-breaking project is the first time anyone has been able to breed shortjaw kōkopu successfully and it has taken years of trials. The taonga species is classified as threatened both regionally and nationally and there are only four known populations left in Tāmaki Makaurau. Boosting the resilience of the species is vital, with extreme weather events a significant threat to their habitat.

Other threats the species face include overfishing of juvenile (whitebait) life stages, predation by pests, poor water quality, habitat modification, and impassable structures such as dams and weirs limiting their ability to access suitable habitat upstream.

Council has worked closely with mana whenua and other experts to breed and release a shortjaw kōkopu population into five streams containing prime habitat above the Upper Huia and Lower Huia water reservoirs, helping to ensure their ongoing survival in the region. Ten adult shortjaw kōkopu were harvested from streams near Huia in 2019 and bred in captivity to generate approximately 1000 juveniles. In June this year, those fish were released, with Te Kawerau ā Maki performing a karakia before the start of the operation and at the first release. The populations will be monitored for several years to determine the success of their establishment.

Fish courier releasing shortjaw kōkopu into the streams.

> The water quality targeted rate provides investment for new stormwater infrastructure and initiatives to reduce wastewater, sediment and other pollutants contaminating our waterways and marine environment. The investment is dedicated to achieving cleaner harbours, beaches and streams.
>
> Programmes funded, in part or in full, by the targeted rate aim to reduce public health risks from wastewater overflows and pollutants, and to improve the ecology of our waterways. Over time, the aim is also to reduce Safeswim public health warnings at recreational beaches across Auckland.

Craig Mcilroy

General Manager Healthy Waters and Flood Resilience

Wāhanga Tuatoru: Reiti kounga wai kua āta whakaritea

Section 2: Water quality targeted rate

The water quality targeted rate provides investment for new stormwater infrastructure and initiatives to reduce wastewater, sediment and other pollutants contaminating our waterways and marine environment. The investment is dedicated to achieving cleaner harbours, beaches and streams.

Programmes funded, in part or in full, by the targeted rate aim to reduce public health risks from wastewater overflows and pollutants, and to improve the ecology of our waterways. Over time, the aim is also to reduce Safeswim public health warnings at recreational beaches across Tāmaki Makaurau. Water quality targeted rate programmes include:

- Waitematā Harbour water quality improvement: to reduce wet weather overflows into the Waitematā Harbour and minimise stormwater entering the wastewater network.
- Safe Septic: a regional compliance system that ensures property owners with onsite wastewater units provide regular documentation that their systems have been inspected and are in good working condition.
- Safe Networks: conducts monitoring and investigations in our streams, watercourses and stormwater network to identify contaminants and track them to their source.
- Contaminant reduction: reduces litter, sediment and road pollutants from entering our waterways.
- Urban and rural stream rehabilitation: aims to improve the ecological health of waterways.
- Southern catchments: will reduce contaminants entering Manukau Harbour.

Building major infrastructure to reduce public health risk

Hōtaka: Ngā pikinga kounga wai i te kūitinga ki te uru

Programme: Waitematā Harbour water quality improvement

This programme aims to reduce wet weather overflows into the Waitematā Harbour and minimise stormwater intrusion into the wastewater network.

Waitematā Harbour water quality improvement is a joint initiative between council's Healthy Waters and Flood Resilience department and Watercare aimed reducing wet weather overflows into the Waitematā Harbour and minimising stormwater entering into the wastewater network.

The programme involves substantial improvements to both stormwater and wastewater infrastructure, unfolding over a 13-year period. This initiative is carried out in close partnership with Watercare and aims to minimise the frequency and volume of wastewater overflows into Waitematā Harbour. The improvements primarily entail the construction of a public stormwater network, allowing private properties to link their drainage systems to dedicated stormwater infrastructure. This will also reduce the volumes of stormwater entering the wastewater treatment plant, eliminating unnecessary treatment.

Waitematā Harbour water quality improvement is divided into two subprogrammes to facilitate managing the stormwater separation works:

- **Western Isthmus Water Quality Improvement -**

  Established in 2017, the Western Isthmus Water Quality Improvement Programme aims to enhance water quality in the Western Isthmus area, primarily focusing on reducing pollution in water bodies like Waitematā Harbour. This programme involves extensive infrastructure upgrades to both stormwater and wastewater systems over a 13-year period, in collaboration with Watercare.
- **Eastern Isthmus Water Quality Improvement -**

  The Eastern Isthmus Water Quality Improvement Programme focuses on enhancing water quality in the Eastern Isthmus area, with a primary goal of reducing pollution in water bodies such as Khyber Pass, Judges Bay, Hobson Bay, Eastern Bays and the Tamaki Estuary and surrounding areas. Like its Western counterpart, this programme involves extensive infrastructure upgrades to both stormwater and wastewater systems over a specified period.

Case study: Eastern isthmus water quality improvement

Lower Khyber Pass Separation Project is a major project in the Eastern Isthmus as part of the Waitematā Harbour Water Quality Improvement Programme (WHWQIP) and will provide separation of the existing combined stormwater and wastewater network to improve water quality in the Waitematā and Gulf Harbour, along with other flooding and growth benefits. Construction was planned to begin in autumn 2024 but was postponed to amend the design to one of the vertical drop shafts to make it smaller, due to the limited space on site. This change to the design will make construction cheaper and reduce the carbon footprint long term. The project will begin construction in early financial year 2025.

Case study: Western isthmus water quality improvement

The Western Isthmus is undergoing significant water quality improvement efforts through multiple stormwater and wastewater separation projects as part of the Waitematā Harbour Water Quality Improvement Programme (WHWQIP).

The Waterview Separation Project began construction in April 2024. This project, divided into several phases over the next 10 years, aims to improve water quality in the Waitematā Harbour and Hauraki Gulf. The initial stage marks a major milestone, while subsequent packages are in detailed design and preparing for resource consent.

Pt Chevalier Separation (stage 2) also proceeded in FY2024. Stage 2 is a part of a large stormwater separation in Pt Chevalier that aims to improve water quality at Waitematā Harbour by reducing the number of uncontrolled wastewater overflows into the harbour.

Several other major projects in the Western Isthmus are also contributing to these efforts:

- Oakley Bollard Avenue Separation Project will separate 51 properties from the combined stormwater and wastewater network, improving water quality and providing flooding and development growth benefits. Construction is set to begin in early FY 2025.
- Westmere Separation Project targets the separation of 397 properties. Design started in Q2 2024, with the project phased over several years.
- Blockhouse Bay Separation Project will separate 27 properties and is expected to commence construction in FY 2024.
- Cox's Bay Separation Project will separate 96 properties, with design having started in Q2 2024.

Smaller targeted projects, including London Street, Sutherland Rd, Parkdale Rd, and Euston Rd, aim to separate approximately 130 properties in total. Design for these projects began in Q2 2024.

Additionally, the Kingdon St Separation Project, although located in the Eastern Isthmus, is part of the WHWQIP and will separate 18 properties, with construction beginning in early FY 2024/2025.

These projects collectively aim to enhance water quality in the Waitematā Harbour by separating stormwater and wastewater networks, addressing flooding issues, and accommodating growth.

Investigating contamination at swimming and recreation spots

Hōtaka: Ngā kōtuinga āhuru
Programme: Safe Networks

Safe Networks conduct monitoring and investigations in our streams, watercourses and stormwater network to identify contaminants and track them to their source.

Funded through WQTR, Safe Networks is a joint initiative between council's Healthy Waters and Flood Resilience department and Watercare. Where water quality poses a risk to public health – as indicated by the Safeswim Programme or other prioritised sites, The Safe Networks team then conducts sampling investigations to identify sources of faecal contamination (human, avian, dog or ruminant).

There is a high risk of poor water quality at our beaches and streams, particularly:

- after heavy rain
- in areas serviced by ageing pipe infrastructure
- in areas with ageing onsite wastewater systems (private septic tanks)
- following long spells of dry weather when rainfall can carry dirty water to our beaches, including water contaminated with bird and dog faeces.

When faecal contaminants are identified as being from human sources, detailed drainage investigations are conducted to track and find how and where wastewater is getting into the stormwater network or stream so that contamination can be mitigated.

When faecal contaminants are identified as being from natural or non-human sources (for example, birds, dogs, stock), we refer the results to other Healthy Waters programmes to look at options for management and control.

Case study: Safe Networks

In FY24, the Safe Networks team conducted extensive sampling investigations across more than 40 stormwater catchments, collecting and analysing over 1500 water samples. This comprehensive effort aimed to monitor and improve water quality across the region.

Additionally, the team completed over 2000 private drainage inspections, successfully resolving nearly 200 private drainage issues. Ongoing post-resolution sampling is necessary to confirm the effectiveness of these remediation efforts. These achievements underscore our commitment to ensuring safe and effective stormwater management throughout Auckland.

Compliance of onsite wastewater systems to reduce health riskrisk

Hōtaka: Ngā pūnaha haumaru mō te parakaingaki
Programme: Safe septic

A regional compliance system ensuring property owners with onsite wastewater units provide regular documentation that their systems have been inspected and are in good working condition.

The Safe Septic programme is funded through the Water Quality Targeted Rate and focuses on onsite wastewater system compliance.

Maintenance of the region's 45,000 private onsite wastewater systems is needed to reduce the risk of faecal contaminants entering waterways and beaches. Consequently, the council has implemented a comprehensive compliance system, requiring property owners to provide maintenance records for their onsite wastewater systems.

The overarching aim of this programme is to improve our waterways (including awa / stream, beaches, and groundwater) water quality by ensuring proper maintenance of onsite wastewater systems.

To do this we:

- educate property owners about onsite wastewater systems and their environmental impact
- set up processes for monitoring and prioritising responses to system issues
- streamline communication with property owners for maintenance record requests and processing
- provide education materials to residents in sensitive and coastal areas on system maintenance.

Safe Septic

Maintenance records were received for 12,676 onsite wastewater systems, confirming that each system was inspected by a qualified professional and any identified issues were resolved. Out of the 45,000 systems across Auckland, nearly 12,000 are reported to be functioning well. This effort was carried out by a dedicated internal team.

In addition to maintenance, we provided training to 21 companies who service primary onsite wastewater systems. Developed and delivered in collaboration with Ormiston Associates and Auckland Council staff, this training aims to standardise the level of service provided to customers, while maintaining consistency and quality. A total of 57 individuals successfully completed these training sessions.

We also launched a tailored communications campaign targeting residents and property owners on Aotea / Great Barrier Island. Utilising various media, including print, radio, social media, and poster advertising across all local platforms, the campaign aimed to raise awareness about the importance of regular maintenance and promote a discounted servicing offer. Recognising the unique situation of property owners on Aotea, we developed a service discount initiative that reduces the servicing cost to $80 for a primary system and $130 for a secondary system.

Between 1 March and 30 June, 69 property owners benefited from this discount. These discounted rates are available until 30 June 2025.

These efforts demonstrate our commitment to maintaining high standards for onsite wastewater systems and supporting the community through education, awareness campaigns, and financial incentives.

Improving the ecological health of waterways

Hōtaka: Te whakaoranga o ngā awa ā-tāone, ā-taiwhenua hoki

Programme: Urban and rural stream rehabilitation

The objective of this project is to improve the ecological health of waterways.

Funded by councils Water Quality Targeted Rate, this programme aims to improve the ecological health of the awa. To achieve this, the following objectives must be met:

- enable urban development in specific areas (e.g., Omaru Creek, East Tāmaki) while maintaining ecological balance
- stabilise areas prone to high streambank erosion
- reduce sediment levels in harbours
- protect property and infrastructure from potential stream-related damage
- reduce contaminant load in natural waterways.

The programme utilises various funding mechanisms (direct management, grants, co-funding) to empower landowners and foster community involvement. By collaborating with various stakeholders, including community groups through restoration initiatives, private landowners through partnerships, and public land management through direct restoration efforts, the program aims to achieve several objectives. These include:

- reducing contamination reaching harbours
- minimising streambank erosion
- enhancing stream ecology
- upgrading environmental infrastructure.

Case study: Fonterra & Auckland Council Wetland Restoration

Fonterra and Auckland Council Wetland Restoration Project is a co-funded program between Auckland Council and Fonterra to revert land back to wetland, by fencing and planting natives in naturally wet areas. The purpose of the fund is to reduce the amount of nitrogen entering our waterways from Fonterra farmers in the Manukau Harbour and Wairoa River catchments. Round one of funding will result in 3.8 km of fencing and 63,225 native plants being established. A second round of funding will be finalised in the 2024/2025 financial year, which is estimated to include an additional 3.5 km of fencing and 71,500 native plants to be completed. Overall, this program will provide a modelled reduction of over 3,000 kg of nitrogen per year (from 8,700 kg of nitrogen) to the Manukau Harbour and Wairoa River. Once the projects are complete in mid 2026, accurate modelled numbers will be available.

Improving the ecological health of waterwayswaterways

Hōtaka: Te whakaiti tukunga tāoke
Programme: Contaminant reduction

The water contaminant reduction programme reduces litter, sediment and road pollutants from entering our waterways.

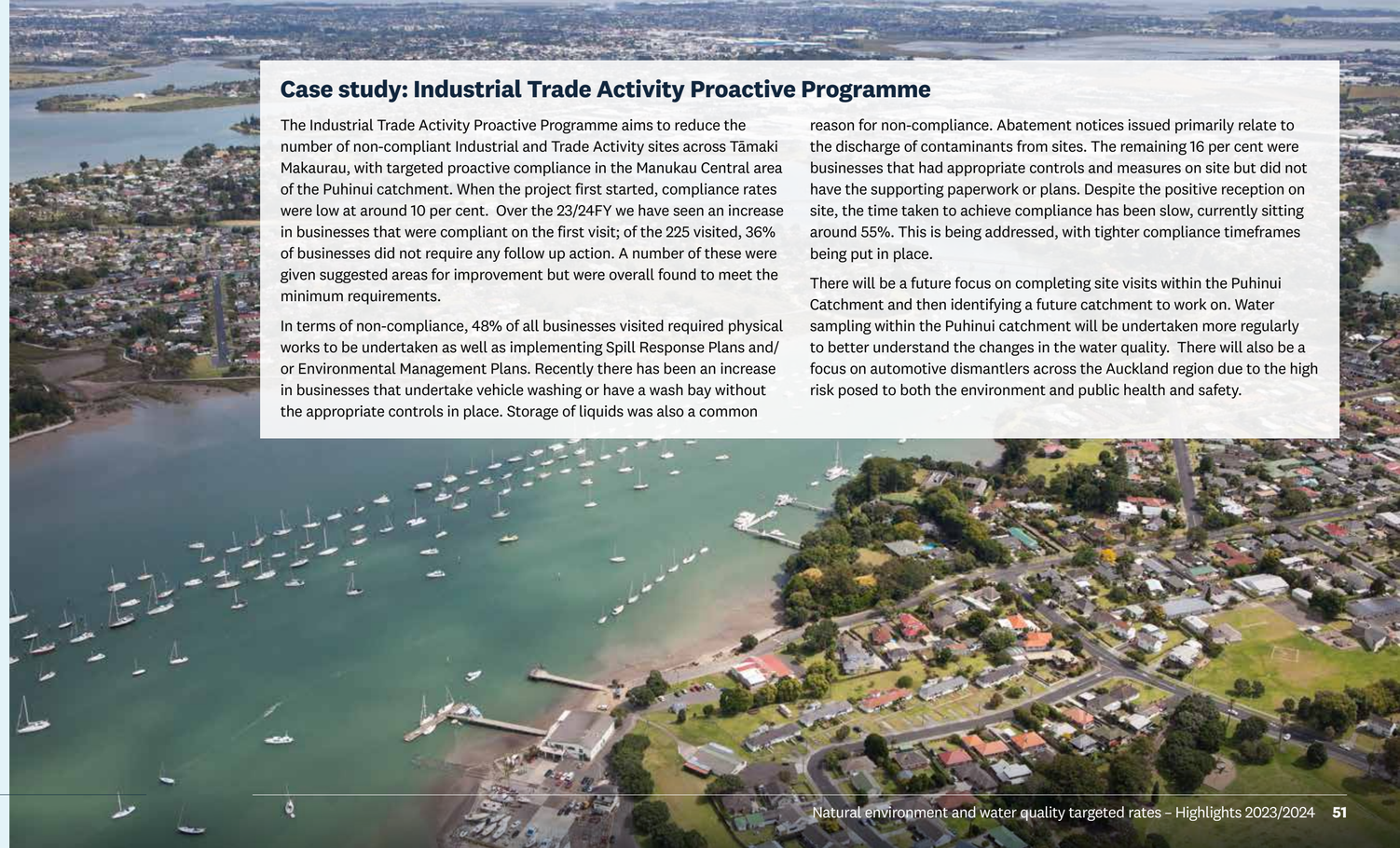
This programme, supported by funding from the Water Quality Targeted Rate, focuses on reducing contaminants from urban and rural areas that affect our waterways.

The Contaminant Reduction Programme is divided into two subprogrammes: Urban Contaminant Reduction and Rural Contaminant Reduction. This division recognises the nature of stormwater contamination differ between urban and rural areas.

- **Urban Contaminant Reduction**

  In older parts of Auckland, stormwater networks were primarily designed to convey stormwater away from urban centres as quickly as possible, with minimal consideration for stormwater quality. This programme identifies opportunities to improve water quality treatment within these existing networks.
- **Rural Contaminant Reduction**

  Sediment runoff from rural land contributes to water quality issues in the rural areas. This subprogramme supports large-scale projects that improve the health of the waterways in the rural areas.



Case study: Industrial Trade Activity Proactive Programme

The Industrial Trade Activity Proactive Programme aims to reduce the number of non-compliant Industrial and Trade Activity sites across Tāmaki Makaurau, with targeted proactive compliance in the Manukau Central area of the Puhinui catchment. When the project first started, compliance rates were low at around 10 per cent. Over the 23/24FY we have seen an increase in businesses that were compliant on the first visit; of the 225 visited, 36% of businesses did not require any follow up action. A number of these were given suggested areas for improvement but were overall found to meet the minimum requirements.

In terms of non-compliance, 48% of all businesses visited required physical works to be undertaken as well as implementing Spill Response Plans and/or Environmental Management Plans. Recently there has been an increase in businesses that undertake vehicle washing or have a wash bay without the appropriate controls in place. Storage of liquids was also a common reason for non-compliance. Abatement notices issued primarily relate to the discharge of contaminants from sites. The remaining 16 per cent were businesses that had appropriate controls and measures on site but did not have the supporting paperwork or plans. Despite the positive reception on site, the time taken to achieve compliance has been slow, currently sitting around 55%. This is being addressed, with tighter compliance timeframes being put in place.

There will be a future focus on completing site visits within the Puhinui Catchment and then identifying a future catchment to work on. Water sampling within the Puhinui catchment will be undertaken more regularly to better understand the changes in the water quality. There will also be a focus on automotive dismantlers across the Auckland region due to the high risk posed to both the environment and public health and safety.

Growth enabled water quality outcomes

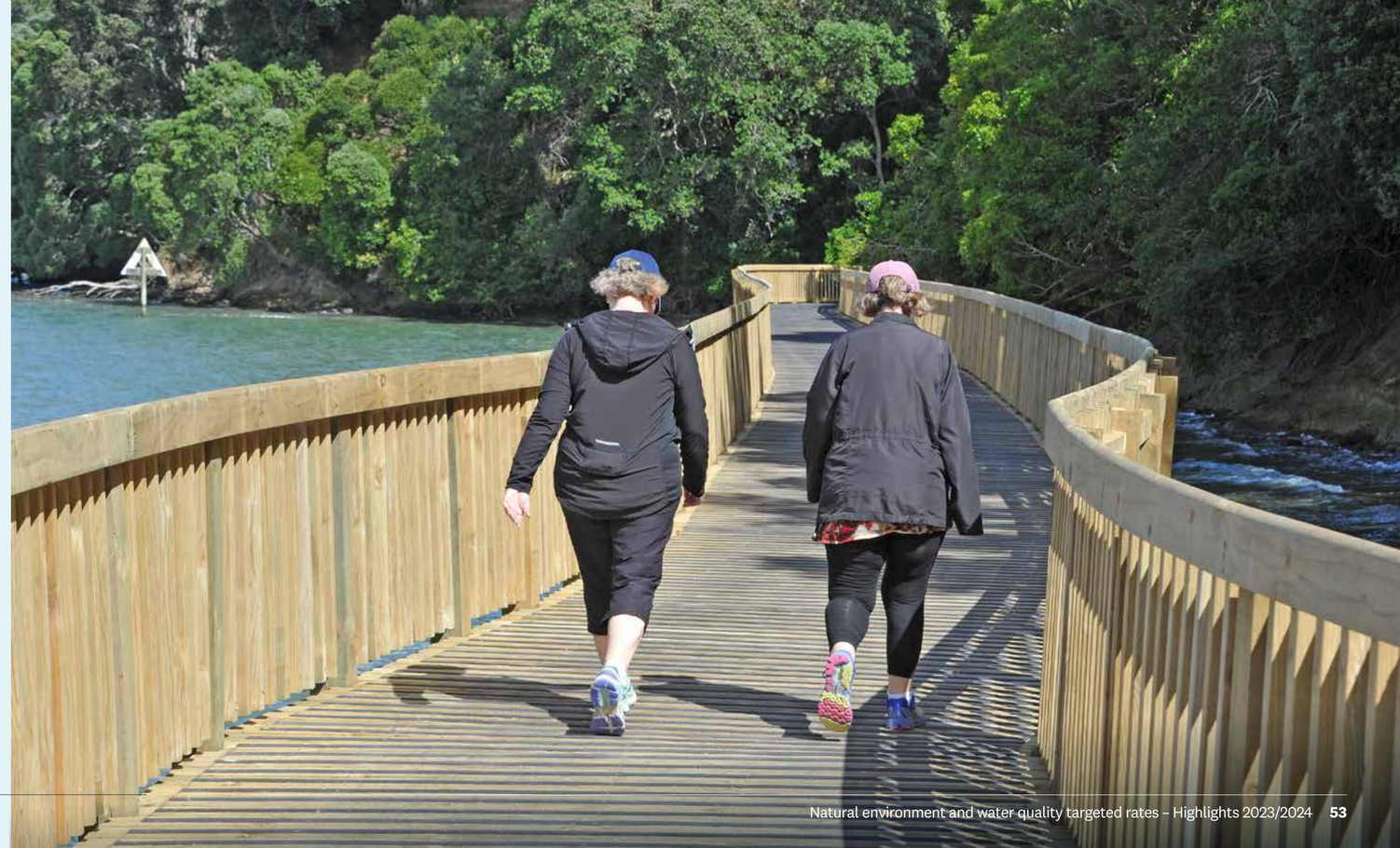
Hōtaka: Te whakahāngaitanga o ngā riu hopuwai o te tonga

Programme: Southern Catchments Alignment

Southern catchments programme aims to reduce contaminants entering Manukau Harbour.

This new programme was introduced in the council's 10-year Budget 2021-2031 to improve water quality in the Manukau Harbour by aligning the timing of stormwater improvements with other major infrastructure projects. Significant work is expected to begin from 2026. Work this year has focussed on identifying opportunities for projects where we could implement water quality improvements alongside scheduled infrastructure improvements, to minimise disruptions, maximise efficiencies and achieve better water quality outcomes.

There are several opportunities to improve water quality in the Manukau Harbour, reduce stormwater pollutants and enhance the habitat and biodiversity of the waterways. Roads and urban development are key contributors to water quality issues in the Manukau Harbour. A number of major transportation projects are planned in the next decade through southern and eastern Auckland including the South-western Gateway Transport Programme.



Te taiao taketake me ngā reiti kounga wai kua āta whakaritea – Ngā mea hirahira 2023/2024
Natural environment and water quality targeted rates – Highlights 2023/2024

Te Komiti mō te Whakarite Mahere, te Taiao, me ngā Papa Rēhia
Planning, Environment and Parks Committee

Images: All images by Auckland Council. Thanks to Communications Department and other department photographers.

ISBN 978-1-99-106004-4 (Print)
ISBN 978-1-99-106005-1 (PDF)

25-PRO-0159