Te Komiti Taiao me te Rerekētanga o te Āhuarangi
Environment and Climate Change Committee

Te taiao taketake me ngā reiti kounga wai kua āta whakaritea

Natural environment and water quality targeted rates

Ngā mea hirahira 2019/2020

Highlights 2019/2020

Rārangi kōrero
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He kōrero mai i te Heamana Taiao me te Rerekētanga o te Āhuarangi

He rongo pai ngā kaupapa kua tīmata kē mō te taiao, mō te tangata hoki. Mā te whakamohoa i ngā ara o ngā papa rēhia ā-rohe ka whai hua nui ai ngā iwi ka kuhu mai ki ō tātou pāka. Mā te wāwāhi i te para wai me ngā wai āwhā ka pai ake anō te kaukau i tātahi, i roto i te tekau tau. I raro i ngā tahua o mua, ka pau kē te 30 tau hei whakaoti i ngā kaupapa nei.

Kei te whakaihihi au ki te kōkuhu i tēnei pūrongo ka whakaatu i te anganga whakamua a Te Kaunihera o Tāmaki Makaurau ki te haumi i tō tātou taiao māori me ngā arawai i te tau 2019/2020.

I whakaae e te tahua 10-tau (Pipiri 2018) a Te Kaunihera o Tāmaki Makaurau he $311 miriona mō te whāinga reiti taiao māori kua āta whakaritea, mō te mahi a te kaunihera me te hapori ki te whakahaumaru, te whakaora hoki i ngā pūnaha rauropi māori me ngā momo noho mōrearea. He $452 miriona anō mō te reiti kounga wai kua āta whakaritea mō ngā kaupapa whakahaere wai hou, mō te horoi takutai, whanga, arawai hoki.

Kua kōrero mai ā mātou kaimahi i roto whakawhitiwhitinga kōrero, rangahau hoki he aronga matua tēnei mahi. Me mahi tātou i nāianei ki te whakahaumaru, whakaora hoki i ā tātou taonga tuku iho māori mō ngā uri kei te heke mai.

Ka whakaatu mai te rīpoata, i tutuki i a mātou te nuinga o ngā āheinga mō te tau 2019/2020.

I whakapiki ake mātou i tā mātou hōtaka mahi ki te patu tupu me te kīrehe orotā, pērā i te paihamu, te tia me te poaka puihi. I whakaterehia tā mātou hōtaka whakamohoa ara hei pēhi i te horanga urutā patu kauri. I whakamanahia e mātou tā mātou ārai huna – ā mātou kaimahi papa atawhai ā hapori. He pai hoki te pikinga i te tau tuarua o tā mātou hōtaka 10-tau ki te whakahaere kaupapa kounga wai hei ārai i te para wai, te para whenua me ētahi atu para kino e paihana ana i ō tātou ara wai. Mō tēnei, e hiahia ana au ki te mihi ki a Watercare e haumi $412 miriona ana mō ngā whakapaipai, mai i ā rātou moni utu para wai.

I roto i te tau kī i te wero nui rawa, i tū ngā mahi i te Rāhui Pae 4 Kōwhiti-19, engari i tīmata anō te nuinga i te Pae 3. Kei te tino hiahia au ki te mihi ki te manawaroa o ō tātou tīma me te huhua o ngā tāngata o Tāmaki Makaurau i whai wāhi i raro i ēnei āhuatanga tino rerekē rawa atu.

Ka mihi au ki te mana whenua i mahi i te taumata rangatira i ō rātou rohe hei kaitiaki, hei rangatira o ō rātou whenua tūpuna, hei hoa tūhono hoki. Ka mihi au ki ō tātou hapori e mahi ana i ngā mahi papa atawhai ā-rohe, ā-horanuku hoki. He wāhanga tūturu ngā mahi a te poari ā-rohe me te hapori ki tōna angitūtanga. Ka mihi anō hoki au ki ngā pakihi, ngā kura, ngā umanga me ngā kaitūao i mahi i tō mātou taha. Mā tō tātou mahitahi anake e tutuki ai ēnei mahi.

Message from the Environment and Climate Change Committee Chair

I am excited to introduce this report on the excellent progress Auckland Council has made investing in our natural environment and waterways in 2019/2020.

Auckland Council's 10-year budget (June 2018) approved $311 million for a natural environment targeted rate, for council and community-led action to protect and restore priority native ecosystems and threatened species. Another $452 million was committed to the water quality targeted rate for new water infrastructure to clean up our beaches, harbours and waterways.

Our people have told us in formal consultation and in surveys that this work is a priority. We need to act now to protect and restore our natural heritage for future generations.

This report shows we made the very most of our opportunities in 2019/2020.

We upscaled our work programme to control pest plants and pest animals, including possums, deer and feral pigs. Our track upgrade programme to reduce the risk of spread of kauri dieback was accelerated. We empowered our secret weapon – our community conservationists. Great progress was also made in year two of our 10-year programme to deliver water quality projects that will prevent wastewater, sediment and other pollutants contaminating our waterways. For this, I want to acknowledge Watercare, who are investing $412 million in improvements, funded through wastewater charges.

The projects underway are good news for the environment, and for people. Upgrading tracks in local and regional parks greatly benefits recreational users of our parks. Separating wastewater and stormwater will make popular urban beaches more swimmable within 10 years. Under previous budgets, these projects would have taken 30 years to complete.

In a year of unprecedented challenges, physical works stopped in COVID-19 Alert Level 4, but most resumed in Level 3. I really want to acknowledge the resilience of our dedicated teams and the many Aucklanders that played their part in delivery in unusual circumstances.

I acknowledge mana whenua, working in their rohe and at an executive level, as kaitiaki, rangatira of their ancestral lands, and as partners. I acknowledge our communities working in local and landscape-scale conservation work. Local board and community-led efforts are absolutely integral to success. I thank the many businesses, schools, agencies and volunteers working alongside us. Only by working together can we get this work done.

Richard Hills
Environment and Climate Change Committee Chair

Reiti taiao taketake kua āta whakaritea
Natural environment targeted rate

Plant pathogens

49km of **tracks made kauri safe** in the Waitākere and Hūnua ranges and other regional parks

11km of **tracks completed** in local parks

55% (43/78) of all planned **hygiene stations installed** or nearing completion.

85% of all **track upgrades** in the 2019/2020 work programme **completed**

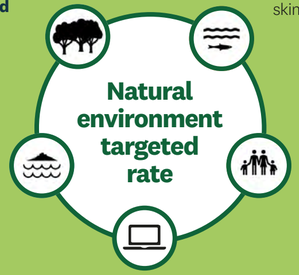
Islands and marine

1500+ traps set for the **stoat eradication** programme on Waiheke

256 landowner permissions obtained from Waiheke residents to place the **stoat traps** on their land

11 pest detection dogs are working to **target pest species** - Argentine ants, plague skinks, rodents and mustelids (stoats)

2 dogs are in training for **kauri dieback detection**



Mainland

1,770 ha in regional parks where **pest plant control** occurred

88,000 ha of **pest animal control** delivered across the region

18 sites where biocontrol agents were released to **manage pest plants**

4,689 volunteer hours donated by The Forest Bridge Trust members to restore and protect native habitat from Kaipara Harbour to the Pacific Ocean

80+ local parks and 'buffer' zones prioritised for **expanded pest plant and animal control**

Enabling tools

500+ links out to **external conservation resources** from the Tiaki Tāmaki Makaurau website.

Expanding community action

$1.63 million in total provided to support **219 community initiatives**, including:

$440,000 top up for the **Regional Environment and Natural Heritage fund**

$775,000 awarded to 45 successful applicants through the **Community Coordination and Facilitation Grant** (including **$150,000** from the water quality targeted rate)

$425,000 value of supplies for **139** groups, for **pest animal and weed control, monitoring and equipment**

Reiti kounga wai kua āta whakaritea
Water quality targeted rate

Western isthmus water quality improvement

1.8 km of **major pipes** have been constructed, servicing **3,000+ properties**. This will contribute significantly to reducing overflows in the inner city harbour

Safe Networks

Screened 108 stormwater outlets across **16 beaches**

15km of **stormwater and wastewater networks inspected** to help make beaches more swimmable

1537 properties were visited to inspect private drainage

Contaminant reduction

5000+ site visits were made to protect our waterways from harmful sediment from construction sites

342 fines have been issued to people not meeting their sediment control requirements

Urban and rural stream rehabilitation

$420,000 awarded to community groups via the Community Coordination and Facilitation grant and Waterways Protection Fund. These grants support riparian planting

Onsite wastewater system compliance

Since the beginning of the programme, **1000+ properties** in Waitākere Ranges and Waiheke have been **investigated for compliance**. Over 95 per cent of these are now properly maintained

Ngā reiti kua āta whakaritea mā tō tātou rohe

Targeted rates working for our region

Water quality targeted rate programmes

Urban and rural stream rehabilitation

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

Safe Networks

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

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.

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.

Onsite wastewater system compliance

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

Natural environment targeted rate programmes

Plant pathogens

We're investing to reduce the risk of spread of plant pathogens threatening native species, in particular kauri dieback.

Mainland

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

Enabling tools

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

Expanding community action

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

Islands and marine (natural environment targeted rate)

Managing and reducing marine pests and pest plants and animals on islands to protect native species and ecosystems. Research into marine habitats and seabirds so we can better protect them.

We are investing to turn the tide on decline in the natural environment.

> “The natural environment targeted rate has allowed us to “super-charge” our efforts to control the pest animal and plant species that are decimating Tāmaki Makaurau’s native ecosystems and species. The stakes are high. Across New Zealand more than 4,000 species are at risk of extinction and many have already disappeared. We are as dependent on nature as nature is on us. Our work to restore ecosystem function and health is fundamental to the future wellbeing of Aucklanders.”
>
> Gael Ogilvie, General Manager Environmental Services

Wāhanga Tuatahi: Reiti taiao taketake kua āta whakaritea

Section 1: Natural environment targeted rate

The natural environment targeted rate provides a four-fold additional investment over 10 years, along with ‘business as usual’ funding from general rates, to help protect our natural environment.

This funding enables us to:

- Significantly increase weed and pest animal control in and around local and regional parks, and where important habitats occur on private land, to enable indigenous species to thrive
- Reduce the spread of kauri dieback disease and other plant pathogens
- Provide greater protection for ecosystems and species in the islands and marine and freshwater environments
- Develop better systems and support to empower community conservation. Significant gains have been made against these priorities and are outlined in this report.

In year two, the council’s largest natural environment work programmes have focused on kauri dieback management, protecting our parks and expanding community action. Significant projects have also been delivered to protect our regional, island and marine biosecurity. The team has worked closely with mana whenua in forums, workshops and direct discussions to ensure projects are developed and implemented in the spirit of partnership, and that they align with and integrate Māori outcomes.

Natural environment projects are being delivered alongside water quality projects to make the most of opportunities to collaborate, particularly in working with mana whenua partners, and communities.

Fighting kauri dieback and other pathogens

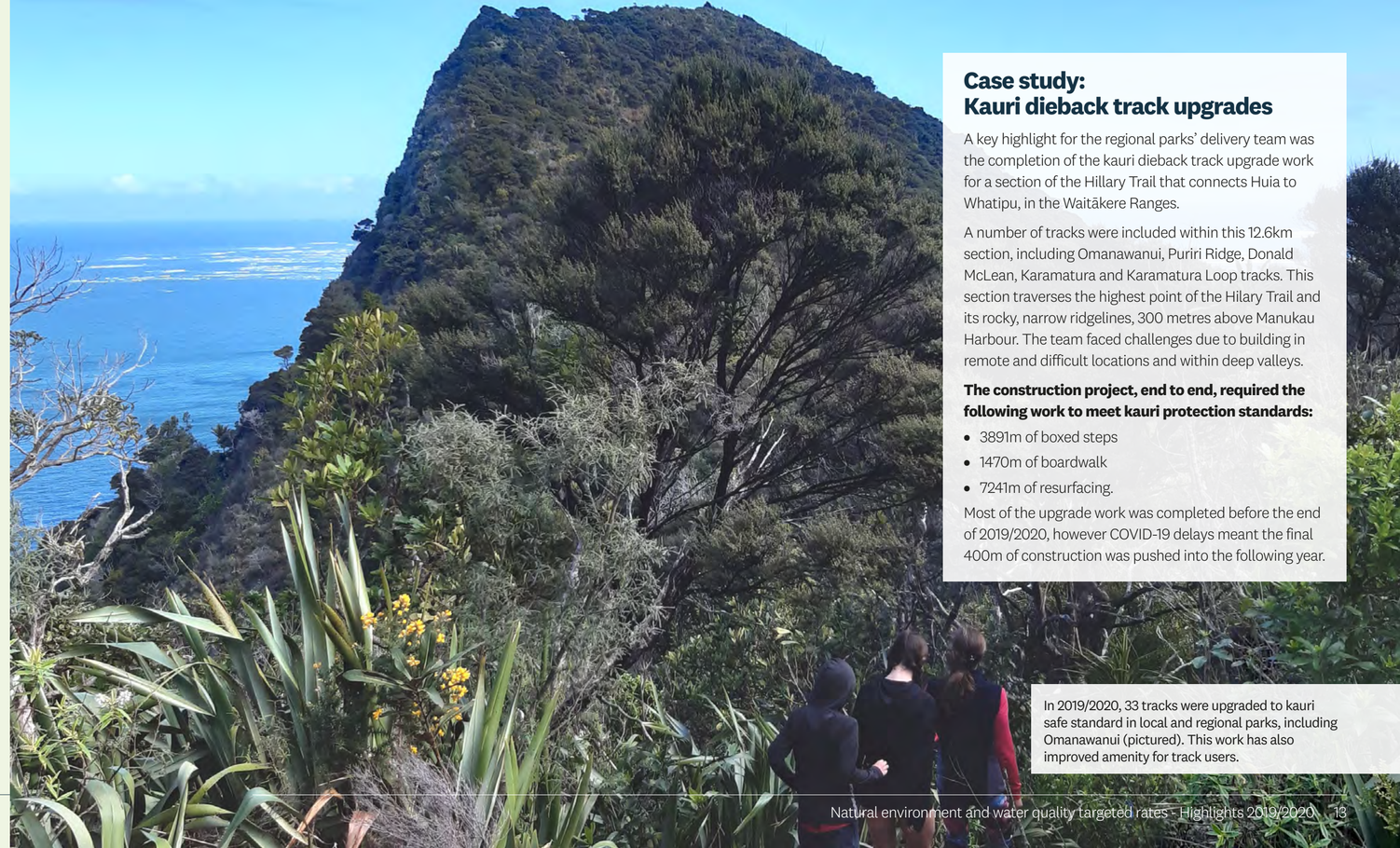
Hōtaka: Ngā iro kitakita ā-otaota
Programme: Plant pathogens

The fight against kauri dieback disease made significant progress, with the track upgrade programme continuing across Auckland Council parks.

The programme aims to prevent disease spread by upgrading tracks to a kauri-safe standard, so they can be re-opened. This includes regional park tracks in Āwhitu, Hauraki Gulf Islands, Hūnua Ranges, northern regional parks and Waitākere Ranges. Mitigation works are also underway in local parks in Franklin, Henderson-Massey, Hibiscus and Bays, Howick, Kaipātiki, Ōrākei, Papakura, Rodney, Upper Harbour, Waiheke and Waitākere Ranges local board areas.

Since July 2019, natural environment targeted rate investment enabled nearly 47 kilometres of tracks to be upgraded, with 17 local and 16 regional tracks completed.

Biodiversity ambassadors were stationed at entrances to parks with kauri forest and ferry departure points over summer. Their role was to help educate the public on how they can take responsibility to reduce the spread of pests and pathogens.



Case study: Kauri dieback track upgrades

A key highlight for the regional parks' delivery team was the completion of the kauri dieback track upgrade work for a section of the Hillary Trail that connects Huia to Whatipu, in the Waitākere Ranges.

A number of tracks were included within this 12.6km section, including Omanawanui, Puriri Ridge, Donald McLean, Karamatura and Karamatura Loop tracks. This section traverses the highest point of the Hilary Trail and its rocky, narrow ridgelines, 300 metres above Manukau Harbour. The team faced challenges due to building in remote and difficult locations and within deep valleys.

The construction project, end to end, required the following work to meet kauri protection standards:

- 3891m of boxed steps
- 1470m of boardwalk
- 7241m of resurfacing.

Most of the upgrade work was completed before the end of 2019/2020, however COVID-19 delays meant the final 400m of construction was pushed into the following year.

In 2019/2020, 33 tracks were upgraded to kauri safe standard in local and regional parks, including Omanawanui (pictured). This work has also improved amenity for track users.

Pest control happening on the mainland

Hōtaka: Te tuawhenua
Programme: Mainland

With the help of the natural environment targeted rate, we have significantly increased control of priority pest plants and animals in priority ecosystems in and around Auckland's regional and local parks.

Highlights from this year included:

- Planned regional parks weed control delivery came close to completion, despite delays during COVID-19 Alert Level 4. This initiative is to significantly increase control of pest plants such as climbing asparagus and moth plant.
- Low incidence pest plant control was fully delivered, as planned. This programme is for pest plants that occur in low numbers and can therefore be targeted for eradication.
- We exceeded the planned number of biocontrol releases for pest plant control. Biocontrol is a method for controlling pests using agents such as insects or pathogens and are an alternative to herbicides.
- We maintained delivery of possum, feral pig and rat control in Waitākere Ranges Regional Park. These pests are destructive in the forest.
- We maintained feral deer, goat and possum control to protect the Waitākere and Hūnua regional parkland and private land surrounding the parkland.

- Pest animal control undertaken in the north of the region included possum control at Dome Valley and feral goat surveillance work in the lower part of Rodney, from Whangaparaoa Peninsula across to Helensville.
- Lake monitoring was undertaken at Rototoa and Tomarata in preparation for pest fish and aquatic pest plant control. See the case study (right).
- Feral deer release response work occurred in Leigh/Tamahanga area.

We are monitoring pest fish to help protect native biodiversity and water quality in freshwater lakes such as Lake Rototoa.

Case study: Lake Rototoa pest fish targeted

Receivers on the floor of Lake Rototoa are keeping tabs on pest fish in the lake – and the natural environment targeted rate has funded the technology.

Lake Rototoa is a jewel in the crown of the South Kaipara dune lakes. It's known for its clear water and native vegetation, including submerged native plants down to 11m. However, the depth to which these native plants are growing is declining. Their decline is largely due to the presence of pest fish and their impact on water clarity. Perch and tench are the pest species on the radar for the monitoring project. Forty-eight perch and 10 tench have been caught, tagged and released to be monitored for a year, in a collaboration between Auckland Council, the University of Waikato and NIWA. "We will record where the fish are during spawning season, where they are feeding, when and where they are congregating. We can then build a picture of their behaviour to allow us to target fish more effectively and inform management techniques," says Senior Biodiversity Advisor Belinda Studholme.

"Catching and removing adults of these species is not enough to eradicate them, as one adult can produce thousands of eggs. You need to target more than one part of the lifecycle – including the eggs. This project will give us the knowledge to be able to do that."

Protecting our island and marine environment

Hōtaka: Ngā motu me ngā moana
Programme: Islands and marine

To protect our island and marine ecosystems, we need to prevent new pests getting to our islands and to manage those that are already present. We need to prevent the spread of marine pests. And, we need to improve our understanding of marine habitats and seabirds so we can provide better protection for them.

Island biosecurity:

We are reducing the risk of plant and animal pests and kauri dieback being transported to the Hauraki Gulf islands by the public and commercial operators. Activity included (replace hyphens with bulletpoints):

- Biosecurity champions provided education to ferry passengers during the summer on reducing the risk of spreading pests and pathogens to the Hauraki Gulf islands.
- Biosecurity dogs specialising in detecting pest animals were situated at vehicle ferry departure points for the Hauraki Gulf islands.
- Targeted rate investment enabled us to increase rhamnus control on Rākino, leaving just two properties still requiring control.
- A programme is underway to eradicate pigs from Waiheke.
- We have partnered with a community trust, Te Korowai o Waiheke, and Predator Free 2050 to eradicate stoats from Waiheke. See case study (right).
- Rabbit control was undertaken at Whakanewha Regional Park.
- An incursion response for a stoat on pest free Motukōrea/ Browns Island ran from March until June 2020. The stoat is no longer on the island.
- Argentine and Darwin's ants control programmes on Aotea / Great Barrier have been accelerated with targeted rates funding. Two of 11 known sites have now been eradicated.
- Nationally threatened plant species, *Lepidium oleraceum,* has increased in number on islands off Aotea / Great Barrier.
- Early detection devices for pest animals were put in place at wharves and airports at Aotea / Great Barrier.

Case study: Waiheke stoat eradication

Waiheke residents have taken their first steps on their journey to becoming predator free this year.

More than 1500 traps were set across the entire island in a bid to eradicate stoats and help protect and restore the native wildlife.

The stoat eradication is driven by community-led charity Te Korowai o Waiheke, established by the Waiheke Collective and funded by Auckland Council, Predator Free 2050, and Foundation North. The name Te Korowai draws on the idea of a cloak being woven with many community threads.

Project Director Mary Frankham says "people might think, are stoats really a big problem? But they are destructive, highly efficient predators."

The goal is to eradicate stoats on the island by 2022.

Trapping the stoats is a specialised and physical job to take on. Waiheke was fortunate to have a number of experienced stoat trappers living on the island.

The organisation also employed local staff and contractors and used local suppliers. Volunteers helped out with setting up traps.

Te Korowai had to get permission from 256 landowners to get the traps operational.

"Residents are passionate about contributing to conservation on the island. Getting rid of stoats will also help protect nearby islands in the Hauraki Gulf that are already free of predators."

Pictured: Nicola Bowman, a Te Korowai o Waiheke trustee and contractor helping eradicate stoats to protect native biodiversity on Waiheke and neighbouring islands in the Hauraki Gulf.

Protecting our island and marine environment

Marine biosecurity:

We are engaging stakeholders and waterbody users, developing policy, regulatory and implementation tools, and undertaking surveillance to manage the pathways by which marine pests spread. Activity included:

- A ‘top of the north’ marine biosecurity partnership working group was formed and worked through options analysis. Staff are now developing a formal proposal for a regional marine pest pathway plan.
- The Aotea / Great Barrier fanworm incursion response continued as did high-risk site surveillance. The last round of dive surveillance was in December 2019.

Marine ecology:

This programme aims to increase protection of marine habitats and seabird populations. Activity in the financial year included:

- A spotted shag tracking study commenced on Tarahiki Island in collaboration with Auckland Museum.
- The first comprehensive survey of Fanal Island provided an estimate of burrow density on the island. Automatic acoustic recorders were also deployed to identify breeding species.
- We established a long term monitoring of breeding and breeding success of different seabird species, including white-faced storm petrels, black-winged petrels and pied and little shags across the whole region.
- We collaborated with the Black Petrel Working Group on monitoring and conservation of this threatened endemic species.
- We have arrangements to share data and mapping with Land Information New Zealand (LINZ), Department of Conservation and Waikato Regional Council.

Auckland is considered a global hotspot for seabirds. Natural environment targeted rate funding is helping us monitor seabird species breeding in the Hauraki Gulf, like the endemic black petrel, pictured in foreground. Behind the petrel is a Buller’s shearwater.

Working with Auckland's conservation communities

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

The natural environment targeted rate has significantly increased support for community-led action to protect and restore local ecosystems and threatened species. Highlights from the programme are below.

Building ecological corridors

The Eastern Songbird and Southern Wildlink community networks led investigations into landscape revegetation options to expand and connect native habitat where native biodiversity can thrive.

Our partnership with Trees for Survival grew to include six new schools, with a total of 90 schools now growing and planting natives through the programme.

In addition, 15 community nurseries took part in learning workshops to build community capability to grow native plants.

Grant support for community-led action

The Community Coordination and Facilitation Grant pilot completed its second year, to increase capacity and delivery of community conservation groups. The fund awarded $775,000 to 45 groups, including $150,000 from the water quality targeted rate for water quality outcomes. The Regional Environment and Natural Heritage Grant received a top up of $440,000 for 33 projects that will achieve biodiversity outcomes across the region. In addition, 139 groups received more than $425,000 of supplies for pest animal and weed control, monitoring and other equipment.

Growing conservation capability and knowledge

More than 100 volunteers were trained to trap and control pest animals through community group workshops.

Toimata Foundation (Enviroschools) supported 15 school-led ecological restoration and conservation projects.

Managing priority biodiversity sites on private land

A landowner engagement trial provided advice and funding support for landowners to take action to protect and enhance priority sites of biodiversity on private land. The council supported 22 landowners with ecological management advice and 12 landowners with $231,000 for fencing, native planting, pest plant and animal control and monitoring.

Natural environment targeted rate funding is helping to boost community-led conservation.

Case study: Pest Free Coatesville

Pest Free Coatesville is a new community powered conservation initiative to rid the Coatesville area of around 3,600 hectares of animal pests.

Their vision is to protect, restore and connect the Coatesville landscape so native species including North Island brown kiwi can flourish.

This project team has worked on a strategy for protecting and restoring priority ecosystems and species. They will coordinate volunteer conservation efforts across the landscape contributing to the North-West Wildlink.

Before lockdown this group held an interest evening where approximately 50 landowners signed up. Around 40 new volunteers also joined during this time.

A council conservation advisor has helped the group to develop a strategy to secure funding.

A Pest Free Coatesville gathering.

Working with Auckland's conservation communities

Hōtaka: Ngā āhuatanga e āhei ai te mahi
Programme: Enabling tools

This year the enabling tools programme has delivered:

- In-house council software has been developed to enable 200 staff working with community conservation groups to collaborate across departments.
- Development of website Tiaki Tāmaki Makaurau – Conservation Auckland. This external website is designed to ensure caring for Auckland's natural environment is made easy with all the community conservation information in one central location. Events, resources, and links to supporting websites are relevant, up-to-date and practical. Self-service options provided within the website allow for better allocation of resources and staff time. (Currently Environmental Services staff spend on average 28% of their time servicing requests for resources, information and services.)
- Continued development of a centralised place to store, view, manage, and analyse Auckland conservation data. This information system integrates field biosecurity and ecological data collection with mapping, data connectivity and dashboarding to allow accurate reporting on operational conservation activity across the region. Due for delivery October 2020.
- Integration of regional restoration tree planting data across council. This allows us to build a picture of tree planting initiatives in Auckland to both measure growth and plan for future planting areas.

Pictured, pages from the new community conservation portal.

Case study: Tiaki Tāmaki Makaurau – Conservation Auckland

The new website Tiaki Tāmaki Makaurau – Conservation Auckland makes caring for Auckland's natural environment easy – everything in one central location. It allows for greater awareness of conservation values and threats, encouraging all Aucklanders to get involved in conservation. Events, resources, and links to supporting websites are relevant, up-to-date and practical. The website answers a customer need and promotes cost effective digital self-service. All areas of council and external agencies are encouraged to refer their customers to it.

Early and ongoing engagement with mana whenua has been a part of the development process with Māori outcomes a priority for the website.

TiakiTamakiMakaurau.nz or **ConservationAuckland.nz**

Enquiries and feedback: **tiaki@aucklandcouncil.govt.nz**

We are investing in our beaches, harbours and streams to improve water quality.

> “Our water quality targeted rate work programme stepped up a gear this year, as we moved from planning to physical works for our first four major infrastructure projects, at Daldy Street, Freemans Bay, Ōkahu Bay and St Marys Bay. These are the first in a series of separation and water quality projects to clean up our urban beaches, so it was exciting to get on site. We made substantial progress in our overall programme, and we’re off to a great start to provide the quality of water infrastructure Aucklanders expect.”
>
> - Craig Mcilroy, General Manager Healthy Waters

Wāhanga Tuatoru: Reiti kounga wai kua āta whakaritea

Section 2: Water quality targeted rate

The water quality targeted rate provides increased investment over 10 years for projects that will implement cleaner harbours, beaches and streams. To speed up the delivery of these water quality improvement projects, Watercare water and wastewater charges have also contributed to the programme.

Our key priorities are to reduce public health risks from wastewater overflows and to improve the health of our waterways.

Over time, the targeted rate work programmes will also reduce Safeswim non-compliance public health warnings at our recreational beaches across urban Auckland.

These outcomes are being achieved through five key work programmes:

- **Western isthmus water quality improvement:** To upgrade stormwater and wastewater networks in the western isthmus to reduce wastewater overflows into the Waitematā Harbour.
- **Contaminant reduction:** To reduce the amount of litter, sediment and road pollutants entering waterways.
- **Urban and rural stream rehabilitation:** To improve the ecological health of streams.
- **Onsite wastewater system compliance:** Introducing a proactive regional septic tank compliance monitoring.
- **Safe Networks:** To investigate and eliminate sources of harmful overflows at our popular swimming beaches.

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

Programme: Western isthmus water quality improvement

The lion's share of water quality targeted rate funding ($361.6 million over 10 years) is for a major infrastructure programme that will significantly reduce wastewater overflows into the Waitematā Harbour and reduce stormwater entering the wastewater network.

The project will remove the permanent closure of Meola Reef and Cox's Bay and reduce other intermittent beach closures in this area over the next 10 years.

The programme is being led by Watercare and Auckland Council's Healthy Waters team. Watercare's investment supports their annual targets for fewer wastewater overflows, as well as lower volumes, and complements their Central Interceptor programme – a 13 km pipeline costing $1.2 billion expected to be complete in 2025.

The work also contributes to the Unitary Plan's objectives of improving the health of receiving environments, and the Safeswim and Safe Networks programme goals to reduce public health risk.

Case study: Daldy Street outfall diversion

The first piece of major infrastructure to be water quality targeted rate funded is the Daldy Street outfall diversion, which commenced in July 2019. The project complements the Freemans Bay stormwater network separation to improve water quality in the Wynyard Basin and Waitematā Harbour.

The stormwater outfall has been relocated from underneath the south-eastern corner of Wynyard Wharf, near the Sea Link terminal, to the end of Wynyard Wharf. The new 3.2 metre diameter pipeline to divert overflows was installed in July 2020. During rain events, a mixture of stormwater and untreated wastewater overflows from the Freemans Bay catchment into the Wynyard Basin, causing pollution and odour. This affects the marine environment and poses a risk to public health. The relocation of the outfall is one part of a series of separation and water quality projects in the Western Isthmus that will significantly reduce combined stormwater and wastewater overflows. The new outfall at the end of the wharf will ensure that any overflows that do occur are dispersed by the tide in up to eight metres of sea water. Previously, the combined stormwater and wastewater flowed into one metre of slow-moving marina water. The pipeline will end at the intertidal zone and can be seen at low tide.

Case study: Freemans Bay stormwater network separation project

Work to separate the combined stormwater and wastewater network in Freemans Bay is well underway and is expected to finish in autumn 2021. The Freemans Bay stormwater network separation project will improve the water quality in the Waitematā Harbour by reducing the frequency of wet weather sewage overflows from 40 to 12 times a year.

Tunnelling under Picton Street for the new stormwater pipeline has been underway. Currently, further tunnelling on Wellington Street, Hepburn Street and Anglesea Street has also commenced. Private drainage of properties in the area will then be connected to the new public stormwater system.

Further success to come from the Western isthmus water quality improvement programme will be when Watercare's Central Interceptor wastewater tunnel is completed in 2025. Once the tunnel is operational, the frequency of overflows in the Waitematā Harbour will reduce to between four and six times per year.

Case study: St Marys Bay area water quality improvement project

The St Marys Bay area water quality improvement project will transform the bay into a more swimmable beach by reducing wet weather sewage overflows from 100 to 20 per year.

The project involves installing a new pipeline to collect, screen and discharge well away from the shore through a new marine outfall in the Waitematā Harbour. Construction on the 2km pipeline has begun and is expected to be completed in mid-2021.

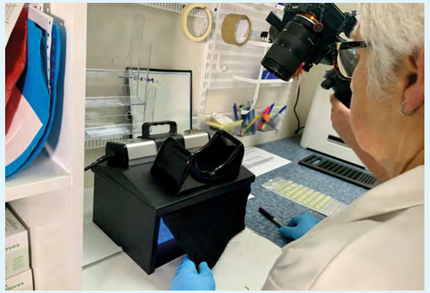
This work is a precursor for the St Marys Bay network separation, a joint initiative between Healthy Waters and Watercare, to reduce overflows to between two and six per year. When complete, St Marys Bay and Masefield beach water quality will see improvements for swimming and recreation.

We are building major infrastructure to reduce wastewater overflows into the Waitematā Harbour.

Investigating contamination at swimming and recreation spots

Hōtaka: Ngā kōtuinga āhuru
Programme: Safe Networks

The Safe Networks programme investigates and fixes network issues that contribute to poor water quality, which can pose a risk to public health at Safeswim beaches. Where contaminants are found, indicating there is a presence of wastewater, the team will investigate, track and monitor discharges to their point of origin and eliminate the discharge if possible, or develop solutions if problems are more complex. Investigation methods include water quality sampling, CCTV, smoke testing and dye testing.



This year the team screened 108 stormwater outlets across 16 beaches and commenced a further eight network screening investigations. Private property investigations were conducted at 1537 properties, to inspect drainage. Drainage issues were referred to the compliance team to work with property owners. Of these, 43 issues were resolved, six abatement notices were issued and 14 permanent notes were added to property files to identify any outstanding issues. In total, about 15km of public stormwater and wastewater networks were inspected.

We're investigating issues with our water networks and identifying solutions to make popular Safeswim sites healthier for swimming and recreation.

Case study: Laingholm Beach success story

In 2016, results from Safeswim's monitoring of Laingholm Beach identified the water quality to be a risk to public health. Samples collected showed declining water quality over time, and there were traces of human, avian and canine faecal contamination. These issues determined that a permanent public health warning was placed on the beach. In 2019, the beach was investigated as part of the Safe Networks programme. Initial screening at stormwater outlets were followed by further explorations upstream to narrow down the potential source of the issue and enable targeted inspections of the appropriate part of the network. The root cause was found to be in the public network, which was then fixed by Watercare, leading to a major improvement in water quality. Subsequently, a local community group helped to collect more samples, confirming the water quality improvement. On 1 December 2019, Laingholm Beach received the green light for swimming for most of the time, particularly during dry weather.

Compliance of onsite wastewater systems to reduce health risk

Hōtaka: Te ū o ngā pūnaha parawai ā-wāhi noho

Programme: Onsite wastewater compliance

The council is developing a new regional compliance system that will require property owners with onsite wastewater systems to provide regular documentation that their systems have been inspected and are in good working condition.

Highlights to date:

- A new database has been created of over 40,000 properties with onsite wastewater systems, with data from the building consents and resource consents teams, Watercare data and complaints data.
- An online checklist has been developed for contractors inspecting onsite wastewater systems.
- Education materials have been mailed to residents in coastal areas, so they know about looking after their systems.
- Since the beginning of the programme, over 1000 properties in Waitākere Ranges and Waiheke have been investigated for compliance. Over 95 per cent of these are now properly maintained.
- Proper maintenance should reduce contamination in the lagoons and streams. Water quality monitoring has shown faecal contamination has reduced in the investigation areas
- We will continue to monitor changes in water quality across the region and work with property owners to help them look after their onsite wastewater systems.

We have introduced a new compliance programme to ensure wastewater systems are regularly inspected and maintained.

Case study: Innovative regionwide onsite wastewater system management

Staff have worked with maintenance companies to develop, test and start using a digital form to ensure there is a consistent approach to inspections of onsite wastewater systems.

The digital form is used by private maintenance companies in their dealings with customers, then provided to the council to review it and respond to any failing systems quickly. Previously we had delayed or no oversight of the condition of most onsite wastewater systems. By having one form that companies use, both council and property owners are able to easily tell whether a system is working well and what repairs may be needed. Auckland Council has received over 6000 forms since launching the platform in December 2019.

The focus now is on increasing the confidence of our current users, and getting more companies using the form, so compliance monitoring is efficient and consistent, and delivering better water quality and service to our customers.

Improving the ecological health of waterways

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

Programme: Urban and rural stream rehabilitation

This programme's key objective is to improve the ecological health of waterways. This involves reducing contaminants entering our harbours and managing streambank erosion.

Highlights to date:

- More than $400,000 has been allocated to support stream restoration projects through the Waterway Protection Fund, which is co-funded through other council budgets and matched by the property owner.
- The council is supporting the National Green Infrastructure training programme. The training is aimed at entry level personnel to effectively maintain green infrastructure.

We're investing to reduce contaminants and streambank erosion entering our waterways, and to support the work of local communities.

Case study: Bank battering at Camp Ararimu

Last year, the Waterway Protection Fund provided a grant for Camp Ararimu to undertake fencing for stock exclusion and riparian planting.

A preliminary assessment found conventional fencing and planting for this restoration work was unsuitable due to the steepness of the stream bank.

To resolve the issue, a geomorphically effective management solutions approach was trialled as an alternative to reduce erosion. This approach involved felling densely populated pine trees, battering the headland's banks to a gentle gradient and planting native plants to control erosion.

Although the project was awarded consent at the end of February 2020, construction was delayed during COVID-19 Alert Level 4 but commenced in May 2020. The work was an intense collaboration between contractors battering the stream bank and the property owners planting closely behind.

The bank battering works was completed over a few days while the planting of 11,750 erosion mitigating species on the riparian margin of the headland will be ongoing.

Hōtaka: Te whakaiti tukunga tāoke
Programme: Contaminant reduction

In rural areas, the primary focus is on reducing the amount of sediment entering the Kaipara Harbour. Approximately $15 million over ten years has been allocated to address sediment in the Kaipara, where water quality is being affected by agriculture and forestry.

In urban areas, the focus has been on the capture of gross pollutants such as litter and contaminants from heavily trafficked roads. The targeted rate helps support employment of regional enforcement officers to visit small building sites, which are a source of sediment in waterways.

Case study: Small site compliance monitoring

The small site sediment compliance programme has been set up to improve erosion and sediment controls on small building sites and reduce contaminant loads entering our streams and harbours.

The programme is in place to monitor activities in the interim between a building consent being issued and first inspection within the building consenting process, which is considered a significant risk period for erosion and sediment discharge to occur.

This is because a site will in general be stripped of natural protection from vegetation while foundations are dug for footings, further exposing stockpiles of earth. Surveys have shown that only 11 per cent of small sites had appropriate erosion and sediment controls in place during the phase of a building project.

Approximately 13,500 new builds are consented each year in Auckland, the vast majority on small sites in urban areas. In the first year of operation, our small site compliance team made more than 5000 site visits in the region to ensure good practices around site management and sediment control are in place. In this time, 342 fines were issued to people not meeting their sediment control requirements.

Te Rau Puriri wetland restoration to provide benefits to Kaipara Harbour

To restore the 13-hectare wetland at Te Rau Puriri Regional Park, the project team needed to upgrade the fencing and undertake replanting. Keeping farm animals out of the gullies and wetland helps to reduce sediment caused by bank erosion, as well as reducing stock nutrients contaminating the wetland and adjacent overland flow paths. As a planned consequence, the restoration project has also reduced these contaminants from flowing into the Kaipara Harbour, which borders the regional park. The harbour is an estuarine ecosystem, receiving water, sediment and various other elements from a catchment that extends across the Auckland and Northland regions.

The fencing upgrade commenced in November 2019 and completed March 2020. The planting stage was delayed due to COVID-19 restrictions.

Te Rau Puriri Regional Park is one of 19 regional parks incorporating farming activities – with grazing for 650 ewes and 160 Hereford cows. Previously, the wetland was used for grazing by stock, however wetlands are now seen as crucial for purifying and slowing the flow of water off the land, controlling flood water and pollutants. This project is a model for balancing effective environmental protection with sustainable business practice for farming.

The restoration of Te Rau Puriri Regional Park wetland reduces sediment and other contaminants entering Kaipara Harbour, pictured.