

Part Two: Action Plan and Rationale

9. Action plan

In order to establish healthy and resilient indigenous biodiversity within Wellington, we need to focus on certain areas. We need to protect what we have, we need to restore what is degraded, we need to research the requirements of our biodiversity and the best methods for looking after it, and we need to connect people to it.

These actions are covered under the following areas: protect, restore, connect and research.

Many of the actions will be funded through budgets developed for the relevant asset management plans and annual plans.

Other actions will be funded through alternative budget sources. This means funds will be sought from sources such as sponsorship and grants in liaison with key internal and external partners such as government agencies, educational institutes and non-government-organisations. The actions outlined in this plan will be prioritised as part of Wellington City Council's planning and budgeting processes and itemised into work programmes.

| Funding: | Priority: | Time frame for completion: |
|--|--|----------------------------|
| N = New funding required | 1 = Action essential to success of plan | Ongoing |
| E = Existing funding | 2 = Action important to the success of plan | Short (1-3 years) |
| Ex = Expansion of existing funding or reprioritisation within existing resources | 3 = Action useful to the success of the plan | Medium (3-5 years) |
| | | Long (5-10 years) |

1. PROTECT

GOAL 1.1 - Priority biodiversity sites on public and private land are protected

| Objectives | Actions | Funding | Priority | Timeframe |
|--|---|---------|----------|-----------|
| 1.1.1 Protect all areas of ecological significance on Council-owned land through active management, working with partners such as Greater Wellington Regional Council (GWRC) | a. Ensure that all ecologically significant areas on Council-owned land are vested as reserves | E | 1 | Ongoing |
| | b. When reviewing or preparing reserve management plans, ensure that biodiversity is recognised and provided for | E | 1 | Ongoing |
| | c. Create ecological management plans for all areas of ecologically significant public land, linking with local community groups, GWRC and iwi where applicable | E | 1 | Long |
| | d. Develop a master plan for Te Kopahau Reserve | E | 1 | Short |
| 1.1.2 Identify and protect all areas of ecological significance on privately owned land through District Plan protection | a. Review Conservation Sites listed in the District Plan as part of the DP review | E | 1 | Short |
| | b. Include in the District Plan mechanisms to better protect significant ecological areas on private land | E | 1 | Short |
| | c. If there is an ecologically significant site on Open Space zoned land, investigate changing that zone to Conservation | E | 3 | Medium |

Opposite: Karearea (NZ falcon) are now breeding within Wellington city. This juvenile was seen at Otari-Wilton's Bush. Capable of flying at speeds over 100 km/h, they are a bird of action. Photo: Allan Sheppard

GOAL 1.2 - Rare, threatened or locally significant species are protected

| Objectives | Actions | Funding | Priority | Timeframe |
|---|---|---------|----------|-----------|
| 1.2.1 Work with partners, including the Department of Conservation (DOC), community groups and others, to ensure that no nationally or regionally threatened or locally significant species is lost to Wellington, and ensure that genetic diversity is retained as far as possible | a. Partner with relevant organisations for the in-situ and ex-situ protection of threatened species through the development of action plans for nationally or regionally threatened and locally significant species | E | 1 | Ongoing |
| | b. Work with partners to locate and map all nationally or regionally threatened and locally significant species | E | 1 | Ongoing |
| | c. Be actively involved in the New Zealand Indigenous Flora Seed Bank by contributing knowledge, seeds and appropriate permits. | E | 3 | Ongoing |
| 1.2.2 Ensure that animal pest control is sufficient to allow for the survival of nationally or regionally threatened and locally significant species | a. Develop a set of guidelines for animal pest control methods based on the biodiversity outcomes we want to achieve | E | 1 | Short |
| | b. Establish the optimal bait station network across our reserve network and the frequency with which this network needs to be maintained | Ex | 1 | Short |
| | c. Ensure that animal pest control within a buffer zone around Zealandia is sufficient to allow for successful breeding | Ex | 1 | Short |
| | d. Establish criteria and protocols to decide which species within Wellington warrant additional protection if discovered through monitoring programme | Ex | 2 | Short |

GOAL 1.3 - Pest species are controlled to sufficient levels to protect our biodiversity, and eradicated if possible

| Objectives | Actions | Funding | Priority | Timeframe |
|--|--|-----------|----------|----------------|
| 1.3.1 Control pest animals and plants that threaten sites of ecological significance | a. Develop a revised pest management implementation plan and review the pest management programme to determine whether the size, scope, scale, intensity and duration are likely to sustain viable populations of key species (including vegetation and processes, birds, lizards, fish and invertebrates) within the Council's open space network and where possible on relevant private land | <i>E</i> | <i>1</i> | <i>Short</i> |
| | b. Carry out pest control based on priority sites in accordance with ecological significance criteria and priority threats | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | c. Support other organisations carrying out control activities that fit with Council priorities | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | d. Expand the number of hectares of ecologically significant public land under integrated pest control from 52% in 2014 to meet agreed target of 70% by 2020 and 100% by 2025 | <i>Ex</i> | <i>1</i> | <i>Long</i> |
| | e. Identify and address gaps in the possum control network | <i>N</i> | <i>2</i> | <i>Medium</i> |
| | f. Adapt the National Pest Control Agency guidelines for ethical and humane practices for animal pest control for use by Council, its contractors and volunteers | <i>E</i> | <i>3</i> | <i>Short</i> |

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| 1.3.2 Control pest animals and plants with the greatest potential to have adverse impacts on indigenous biodiversity | a. Work with GWRC to maintain a list of Wellington pest plants with the greatest potential to increase their range and pose a threat to areas of ecological significance, and prioritise their control | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Carry out pest control based on priority species with the greatest potential to have adverse impacts, across all public land | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | c. Work with other organisations (including GWRC, DOC, Predator Free NZ, Zero Invasive Predators) to ensure we are using the best methodologies for controlling pest species | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | d. Protect key lizard populations in known high priority areas - review pest control for mustelids, hedgehogs and rodents; particularly in south coast parks such as Red Rocks, Moa Point, Point Dorset, Tarakena Bay and Palmer Head | <i>Ex</i> | <i>1</i> | <i>Short</i> |
| | e. Continue sustained control of feral goats across the south-west peninsula with the ongoing aim of ultimately eradicating feral goats. Continue to seek more tools including regulatory tools to achieve eradication | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | f. Work closely with the New Zealand Transport Agency (NZTA) and OnTrack to remove significant environmental pest plants from transport corridors not owned by the Council | <i>N</i> | <i>2</i> | <i>Medium</i> |

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| 1.3.3 Increase the area of land under integrated pest control by supporting landowners, occupiers and community groups to take an active role in controlling pest plants and animals and preventing the spread of pests in the city | a. Support the capacity of new and existing community groups to engage in pest animal and pest plant control | <i>Ex</i> | <i>1</i> | <i>Short</i> |
| | b. Implement animal pest control in the areas of rural land to the south-west of Zealandia | <i>E</i> | <i>2</i> | <i>Short</i> |
| | c. Work with other stakeholders to explore the possibility of making Miramar Peninsula pest free | <i>Ex</i> | <i>3</i> | <i>Long</i> |

GOAL 1.4 - The impact of urban growth and human activity on all ecosystems and remaining habitat is managed

| Objectives | Actions | Funding | Priority | Timeframe |
|---|--|-----------|----------|----------------|
| 1.4.1 Ensure that all ecological and recreation values of open spaces are recognised in the District Plan, including for their future potential as part of a city green network, and for the ecosystem services they deliver such as health and wellbeing benefits | a. Identify all sites of ecological significance and sites that are important, or could be, for maintaining or enhancing connectivity between ecologically significant sites. | <i>E</i> | <i>1</i> | <i>Short</i> |
| | b. Initiate a review of Conservation sites in the District Plan to ensure that all the sites identified in 1.4.1.a on public land (including important buffer zones and corridors) are listed as Conservation Sites or Open Space | <i>E</i> | <i>1</i> | <i>Short</i> |
| | c. Seek to protect all the sites on private land sites identified in 1.4.1.a through a review of Conservation sites in the District Plan, voluntary agreements and /or acquisition | <i>E</i> | <i>1</i> | <i>Short</i> |
| | d. Identify areas of road reserve that could be reclassified as reserve and carry out road stopping, where those areas are not needed for roading purposes, they contain forest remnants or significant vegetation over 0.5ha in area and adjoin an existing reserve | <i>N</i> | <i>2</i> | <i>Long</i> |
| 1.4.2 Increase regulatory protection through the District Plan provisions for all sites of ecological significance (including ecological linkages) to prevent further clearance and fragmentation | a. Provide specialist ecological advice on District Plan changes and conditions on consents | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Ensure District Plan changes adequately protect biodiversity values through goals, policies and rules | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | c. Monitor regulatory effectiveness to ensure that compliance around biodiversity protection and restoration is achieved | <i>Ex</i> | <i>2</i> | <i>Ongoing</i> |

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| 1.4.3 Reduce impacts of urban development and land-use on aquatic ecosystems | a. Assist Wellington Water and stakeholders to complete Integrated Catchment Management Plans for Wellington's eight catchments: Lambton Harbour/Oriental Bay, Evans Bay, Island Bay/Houghton Bay, Lyall Bay, South-east Coast, Owhiro Bay, Kaiwharawhara, and Onslow/Ngauranga/Horokiwi | <i>E</i> | 1 | <i>Ongoing</i> |
| | b. Work with GWRC and within the Council to ensure no new permanent barriers to fish passage are created through works in streams or stormwater systems where these link significant stream habitat together. | <i>E</i> | 1 | <i>Ongoing</i> |
| | c. Ensure that Council chemical use has no net negative impact on aquatic ecosystems | <i>E</i> | 1 | <i>Ongoing</i> |
| | d. Build on our relationship with partners working on the protection of the marine environment, focussing on education programmes. | <i>E</i> | 1 | <i>Ongoing</i> |
| | e. Retain all streams on reserve land in a natural state | <i>E</i> | 1 | <i>Ongoing</i> |
| | f. Under District Plan provisions, and considering the approach set out in Policy 43 of the RPS (protecting the aquatic ecological function of water bodies), prevent any further loss of whitebait spawning sites, and require that any significant works within whitebait spawning areas restores their operation | <i>E</i> | 1 | <i>Short</i> |
| | g. Integrate best practice WSUD into Council projects | <i>E</i> | 2 | <i>Ongoing</i> |
| | h. Complete mapping of streams as part of asset mapping of all stormwater infrastructure | <i>E</i> | 2 | <i>Short</i> |
| | i. Develop technical detail of Water Sensitive Urban Design (WSUD) in the Code of Practice for Land Development | <i>E</i> | 2 | <i>Short</i> |
| | j. Develop updated guidelines for earthworks on small sites in collaboration with GWRC | <i>E</i> | 2 | <i>Short</i> |
| | k. Identify and prioritise streams that should be kept in their natural state and strengthen provisions in the District Plan for their protection | <i>E</i> | 2 | <i>Short</i> |
| | l. Ensure there are provisions in the District Plan to protect and enhance riparian strips | <i>E</i> | 2 | <i>Short</i> |
| | m. Ensure that all contractors working in and around streams have undertaken sediment control training | <i>Ex</i> | 2 | <i>Medium</i> |
| | n. Develop at least one example of best practice WSUD in a high-profile location | <i>N</i> | 3 | <i>Long</i> |

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| 1.4.4 Ensure existing biodiversity is conserved and enhanced on proposed development sites | a. Educate and advise landowners and developers around methods for protecting natural values in developments and sub-divisions, including enhancing ecosystems and recreational opportunities through habitat creation, pest control, low-impact urban design and water sensitive urban design | <i>Ex</i> | <i>1</i> | <i>Medium</i> |
| | b. Develop evidence based guidelines and criteria (working with stakeholders) for trail development on Council owned land to balance recreational needs with ecological values. | <i>E</i> | <i>2</i> | <i>Short</i> |
| | c. Provide consent officers with access to up-to-date information and interpretation of information so they can make informed decisions | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | d. Investigate the impact of street lighting on biodiversity as part of new developments | <i>E</i> | <i>3</i> | <i>Long</i> |
| 1.4.5 Advocate for biodiversity values to be included in all Council plans, strategies and programmes that potentially impact on these values | a. We will incorporate biodiversity principles into Council plans and policies such as the Code of Practice for Land Development, Subdivision Design Guidelines. | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Consider the impact of future climate change on all biodiversity management activities | <i>E</i> | <i>2</i> | <i>Ongoing</i> |

2. RESTORE

GOAL 2.1: The loss or decline of our indigenous biodiversity is reversed, and self-sustaining and resilient ecosystems created

| Objectives | Actions | Funding | Priority | Timeframe |
|---|--|---------|----------|-----------|
| 2.1.1 Create resilient and self-sustaining ecosystems | a. Continue the Council's restoration planting programme of at least 45,000 native eco-sourced plants annually | E | 1 | Ongoing |
| | b. Create a city wide planting strategy (including suburban areas and the CBD) to ensure a representative range of sites across the different ecosystems - forest, shrubland, wetland, streamside (riparian), rocky shore and coastal - are included as part of the Council's restoration planting programme | E | 1 | Ongoing |
| | c. As part of the strategy, ensure that a mix of plant types is included in the restoration planting programme, including emergent trees, climbers and groundcovers | E | 1 | Ongoing |
| | d. Write citywide guidelines for enrichment planting, including where best to source plant propagules, different species' habitat requirements, the importance of mycorrhizal associations, and the most effective methods of propagation | E | 2 | Short |
| 2.1.2 Continue to use eco-sourced plant material and promote it to the wider community | a. Review eco-sourcing guidelines for use in different practical contexts, involving relevant organisations and community groups | E | 1 | Short |
| | b. Continue the provision of eco-sourced plants through Berhampore Nursery | E | 1 | Ongoing |
| | c. Work with community and private nurseries to ensure they all have seed collection permits and are following eco-sourcing guidelines | E | 1 | Short |

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| 2.1.3 Restore the function of ecosystems, recognising the role that all species may play | d. Evaluate the ecological function of large exotic trees on public land and if removals are required (eg for safety reasons), consider replacing that function before removals occur | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | e. Trial ways of restoring native forest underneath a canopy of exotic conifers to build on our knowledge of long term restoration options in these environments | <i>E</i> | <i>1</i> | <i>Short</i> |
| | f. Initiate a programme to gradually replace over-mature conifers with native vegetation over 20-30 years, in accordance with priorities in existing management plans such as the Wellington Town Belt Management Plan | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | g. Ensure that future Council amenity and landscape planting (including street trees) will not threaten indigenous biodiversity, and enhance indigenous biodiversity where practicable | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | h. Trial the practice of damaging weed trees where appropriate and leaving them standing (veteranisation) to create cavities for birds, lizards and insects | <i>Ex</i> | <i>2</i> | <i>Short</i> |

GOAL 2.2: Aquatic ecosystem health across the city is improved

| Objectives | Actions | Funding | Priority | Timeframe |
|--|--|----------|----------|----------------|
| 2.2.1 Continue stream restoration programmes in accordance with community and catchment priorities | a. Continue streamside (riparian) planting programme (including indigenous vegetation buffers) | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Identify and prioritise streams that should be restored from their current state | <i>E</i> | <i>1</i> | <i>Short</i> |
| | c. Support or seek funding with agencies such as Million Metre Streams, supporting community groups to apply for funding via these organisations | <i>E</i> | <i>1</i> | <i>Short</i> |
| | d. Ensure all Council works in stream are in accordance with GWRC best practice guidelines. | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | e. Conduct walkover of Kaiwharawhara, Owhiro and Haape streams to map and identify barriers to fish passage | <i>N</i> | <i>1</i> | <i>Short</i> |
| | f. Seek to restore (daylight) piped sections of stream within large natural catchments to contribute to overall stream network health | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | g. Prioritise barriers to fish passage and schedule their modification or removal as part of an annual programme | <i>N</i> | <i>2</i> | <i>Medium</i> |
| | h. Support Zealandia to explore the eradication of pest fish within the lakes and streams of the valley | <i>E</i> | <i>2</i> | <i>Medium</i> |
| | i. Work with local farmers to fence and plant riparian areas on their land. | <i>N</i> | <i>2</i> | <i>Long</i> |

GOAL 2.3: Restoration programmes are in place for rare, threatened or locally significant species

| Objectives | Actions | Funding | Priority | Timeframe |
|--|--|----------|----------|----------------|
| 2.3.1 Ensure threatened fauna has the habitat needed to complete lifecycles | a. Plant food species for threatened fauna as part of restoration planting programmes | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Install suitable nesting sites for cavity nesting species in reserves where these species are known to be present. | <i>N</i> | <i>2</i> | <i>Short</i> |
| 2.3.2 Re-establish populations of threatened plants in Wellington | a. Propagate threatened species at Council nurseries for planting as part of the restoration planting programme | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Work with community and professional nurseries on the propagation of threatened species | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| 2.3.3 Work in partnership with other organisations to develop species restoration programmes for both terrestrial and aquatic species | a. Work with DOC to ensure the Council is following 'threatened species recovery plans' where these are in place | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Support other organisations with restoration programmes where these are already in place | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | c. Consult other organisations to ensure current species restoration programmes are being followed | <i>E</i> | <i>2</i> | <i>Short</i> |
| | d. Work with relevant organisations to investigate the restoration of indigenous fauna through reintroduction programmes | <i>N</i> | <i>2</i> | <i>Medium</i> |

GOAL 2.4: Ecological networks are developed across the landscape

| Objectives | Actions | Funding | Priority | Timeframe |
|---|---|-----------|----------|----------------|
| 2.4.1 Create connections between reserves for key plant and animal species (ie create a Green Network Plan) | a. Identify key species for which connections would be beneficial and can be achieved | <i>E</i> | <i>1</i> | <i>Short</i> |
| | b. Identify individual dispersal mechanisms and requirements for each of these key species and where current populations are located | <i>E</i> | <i>1</i> | <i>Short</i> |
| | c. Carry out restoration planting and strategic street planting where practicable to allow for travel of these key species between core areas | <i>E</i> | <i>2</i> | <i>Medium</i> |
| | d. Prepare a discussion paper on roadside reserves as potential corridors between remnants | <i>E</i> | <i>2</i> | <i>Medium</i> |
| | e. Work with private landowners to close gaps between identified ecologically significant areas where the reserve network is not sufficient | <i>N</i> | <i>2</i> | <i>Long</i> |
| 2.4.2 Work with private landowners to restore areas of ecological significance | a. Assist landowners with seeking grants to fund the ecological restoration on sites with identified ecologically significant areas | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Identify and prioritise the areas of private land that contain large areas of prime and secondary forest remnant or wetlands and work with landowners of these sites on restoration programmes | <i>E</i> | <i>1</i> | <i>Short</i> |
| | c. Give advice to private landowners on restoration planting | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | d. Work with QEII to protect ecologically significant sites on private land | <i>Ex</i> | <i>2</i> | <i>Short</i> |
| | e. Identify, create and implement incentives to get people to care for biodiversity on private land | <i>Ex</i> | <i>2</i> | <i>Medium</i> |
| | f. Work with private landowners to create ecological restoration plans for areas of ecological significance | <i>Ex</i> | <i>2</i> | <i>Long</i> |
| 2.4.3 Work with Porirua City Council, Lower Hutt City Council, GWRC and DOC to ensure cross-boundary management of important catchments and ecosystems | a. Work with Porirua City Council, GWRC and Ngāti Toa on the implementation of the Porirua Harbour Strategy | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Work with GWRC on the establishment and implementation of the Porirua and Wellington Harbour Whaituas | <i>E</i> | <i>1</i> | <i>Short</i> |
| | c. Work with GWRC to identify the spread of species between Belmont Regional Park and Council Northern reserves | <i>Ex</i> | <i>3</i> | <i>Medium</i> |

3. CONNECT

GOAL 3.1: Biodiversity is a common experience for all Wellingtonians

| Objectives | Actions | Funding | Priority | Timeframe |
|--|--|-----------|----------|----------------|
| 3.1.1 Ensure all Wellingtonians encounter nature on a daily basis | a. Promote and increase use of native plantings in Council amenity planting, particularly within the central city | <i>E</i> | 1 | <i>Ongoing</i> |
| | b. Investigate the use of live feed cameras on bird nests (eg kaka and/or little blue penguin, and/or underwater marine environment in inner harbour) and promote these images to the public | <i>N</i> | 2 | <i>Medium</i> |
| | c. Increase the number of large trees planted in the central city, focussing in particular on the east-west connections. Explore the use of suitable local native tree species. | <i>Ex</i> | 2 | <i>Long</i> |
| | d. Make green infrastructure and water-sensitive urban design (WSUD) standard as part of new buildings and upgrades within the Council property portfolio | <i>N</i> | 2 | <i>Long</i> |
| | e. Incorporate indigenous biodiversity into Wellington's urban design strategies | <i>E</i> | 3 | <i>Medium</i> |
| | f. Include New Zealand nature and natural imagery into public space upgrade projects | <i>E</i> | 3 | <i>Medium</i> |
| | g. Install green roofs and walls on at least one public building in the central city and surrounds | <i>N</i> | 3 | <i>Medium</i> |
| 3.1.2 Ensure Wellingtonians connect with nature as part of recreation activities | a. Ensure all Wellingtonians in suburban and urban areas can access a natural space within a 10-minute walk or cycle | <i>E</i> | 1 | <i>Ongoing</i> |
| | b. Support the development of community gardens and edible planting groups | <i>E</i> | 2 | <i>Ongoing</i> |
| | c. Restore natural areas near key recreational areas such as sportsfields and playgrounds | <i>E</i> | 2 | <i>Medium</i> |
| | d. Promote cycling and walking links through and along the appropriate green and blue networks | <i>E</i> | 3 | <i>Ongoing</i> |
| | e. Ensure legal protection over private land provides for public access where practicable | <i>E</i> | 3 | <i>Ongoing</i> |
| | f. Promote and protect areas which provide tranquil green space to assist with mental health and wellbeing | <i>N</i> | 3 | <i>Long</i> |

GOAL 3.2: People understand the importance and value of biodiversity to their wellbeing

| Objectives | Actions | Funding | Priority | Timeframe |
|---|--|---------|----------|-----------|
| 3.2.1 Raise Wellingtonians' awareness of the significance and value of biodiversity | a. Educate the public around Council use of indigenous vegetation to increase community awareness and appreciation of local plants eg through Otari-Wilton's Bush, garden beds and traffic island displays; identify suitable indigenous species for specimen planting where appropriate | E | 1 | Ongoing |
| | b. Celebrate our indigenous biodiversity and our successes in relation to its conservation | E | 2 | Ongoing |
| | c. Create and install interpretive signage within key reserve areas to educate people about the biodiversity values of that area | N | 2 | Ongoing |
| | d. Create and install interpretation materials telling stories of cultural and natural history and promoting community restoration initiatives | N | 3 | Long |
| 3.2.2 Use technology to connect people with biodiversity and ensure that people have access to current information on biodiversity | a. Inform and educate the public through a number of activities and programmes, including production of communications such as our e-newsletter Branch Out | E | 1 | Ongoing |
| | b. Promote Nature Watch as a citizen science tool to collect information on biodiversity and environmental pest species | E | 2 | Ongoing |
| | c. Have all biodiversity information and research available through the Council website | E | 2 | Medium |
| | d. Develop an easily used species identification guide for lizards and implement standardised lizard reporting procedures | E | 3 | Short |
| | e. Create a physical public research hub where the community can access research advice and reference collections | N | 3 | Medium |
| | f. Develop smart and easily accessible information to enable people to access areas of high biodiversity, including smart phone applications and interactive mapping | E | 3 | Medium |

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| 3.2.3 Give children and youth the opportunity to experience and learn about nature | a. Create the Children's Garden at the Wellington Botanic Garden to fire the imagination of children and inspire adventures | <i>N</i> | <i>1</i> | <i>Short</i> |
| | b. Create opportunities for schools to get involved in conservation initiatives and edible planting and identify which schools are near to reserves that could be "adopted" | <i>E</i> | <i>1</i> | <i>Short</i> |
| | c. Identify and promote outdoor recreation opportunities for children and youth | <i>E</i> | <i>1</i> | <i>Short</i> |
| | d. Continue to produce educational resources at Otari-Wilton's Bush to enhance visits by schools and other interested parties | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | e. Where appropriate and aligned with our strategy, continue support for environmental education programmes eg Enviroschools, Wellington Zoo's Bush Builders programme and the Zealandia education programme | <i>E</i> | <i>2</i> | <i>Ongoing</i> |
| | f. Review the Council's environmental education approach and develop a more coherent approach to working with children, schools and other environmental education providers | <i>E</i> | <i>2</i> | <i>Short</i> |
| | g. Create at least one natural playscape and use natural elements in other playground upgrades | <i>N</i> | <i>2</i> | <i>Medium</i> |

GOAL 3.3: More people are connected to nature, so take action to protect and restore biodiversity

| Objectives | Actions | Funding | Priority | Timeframe |
|---|---|---------|----------|-----------|
| 3.3.1 Promote responsible pet ownership to protect wildlife in our open spaces | a. Review the animal control bylaw and use it to minimise the impact of pets on native biodiversity | E | 1 | Short |
| | b. Work with partner organisations to reduce the impact of cats (domestic, stray and feral) on our indigenous wildlife. | N | 1 | Short |
| | c. Work with communities in high biodiversity risk areas on how best to minimize or avoid impacts of cats and dogs on indigenous biodiversity. | N | 1 | Short |
| | d. Run education and awareness programmes to encourage people to desex cats and keep them indoors as much as possible | N | 1 | Short |
| | e. Investigate subsidising microchipping for cats near sensitive wildlife areas as a voluntary approach | E | 1 | Short |
| | f. Work with partners to run a behaviour change programme informing people of the need to keep dogs on leashes near sensitive wildlife areas to protect ground dwelling/nesting birds, such as coastal penguin habitat and in forests during crucial fledging periods | N | 1 | Medium |
| 3.3.2 Promote enhanced biodiversity awareness in all Council practices | a. Work with all Council business units and Council controlled organisations to have input into relevant Council standards and policy | E | 1 | Ongoing |
| | b. Run at least one internal training programme per year on issues relating to biodiversity. These should initially focus on threatened environments such as streams and dunes | E | 2 | Ongoing |
| 3.3.3 Increase active participation in biodiversity projects and celebrate that action | a. Publicise biodiversity projects through Council channels and work with NatureSpace portal to assist people to volunteer and get involved | E | 1 | Ongoing |
| | b. Publicise the Council's and other organisations' activities, events and achievements relating to Wellington's biodiversity through social media, media articles and publications | E | 1 | Ongoing |
| | c. Promote opportunities for people to participate in decision-making affecting biodiversity (RMA processes, submitting to Council, joining ERG etc) | E | 2 | Ongoing |

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| 3.3.4 Engage the wider community in Citizen Science projects | a. Continue involvement in the annual backyard bird survey and the Kereru Count | <i>E</i> | 2 | <i>Ongoing</i> |
| | b. Engage the community in other species-based programmes such as lizard monitoring, potentially using NatureWatch as a tool | <i>N</i> | 2 | <i>Ongoing</i> |
| | c. Lead one BioBlitz (terrestrial and aquatic) within Wellington every 3 years | <i>N</i> | 2 | <i>Short</i> |
| 3.3.5 Encourage and support individuals and households to take action to support biodiversity | a. Continue to support annual initiatives with partner organisations that encourage all people to remove weeds from their gardens and plant native plants instead | <i>E</i> | 1 | <i>Ongoing</i> |
| | b. Implement an awareness programme about environmental weeds (including native weeds), the impact of garden dumping and risk of birds and wind spreading seeds to nearby parks and reserves | <i>E</i> | 1 | <i>Short</i> |
| | c. Encourage people to have wildlife friendly backyards by providing information on creating habitat and planting food species. | <i>E</i> | 1 | <i>Short</i> |
| | d. Promote backyard trapping by providing information and facilitating the supply of equipment | <i>N</i> | 1 | <i>Short</i> |
| | e. Develop and publish plant lists and guides for zones around Wellington (based on species that originally grew there) so people can be informed about the appropriate species to plant | <i>E</i> | 1 | <i>Short</i> |
| | f. Work with partners (including Wellington Water) to provide and promote information on the impact of household activities, such as car washing and the use of paint and chemicals, on water pollution | <i>Ex</i> | 2 | <i>Ongoing</i> |
| | g. Investigate possible options to get more green waste from the city going to the compost facility at the Southern Landfill | <i>Ex</i> | 2 | <i>Medium</i> |
| | h. Work with community partners to establish a teaching garden to educate people on the difference between similar plant species (both weed and native) | <i>Ex</i> | 2 | <i>Medium</i> |
| | i. Work with the community to explore options for chemical free pest control and recommend chemical free approaches for small scale operations | <i>E</i> | 3 | <i>Medium</i> |

GOAL 3.4: We work with a range of partners towards a shared vision for Wellington's biodiversity

| Objectives | Actions | Funding | Priority | Timeframe |
|--|---|----------|----------|----------------|
| 3.4.1 Work in partnership with iwi and other Māori groups | a. Ensure local mana whenua have the opportunity to be involved in conservation initiatives | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Identify areas of traditional Māori use and biodiversity value, and work with iwi to conduct an assessment of biodiversity sites of cultural significance | <i>E</i> | <i>2</i> | <i>Medium</i> |
| | c. Identify opportunities on Council parks and reserves where rongoa Māori can be celebrated, plants labelled and interpretation provided | <i>E</i> | <i>3</i> | <i>Medium</i> |
| | d. Identify opportunities on Council parks and reserves where species required for raranga can be cultivated eg pa harakeke | <i>E</i> | <i>3</i> | <i>Medium</i> |
| | e. Explore opportunities to use appropriate traditional structures and buildings in our interpretation (for example pou whenua, waharoa | <i>E</i> | <i>3</i> | <i>Long</i> |
| 3.4.2 Collaborate with partners to achieve agreed goals, effectively utilising resources and creating strong partnerships | a. Continue relationships between organisations with a strong biodiversity focus, such as Wellington Zoo, WWF-New Zealand, Zealandia and Forest & Bird | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | b. Partner with other agencies to support the NatureSpace portal for community restoration work | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | c. Continue to support Restoration Day | <i>E</i> | <i>1</i> | <i>Ongoing</i> |
| | d. Facilitate discussions to agree a shared direction for Wellington region's biodiversity outcomes with partners to ensure efficiencies by not duplicating work and responsibilities | <i>E</i> | <i>1</i> | <i>Short</i> |

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| 3.4.3 Work with partners to identify opportunities for increased business involvement and support | a. Pursue opportunities for business involvement and partnerships including sponsorship, planting programmes, encouraging sustainable business practices. Support and encourage corporate volunteer programmes | <i>E</i> | 2 | <i>Ongoing</i> |
| | b. Develop guidelines with other organisations that use corporate volunteers, such as DOC and GWRC, to establish in which sites corporates should engage | <i>E</i> | 2 | <i>Medium</i> |
| 3.4.4 Support and build the capacity of existing and new community groups engaging in biodiversity projects | a. Continue the Living City grants scheme with an ongoing financial commitment of at least \$80,000 per annum to support projects on public and private land that have biodiversity benefits for Wellington | <i>E</i> | 1 | <i>Ongoing</i> |
| | b. Continue to provide at least 34,000 native eco-sourced plants annually to the community | <i>E</i> | 1 | <i>Ongoing</i> |
| | c. Continue support for environmental restoration groups through the provision of plants, materials, technical advice and in-kind support | <i>E</i> | 1 | <i>Ongoing</i> |
| | d. Develop an annual programme of training and workshops to complement Restoration Day (in partnership with DOC, GWRC and NGOs) | <i>E</i> | 1 | <i>Short</i> |
| | e. Facilitate the establishment of a community plant nursery network to promote best practice, access to training opportunities and cooperation | <i>E</i> | 1 | <i>Short</i> |
| | f. Ensure information on funding sources is available for community groups to carry out biodiversity conservation work. Promote funding sources available for private landowners to protect and manage biodiversity on their own land (including carbon credits) | <i>E</i> | 2 | <i>Ongoing</i> |
| | g. As part of a city wide planting strategy, identify where groups are working in areas with missing plant species, and ensure those groups have the ability to plant those species | <i>E</i> | 2 | <i>Medium</i> |
| | h. Facilitate the coordination between community environmental groups, including potential mergers, to ensure a sustainable community contribution to conservation. | <i>E</i> | 2 | <i>Ongoing</i> |

4. RESEARCH

Goal 4.1: Wellington City Council has increased understanding and knowledge of biodiversity

| Objectives | Action | Funding | Priority | Timeframe |
|---|--|-----------|----------|----------------|
| 4.1.1 Identify and monitor locally important sites and species | a. Ensure that all known populations of threatened plants are captured digitally and monitored | <i>Ex</i> | 1 | <i>Ongoing</i> |
| | b. Ensure that staff collect information on new populations of locally important species | <i>E</i> | 1 | <i>Ongoing</i> |
| | c. To ensure we have accurate information, re-survey the boundaries of ecologically significant sites | <i>N</i> | 1 | <i>Short</i> |
| | d. Conduct a bat survey to establish whether populations are present in Wellington | <i>N</i> | 2 | <i>Short</i> |
| | e. Follow up surveys for Ngahere geckos, barking geckos, spotted skinks, Kupe skinks and ornate skinks using more intensive methods in surveyed parks and reserves with good habitat | <i>N</i> | 2 | <i>Short</i> |
| | f. Support researchers gathering information on invertebrates | <i>N</i> | 3 | <i>Medium</i> |
| 4.1.2 Identify habitat requirements for key species | a. Compile information on the nesting requirements for key bird species and work out where species are present with limited breeding habitat | <i>E</i> | 1 | <i>Short</i> |
| | b. Compile information on habitat and dispersal requirements for all freshwater fish species | <i>E</i> | 1 | <i>Short</i> |
| | c. Compile information on the microhabitat requirements of all threatened plant species | <i>E</i> | 1 | <i>Short</i> |
| | d. Establish the dispersal requirements of sensitive forest-dependent species, such as North Island robins | <i>Ex</i> | 2 | <i>Medium</i> |
| 4.1.3 Ensure the Council has relevant and current information on the requirements of threatened species | a. Establish regular meetings with DOC biodiversity staff to ensure all information on rare, threatened or locally significant species is shared, including reports of dead animals and recent sightings | <i>E</i> | 2 | <i>Short</i> |
| | b. Continue to gather knowledge on the threats to threatened species and use this knowledge to adapt management programmes | <i>E</i> | 2 | <i>Ongoing</i> |

Goal 4.2: Environmental monitoring is consistent across the city, region and country and informs our biodiversity management

| Objectives | Actions | Funding | Priority | Timeframe |
|---|--|-----------|----------|---------------|
| 4.2.1 Follow international best practice for citywide biodiversity monitoring | a. Carry out the City Biodiversity Index (see 10.1) and put information on Council website. Re-evaluate every 5 years to monitor progress. | <i>E</i> | <i>1</i> | <i>Short</i> |
| 4.2.2 Monitor biodiversity indicators and outcomes in collaboration with partners | a. Set up consistent terrestrial outcomes monitoring framework and annual programme (incorporating existing monitoring work) in a collaborative approach with other key organisations - to include vegetation monitoring, bird monitoring, lizard monitoring | <i>Ex</i> | <i>1</i> | <i>Short</i> |
| | b. Set up consistent biosecurity output monitoring to evaluate effectiveness of pest animal and plant control programmes | <i>N</i> | <i>1</i> | <i>Short</i> |
| | c. Ensure common indicators for biodiversity monitoring are used so data can be easily aggregated | <i>E</i> | <i>1</i> | <i>Short</i> |
| | d. Carry out a monitoring programme for Wellington's streams using the Macroinvertebrate Community Index (MCI) | <i>N</i> | <i>1</i> | <i>Medium</i> |
| | e. We will work with Greater Wellington Regional Council to monitor the abundance and distribution of high threat Regional Pest Management Plan pest plants on public land | <i>Ex</i> | <i>2</i> | <i>Medium</i> |
| | f. Work with other organisations to establish monitoring techniques suitable for community groups and individual landowners | <i>E</i> | <i>2</i> | <i>Short</i> |
| | g. Establish best practice monitoring for urban environments | <i>Ex</i> | <i>2</i> | <i>Medium</i> |
| | h. Set up permanent 20x20 forest plots in reserves across the city and a programme to reevaluate current plots | <i>E</i> | <i>2</i> | <i>Medium</i> |

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| 4.2.3 Monitor effects of stormwater runoff on the freshwater and marine environment | a. Work with Wellington Water to implement the global discharge consent | <i>E</i> | 1 | <i>Ongoing</i> |
| | b. Work with Hutt City Council to support GWRC's Wellington Harbour sediment investigation monitoring looking at levels of sediment build-up and effects on biodiversity | <i>E</i> | 2 | <i>Ongoing (every 5 years)</i> |
| | c. Support research through Victoria University Coastal Ecology lab on the effects of heavy metals and sediment on the marine environment | <i>N</i> | 2 | <i>Medium</i> |

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| 4.2.4 Set up systems to ensure monitoring information is used to improve management of biodiversity, taking climate change into consideration | a. Continue review of Council restoration programmes through monitoring planting success | <i>E</i> | 1 | <i>Ongoing</i> |
| | b. Continue review of environmental weed species and their spread in Wellington through weed mapping | <i>E</i> | 1 | <i>Ongoing</i> |
| | c. Carry out research on indigenous tree species to determine suitability for specimen and street tree planting | <i>E</i> | 2 | <i>Medium</i> |
| | d. In order to obtain information on predator presence, conduct monitoring for pests in all the parks with high numbers of lizard or bird densities and species | <i>N</i> | 2 | <i>Medium</i> |
| | e. Monitor the survival of all planted threatened species to improve knowledge of microhabitat requirements | <i>E</i> | 2 | <i>Ongoing</i> |

Goal 4.3: We actively seek and share knowledge about Wellington's biodiversity

| Objectives | Actions | Funding | Priority | Timeframe |
|--|---|-----------|----------|---------------|
| 4.3.1 Continually identify and coordinate local research needs | a. Fund university research to work on projects aligned with the Council's urban ecology research needs | <i>Ex</i> | 1 | <i>Short</i> |
| | b. Maintain a research database collating all past and potential research topics | <i>E</i> | 2 | <i>Medium</i> |
| | c. Work with Victoria University and Zealandia to develop a centre of excellence in ecological restoration, and encourage and publicise research with a purpose | <i>E</i> | 2 | <i>Long</i> |

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| 4.3.2 Establish a biodiversity network for information sharing | a. Facilitate discussions with key people to decide the best method for interagency cooperation and collaboration on biodiversity related matters, and ensure the implementation of an agreed system | <i>E</i> | 1 | <i>Short</i> |
| | b. Support initiatives from other organisations on the development of a biodiversity information-sharing mechanism | <i>E</i> | 2 | <i>Medium</i> |

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| 4.3.3 Have one source of information for everyone | a. Capture all high level biodiversity information related to the Council in the GIS system in a way it can be shared with external organisations | <i>E</i> | 1 | <i>Short</i> |
| | b. Develop processes so that information available to the public is updated at the same time as other Council databases | <i>E</i> | 3 | <i>Medium</i> |

Goal 4.4: Through knowledge we have gained, we are continually improving our biodiversity management

| Objectives | Actions | Funding | Priority | Timeframe |
|--|--|----------|----------|----------------|
| 4.4.1 Continue to improve our internal expertise and capacity in biodiversity conservation | a. Ensure staff have the ability to set up and monitor forest plots and the ability to carry out rapid vegetation assessment surveys | <i>E</i> | 1 | <i>Short</i> |
| | b. Add requirement for 'consideration of impact on indigenous biodiversity' to Council report templates | <i>E</i> | 1 | <i>Short</i> |
| | c. Remain informed about the impact of climate change to ensure current species selection is appropriate | <i>E</i> | 2 | <i>Ongoing</i> |

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| 4.4.2 Ensure that the community can get involved in research, including monitoring | a. Facilitate training programmes for community groups that want to carry out monitoring across all terrestrial and aquatic environments | <i>E</i> | 2 | <i>Short</i> |
| | b. Develop a meaningful community stream health monitoring programme and a mechanism for the collection and sharing of that information | <i>N</i> | 3 | <i>Medium</i> |

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| 4.4.3 Promote best practice in biodiversity protection locally, regionally, nationally and worldwide | a. Ensure that all knowledge gained through Council programmes is shared through appropriate forums and the Nature Space website | <i>E</i> | 1 | <i>Short</i> |
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