OUR NATURAL PLACE

Draft Ashburton District Biodiversity Strategy 2023

Ashburton DISTRICT COUNCIL

A DISTRICT WHERE BIODIVERSITY IS PROTECTED AND ENHANCED FROM THE MOUNTAINS TO THE SEA (KI UTA KI TAI) BY A COMMUNITY THAT VALUES AND CARES FOR IT.

Our Natural Place
Draft Ashburton District Biodiversity Strategy 2023
Ashburton District Council

Cover image: Kānuka flowers over summer and provides habitat and food for many native species.

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Mayor Neil Brown and Council Ecologist and Biodiversity Advisor Dr Christian Chukwuka at a tree planting event.

FROM THE MAYOR

It's my pleasure to introduce Our Natural Place, the draft Ashburton District Biodiversity Strategy.

Land and water are the lifeblood of our district. Farming and industries associated with agriculture underpin our local economy, and the natural environment provides us with tourism opportunities, exciting places to explore and space for recreation.

While the landscape has been modified over the decades, it's important to ensure our district's special flora and fauna is protected and improved where possible for the generations to come.

It's taken a big effort to get the strategy to this point. It has been developed in partnership with local ecological groups, landowners, regional and national agencies and Manawhenua.

Te Rūnaka o Arowhenua have been integral to the drafting of this document and we're immensely grateful for their input. You can read further about Manawhenua's connection to the land and biodiversity on page 16.

This strategy is for everyone. As Council, we certainly have a leadership role to play, but as you will see in the following pages, looking after our district's biodiversity will require all parts of the community to work together.

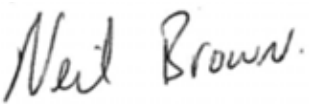
We need to build on the good work that's already been done, from our local ecological groups who spend their weekends planting trees, to the farmers who plant native shelter belts and riparian margins, and protect their wetlands. We gratefully acknowledge these contributions, and now we look towards the future to plan what else will be required to preserve and enhance our district's biodiversity.

The actions in this plan contain a mix of what our stakeholders think is important, what Council wants to do and what has to be done under direction from Government. The release of the National Policy Statement - Indigenous Biodiversity in August 2023 introduced new requirements for Councils, and you'll find these clearly identified later in this document. We're aware that some of these required actions, such as the identification of Significant Natural Areas, may raise concerns for landowners. However, I want to assure you that we'll work closely with landowners, in a spirit of openness and collaboration throughout every step of the process.

We know that biodiversity in our district is facing significant challenges, whether that be from urban intensification, land use, predators or our changing climate. These are long-term issues that will require a mix of short-term and long-term solutions, so you'll find the strategy's actions range from those that can be achieved almost immediately to others that may take place over many years.

As with any strategy, putting words on paper is easy. Implementation is everything and we need everyone in our district to take ownership for the health of our natural environment. I know that the people of Mid Canterbury care deeply about the environment and I have no doubt that together, we'll be successful.

Sincerely,



MAYOR
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Please note

This document uses the Kāi Tahu dialect where "k" replaces the use of "ng" in words, for example "kaitiakitanga" becomes "kaitiakitaka".

Over 30 bird species use the lakes and wetlands at Ō Tū Wharekai / Ashburton Lakes in the Canterbury High Country.

PART 1:: THE STRATEGY

THE STRATEGY

INTRODUCTION

The Ashburton District is bordered by the Pacific Ocean in the east, Southern Alps in the west, the Rakaia River in the north and the Rakitata (Rangitata) River in the south. It is a district that identifies itself with these special natural environments and at the same time relies on them as the backbone of our economy. While parts of the district are rich in biodiversity, our indigenous biodiversity remnants on the plains are acutely threatened. Managing these threats requires a collective action to ensure that the processes for species survival are in place and biodiversity is thriving.

This strategy, *Our Natural Place*, is a community-led initiative to preserve the remnants of indigenous biodiversity in the Ashburton District, which provide us with ecosystem services and functions. It also contributes towards Council's wider community outcome of "He taiao toitū - A balanced & sustainable environment", sustaining people's connection with nature and our climate change resilience initiatives.

The purpose is to ensure that our current and future biodiversity is protected, restored and enhanced; and to encourage people to value, care and respect it.

We can achieve these objectives by connecting people to the natural environment and by introducing indigenous species for ecosystem restoration, new greenfield development, township landscape design, stormwater channel enhancement and shelterbelt planting. This strategy shares ownership for protecting our district's environment equally among the community.

This shared ownership requires us to work together - whether that's volunteers helping at a planting day, Manawhenua sharing their knowledge on taoka species, Council funding projects through biodiversity grants and stakeholders collaboratively engaging with schools to improve environmental education. Urban residents, farmers, developers, agencies, Council and community groups all have an important role in implementing the actions of this strategy.

The kōwhai is commonly found throughout indigenous remnants across Mid Canterbury.

The Scree skink (Oligosoma waimatense) inhabits the Ō Tū Wharekai wetland area, but is classed as nationally threatened. Photo supplied by DOC.

WHAT IS BIODIVERSITY?

Biodiversity is a short term for "biological diversity". Biodiversity describes the level of diversity in natural life. This includes the variety of different species (micro-organisms and fungi, trees, plants and animals), the genes they comprise, and the ecosystems they are a part of.

Indigenous biodiversity refers to those species that occur naturally anywhere in New Zealand, including migrant species. It includes New Zealand's ecosystem functions and processes, indigenous vegetation, endemic fauna and their habitats. The Ashburton District is home to indigenous plant and animal species, and rare ecosystems such as limestone rocks, coastal dongas, wetlands, lakes, and braided rivers. These 'he awa whiria' (braided rivers) are unique to us.

The strategy is mostly concerned with the protection and management of these indigenous species and habitats; but also acknowledges species, habitats and systems that support indigenous biodiversity and our communities.

Biodiversity protection for non-native, introduced species in Ashburton District is addressed in this strategy where it serves as a buffer or corridor for indigenous value protection, is a protected tree in the district plan or used for urban forest initiatives for climate change resilience. This exotic vegetation provides habitat for native animals (highly mobile fauna), helps to connect people with nature (e.g. Rhododendron dell in Awa Awa rata reserve), is used as street trees or is located within the town domains and rural reserves. The strategy recognises the important biological role now played by some introduced species, while acknowledging that indigenous biodiversity remains our priority.

WHY IS BIODIVERSITY IMPORTANT?

Biodiversity contributes to important natural processes that are necessary for ecosystems to sustain life. These are called ecosystem functions or services. Ecosystem services are the benefits people derive from nature. In a functioning environment, we need a stable and resilient ecosystem to sustain all our activities. Examples include the provision of pollen and nectars to attract beneficial insects, berries and plants for native lizards and birds, improved soil fertility and productivity through naturally enriched nitrogen sources, weed suppression, nutrients recycling, and control of plant and animal pests.

Biodiversity is connected with our culture and heritage and represented in the symbols of our national identity. Our economic development relies on the raw materials, clean air and water that biodiversity provides, for consumption and production. Healthy environments also provide tourism and recreational opportunities.

The loss of biodiversity disrupts natural systems and can have irreversible consequences such as species loss, land degradation, erosion, declining soil structure and salinisation. This loss is increasingly recognised as a significant environmental issue which requires our immediate action, underlining the relevance and urgency of this strategy.

NEW ZEALAND BIODIVERSITY

Globally, the natural processes that are supported by biodiversity are becoming strained, because of increasing levels of human consumption and industrial production. The situation has reached critical levels, and biodiversity loss is now occurring on an immense scale. The Convention on Biological Diversity was adopted in 1992 and has become one of the world's most significant agreements with 180 countries, including New Zealand, ratifying the agreement.

New Zealand is unique because our indigenous biodiversity includes an extraordinary number of endemic species – species that only occur naturally in New Zealand.

This includes:

- 72% of birds (land, freshwater and marine)
- 84% of freshwater fish (land and freshwater)
- 81 of marine mammals
- 7% of marine mammals
- 100% of reptiles, frogs, bats (land and freshwater)

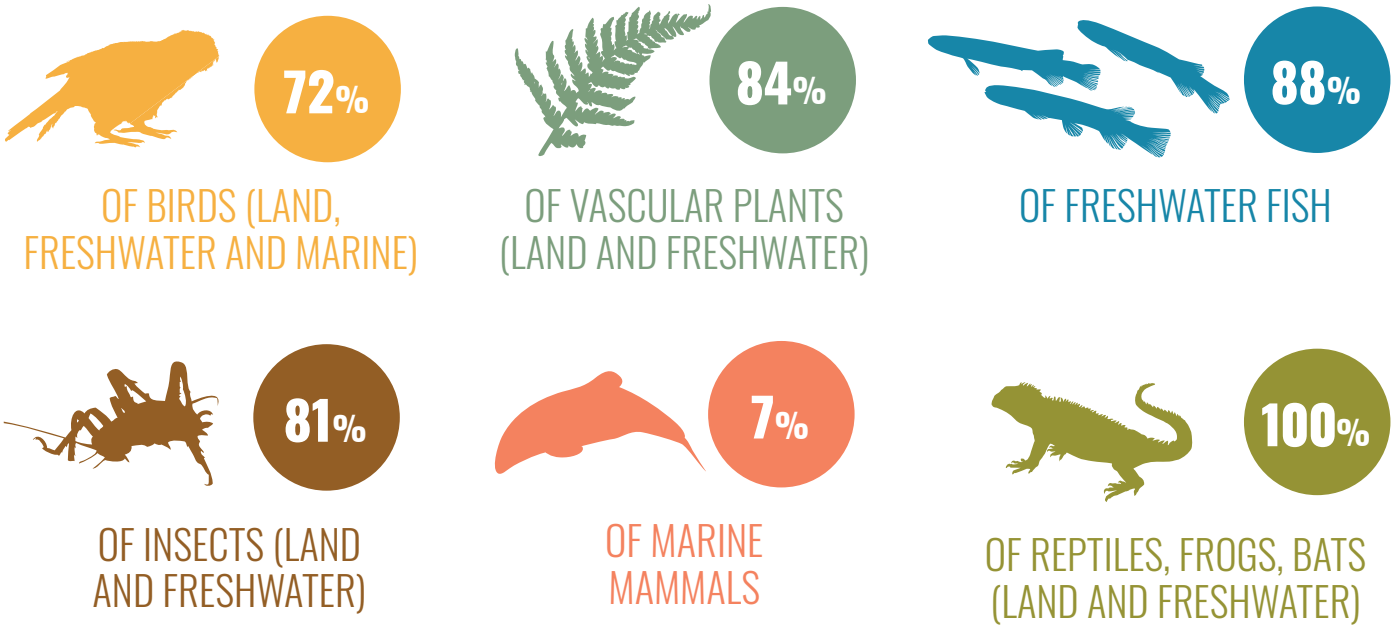
There are 34 global biodiversity 'hotspots' - regions with a high level of endemic species, as well as high habitat destruction and biodiversity loss. New Zealand is one of these hotspots, with declining biodiversity regarded as our "most pervasive environmental issue[1]".

New Zealand has a wide range of unique ecosystems, including terrestrial ecosystems (kauri, kahikatea, pohutukawa, podocarp, mixed broadleaved and red beech forests) or tussock grasslands and scrubs, freshwater ecosystems and marine ecosystems like seamounts, estuaries and coral reefs.

Other New Zealand ecosystems include wetlands, riparian areas, coastal donga, dunelands, indigenous forests, shrublands, lowland tussock grasslands, and alpine and mountain ranges. These ecosystems perform significant environmental functions. For example, wetlands help the moderation of run-off and the provision of consistent water flow in dry conditions while also trapping sediment and filtering nutrients and heavy metals.

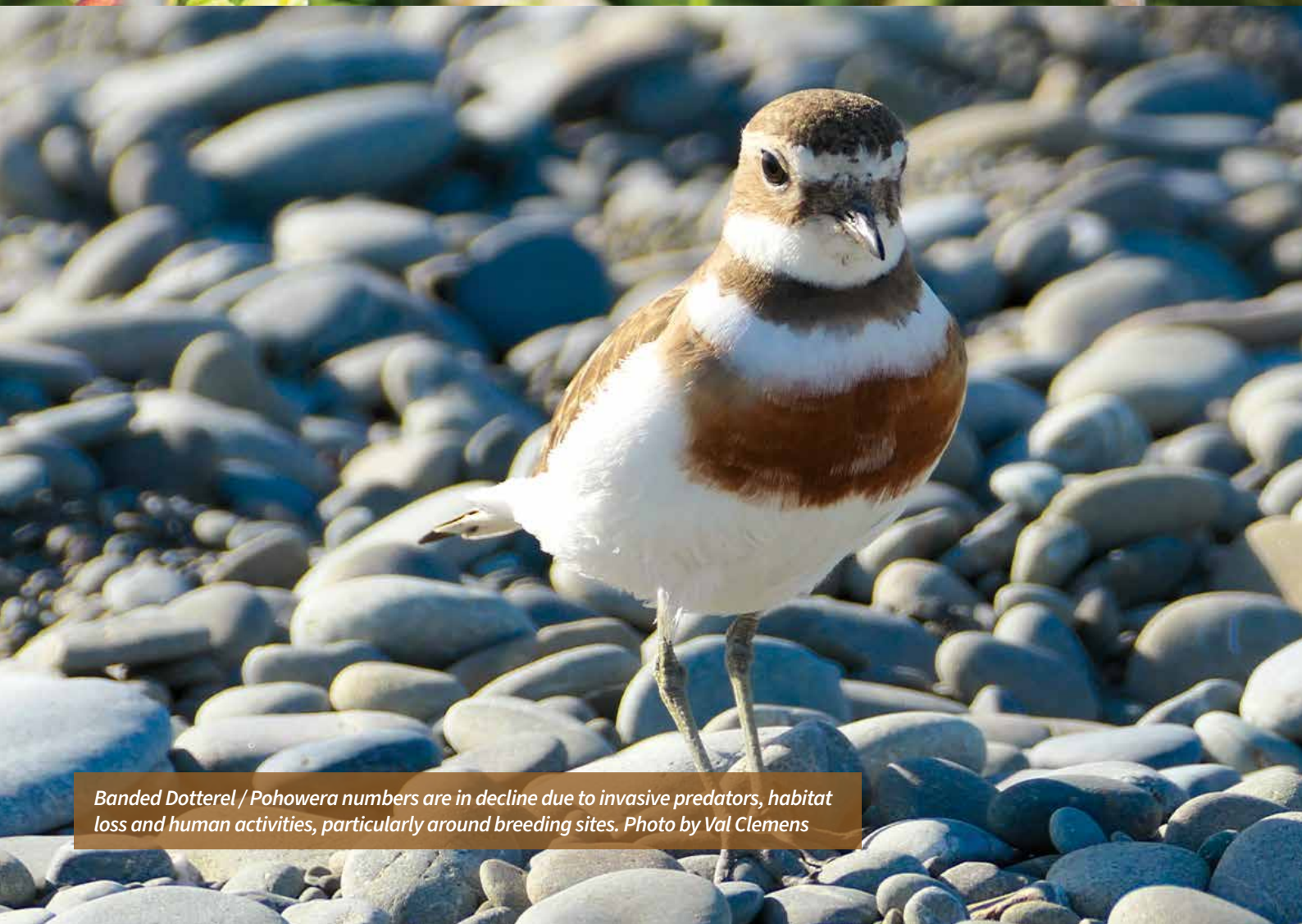
1 Willis, G (2017). Addressing New Zealand's Biodiversity Challenge: A Regional Council Thinkpiece on the Future of Biodiversity Management in New Zealand. Published by Local Government New Zealand.

Percentage of species unique to New Zealand



Note: These data do not include extinct, exotic or non-resident native (Coloniser, Migrant or Vagrant) species.
Source: Biodiversity in Aotearoa.

Copper butterfly (Lycaena salustius) feeding on a Muehlenbeckia flower nectar - Wakanui Beach.



Banded Dotterel / Pohowera numbers are in decline due to invasive predators, habitat loss and human activities, particularly around breeding sites. Photo by Val Clemens

The Rakaia River runs a serpentine course through the Canterbury plains.

BIODIVERSITY IN THE ASHBURTON DISTRICT

The Ashburton District is rich in biodiversity and outstanding landscapes. We host three braided river systems and several lowland streams, Ō Tū Wharekai (Ashburton) lakes and wetlands, coastal dongas, the marine environment of the Canterbury Bight, and outstanding mountain ranges. The district is home to a variety of native fish, birds, lizards and vegetation, some of which are rare or threatened.

Historically, Ashburton District was once referred to as a monotonous expanse of tussock grasslands extending to the mountain range from the coast, with a "rugged and romantic appearance". The plain was divided using vegetation characteristics. It included the alpine grasslands, montane and subalpine tussock grasslands, subalpine scrub, beech forests, and lowland and upland scrub. The tussock grasslands were somewhat distinctive covering almost the entire Ashburton plains, with the brown grasslands contrasting sharply with the green beech forest of the foothills.

Today, the district is considered a highly modified environment with few native vegetation remnants left on the low plains and around 25% native vegetation in the high country. There is an ongoing significant loss of habitat in our lowland streams, and our unique braided river habitats are threatened by weeds, pests and human behaviour.

The Plains

Within the Ashburton District, the plains are the most highly modified natural landscape, as is the case across New Zealand. The Ashburton plains vary in species composition, with extensive and conspicuous stands of vegetation on riverbeds and wetland areas, most of which were burnt before European settlement. In the past, vegetation on the plains consisted mainly of matagouri and kanuka/manuka with silver tussock ferns, and danthonia grassland undergrowth. Kanuka/manuka scrub formed a large dark-coloured cover resembling a low forest. Whereas kanuka was found on alluvial-rich soils, matagouri inhabits a great variety of sites including stony and well-drained sites with constant water flow. Matagouri thrived as they were able to colonise shingly areas due to its root-nodule-forming fungus-like features that fix nitrogen. Currently, exotic grasses and rock shingles support a few populations of Southern grass skinks and native gecko species.

The indigenous vegetation cover remaining on the Canterbury plains is low, and fragmentation has occurred with most remnants too small and isolated to survive without assistance. Indigenous biodiversity remnants on the plains are acutely threatened, with threats including land use changes, the loss of roadside remnants of significant indigenous vegetation, animal and plant pests, urban growth and intensification.

Outstanding biodiversity sites in the Ashburton plains include the Harris Scientific Reserve (remnant of kanuka dry grassland), Wakanui Beach, Ashton Beach and vegetation remnants around the ADC Ocean Farm, numerous patches of kowhai trees and matagouri shrubs along Rakaia River berms, undeveloped plantation road with remnants of original Canterbury plain vegetation, coastal dongas on the Ashburton coastline, and numerous roadside vegetation remnants (e.g. Swamp, Timaru Track, Upper Downs and Shepherds Bush Roads).

Cabbage Tree (Cordyline australis) - Harris Scientific Reserve, Ashburton.

Foothills

The foothills are situated between the low and high plains and extend along the inland scenic route. They are highly modified in some parts with patches of native beech forests in private farmlands. The foothill forests are dominated by the beech trees, pokaka, broadleaf, lancewood, totara, matai, ribbonwood, kowhai and lemonwood, with an understorey of scrub vegetation such as ferns, sedges, coprosma, kiokio, rautahi and several others. Notable examples are the Department of Conservation forest and Awa Awa rata forest. The soil type in the foothills is moist and deep with natural springs seeping through the ground to support plant growth.

Threats to the foothills' biodiversity are animal and plant pests, such as wilding conifers and including weeds that originate from domestic gardens. Land use changes have led to a loss of wetlands, tussock grasslands and indigenous cover. Fire is also a threat to biodiversity in this area.

High Country

Ashburton District's high country is an iconic landscape with high biodiversity values and the only area with up to 25% remaining indigenous biodiversity. The high country includes areas of the Hakatere, Armoury, Arrowsmith, Mathias, Browning and Mt Hutt Ecological District. Despite extreme weather patterns and vegetation modification through burning, grazing and agricultural development, there are still large areas of indigenous vegetation remnants. Significant indigenous forest exists at the boundaries of the foothills. Other native vegetation in the high country includes extensive areas of tussock grassland in public conservation lands and on some private land, patches of beech forests and shrubland vegetation.

Ongoing threats to the high country include pest plant invasions such as wilding conifers and animals such as rabbits, possums, hares, deer, mountain goats and pigs. Significant land use changes, intensification and subdivision have also led to the loss of wetlands, tussock grasslands and shrubland.

Remnant indigenous vegetation in the Canterbury High Country.

Braided Rivers and Lowland Streams

Three braided rivers are connected with the Ashburton District. The Hakatere (Ashburton) River flows through the middle of the district while the Rakitata and Rakaia rivers form its northern and southern boundaries. These rivers are rare and internationally significant features with national priority for protection. Most of the lowland streams in the Ashburton District are spring-fed and empty into the braided rivers or to the ocean. These include small ephemeral streams running through farmland.

These rivers and lowland streams form wildlife corridors and are unique habitats for many indigenous fish, animals and plants, significant habitats for over 39 threatened and endangered bird species.

Significant loss of habitat has occurred in streams and riparian areas. Continued biodiversity decline is likely due to factors including flood events, plant and animal pests, human behaviour, land use intensification, water abstraction, channelisation and changes in flow levels, declining water quality (e.g due to stock access and contaminant discharge), and vegetation clearance. Didymo and other invasive aquatic species also pose a threat, along with barriers to fish passage and habitat disturbance from gravel extraction and recreational threats such as uncontrolled vehicle access. However, several projects, like weed control and riparian plantings to restore riverbeds are ongoing.

Estuaries and river mouths associated with the braided rivers provide a network of significant habitats for invertebrates, fish, birds and plants. Continuing agricultural and urban development poses further threats, while other challenges affecting this environment include coastal erosion, recreational use, sediment load changes, climate change, weed encroachment, pests, changing river flows and ocean swells.

Wetlands and Lakes

Wetlands include shallow water and water margins in and around swamps, bogs, lakes, rivers, streams and estuaries. Wetlands (waterlogged sites) exist because the topography prevents water from draining freely away and water is supplied continuously from upslope springs or streams. Although wetlands are an ecosystem with one of the highest levels of species diversity, they are now rare in New Zealand and have been identified as a national priority for protection. In Ashburton District, over 90% of historical wetlands have been drained and lost, and many remaining wetlands are threatened.

Wetlands are characterised by distinctive vegetation and include plants that are capable of coping under anaerobic conditions where water lies above, at or not far below ground level. These obligate plant species include sedges *Eleocharis acuta*, mingimingi, tussock sedge, bog-rush *Schoenus pauciflorus, raupo* and *Potamogeton cheesemanii.*

A notable wetland system in Ashburton District is Ō Tū Wharekai in the high country of the district. The Ō Tū Wharekai wetlands system includes the 12 Ashburton lakes, streams, swamps and bogs, and ephemeral turfs. Ō Tū Wharekai is also home to several rare native plants, such as endangered marsh arrowrush *(Triglochin palustris)*, pygmy forget-me-not *(Myosotis pygmaea var. minutiflora),* and pygmy clubrush *(Isolepis basilaris)*. The area has one of the largest known populations of the native lily, *Iphigenia novae-zelandiae*. The lakes provide habitat to endangered crested grebes, New Zealand freshwater mussels and numerous bird and fish populations.

Wetlands perform vital functions by improving water quality and providing important habitat for many species, particularly migrant birds. Wetlands can also mitigate carbon impacts, in some cases at higher rates than our native forests. Several remaining wetlands have been mapped by Environment Canterbury, but there are still others in private properties yet to be mapped.

Continued threats to wetlands across the district include a lack of awareness of the values of wetlands, vegetation clearance, land drainage, channelising and impoundment. Further issues include stock grazing, predators, pest invasion and agricultural practices. The Ashburton wetland system and lakes are part of a Department of Conservation-led initiative that focuses on the protection and enhancement of water quality, habitat and species diversity, as well as monitoring and research efforts.

Marine Environment

The district's marine environment runs along the Canterbury Bight with high deposition of shingle gravel washed down to the coast from the Southern Alps. Our coastal marine environment supports relatively few native species due to its vigorous high tides and shingly nature. However, it contains fish migratory paths that link the marine environment to the freshwater bodies.

In recent times, there has been occasional sightings of marine mammals including the New Zealand fur seal and hector dolphins. The low occurrence of native biodiversity may be due to the nature of the coastal areas, vehicle access to beaches, coastal erosion and the effect these factors have on water quality. All of these pose challenges to marine biodiversity. All of these pose challenges to marine biodiversity.

Black-fronted tern / Tarapirohe breed on the braided riverbeds of the Rakitata (Rangitata) River.

Tussock grassland around Lake Heron (Ashburton Lakes)

MANAWHENUA RELATIONSHIP TO BIODIVERSITY

Provided by Te Rūnaka o Arowhenua.

Manawhenua have lived on the fertile coastal plains of Mid and South Canterbury for hundreds of years, venturing up the river valleys into the mountains of the takiwā, crossing the passes inland to the many lakes or over to Te Tai Poutini / the West Coast and out into the ocean. The Indigenous flora and fauna of these environments have sustained Manawhenua for hundreds of years, providing food, fibre, building materials, fuel, medicine and other necessities. The relationship between Manawhenua and indigenous biodiversity has evolved over centuries of close interaction. We continue to put considerable effort into preserving, restoring and enhancing our relationships ki uta ki tai (from the mountains to the sea) through the practice of mahika kai.

Manawhenua have a strong sense of 'tūrangawaewae' where one belongs and has a right to stand as their ancestors stood before them. Whakapapa bestows us our identity, rights and responsibilities. It defines our relationship with the land and waters – how they should be used, how to move across them safely and how to care for them as kaitiaki. In return, our takiwā provides physical and spiritual nourishment for our whānau, with plentiful food, medicine, water and natural resources for survival.

Prior to 1840 and the implementation of the new colonial order, mana and kaitiakitaka were often synonymous. Manawhenua traditionally invoked and exercised kaitiakitaka over the resources of the land and sea and Kāti Huirapa collectively protected to the fullest extent their territory and its resources. They maintained and developed their tikaka for the well-being of the people. It was the kaitiaki duty to protect and sustain the resources mō ā mātou mokopuna ake tonu ake (for us and our children after us). The bottom line for all decisions therefore was the sustainable management of the resource and the continuing well-being of the hau kāika. For Kāti Huirapa, kaitiakitaka is not only about the physical resources, but also about being Manawhenua and maintaining a relationship to the spiritual dimension and influences, including the primary principle of protection of the mauri of an ecosystem from desecration.

Mauri is imbued in all things and is a special power derived from the supreme being. At birth the two parts of body and wairua are joined together as one by the mauri. On death, the mauri is no longer able to bind these elements together and the physical and spiritual parts are separated. The forest, waters, the life supported by them, together with natural phenomena such as the mist, wind and rocks, possess a mauri.

Mahika kai is a contemporary philosophy that lies at the heart of Kāti Huirapa culture and takes place throughout whole catchments. For us, mahika kai is a way of life; it is both traditional and contemporary. Mahika kai refers to interests in traditional food and other natural resources

and includes the species, related habitats and conditions required to support our mahika kai practices. Mahika kai is at the heart of Kāti Huirapa culture, identity and practice. The lakes, lagoons, rivers and wetlands throughout the takiwā of Kāti Huirapa are of paramount importance for our continuing practice of mahika kai. Taoka and kai species today are wide ranging and include tuna, kanakana, īnakawai kōura, birds and many species of plants, like harakeke, ti kōuka and pīngao. Species gathered have changed over time as new species have become available or traditional species become unavailable and may change again in the future.

However, our ability to continue mahika kai practices in the catchments of Ashburton has greatly diminished in the last 150 years. We have restricted or no access to mahika kai resources due to changes in land tenure and management (including draining of wetlands), water use and tenure, the introduction of pests, and development of land for primary production or urbanisation. This has meant that our mahika kai practices in the catchments of Mid and South Canterbury have had to adapt. Where we can continue the practices of our tūpuna, in the places they used, we treasure this greatly.

Our mahika kai sites do not stand in isolation. They are at the heart of treasured landscapes that support and enable the processes of whakawhanaukataka (the process of establishing relationships and relating well to others).

Thyme Stream Walkway, Methven

Harris Scientific Reserve is managed by the Ashburton Community Conservation Trust and holds regular planting days.

THE PROGRESS SO FAR - BIODIVERSITY ACHIEVEMENTS BY COUNCIL AND THE COMMUNITY

In 2010, Council introduced the Biodiversity Working Group, and through collaboration and the combined effort of stakeholders, important progress has been made for biodiversity in the district. Our actions towards native vegetation have improved and there is an increased awareness of the need to enhance and restore the environment.

Two notable achievements are the development of the Biodiversity Action Plan and subsequent review in 2017, and surveys to identify remnants of indigenous native vegetations on the plains, especially on roadsides (Plantation and Ferrimans Road), two private farms along the Rakaia River berm and Council's Ocean Farm. There remains more work to do in this space, as the extent of biodiversity remnants on private land and other public land are not yet fully known.

Other accomplishments include the introduction and administration of Biodiversity Grant funding, improved Rūnaka engagement, appointment of a full-time Council Ecologist and Biodiversity Advisor, increased awareness of biodiversity values in regards to Council's operations, regular biodiversity media briefings, increased education around native vegetation clearance rules, and biodiversity projects on Council land such as the Wakanui Beach Restoration Initiative and Lake Camp/Clearwater Landscape Management Plan.

The Ashburton Community Conservation Trust that was constituted in 2010 continues to manage the Harris Scientific Reserve, a dryland kanuka remnant, with biannual planting in the last five years to extend the kanuka forest and other native vegetation plant coverage.

The Council, through its Biodiversity Grant programme, has funded biodiversity restoration planting projects, weed controls and environmental education programmes. These include sycamore control at Mt Hutt Road, a pest control program at Alford Forest and Maori Lakes, Galloway wetland restoration, the Beginners Guide to Biodiversity in Mid Canterbury project, sycamore weed control (Rakaia Gorge), and Upper Rangitata Landcare Group weed control.

Private landowners and farmers have also contributed to increasing native vegetation enhancement in the district through wetland restoration projects and native shelterbelt planting.

Wakanui School pupils collecting seed for a propagation event at Wakanui Beach.

Flooding along the Ashburton / Hakatere River following a heavy rain event in May 2021

CLIMATE CHANGE AND BIODIVERSITY

Climate change is an important driver of biodiversity loss in New Zealand. Biodiversity is affected by every aspect of climate change which includes more frequent and intense droughts, storms, heatwaves, rainfall, increasing bushfires, changes in ocean currents and water temperatures, estuary and ocean acidification and sea level rise. These events can result in changes to ecosystem services and species biology.

Biological changes include shifts in some species range, bird migration, changes in plant phenology such as flowering time and earlier timing of leaf-unfolding, and changes in gestation length in some species[2] are being observed locally and globally. Climate change can also encourage changes in predator behaviour and weed proliferation.

Locally, the 2021 flooding event resulted in the loss of an important lizard species and habitat. Landslides led to vegetation loss in the high country and foothills, and flooding contributes to the loss of aquatic animals and their breeding sites. Other noticeable impacts of recent climate events are changes to land ecosystem productivity, and disruption of freshwater ecosystems due to warmer water and lower flows in rivers and streams.

Our strongest natural defence against climate change lies in biodiversity[3]. Biodiversity acts as a natural carbon sink, sequestrating carbon from the atmosphere and acting as a nature-based solution to global warming.

2 Macinnis-Ng et al., 2021

3 United Nations (2023). Biodiversity - our strongest natural defense against climate change.

Biodiversity helps provide stability and resilience to our environment as we adapt to the fluctuations and disturbances brought about by extreme weather events.

With current and future climate predictions for the district5[4], these changes and events will continue. Further research is necessary to identify what this means for the biodiversity of our district and what actions need to be taken.

Council has a Climate Resilience Plan which guides the actions and decisions of ADC to meet the goals of our Climate Change Policy, and this includes continued investment in biodiversity.

4 Macara et al (2020). Climate change projections for the Canterbury Region. National Institute of Water & Atmospheric Research Ltd Wellington.

Planting new native at the Lake Camp/Clearwater settlement after the removal of wilding pines

Craspedia rugosa (Lake Heron woollyhead)

WHY DO WE NEED A STRATEGY?

Despite the existence of the Biodiversity Action Plan, the regulations in the Resource Management Act (RMA) and the Council's awareness, the threats to Ashburton District's biodiversity remain. These include but are not limited to, changes in land use, lack of habitat corridors and declining water quality, increasing native vegetation clearance, and plant and animal pests[5]. The increasing threat of a changing climate, is also likely to aggravate the existing pressures.

As a result, Council adopted the recommendation of the Ashburton District Biodiversity Advisory Group to develop a Biodiversity Strategy. This living document identifies the biodiversity pressures, has included stakeholder, Manawhenua and community input, and contains measurable and achievable actions that will help to halt / reverse the decline of indigenous species in the Ashburton District.

The timing of the strategy development has also coincided with the release of the National Policy Statement on Indigenous Biodiversity (NPS-IB) and the strategy will be used to help implement the NPS. The NPS-IB commenced on 4 August 2023, and mandates the Council to undertake a district-wide assessment of significant natural areas for the protection and restoration of biodiversity within the Ashburton District. Ashburton District's current and future responsibility under the NPS-IB, as currently understood has been captured in the Action Plan.

5 Harding, 2022

WHAT DOES THIS STRATEGY INCLUDE?

The strategy provides specific guidance that will help us, together as a community, to achieve the shared vision for our district.

It describes how we will:

1. Identify the remaining biodiversity values in the district and protect and maintain these values.
2. Restore indigenous biodiversity.
3. Gather and share knowledge on biodiversity with our stakeholders and community.
4. Have communities and stakeholders work together to encourage wider participation in the conservation and enhancement of indigenous biodiversity.

The goals, objectives and actions sit within a regional and national framework for biodiversity protection. The document showcases the local stakeholders and partners, and activities that have been identified as important, including those already under way or that need to happen in the future.

The Action Plan sets out how we intend to achieve each objective over the next 20 years. It is intended to be a living document and the progress of actions and projects outlined in the Action Plan with be monitored.

HOW HAS THIS STRATEGY BEEN PREPARED?

This draft strategy was prepared in partnership with Te Rūnaka o Arowhenua. It builds on an initial workshop with the Biodiversity Advisory Group and a review of the Biodiversity Action Plan (BAP) progress to date, consideration of other Council's plans and strategies, integrating the latest legislation and the outcome of the SWOT analysis from a workshop with key stakeholders in the district held in May 2023.

The key stakeholders included representatives from Environment Canterbury, QEII National Trust, Department of Conservation, Ministry of Primary Industry, Federated Farmers, Ashburton Community Conservation Trust, Fish and Game, Fonterra, Foothills Landowners, Synlait, Forest and Bird, Awa Awa Rata Reserve Society, Ashburton Water Zone Committee, Foothills Landcare Group, Kanuka Trust, Mt Somers Walkway Society, Mid Canterbury Catchment Collective (MCCC), Whitcombe Landcare Group, Lake Heron Conservation Society and farmers. We also work with other Councils (Environment Canterbury and Timaru and Selwyn District) along the two major rivers through stakeholders' collaborative projects.

Bowyers Stream bank stabilisation using native planting

ALIGNMENT WITH OTHER STRATEGIES AND PLANS

The Biodiversity Strategy aligns with national, regional and local strategies and plans. Its central purpose is to give effect to the National Policy Statement on Indigenous Biodiversity and Canterbury Regional Policy Statement at the district level, and align with other relevant Canterbury Regional Strategies.

These policies, strategies and legislation include:

NATIONAL

- National Policy Statement on Indigenous Biodiversity 2023
- Aotearoa New Zealand Biodiversity Strategy – Te Mana o te Taiao 2020
- Resource Management Act (RMA) 1991
- New Zealand Biodiversity Action Plan 2016
- Local Government Act (LGA) 2002
- Statement of National Priorities 2007
- Predator-Free 2050

REGIONAL

- Canterbury Regional Policy Statement 2013 (under review)
- Biodiversity Strategy for the Canterbury Region 2008
- Canterbury Water Management Strategy (CWMS) 2009

ASHBURTON DISTRICT

- Long-Term Plan (LTP): specifies Council's intentions for the next 10 years and how we will fund them. One of the four Community Outcomes is 'A balanced & sustainable environment "He taiao toit¬ū', referring to biodiversity.
- Ashburton District Plan 2014: provides the land use planning framework for our district.
- Climate Change Policy 2022/ Climate Resilience Plan 2022
- Ashburton District Biodiversity Action Plan 2017 – 2022/23

Volunteers at the King Charles Coronation Planting 2023 - Harris Scientific Reserve

PART 2:
OUR VISION, GOALS AND ACTION PLAN

OUR VISION, GOALS AND ACTION PLAN

OUR VISION

A district where biodiversity is protected and enhanced from the mountains to the sea (ki uta ki tai) by a community that values and cares for it.

This vision links to all four community outcomes as envisioned in our current Long-Term Plan:

Residents are included and have a voice

Ka whai wāhi, ka whakaputa kōrero kā kainoho

A district of great spaces and places

He tiriwā pai, he wāhi pai i tēnei takiwā

A balanced and sustainable environment

He taiao toitū

A prosperous economy based on innovation and opportunity

He ōhaka whai rawa i ruka i te aroka hou me te whai āheika

OUR GOALS AND OBJECTIVES

GOAL 1
PROTECT AND MAINTAIN

The remaining indigenous biodiversity in the Ashburton District is protected and maintained.

This means (objectives):

1.1 Ecological values within the district are identified and protected.

1.2 Taoka species and sites with takata whenua cultural values are identified and protected.

1.3 Further loss of threatened and at-risk indigenous species is prevented by the control or eradication of pest species (fauna and flora)

1.4 Impacts of development and human activity on significant ecological values are properly managed.

GOAL 2
RESTORE AND INTERCONNECT FOR THE BENEFIT OF THE COMMUNITY

The indigenous biodiversity in the Ashburton District is restored, enhanced and ecologically interconnected for the benefit of the community.

This means (objectives):

2.1 Indigenous vegetation cover within the district has increased over time.

2.2 Biodiversity sites and habitats of indigenous species and taoka are interconnected.

2.3 Community projects that aim to restore and ecologically link indigenous biodiversity sites and habitats in the district are identified and supported (support: time / expertise / biodiversity grant)

2.4 Eco-tourism through biodiversity is encouraged and promoted in Ashburton District

GOAL 3
EDUCATE AND ENHANCE AWARENESS

Knowledge on biodiversity is gathered and shared, informing and empowering the stakeholders and the community.

This means (objectives):

3.1 Research into and collection of data on the state of biodiversity in the district is improved.

3.2 Knowledge of Manawhenua world view / biodiversity within the district is documented and shared.

3.3 Knowledge of Ashburton indigenous biodiversity is shared with the community and stakeholders (landowners, industry groups, environmental protection groups, local and regional government agencies).

3.4 School environmental programmes are sustained and improved.

GOAL 4
COOPERATE, ENCOURAGE AND CELEBRATE COMMUNITY PARTICIPATION

Collaboration and participation among Council, Rūnaka and Stakeholders in the wider community for conservation and enhancement of indigenous biodiversity is encouraged.

This means (objectives):

4.1 Cooperation and collaboration among stakeholders is encouraged.

4.2 Council takes a leadership role in working together and encouraging conservation and enhancement.

4.3 The general public is encouraged to participate in conservation and enhancement of indigenous biodiversity.

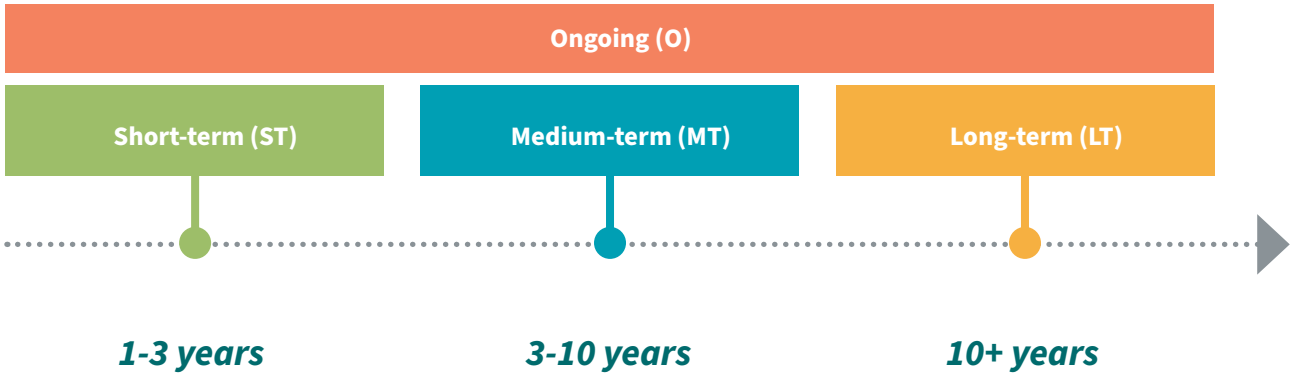
4.4 Community projects that aim to protect, maintain and enhance indigenous biodiversity are supported.

IMPLEMENTATION TIMEFRAME

The lifespan for the strategy is expected to be 20 years. However, some actions may be achieved sooner. Achievement is also dependent on financial availability, legislative changes and commitment. As a guide, we have split the timeframes into the four categories below. Actions that run for the entire life of the strategy are designated as "ongoing" and actions associated with NPS-IB statutory provisions or implementation are designated in bold.

REPORTING AND REVIEW

We will report annually on the progress of the Action Plan's implementation. An interim review of the Action Plan is to be undertaken after the first 12 months and a full review, to ensure it remains current and meets the needs of our community, every three years. A full review of the entire Strategy will be undertaken every five years.



ROLE OF ASHBURTON DISTRICT COUNCIL

The role of Council in the Strategy and Action Plan is defined in broad terms below:

- **No role:** not an issue, role of other agencies and organisations.
- **Advocate:** collecting and sharing community views with government, agencies or organisations to help improve the district. This can be active or passive.
- **Influence:** educate and work to change people's perceptions or behaviour to provide positive community outcomes.
- **Support:** support agencies leading the work (e.g. research, funding or bringing stakeholders together).
- **Plan and resource:** take direct lead and involvement to achieve specific outcomes (e.g. developing plans, consultation, funding, resourcing).

RESOURCE AND FUNDING

Resourcing will come from a range of sources, with significant contributions to the success of the strategy coming from other agencies and the community. Reference is made in the Action Plan as to whether resources and funding are available within the existing Council operations or budgets (staff time or operational budget) or may come from specific NPS-IB funding, external contractors or other sources. There will also be potential to seek external grants/ funding from other agencies involved with biodiversity and conservation. This is described further below:

- **NPS-IB funding:** central government funding and ECan resource support expected. At time of writing the actual costs are unknown.
- **Biodiversity Grant:** $15,000 available per year for community projects (ADC-funded).
- **No new resource:** means that the action is currently already being done within an ADC staff role and will continue without the requirement to reserve any new resource.

A typical Ashburton Lakes wetland system

THE ACTION PLAN

GOAL 1: PROTECT AND MAINTAIN

The remaining indigenous biodiversity (rare, threatened, taoka and other significant species and their habitats) in the Ashburton District are protected and maintained.

	Objectives	Actions (bold = NPS-IB)	Role of ADC	Who	When
1.1	Ecological values within the district are fully identified and protected.	A. **Complete assessment of the district's ecological values, including significant natural areas (SNAs).**	Plan & resource	ADC, ECan, DOC, Rūnaka, community	MT **5 years from 4 August 2023**
		B. Encourage covenants and other forms of land protection in private properties and Council reserves with ecological values.	Influence	ADBAG, QEII, Landowners	LT O
		C. **Identify and protect Ashburton District's special features with ecological values (e.g. coastal dongas).**	Plan & Resource	ADC, ECan, DOC, community	ST
		D. Undertake ecological assessment of the Hinds drain and make recommendations on protecting the values.	Support	Rūnaka, ECan, MCCC, ADC	ST
		E. **Prepare for plan changes to protect SNA and recognise land covenants.**	Plan & Resource	ADC or Regional Planning Committee	MT LT
1.2	Taoka and their habitats are identified and protected.	A. **Undertake an assessment of Manawhenua cultural/ heritage sites and determine taoka species present in the district.**	Support	Rūnaka, ADC	ST
		B. **Develop a joint plan to ensure the protection and restoration of the cultural sites.**	Support + Plan & Resource	Rūnaka, ADC	MT

	Objectives	Actions (bold = NPS-IB)	Role of ADC	Who	When
1.3	Further loss of threatened indigenous species is prevented by the control, or eradication, of pest species (fauna and flora).	A. Support pest management approach with other stakeholders to control plant and animal pests.	Support	ECan, DOC, LINZ, Rūnaka, ADBAG, MPI, ADC	ST MT
		B. Continue pest management program in all Council reserves and Open Spaces.	Plan & Resource	ADC	LT O
		C. Promote weed prevention, for instance, by engaging with nurseries and garden centres throughout the district.	Advocate	ECan, ADC, Stakeholders	ST
		D. Continue implementation of Lake Camp/Clearwater Management plans for the eradication of wilding trees in the area.	Plan & Resource	ADC, Hut holders, ECan, DOC.	LT O
1.4	Impact of use and development and human activity on biodiversity is properly managed.	A. Promote collaborative response to degradation of Ō Tū Wharekai.	Advocate	ECan, ADC, Rūnaka/ Iwi, DOC, Stakeholders	LT O
		B. **Review ADC vegetation clearance rule for Rural zones to provide better protection for indigenous biodiversity.**	Plan & Resource	ADC	ST MT
		C. **Ensure existing biodiversity is conserved and enhanced in new subdivisions and development projects.**	Plan & Resource	ADC	ST MT

ST	**Short-term**	**1-3 years**
MT	**Medium-term**	**3-10 years**
LT	**Long-term**	**10+ years**
O	**Ongoing**	**Actions that run for the entire life of the strategy**

Actions associated with NPS-IB statutory provisions or implementation are designated in ***bold****.*

GOAL 2: RESTORE AND INTERCONNECT FOR THE BENEFIT OF THE COMMUNITY

The indigenous biodiversity in the Ashburton District is restored, enhanced and ecologically interconnected for the benefit of the community.

	Objectives	Actions (bold = NPS-IB)	Role of ADC	Who	Date
2.1	Indigenous vegetation cover has increased over time within the district.	A. **Advocate to increase the indigenous vegetation cover target as set in the NPS-IB or by the regional council at the local level.**	Advocate	ADC, Rūnaka, ECan	ST MT (NPS-IB stated 10%, final target dependent on ECan)
		B. **Promote integration and use of appropriate indigenous species for shelterbelt planting and replacement on private farmland within the district to increase vegetation cover.**	Influence	ADC	LT O
		C. **Investigate the use of stormwater swales, MAR (Managed Aquifer Recharge) sites, rivers and stockwater race networks to improve native vegetation cover in the district.**	Plan & Resource	ADC, Rūnaka, Irrigation Companies, ECan, Landowners, MCCC	ST
		D. **Encourage the use of native vegetation for council planting projects (street trees, reserves and berms).**	Plan & Resource	ADC	LT O
		E. Investigate the ecologically suitable riparian buffer and promote it to the community.	Plan & Resource	Rūnaka, ECan, ADC	LT O

ST	**Short-term**	**1-3 years**
MT	**Medium-term**	**3-10 years**
LT	**Long-term**	**10+ years**
O	**Ongoing**	**Actions that run for the entire life of the strategy**

Actions associated with NPS-IB statutory provisions or implementation are designated in ***bold****.*

	Objectives	Actions (bold = NPS-IB)	Role of ADC	Who	Date
2.2	Biodiversity sites and threatened species habitats are interconnected.	A. **Investigate and develop a plan to establish biodiversity corridors from the mountains to the sea to sustain its functions[6].**	Plan & Resource	ADC, Rūnaka, Irrigation Companies, ECan, Landowners, MCCC	MT
		B. **Prioritise areas for restoration that provide important connectivity or ecological buffering functions.**	Plan & Resource	ADC, Rūnaka, ADBAG	MT LT
		C. **Support landowners' biodiversity projects that will improve ecological corridors.**	Support	ADC	MT
2.3	Supporting projects that aim to restore and interconnect indigenous biodiversity sites in the district. *(support = time / expertise / biodiversity grant / funding)*	A. **Investigate incentives to landowners with indigenous native vegetation sites on their farmlands.**	Plan & Resource	ADC	ST MT
		B. **Provide incentives to landowners with indigenous native vegetation sites on their farmlands.**	Plan & Resource	ADC	MT LT
		C. Continue to support biodiversity projects undertaken by other stakeholders in the district.	Support	ADC, Water Zone Committee, Dairy (Synlait/Fonterra) and Irrigation Companies.	LT O
2.4	Eco-tourism through biodiversity is encouraged in Ashburton District. *(Economic benefit of biodiversity)*	A. Investigate and implement how biodiversity can contribute to eco-tourism in the district. (E.g. Harris Reserve and Ashton Beach)	Plan & Resource (Economic Development collaboration)	Stakeholders, Community, ADC	LT
		B. Address the barriers that could hinder eco-tourism through biodiversity.	Influence	ADC, Stakeholders, Community	LT

6 Linking reserves, stockwater races, three major rivers, unproductive farm blocks, MAR sites and irrigation channels

GOAL 3: EDUCATE AND ENHANCE AWARENESS

Knowledge on biodiversity is gathered and shared, informing and empowering the stakeholders and the community.

	Objectives	Actions (bold = NPS-IB)	Role of ADC	Who	Date
3.1	Research into and collection of data on the state of biodiversity in the district is improved. *Knowledge gathering*	A. Compile general biodiversity information on the Ashburton District and its characteristic features and make it available to the public.	Plan & Resource	ADC, ADBAG	LT O
		B. Investigate climate change implications for Ashburton District biodiversity to plan for future resilience programmes.	Plan & Resource	ADC, ECan, Stakeholders	ST
		C. **Undertake a desktop assessment of native species groups within the district and make predictions on their adaptability for future climate change scenarios.**	Plan & Resource	ADC, ECan, Universities, Stakeholders	MT
		D. **Complete GIS mapping of Ashburton District ecosystems and make it available to the public.**	Resource	ADC, DOC, ADBAG	ST O
		E. Initiate and support biodiversity research within Ashburton District to foster relationships and increase the knowledge base and available information.	Support + Influence	ADC, Universities, Rūnaka/Iwi, Stakeholders	MT
3.2	Knowledge of Manawhenua world view / biodiversity within the district is documented and shared. *Knowledge sharing*	A. Collate information on sites of cultural/ heritage values and taoka and make it available to the community.	Support	Rūnaka, ADC	MT
		B. **Promote the mahika kai concept to share knowledge and increase awareness.**	Influence	Rūnaka, ADC, ADBAG	MT

	Objectives	Actions (bold = NPS-IB)	Role of ADC	Who	Date
3.3	Knowledge of Ashburton indigenous biodiversity is shared with communities. *(Landowners, industry groups, environmental protection groups, Council local and regional government agencies)*	A. Advocate and distribute information to landowners regarding biodiversity values.	Advocate	ADBAG, ECan, Stakeholders, ADC	LT O
		B. Initiate citizen science programmes to involve communities in data gathering on Ashburton biodiversity.	Plan & Resource	ADBAG, ECan, Stakeholders, ADC	ST
		C. Initiate and support regular media publication of Ashburton District biodiversity information on external media channels.	Plan & Resource	ADC, ADBAG	LT O
		D. Maintain relevant biodiversity updates on ADC website and use it as an information portal.	Plan & Resource	ADC	LT O
		E. Provide accessible knowledge and professional services to landowners when required.	Influence	ADC	LT O
		F. **Create greater awareness of the importance of biodiversity and native vegetation across the primary industry.**	Influence	ADC, Stakeholders	ST
		G. **Organise seminars and workshops for landowners, stakeholders and primary sectors on environmental issues and outcomes.**	Plan & Resource	ADBAG, ECan, Stakeholders, Community	ST MT
3.4	School environmental programmes are sustained and improved.	A. Support and extend school environmental programmes and biodiversity projects to more schools in Ashburton District.	Support	ADC, ECan, ADBAG, Stakeholders	LT O
		B. Celebrate International Biodiversity (22 May) and Conservation Days (28 July) with the schools and community.	Support	ADBAG, Stakeholders, Community	ST

ST	**Short-term**	**1-3 years**
MT	**Medium-term**	**3-10 years**
LT	**Long-term**	**10+ years**
O	**Ongoing**	**Actions that run for the entire life of the strategy**

Actions associated with NPS-IB statutory provisions or implementation are designated in ***bold****.*

GOAL 4: COOPERATE, ENCOURAGE AND CELEBRATE COMMUNITY PARTICIPATION

Collaboration and participation among Council, Rūnaka and Stakeholders in the wider community for conservation and enhancement of indigenous biodiversity is encouraged.

	Objectives	Actions (bold = NPS-IB)	Role of ADC	Who	Date
4.1	Cooperation and collaboration among stakeholders are encouraged.	A. Strategic partnerships with stakeholders and relationships are fostered through regular ADBAG meetings.	Influence	ADBAG, Stakeholders	O
		B. Maintain appropriate Council representation in stakeholders with an interest in biodiversity.	Influence	ADC	O
4.2	Council takes a leadership role in working together and encouraging conservation and enhancement.	A. Advocate for biodiversity protection and enhancement within Council as an organisation and communicate these principles regularly to staff.	Advocate	ADC	O
		B. Investigate and support the review of project code/standard to reflect biodiversity protection and enhancement (e.g. culvert allowing fish passage and migration, sediment protection and floodplain repairs and enhancement using native plantings).	Influence + Support	Rūnaka, ECan	ST
		C. **Foster active partnership with the Manawhenua at all levels of decision-making in biodiversity management.**	Influence	ADC, Rūnaka	O
		D. Integrate biodiversity principles across Council activities. For example, increasing the percentage of native planting used in Council reserves, street trees and road berms.	Advocate	ADC	O
		E. Support implementation of Council surface water strategy to improve biodiversity.	Influence	ADC	O
		F. **Investigate and develop an urban/ residential zone forest plan to increase tree cover for the district as a mitigation for climate change.**	Plan & Resource	ADC, ECan	MT LT

	Objectives	Actions (bold = NPS-IB)	Role of ADC	Who	Date
4.3	General public is encouraged to participate in conservation and enhancement of and celebrate biodiversity.	A. Continue collaboration of stakeholders and volunteer networks for biodiversity projects within the district.	Influence	ADBAG, Stakeholders	O
		B. Investigate and promote biodiversity funding/resource pool to support biodiversity projects in the community.	Advocate	ADBAG, Stakeholders	O
		C. Introduce the Environment Champions Award to celebrate local biodiversity achievements.	Plan & Resource	ADC	ST
4.4	Community projects that protect and maintain indigenous biodiversity are supported.	A. Support projects that aim to protect and maintain biodiversity in the district.	Support	ADC, ADBAG	O

ST	**Short-term**	**1-3 years**
MT	**Medium-term**	**3-10 years**
LT	**Long-term**	**10+ years**
O	**Ongoing**	**Actions that run for the entire life of the strategy**

Actions associated with NPS-IB statutory provisions or implementation are designated in ***bold****.*

GLOSSARY

Adaptability – Ability to adjust to changes in the environment.

ADBAG - Ashburton District Biodiversity Advisory Group

ADC - Ashburton District Council

Biodiversity 'hotspots' – an area with at least 1,500 species of vascular plants found nowhere else on Earth and have lost at least 70 percent of its primary native vegetation.

Biodiversity – the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world.

ECan - Environment Canterbury, our regional council.

Ecosystem – A community or group of living organisms that live in and interact with each other in a specific environment.

Indigenous biodiversity – the living organisms that occur naturally in New Zealand, and the ecological complexes of which they are part, including all forms of indigenous. flora, fauna, and fungi, and their habitats.

MCCC - Mid Canterbury Catchment Collective. Rural support and advisory group that works with the sector to improve environmental outcomes.

NPS-IB – National Policy Statement for Indigenous Biodiversity

Phenology – Timing of biological events or activity. e.g. plant flowering or fish spawning events.

Riparian – relating to or living or located on the bank of a natural watercourses; rivers, stream or stockwater races.

Riparian area - Land adjacent to streams, rivers and other bodies of water like ponds and lakes.

SNA – Significant natural area - an area that has significant indigenous vegetation or habitat of indigenous fauna. A SNA may include remnant native bush or native forests, wetlands, frost flats, lakes and rivers, or geothermal vegetation.

Species range – where plants or animals can be found in their lifetime.

SWOT analysis – analysis of the strengths, weaknesses, opportunities and threats.

Terrestrial – living or growing on land.

Vascular plants – Any plant, which have specialised vascular tissues for the transport of water, minerals and food. All plants are vascular except algae, bryophytes (moss, liverworts and hornworts) and fungi.

TE REO

Hau kāika – Home, true home

Harakeke – New Zealand Flax

Īnaka – Whitebait

Kai – Food / meal

Kaitiaki – Guardian

Kaitiakitaka – The exercise of customary custodianship, in a manner that incorporates spiritual matters, by takata whenua who hold Manawhenua status for particular area or resource.

Kanakana – Lamprey

Kati Huirapa – Reference to "Kāti Huirapa" and "Manawhenua" should be interpreted as including the whānau who whakapapa to Te Rūnaka o Arowhenua and whānau of other Papatipu Rūnaka who share interests with Te Rūnaka o Arowhenua.

Ki uta ki tai – Mountains to sea

Kōrua – Crayfish

Mahika kai – Places where food is produced or procured.

Mana – Authority, prestige, influence

Manawhenua – Those who exercise customary authority or Rakatirataka (Chieftainship, decision making rights).

Mauri – Essential life force or principle; a metaphysical quality inherent in all things both animate and inanimate (Ngāi Tahu Fresh Water Policy).

Pīngao – Golden sage sedge

Rūnaka – Local representative group or community system of representation.

Takiwā – Area, region, district

Taoka – Treasure

Tapu – sacred

Tikaka – Customary values, practices

Ti kōuka – Cabbage tree

Tuna – Eel

Tupuna – Ancestors

Turakawaewae – Place of belonging through ancestral rights linked to land, place to stand.

Wairua – Life principle, spirit

Whakapapa – Genealogy

Whanau – Family

Whakawhanaukataka – The process of establishing relationships and relating well to others

Silver tussock (Poa cita) in Harris Scientific Reserve, Ashburton.

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Our Natural Place
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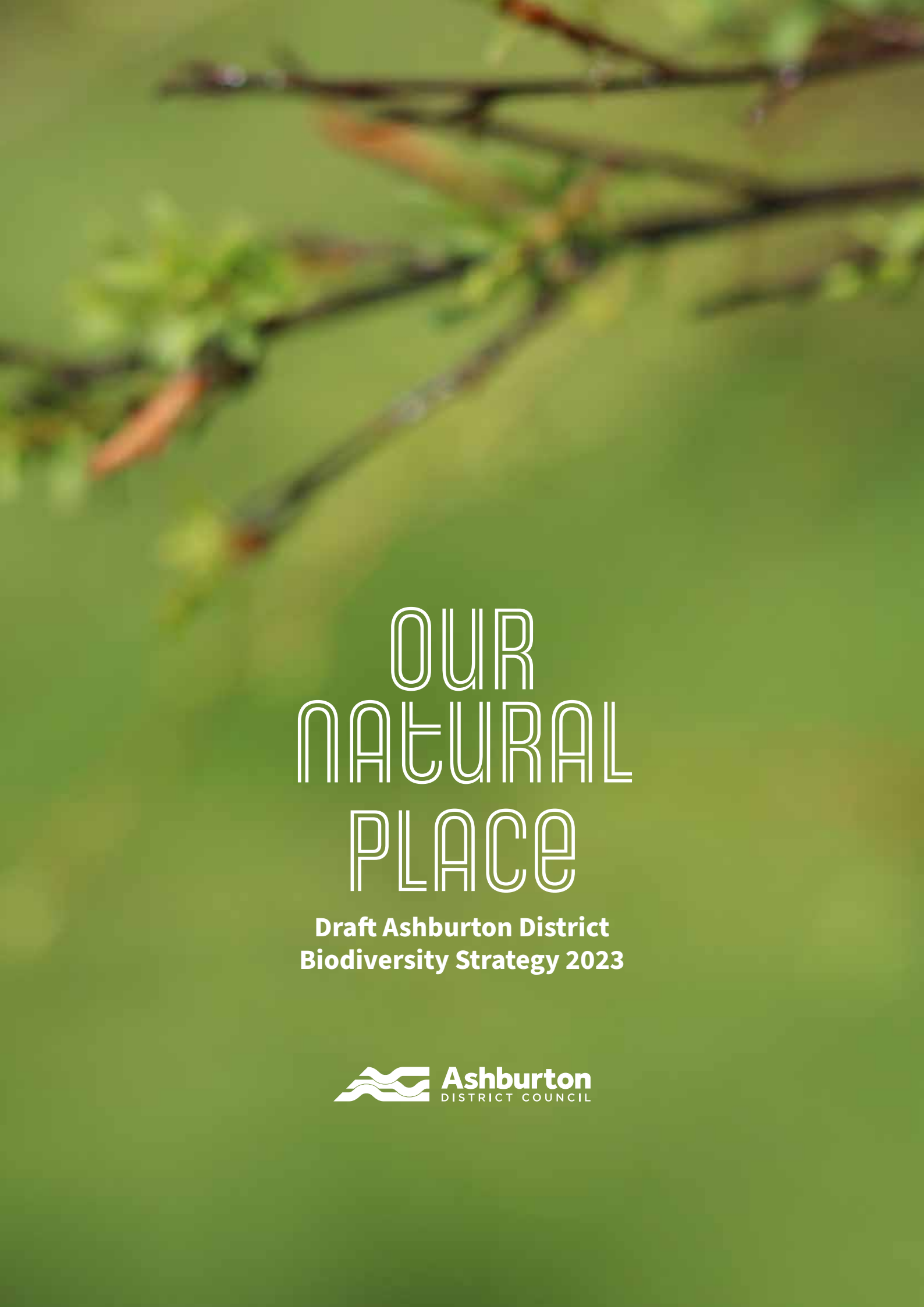

OUR NATURAL PLACE

Draft Ashburton District Biodiversity Strategy 2023

Ashburton
DISTRICT COUNCIL