

Upper Clutha Biodiversity Strategy

INTRODUCTION

This strategy sets the framework for a future in which native biodiversity helps define who we are, what we do, and where we enjoy ourselves. The strategy is a framework that we can use to guide actions, obtain funding, and help bring the different groups involved with biodiversity conservation in our catchment together at a strategic level. The strategy focuses on the Upper Clutha catchment from Cromwell to the main divide and includes both public conservation land and other land tenures.

While this strategy focuses on restoring and enhancing native biodiversity within our catchment, it is set within the broader goals set out in the *Te Mana o te Taiao – The Aotearoa New Zealand Biodiversity Strategy (2020)*, *Our Living Treasure | Tō tātou Koiora Taoka* (Otago Regional Council's Biodiversity Strategy 2018) and the *Queenstown Lakes Climate and Biodiversity Plan (2022)* and is informed by these documents.

The development of this strategy has been based on several workshops involving a group of people with knowledge of biodiversity in the Upper Clutha/Mata-Au Catchment, followed by a stakeholder workshop that led to substantial revisions to the original document.

WHAT MIGHT NATIVE BIODIVERSITY LOOK LIKE IN THE UPPER CLUTHA CATCHMENT IN 100 YEARS' TIME?

“Uniting for Native Biodiversity in The Upper Clutha Catchment.”

At the core of our identity and purpose lies native biodiversity. Together, we aim to cultivate a future where the enchanting richness and diversity of the Upper Clutha's native ecosystems are a flourishing symphony of flora and fauna native to this region. This will define our treasured home, cherished by all those that share a special affinity with this place. We envisage a shared responsibility, managing and delighting in native biodiversity, which will emerge as a prominent and proud activity within the region.

Join us on this transformative journey in creating a place where thriving native biodiversity stands as a testament to the unwavering commitment to preserve and enhance the beauty of our land. Together, let's build a legacy of ecological harmony for our children and grandchildren and ensure that our bond with nature remains everlasting.



HOW TO READ THIS DOCUMENT

¹ Plants, animals, fungi and microbes that are native to Aotearoa New Zealand.

² The group comprises David Norton (ecologist and strategy facilitation), Gerry Closs (freshwater ecologist), Geoff Rogers (landscape ecologist), Arne Cleland (restoration), Jo Tilson (avifauna and pest control), Carey Knox (lizard and moth ecology), Don Robertson (aquatic ecosystems), and Prue Kane and Ben Youngman (WAI Wānaka).

The purpose of this strategy is to support our community to work towards implementing (achieving) the vision. The vision itself describes what native biodiversity will look like for our children and children's children. The outcomes are the steps we as a community (and our individual groups) need to achieve if we are to start moving towards achieving the vision.

Under each outcome, some actions are suggested for the 2023-28 five-year period. However, it is over to individual groups and organisations to prioritise, obtain funding and implement these. The intent of listing them is to provide some indication of what steps might assist in achieving the individual outcomes.

REVISED OUTCOMES

OUTCOME 1. THE COMMUNITY OF THE UPPER CLUTHA CATCHMENT ARE MORE AWARE OF THE IMPORTANCE OF NATIVE BIODIVERSITY.

Explanation: This outcome focuses on the people who call this area home, the businesses that interact with biodiversity (developers, farmers, tourism operators, etc) and our visitors. Partnerships are central, and key locations for implementing this outcome include the places where people interact with native biodiversity (around lakes, along walking tracks, at ski fields etc) as well as education through local schools, community groups and at other events.

Increasing public awareness of native biodiversity is going to be essential to achieving the long-term vision. This includes understanding what currently occurs here and how it has changed through time, the concept of Te Taiao and its importance to Kai Tāhu, the threats that our native biodiversity faces today and how we are managing these, and how native biodiversity can help make this area more resilient to the impacts of climate change.

What does success look like? QLDC and Lake Wānaka Tourism surveys show increasing awareness about native biodiversity.

Suggested 2023-2028 actions: Annual biodiversity celebration and networking event; regular biodiversity stories across media channels; biodiversity information boards; support for groups running biodiversity programmes with local schools.

OUTCOME 2. THE APPLICATION OF SCIENCE-BASED BIODIVERSITY MANAGEMENT IS MORE EFFECTIVELY SYNCHRONIZED ACROSS AGENCIES AND GROUPS.

Explanation: This outcome underscores the pressing need for evidence-based biodiversity management in the Upper Clutha Catchment. Various governmental bodies, such as Otago Regional Council, Queenstown Lakes District Council, Central Otago District Council, Land Information NZ, Ministry for Primary Industries, Department of Conservation, and Ministry for the Environment, bear legislative responsibilities for biodiversity in the area.

Additionally, non-governmental organizations like WAI Wānaka, Southern Lakes Sanctuary, catchment groups, QEII National Trust, Contact Energy, lake 'Guardians' and others actively participate in biodiversity protection and enhancement.

However, the current coordination among these entities is inadequate, impeding the attainment of long-term and meaningful biodiversity outcomes. To address this, substantial improvements in synchronization are imperative. Biodiversity management should be firmly grounded in scientific evidence and objective metrics, with a particular focus on Lakes Wānaka and Hāwea. This principle should guide all aspects of biodiversity management, including terrestrial challenges like feral deer and wilding conifer control.

What does success look like? A harmonized and evidence-based approach to biodiversity management is occurring; no duplication of work across agencies; establishment of a working/steering group comprising all agencies and groups involved in biodiversity management.

Suggested 2023-2028 actions: Annual biodiversity celebration and networking event; annual formal meeting with agencies involved to review strategy, establish common objectives, and research questions.

OUTCOME 3. URBAN AND RURAL LANDOWNERS ARE SUPPORTED TO MANAGE THEIR LAND IN A MANNER THAT IS SYMPATHETIC TO NATIVE BIODIVERSITY.

Explanation: Establishing programmes that facilitate both urban and rural landowners to manage their land and water in a manner that supports native biodiversity is critical. For urban landowners this might include planting native trees or managing what goes into the stormwater. Sympathetic land management (wildlife friendly farming) is an important tenant of this outcome. Native biodiversity and farm production should work in unison by thinking about how native species and habitats can be sustained and enhanced within the context of working farms, aiming for win-win outcomes for biodiversity and farming.

There is a strong focus especially in the urban areas of the Upper Clutha on using exotic, usually deciduous, trees in amenity plantings. If we are to bring native birds in particular

back into urban areas it is important that we establish more native plants such as kōwhai, harakeke/flax and tree daisies as food and habitat for native animals (birds, reptiles and insects) as well as controlling predators.

What does success look like? All commercial farmers have biodiversity plans, 75% of lifestyle block owners belong to catchment/land care groups, and the cover of native vegetation is greater than it is today in both rural and urban areas.

Suggested 2023-2028 actions: Assist landowners develop biodiversity plans; engage with lifestyle block owners to form further catchment/landcare groups; shift urban amenity planting from predominantly exotic to predominantly native species; develop urban and rural biodiversity monitoring to track the success of sympathetic management.

OUTCOME 4. KEY/THREATENED ECOSYSTEMS HAVE BEEN IDENTIFIED AND PROTECTED.

Explanation: The Upper Clutha Catchment, excluding the higher rainfall areas within the Public Conservation Estate, has faced significant human settlement impacts, especially habitat loss. Some ecosystems, such as lowland/montane podocarp-broadleaved forests, riparian forests, shrublands, and dryland systems, have been disproportionately affected and are now exceedingly rare.

Riparian forests with kōwhai and other broadleaved trees were once dominant along water bodies, while lowland/montane podocarp-broadleaved forests, including kahikatea and mataī, were less common but equally valuable for biodiversity. Both ecosystems supported diverse species, particularly birds, but human settlement has drastically reduced their presence. Dryland ecosystems, though less affected, have also suffered from human activities, requiring active management for preservation.

What does success look like? Measures of success include; having a quality inventory of remaining areas available publicly, having all areas either under a protective title (eg. QEII covenant) or discussions with landowners underway towards this, management assessments completed to determine management needs for the best examples of each ecosystem type, and appropriate management being implemented for these.

Suggested 2023-2028 actions: Map and inventory the remaining ecosystems, including their tenure, species composition and threats; start a process to seek a protective tenure for those ecosystems that do not (eg. QEII covenant); develop management plans and implement management to sustain and enhance each ecosystem type; develop MOU's for those ecosystems (especially dryland areas) already in protective tenure that allows management of these areas.

OUTCOME 5: FRESHWATER ECOSYSTEMS ARE HEALTHY.

Explanation: This outcome focuses on the quality of our freshwater lakes, rivers, wetlands

and aquifers. This means managing these ecosystems, and if required, restoration, to a “healthy” state as defined by the National Policy Statement for Freshwater Management (2020). If our freshwater ecosystems are to retain healthy biodiversity and stable ecosystem function this means that they should retain low nutrient levels, moderate amount of sediment, moderate chlorophyll-a, low coliform bacterial counts, low levels of pathogens and invasive species, no toxins and no microplastics.

To help improve aquatic ecosystems, we need projects to assess inflowing contaminants and support the use of research to provide evidence-based management actions to identify, reduce and stop the degradation of freshwater ecosystems. We also require systematic monitoring, to inform subsequent management decisions.

What does success look like? All wetlands of the Upper Clutha identified and delineated, and metrics of freshwater health, and of biodiversity and species assemblages show improving values and trends.

Suggested 2023-2028 actions: Establish baseline research questions; map and inventory remaining wetlands and braided riverbeds; establish baseline freshwater health monitoring; better enforcement of current regulations; develop educational resources to support the community.

OUTCOME 6. RESTORATION OF KEY/ICONIC THREATENED SPECIES.

Explanation: Habitat loss and invasive species have caused widespread declines in native species within the Upper Clutha Catchment, with a few exceptions. This includes nationally and regionally rare plant and animal species, some of which are Taonga species. Vascular plants, fish, lizards, and birds are the best-documented groups, and conserving these can benefit other taxonomic groups like invertebrates.

Several iconic rare plants such as tree daisies have seen significant range and abundance reductions. Their restoration is vital not only for their own survival but also as habitat for invertebrates. However, restoration efforts must be strategically located in the landscape due to the narrow niches of these species.

Native fish have suffered from trout predation and water quality changes, leading to species loss and isolated populations such as those with the Upper Clutha Flathead Galaxiid. The catchment’s western areas harbour various native bird species, some nationally threatened such as the whio/blue duck and mohua/yellowhead, and active predator control efforts are in progress to sustain and enhance these species. There are opportunities to expand these species further east, working with landowners and focusing on food resources, habitat connectivity, and predator control. This work will require targeted planting and predator control, enhancing connectivity and breeding programmes, as well as multi-stakeholder engagement.

Lizards face pressure from predators like rodents and cats and benefit from targeted

predator control and habitat protection, including tussock grasslands and complex rocky and shrubland habitats. Creating and protecting habitats is key for lizard conservation, fostering invertebrate populations that provide sustenance for lizards, supplemented by fruiting shrubs.

What does success look like? The abundance and/or range of at least half of known nationally rare vascular plant, fish, lizard and bird species has been improved.

Suggested 2023-2028 actions: Undertake a detailed inventory of the current distribution and abundance of all nationally and regionally rare vascular plant, fish, lizard and bird species; prepare plans for each threatened species identified and implement at least five restoration projects; use mesh networking and data sharing to encourage pest-control initiatives.

LOOKING AHEAD

This strategy envisages a future where native biodiversity defines our identity and purpose. We are committed to nurturing the vibrant richness and diversity of our region's ecosystems, creating an enduring legacy for generations to come. Our journey involves empowering our community, forging and working in partnerships, and acting on well-informed evidence-based plans to safeguard and enhance our natural treasures.

This vision aligns with the broader goals set out in key documents like the *Te Mana o te Taiao – The Aotearoa New Zealand Biodiversity Strategy*, the *Otago Regional Council's Biodiversity Strategy*, and the *Queenstown Lakes Climate and Biodiversity Plan*. By uniting under this strategy, we can guide our collective efforts, securing a future where native biodiversity thrives, defining who we are, and forever enriching our beloved Upper Clutha Catchment.

The next steps in our journey include organising a Biodiversity Celebration event to engage the community and highlight our commitment to this cause. This event will serve as the launch of our strategy, a platform to share our vision, and an opportunity to celebrate our shared connection to the natural world. Together, let's embrace our shared responsibility and ensure that our bond with nature forms a cherished and unbreakable legacy.

