



# **Nelson Biodiversity Strategy**

## **Reviewed 2009**



**15 June 2010**

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## *Preface*

It was Jared Diamond who popularised the mass extinction hypothesis in *The Rise and Fall of the Third Chimpanzee*. Simply put, if we extrapolate the data on past extinctions to our current environmental scenario we should be able to predict future extinctions, and the predictions are not good.

The World Wide Fund's *Living Planet Report* followed 695 representative populations of terrestrial species to calculate the Terrestrial Living Planet Index. If the total terrestrial species population in 1970 is taken as 100 units, then in 2003 only about 69 units were left. The terrestrial species index therefore shows a 31% decline from 1970 to 2003.

In 2010, the International Year of Biodiversity, we want to do better in Nelson to sustain our part of the living diversity of planet Earth. This Strategy is about building better cooperation in that effort. Every day landowners and volunteers are out there restoring our collective biodiversity. This is great work, and as responsible agencies and organisations we want to become more effective in supporting those efforts. We are also committed to focusing our work in a common direction. This is the work of the Nelson Biodiversity Forum.

As we reviewed the first two years of action under this Strategy we realised the need for more collaboration across the Top of the South Island. Here in the prow of Maui's canoe we have many treasured species and places, and limited resources to apply to their care. Nowhere is the need for cooperation and alignment better seen than in Tasman Bay. With three councils and several government agencies involved, and evidence of ecological tipping points being reached, the only responsible approach is to work together to identify and resolve the threats to our marine environment. We recognise the good work done by our neighbours and are keen to make the most of our complementary strengths.

I am proud to release this reviewed and updated Strategy as a foundation for effective action to sustain our biological heritage in Nelson and in Te Tau Ihu a Waka a Maui.

Rachel Reese  
Chair  
Nelson Biodiversity Forum

## *Introduction*

The purpose of this strategy is to create a biologically rich and sustainable future for Nelson through aligned action on biodiversity. After two years of operation the strategy has been revised and updated.

## *Vision*

Our vision is that Nelson is celebrated as the gateway to a region richly endowed with natural places that teem with native plants and animals.

The mauri (life force) and wairua (spirit) of ecosystems and species of significance to tangata whenua, and to the community as a whole, are protected and enhanced.

Nature is accessible in and around the city.

Tangata whenua customary use of nga taonga tuku iho (the treasured resources) is a recognised and accepted part of the wider integrated management of biological diversity in Whakatū.

Valued exotic species thrive in appropriate places, and pests and weeds are controlled and/or eradicated.

## *Goals and objectives*

### *Goal 1 Active protection of native biodiversity*

*Nga taonga tuku iho (the treasured resources), native species, and natural ecosystems of Nelson/Whakatu are protected and restored.*

- Objective 1.1 Ecological health, mauri and wairua of natural ecosystems are sustained.
- Objective 1.2 Native biological diversity is restored, enhanced and, where appropriate, connected.

### *Goal 2 Ecologically sustainable use of biodiversity*

*The community has the living resources it needs, and has minimised adverse effects on valued biodiversity.*

- Objective 2.1 Biodiversity use is ecologically sustainable.
- Objective 2.2 Biodiversity resources are available for the community to prosper including tangata whenua customary use of nga taonga tuku iho.

## *How this strategy works*

This strategy is founded on the proposition that aligned action by responsible agencies and committed individuals will lead to achieving our biodiversity vision for Nelson. The Strategy works through a ‘Whole of Council’ and ‘Whole of Community’ approach.

- ❖ **Whole-of-Environment approach:** Partners to this Strategy will commit to building a network of partnerships with overlapping interests, particularly within our bio-geographic region, Te Tau Ihu o te Waka a Maui.
- ❖ **Whole-of-Council approach:** The principles, goals and objectives of the strategy will be considered whenever Council policies and projects are developed, implemented, and reviewed.
- ❖ **Whole-of-Community approach:** Partners to this strategy will work through the Biodiversity Forum to create a better biodiversity future for Nelson by committing to aligned action under the principles, goals and objectives of the strategy.

The Strategy builds on the initiatives and actions that already exist, linking them together under a common vision; and it introduces some new actions that address the priority issues related to biodiversity management in the region.

A key element has been the creation of Biodiversity Action Plans - one for each of the marine, freshwater and terrestrial environments. The Action Plans have three parts:

1. Agreed priority actions for the partners in the Nelson Biodiversity Forum.
2. Current actions that sustain biodiversity and identification of how better to align these with one another.
3. Further desirable actions that could be taken if resources become available.

The partners have agreed to periodically update the plans to sustain alignment and adapt to changing circumstances.

## *Principles*

The eight principles for biodiversity management action by the parties to this strategy have been reaffirmed unchanged as:

1. Our unique ecological heritage will be protected now and for future generations.
2. Action will contribute to the sustainable management of Nelson ecosystems and take into account our national and global responsibilities.
3. The biodiversity foundations of Nelson's prosperity will be protected and enhanced.
4. The precautionary principle will be used in making decisions to allow for the limits to our understanding of biological complexity.
5. Costs, benefits and risks, including environmental effects, will be rigorously assessed to enable best use of limited resources.
6. Nelson's sense of community and its capacity for cooperative enterprise will be fostered.
7. Action will encourage individual responsibility, participation, equity and humane treatment.
8. Partners will work within their organisations to ensure that these commitments are discussed, understood and acted on by all appropriate staff.

## *Achievements to November 2009*

Sustaining biodiversity has become part of business as usual in Nelson for many sectors of the community. For example partners to the forum have been engaged in the projects described below.

The Nelson Biodiversity Forum has been active over the last three years with most of the 23 signatory organisations active both around the Forum table and inside their own programmes.

Three action plans were agreed by the Forum to focus work over the next three years on the major environments of Nelson - marine, freshwater and terrestrial. Implementation of these plans has begun, particularly focused on management of the Waimea Estuary.

Plans and policies have been overhauled and revised in the Nelson City Council. New funds have been allocated in the Long Term Community Plan extending activities of weed and pest control, ecological restoration, protection of water bodies and for marine biosecurity. Further central government funding has

been provided to extend support for biodiversity protection on private land. The Council and partner organisations have come together to plan restoration of the Brook Stream and support for the Brook Waimarama Sanctuary has firmed.

The Department of Conservation has completed and rolled out eco-sourcing guidelines for restoration of native plant communities.

The marine science community of Nelson has been brought together to help set priorities for better management of Tasman Bay, and the Forum has urged the three Councils to work together to lead initiatives to make this happen. The Cawthron Trust has voted money to support this with the development of appropriate databases to pull together the scattered information on the marine environment.

The Royal Forest and Bird Protection Society has supported the action plans, focusing volunteer efforts on the alluvial/riparian and coastal ecosystems of Paremata Flats (Whakapuaka Catchment) by undertaking predator control and restoration; predator control on the Grampians; bat research; and predator control and restoration at Enner Glynn Bush. Other volunteer groups, both new and existing, have extended their reach with trapping and restoration programmes.

## Gaps of the first two years

Over 2007 to 2009 a start has been made on:

- ▣ Integrating information on native biodiversity into authoritative maps and reports.
- ▣ Integrated public education and awareness.
- ▣ Establishing a local assistance programme.
- ▣ Reviewing strategies, policies, standard procedures and management practices.

Over the same period little progress was made on:

- ▣ Information programmes for community, professional and commerce/industry groups.
- ▣ Publicising biodiversity issues, options and successes.
- ▣ The Forum sponsoring annual public participation events.
- ▣ Publicly recognising the work of community, business and public agency leaders.

- ▣ Including comprehensive biosecurity risk analysis as part of preparation of the Regional Pest Management Strategy (due for review in 2011).
- ▣ Compiling details on special places, ecosystems and taonga species important to tangata whenua iwi.

### *The changing environment for biodiversity*

Over the last two years community engagement with biodiversity in New Zealand has been affected by:

- A strong economic downturn and reductions in discretionary spending by many parties including central government cutting funding support for some community biodiversity initiatives.
- Continuing land use intensification despite the economic downturn.
- Substantial progress of iwi Treaty claims settlement processes.
- An emergence of climate change as THE major environmental issue.
- A change of government with a different focus on central government intervention resulting in the end of some opportunities for biodiversity and the emergence of others.
- A series of biosecurity incidents in freshwater and marine environments.

In Nelson issues of regional significance have been:

- The successful biodiversity forum of the Tasman District Council as a nurturing of the “flax roots” approach and initiatives in Marlborough along similar lines.
- Completion and implementation of a Top of the South Marine Biosecurity Strategy.
- Election of Nelson City Councillors with a stronger environmental focus. Work is underway on a sustainability strategy for the city.
- Increased impetus for cooperative efforts by the three councils in the top of the South Island.
- Changing ownership of the forestry companies, which manage about 20% of the land within the strategy area.
- The presence of Transition Towns as an initiative to respond to climate change.
- Removal of a regional fisheries management presence, with the Ministry of Fisheries consolidating its functions in Wellington.
- A collapsing scallop fishery in Tasman Bay.

### *The priorities for 2010 and beyond*

The Nelson Biodiversity Forum has experience with getting alignment on biodiversity priorities and with engaging organisations in achieving those priorities.

The first job is to make the action plans happen.

The second job is to broaden the strategic focus to engage with:

1. The broader community of Nelson including groups and organisations not yet aligned.
2. The other communities of the top of the South Island.
3. How biodiversity goals fit with wider environmental issues such as climate change responses.

### *Priority actions*

The priority actions for partners to the Forum are to:

- A. Implement the Biodiversity Action Plans, reviewing progress, alignment and new opportunities every 6 months.
- B. Continue to build public support and awareness in Nelson City.
- C. Continue to promote the Nelson Biodiversity Forum including developing joint initiatives with Tasman and Marlborough communities and their councils.
- D. Champion biodiversity in wider environmental and social processes.

Nelson City Council will provide ongoing facilitation by convening and hosting the Nelson Biodiversity Forum.

Each Partner will determine the actual work to be done by its organisation in a given year as part of its overall planning and budgetary cycle. Each will consult on and coordinate its efforts through its engagement in the Biodiversity Forum. Each partner will report its progress on the priority actions to the Forum annually and these will be compiled and published on the Council's website, or in the future on the Forum's own site.

## *A. Implement the Biodiversity Action Plans*

The highest priorities in the action plans are:

1. Preparing an integrated Waimea Inlet strategic plan.
2. Getting effective action to sustain the environmental health of Tasman Bay.
3. Pursuing ecological restoration of the Brook Stream as a flagship freshwater project for Nelson.
4. Protecting and restoring existing alluvial, riparian and coastal ecosystems and to do this through focus on three action areas: Whangamoā Valley; Whakapuaka Valley and Delaware Bay; the Maitai Valley and the urban area of the city.
5. Taking opportunities to progress the action plans as they arise.

The full range of actions in the plans is summarised below:

### Marine Environment Actions<sup>1</sup>

1. Prepare an integrated Waimea Inlet strategic plan. This plan would establish a framework for managing the effects of uses and activities that impact upon biodiversity values in Waimea Inlet. The strategic plan would encourage the community to work together to sustain its marine environment using both regulatory and non-regulatory approaches.
2. Leading stakeholders and institutions to develop integrated management of greater Tasman Bay in a way that sustains or enhances its biological diversity and protects sensitive habitats, communities and species.
3. Immediately identify and begin correcting impediments to the natural flow of water into and through the coastal environment including reviewing the need for all tidal flap gates and ensuring consents are applied for those that are found to be unauthorised.
4. Improve community knowledge of coastal and marine environments and developing understanding and commitment to their protection.
5. Collate, order and analyse information about Nelson marine biodiversity to enable effective long term management; develop a memorandum of understanding with marine industries (including aquaculture and fisheries) on data sharing to release information on benthic habitats currently withheld as commercially sensitive.

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<sup>1</sup> All of the marine actions are joint initiatives to be pursued with Tasman and Marlborough communities and their councils.

6. Review existing coverage and undertake surveys of benthic marine habitats in Tasman Bay, mapping both biodiversity hot spots and risk zones.
7. Reduce land-based pollution of the sea by:
  - Obtaining information about land use activities across Tasman Bay catchments to identify where sediment is coming from and estimate sediment accumulation rates as a basis for a review of land use management practices.
  - Continuing assessment of contaminated land impacts on marine environments.
  - Assessing all urban stormwater and initiating action to correct issues, including adopting low impact design for sustainable urban drainage systems (e.g. rain gardens, wetlands, swales, rainwater collection, detention ponds).
8. Complete projections for sea level rise and an inventory of biodiversity resources at risk. This will be used as a basis for future planning of staged coastal retreat for sea level rise, with biodiversity objectives included. (For example: reducing activities on and development of land vulnerable to future tidal inundation).

#### Freshwater Environment Actions

9. Pursue ecological restoration of the Brook Stream as a flagship freshwater project for Nelson.
10. Public awareness programmes building on the flagship Brook Waimarama Sanctuary restoration.
11. Complete a full stocktake of current community actions aiding freshwater biodiversity and identify and resolve barriers to effective progress and to acknowledge actions of private landowners, industrial companies, contractors, tourism operators and individuals that promote and enhance biodiversity.
12. Map the location and extent of Nelson's original (pre-1840) waterways and make these available (together with the current state of these waterbodies) to both the public and to decision-makers.
13. Identify, and where necessary recreate critical habitats for longfin eel, giant kokopu, and koaro in Nelson and implement physical and legal protection to safeguard habitats of these species.
14. Improve monitoring and enforcement of Resource Management Act consent conditions for freshwaters.

## Terrestrial Environment Actions

15. Protect and restore existing alluvial, riparian and coastal ecosystems. Do this through focus on three action areas: Whangamoia Valley<sup>2</sup>, Whakapuaka Valley and Delaware Bay<sup>3</sup>, the Maitai Valley and the urban area of the city<sup>4</sup>.
16. Integrated pest and weed management programmes for the publicly owned uplands with predominantly native cover including the nationally rare mineral belt ecosystem. This involves integrated management between NCC and DOC with links to forestry company programmes to ensure overall natural character of these areas is sustained.
17. Develop the infrastructure and systems to enable reliable eco-sourcing of indigenous plants for restoration planting.
18. Increase the range and security of the umbrella species of the locally rare and iconic lowland totara and kereru and the indicator species of green gecko and long tailed bats.
19. Implement high value, low risk opportunities for restoration, particularly on land where the results will be legally protected and where public land is gained as part of land-use intensification.
20. Develop and implement plans to enhance the City with continuous strips of vegetation (biodiversity corridors) across the urban environment linking the hills to the coast.

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<sup>2</sup> Whangamoia Maintenance and Improvement - Maintain and enhance these catchments as the least modified sequence and range of indigenous ecosystems in Nelson through improved landowner assistance and outreach assisting community action, possible land purchases and land use controls and threatened species programmes focusing on long-tailed bats and green gecko.

<sup>3</sup> Whakapuaka Catchment Restoration - Capitalise on highest restoration opportunities in Nelson associated with remnant vegetation and active community through replanting, restoration and predator control, riparian margins restoration and land use controls and threatened species programmes focusing on long-tailed bats and green gecko.

<sup>4</sup> Haven and Maitai Catchments - Integrating restoration of indigenous biodiversity in Nelson's largest, most populated catchment focusing on creating biodiversity corridors along waterways both for indigenous biodiversity value and for reducing peak temperatures in waterways, remedial action on culverts and other action to restore fish passage including targeted restoration of the lower Brook Stream, predator control for eventual re-introduction of blue duck, and threatened species programmes focusing on totara and kereru.

## *B. Building wide support and awareness*

21. Publicly recognise and celebrate the work of citizens in sustaining biodiversity.
22. Focus integrated public education and awareness on biodiversity around flagship sites (for example: the Boulder Bank, the Brook Waimarama Sanctuary, the Horoirangi Marine Reserve, the Maitai River, and Tahunanui/Back Beach duneland/estuary complex).
23. Provide information programmes for community, professional and commerce/industry groups on biodiversity issues and solutions to encourage knowledge transfer and best practice.
24. Publicise biodiversity issues, options and successes through regular seminars, mail drops and media releases.
25. Sponsor annual public participation events that focus on the three action plans.
26. Establish a local assistance programme to connect people with appropriate advice and the resources they need to be able to provide a better biodiversity future for Nelson.
27. Compile details on special places, ecosystems and taonga species important to tangata whenua iwi.

## *C. Wider collective actions*

28. Host workshops for partners, practitioners, and volunteers on practical skills for effective biodiversity action.
29. Invite the Tasman Biodiversity Forum programme to be extended in its current form to cover Nelson City.
30. Invite Marlborough and Tasman communities and their councils to join with Nelson in forming a joint Top of the South Biodiversity Forum to lead integration of effort across the wider region.

## *D Champion biodiversity*

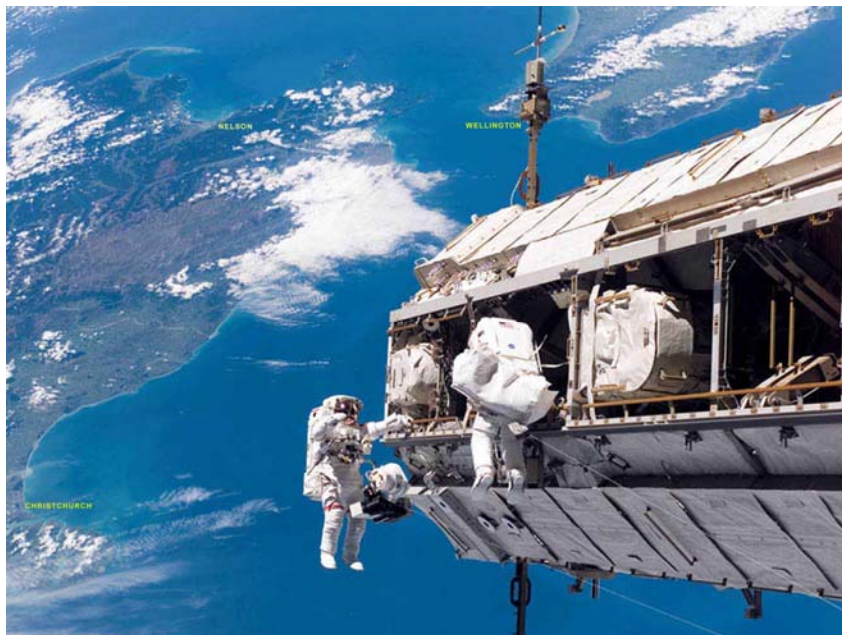
31. Advocate for biodiversity goals in planning for sustainability and in responding to wider issues such as climate change.
32. Encourage further agencies and sectors to sign up as partners to the Strategy, including Ministry of Fisheries, Ministry of Agriculture and Forestry, the NZ Transport Agency and industry groups such as commercial fishers.

## *Monitoring and review*

The key indicators for this strategy will be based on assessing:

1. Progress with implementing each of the actions above.
2. The state of remnant existing alluvial, riparian and coastal forest including: the state of its surroundings, work done over the year, issues at the site including those arising from its surroundings, and opportunities at the site.
3. The state of the benthic ecology of Tasman Bay and/or Waimea Estuary.
4. The state of biodiversity based on Nelson City Council state of the environment reporting.

The Strategy will be reviewed every three years in advance of the Nelson City Long Term Council Community Plan.



## *GLOSSARY*

**Biodiversity** is the natural diversity of all life, including diversity in genes, species, populations and ecosystems.

**Connected biodiversity** is found where ecological pathways allow natural flows of biological resources between parts of the environment with related biological processes.

**Ecosystem** refers to a dynamic complex of plant, animal, and micro-organism communities and their non-living environment interacting as a functional unit.

**Enhance** in relation to ecosystem connections means to improve the capacity for natural ecosystem processes (such as the migration of animals or the dispersal of plants) to function between different parts of the environment.

**Eradicated** in relation to pests means removed from the environment where a natural or artificial barrier prevents their spread back into the area without active management intervention.

**Equity** is the equal treatment of people regardless of their personal circumstances and characteristics.

**Exotic species** are those that have evolved elsewhere and been brought by people to this place.

**Goals** set out what we want to achieve. In the context of this strategy they have a fifty to hundred year timeframe.

**Habitat** is the environment in which a species or community of organisms lives.

**Humane treatment of animals** is action that avoids unnecessary pain and suffering and respects the dignity of individuals.

**Indigenous species** are the native plants and animals of a place.

**Integrated public education and awareness activities** bring together the management, motivational and education activities of Partners to the Strategy into a coordinated programme.

**Invasive weeds and pests** are those with a capacity to establish in native ecosystems and adversely affect their natural functioning.

**Kaitiaki** are tangata whenua who have an inherited responsibility to look after the mauri (life force) of nga taonga tuku iho (treasured resources). It includes

protecting biodiversity and the maintenance of resources for present and future generations.

Mauri is the life force of places and natural things.

Natural functioning in relation to ecosystems means sustaining the capacity of the ecosystem to support the range of life that evolved and is naturally present in this context, sustaining the potential for natural biological productivity, sustaining the functioning of natural ecosystem processes such as nutrient and water cycling and sustaining the resilience of ecosystems to retain their recognisable form in the face of natural perturbations.

Nga taonga tuku iho are the treasured resources (particularly natural) of this area.

Objectives are the things we strive towards over the next 10 years to achieve our goals.

Pests are organisms that threaten our valued biodiversity resources.

The precautionary principle is a moral and political principle which states that if an action or policy might cause severe or irreversible harm to the public, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action.

Protection in relation to a resource, means its maintenance, so far as is practical, in its current state and includes its restoration to some former state and its augmentation, enhancement, or expansion.

Restore in the context of indigenous biodiversity means to re-introduce elements that have been lost, reinstate ecological processes that have been interrupted, and to re-create natural biotic patterns that have been modified. It seeks to sustain the biological elements that gave Nelson its original natural character whilst recognising that a return of our ecology to a pre-human condition is impractical.

Species are groups of genetically closely related organisms that naturally interbreed.

Sustainable means the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economical and cultural wellbeing and for their health and safety while -

- a. sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations, and
- b. safeguarding the life-supporting capacity of air, water, soil and ecosystems, and
- c. avoiding, remedying or mitigating any adverse effects of activities on the environment.

Sustained integrated pest and weed management is management that treats the suite of pests and weeds at a site causing adverse environmental effects, where that management is sustained over decades.

Tangata whenua, literally the people of the land, means the original people of a place, the local people or hosts.

Taonga species are plants and animals treasured by tangata whenua.

Threatened native species are those officially listed by the Department of Conservation as being in danger of extinction if action is not taken to prevent this.

Vision is an image of the ideal future we would like to reach.

Wairua means spirit.



## *Current biodiversity partners to the Strategy*

*March 2010*

Biodiversity Partners have committed to being actively involved in creating a positive biodiversity future for Nelson. Signatories align their efforts with others through the Forum. Partners support one another to make most efficient use of the resources available. The Partners are recognised for their leadership and will work for wider community support of the principles, goals and objectives of the Strategy.

### Current partners:

- Nelson City Council
- Department of Conservation
- Nelson/Tasman Branch of the Royal Forest & Bird Protection Society
- Ngati Kuia
- Ngati Tama
- Ngati Koata
- Port Nelson Limited
- QE II National Trust
- Nelmac Limited
- Nelson Environment Centre
- Nelson Province of Federated Farmers
- Brook Waimarama Sanctuary Trust
- NIWA
- Cawthron Institute
- Cawthron Institute Trust Board
- Tuatara Maori Limited
- Fish and Game [Nelson/Marlborough Region]
- Nelson Tasman Tourism
- Nelson Forests Ltd
- Kaitiaki o Ngahere
- Tom Kroos - Fish & Wildlife Services
- Hancock Forest Management
- Dr Glen Lauder

