Conservation and Landscape Reserves Management Plan 2009

Nelson City Council
te kaunihera ō whakatū

MANAGEMENT PLAN APPROVAL

This management plan has been prepared by Nelson City Council, and submitted for approval (in part), in accordance with section 41 of the Reserves Act 1977.

Acting pursuant to delegated authority from the Minister of Conservation, I hereby approve (in part) the Conservation and Landscape Reserves Management Plan November 2009, as it relates to the Titoki Scenic Reserve and the three sections of Grampians Reserve that are scenic reserve. This approval does not operate as an approval or a consent for any other purpose of the Reserves Act 1977.

Dated this 7th day of January 2010.

Neil Marriot Clifton
Conservator
Nelson/Marlborough Conservancy
Department of Conservation

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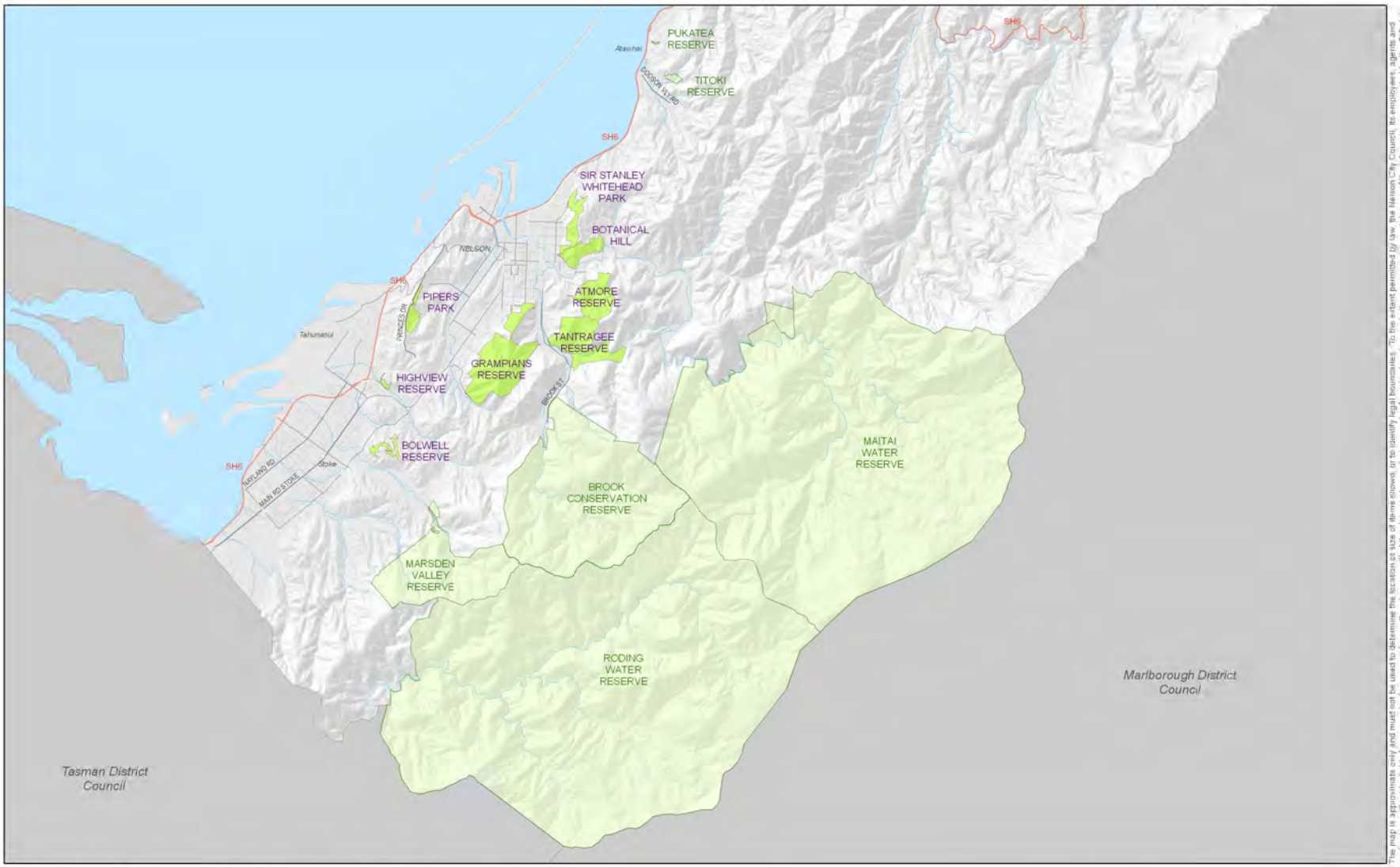


Location of Conservation and Landscape Reserves

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

Legend

- Landscape Reserve
- Conservation Reserve

0 1 2 3 4 km

Scale 1:80,000

N

October 2009

1.0 INTRODUCTION AND BACKGROUND

This management plan sets out the objectives and policies for the management of 14 areas of land owned or administered by Nelson City Council. The lands range from areas of open space within suburbs of the city, to large water supply catchments in the mountain ranges behind the city. They comprise parcels of land classified as reserve under the Reserves Act 1977, unclassified reserve lands and freehold land held by Council.

Most of the area covered by this plan is held in three large reserves mostly comprising land originally set aside to maintain and protect Nelson City's water supply (the Maitai, Brook and Roding reserves). These reserves are listed as 'conservation reserves' because the primary purpose of their protection is conservation of natural values (indigenous vegetation, habitats and water supply). Three other reserves are included in the conservation reserves group (Marsden Valley, Titoki and Pukatea reserves) because they also primarily protect indigenous vegetation and habitat.

The next group of reserves lie on the steep slopes of the hills behind Nelson, forming part of the scenic backdrop to Nelson City and providing for a range of recreational opportunities (Grampians, Tantragee, Atmore, Botanical Hill, Bolwell and Highview Reserves and Sir Stanley Whitehead and Pipers Parks). These reserves are listed as 'landscape reserves' because the primary purpose of their management is the maintenance of their amenity or scenic value and their recreation value.

Despite the division of these reserves into two groups, the general policies in this plan apply equally to all reserves. Most reserves have multiple values and this management plan aims to reflect this diversity. The main differences in the proposed management of conservation and landscape reserves are expressed in the individual policies for each reserve. Furthermore, for those reserves which contain a mix of values (e.g. Grampians Reserve) the management emphasis for different parts of the reserve is reflected in the reserve policies.

Collectively these 'conservation' and 'landscape' reserves contain important biodiversity, heritage, landscape, recreation and amenity values. They also importantly protect Nelson's water supply catchment, form part of the scenic backdrop to the city, contain commercial forestry plantings, provide opportunities for a range of recreational activities and contribute to the diversity and beauty of the Nelson area.

The potential for volunteers to play an important role within these reserves is recognised, particularly in the areas of monitoring and controlling pest plants and animals and the replanting of native species to enhance restoration efforts.

This management plan groups these reserves together in one document for the purposes of guiding management of these lands. The plan contains a brief description of each reserve, including its natural values, uses and management issues. These reserve descriptions are preceded by an analysis of the statutory and other objectives, vision and goals, and general objectives and policies for reserve management.

The purpose of this plan is to guide Council management and development of these reserves for the next ten years.

2.0 PURPOSE AND STRUCTURE OF THIS MANAGEMENT PLAN

2.1 Purpose of this Management Plan

The purpose of this management plan is to provide for the management of 14 Nelson City Council reserves. Although only parts of the reserve lands covered by this plan have been set aside or have status under the Reserves Act 1977, this plan provides for the management of all the lands included in this plan in accordance with the Act. Where land is classified the policies are enforceable under the Act. Where the land is not classified as reserve the policies have the same standing as other Council policy.

This management plan seeks to give guidance and clear direction for management of these reserves by Nelson City Council for the next ten years, while remaining flexible enough to provide for changing circumstances within that period. It is intended to undertake a comprehensive review of this plan within ten years of its adoption by Council.

2.2 Reserves Covered by this Management Plan

The 14 reserves covered by this management plan range from large water catchment reserves to smaller urban reserves. These reserves comprise the main conservation and landscape reserves administered by Nelson City Council. Esplanade reserves are covered by the Esplanade and Foreshore Reserves Management Plan[1]. Some parts of the conservation and landscape reserves have status as local purpose, recreation or scenic reserve under the Reserves Act (see 2.3 overleaf).

The name, approximate size (in hectares) and status of each reserve are listed below.

Conservation Reserves
Roding Water Reserve ..... 4576..... Local Purpose; Unformed Legal Road; Freehold
Maitai Water Reserve ..... 4228..... Local Purpose; Unformed Legal Road; Freehold
Brook Conservation Reserve .. 1014..... Recreation; Local Purpose; Unformed Legal Road; Freehold
Marsden Valley Reserve ..... 359..... Local Purpose; Unformed Legal Road; Freehold
Titoki Reserve..... 4.74..... Scenic
Pukatea Reserve..... 0.45..... Recreation

Landscape Reserves
Grampians Reserve ..... 161..... Recreation; Scenic; Unformed Legal Road; Freehold
Tantragee Reserve..... 103..... Recreation; Unformed Legal Road; Freehold
Atmore Reserve ..... 63..... Freehold
Botanical Hill..... 37..... Recreation; Local Purpose; Unformed Legal Road; Freehold
Sir Stanley Whitehead Park ..... 30..... Local Purpose; Unformed Legal Road; Freehold
Pipers Park ..... 16..... Recreation; Unformed Legal Road; Freehold
Bolwell Reserve..... 12..... Local Purpose; Freehold
Highview Reserve..... 3..... Local Purpose

2.3 Reserves Management Context

Reserve Acquisition and Classification

Reserves and open space are acquired by Council to provide for the recreational needs of people and to protect amenity and natural resource values.

Reserves can be acquired as a contribution to Council by a landowner when land is subdivided, in the form of land and/or cash for the purchase of land. When land adjacent to the sea, lakes or rivers is subdivided the Resource Management Act 1991 requires part of that land to be set aside as an esplanade reserve or esplanade strip. Council may purchase land, or receive land as a gift, for administration as reserve. Council can also acquire land under the Public Works Act 1981. Central Government may transfer responsibility for day to day administration and management of Crown reserves to Council by either vesting reserves in Council or by appointing Council to control and manage reserves.

The reserves covered by this management plan were acquired through a range of mechanisms. Details of the history and status of each reserve are provided in Section 6 of this plan. Council may, if it wishes, declare (under section 14 of the Reserves Act) land that it controls to be a reserve.

Under the Reserves Act 1977, reserves are classified according to their principal or primary purpose. Reserves are automatically classified, and an appropriate classification selected, when land is declared to be a reserve under section 14 of the Reserves Act. In other situations reserves are classified by a formal public process set out in the Reserves Act. The Reserves Act purposes for reserve classifications are set out in section 3.

Reserves Management Planning

The Reserves Act 1977 (section 41) requires that management plans be prepared for all reserves except local purpose reserves. Areas that are not reserves can still be included in a reserves management plan but they need to be distinguished from the reserves and Council cannot be bound by the terms of the Reserves Act for these areas[2].

Management planning is intended to enable Council to establish the desired mix of uses and protect the range of values for each reserve or group of reserves and set in place policy to guide day to day management and use. The Reserves Act 1977 requires that a management plan shall provide for and ensure the use, enjoyment, maintenance, protection and preservation of a reserve in a way that is appropriate to its classification.

Management plans are prepared through a public process. Council first advertises its intention to prepare a draft plan and invites the public to provide suggestions. Council then prepares a draft management plan, taking into consideration the suggestions received during the first stage of public consultation. The draft plan is publicly notified and submissions sought from the public, including those who previously provided suggestions. Council provides an opportunity for people to speak in support of their submissions. The draft plan is edited in response to the public submissions to form the final management plan. This plan is then forwarded to the Minister of Conservation for approval of those provisions that relate to scenic reserves (Titoki Reserve and parts of Grampians Reserve), and the Council approves the remainder of the plan. The Reserves Act requires that Council keep the management plan under continuous review to ensure that the plan is changed in response to changing circumstances or increased knowledge.

2.4 Structure and Content of this Management Plan

This management plan sets out the objectives and policies for management of the fourteen listed reserves. These objectives and policies are set out in a hierarchical way to ensure that management is in accordance with Council's statutory obligations and to avoid the need to list general policies separately for each reserve.

This management plan is set out as follows:

- Section 3: Statutory and other obligations for reserves management
- Section 4: Vision and goals
- Section 5: General objectives and policies for all reserves
- Section 6: Specific policies for individual reserves
- Section 7: Appendices (species names, references).

3.0 STATUTORY AND OTHER OBLIGATIONS FOR RESERVES MANAGEMENT

3.1 Reserves Act 1977

The purpose of the Reserves Act 1977 is to protect land, identify and protect natural and cultural values and provide for public access. In summary, the general purpose (section 3) of the Reserves Act[3] is to:

- provide for the preservation and management of areas for the benefit and enjoyment of the public;
- ensure, as far as possible, the survival of indigenous species of flora and fauna and the preservation of representative samples of natural ecosystems and landscapes;
- ensure, as far as possible, the preservation of access for the public to and along riverbanks, the fostering and promotion of the preservation of the natural character of the margins of lakes and rivers, and the protection of such areas from unnecessary subdivision and development.

The Reserves Act has particular relevance to this management plan, as the purpose of this plan is to provide for management of these fourteen reserves in accordance with the Act.

Under the Reserves Act 1977 reserves are classified according to their principal or primary purpose. Policies for each reserve in section 5 of this plan must be compatible with the classification (if any) of the reserve.

Local Purpose Reserves

Are classified "*for the purpose of providing and retaining areas for such local purpose or purposes as are specified*" (section 23, Reserves Act 1977).

The primary objectives of management are determined by the defined purpose (e.g. water conservation). The local purpose classification allows Council to restrict public access. It also requires that Council, while having regard to the primary purpose for which the reserve has been classified, administers the reserve to: protect other (scenic, historic, archaeological, biological or natural) features; enable public access; and, maintain its value as a soil, water and forest conservation area.

Recreation Reserves

Are classified "*for the purpose of providing areas for the recreation and sporting activities and the physical welfare and enjoyment of the public, and for the protection of the natural environment and beauty of the countryside, with emphasis on the retention of open spaces and on outdoor activities, including recreational tracks in the countryside*" (section 17 Reserves Act 1977).

The primary objectives of management are to allow the public freedom of entry and access subject to restrictions that are necessary for the protection of the reserve and the protection and control of people using the reserve. It also requires that Council, while having regard to the primary purpose for which the reserve has been classified, administers the reserve to: protect other (scenic, historic, archaeological, biological, geological or indigenous flora or fauna) features; conserve those qualities which contribute to the pleasantness, harmony and cohesion of the reserve; and, maintain its value as a soil, water and forest conservation area.

Scenic Reserves

Scenic reserves in this plan are classified: "*for the purpose of providing, in appropriate circumstances, suitable areas which by development and the introduction of flora, whether indigenous or exotic, will become of such scenic interest or beauty that their development, protection, and preservation are desirable in the public interest*" (section 19(1) (b) Reserves Act 1977).

The primary objectives of management are to: preserve as far as possible flora and fauna, ecological associations, and natural beauty; allow the public freedom of entry and access subject to restrictions that are necessary for the protection of the reserve and the protection and control of people using the reserve; develop amenities and facilities to enable the public to obtain benefit and enjoyment from the reserve; protect other (historic, archaeological, geological, biological, or scientific) features; and, maintain its value as a soil, water and forest conservation area.

Reserves Act Bylaws

Council may make bylaws for reserve land under its control under section 106 of the Reserves Act 1977[4]. Bylaws made by a Council do not have any force or effect until they are approved by the Minister of Conservation (section 108).

One purpose of Reserves Act bylaws is to ensure compliance with a management plan. Management plans identify the objectives of management, activities that can be undertaken, activities for which approval is required and activities which are prohibited.

3.2 Local Government Act 2002

The purpose of the Local Government Act 2002 is to provide for democratic and effective local government that recognises the diversity of New Zealand communities. To that end the purpose of the Act[5] (section 3) is to:

- state the purpose of local government;
- provide a framework and powers for local authorities to decide which activities they undertake and the manner in which they will undertake them;
- promote the accountability of local authorities to their communities;
- provide for local authorities to play a broad role in promoting the social, economic, environmental, and cultural well-being of their communities, taking a sustainable development approach.

The Local Government Act provides the framework for the way Council manages the resources that it administers. This management plan provides a mechanism for Council to help fulfil its obligations under the Local Government Act.

Local Government Act Bylaws

Council may make bylaws under sections 145, 146 and 149 of the Local Government Act 2002[6].

Bylaws assist Council to manage activities so that reserves or other land can be used for their intended purpose without users being subject to hazard, nuisance or activities that may adversely affect their health, safety or wellbeing[7]. Section 155 of the Local Government Act requires that a local authority must, before commencing the process for making a bylaw, determine whether a bylaw is the most appropriate way of addressing the perceived problem.

Nelson City Council Reserves Bylaw 211 Reserves includes the following definition of a reserve[8]:

Any land which is owned or under control of the Council and which is set aside for public enjoyment as a reserve, park, garden or open space.

This bylaw allows Council to manage an area as a reserve even if it has not been declared a reserve under the Reserves Act 1977. The bylaw covers the following activities in reserves: motor vehicle use, golf, public access, gates and sleeping in reserves.

Other Nelson City Council bylaws that are relevant to this management plan are:

- No. 206: Control of Drinking in Public Places
- No. 209: Control of Dogs
- No. 212: Stormwater
- No. 217: Water Supply.

3.3 Resource Management Act 1991

The purpose of the Resource Management Act 1991 (section 5) is: *to promote the sustainable management of natural and physical resources.*

In the Act, 'sustainable management' means *"managing 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, economic, 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."

The Resource Management Act is administered in Nelson by Nelson City Council as a unitary authority (combined regional council and territorial authority). It is implemented through the Nelson Regional Policy Statement 1997 and the Nelson Resource Management Plan.

Council is bound by the provisions of the Resource Management Act, the policy statements and plans. Council must apply for resource consents for activities as required under the Act or the plans. Section 4(3) of the Act allows the Crown limited exemption in relation to the use of any land where that activity is consistent with a management plan and where it does not have a significant adverse effect beyond the boundary of the area of land.

Nelson Regional Policy Statement

This document sets out objectives, policies and methods for Treaty of Waitangi, development and hazards, natural and amenity values, the coast, water, soils, discharges to air, energy, waste management, infrastructure and resource management. The activities of Council must be in accordance with the Nelson Regional Policy Statement.

Nelson Resource Management Plan

The Nelson Resource Management Plan has been prepared to assist Nelson City Council to carry out its functions under the Resource Management Act 1991. The purpose of the Resource Management Act is to promote the sustainable management of natural and physical resources. Under this Act, Nelson City Council has the functions of both a regional council and a territorial authority, so the Nelson Resource Management Plan is a combined district and regional plan.

This management plan does not affect the status of any resource consents governing activities within the reserves covered by the plan.

3.4 Health (Drinking Water) Amendment Act 2007

The Health Act 1956 was amended by the Health (Drinking Water) Amendment Act in October 2007 and aims to protect public health by improving the quality of drinking-water provided to communities.

The Act has particular relevance to this management plan as the plan covers the two drinking water supply catchments for Nelson. Council abstracts water from the Roding, Maitai South Branch and Maitai North Branch Rivers for supply to the urban areas of the city. The Act requires that drinking water suppliers take all practicable steps to ensure they provide an adequate supply of drinking water that complies with the New Zealand Drinking Water Standards.

Over the last 25 years the Nelson city water supply has been significantly improved from a basic supply to a modern system with a Ministry of Health grading of Ab (completely satisfactory – extremely low level of risk for source/treatment, satisfactory – very low level of risk for distribution). This has been the result of significant improvements including the construction and commissioning of the Tantragee water treatment plant in August 2004.

The Ministry of Health grading is determined by a number of factors, including catchment protection, human contamination at source and animal pollution. The Ministry of Health lists four barriers to protect water supplies: prevent contaminants entering the water; remove particles from the water; kill germs in the water, and prevent recontamination of the water after treatment. Maintaining water quality ***at source*** therefore remains a critically important factor in the grading Council receives from the Ministry of Health.

3.5 Iwi Memorandum of Understanding

This Memorandum of Understanding (MOU) establishes a clear understanding of the ongoing relationship of the Council and Tangata Whenua ō Whakatū (Tangata Whenua), through the identification of principles to guide that relationship. Practical solutions for implementing the MOU are set within the context of Te Tiriti ō Waitangi (The Treaty of Waitangi) and the relevant legislation, which gives functions, duties and powers to the Council.

In addition, the MOU reflects the common ground between the Council and Tangata Whenua, with both parties responsible for looking after ngā taonga tuku iho (the treasured resources) of Nelson for present and future generations.

A number of collective goals reflect the spirit of this MOU:

- To respect one another's customs, social expectations, beliefs and values;
- To enter into the relationship with openness and honesty, focusing on developing a better understanding of one another; and
- To come together with the common aim of taking care of Nelson City and its resources for present and future generations, as guardians of the rohe (area).

A number of principles have been identified to guide the relationship between Council and Tangata Whenua:

- **Partnership**
  The parties will establish and commit to a mutually beneficial partnership.
- **Mutual respect**

The parties will foster a relationship based on mutual respect, acknowledging each other's responsibilities and worldviews.

- **Honesty of purpose**
  The relationship will be honest and conducted with integrity and good will.
- **Open communication**
  The relationship will be based on open, timely communication and transparent consultation processes.
- **Active engagement**
  The relationship will be a proactive and positive one, based on the commitment to be responsive to each other.

3.6 Other Plans and Policies

Nelson Biodiversity Strategy 2007

The Nelson Biodiversity Strategy describes a vision for biodiversity management in Nelson City based on eight principles. The vision is:

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

This non-statutory strategy has two broad goals, each with two objectives:

Goal 1: Active protection of native biodiversity

- ecological health, mauri and wairua of natural ecosystems are sustained
- native biological diversity is restored, enhanced and, where appropriate, connected

Goal 2: Ecologically sustainable use of biodiversity

- biodiversity use is ecologically sustainable
- biodiversity resources are available for the community to prosper including tangata whenua customary use of nga taonga tuku iho

The strategy is based on aligned action by agencies and the Nelson Biodiversity Forum has been established, tasked with implementing the strategy. Biodiversity Action Plans have been developed and adopted by partners to the strategy for freshwater, coastal marine and terrestrial environments. The policies within this Plan are consistent with the Biodiversity Action Plans.

It is intended that the strategy will be considered whenever Council policies are developed, implemented and reviewed.

Nelson City Council Parks and Reserves Activity Management Plan 2009

The purpose[9] of the Parks and Reserves Activity Management Plan is to guide and direct Nelson City Council in its provision and management of parks and reserves assets and activities to achieve the following objectives:

- to provide open space for the city at a level and quality which meets the needs of the community;

- to provide parks and reserves in the most cost effective manner and to ensure standards of provision are sustainable over time; and,
- to assist Council in achieving its community outcomes.

The relationship of the activity management plan to other Council plans is as an operational plan, guiding reserves management. The proposed levels of service for parks and reserves generally and for each category of reserves is outlined in the Parks and Reserves Activity Management Plan.

Tasman-Nelson Regional Pest Management Strategy 2007-2012

The Tasman-Nelson Regional Pest Management Strategy has been prepared under the Biosecurity Act 1993. This strategy is a joint strategy between Tasman District Council and Nelson City Council, and is implemented by Tasman District Council. The strategy declares certain plant and animal species as pests. These pests (listed in Table 1 of the strategy) are banned from sale, propagation, breeding, distribution and commercial display.

The Strategy aims to avoid or reduce the incidence of adverse effects of pests on the environment, assist with the protection of significant biodiversity values and to protect amenity and recreational values of the region. The strategy requires land occupiers to undertake control and management of plant pests on land for which they are responsible. Council, as occupier, is required to control pests on land it owns and administers in accordance with Part II of the strategy.

Nelson City Forestry Empowering Act 1978

This Act provides Nelson City Council with the power (subject to other relevant legislation) to:

- acquire land for and to carry on the business of forestry
- carry on related industries
- allow the preparation of management plans for the forestry areas
- grant leases and licences
- make bylaws.

This legislation does not appear to restrict Council's ability to manage reserves by way of this management plan.

Nelson City Council Sustainability Policy 2008

The Sustainability Policy outlines Council's commitment to sustainability through the services it provides and the way it operates as an organisation. The policy is given effect through Council decisions, strategies, plans and actions. Its aims are to:

- demonstrate leadership in sustainability across the region
- provide accountability in Council performance
- provide accountability in service delivery
- measure progress and impact.

Nelson City Council Communities for Climate Protection Action Plan 2008

The purpose of the action plan is to outline the greenhouse gas reduction targets the Council wants to achieve, and establish a work programme to achieve these goals.

All actions included in this plan are intended to be:

- focused on reducing carbon dioxide equivalent tonnes
- affordable, cost-effective and have other benefits (such as energy savings)
- supportive of partnerships between spheres of government, business and the community
- equitable and meet the needs of the whole community.

4.0 VISION AND GOALS

VISION

Nelson's conservation and landscape reserves provide secure and sustainable protection for indigenous vegetation and habitats, historic heritage, landscape character and water supply, in a way that, wherever possible, meets the recreational and amenity needs of the community.

GOALS

1. To protect existing indigenous vegetation, habitats and ecosystems and, where appropriate, restore degraded indigenous vegetation, habitats and ecosystems.

2. To protect archaeological and historic sites and values.

3. To maintain and restore the natural landscape character of reserves, especially those that form the backdrop to Nelson City.

4. To protect water quality and quantity in the Maitai and Roding catchments in order to comply with the Health (Drinking Water) Amendment Act 2007 for the supply of water to Nelson.

5. To allow and encourage public use of reserves wherever compatible with the above goals.

5.0 GENERAL OBJECTIVES AND POLICIES FOR CONSERVATION AND LANDSCAPE RESERVES

This section of the management plan contains the general objectives and policies for management of all reserves in the plan. Descriptions of each reserve and policies specific to each reserve are set out in Section 6 of this plan.

Current Situation/Issue	Objectives	Policies
5.1 Reserve Acquisition Reserves are often acquired by Council as a 'reserves contribution' when land is subdivided. Council may also purchase land to meet a specific need, such as to provide access to existing reserves or to complement the values protected within existing reserves.	To enhance the reserve network in Nelson City for the protection of indigenous ecosystems, landscapes, recreation opportunities and amenity values.	5.1.1 Seek to ensure that land acquired through reserve contributions from subdivisions and by other means helps provide for the protection of natural, historic, cultural and archaeological values and helps meet the present and future recreational and amenity needs of residents. 5.1.2 Advocate for the protection of land that supports rare or ecologically-valuable ecosystems or sites, in particular lowland forest, mineral belt ecosystems, coastal vegetation, wetlands and geological features of significance. 5.1.3 Give priority to the acquisition or protection of land that complements or links existing Council reserves, buffers forest remnants and river margins, creates ecological corridors, provides for public access, or protects the natural landscapes that form the backdrop to Nelson city centre. 5.1.4 Consider the acquisition of land that supports regionally significant ecosystems or sites, where there are no other options for their protection. 5.1.5 Ensure that land acquired for reserves is of sufficient size, and is appropriately located, to protect the natural features of the land or to provide for public access. 5.1.6 Seek to acquire, protect or manage land in partnership with other organisations to provide for the present and future conservation, recreation and amenity needs of residents. 5.1.7 Ensure that areas set aside as reserves have boundaries that are practical for reserve management and public use, and that boundaries are defined by fencing, planting, or other means, so that the extent of each reserve is clear to adjoining landholders and the public.

Current Situation/Issue	Objectives	Policies
5.2 Biodiversity Protection The reserves covered by this plan contain some very important biodiversity values. Legislation, Council policies and public demand require that these values are protected as best possible. Some indigenous ecosystems within the reserves are substantially degraded. Restoration of degraded indigenous ecosystems may be necessary for successful biodiversity protection.	To protect, enhance and restore indigenous biodiversity in reserves.	5.2.1 Protect areas of indigenous vegetation and habitats of indigenous fauna on reserves, especially those areas adjoining streams and rivers, and on or adjacent to mineral belt areas. 5.2.2 Enhance indigenous biodiversity values of reserves as part of reserve maintenance and development. 5.2.3 Restore, or encourage the restoration of, indigenous vegetation and habitats of indigenous fauna on reserves, where appropriate. 5.2.4 Permit the removal of indigenous plants and animals (alive or dead) from reserves only when the species is not 'threatened' or 'at risk', the adverse effects are minor and the removal is specifically authorised, or where removal is for reserves management or scientific purposes and is specifically authorised. 5.2.5 Ensure that any works or other activities (such as forest harvesting or quarrying) undertaken in reserves or on adjoining lands are managed to minimise the adverse affects on instream habitats, including fish passage, and the water quality and quantity.
5.3 Heritage Protection Reserves covered by this plan, especially the water reserves, contain very important archaeological and historic sites.	To protect the integrity of historic, cultural and archaeological sites and resources.	5.3.1 Identify, record and sign-post (if appropriate) important archaeological and heritage sites and values in reserves. 5.3.2 Identify threats to archaeological and heritage sites and values, and limit the effects of these threats wherever practicable and appropriate. 5.3.3 Ensure that any developments in reserves do not have a significant adverse effect on heritage values. Require development proposals to include an assessment of heritage values. 5.3.4 Liaise with iwi, Department of Conservation, Historic Places Trust and community groups regarding the protection and use of heritage sites and values as issues arise.

Current Situation/Issue	Objectives	Policies
5.4 Landscape Protection Protection of relatively unmodified and/or highly visible areas from inappropriate use or development is important.	To protect the landscape and visual amenity values of reserves.	5.4.1 Protect relatively unmodified landscapes by limiting buildings and other structures, including tracks, in reserves. 5.4.2 Maintain the natural (green) character of the Nelson city centre backdrop, by protecting areas within reserves that are visible from the Nelson city centre from inappropriate development and vegetation clearance.
5.5 Landscaping and Amenity Planting Reserves management often includes planting of trees and shrubs, care for or removal of older trees, restoration following the construction of facilities and restoration of indigenous plant and animal populations. It is important that this management is sympathetic to the natural values of the reserve.	To ensure landscaping and amenity planting is appropriate to the values and uses of each reserve.	5.5.1 Ensure that upper slopes in reserves that are visible from Nelson city centre (the city backdrop) are revegetated in appropriate indigenous species. Exotics may be used as an interim measure to maintain slope stability and/or as part of succession management. 5.5.2 Maintain established mature specimen exotic trees on lower slopes of reserves that are visible from Nelson city centre, with a long term aim of revegetating lower slopes in appropriate indigenous species. 5.5.3 Allow for planting of exotic (not plantation) and food trees in landscape reserves, particularly where reserves are accessible and close to urban areas, where they will not have an adverse effect on other reserve values or uses, will not impact on the native city backdrop, and will not become plant pests. 5.5.4 Require all significant reserve development proposals to have a landscape plan. 5.5.5 Include appropriate native species, propagated from locally sourced plants, where appropriate, in landscape reserve planting programmes, including erosion-control plantings. Refer to the Living Heritage[10] guide. 5.5.6 Ensure that all Heritage Trees, such as those listed in the Nelson Resource Management Plan, are protected. 5.5.7 Ensure that any vegetation planting within the vicinity of a high voltage transmission line is selected and placed so that at a mature height it will comply with the mandatory requirements of the Electricity (Hazards from Trees) Regulations 2003.

Current Situation/Issue	Objectives	Policies
5.6 Species Management Protection of habitats is crucial for species management. Health and genetic integrity of host populations must be protected during species introductions or transfers.	To ensure species management maintains and protects indigenous biodiversity values.	5.6.1 Manage habitats and ecosystems as far as possible to protect indigenous biodiversity. 5.6.2 Consider the reintroduction of indigenous plant and animal species where sufficient predator control has been undertaken to allow re-establishment, and ensure that reintroduced species are, wherever possible, sourced from local populations. 5.6.3 Require that introductions of species to reserves pose no significant threat to indigenous species and habitats already present in the reserve.
5.7 Plant and Animal Pest Control The reserves covered by this plan are all affected to some extent by introduced (naturalised) plants and animals. In most reserves plant and animal pests pose a major threat to biodiversity values. The most effective control is early detection and removal of new pest infestations and the targeted control of existing populations.	To control populations of pest species in accordance with identified targets so that reserve values are protected.	5.7.1 Carry out surveillance to detect new plant and animal pest infestations and gather information on the size and extent of existing infestations. 5.7.2 Control plants and animal pests in accordance with the Tasman-Nelson Regional Pest Management Strategy. 5.7.3 Undertake priority plant and animal pest control in accordance with identified targets in reserves where such pests pose a threat to the natural values of the reserve or to public enjoyment of the reserve. 5.7.4 Coordinate pest control activities with those of the Department of Conservation, the Animal Health Board, immediate neighbours and other agencies or groups wherever possible. 5.7.5 Support projects which seek to control plant and animal pest populations or which prevent the establishment or re-invasion of pests. 5.7.6 Allow recreational control of animal pest populations, as specified in Policy 5.16 (Hunting and Fishing) and in individual reserve policies. 5.7.7 Consider best practice control methods and approaches to avoid adverse environmental impacts from pest control.

Current Situation/Issue	Objectives	Policies
5.8 Monitoring Information on the condition of reserves provides the basis for making management decisions. Currently low levels of monitoring are in place.	To ensure a regular system of monitoring key species, habitats and threats is in place to guide management actions.	5.8.1 Monitor the condition of reserves and key species and habitats within them to identify threats and guide management actions. 5.8.2 Monitor the performance of measures taken to reduce threats to key species and habitats.
5.9 Sustainability Council policy requires recognition of sustainability in management and decision-making. Sustainability is also addressed in other areas of these general policies.	To ensure wise use and management of resources.	5.9.1 Recognise the inter-connectedness of environmental, social, cultural and economic values in reserves management. 5.9.2 Consider the benefits of forests and other vegetation, such as regenerating indigenous vegetation, for carbon sequestration and biodiversity conservation when making decisions about forest management and replanting in reserves. 5.9.3 Work with contractors and lessees to achieve continual improvement in sustainability performance. 5.9.4 Assess both short term and long term financial and non-financial benefits and risks in reserves management.

Current Situation/Issue	Objectives	Policies
5.10 Tangata Whenua Council has a Memorandum of Understanding with iwi. Many reserve areas have special significance to iwi. Respect for the wishes of iwi and the involvement of iwi in reserves management are important Council objectives.	To ensure there is adequate and effective consultation with iwi, and opportunities for iwi involvement, in reserves management.	5.10.1 Ensure iwi are consulted prior to any significant reserve development or operation. 5.10.2 Provide opportunities, when requested by tangata whenua, for iwi participation in reserve management activities including restoration projects. 5.10.3 Consult iwi on any draft interpretive sign text that provides information about sites of importance, iwi heritage values, past and present cultural activities or tupuna (ancestors). 5.10.4 Provide appropriate protection for sites of importance to iwi in reserves in consultation with iwi. 5.10.5 Work with iwi to provide for cultural harvest and collection as required, while ensuring this does not adversely affect other reserve values.
5.11 Community Involvement and Education Opportunities to be involved in reserves management and development are important to the community. Using reserves for education helps build community understanding about natural values and their protection.	To encourage involvement of the community in reserves management and support the use of reserves for education.	5.11.1 Provide opportunities for people to be involved in reserve management through, for example, tree planting, plant and animal pest control, facilities development, monitoring and restoration projects. 5.11.2 Support the use of reserves for educational purposes. 5.11.3 Support and assist, where practicable, formal and informal reserve care groups. 5.11.4 Consult with reserve care and interest groups over significant reserve development proposals.

Current Situation/Issue	Objectives	Policies
5.12 Public Access and Use One of the most important purposes of the reserves is to provide opportunities for public use. The reserves covered by this plan provide excellent opportunities for a range of recreational uses, notably walking, mountain-biking and scenery appreciation. There can sometimes be conflicts between different reserve users or between reserve use and reserve values. This plan aims to achieve a balance between unrestricted public access and the protection of reserve values and reserve users.	Maximise accessibility by ensuring that reserves are available, wherever possible, for public access and use.	5.12.1 Allow public access to and recreational use of reserves, unless restrictions are required for reserves management, Council-approved projects and activities, public safety, to manage conflict between users or for the protection of water quality and reserve values. 5.12.2 Encourage multiple uses of reserves. 5.12.3 Ensure that restrictions on reserve use are for the minimum period necessary for the event or activity. 5.12.4 Ensure that the reasons for any restrictions on reserve use are clearly communicated to the public.
5.13 Interpretation and Signs Consistent and standardised signs help ensure safe use of reserves. The provision of on-site interpretation can enhance public enjoyment and the appreciation of reserve values.	To provide sufficient signs and interpretation to ensure safe and enjoyable public use of reserves.	5.13.1 Ensure that all reserves are clearly signposted. 5.13.2 Ensure signs are consistent with the Nelson City Council Outdoor Sign Manual. 5.13.3 Ensure that signs erected on reserves include appropriate content such as the reserve name, directional information, and information on appropriate activities. 5.13.4 Erect interpretation panels at appropriate locations to provide information about natural and historic features of reserves. 5.13.5 Prohibit commercial advertising or sponsorship signs on reserves, unless specifically permitted by individual reserve policies and approved by Council.

Current Situation/Issue	Objectives	Policies
5.14 Tracks and Track Marking There are a number of tracks in the reserves. Public use may create a demand for additional tracks. It is important that the reserves provide for a range of recreational experience. Reserve lands also provide opportunities to provide public access to other areas, such as Mt Richmond Forest Park.	To ensure tracks are appropriately sited, marked and maintained.	5.14.1 Provide, and upgrade where required, using modern design and construction techniques, paths and tracks through reserves where necessary to enable public use and to facilitate reserve management. 5.14.2 Site paths and tracks at locations that avoid natural hazards, help ensure public safety and seek to avoid damage to sensitive vegetation and habitats. 5.14.3 Ensure that the network of paths and tracks in reserves provides for a range of recreational experiences, and practical and enjoyable use of reserves by the public. 5.14.4 Seek to improve appropriate access through reserves to other public lands, especially public conservation lands in Mt Richmond Forest Park. 5.14.5 Prohibit the construction of unauthorised mountain-bike tracks in reserves.
5.15 Walking and Mountain-biking Walking and mountain-biking are popular uses of the reserves. In most areas these activities are appropriate and compatible. In some areas these activities may need to be restricted to protect reserve values or to avoid conflict with other users.	To provide for walking, and, where appropriate, mountain-biking, in reserves.	5.15.1 Allow walking access to reserves and mountain biking on tracks, except where necessary to restrict access as specified in Policy 5.12 (Public Access and Use), or as restricted by policies for each reserve. 5.15.2 Provide opportunities for walking and mountain-biking in reserves through the establishment of a range of different paths and tracks to suit different users.

Current Situation/Issue	Objectives	Policies
5.16 Hunting and Fishing Recreational hunting can assist in the control of populations of large animals (e.g. deer, pigs and goats). Inappropriate hunting can pose threats to indigenous biodiversity, water quality and public safety. There are very limited opportunities for recreational fishing in the reserves. Fishing has the potential to affect water quality of lakes in the water reserves.	To permit, where appropriate, recreational hunting and fishing in reserves.	5.16.1 Allow recreational hunting of large introduced mammals (e.g. deer, pigs, goats) in reserves, where permitted by policies for the reserve, and subject to a permit from Council. 5.16.2 Prohibit the use of small-calibre firearms in reserves, unless specifically authorised by Council, or for reserves management purposes. 5.16.3 Prohibit game-bird hunting in reserves, unless specifically permitted by policies for the reserve, authorised by Council and subject to any licence required from Nelson/Marlborough Fish and Game Council. 5.16.4 Allow recreational fishing in reserves, with the exception of the Maitai and Roding Water Reserves, subject to any licence required from Nelson/Marlborough Fish and Game Council.
5.17 Camping, Huts and Overnight Stays Campsites, huts and shelters provide opportunities for overnight stays in reserves. In most of the reserves covered by this plan, there is little demand for overnight stays due to their size. In other reserves, overnight stays are guided by the reserve policies.	To maximise opportunities for recreational use by allowing, where appropriate, overnight stays in reserves.	5.17.1 Allow overnight camping or overnight stays at huts or shelters at specified sites, as determined by policies for the reserve, or for reserves management purposes. 5.17.2 Provide toilet facilities and fresh water at any campsites, huts and shelters where overnight stays are permitted. 5.17.3 Limit numbers at overnight campsites, huts or shelters if necessary to protect water quality and reserve values.

Current Situation/Issue	Objectives	Policies
5.18 Fossicking and Rock-hounding Uncontrolled fossicking and rock-hounding has been a problem in the past, causing damage to some features.	To allow for the public enjoyment of geological features while ensuring their protection.	5.18.1 Prohibit the hand-collection of small quantities of rocks and minerals unless authorised by Council. 5.18.2 Prohibit collection of rocks, minerals, artifacts or any other material from archaeological or historic sites, unless indicated otherwise at the site and in policies for the reserve, or for reserve management purposes.
5.19 Aircraft and Aerial Sports Motorised aircraft use is generally inappropriate in the reserves. Non-motorised flights and take-off sites generally have a low impact.	To restrict aircraft activity and aircraft use in reserves.	5.19.1 Prohibit recreational motorised aircraft landing and taking-off in reserves, unless permitted by policies for the reserve and specifically authorised by Council. 5.19.2 Permit motorised aircraft landing and taking-off in reserves for search and rescue, public safety, reserve management purposes or for one-off events specifically authorised by Council. 5.19.3 Permit non-motorised launching and landing of flights from suitably accessible areas in reserves, subject to Civil Aviation Authority regulations. 5.19.4 Permit foot-launched motorised launching and landing of flights from the Barnicoat Range only, or other areas in reserves where authorised by Council, subject to Civil Aviation Authority regulations

Current Situation/Issue	Objectives	Policies
5.20 Grazing and Domestic Animals Grazing in reserves can assist in reducing fire risk or maintaining grassed areas. There is a public demand for the use and taking of dogs and in some cases horses in reserves. Some restrictions on these uses may be required to protect biodiversity values and avoid conflicts with other users.	To restrict grazing and the use and taking of domestic animals in reserves as necessary to protect reserve values (including water supply) and avoid conflicts with other reserve users.	5.20.1 Permit grazing of livestock in reserves only if grazing is compatible with the protection of reserve values and does not conflict with other reserve users. 5.20.2 Restrict grazing animals from accessing waterways. 5.20.3 Allow horses on reserves only where individual reserve policies permit such use. 5.20.4 Allow dogs on reserves, provided they are under control, except where prohibited by individual reserve policies. 5.20.5 Prohibit the taking of domestic animals (other than dogs and horses) onto reserves.
5.21 Plantation Forestry and Firewood Gathering There are some substantial plantations of trees in some of the reserves. These plantations are appropriate at some sites. At other sites, it would benefit biodiversity values if regeneration of indigenous plant communities was encouraged following tree harvest. Recreational use is often compatible with plantation forestry.	To manage plantation forests in a way that protects reserve values and provides benefits to Council.	5.21.1 Manage forests in reserves in a way that is economically and environmentally sustainable. 5.21.2 Ensure plantation forests are planned and managed in a way that meets the objectives of this plan. 5.21.3 Encourage and manage the regeneration of indigenous vegetation after harvesting small or isolated or uneconomic or otherwise inappropriate areas of plantation forest. 5.21.4 Prohibit the gathering of harvesting of firewood from reserves unless specifically permitted by reserve policies and Council authorisation. 5.21.5 Allow and encourage the recreational use of plantation forests provided such use does not threaten the forest and is compatible with other reserve uses.

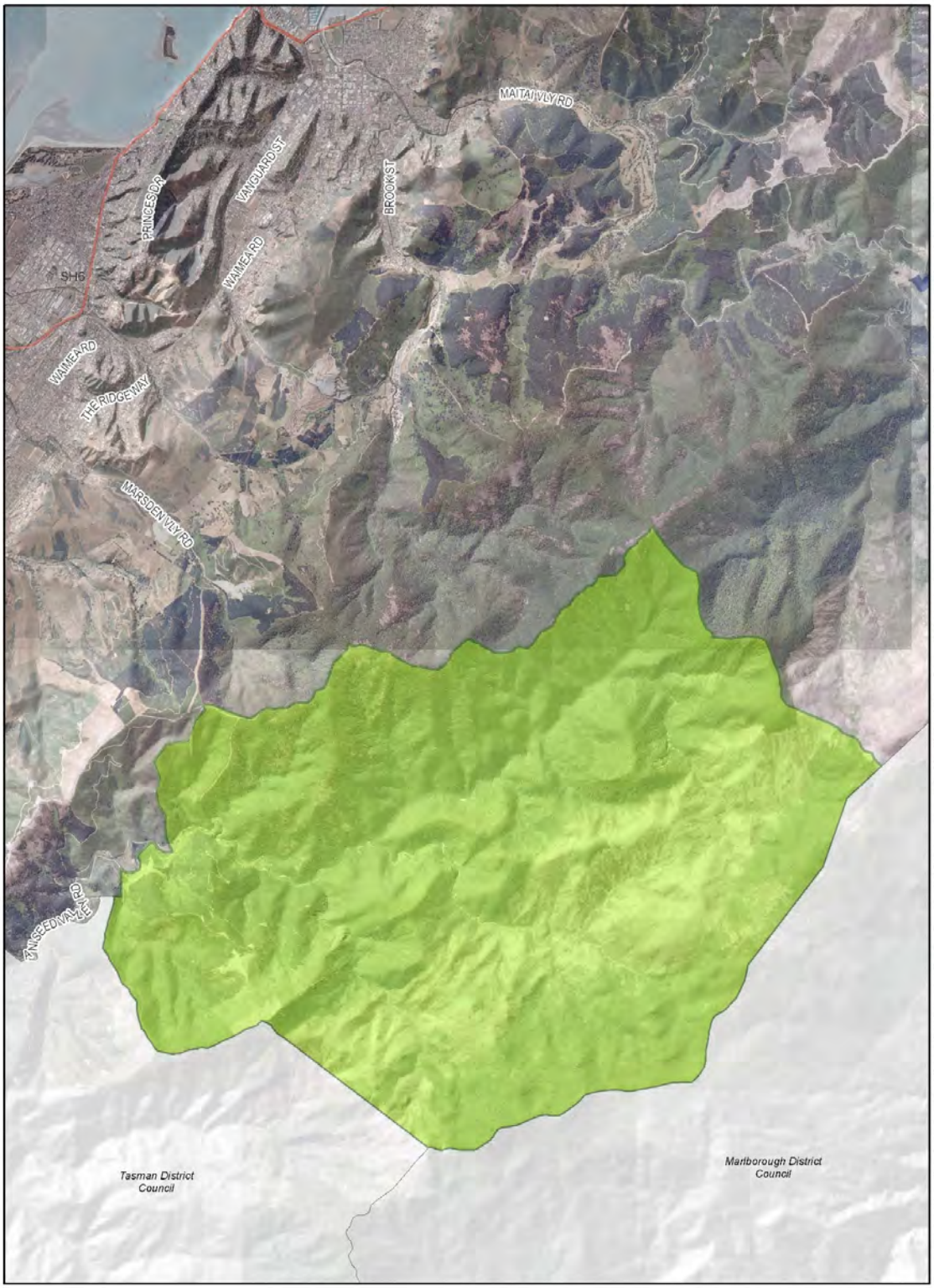
Current Situation/Issue	Objectives	Policies
5.22 Rubbish Disposal Disposal of rubbish in reserves is unattractive, unhygienic and may attract pests. Provision of rubbish disposal services can be costly, especially when distant from roads.	To educate the public so that the effects of rubbish on reserve values is minimised.	5.22.1 Require visitors to reserves to take their own rubbish with them when leaving the reserve. 5.22.2 Consider the provision of rubbish disposal facilities where necessary and where servicing of such facilities is practical. 5.22.3 Prohibit the disposal of garden waste and other rubbish in reserves.
5.23 Vehicle Access and Parking There are few formed roads or vehicle tracks in the reserves. Use of motorised vehicles in other parts of the reserves is generally inappropriate.	To restrict motorised vehicle access on reserves.	5.23.1 Prohibit motorised vehicle use on reserves unless: • permitted by individual reserve policies, or • on designated roadways and parking areas, or • approved by Council for special events or projects, or • for reserves management purposes. 5.23.2 Provide adequate vehicle parking to cater for normal reserve use and, wherever possible, provide this parking on adjacent roads rather than on reserve land. 5.23.3 Close or restrict motorised vehicle access to existing formed roads, if such access threatens habitats, water quality or heritage values or conflicts with other reserve users.

Current Situation/Issue	Objectives	Policies
5.24 Buildings and Structures Buildings and structures (such as bridges and toilets) may be required to facilitate reserve use or protect reserve values. It is important that buildings and structures do not adversely affect other reserve values.	To limit the extent of and ensure the safety of buildings and structures on reserves.	5.24.1 Limit the construction or relocation of buildings or structures on reserves, unless necessary for reserves purposes, such that they are compatible with the general policies and individual reserve policies of this management plan, and the primary purpose of the reserve. 5.24.2 Require all proposals to construct or relocate buildings or structures on reserves to be compatible with the protection of the open space and amenity values of the reserve. 5.24.3 Ensure that bridges, boardwalks, safety rails and other similar structures are an appropriate standard for reserve users. 5.24.4 Permit the retention and appropriate upgrading of existing structures associated with the provision of Nelson's water supply (e.g. dams, pipelines and buildings). 5.24.5 Have regard to the location of any existing infrastructure when determining the location for any new buildings and structures.
5.25 Toilet and Water Facilities High public use may prompt the need for toilet facilities, such as at sites where people congregate (e.g. campsites) or during popular events. The provision of fresh water may be necessary to maintain hygiene standards at popular sites.	To provide toilet and water facilities on reserves where necessary for environmental protection or public safety.	5.25.1 Provide toilet and water facilities on reserves where there is a demand, and: • organised sporting or recreational events are held regularly, or • picnic facilities are provided, or • there is high public use or overnight stays. 5.25.2 Ensure toilet wastes are disposed of into appropriate disposal systems. 5.25.3 Require organisers of activities on reserves without permanent toilet facilities, or where toilet facilities are inadequate for anticipated use, to provide portable toilets for the duration of the activity. 5.25.4 Provide fresh water at huts and campsites where there are no natural sources of fresh water nearby.

Current Situation/Issue	Objectives	Policies
5.26 Fencing Fencing can be important to define reserve boundaries, protect reserve values and help ensure public safety. In many areas fences may not be necessary.	To ensure reserves are adequately fenced.	5.26.1 Ensure that reserves are fenced where necessary to: • adequately define reserve boundaries • protect natural and historic resources • prevent stock trespass • prevent re-invasion of pests • prevent unauthorised vehicle access • reduce risks in hazardous areas • ensure public safety.
5.27 Fire Management Uncontrolled fire can pose a significant threat to reserves, especially during dry conditions. At times of high fire danger, it may be necessary to restrict or prohibit public use of reserves. Fire control is managed through the Waimea Rural Fire Committee.	To protect reserves from uncontrolled fire.	5.27.1 Prohibit lighting of open fires in reserves, unless specifically authorised by Council or for reserves management purposes. 5.27.2 Ensure that fire danger levels in reserves are monitored and that adequate fire fighting capability is available to respond to wildfire or the threat of wildfire in reserves. 5.27.3 Close reserves to public use if fire danger levels are unacceptably high.
5.28 Adjoining Land Uses Activities on adjoining land can affect reserve values or use. Activities within reserves can affect adjoining lands. It is important to work with neighbours to manage these activities.	To work with reserve neighbours to ensure activities are compatible across reserve boundaries.	5.28.1 Ensure that adverse activities on adjoining lands do not encroach on reserve land. 5.28.2 Seek to ensure that management practices on reserves and adjoining lands are compatible with one another. 5.28.3 Ensure that the potential impacts on reserve lands of any zoning proposals (such as increased density of settlement) for adjoining lands are communicated to planners. 5.28.4 Liaise with adjoining landowners regarding any new proposals or developments on the reserves that may affect neighbouring land.

Current Situation/Issue	Objectives	Policies
5.29 Commercial and Non-Commercial Activities The reserves provide opportunities for a range of commercial and non-commercial uses, ranging from extractive activities such as bee-keeping, to organised recreational events.	Allow for non-commercial (not-for-profit) and commercial activities..	5.29.1. Consider commercial activities (trade, business or occupation) on reserve land only where compatible with the general policies of this management plan, the policies for the individual reserves, and the primary purpose of the reserve. All commercial activities must be authorised by Council and are subject to General Policy 5.30. 5.29.2. Generally permit non-commercial (not-for-profit) activities where such activities are compatible with the general policies of this management plan, the policies for the individual reserves, and the primary purpose of the reserve.
5.30 Leases, Licences and Concessions Legislation and policy requires reserve uses to be controlled by leases, licences or concessions to ensure there is no conflict with reserve values and other users.	To ensure that organised recreational, community and commercial uses of reserves are authorised by leases, licences or concessions.	5.30.1 Grant leases, licences or concessions for appropriate recreational, community and commercial uses of reserves provided that: • The use is compatible with the objectives of this plan • There is a demand for the activity or structure proposed • The activity or structure does not conflict with the protection of the natural values of the reserve. 5.30.2 Consult with affected parties and/or the public over any proposals to grant leases, licences or concessions over reserves, where such leases, licences or concessions are not already provided for in this plan, and where the activity is likely to have a significant adverse effect on reserve use or users, reserve values, or where the lease, licence or concession is for an ongoing activity. 5.30.3 Permit the placing of infrastructure and facilities, such as buried cables, electricity pylons and communication towers on reserve land, provided they are compatible with the protection of reserve values (including landscape protection), public use and individual reserve policies. 5.30.4 Ensure that network utility operators are able to access their existing infrastructure on reserve land and permit the ongoing maintenance (including tree trimming) and upgrading of these assets.

Current Situation/Issue	Objectives	Policies
5.31 Compliance and Law Enforcement The activities or behaviour of visitors to reserves may affect reserve values or other reserve users. Inappropriate activities or uses can be controlled through bylaws. Bylaws must be consistent with legislation and this management plan.	To ensure bylaws are in accordance with legislation and consistent with the objectives and policies of this plan.	5.31.1 Review bylaws to ensure they give effect to the provisions of this management plan and revoke any that are inconsistent. 5.31.2 Give precedence to the Reserves Act 1977, if there is any conflict between this plan and the provisions of the Act (for those reserves gazetted under the Reserves Act). 5.31.3 Give precedence to the policies in this plan, if there is any conflict between this plan and Council bylaws.



6.0 RESERVES DESCRIPTIONS AND POLICIES

6.1 Roding Water Reserve (Conservation Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
s26 ROLD Act 1947	Land in Blks IV and VII Maungatapu SD; and in Blk XII Waimea SD	Unknown	Local Purpose (Waterworks) Reserve
NL39/20	Secs 1, 2, 3, 4, 5, 10, 11, 12, 13, 23, 24 SQ 18	1010.35	Freehold
NL74/229	Sec 1 Blk IV Maungatapu SD	409.95	Local Purpose (Waterworks) Reserve
GN 1960 p.1774	Pt Secs 5 and 6 Blk IV Maungatapu SD	Unknown	Local Purpose (Water Conservation) Reserve
s26 ROLD Act 1947	Pt Secs 5 and 6 Blk IV Maungatapu SD	Unknown	Local Purpose (Waterworks) Reserve
NL58/28	Secs 8 & 15 Blk IV Maungatapu SD	665.30	Local Purpose (Waterworks) Reserve
GN 1961 p.1581	Secs 16 & 17 Blk IV Maungatapu SD	12.67	Local Purpose (Waterworks) Reserve
GN 1960 p.1774	Pt Sec 1 VII Maungatapu SD	Unknown	Local Purpose (Water Conservation) Reserve
s26 ROLD Act 1947	Pt Sec 1 VII Maungatapu SD	Unknown	Local Purpose (Waterworks) Reserve
GN 1961 p.1581	Secs 2 & 3 Blk VII Maungatapu SD	0.53	Local Purpose (Waterworks) Reserve
s26 ROLD Act 1947	Sec 5 Blk VII Maungatapu SD	202.34	Local Purpose (Waterworks) Reserve
NL5D/462	Pt Secs 5 & 6 Blk VIII Waimea SD	101.21	Freehold (for Waterworks)
NL92/63	Pt Sec 6 Blk VIII Waimea SD	16.14	Freehold (for Waterworks)
GN 1947 p.1426	Pt Sec 8 Blk VIII, & Pt Sec 9 Blk XII Waimea SD	156.15	Freehold (for Waterworks)
NL43/285	Pt Sec 8 Blk VIII, & Pt Sec 9 Blk XII Waimea SD	57.52	Freehold
GN 1947 p.1426	Sec 7 Blk VIII Waimea SD	40.47	Freehold (for Waterworks)
GN 1961 p.1581	Secs 11,12,13,14,15,16,17,18,19,20,21,22 Blk VIII Waimea SD	31.64	Local Purpose (Waterworks) Reserve
NL91/202	Sec 2 Blk VIII Waimea SD	10.69	Local Purpose (Waterworks) Reserve
NL12/76	Sec 4 Blk VIII Waimea SD	8.09	Freehold
NL85/28	Secs 12 & 13 Blk XII Waimea SD	566.56	Local Purpose (Waterworks) Reserve
GN 1961 p.1581	Secs 15 & 16 Blk XII Waimea SD	6.67	Local Purpose (Waterworks) Reserve
s3 ROLD Act 1941	Sec 9 Blk VIII Waimea SD	297.04	Local Purpose (Waterworks) Reserve
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**4576.33**	

General Description

Roding Water Reserve covers the headwater catchment of the Roding River (Aniseed valley) inland (southeast) from Nelson City on the slopes of the Bryant Range and Jenkins Hill. It adjoins the Department of Conservation-administered Mt Richmond Forest Park across the Bryant Range to the southeast, Maitai Water Reserve to the northeast, Brook Conservation Reserve to the north, Marsden Valley Reserve to the northwest and privately-owned farm and forestry land in the lower Aniseed valley to the southwest. The main access to the reserve is via Aniseed Valley Road from near Richmond.

Roding Water Reserve lies between altitudes of 200m in the Aniseed valley, 724m at Jenkins Hill and over 900m on the crest of the Bryant Range. It covers moderately-steep to steep country dissected by the main upper tributaries of the Roding River, including Champion and United creeks. The area has a complex geology. Lower slopes comprise variably bedded sandstone, siltstone and mudstone with conglomerate, and limestone, of the Maitai Group. Upper slopes comprise harzburgite, dunite and pyroxenite, with gabbro, rodingite dykes, and copper/chromite mineralisation of the Dun Mountain Ultramafics Group. The crest of the Bryant Range comprises mafic and ultramafic igneous and sedimentary rocks in a sheared serpentinitic matrix of the Patuki Melange[11].

The reserve lies within the Bryant Ecological District[12] and the Central Mountains Land Environment (P6)[13]. It is estimated that between 20 and 25% of the original extent of the lowland forest ecosystem remains and that between 40 and 50% of these remnants are protected[14]. Therefore, indigenous vegetation at lower and mid-altitudes is at risk and locally important for protection. The ultramafic ecosystems at higher altitudes are regarded as 'originally rare' ecosystems and listed as a national priority for protection [15].

The underlying geology strongly influences the vegetation of the reserve. Diverse beech-podocarp forests are present on the Maitai Group sedimentary rocks in the west, with podocarps (kahikatea, rimu, matai and miro) more dominant at lower altitudes. Forest dominated by beech is present at mid-altitudes. This forest grades to red beech-silver beech forest with occasional podocarps at higher altitudes.

The mineral belt rocks of the Dun Mountain Ultramafic Group have concentrations of minerals which are high enough to be toxic to or to severely restrict plant growth. The original vegetation on this substrate is likely to have been low forest, scrub and tussockland. However, the area was burnt during the early years of European settlement and now supports regenerating forest and scrub at lower altitudes and sparse scrub, shrubland and tussockland at higher altitudes. It supports a number of species that are endemic to ultramafic rock, notably the dominant tussock *Chionochloa defracta*.

The mixed igneous and sedimentary rocks of the Patuki Melange support beech-podocarp forest on the steeper slopes and hard-rock outcrops (such as argillite), and stunted beech, pink pine and mountain cedar on poorly-drained gentler slopes. Areas of ultramafic rock support vegetation similar to that described above for the mineral belt rocks.

Vegetation is quite modified on north-facing slopes at lower-altitude parts of the reserve. These slopes support scrub dominated by exotic species, regenerating indigenous forest and plantation forest (mostly radiata pine).

Notable flora of the Roding and Maitai Water Reserves (these reserves are described together in the most recent report[16]) includes species confined or endemic to ultramafic substrates (including *Olearia serpentina*, *Chionochloa defracta* and species of *Astelia* and *Colobanthus*), species at or near their southern limit, threatened species and rare species. Notable species recorded from the lower-altitude Waterfall Stream are *Scutellaria novae-zelandiae* (nationally endangered), the rare forest floor herb *Australina pusilla* and tree fern wheki-ponga[17].

Indigenous birds recorded from the Roding Water Reserve include tui, robin, bellbird, tomtit, brown creeper, silvereye, kereru, karearea/NZ falcon and yellow-crowned kakariki. A blue duck was recently observed at the Roding Dam. The reserve provides good habitat for lizards. Species likely to be present are common gecko, common skink, spotted skink and possibly Nelson green gecko and forest gecko. Three distinct populations of the snail *Powelliphanta hochstetteri consobrina* are present on the Bryant Range[18]. The reserve is large and is contiguous with extensive areas of protected indigenous vegetation on the Bryant and Richmond ranges, together providing important habitats for indigenous species.

The most important plant pest infestations in the Roding Water Reserve are wilding conifers, gorse and Spanish heath in the mineral belt, and old man's beard in the lower altitude forests. Other important plant pests present, mostly lower in the valley are broom, Mexican daisy (on limestone), cotoneaster and silver wattle. Most significant are the wilding conifer infestations in the mineral belt. These infestations have been controlled in the past but further effort is required to eliminate this threat. Douglas fir plantings are present on the Barnicoat Range adjacent to the reserve. Goats, pigs and possums are the most serious animal pests present, causing significant damage to indigenous plant communities. Also present are deer, cats and small mammalian predators[19].

The Roding Water Reserve has a rich mining history. Copper ore was extracted from three mines in Champion and United creeks, between the 1880s and 1908. A smelter was built in Champion Creek to process the ore. Relics of the United, Monster and Champion mines and smelter are important historic sites in the reserve[20]. Mining had occurred earlier in the mineral belt and the adjacent Maitai valley and led to the construction of the Dun Mountain Railway in 1862. The railway formation (now the Dun Mountain Walkway) traverses the upper part of the Roding Water Reserve[21].

The use of the Roding River as a water supply began in 1940 with the construction of an 11 kilometre pipeline and a 2 kilometre tunnel through the Barnicoat Range[22]. The dam and pipeline continue to provide water to Nelson City.

The Roding Water Reserve provides a range of opportunities for public recreation. Popular recreational activities are walking, mountain-biking and historic site appreciation. Other activities include fossicking, rock-hounding, hunting and vehicle use (to Mt Malita). The most popular access is via Aniseed Valley Road. Tracks provide foot access from the Brook and Pelorus valleys. The Bryant Range Track links Mt Richmond Forest Park with the Roding and Maitai Water Reserves and is managed by the Department of Conservation. There is potential to provide improved foot and perhaps mountain-bike access from the Barnicoat Range and Marsden Valley Reserve.

Access for hunters has been restricted to help protect water quality in the catchment. A running race (Dun Mountain) and a mountain-bike race (Coppermine Classic) follow the Dun Mountain Walkway-Coppermine Saddle route between The Brook and Maitai valleys, though this only traverses the upper (northeast) part of the reserve.

Facilities, other than tracks, in the reserve are a (locked) hut on Mt Malita and structures associated with the Roding Dam and water supply including the caretaker and relief caretaker's houses.

A principal purpose of the reserve is the provision of water for Nelson City. Reserve management to date has reflected this primary objective. Important additional objectives of this management plan are

protection of the high natural values in the reserve and recognition and where possible provision for increased recreational use. The Brook Waimarama Sanctuary fence may in part follow the boundary between Roding Water Reserve and Brook Conservation Reserve. See policy 6.3.2 (page 45).

Important Reserve Management Issues

Protection of water quality: The reserve has traditionally been managed as water supply catchment and this remains a critically important management objective. Restrictions on public use of and access to the water supply catchment contribute to the grading Council obtains for Nelson's water as part of its compliance with the Health (Drinking Water) Amendment Act 2007. While increased public use of the reserve is proposed by this management plan, Council reserves the right to ensure that adverse effects of such use on the city's water supply are avoided or mitigated. Water quality and stream habitats must also be protected from the introduction and spread of Didymo (*Didymosphenia geminata). See policies 6.1.1, 6.1.12 and 6.1.13.*

Protection of ecological values: The ecological values of the reserve are nationally important, notably the plant communities and habitats of the mineral belt and adjacent limestone substrates. One of the main threats to these areas is invasive plant and animal pests. *See policies 6.1.2 to 6.1.5.*

Protection of heritage values: Archaeological and historic sites in the reserve are of regional and possibly national importance (e.g. Champion Smelter). Many sites are not formally documented. Sites and associated artefacts should be protected from the adverse effects of public use. *See policies 6.1.6 and 6.1.7.*

Plantation forestry: Some stands of plantation forest are small and isolated. Consideration should be given to the long-term future of plantation forestry at these locations. *See policy 6.1.8.*

Recreational use: Increased demand for mountain-biking may affect natural values, heritage sites and other reserve users. The reserve provides opportunities for access to surrounding areas, including Mt Richmond Forest Park and Maitai Water Reserve. There is some demand for overnight stays in the reserve. *See policies 6.1.9 to 6.1.11 and 6.1.14.*

Policies

6.1.1. Ensure that any increased public access or use, or any new developments in the reserve, do not adversely affect water quality or Council's water supply grading.

6.1.2. Identify, prioritise and control infestations of pest plants, in accordance with identified targets, particularly in the mineral belt area of the reserve, to protect indigenous habitats and species.

6.1.3. Identify, prioritise and control populations of pest animals, in accordance with identified targets, to protect indigenous habitats and species.

6.1.4. Allow and manage recreational hunting while ensuring (through permit conditions) that this activity has minimal adverse effects on water quality and public safety is ensured.

6.1.5. Prohibit dogs in the reserve, except where authorised for reserves management purposes.

6.1.6. Monitor important archaeological and heritage sites in the reserve and take appropriate management actions as required.

6.1.7. Ensure that the use and maintenance of the Dun Mountain Walkway protects the heritage values of the Dun Mountain Railway formation.

6.1.8. Reconsider the appropriateness of plantation forestry at harvest.

6.1.9. Improve track access from the reserve to Coppermine Saddle (Maitai Water Reserve) and to the Browning/Hackett area.

6.1.10. With the exception of policy 6.1.8, proposals for the creation of new tracks above the intake will be investigated and considered, to ensure adverse effects on the city's water supply are avoided or mitigated.

6.1.11. Prohibit motor vehicle access beyond the caretaker's house except for Council use and vehicles authorised by Council.

6.1.12. Prohibit recreational and commercial fishing in the reserve.

6.1.13. Prohibit recreational water activities, such as swimming and boating, in the Roding River above the intake.

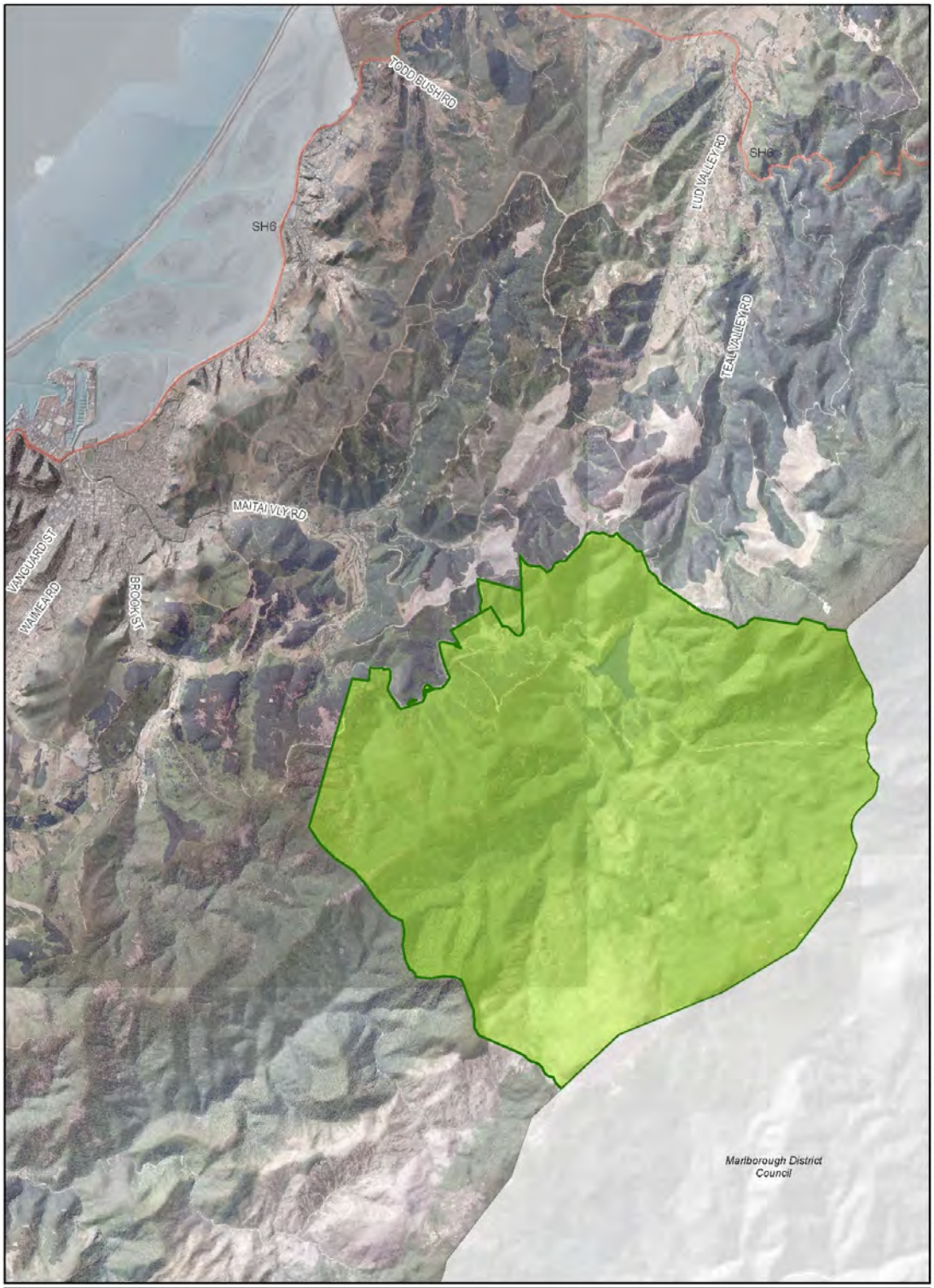
6.1.14. Consider the development of accessible overnight camping opportunities in suitable locations, ensuring that waste and rubbish disposal are adequately catered for, and provided such use does not adversely affect water quality, ecological or heritage values.

6.1.15. Retain the hut on Mt Malita as a locked hut for management purposes.

6.1.16. Allow one-off helicopter landings away from high use areas where there is a concession or authorisation.

Leases and Licences

No leases or licences.



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MAITAI WATER RESERVE & VENNER RESERVE

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

0 0.5 1 1.5 2 km

Scale 1:75,000

N

April 2009

6.2 Maitai Water Reserve (Conservation Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
GN 1960 p.1774	Land in Blks IV, V & VII Maungatapu SD	1332.00	Local Purpose (Water Conservation) Reserve
NL85/244	Lots 1, 2 DP 2955	58.55	Freehold
NL133/45	Lots 1 & 2 DP 5441	0.16	Freehold
NL8B/61	Lots 3 & 4 DP 5441	0.73	Local Purpose (Water Supply) Reserve
NL5A/1041	Pt Lot 1 DP 6465	11.12	Freehold
GN 1960 p.1774	Pt Lot 1 DP 6465	6.70	Local Purpose (Water Conservation) Reserve
No CT	Pt Lot 2 DP 6465	0.30	Local Purpose (Esplanade) Reserve
NL2C/1389	Lot 1 DP 7344	0.16	Freehold
No CT	Lot 2 DP 7344	0.18	Local Purpose (Esplanade) Reserve
GN 1960 p.1774	Pt Sec 1 Blk l Maungatapu SD	Unknown	Local Purpose (Water Conservation) Reserve
GN 1960 p.1774	Pt Sec 2 Blk l Maungatapu SD	382.99	Local Purpose (Water Conservation) Reserve
NL74/230	Sec 1 Blk II Maungatapu SD	1178.04	Local Purpose (Waterworks) Reserve
GN 1960 p.1774	Sec 9 Blk II Maungatapu SD	Unknown	Local Purpose (Water Conservation) Reserve
GN 1960 p.1774	Sec 3 Blk IV Maungatapu SD	Unknown	Local Purpose (Water Conservation) Reserve
GN 1960 p.1774	Sec 7 Blk IV Maungatapu SD	80.94	Local Purpose (Water Conservation) Reserve
GN 1988 p.3797	Sec 1 SO 13551	2.25	Freehold
NL85/245	Pt Secs 6 & 8 SQ 18	140.56	Freehold
NL133/55	Pt Secs 7, 48, 49, 50, 52 SQ 18	80.87	Freehold
NL5A/1041	Pt Secs 31, 32, 33, 35, 37, 39, 41, 43 SQ 18	166.80	Freehold
NL25/258	Sec 9 SQ 18	51.18	Freehold
NL168/99	Secs 44, 46, 47 SQ 18	52.20	Freehold
GN 1960 p.1774	Sec 58 SQ 18	117.76	Local Purpose (Water Conservation) Reserve
NL1A/267	Sec 60, 61, 62 SQ 18	6.09	Freehold
NL69/207	Pt Secs 48, 49, 50 Sq 18	0.81	Freehold
NL69/208	Pt Sec 50 Sq 18	0.82	Freehold
NL69/209	Pt Sec 50, 52 Sq 18	0.40	Freehold
NL133/46	Pt Sec 52 Sq 18 DP 3465	26.33	Freehold
11A/1192	Lot 1 DP 17062	6.96	
11A/1193	Pt Sec 42 SQ 18	21.49	
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**4228.07**	

General Description

The Maitai Water Reserve covers the headwater catchment of the Maitai River inland (east) from Nelson City on the slopes of the Bryant Range. It adjoins the Department of Conservation-administered Mt Richmond Forest Park across the Bryant Range to the east and southeast, Roding Water Reserve to the southwest, Brook Conservation Reserve to the west, and land managed for commercial forestry to the north. The main access to the reserve is via the Maitai Valley Road from Nelson. The Maitai Water Reserve includes the area known as Venner (or Williams) Reserve at the northwest edge of the reserve in the Maitai Valley.

The Maitai Water Reserve lies between altitudes of 100m in the Maitai valley and over 1100m on the crest of the Bryant Range. It covers moderately-steep to steep country dissected by the main upper tributaries of the Maitai River, including the North and South branches of the Maitai River, Mill Creek, Beachamp Creek and Travers Gully. The area has a complex geology, similar to that of the Roding Water Reserve. Lower slopes comprise sedimentary rocks, including limestone, of the Maitai Group. Upper slopes comprise mineral belt rocks of the Dun Mountain Ultramafics Group. The crest of the Bryant Range comprises igneous and sedimentary rocks of the Patuki Melange. Landslide deposits are present in the central basin [23]. Caves are present in the limestone, including Maitai Cave.

The reserve lies within the Bryant Ecological District[24] and the Central Mountains Land Environment (P6)[25]. It is estimated that between 20 and 25% of the original extent of the lowland forest ecosystem remains and that between 40 and 50% of these remnants are protected[26]. Therefore, indigenous vegetation at lower- and mid-altitudes is at risk and locally important for protection. The ultramafic ecosystems at higher altitudes are regarded as 'originally rare' ecosystems and listed as a national priority for protection [27].

The vegetation of the reserve is similar to that of the Roding Water Reserve and is strongly influenced by the underlying geology. The Maitai Group sedimentary rocks in the west support diverse beech-podocarp forests. At lower altitudes, in the Maitai valley, this forest is dominated by podocarps (kahikatea, rimu, matai and miro) emergent over a canopy of beech, tawa, kamahi, hinau, pokaka and lemonwood, with a diverse understorey. At mid-altitudes, beech species (red, hard, black and silver) are dominant, with matai, miro, rimu, mountain totara and occasionally southern rata. At higher altitudes this forest grades to red beech-silver beech forest with occasional podocarps. Species characteristic of limestone substrates are hinau, beech (four species), southern rata and podocarps, including large southern rata and matai trees[28].

Vegetation of the mineral belt rocks of the Dun Mountain Ultramafic Group supports regenerating forest and scrub at lower altitudes and sparse scrub, shrubland and tussockland at higher altitudes, similar to that described for the Roding Water Reserve.

The mixed igneous and sedimentary rocks of the Patuki Melange support beech-podocarp forest on the steeper slopes and hard-rock outcrops (such as argillite), and stunted beech, pink pine and mountain cedar on poorly-drained gentler slopes. Areas of ultramafic rock support vegetation similar to that described above for the mineral belt rocks.

Vegetation is more modified at lower altitudes in the Maitai valley, especially on north-facing slopes. These slopes support scrub dominated by exotic species, and regenerating forest. Stands of plantation

forest are also present on these slopes and near the Maitai Dam. These stands are mostly radiata pine, with smaller areas of Douglas fir, Tasmanian blackwood and macrocarpa.

Notable flora of the Maitai and Roding Water Reserves (these reserves are described together in most species lists) includes species confined or endemic to ultramafic substrates (including *Olearia serpentina*, *Chionochloa defracta* and species of *Astelia* and *Colobanthus*), species at or near their southern limit, threatened species (including *Korthalsella salicornioides*, *Coprosma obconica*, *Pimelea tomentosa*, *Sophora longicarinata*, *Polystichum sylvaticum* and yellow mistletoe) and rare species (e.g. black maire). Together the water reserves comprise a substantial part of the nationally-important mineral belt ecosystem.

Indigenous birds recorded from the Maitai Water Reserve include tui, robin, bellbird, tomtit, brown creeper, silvereye, kereru, karearea/NZ falcon, yellow-crowned kakariki and weka. The reserve provides good habitat for lizards. Species likely to be present are common gecko, common skink, spotted skink and possibly Nelson green gecko and forest gecko. Three distinct populations of the snail *Powelliphanta hochstetteri consobrina* are present on the Bryant Range, including areas within the reserve. There are also past records of blue duck (whio) on the Maitai River. A distinct cave fauna is present in Maitai Cave[29]. Brown trout and native fish, including the longfin eel, koaro and upland bully, have been recorded from the North Branch of the Maitai River and the lake. The high Maitai Dam now prevents fish passage to most migratory species except elvers and koaro The South Branch of the Maitai River has a more diverse range of native species, including common, redfin and upland bullies, longfin eel, koaro and koura. Brown trout are also common. The water intake weir constrains fish passage. The reserve is large and is contiguous with extensive areas of protected indigenous vegetation on the Bryant and Richmond ranges, which together provide important habitats for indigenous species.

The most important plant pest infestations in the Maitai Water Reserve are wilding conifers, gorse and Spanish heath in the mineral belt, and old man's beard in the lower altitude forests. Other important plant pests present, mostly lower in the Maitai valley are buddleia, holly, yew, barberry, Montpellier broom, silver wattle, strawflower and Mexican daisy. Most significant are the wilding conifer infestations in the mineral belt. These infestations have been controlled in the past but further effort is required to eliminate this threat. Goats, pigs and possums are the most serious animal pests present, causing significant damage to indigenous plant communities. Also present are deer, cats and small mammalian predators[30].

The Maitai Water Reserve has a rich history of Maori and European activity. The most important early use of the Maitai Water Reserve appears to have been quarrying of argillite. Argillite provided a superior material for adzes and accessible sources were soon exploited by Maori. The argillite quarry at Rush Pool, beside the Dew Lakes Track on a spur between the North and South branches of the Maitai River, is one of the largest in the Nelson area. Maori constructed a well-formed trail to the quarry and beyond over the Bryant Range. The first European visitors to the Upper Maitai valley appear to have been surveyors, guided by Maori, seeking a more direct route to the Wairau valley[31].

European visitors to the area soon recognised the presence of copper (in 1852) and chromite (in 1853) in the headwaters of the South Branch of the Maitai River. Mining began on the slopes of Wooded Peak and a track was cut around the slopes of the peak, over Fringed Hill and into The Brook. This Bullock Track provided foot access to the mine and a way of transporting small quantities of ore from the mine. A railway was then proposed and construction began in 1861. The Dun Mountain Railway, the first railway in New Zealand, was opened in 1862. Mining in the area continued to 1872, recommenced in the late 1870s and continued sporadically into the early 1900s.

In 1913 Thomas Cawthron bought and gifted 1000 hectares near Dun Mountain to the Nelson City Council, to be used for public and scenic recreation purposes. This forms a substantial portion of the land now contained within Maitai Water Reserve.

The use of the Maitai Valley as a water supply catchment began with a temporary intake just upstream of the present south branch intake in the early 1960's. The larger Maitai Dam on the North Branch Maitai River was completed in 1987[32].

The Maitai Water Reserve provides a range of opportunities for public recreation. Popular recreational activities are walking, mountain-biking and historic site appreciation. Other activities include vehicle use, hunting and camping. Important access points are the Maitai Valley Road, Dun Mountain Walkway and the Maungatapu Track (which is not a legal road). Tracks provide foot access from the Roding and Pelorus valleys. The Bryant Range Track links Mt Richmond Forest Park with the Roding and Maitai Water Reserves and is managed by the Department of Conservation.

Popular routes are the Dun Mountain Walkway-Coppermine Saddle tracks for walkers and mountain-bikers, the Maitai Caves track for walkers, the Maungatapu Track for four-wheel-drive vehicles and the Bryant Range tracks for trampers. Access for hunters has been restricted and fishing banned to help protect water quality in the catchment. A running race (Dun Mountain) and a mountain-bike race (Coppermine Classic) follow the Dun Mountain Walkway-Coppermine Saddle route between The Brook and Maitai valleys. The track in the South Branch Maitai River has recently been upgraded to facilitate mountain-bike use. Occasionally, mountain-bikers have used helicopters to gain access to the Bryant Range. The even-gradient and benched surface of the Dun Mountain Railway/Walkway is valued by walkers, runners and mountain-bikers, as the walkway provides easy direct access to the scenic hinterland of the reserve.

Facilities, other than tracks, in the reserve are a shelter at Dun Mountain, structures associated with the Maitai Dam and water supply including the caretaker and relief caretaker's houses, the water supply pipeline in the Maitai Valley and a bridge at Horse Terrace. Also present are power and communications services along the Maungatapu Track, including a buried fibre-optic cable running between Pelorus and Nelson. Transpower's Blenheim – Stoke A high voltage transmission line on pylons traverses the reserve. Open areas in the Maitai valley are grazed and beehives are present in the reserve near the Maitai Valley Road.

Plantation forests are present in the reserve. The eventual harvest of some of these plantations, notably those on the steeper north-facing slopes, may require construction of roads. On lower slopes in the Maitai valley (Venner Reserve) there is an area of open pasture, a house and a 1.2 hectare stand of radiata pine (planted in 1993).

A principal purpose of the reserve is the provision of water for Nelson City. Reserve management to date has reflected this primary objective. Important additional objectives of this management plan are protection of the high natural values in the reserve and, where possible, the provision for increased recreational use.

Important Reserve Management Issues

Protection of water quality: The reserve has traditionally been managed as water supply catchment and this remains a critically important management objective. Restrictions on public use of and access to the water supply catchment contribute to the grading Council obtains for Nelson's water as part of it's compliance with the Health (Drinking Water) Amendment Act 2007. While increased public use of the reserve is proposed by this management plan, Council reserves the right to ensure that adverse effects of such use on the city's water supply are be avoided or mitigated. Water quality and stream habitats must also be protected from the introduction and spread of Didymo (*Didymosphenia geminata). See Policies 6.2.1, 6.2.12 and 6.2.13.*

Protection of ecological values: The ecological values of the reserve are nationally important, notably the plant communities and habitats of the mineral belt and adjacent limestone substrates. One of the main threats to these areas is invasive plant and animal pests. *See policies 6.2.2 to 6.2.5.*

Protection of heritage values: Archaeological and historic sites in the reserve are of regional and possibly national importance (e.g. Rush Pool argillite quarry). Many sites are not formally documented. Sites should be protected from the adverse effects of public use. *See policy 6.2.6.*

Plantation forestry: Construction of new roads may be required to harvest some stands of plantation forest in the lower Maitai valley. Consideration should be given to less-damaging harvesting methods and to the long-term future of plantation forestry at these locations. *See Policy 6.2.7.*

Vehicle access: Vehicle access along the Maungatapu Track is causing damage to this poorly-formed track. Vehicle use at the reserve boundary in the Maitai valley is associated with vandalism and damage to the road and facilities. There are also issues of user conflict between motor vehicles and other track users such as walkers and cyclists. The Mangatapu Track between the head of the lake (at Mill Creek) and the Mangatapu Saddle is currently maintained by Telecom, BCNZ, Network Tasman and Transpower to maintain access to their infrastructure. The Telstra-Clear fibre optic cable is buried under the Mangatapu Track. *See Policy 6.2.8.*

Recreational use: Increased demand for mountain-biking access has prompted the upgrading of existing walking tracks, informal (unauthorised) track construction and occasionally aircraft landings. Unrestricted mountain-bike use may affect natural values, heritage sites and other reserve users. The reserve provides opportunities for access to surrounding areas, including Mt Richmond Forest Park and Roding Water Reserve. Fishing access to the lake at the Maitai Dam has been requested, though such use poses a potential threat to water quality. There is some demand for overnight stays in the reserve. *See policies 6.2.9 to 6.2.11, 6.2.14 and 6.2.15.*

Policies

6.2.1. Ensure that any increased public access or use, or any new developments in the reserve, do not adversely affect water quality or Council's water supply grading.

6.2.2. Identify, prioritise and control infestations of pest plants, in accordance with identified targets, particularly in the mineral belt area of the reserve, to protect indigenous habitats and species.

6.2.3. Identify, prioritise and control populations of pest animals, in accordance with identified targets, to protect indigenous habitats and species.

6.2.4. Allow and manage recreational hunting while ensuring (through permit conditions) that this activity has minimal adverse effects on water quality and public safety is ensured.

6.2.5. Prohibit dogs in the reserve, except where authorised for reserves management purposes.

6.2.6. Monitor important archaeological and heritage sites in the reserve and take appropriate management actions as required.

6.2.7. Reconsider the appropriateness of plantation forestry at sites where harvesting will require new road construction and at locations where the eventual restoration of native plant communities may be a more beneficial land use, such as above the Maitai Dam.

6.2.8. Investigate ways of managing the adverse effects, including user conflicts, of vehicle use along the Maungatapu Track and in the Maitai valley.

6.2.9. Prohibit motor vehicle access along the Maitai River South Branch except for Council use and vehicles authorised by Council.

6.2.10. Improve track access from the reserve to The Rocks and Mt Malita (Roding Water Reserve) and around the lake.

6.2.11. With the exception of policy 6.2.10, proposals for the creation of new tracks above the intake will be investigated and considered, to ensure adverse effects on the city's water supply are avoided or mitigated.

6.2.12. Prohibit recreational and commercial fishing in the reserve.

6.2.13. Prohibit recreational water activities, such as swimming and boating, in the lake at the Maitai Dam and in the Maitai South and North Branch Rivers above the intake.

6.2.14. Permit overnight camping at Dun Mountain Shelter.

6.2.15. Consider the development of other easily accessible overnight camping opportunities in suitable locations, ensuring that waste and rubbish disposal are adequately catered for, and provided such use does not adversely affect water quality, ecological or heritage values.

6.2.16. Allow one-off helicopter landings away from high use areas where there is a concession or authorisation.

Leases and Licences

Name	Purpose	Term (yrs)	Start Date	End Date	Area
BCL	Telecommunications	12 + 15	01/08/1996	31/07/2023	0.0650


SH6
MAITAI VLY RD
VANGUARD ST
WAIMEA RD
BROOK ST
BROOK CONSERVATION RESERVE
Conservation & Landscape Reserves Management Plan
NELSON CITY COUNCIL
0 0.5 1 1.5 2 km
Scale 1:40,000
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October 2009
The map is approximate only and must not be used to determine the location or size of items shown, or to identify legal boundaries. To the extent permitted by law, the Nelson City Council, its employees, agents and contractors will not be liable for any costs, damages or loss suffered as a result of the data or plan, and no warranty of any kind is given as to the accuracy or completeness of the information represented by the GIS data.
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6.3 Brook Conservation Reserve (Conservation Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
NL43/244	Lot 2 DP 764	85.33	Freehold
NL81/54	Pt Sec 9, Pt Sec 41, Pt Sec 3 of 8 Brook Street and Maitai DIST; & Pt Sec XVIII Suburban South DIST	15.56	Freehold
NL69/288	Pt Sec 9 & Pt Sec 41 Brook Street and Maitai DIST	13.95	Freehold
NL58/171	Pt Sec 30 SQ 18, Pt Sec XVIII Suburban South Dist	69.79	Freehold
NL69/285	Pt 1 of Sec 25 Dist of Brook St & Maitai	2.02	Freehold
NL71/46	Pt 2 of Sec 25 Dist of Brook St & Maitai	2.02	Freehold
NL69/286	Pt 3 of Sec 25 Dist of Brook St & Maitai	2.02	Freehold
NL69/287	Pt 4 of Sec 25 Dist of Brook St & Maitai	2.02	Freehold
NL75/125	Sec 26 Brook Street and Maitai DIST	9.49	Freehold
DI 8/122	Sec 47 Brook Street and Maitai DIST	12.48	Recreation Reserve
NL74/231	Sec 14 SQ 18	573.03	Local Purpose (Waterworks) Reserve
NL39/13	Secs 19, 20,22, 27 SQ 18	225.01	Freehold
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**1013.58**	

General Description

The Brook Conservation Reserve covers the headwater catchment of The Brook, inland (southeast) from Nelson City on the slopes of Fringed Hill and Jenkins Hill. It adjoins the Maitai Water Reserve to the northeast, Roding Water Reserve to the south, Marsden Valley Reserve to the southwest and private or Council-owned farm and forestry land on other boundaries. The main access to the reserve is via Brook Street from Nelson City.

The Brook Conservation Reserve lies between altitudes of 80m in The Brook valley, 724m at Jenkins Hill and 793m at Fringed Hill. It covers moderately-steep to steep country dissected by the main upper tributaries of The Brook. These slopes comprise sandstones and mudstones of the Maitai Group[33].

The reserve lies within the Bryant Ecological District[34] and the Central Mountains Land Environment (P6)[35]. It is estimated that between 20 and 25% of the original extent of the lowland forest ecosystem remains and that between 40 and 50% of these remnants are protected[36]. Therefore, indigenous vegetation at lower and mid-altitudes is at risk and locally important for protection[37].

All parts of the Brook Conservation Reserve are forested except for the valley floor and lower slopes of the northern part of the reserve. Beech forest is the predominant vegetation. This forest covers the upper slopes and ridges. Occasional podocarps (rimu, kahikatea, matai, miro and mountain totara) are present, mostly in gullies or on lower spurs. Kanuka forest occupies sites where the former forest cover has been removed (mostly on slopes in the lower valley). Notable plant species present in the reserve are red mistletoe (gradual decline), pukatea (near its southern limit) and rare species[38].

Indigenous birds present in the reserve are bellbird, tui, fantail, grey warbler, brown creeper, silvereye, robin, tomtit, kereru, yellow-crowned kakariki, morepork and karearea/NZ falcon. Occasionally seen are weka and red-crowned kakariki. Lizards that are likely to be present are forest gecko and Nelson green gecko. In-stream fauna has been affected by dams and water extraction downstream since the 1860s, though good freshwater habitat is now present[39]. Eels, koaro, upland bully, banded kokopu and koura have been recorded in low densities in the Brook Stream. Brown Trout are also present.

The forested parts of the reserve are largely free of invasive plant pests. Old man's beard is the most important threat, mostly in areas of regenerating forest. Also present at the forest edges are buddleia, woolly nightshade, pines, Douglas fir, sycamore and Himalayan honeysuckle. Goats, pigs and possums are the most important large animal pests present. Intensive plant and animal pest control has been undertaken since 2004 when the area was proposed as a sanctuary[40].

The Brook Conservation Reserve was set aside in 1865 and a dam constructed in 1868 to supply water to Nelson City. A larger dam was constructed in 1905 to meet the increased demand for water and the top dam constructed in 1909. The Brook water supply was decommissioned in 2000 and Nelson's water supply is now sourced from the Maitai and Roding rivers. The remains of these dams are still present.

The Dun Mountain Railway was constructed across the slopes on the north side of the valley in 1862, following the discovery of chromite on the slopes of Wooded Peak in the upper Maitai valley. The railway formation is now the Dun Mountain Walkway, a popular walking and mountain-biking track.

The Brook Motor Camp occupies the valley floor adjacent to the lower (northern) part of the reserve. This comprises camp sites, cabins and other buildings. Plantation forest, including a stand of redwood trees, is present on the lower slopes above the motor camp. There is a proposal to develop a walking track through this area as part of a sister-city project (Eureka Park). An educational training centre for use by Nelson Marlborough Institute of Technology, Brook Waimarama Sanctuary Trust and the Department of Conservation is currently being developed on an area of farmland at the northern edge of the reserve. A shelter is present at Third House (on the boundary with Roding Water Reserve).

The most important activity occurring in the reserve is the development of The Brook Waimarama Sanctuary. This proposes a pest-free sanctuary encompassing all parts of the reserve above the motor camp. A Visitor Centre was erected in the lower valley in 2007, 50 km of tracks cut and pest control has commenced with the help of many volunteers. The sanctuary proposal has wide public and agency support. An important goal of the Brook Waimarama Sanctuary Trust is construction of a pest-proof fence around the perimeter of the catchment. Fund-raising is well advanced for this c.$3.5 million project.

Important Reserve Management Issues

Brook Waimarama Sanctuary: This proposal involves construction of a pest-proof fence around the perimeter of the upper catchment, eradication of introduced plant and animal species, reintroduction of native species, restrictions on public access and the use of the sanctuary for education and advocacy. Important issues associated with this proposal are the pest-proof fence (necessity, location and construction) and the proposed restrictions on public access. *See policies 6.3.1 to 6.3.6.*

Other reserve management issues are the protection of the heritage values of the old dams and the Dun Mountain Railway, development of a sister-city (Eureka Park) project and development of an educational training centre at the northern part of the reserve. *See policies 6.3.7 to 6.3.10.*

Policies

6.3.1. Provide for the long term lease, not exceeding 33 years, or equivalent mechanism, of the majority of the reserve (c.715 ha) to the Brook Waimarama Sanctuary Trust for the purpose of creating a pest-free sanctuary for the protection and restoration of indigenous vegetation and habitats. Also provide for a change to the Local Purpose status of the reserve (currently waterworks reserve) to be in line with this purpose (wildlife sanctuary).

6.3.2. Provide for the Brook Waimarama Sanctuary Trust, as part of the lease agreement, to undertake the following activities:

- To construct a pest-proof fence and associated earthworks around the perimeter of the sanctuary at a location which maintains access to the Dun Mountain Walkway/Railway, the Third House-Jenkins Hill track, Jenkins Hill to Brook valley and access to Marsden valley, and which avoids any other sites with significant heritage or ecological values

- To construct such buildings and other structures as are necessary for the operation of the Brook Waimarama Sanctuary

- Allow for a fee to be charged for access to the reserve, but provide for an appropriate level of free public access to the sanctuary, as agreed with Council, with times to be determined through lease negotiations

- To carry out pest plant control along the cleared boundary of the pest-proof fence.

6.3.3. Consider rationalising and divesting areas of land as needed, in particular around the entrance to the Brook Motor Camp and Brook Waimarama Sanctuary, if not required for reserve purposes.

6.3.4. Identify, prioritise and control populations of pest plants and animals, in accordance with identified targets, to protect indigenous habitats and species.

6.3.5. Allow and manage recreational hunting outside the sanctuary area while ensuring (through permit conditions) that this activity has minimal adverse effects on water quality and public safety is ensured.

6.3.6. Prohibit dogs in the reserve, except where authorised for reserves management purposes.

6.3.7. Monitor important archaeological and heritage sites in the reserve and take appropriate management actions as required.

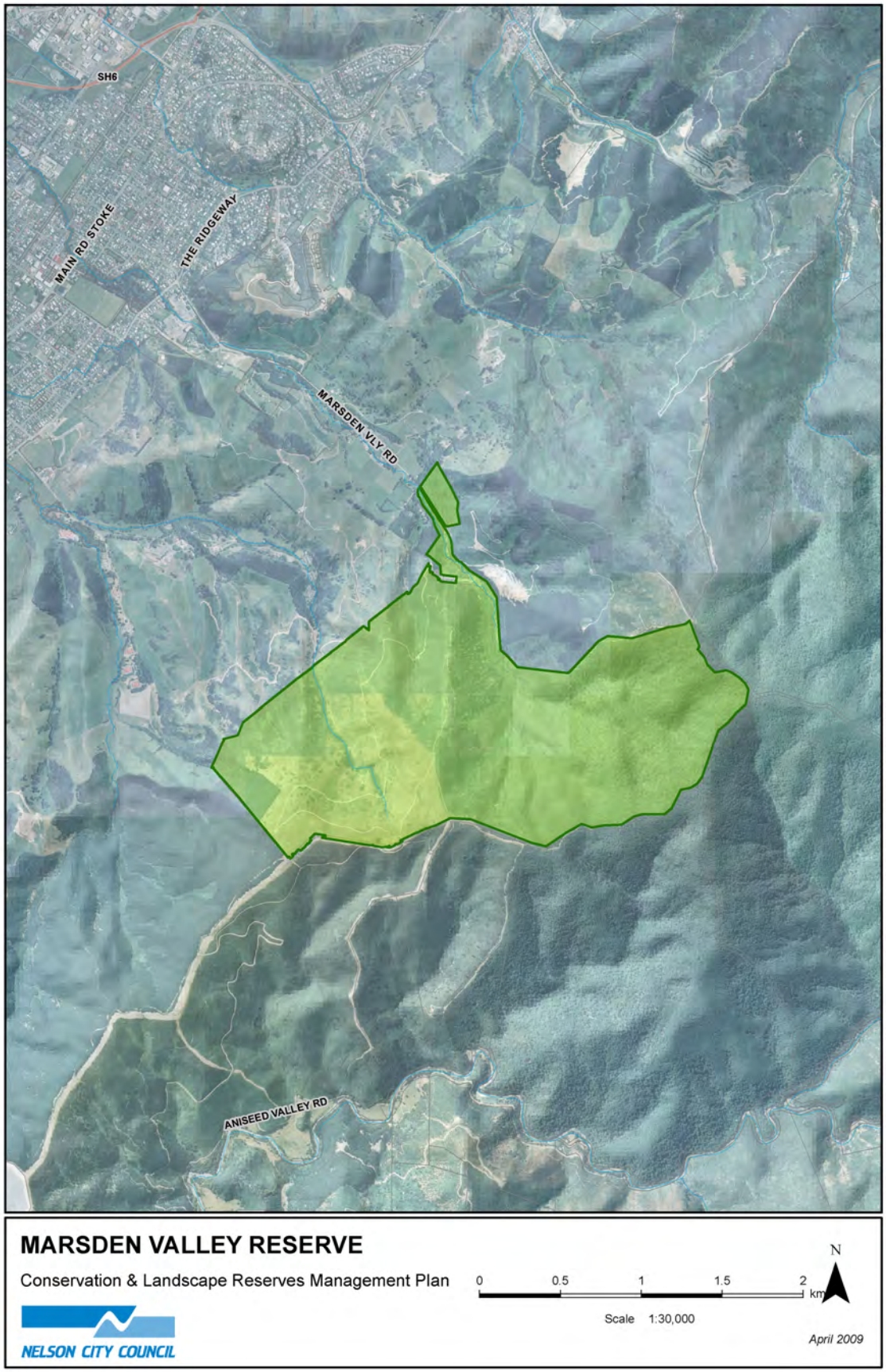
6.3.8. Ensure that the use and maintenance of the Dun Mountain Walkway protects the heritage values of the Dun Mountain Railway formation.

6.3.9. Permit use of the part of the reserve adjacent to the Brook Motor Camp, and retain the mature redwoods, for a sister-city project (Eureka Park), provided this development has no significant adverse effects on heritage or ecological values.

6.3.10. Permit development of the area at the northern edge of the reserve as an educational training centre by Nelson Marlborough Institute of Technology, Brook Waimarama Sanctuary Trust and the Department of Conservation.

Leases and Licences

Name	Purpose	Term	Start Date	End Date	Area
Brook Waimarama Sanctuary Trust	Headquarters building	20	01/07/2005	30/06/2025	0.0800


SH6
MAIN RD STOKE
THE RIDGEWAY
MARSDEN VLY RD
ANISEED VALLEY RD
MARSDEN VALLEY RESERVE
Conservation & Landscape Reserves Management Plan
NELSON CITY COUNCIL
0
0.5
1
1.5
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km
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Scale 1:30,000
April 2009
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6.4 Marsden Valley Reserve (Conservation Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
NL12A/1255	Lot 1 DP 18204	3.05	Local Purpose (Esplanade) Reserve
NL12A/1256	Lot 2 DP 18204	341.99	Freehold
NL12A/1258	Lot 4 DP 18204	1.14	Local Purpose (Esplanade) Reserve
NL12B/114	Lot 7 DP 18204	0.02	Local Purpose (Esplanade) Reserve
No CT	Lot 5 DP 15422	0.39	Local Purpose (Esplanade) Reserve
NL68/183	Pt Sec 29 Suburban South Dist	1.52	Local Purpose (Public) Reserve
NL56/223	Pt Sec VIII Suburban South Dist	unknown	Local Purpose (Public) Reserve
NL47/29	Pt Sec 29 & XVII Suburban South Dist	3.57	Local Purpose (Public) Reserve
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**358.66**	

General Description

Marsden Valley Reserve covers the headwater catchment of Poormans Valley Stream in the hills inland (southeast) of Stoke. It adjoins Roding Water Reserve to the south, Brook Conservation Reserve to the east, Council-owned forestry land on the Barnicoat Range to the west and privately-owned land in lower Marsden Valley to the northwest. The main part of the reserve in the upper catchment is freehold land covered by a Conservation Covenant pursuant to Section 77 of the Reserves Act 1977, which is administered by the Department of Conservation. Other parts of the reserve, alongside the stream in the lower valley, are esplanade reserves.

Marsden Valley Reserve lies between altitudes of 140 and 780m, on the slopes of Jenkins Hill on the western flank of the Bryant Range. These slopes comprise variably bedded sandstone, siltstone and mudstone with conglomerate, of the Maitai Group[41]. The original vegetation of the area would have been lowland hill country matai-black beech forest with hardwood forest of tawa, mahoe and pigeonwood in the gullies and beech forest on the upper slopes and ridges[42]. The reserve lies within the Bryant Ecological District[43] and the Central Mountains Land Environment (P6)[44]. It is estimated that between 20 and 25% of the original extent of this forest ecosystem remains and that between 40 and 50% of these remnants are protected[45]. Therefore, indigenous vegetation within this land environment is at risk and locally important for protection[46].

Vegetation of the main part of the reserve in the upper valley is a mixture of fire-induced low-stature kanuka forest with young regenerating beech trees on dry north-facing slopes, beech forest on upper slopes (above c.600m), and podocarp-hardwood forest at lower altitudes in the gullies[47]. Vegetation of the narrow section of reserve alongside the stream in the lower valley is scattered and highly-modified lowland podocarp forest with remnant kahikatea trees and a number of invasive weed species. The small section of the reserve in the lower valley supports a remnant of alluvial podocarp-hardwood

forest dominated by pukatea, titoki, kowhai and mahoe and a larger adjacent area of indigenous vegetation (now 6 to 10m tall) planted progressively since 1987 by community groups and schools.

The reserve supports good populations of indigenous birds, including robin, brown creeper, bellbird, tui, kereru, rifleman, grey warbler and fantail. The reserve provides a relatively large area of forest bird habitat, which is contiguous with more extensive areas of habitat in Council reserves to the west, including the Brook Conservation Reserve. The native freshwater community in the catchment is the most diverse of all the rivers within Nelson City, with the following species recorded: longfin eel, shortfin eel, common, redfin and upland bullies, inanga, smelt, giant kokopu and koura. The longfin eel, giant kokopu and koura are all threatened species in gradual decline. Brown trout are also present.

Rare or threatened species present in the reserve are the newly described *Dracophyllum urvilleanum*, (endemic to the Nelson area) and red mistletoe (threat status: gradual decline). Lowland forest of this type is rare in the area. Pukatea, tawa, karaka and kiekie are near their southern distributional limit at the reserve. Kanuka forest is also relatively uncommon in the region. Threatened bird species, kereru and rifleman (both gradual decline), are present.

The main part of the reserve in the upper valley is virtually weed-free. Old man's beard is present at the lower forest margin. Weeds in the lower parts of the reserve have been largely suppressed by the community planting programme. Weeds present include banana passionfruit, buddleia, gorse, wandering willie and the uncommon *Teucrium hircanicum*. Contractors have recently undertaken intensive control of old man's beard and wandering willie in the vicinity of the quarry road. Deer, goats, pigs and possums are present in the upper valley. Pigs were very common when the reserve was surveyed in 2002[48].

Several tracks, including a short loop-track, are present in the lower (planted) section of the reserve. A road provides access up the valley past the streamside section of the reserve to a quarry and also to the main upper valley part of the reserve. The Barnicoat Range Walkway leads from the valley onto and along the Barnicoat Range south of the reserve to Richmond (in Tasman District). Another track leads up the valley to an old water-supply intake. Vehicle tracks traverse the ridge at the head of the catchment (on the reserve boundary) between the Barnicoat Range and Jenkins Hill. These tracks link to a foot track that leads inland from Jenkins Hill to the Dun Mountain Walkway via the ridge between the Brook and Roding catchments. A mountain-bike track is planned in the upper valley.

The lower valley part of the reserve is sign-posted 'Marsden Valley Reserve' and 'Nelson Schools Revegetation Project'. There is a memorial at the roadside here, in memory of those who lost their lives in the 1939 to 1945 war.

A group of volunteers, the Marsden Valley Trapping Group, have been operating in the reserve for two years, monitoring and controlling pest animals including possums, rats, stoats and weasels. This has contributed significantly to improving native habitats for indigenous plants and animals.

The crest of the Barnicoat Range south of the reserve is used as a launch site for hang gliders and paragliders. Access to the site via the vehicle track up the ridge south of the reserve is restricted by a locked gate. Council-owned plantation forests are present in this area, including a stand of the spread-prone Douglas fir near the ridge crest.

Native forest in the main (upper valley) part of the reserve is protected by Conservation Covenant. This covenant places restrictions on (among other things) the removal of native vegetation, construction of tracks and subdivision of the land.

Council's water supply pipeline from the Roding catchment exits the tunnel and runs down the reserve to Marsden Valley Road. This includes a concrete structure and above ground valving. Also present is a small weir and pipeline to the former Ngawhatu Hospital which is used as a farm supply.

Important Reserve Management Issues

Protection and restoration of the lowland forest ecosystem in the lower and streamside parts of the reserve should be continued. Greater attention may need to be given to the selection of appropriate species for planting, to ensure that forest restoration is ecologically appropriate. *See Policy 6.4.1.*

Protection of indigenous vegetation and habitat through plant and animal pest control is an important issue. Animal pest control is an important priority in the main (upper catchment) part of the reserve. Removal or containment of spread from the Douglas fir plantation on the southern boundary of the reserve is also important. Pest control in the reserve will help buffer the adjacent Brook Waimarama Sanctuary. *See policies 6.4.2 and 6.4.3.*

Public access through and beyond the reserve is an important management issue, particularly in light of nearby residential development and the increased need for recreational facilities this will create. Improved access through the reserve to the Barnicoat Range Walkway and to the track from Jenkins Hill to the Dun Mountain Walkway is an important objective. *See Policy 6.4.4.*

Management and use of adjoining land may affect protection and management of the reserve, notably the presence of Douglas fir on the reserve boundary and unprotected stands of kahikatea near the lower boundary of the reserve. *See Policy 6.4.3.*

The Roding water supply pipeline traverses the reserve and needs to be protected. *See Policy 6.4.7.*

Policies

6.4.1. Continue forest restoration work in the lower valley, using locally-sourced species representative of the original vegetation.

6.4.2. Identify, prioritise and control populations of plant and animal pests, in accordance with identified targets, to protect indigenous habitats and species and to buffer the adjacent Brook Waimarama Sanctuary.

6.4.3. Consider the removal of Douglas fir from priority spread sites on Nelson City-administered land adjacent to the reserve, and advocate for similar action by private landowners adjacent to the reserve, to reduce the risk of wilding tree establishment in the reserve.

6.4.4. Improve pedestrian and mountain-bike access through the reserve to Jenkins Hill and along the Barnicoat Range Walkway.

6.4.5. Permit vehicle access along the existing forestry road to Barnicoat Hill for Tasman Hang Gliding and Paragliding Club activities.

6.4.6. Allow dogs within exotic plantation forest areas of the reserve only, provided they are under control, or where authorised for reserves management purposes.

6.4.7. Ensure that any works undertaken in the reserve do not adversely affect the water supply pipeline and related infrastructure.

Leases and Licences

Name	Purpose	Term (yrs)	Start Date	End Date	Area
Tasman Hang Gliding and Paragliding Club	Hang gliding	3	01/10/2001	Temporary renewal	4.5000

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TITOKI RESERVE

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

0 50 100 150 200 m

Scale 1:5,000

N

April 2009

6.5 Titoki Reserve (Conservation Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
CFR 193006	Lot 30 DP 346943	4.74	Scenic Reserve
	Total Area:	**4.74**	

General Description

Titoki Reserve comprises an area of regenerating indigenous hardwood forest at the edge of the northern Nelson suburb of Atawhai. It lies on slopes adjacent to the end of Werneth Street and near the newly-subdivided land below Werneth Ridge. The reserve adjoins open farmland to the south (on its lower boundary), regenerating forest and scrub to the west and a larger area of indigenous forest to the north.

Titoki Reserve lies between altitudes of 60 and 150m on moderately-steep south-facing slopes above Nelson Haven. These slopes comprise breccia, sandstone and siltstone rocks of the Marybank Formation[49]. The original vegetation of the area would probably have been coastal podocarp-hardwood forest dominated by tawa, titoki, pukatea, nikau, hinau, tree ferns and mahoe with emergent podocarps[50]. The reserve lies within the Bryant Ecological District[51] and the Central Dry Lowlands Land Environment (B1)[52]. It is estimated that less than 5% of the original extent of this coastal forest ecosystem remains, and that only approximately 20% of these remnants are protected[53]. Therefore, indigenous vegetation within this land environment is acutely-threatened and a national priority for protection[54].

The low regenerating forest on the reserve is dominated by mahoe. An area of taller trees, including tawa, pukatea and titoki, is present in the main gully on the reserve. Several weed species are present in the reserve. The reserve was heavily infested with goats. Construction of a fence, including an electric wire, along the reserve boundary has restricted access by goats and enabled rapid regeneration of indigenous species. Tree planting by the local community, schools and Council has assisted indigenous species restoration.

A walking track traverses the reserve, providing an attractive round trip with good views. Pedestrian access to the reserve is via an easement from Werneth Street. This is a relatively new reserve, created as part of subdivision of the land for residential sections.

Important Reserve Management Issues

Removal or containment of aggressive plant and animal pests is a priority management issue at the reserve. Effective weed control and the exclusion of goats will enable continued regeneration and recovery of indigenous vegetation and habitat. Continued planting of locally-sourced indigenous species will also assist in this recovery. *See Policy 6.5.1.*

The management and protection of indigenous vegetation (scrub and forest) on adjoining privately-owned land is also an important reserve management issue. Plant and animal pest control, planting of inappropriate species and damage to or removal of indigenous species are potential activities that could compromise protection of the indigenous vegetation within the reserve. *See Policy 6.5.2.*

Policies

6.5.1. Identify, prioritise and control populations of plant and animal pests, in accordance with identified targets, to protect indigenous habitats and species.

6.5.2. Liaise with adjacent landowners to advocate appropriate management, use and protection of indigenous vegetation on adjoining privately-owned land.

Leases and Licences

No leases or licences.

PUKATEA RESERVE

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

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Scale 1:1,500

N

April 2009

6.6 Pukatea Reserve (Conservation Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
CFR 70012	Lot 36 DP 317842	0.45	Recreation Reserve
	Total Area:	**0.45**	

General Description

Pukatea Reserve comprises part of a small remnant of coastal forest in the northern Nelson suburb of Marybank. It lies in a small gully between the end of Marybank Road and the newly subdivided land adjacent to Noel Jones Drive. The forest in the reserve is contiguous with similar forest on privately-owned suburban sections on Marybank Road.

Pukatea Reserve lies between altitudes of 30 and 60m on moderately-steep west-facing slopes above Nelson Haven. These slopes comprise undifferentiated landslide deposits within an area of breccia, sandstone and siltstone rocks of the Marybank Formation[55]. The original vegetation of the area would probably have been podocarp-hardwood forest dominated by tawa, titoki, pukatea, nikau, hinau, tree ferns and mahoe with emergent podocarps[56]. The reserve lies within the Bryant Ecological District[57] and the Central Dry Lowlands Land Environment (B1)[58]. It is estimated that less than 5% of the original extent of this coastal forest ecosystem remains, and that only approximately 20% of these remnants are protected[59]. Therefore, indigenous vegetation within this land environment is acutely-threatened and a national priority for protection[60].

Forest on the reserve and on adjacent privately-owned sections is dominated by tawa with emergent pukatea. Other important canopy or sub-canopy trees are mahoe, kaikomako, introduced ash trees and a single large black beech tree. Tall kanuka is present on the southern boundary and a number of planted species, including a large gum tree, are present on the northern boundary within the privately-owned sections. Important understorey species are kawakawa, mahoe, turepo and young ponga[61]. Notable species present are the fern *Diplazium australe* and seedlings of karaka, which are rare in the ecological district.

A number of introduced plant species were recorded in the reserve in 1999[62]. Those posing the greatest threat to ecological values of the reserve are old man's beard, banana passionfruit, barberry, wandering willie, climbing asparagus, jasmine and ivy. Animal pests were not surveyed, though the reserve was grazed by domestic stock prior to the recent creation of the reserve through subdivision of land for residential sections. Native shrubs have been recently planted at the southern boundary of the reserve.

The only facility present in the reserve is a walking track along the southern edge of the forest, which provides pedestrian access between Noel Jones Drive and Atawhai Drive (State Highway 6). There appears to be little other formal use of the reserve.

Important Reserve Management Issues

Removal or containment of aggressive weeds is the most urgent management issue at the reserve. In the absence of weed control it is unlikely that the ecological values of the reserve can be sustained in the long term. While the reserve and the forest on the adjacent sections comprise a very small remnant of indigenous vegetation, this remnant is the only remaining example of pukatea-tawa forest in the Marybank area. Maintenance of the reserve values is therefore an urgent priority. *See Policy 6.6.1.*

The management and protection of the part of this forest remnant that lies on adjoining privately-owned sections is also an important reserve management issue. Weed control, planting of inappropriate species, disposal of garden waste and damage to or removal of indigenous species are potential activities that could compromise protection of the adjoining forest within the reserve. This area of forest, including the part that remains on privately-owned land, was assessed as significant against the Nelson City Council Areas of Significant Conservation Value Criteria in 2000[63]. *See Policy 6.6.2.*

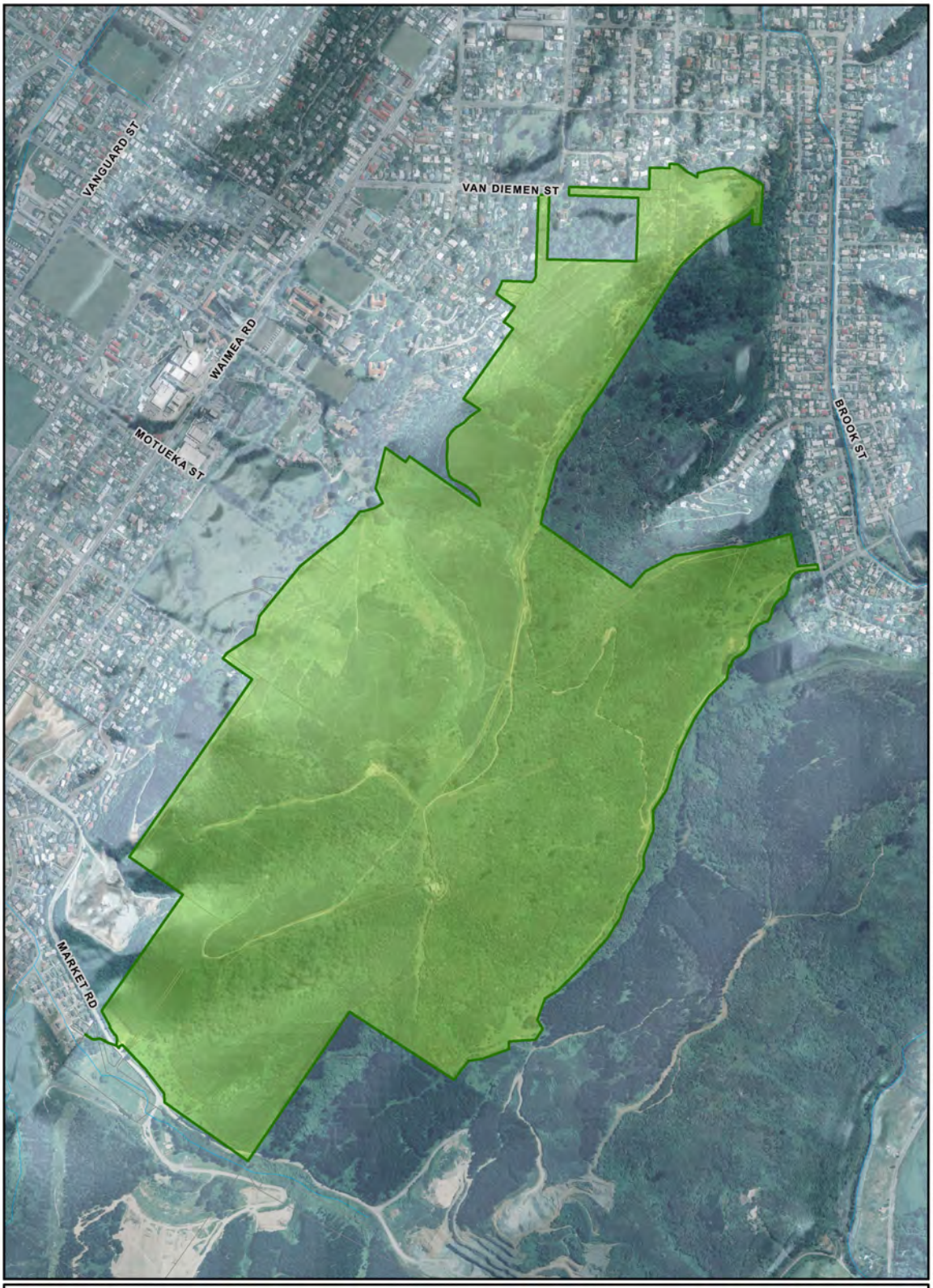
Policies

6.6.1. Identify, prioritise and control populations of plant and animal pests, in accordance with identified targets, to protect indigenous habitats and species.

6.6.2. Liaise with adjacent landowners to advocate appropriate management, use and protection of the part of the forest remnant that lies on privately-owned land.

Leases and Licences

No leases or licences.



GRAMPIANS RESERVE

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

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Scale 1:12,000

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April 2009

6.7 Grampians Reserve (Landscape Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
NL8C/51	Lot 1 DP13393	49.95	Freehold
NL10D/834	Lot 1 DP 16668	31.70	Recreation Reserve
NL131/10	Lot 1 DP 5365	6.56	Freehold
NL3B/254	Lot 1 DP 7437	1.76	Freehold
NL13A/518	Lots 2 & 3 DP 19858, Sec 18, 20, 21 & Pt Sec 19 Block D	34.95	Freehold
	District of Wakatu		
NL5C/1195	Lot 4 DP 4581	0.14	Freehold
NL5C/1213	Lots 5 and 7 DP 4581	0.18	Freehold
NL5A/920	Pt Sec 1229 City of Nelson	0.35	Freehold
NL4/117	Pt Sec 1079B City of Nelson	4.37	Scenic Reserve
NL123/55	Sec 4 Block D Wakatu Dist (Sec 194A & Pt Sec 194)	2.81	Scenic Reserve
NL2D/297	Secs 11 & 12 Blk D Wakatu DIST	6.07	Scenic Reserve
NL54/135	Sec 10 Blk D Wakatu DIST	3.24	Freehold
NL3C/552	Sec 30 Blk D Wakatu DIST	0.16	Freehold
NL13A/517	Pt Sec 7 Suburban South District	Unknown	Freehold
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**160.96**	

General Description

Grampians Reserve covers a large part of the Grampians, a small steep-sided hill south of the centre of Nelson City. It adjoins the suburb of Bishopdale to the east, the centre of Nelson City to the north, privately-owned forestry land on Sugar Loaf hill in the Brook valley to the west and privately-owned farm and forestry land to the south. There is an enclave of land owned by Nelson College at the northeast corner of the reserve.

Grampians Reserve lies between altitudes of 100 and 392m, covering all the upper slopes of the Grampians. The Grampians comprise bedded mudstone, siltstone and sandstone of the Grampian Formation[64]. The original vegetation of the area would probably have been lowland hill country matai-black beech forest with hardwood forest of tawa, mahoe and pigeonwood in the gullies [65]. The reserve lies within the Bryant Ecological District[66] and the Central Dry Lowlands (B1) and Central Mountains (P6) land environments[67]. It is estimated that between 5 and 25% of the original extent of this forest ecosystem remains and that only approximately 40% of these remnants are protected[68]. Therefore, indigenous vegetation within this land environment is chronically-threatened and a national priority for protection[69].

Vegetation of the western side of the Grampians is predominantly stands of exotic plantation and amenity forest with smaller areas of gorse and scrub. On the eastern slopes, kanuka forest and regenerating hardwood species are dominant. Small remnants of lowland podocarp-hardwood forest are present in gullies on the southwest slopes. These remnants support kahikatea, matai, miro, tawa, titoki, karaka, mahoe, pukatea, hinau, nikau and black beech. One very large kahikatea tree beside Kahikatea Track is listed as a Heritage Tree in the Nelson Resource Management Plan.

Indigenous forest in the southwest gullies represent an uncommon example of relatively intact lowland forest and supports several plant species that are either near their southern distributional limit or locally rare. Kanuka forest, such as that on the eastern slopes, is rare in the Nelson region[70].

Areas of indigenous forest in the reserve support good populations of birds, including bellbird, tui and kereru. A falcon has been occasionally sighted at the reserve recently. Robins were recorded near the Kahikatea Track several years ago[71]. Altogether the Grampians Reserve provides a relatively large area of forest bird habitat (both indigenous and exotic) close to Nelson City and connected by other woody vegetation to more extensive forest bird habitat on the Richmond Range to the east. Kanuka forest provides good habitat for geckos, though no lizard records from the reserve were located during the preparation of this plan. Native freshwater species occurring within the watercourses in the reserve include banded kokopu, longfin eel, shortfin eel and koura.

A number of invasive plant pests are present in the reserve. Banana passionfruit and old man's beard are common. Yew, woolly nightshade, climbing asparagus, Japanese honeysuckle, barberry and other weeds are also present. Some planted exotics in the reserve may also pose a weed threat, such as pines, wattle, Tasmanian blackwood and Eucalypts. Invasive plant pests pose a threat to successful restoration (through natural regeneration) of indigenous forest representative of the original black beech-matai forest on the eastern slopes the reserve. While animal pests, including possums and other small mammalian predators, are present in the reserve, the near absence of larger mammals, such as goats, deer and pigs, provides a unique opportunity for the regeneration of indigenous plant species.

There is a network of foot and vehicle tracks through the reserve, making the reserve very popular for walking, running and mountain-biking. Well-developed walking tracks traverse the areas of indigenous forest in the southwest gullies: the Kahikatea and Fuchsia tracks. Mountain-biking is prohibited on the Kahikatea Track. Other tracks traverse the western slopes. A vehicle track up the eastern slopes and along the main ridge provides restricted (locked gate) access to communications equipment on a tower at the Grampians summit. The upper slopes and ridge provide good views of Nelson and the surrounding country. There is a viewing platform on a prominent west-facing knob.

Parts of Grampians Reserve are clearly visible from the central part of Nelson City and the suburbs of Nelson South and Bishopdale, forming a prominent part of the backdrop to the city. Four land parcels at the northwest corner of the reserve are classified as Scenic Reserve.

Stands of radiata pine in the reserve are managed for production forestry. Communications services run through the reserve up the main north-south ridge from Nelson City to the tower at the Grampians summit. Overhead power lines on pylons cross the reserve. Parts of the reserve are grazed by sheep.

Important Reserve Management Issues

Protection of the remnants of lowland forest in the southwest gullies and encouragement of restoration of indigenous vegetation in other parts of the reserve are important. However, there are differing views regarding the attractiveness of indigenous vegetation and exotic amenity plantings on the slopes that are clearly visible from residential areas. *See policies 6.7.1 and 6.7.2.*

Steeper slopes within the reserve are prone to erosion, so slope stability is an important issue. Any slope failure poses a threat to densely populated areas on the lower slopes and flats below the reserve. Deep-rooted exotic trees have been planted on some slopes to mitigate this risk. *See Policy 6.7.1.*

The risk of wildfire, especially during dry summer months, is an important issue. Mixed fire-resistant indigenous species have been planted or encouraged to regenerate to help mitigate this risk. *See Policy 6.7.3*.

Pest plant control, grazing and improved opportunities for public access are other management issues. *See policies 6.7.4 to 6.7.7.*

Policies

6.7.1. Progressively establish indigenous plant species on the northern and western slopes of the reserve that are visible from Nelson city centre. Maintain plantings of deep-rooted exotic trees on the lower slopes of the reserve to maintain slope stability and as part of succession management.

6.7.2. Encourage continued regeneration of indigenous forest in the southwest gullies, eastern slopes and upper western slopes.

6.7.3. Plant or encourage the regeneration of fire-resistant indigenous vegetation where required to reduce the risk of wildfire, such as around properties and other assets, and ignition sources.

6.7.4. Continue pest plant control, in accordance with identified targets, targeting areas of high ecological value, especially forest remnants, in the southwest gullies and regenerating forest on the eastern slopes.

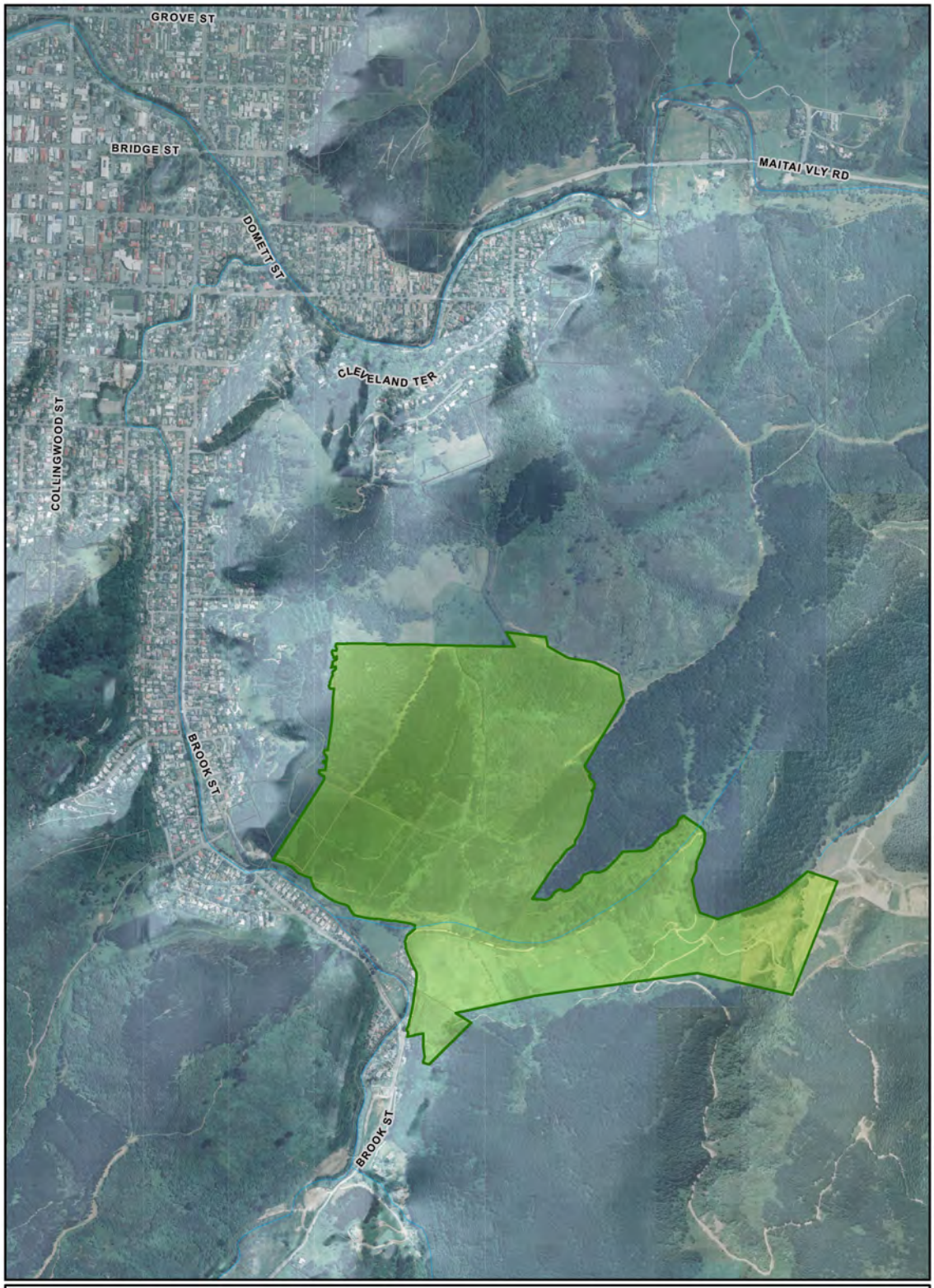
6.7.5. Restrict grazing of sheep to locations where such grazing is beneficial for reserve management (e.g. weed control) and eventually cease grazing sheep in the reserve.

6.7.6. Investigate opportunities to improve pedestrian access to the reserve from residential areas west of the reserve and to create a better network of tracks within the reserve, including development of a track across the lower western slopes of the reserve.

6.7.7. Manage mountain biking on all tracks within the reserve while continuing the restriction on Kahikatea Track.

Leases and Licences

Name	Purpose	Term (yrs)	Start Date	End Date	Area
BCL	Telecommunications	10 + 10	01/01/2000	30/12/2019	0.3624
B Picot	Residential occupation	3 monthly	01/05/2002		0.0400



TANTRAGEE RESERVE

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

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Scale 1:15,000

N

April 2009

6.8 Tantragee Reserve (Landscape Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
NL7C/1215	Lot 2 DP 12745	40.21	Freehold
NL2B/251	Pt Lot 1 DP 6921; Pt Sec 1 & Pt Sec 4 Brook St & Maitai; & Pt Sec 1173 & Pt Sec 1193 City of Nelson	33.05	Freehold
CFR 46438	Lot 1 DP 311762	27.25	Local Purpose (Public Work) Reserve
NL5A/503	Sec 45 Brook Street and Maitai DIST	0.07	Freehold
NL5A/504	Sec 46 Brook Street and Maitai DIST	0.06	Freehold
NL12C/767	Lot 1 DP 19094	1.65	Recreation Reserve
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**102.29**	

General Description

Tantragee Reserve covers the southern slopes of Sharland Hill between the Brook and Maitai valleys southeast of Nelson. It adjoins The Brook valley to the south, Tantragee Saddle to the east, the Nelson City suburb of The Brook to the west and Atmore Reserve to the north.

Tantragee Reserve lies between altitudes of 50 and 350m, between The Brook valley and Sharland Hill. Sharland Hill comprises augite tuff, breccia and minor basalt of the Kaka Formation[72]. The original vegetation of the area would have been lowland hill country matai-black beech forest with hardwood forest of tawa, mahoe and pigeonwood in the gullies and beech forest on the upper slopes and ridges[73]. The reserve lies within the Bryant Ecological District[74] and the Central Mountains Land Environment (P6)[75]. It is estimated that between 20 and 25% of the original extent of this forest ecosystem remains and that between 40 and 50% of these remnants are protected[76]. Therefore, indigenous vegetation within this land environment is at risk and locally important for protection[77].

Vegetation of the reserve is predominantly plantation forestry, comprising 5.5 hectares of mixed radiata pine and Eucalypts (planted 1987 and 1988), 20.2 hectares of radiata pine (planted 1983 and 1993) and 6.2 hectares of Douglas fir (planted 1983). Elsewhere on the hill slopes the vegetation is low scrub dominated by exotic species. The valley-floor portion of the reserve, between The Brook and Tantragee Saddle, supports developed pasture. This open area serves as a firebreak between plantation forests on either side of the valley.

The lower section of the Dun Mountain Walkway, which follows the formation of the historic Dun Mountain Railway, traverses the reserve. This section of track has been recently cleared and re-opened by volunteers. Numerous informal mountain-bike tracks have been constructed in plantation forest in this area, on the southern slopes of Sharland Hill.

A track at the southern edge of the reserve provides foot and mountain-bike access to Tantragee Saddle and to the Dun Mountain Walkway at a point south of the saddle. A car parking area and interpretation panel are present at the start of the track near Brook Street. This is the main entry point to the Dun Mountain Walkway for walkers and mountain-bikers.

The Dun Mountain Railway is a significant historic site. It was New Zealand's first railway, opened in 1862. It provided transport to and from mines in the upper Maitai valley.

The grassed area is grazed. The Riding for the Disabled group also holds a lease over part of this area. A community-based organic garden is located on flat land at the lower boundary of the reserve. Also present in this area are buildings and structures associated with the Nelson water supply pipeline. The water supply pipe follows the Dun Mountain Walkway around the lower slopes of the reserve. The feed and return pipelines between the treatment plant and Marsden valley traverse the reserve. Transpower's Blenheim – Stoke A high voltage transmission line on pylons also traverses the reserve.

Important Reserve Management Issues

Protection of historic values of the Dun Mountain Railway, construction of mountain-bike tracks, the maintenance of landscape values and protection of the water supply infrastructure are important management issues. *See policies 6.8.1 to 6.8.8.*

Another important issue is to ensure continued public access to and along the privately owned section of the Dun Mountain Walkway where a public easement currently allows for public pedestrian access. *See policy 6.8.9.*

Policies

6.8.1. Ensure that the use and maintenance of the Dun Mountain Walkway protects the heritage values of the Dun Mountain Railway formation.

6.8.2. Maintain, and consider the managed expansion of, pedestrian and mountain-bike access through the reserve to the Dun Mountain Walkway and to Tantragee Saddle and the Maitai valley beyond.

6.8.3. Use gates to restrict access to the reserve to those vehicles authorised by Council. This does not affect existing Rights of Way agreements for access to plantation forests.

6.8.4. Manage controlled grazing in the valley between The Brook and Tantragee Saddle, to provide a firebreak and to protect riparian values and the water supply infrastructure.

6.8.5. Consider the impacts on landscape and recreational values when harvesting and replacing the stands of plantation forest.

6.8.6. Improve car park and signs at the Brook Street entrance to the reserve.

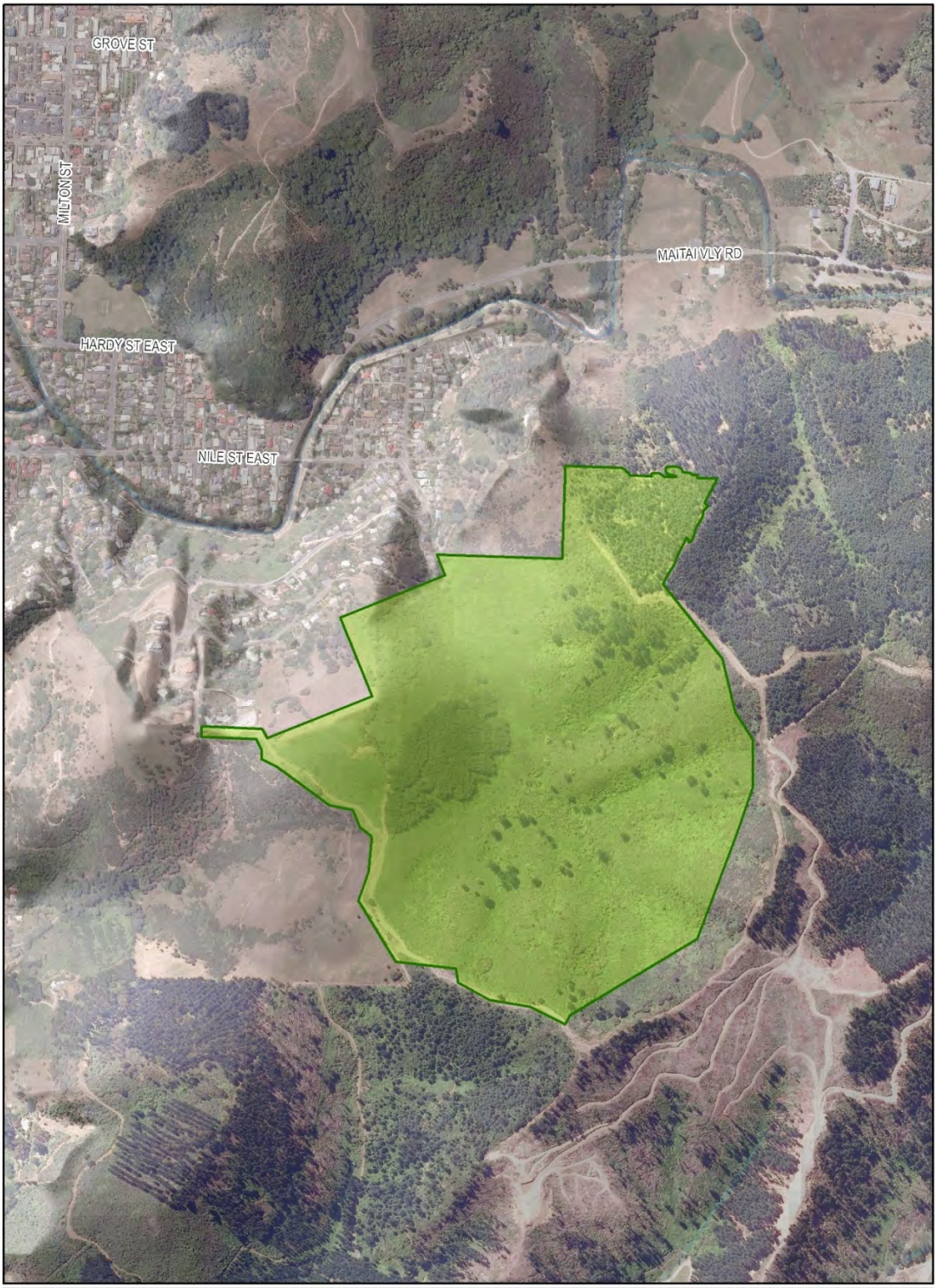
6.8.7. Allow horses in the reserve in defined areas and where they do not conflict with other reserve users.

6.8.8. Ensure that any works undertaken in the reserve do not adversely affect the water supply pipeline and related infrastructure.

6.8.9. Seek addition of land adjacent to the southern boundary of the reserve (along Dun Mountain Walkway) to provide more secure public access.

Leases and Licences

Name	Purpose	Term (yrs)	Start Date	End Date	Area
Nelson Community Organic Gardens Trust	Community gardens	3	01/10/1997	30/09/2000	0.7500
Wakatu RDA	Horse grazing/riding	2	01/01/2005	31/12/2006	6.0000



ATMORE RESERVE

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

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Scale 1:10,000

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April 2009

6.9 Atmore Reserve (Landscape Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
NL7C/1214	Lot 1 DP12745	63.27	Freehold
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**63.27**	

General Description

Atmore Reserve covers a gully on the northwest slopes of Sharland Hill between the Brook and Maitai valleys southeast of Nelson. It adjoins Tantragee Reserve to the south, Tantragee Saddle to the east, the Nelson City suburb of The Brook to the west and the suburb of Nelson East in the Maitai Valley to the north.

Atmore Reserve lies between altitudes of 100 and 350m, between the Maitai valley and Sharland Hill. Sharland Hill comprises augite tuff, breccia and minor basalt of the Kaka Formation[78]. The original vegetation of the area would have been lowland hill country matai-black beech forest with hardwood forest of tawa, mahoe and pigeonwood in the gullies and beech forest on the upper slopes and ridges[79]. The reserve lies within the Bryant Ecological District[80] and the Central Mountains Land Environment (P6)[81]. It is estimated that between 20 and 25% of the original extent of this forest ecosystem remains and that between 40 and 50% of these remnants are protected[82]. Therefore, indigenous vegetation within this land environment is at risk and locally important for protection[83].

Vegetation of the reserve is mostly low scrub dominated by gorse with scattered indigenous species and patches of low kanuka forest. Two stands of plantation forest are present: 3 hectares of radiata pine (planted 1981) on the west side of the gully and 3.8 hectares of Douglas fir (planted 1981) at the lower northeast corner of the reserve. Restoration of indigenous species could be considered.

There is a track from Atmore Terrace along the western boundary of the reserve. The reserve is visible from Nelson City and forms an important part of the backdrop to the city. There is a seasonally high fire risk on these north-facing slopes.

Important Reserve Management Issues

The risk of wildfire, especially during dry summer months, is an important issue. Encouragement of the establishment of fire-resistant indigenous species would help mitigate this risk. *See policy 6.9.2*.

Restoration of native vegetation, weed control, maintenance of landscape character, improved opportunities for public access, and protection and management of adjacent privately-owned land are other management issues. *See policy 6.9.1 and policies 6.9.3 to 6.9.5*.

Policies

6.9.1. Undertake restoration of indigenous plant communities in the reserve and ensure restoration projects are ecologically appropriate.

6.9.2. Plant or encourage the regeneration of fire-resistant indigenous vegetation where required, to reduce the risk of wildfire, such as around properties and other assets, and ignition sources.

6.9.3. Identify, prioritise and control populations of invasive pest plants, in accordance with identified targets, targeting areas where ecological values are high, such as areas of remnant indigenous vegetation.

6.9.4. Consider the impacts on landscape and recreational values when harvesting and replacing the stands of plantation forest.

6.9.5. Investigate opportunities and plan for pedestrian and mountain-bike access through the reserve.

Leases and Licences

No leases or licences.


ATAWHAI DR
WEKA ST
CAMBRIA ST
GROVE ST
MILTON ST
MAITAI RD
TORY ST
DOMETT ST
NILE ST EAST
BOTANICAL HILL
Conservation & Landscape Reserves Management Plan
NELSON CITY COUNCIL
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Scale 1:7,000
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April 2009
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6.10 Botanical Hill (Landscape Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
115875	Lot 2 DP 328394	0.31	Recreation Reserve
NL127/106	Sec 1219 City of Nelson	8.50	Local Purpose Reserve
NL2D/351	Pt Sec 370 City of Nelson	0.19	Local Purpose Reserve
NL3A/423	Lot 1 DP 7425	0.89	Freehold
NL3A/744	Pt Lot 6 DP 2806	1.07	Freehold
NL43/67	Sec 15 Block IX Wakapuaka SD	Unknown	Local Purpose Reserve
NL60/173	Sec 367A City of Nelson	0.40	Recreation Reserve
NL4B/118	Pt Lot 1 DP 8194	25.88	Local Purpose Reserve
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**37.25**	

General Description

Botanical Hill Reserve comprises areas of mixed indigenous and exotic forest and restoration plantings just east of central Nelson City. It lies on the north side of the Maitai River, north of the Nelson City suburbs of Nelson East and Maitai. The reserve adjoins Sir Stanley Whitehead Park to the northwest, areas of low forest and farmland on privately-owned land to the northeast and east, the Maitai Valley and Branford Park to the southeast and the Botanics Sports Fields to the southwest.

Botanical Hill Reserve lies between altitudes of 20 and 160m on moderately-steep south-facing slopes of a low ridge above Nelson City. Western parts of this low ridge comprise bedded mudstone, siltstone and sandstone of the Grampian Formation; eastern parts comprise extensively faulted tuff and breccia of the Botanical Hill Formation[84]. The original vegetation of the area would probably have been lowland hill country matai-black beech forest, with hardwood forest of tawa, mahoe and pigeonwood in the gullies[85]. The reserve lies within the Bryant Ecological District[86] and the Central Dry Lowlands Land Environment (B1)[87]. It is estimated that between 5 and 25% of the original extent of this forest ecosystem remains and that only approximately 40% of these remnants are protected[88]. Therefore, indigenous vegetation within this land environment is chronically-threatened and a national priority for protection[89].

The reserve is largely forested, though this forest is modified by the presence, and in places dominance, of planted and naturalised introduced trees. Some trees in the reserve were planted by the early European settlers and have considerable amenity and historic value. Others, such as sycamore, ash and cherry, have invaded the regenerating indigenous forest and threaten its ecological integrity. Food trees, including olive, hazelnut and macadamia, are present, predominantly in the eastern part of the reserve. Remnant indigenous trees are present in the main gullies, including stands of titoki and kanuka. Restoration plantings on the upper western slopes of Botanical Hill are dominated by

lemonwood, koromiko, akeake, beech, kanuka, ngaio, broadleaf and kohuhu. The reserve has potential to provide for further restoration of indigenous forest.

An important feature of the reserve is the presence of Trig BH on Botanical Hill. This was the datum trig for the original survey of Nelson City. It is regarded as the geographic centre of New Zealand and has a monument at its summit. Several interpretation panels describe the historical significance of the reserve.

A number of high-standard benched tracks traverse the eastern slopes of Botanical Hill, providing several walking routes to the summit of Botanical Hill (147m) and on to Sir Stanley Whitehead Park and the Maitai valley. The reserve is very popular as it provides pleasant walks at the edge of the city centre, has features of historic interest and provides good views across the city. It is highly valued by the community. The reserve has potential to provide for a wider range of recreational uses, especially in the more modified parts of the reserve.

Important Reserve Management Issues

Containment or control of the more aggressive woody weed species is a key reserve management issue. Sycamore is co-dominant in the eastern part of the reserve and numerous other problem weeds are present (notably old man's beard, yew, banana passionfruit, climbing asparagus, cherry, bay and holly)[90]. Pest animals, particularly goats, are also a threat to regenerating indigenous vegetation and are coming into the reserve from adjoining privately owned and forestry land. Concurrently, maintenance and restoration of indigenous species that were originally present is an important management objective. *See Policies 6.10.1 and 6.10.2.*

There is some conflict between mountain-biking and walking in the reserve, particularly on the high-standard benched tracks on the city centre side of the reserve. *See Policy 6.10.4.*

Policies

6.10.1. Undertake further restoration of indigenous plant communities in the reserve and ensure restoration projects are ecologically appropriate.

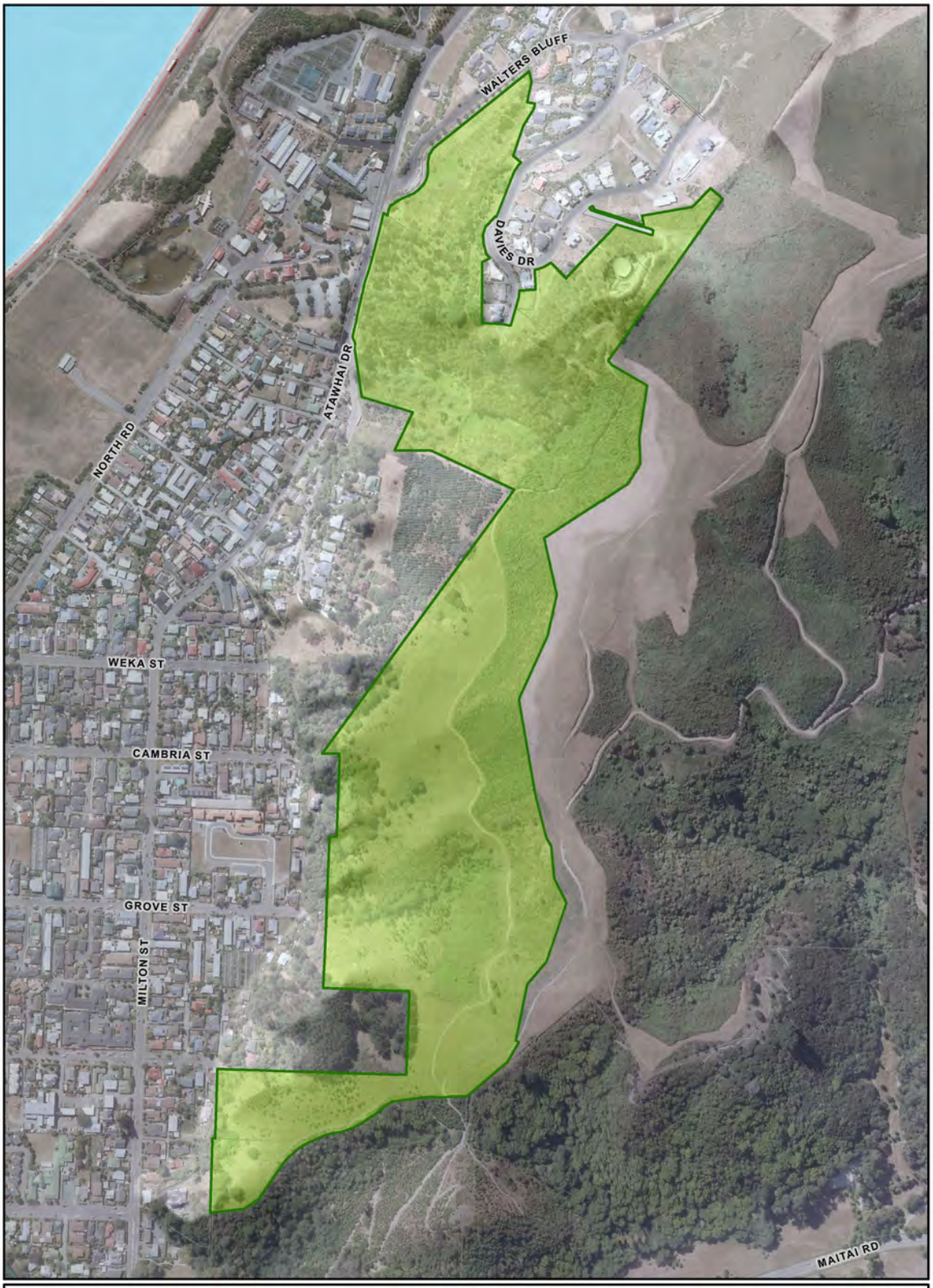
6.10.2. Identify, prioritise and control populations of invasive pest plants and animals, in accordance with identified targets, targeting areas where ecological values are high, such as areas of remnant indigenous vegetation.

6.10.3. Monitor important archaeological and heritage sites in the reserve and take appropriate management actions as required.

6.10.4. Discourage mountain-bikes from the high-use foot tracks on the Nelson city centre side of Botanical Hill.

Leases and Licences

No leases or licences.



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SIR STANLEY WHITEHEAD PARK

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

0 50 100 150 200 m

Scale 1:6,500

N

April 2009

6.11 Sir Stanley Whitehead Park (Landscape Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
NL11C/935	Lot 72 DP 17700	2.29	Local Purpose Reserve
NL11C/938	Lot 76 DP 17700 & Pt Lot 3 DP 3202	2.86	Freehold
NL11C/931	Lot 66 DP 17700	0.05	Freehold
NL11A/1011	Lot 1 DP 17014	18.82	Freehold
NL11C/942	Lot 1 DP 18087	5.78	Freehold
	Unformed Legal Road		Unformed Legal Road
	Total Area:	**29.80**	

General Description

Sir Stanley Whitehead Park comprises areas of kanuka and regenerating hardwood forest, restoration plantings, stands of Eucalypts and areas of open pasture just east of the Nelson City suburb of The Wood. It lies between Botanical Hill and Walters Bluff. The reserve adjoins open farmland to the east, residential sections of Walters Bluff to the north, steep slopes with pines and scrub above the residential sections of The Wood to the east, and Botanical Hill Reserve to the south.

Sir Stanley Whitehead Park lies between altitudes of 20 and 200m on moderately-steep west-facing slopes of a low ridge above Nelson City. Most parts of this low ridge within the reserve comprise extensively faulted tuff and breccia of the Botanical Hill Formation[91]. The original vegetation of the area would probably have been coastal podocarp-hardwood forest dominated by tawa, titoki, kohekohe, nikau and mahoe with emergent podocarps[92]. The reserve lies within the Bryant Ecological District[93] and the Central Dry Lowlands Land Environment (B1)[94]. It is estimated that less than 5% of the original extent of this coastal forest ecosystem remains, and that only approximately 20% of these remnants are protected[95]. Therefore, indigenous vegetation within this land environment is chronically-threatened and a national priority for protection[96].

The main central slopes of the reserve are in open pasture, grazed by sheep. Small shallow gullies on the lower slopes support patches of young kanuka. On the upper slopes, above the benched vehicle/walking track, are dense plantings of indigenous shrubs. At the northern end of these upper slopes the plantings are dominated by akeake, lemonwood, kohuhu, ngaio, karamu and flax, with a forest canopy up to 6m tall. At the southern end, more recent plantings are dominated by akeake, lemonwood and kohuhu between 2 and 4m tall. It appears that not all of these plants are sourced from local stock. Stands of tall Eucalypts are present on the slopes adjacent to Davies Drive at the northern end of the reserve. These stands, planted in 1988 and 1990 and covering 3 hectares, are managed for production forestry. Young poplar trees have been planted to help stabilise some steeper lower slopes.

A number of plant pests are present in the reserve. Sycamore, ash and cherry are present on the lower slopes. Old man's beard, banana passionfruit, fennel, pampas, kikuyu and gorse are also present, especially at the Walters Bluff end of the reserve[97].

The reserve is named after Sir Stanley Whitehead, the Nelson member for Parliament between 1957 and 1976, and Speaker of the House of Representatives between 1972 and 1976. Walters Bluff derives its name from the location where Walter Nash turned the first sod for the never-constructed Nelson-Blenheim railway.

Facilities at the reserve include signs and interpretation panels and a benched track that traverses the reserve between Botanical Hill Reserve and Davies Drive at Walters Bluff. Informal mountain-bike tracks have been formed within the Eucalypt plantation at north end of the reserve. Dogs are permitted on a leash. Open grassed slopes of the reserve are leased for gazing. Walking, running and mountain-biking are popular uses of the reserve.

The reserve is clearly visible from the central part of Nelson City, forming a prominent part of the backdrop to the city.

Important Reserve Management Issues

Steeper slopes within the reserve are prone to erosion, so slope stability is an important issue. Any slope failure poses a threat to densely populated areas on the lower slopes and flats below the reserve. Poplar trees have been planted on some slopes to mitigate this risk. *See Policy 6.11.2*.

The risk of wildfire, especially during dry summer months, is an important issue. The Eucalypt plantation at the northern end of the reserve poses a particular risk. Mixed fire-resistant indigenous species have been planted and areas of open pasture are grazed to help mitigate this risk. *See Policy 6.11.3*.

Restoration of native vegetation (especially coastal kohekohe forest), weed control, maintenance of landscape character, improved opportunities for public access, and protection and management of adjacent privately-owned land along the ridge crest east of the reserve are other management issues.

Policies

6.11.1. Investigate rationalising areas of the reserve that are zoned residential and adjoin existing residential development at the northern end of the reserve.

6.11.2. Continue planting indigenous species on the western slopes of the reserve that are visible from Nelson city centre. Maintain plantings of deep-rooted exotic trees on the lower slopes of the reserve to maintain bank stability and as part of succession management.

6.11.3. Plant or encourage the regeneration of fire-resistant indigenous vegetation where required, to reduce the risk of wildfire, such as around properties and other assets, and ignition sources.

6.11.4. Investigate opportunities to provide pedestrian and mountain-bike access to the reserve from The Wood residential area west of the reserve (from Grove, Cambria or Weka streets), to improve public access to the reserve.

Leases and Licences

No leases or licences.


TOI TOI ST
MOANA AVE
BISLEY AVE
CHAMPION TER
STANSELL AVE
MONTREAL RD
PRINCES DR
EMANO ST
ORAKEI ST
PIPERS PARK
Conservation & Landscape Reserves Management Plan
NELSON CITY COUNCIL
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April 2009
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6.12 Pipers Park (Landscape Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
NL147/7	Lot 1 & Pt Lot 3 DP5769	1.75	Recreation Reserve
NL 52/144	Pt Sec 33 Block E District of Wakatu	7.56	Freehold
	Unformed Legal Road	6.90	Unformed Legal Road
	Total Area:	**16.21**	

General Description

Pipers Park comprises areas of regenerating and planted species on a ridge east of Nelson City. It is a long narrow reserve between the suburbs of Moana and Toi Toi. The reserve adjoins Princes Drive to the west and pine plantations and open pasture above the suburb of Nelson South to the east.

Pipers Park lies between altitudes of 100 and 150m on east-facing slopes of a low ridge between Nelson City and Tahunanui. This low ridge comprises conglomerate with volcanic, sedimentary and granite clasts of Port Hills Gravel[98]. The original vegetation of the area would probably have been lowland hill country matai-black beech forest[99]. The reserve lies within the Bryant Ecological District[100] and the Central Dry Lowlands Land Environment (B1)[101]. It is estimated that between 5 and 25% of the original extent of this forest ecosystem remains and that only approximately 40% of these remnants are protected[102]. Therefore, indigenous vegetation within this land environment is chronically-threatened and a national priority for protection[103].

The reserve supports areas of open pasture, pine trees, scrub and planted trees and shrubs. The southern part of the reserve has been deliberately kept free of taller vegetation to provide a firebreak between a Council pine plantation on lower slopes to the east and residential sections on the ridge crest to the west. It supports rough pasture, gorse and a number of naturalised garden weeds[104].

The northern part of the reserve is more developed, with planted trees and shrubs, including sycamore, redwood and radiata pine. There is some natural regeneration of indigenous species, dominated by mahoe[105]. A walking track (Bobs Track) provides foot access through this part of the reserve. Days Track at the northern end of the reserve provides access between Princes Drive and Toi Toi Street. The Atkinson Observatory is no longer located adjacent to the reserve on Princes Drive, having been relocated to Clifton Terrace School in Atawhai.

There is demand for increased recreational use in the park but the fact that much of the land is steep and of low recreational value makes this a challenge.

Important Reserve Management Issues

Maintenance of fire-resistant vegetation to buffer adjacent pine plantations is an important issue. *See Policy 6.12.2*.

The reserve provides some potential for the restoration of the lowland forest ecosystem that was originally present. However, the size and shape of the reserve, the absence of any remnants of the ecosystem and the threat posed by weeds, mean that restoration would be a major undertaking.

Policies

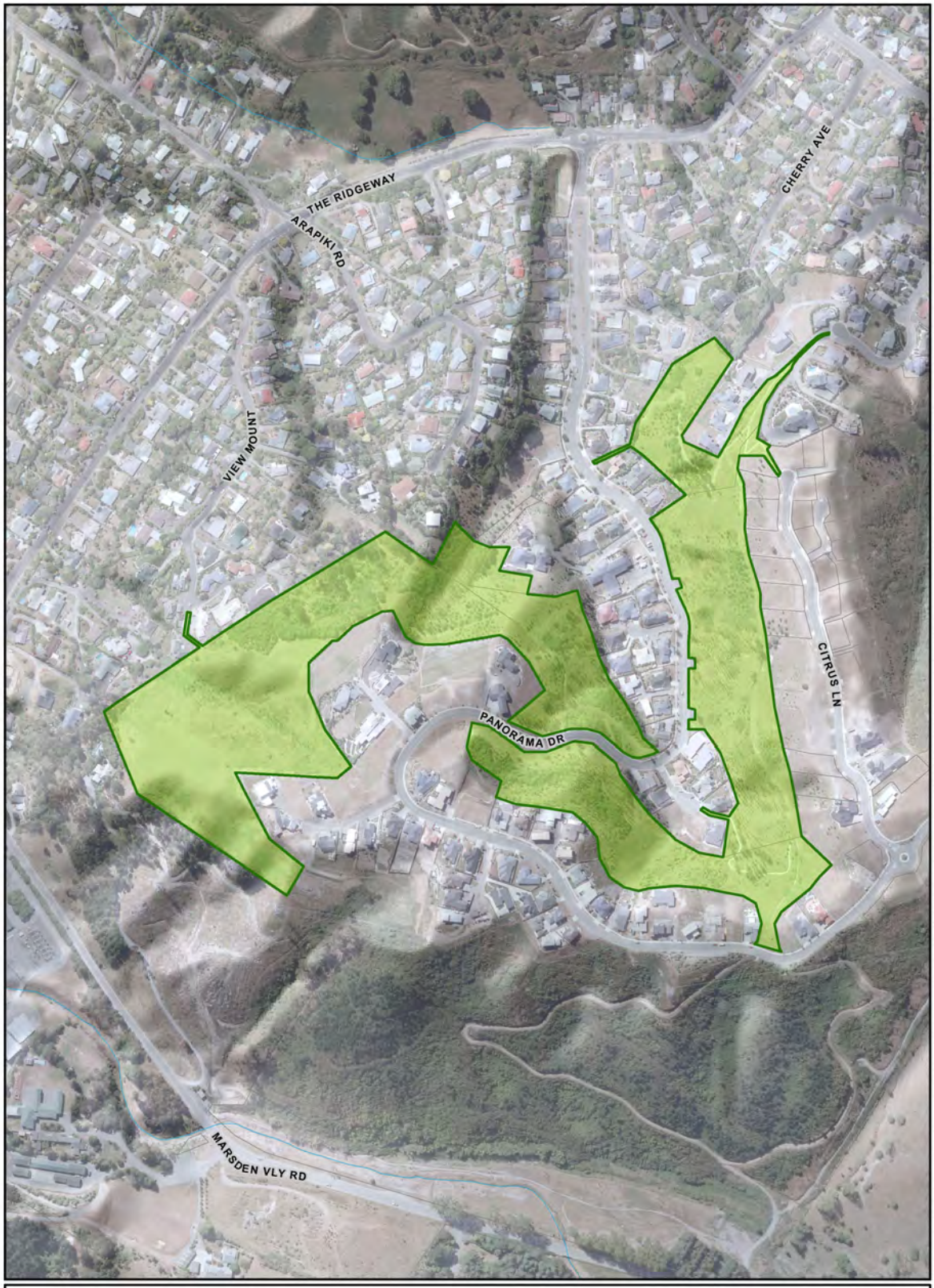
6.12.1. Investigate rationalising areas of the reserve to ensure recreational and landscape objectives can be met but without holding more land than is necessary.

6.12.2. Maintain fire-resistant vegetation (preferably indigenous) in the southern part of the reserve, to help protect pine plantations on adjacent land.

6.12.3. Investigate opportunities for improving pedestrian and mountain-bike access through the reserve, including connections between Princes Drive and Emano Street and Princes Drive and Tamaki Street walkway.

Leases and Licences

Name	Purpose	Term (yrs)	Start Date	End Date	Area
Beatty Music	Telecommunications	Unknown	01/07/1991		0.0001



BOLWELL RESERVE

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

0 50 100 150 200 m

Scale 1:5,000

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April 2009

6.13 Bolwell Reserve (Landscape Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
110991	Lot 27 DP 325282	2.12	Local Purpose (Amenity) Reserve
147379	Lot 1 DP 335933	0.05	Local Purpose (Walkway) Reserve
147380	Lot 2 DP 335933	2.54	Local Purpose (Amenity) Reserve
51970	Sec 2 SO 307867	0.99	Local Purpose (Walkway) Reserve
97632	Lot 22 DP316084, Lot 1 DP 18101	5.77	Freehold
NL13B/1090	Lot 2 DP 20178, Lot 2 DP 20010	0.57	Freehold
	Total Area:	**12.05**	

General Description

Bolwell Reserve covers moderately-steep slopes within a new residential subdivision on the low hills east of Stoke. It adjoins the suburb of Maitlands to the west, Jenkins Creek and the suburb of Enner Glynn to the north, privately-owned farmland to the east and Marsden Valley to the south.

Bolwell Reserve lies between altitudes of 100 and 200m, mostly on north- and west-facing slopes. These slopes comprise conglomerate with volcanic, sedimentary and granite clasts of Port Hills Gravel [106]. The original vegetation of the area would probably have been lowland hill country matai-black beech forest with hardwood forest of tawa, mahoe and pigeonwood in the gullies[107]. The reserve lies within the Bryant Ecological District[108] and the Central Dry Lowlands Land Environment (B1)[109]. It is estimated that between 5 and 25% of the original extent of this forest ecosystem remains and that only approximately 40% of these remnants are protected[110]. Therefore, indigenous vegetation within this land environment is chronically-threatened and a national priority for protection[111].

Vegetation of Bolwell Reserve is predominantly rough pasture with stands of young planted exotic trees and areas of planted shrubs. The planted species include poplar trees, to help stabilise the erosion-prone slopes, and groves of olive, hazelnut and loquat trees. Scattered gorse plants are present in places. Residents have been involved in revegetating the western part of the reserve in indigenous plants and would like to see this continue. An infestation of Argentine ants is also present in the area.

Tracks provide foot access through parts of the reserve, between the upper and lower parts of Panorama Drive and to other streets. The reserve provides a potentially attractive area of open space and vegetation between the strips of residential sections along Panorama Drive.

Important Reserve Management Issues

Steeper slopes within the reserve are prone to erosion, so slope stability is an important issue. Poplar trees have been planted on some slopes to mitigate this risk. *See Policy 6.13.2*.

The risk of wildfire, especially during dry summer months, is an important issue. Mixed fire-resistant indigenous species have been planted to help mitigate this risk. *See Policy 6.13.3*.

Improved opportunities for public access, including access to Marsden Valley, would improve opportunities for public use of the reserve. *See Policy 6.13.4*.

Policies

6.13.1. Continue planting indigenous species on the western side of the reserve and ensure restoration projects are ecologically appropriate.

6.13.2. Maintain plantings of deep-rooted exotic trees on the lower slopes of the reserve, to maintain slope stability.

6.13.3. Plant or encourage the regeneration of fire-resistant indigenous vegetation where required, to reduce the risk of wildfire, such as around properties and other assets, and ignition sources.

6.13.4. Investigate opportunities to improve pedestrian access within the reserve and to provide pedestrian and mountain-bike access from the reserve to Marsden Valley.

Leases and Licences

No leases or licences.

HIGHVIEW RESERVE

Conservation & Landscape Reserves Management Plan

NELSON CITY COUNCIL

0 25 50 75 100 m

Scale 1:3,000

N

April 2009

6.14 Highview Reserve (Landscape Reserve)

Legal Description

Title Reference	Legal Description	Area (hectares)	Reserve Status
304881	Lot 12 DP 373576	2.42	Local Purpose (Landscape/Walkway) Reserve
173743	Lot 59 DP 342269	0.25	Local Purpose (Walkway) Reserve
173744	Lot 60 DP 342269	0.42	Local Purpose (Landscape) Reserve
	Total Area:	**3.09**	

General Description

Highview Reserve covers moderately-steep slopes adjacent to a new residential subdivision in the suburb of Wakatu. It adjoins existing residential sections of Wakatu to the north and west, Jenkins Creek Esplanade Reserve to the southeast, Waimea Road to the south and a scrub-covered hillside to the east.

Highview Reserve lies between altitudes of 50 and 100m, on the lower south-facing slopes of Observatory Hill. These slopes comprise conglomerate with volcanic, sedimentary and granite clasts of Port Hills Gravel[112]. The original vegetation of the area would probably have been lowland hill country matai-black beech forest[113]. The reserve lies within the Bryant Ecological District[114] and the Central Dry Lowlands Land Environment (B1)[115]. It is estimated that between 5 and 25% of the original extent of this forest ecosystem remains and that only approximately 40% of these remnants are protected[116]. Therefore, indigenous vegetation within this land environment is chronically-threatened and a national priority for protection[117].

Vegetation of Highview Reserve is predominantly scrub, rough pasture and open ground recently cleared during construction of the subdivision. The main part of the reserve, on the lower slopes above Waimea Road, provides a buffer between the subdivision and this busy road.

There is a vehicle access track from Highview Drive into the reserve. The reserve provides an area of open space and vegetation alongside residential sections.

Important Reserve Management Issues

The risk of wildfire, especially during dry summer months, is an important issue. Mixed fire-resistant indigenous species have been planted to help mitigate this risk. *See Policy 6.14.1.*

Improved opportunities for public access, including access to Whakatu Drive, would improve opportunities for public use of the reserve. *See Policy 6.14.2.*

Policies

6.14.1. Plant or encourage the regeneration of fire-resistant indigenous vegetation where required, to reduce the risk of wildfire, such as around properties and other assets, and ignition sources.

6.14.2. Investigate opportunities to improve pedestrian access within and to the reserve.

Leases and Licences

No leases or licences.

7.0 APPENDICES

7.1 Scientific Names of Species Cited by Common Name

Common name .....Scientific name
Naturalised species are indicated by an asterisk (*).
(Note: this is not a complete species list: it only lists species cited by common name in this report)

akeake .....*Dodonaea viscosa*
ash* .....*Fraxinus excelsior*
banana passionfruit* .....*Passiflora mollissima*
barberry* .....*Berberis glaucocarpa*
bay* .....*Laurus nobilis*
beech .....*Nothofagus* spp.
black beech.....*Nothofagus solandri*
black maire.....*Nestegis cunninghamii*
broadleaf .....*Griselinia littoralis*
broom* .....*Cytisus scoparius*
buddleia* .....*Buddleja davidii*
cherry* .....*Prunus* sp.
climbing asparagus* .....*Asparagus scandens*
cotoneaster* .....*Cotoneaster glaucophyllus*
Douglas fir* .....*Pseudotsuga menziesii*
fennel* .....*Foeniculum vulgare*
flax .....*Phormium tenax*
gorse* .....*Ulex europaeus*
hard beech .....*Nothofagus truncata*
Himalayan honeysuckle* .....*Leycesteria formosa*
hinau.....*Elaeocarpus dentatus*
holly* .....*Ilex aquifolium*
ivy* .....*Hedera helix*
Japanese honeysuckle* .....*Lonicera japonica*
jasmine* .....*Jasminum polyanthum*
kahikatea .....*Dacrycarpus dacrydioides*
kaikomako.....*Pennantia corymbosa*
kamahi.....*Weinmannia racemosa*
kanuka.....*Kunzea ericoides*
karaka.....*Corynocarpus laevigatus*
karamu .....*Coprosma robusta*
kawakawa.....*Macropiper excelsum*
kiekie.....*Freycinetia baueriana*
kikiyu* .....*Pennisetum clandestinum*
kohuhu .....*Pittosporum tenuifolium*
koromiko.....*Hebe salicifolia*
kowhai.....*Sophora microphylla*
lemonwood.....*Pittosporum eugenioides*
macrocarpa* .....*Cupressus macrocarpa*
mahoe.....*Melicytus ramiflorus*
matai.....*Prumnopitys taxifolia*
Mexican daisy* .....*Erigeron karvinskianus*
miro.....*Prumnopitys ferruginea*

Montpellier broom* ..... *Teline monspessulana*
mountain cedar ..... *Libocedrus bidwillii*
mountain totara ..... *Podocarpus hallii*
ngaio ..... *Myoporum laetum*
nikau ..... *Rhopalostylis sapida*
old man's beard* ..... *Clematis vitalba*
pampas* ..... *Cortaderia* sp.
pigeonwood ..... *Hedycarya arborea*
pink pine ..... *Halocarpus biformis*
pokaka ..... *Elaeocarpus hookerianus*
ponga ..... *Cyathea dealbata*
poplar* ..... *Populus* sp.
pukatea ..... *Laurelia novae-zelandiae*
radiata pine* ..... *Pinus radiata*
red beech ..... *Nothofagus fusca*
red mistletoe ..... *Peraxilla tetrapetala*
redwood* ..... *Sequoia sempervirens*
rimu ..... *Dacrydium cupressinum*
silver beech ..... *Nothofagus menziesii*
silver wattle* ..... *Acacia dealbata*
southern rata ..... *Metrosideros umbellata*
Spanish heath* ..... *Erica lusitanica*
strawflower* ..... *Helichrysum bracteatum*
sycamore* ..... *Acer pseudoplatanus*
Tasmanian blackwood* ..... *Acacia melanoxylon*
tawa ..... *Beilschmieda tawa*
titoki ..... *Alectryon excelsus*
turepo ..... *Streblus heterophyllus*
wheki-ponga ..... *Dicksonia squarrosa*
wandering willie* ..... *Tradescantia fluminensis*
wattle* ..... *Acacia* sp.
woolly nightshade* ..... *Solanum mauritianum*
yellow mistletoe ..... *Alepis flavida*
yew* ..... *Taxus baccata*

Animal Species

Common name ..... Scientific name

banded kokopu ..... *Galaxias fasciatus*
bellbird ..... *Anthornis melanura melanura*
blue duck ..... *Hymenolaimus malacorhynchos*
brown creeper ..... *Mohoua novaeseelandiae*
brown trout* ..... *Salmo trutta*
cat* ..... *Felis catus*
common bully ..... *Gobiomorphus cotidianus*
common gecko ..... *Hoplodactylus maculatus*
common skink ..... *Oligosoma nigriplantare polychroma*
deer* ..... *Cervus elaphus scoticus*
fantail ..... *Rhipidura fuliginosa fuliginosa*
forest gecko ..... *Hoplodactylus granulatus*
giant kokopu ..... *Galaxias argenteus*
goat* ..... *Capra hircus*
grey warbler ..... *Gerygone igata*
inanga ..... *Galaxias maculatus*

karearea/NZ falcon.....*Falco novaeseelandiae*
kereru/New Zealand pigeon.....*Hemiphaga novaeseelandiae novaeseelandiae*
koaro .....*Galaxias brevipinnis*
koura .....*Paranephrops planifrons*
longfin eel .....*Anguilla dieffenbachii*
morepork.....*Ninox novaeseelandiae novaeseelandiae*
Nelson green gecko.....*Naultinus stellatus*
pig* .....*Sus scrofa*
possum* .....*Trichosurus vulpecula*
red-crowned parakeet/kakariki.....*Cyanoramphus novaezelandiae novaezelandiae*
redfin bully.....*Gobiomorphus huttoni*
rifleman.....*Acanthisitta chloris chloris*
robin.....*Petroica australis australis*
shortfin eel .....*Anguilla australis*
silvereye .....*Zosterops lateralis lateralis*
smelt.....*Retropinna retropinna*
tomtit.....*Petroica macrocephala macrocephala*
spotted skink .....*Oligosoma lineoocellatum*
tui .....*Prosthemadera novaeseelandiae novaeseelandiae*
upland bully .....*Gobiomorphus breviceps*
weka.....*Gallirallus australis australis*
yellow-crowned parakeet/kakariki.....*Cyanoramphus auriceps auriceps*

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