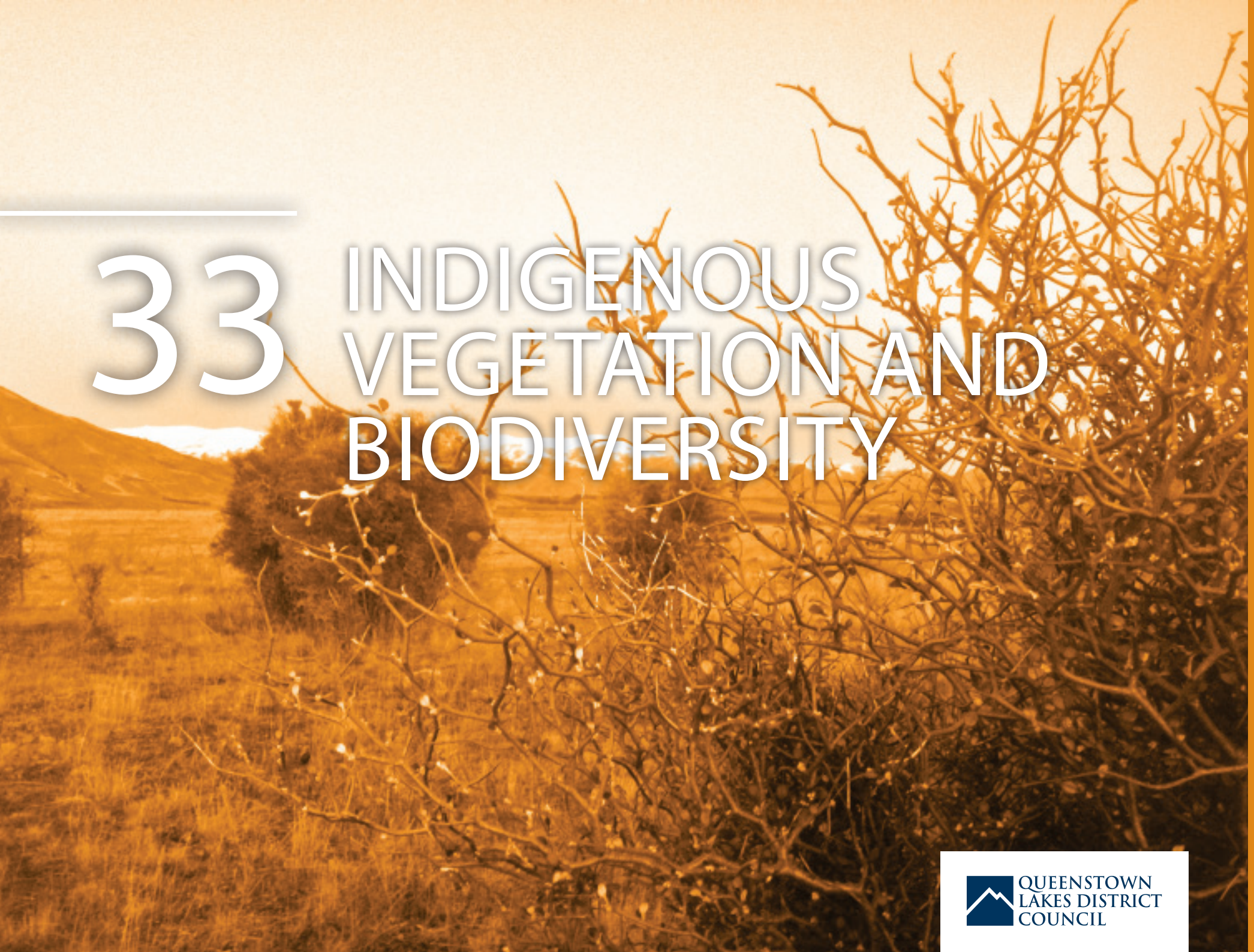
33 INDIGENOUS VEGETATION AND BIODIVERSITY



QUEENSTOWN LAKES DISTRICT COUNCIL

33.1 Purpose

The District contains a diverse range of habitats that support indigenous plants and animals. Many of these are endemic, comprising forests, shrubland, herbfields, tussock grasslands, wetlands, lake and river margins. Indigenous biodiversity is also an important component of ecosystem services and the District's landscapes.

The Council has a responsibility to maintain indigenous biodiversity and to recognise and provide for the protection of significant indigenous vegetation and significant habitats of indigenous fauna, which are collectively referred to as Significant Natural Areas (SNAs).

Such activities as ski-field development within identified Ski Area Sub Zones, farming, fence, road and track construction can be reasonably expected to be undertaken providing such activities maintain or enhance the District's indigenous biodiversity values. In addition, there are ski-field developments where vegetation clearance is already managed under separate legislation such as the Conservation Act or the Land Act.

The limited clearance of indigenous vegetation is permitted, with discretion applied through the resource consent process to ensure that indigenous vegetation clearance activities exceeding the permitted limits protect, maintain or enhance indigenous biodiversity values. Where the clearance of indigenous vegetation would have significant residual effects after avoiding, remedying or mitigating adverse effects, opportunities for biodiversity offsetting are encouraged.

Alpine environments are identified as areas above 1070m and are among the least modified environments in the District. Due to thin and infertile soils and severe climatic factors, establishment and growth rates in plant life are slow, and these areas are sensitive to modification. In addition, because these areas contribute to the District's distinctive landscapes, and are susceptible to exotic pest plants, changes to vegetation at these elevations may be conspicuous and have significant effects on landscape character and indigenous biodiversity.

The District's lowlands comprising the lower slopes of mountain ranges and valley floors have been modified by urban growth, farming activities and rural residential development. Much of the indigenous vegetation habitat has been removed and these areas are identified in the Land Environments of New Zealand Threatened Environment Classification as either acutely or chronically threatened environments, having less than 20% indigenous vegetation remaining.

33.2 Objectives and Policies

33.2.1 Objective - Indigenous biodiversity is protected, maintained and enhanced.

Policies

33.2.1.1 Identify the District's Significant Natural Areas, including the ongoing identification of Significant Natural Areas through the resource consent process, using the criteria set out in Policy 33.2.1.8, and schedule them in the District Plan to assist with their management for protection.

33.2.1.2 Provide standards in the District Plan for indigenous vegetation that is not identified as a Significant Natural Area, which are practical to apply and that permit the clearance of a limited area of indigenous vegetation.

33.2.1.3 Have regard to and take into account the values of tangata whenua and kaitiakitanga.

33.2.1.4 Encourage the long-term protection of indigenous vegetation and in particular Significant Natural Areas by encouraging land owners to consider non-regulatory methods such as open space covenants administered under the Queen Elizabeth II National Trust Act 1977.

33.2.1.5 Undertake activities involving the clearance of indigenous vegetation in a manner that ensures the District's indigenous biodiversity is protected, maintained or enhanced.

33.2.1.6 Manage the adverse effects of activities on indigenous biodiversity by:

a. avoiding adverse effects as far as practicable and, where total avoidance is not practicable, minimising adverse effects;

b. requiring remediation where adverse effects cannot be avoided;

c. requiring mitigation where adverse effects on the areas identified above cannot be avoided or remediated;

d. requiring any residual adverse effects on significant indigenous vegetation or indigenous fauna to be offset through protection, restoration and enhancement actions that achieve no net loss and preferably a net gain in indigenous biodiversity values, having particular regard to:

    i. limits to biodiversity offsetting due the affected biodiversity being irreplaceable or vulnerable;

    ii. the ability of a proposed offset to demonstrate it can achieve no net loss or preferably a net gain;

    iii. Schedule 33.8 – Framework for the use of Biodiversity Offsets;

e. enabling any residual adverse effects on other indigenous vegetation or indigenous fauna to be offset through protection, restoration and enhancement actions that achieve no net loss and preferably a net gain in indigenous biodiversity values having particular regard to:

    i. the ability of a proposed offset to demonstrate it can achieve no net loss or preferably a net gain;

    ii. Schedule 33. 8 – Framework for the use of Biodiversity Offsets.

33.2.1.7 Protect the habitats of indigenous fauna, and in particular, birds in wetlands, beds of rivers and lakes and their margins for breeding, roosting, feeding and migration.

33.2.1.8 Determine the significance of areas of indigenous vegetation and habitats of indigenous fauna by applying the following criteria:

a. Representativeness

    Whether the area is an example of an indigenous vegetation type or habitat that is representative of that which formerly covered the Ecological District;

OR

b. Rarity

Whether the area supports;

i. indigenous vegetation and habitats within originally rare ecosystems;

ii. indigenous species that are threatened, at risk, uncommon, nationally or within the ecological district;

iii. indigenous vegetation or habitats of indigenous fauna that has been reduced to less than 10% of its former extent, regionally or within a relevant Land Environment or Ecological District;

OR

c. Diversity and Pattern

Whether the area supports a highly diverse assemblage of indigenous vegetation and habitat types, and whether these have a high indigenous biodiversity value including:

i. indigenous taxa;

ii. ecological changes over gradients;

OR

d. Distinctiveness

Whether the area supports or provides habitats for indigenous species:

i. at their distributional limit within Otago or nationally;

ii. are endemic to the Otago region;

iii. are distinctive, of restricted occurrence or have developed as a result of unique environmental factors;

OR

e. Ecological Context

The relationship of the area with its surroundings, including whether the area proposed to be cleared:

i. has important connectivity value allowing dispersal of indigenous fauna between different areas;

ii. has an important buffering function to protect values of an adjacent area or feature;

iii. is important for indigenous fauna during some part of their life cycle.

33.2.2 Objective - Significant Natural Areas are protected, maintained and enhanced.

Policies

33.2.2.1 Avoid the clearance of indigenous vegetation within scheduled Significant Natural Areas, and those other areas that meet the criteria in Policy 33.2.1.8, that would reduce indigenous biodiversity values.

33.2.2.2 Allow the clearance of indigenous vegetation within Significant Natural Areas only in exceptional circumstances and ensure that clearance is undertaken in a manner that retains the indigenous biodiversity values of the Significant Natural Area.

33.2.2.3 Provide for small scale, low impact indigenous vegetation removal to enable the maintenance of existing fences and tracks in recognition that the majority of Significant Natural Areas are located within land used for rural activities.

33.2.3 Objective - Land use and development maintains indigenous biodiversity values.

Policies

33.2.3.1 Ensure the clearance of indigenous vegetation within the margins of water bodies does not reduce natural character and indigenous biodiversity values, or create erosion.

33.2.3.2 Encourage opportunities to remedy adverse effects through the retention, rehabilitation or protection of the same indigenous vegetation community elsewhere on the site.

33.2.3.3 Encourage the retention and enhancement of indigenous vegetation including in locations that have potential for regeneration, or provide stability, and particularly where productive values are low, or in riparian areas or gullies.

33.2.3.4 Have regard to any areas in the vicinity of the indigenous vegetation proposed to be cleared, that constitute the same habitat or species which are protected by covenants or other formal protection mechanisms.

33.2.4 Objective - Indigenous biodiversity and landscape values of alpine environments are protected from the effects of vegetation clearance and exotic tree and shrub planting.

Policies

33.2.4.1 Protect the alpine environments from vegetation clearance as those environments contribute to the distinct indigenous biodiversity and landscape qualities of the District and are vulnerable to change.

33.2.4.2 Protect the alpine environment from degradation due to planting and spread of exotic species.

33.3 Other Provisions and Rules

33.3.1 District Wide

Attention is drawn to the following District Wide chapters.

1	Introduction	2	Definitions	3	Strategic Direction
4	Urban Development	5	Tangata Whenua	6	Landscapes and Rural Character
25	Earthworks	26	Historic Heritage	27	Subdivision
28	Natural Hazards	29	Transport	30	Energy and Utilities
31	Signs	32	Protected Trees	34	Wilding Exotic Trees
35	Temporary Activities and Relocated Buildings	36	Noise	37	Designations
	Planning Maps				

33.3.2 Interpreting and Applying the Rules

33.3.2.1 Compliance with any of the following Standards, in particular the permitted Standards, does not absolve any commitment to the conditions of any relevant land use consent, consent notice or covenant registered on the site's computer freehold register.

33.3.2.2 Where an activity does not comply with a Standard listed in the Standards table, the activity status identified by the 'Non-Compliance Status' column applies.

33.3.2.3 The rules in Chapter 33 apply to all parts of the District, including formed and unformed roads, whether zoned or not.

33.3.2.4 The following abbreviations are used in the tables. Any activity that is not permitted (P) or prohibited (PR) requires resource consent.

P	Permitted	C	Controlled	RD	Restricted Discretionary
D	Discretionary	NC	Non-Complying	PR	Prohibited

33.3.3 Rules: Application of the indigenous vegetation rules

33.3.3.1 For the purposes of determining compliance with the rules in Tables 1 - 4, indigenous vegetation must be measured cumulatively over the area(s) to be cleared.

33.3.3.2 Rules 33.5.1 and 33.5.2 shall apply where indigenous vegetation attains 'structural dominance' and the indigenous vegetation exceeds 50% of the total area to be cleared or total number of species present of the total area to be cleared.

33.3.3.3 Rules 33.5.1 and 33.5.2 4 shall apply where indigenous vegetation does not attain structural dominance and exceeds 67% of the total area to be cleared, or total number of species present of the total area to be cleared.

33.3.3.4 Structural dominance means indigenous species that are in the tallest stratum.

33.3.3.5 Rules 33.3.3.2 and 33.3.3.3 do not apply to Significant Natural Areas listed in Schedule 33.7. In a Significant Natural Area all clearance is subject to Rules 33.5.4 and 33.5.5.

Advice Notes

Refer to the Planning Maps and Part 33.7 for the Schedule of Significant Natural Areas.

33.4 Rules - Clearance of Indigenous Vegetation

Table 1	Any activity involving the clearance of indigenous vegetation, earthworks within SNAs and the planting of exotic plant species shall be subject to the following rules:	Activity Status
33.4.1	Activities that do not breach any of the Standards in Tables 2 to 4.	P
33.4.2	Notwithstanding Table 3, activities in any area identified in the District Plan maps and scheduled as a Significant Natural Area that is, or becomes protected by a covenant under the Queen Elizabeth II National Trust Act 1977.	P
33.4.3	Indigenous vegetation clearance for the operation and maintenance of existing and in service/operational roads, tracks, drains, utilities, structures and/or fence lines, but excludes their expansion.	P
33.4.4	Indigenous vegetation clearance for the construction of walkways or trails up to 1.5 metres in width provided that it does not involve the clearance of trees greater than a height of 4 metres.	P
33.4.5	Indigenous vegetation clearance within the Ski Area Sub Zones on land administered under the Conservation Act 1987 where the relevant approval has been obtained from the Department of Conservation, providing that: a. the indigenous vegetation clearance does not exceed the approval by the Department of Conservation; b. prior to the clearance of indigenous vegetation, the Council is provided with the relevant application and approval from the Department of Conservation.	P

Table 1	Any activity involving the clearance of indigenous vegetation, earthworks within SNAs and the planting of exotic plant species shall be subject to the following rules:	Activity Status
33.4.6	Clearance of indigenous trees that have been wind thrown and/or are dead standing as a result of natural causes and have become dangerous to life or property.	P
33.4.7	Any clearance of indigenous vegetation within 20m of the bed of a water body.	D

33.5 Rules - Standards for Permitted Activities

Table 2	Clearance of indigenous vegetation not located within a Significant Natural Area or within Alpine Environments:	Non-Compliance
33.5.1	Where indigenous vegetation is less than 2.0 metres in height. In any continuous period of 5 years the maximum area of indigenous vegetation that may be cleared is limited to: 33.5.1.1 500m^2 on sites that have a total area of 10ha or less; and 33.5.1.2 5,000m^2 on any other site.	D
33.5.2	Where indigenous vegetation is greater than 2.0 metres in height: In any continuous period of 5 years the maximum area of indigenous vegetation that may be cleared is limited to: 33.5.2.1 50m^2 on sites that have a total area of 10ha or less; and 33.5.2.2 500m^2 on any other site.	D

Table 3	Activities within Significant Natural Areas identified in Schedule 33.7 and on the District Plan maps:	Non-Compliance
33.5.3	Earthworks must: 33.5.3.1 be to enable the maintenance of existing fences and tracks; and 33.5.3.2 be less than 50m^2 in any one hectare in any continuous period of 5 years; and 33.5.3.3 not be undertaken on slopes with an angle greater than 20°.	D
33.5.4	The clearance of indigenous vegetation must not exceed 50m^2 in area in any continuous period of 5 years.	D
33.5.5	The clearance of exotic vegetation that is specified indigenous fauna habitat must not exceed 50m^2 in area in any continuous period of 5 years.	D
33.5.6	There must be no planting of any exotic species.	D

Table 4	Activities within Alpine Environments – land 1070 metres above sea level:	Non-Compliance
33.5.7	The following rules apply to any land that is higher than 1070 meters above sea level: 33.5.7.1 indigenous vegetation must not be cleared; 33.5.7.2 exotic species must not be planted. Except where indigenous vegetation clearance is permitted by Rule 33.4.5	D
	Clarification: For the purpose of the clearance of indigenous vegetation by way of burning, the altitude limit of 1070 metres means the average maximum altitude of any land to be burnt, averaged over north and south facing slopes.	

33.6 Rules - Non-Notification of Applications

The provisions of the RMA apply in determining whether an application needs to be processed on a notified basis. No activities or non-compliances with the standards in this chapter have been identified for processing on a non-notified basis.

33.7 Schedule of Significant Natural Areas

Identifier	Map Number	SNA Site Name	Property or location Reference	Description/Dominant Indigenous Vegetation
A10C	9	SNA C Mount Alfred Faces	Mt Earnslaw Station, Glenorchy	Mixed beech forest, montane and sub-alpine shrubland and sub-alpine short tussock land.
A8A	12	SNA A Fan Creek Shrublands	Mt Creighton Station	Grey shrubland. Old matagouri with Olearia odorata, Coprosma propinqua, Aristotelia fruticosa, Carmichaelia petriei and briar.
A8B	12	SNA B Lake Face Shrublands	Mt Creighton Station	Broadleaf indigenous hardwood community. Common species within this community include: Griselinia littoralis, Olearia spp., cabbage tree, Pseudopanax sp., marble leaf and Coprosma spp..
A8C	9, 10, 12, 13	SNA C Sites 1 to 9 Manuka Shrublands	Mt Creighton Station	Extensive shrublands of manuka.
A8D	12	SNA D Moke Creek Wetland	Mt Creighton Station	Wetland marsh.
A23A	12, 38	SNA A	Closeburn	Shrubland dominated by manuka and Coprosma propinqua.
B3A	8	SNA A	Mt Burke Station	Shrubland consisting of kanuka (Kunzea ericoides), manuka (Leptospermum scoparium), matagouri (Discaria toumatou), kowhai (Sophora sp.) and briar (Rosa rubiginosa).

Identifier	Map Number	SNA Site Name	Property or location Reference	Description/Dominant Indigenous Vegetation
B3B	8, 18	SNA B	Mt Burke Station	Woodland dominated by kanuka, but also contains a stand of halls totara (Podocarpus cunninghamii) on rubbly slopes at the head of the catchment and kowhai (Sophora sp.) in the upper kanuka forest.
B3C	8	SNA C	Mt Burke Station	Woodland dominated by halls totara (Podocarpus cunninghamii) and mountain toatoa (Phyllocladus alpinus).
B11A	4	SNA A Sites 1 to 2 Estuary Burn	Minaret Station	Kanuka woodland with a minor component of matagouri and mingimingi.
B11C	4	SNA C Sites 1 to 6 Bay Burn	Minaret Station	Kanuka dominated woodland with a minor component of matagouri and mingimingi and regenerating broadleaved species.
B11D	4, 7	SNA D Minaret Burn	Minaret Station	Shrubland mosaic consisting of manuka/kanuka woodland and broadleaved indigenous hardwoods and beech forest.
B11F	4	SNA F Minaret Bay Riparian	Minaret Station	Indigenous broadleaved hardwoods.
B15A	4, 5	SNA A Sites 1 to 3 Mt Albert Burn & Craigie Burn Kanuka Woodlands	Mt Albert Station	Lakeshore fan communities - dense kanuka forest on flat river fans where the Craigie Burn and Albert Burn flow into the lake. The wet flats on the north side of the Albert Burn contain an excellent population of Olearia lineata growing along a small stream.
B15B	2, 5	SNA B Sites 1 to 5 Lake face shrublands and forest	Mt Albert Station	Beech forest remnants in several gullies and spreading onto some adjacent rolling country and generally surrounded by regenerating manuka shrubland.
B16A	8	SNA A Long Valley Creek	Glen Dene Station	Shrubland mosaic consisting of manuka woodland, broadleaved indigenous hardwoods and beech forest.
B16B	5	SNA B Sites 1 to 3 Lake Wanaka Shrublands	Glen Dene Station	Shrubland mosaic consisting of manuka woodland, broadleaved indigenous hardwoods and beech forest.
C14A	13, 13a	SNA A Sites 1 to 5 Remarkables Face SNA	Remarkables Station	Remnant broadleaf forest forming a buffer to Wye Creek and a good representation of sub-alpine shrubland occurring on several of the south faces of the steep spurs descending from the west faces of the Remarkables, as well as remnant totara logs.
C24A	13	SNA A Wye Creek SNA	Lake Wakatipu Station	Shrubland dominated by bracken fern and Pittosporum tenuifolium, but also including tutu, Coprosma propinqua, Griselinia littoralis, manuka, Hebe salicifolia, matagouri, mistletoe sp., Carmichaelia sp., and Cordyline australis.
D1A	13	SNA A	Loche Linnhe Station	Grey shrubland consisting of Olearia odorata, Olearia fimbriata, Discaria toumatou, Coprosma propinqua, Coprosma rugosa, Melicytus alpinus, Muehlenbeckia complexa, and Rubus schmidelioides.
D1B	13	SNA B Sites 1 to 3	Loche Linnhe Station	Forest and shrubland consisting of Griselinia littoralis, Aristotelia serrata, Olearia arborescens, Metrosideros umbellata, Carpodetus serratus, Fuschia excorticata, Sophora microphylla, Pittosporum tenuifolium, Pseudopanax crassifolium and Coriaria arborea.

Identifier	Map Number	SNA Site Name	Property or location Reference	Description/Dominant Indigenous Vegetation
D1C	15	SNA C	Loche Linnhe Station	Beech forest dominated by mountain beech (Nothofagus solandri. cliffortoides) with occasional mature red beech (Nothofagus fusca), located above the highway.
D1D	15	SNA D	Loche Linnhe Station	Grey shrubland and pasture grassland. Species recorded include tree daisys (Olearia odorata, Olearia fimbriata), matagouri, Coprosma propinqua, briar and Melicytus alpinus.
D1E	15	SNA E	Loche Linnhe Station	Beech forest dominated by mountain beech (Nothofagus solandri. cliffortoides), with occasional mature red beech (Nothofagus fusca).
D4A	15	SNA A Halfway Bay Lake Shore	Lake Wakatipu Station	Red and mountain beech forest in gullies, broadleaf lakeshore forest (including kowhai, broadleaf, occasional southern rata, Olearia species and Coprosma species) and regenerating broadleaf forest, shrubland, bracken fernland, occasional gorse and wild conifers.
D5A	13, 13b	SNA A Sites 1 to 7 Lakeshore Gullies	Cecil Peak Station	Beech forest, shrubland, bracken fernland and pasture grasses.
D6A	12, 13	SNA A McKinlays Creek	Walter Peak Station/Cecil Peak Station	Mountain beech forest with remnant and regenerating shrubland on steep, rocky slopes and exotic grassland that follows along a vehicle track.
D6B	14	SNA B Von – White Burn	Walter Peak Station	A series of extensive ponds and bogs with red tussock merging into dryland hard tussockland.
D7A	12, 14	SNA A Sites 1 to 2 North Von, Lower Wetlands	Mt Nicholas Station/Walter Peak Station	Lacustrine wetland, swamp, marshland and bog.
D7B	12, 14	SNA B North Von, Central Wetlands	Mt Nicholas Station	Palustrine wetlands and sub alpine bogs.
D7C	12	SNA C Sites 1 to 3 North Von, Upper Wetlands	Mt Nicholas Station	Cushion bog, sedgeland, rushland and turf communities containing plants typical of these communities.
D7D	14	SNA D North Von Lower Wetlands	Mt Nicholas Station	A kettle lake, kettle holes and adjacent wetlands and ephemeral wetlands.
E18B	8, 18	SNA B	Watkins Rd, Hawea Flat	Mosaic of short tussock grassland, cushionfields and herbfields.
E18C	8, 18	SNA C	Mt Iron	Kanuka woodland.
E18D	8, 18	SNA D Sites 1 to 2	Mt Iron	Kanuka woodland.
E18G	8	SNA G	Wanaka-Luggate Hwy, Upper Clutha River	Kanuka woodland with some small areas of short tussock grassland dominated by introduced grasses.
E18H	8, 18	SNA H	Mt Iron	Kanuka woodland.
E19A	8	SNA A	Glenfoyle Station	Kanuka woodland.
E19B	8, 11	SNA B	Glenfoyle Station	Kanuka woodland, dominated by kanuka but also including a more diverse plant assemblage in the gully bottoms including matagouri, Coprosma propinqua and tree daisys (Olearia sp.).

Identifier	Map Number	SNA Site Name	Property or location Reference	Description/Dominant Indigenous Vegetation
E19C	8, 11	SNA C	Glenfoyle Station	Kanuka woodland.
E30A	8, 11, 11a	SNA A Dead Horse Creek	Lake McKay Station	Kanuka woodland dominated by kanuka, but also includes shrubland species such as matagouri, native broom, Coprosma propinqua and mature stands of Olearia lineata.
E30B	8, 11	SNA B Sites 1 to 4 Tin Hut Creek	Lake McKay Station	Kanuka woodland dominated by kanuka but also includes other shrubland species such as matagouri, native broom, and Coprosma propinqua.
E30C	11	SNA C Alice Burn Tributary	Lake McKay Station	Grey shrubland, which includes significant populations of Olearia lineata.
E30D	8, 11, 18a	SNA D Luggate Creek	Lake McKay Station	Kanuka woodland dominated by kanuka but also includes other shrubland species such as matagouri, native broom, and Coprosma propinqua.
E30E	8, 11	SNA E Sites 1 to 2 Lake McKay	Lake McKay Station	Kanuka woodland dominated by kanuka but also includes other shrubland species such as matagouri, native broom, and Coprosma propinqua.
E30F	8, 11	SNA F Alice Burn	Lake McKay Station	Kanuka woodland dominated by kanuka but also includes other shrubland species such as matagouri, native broom, and Coprosma propinqua.
E35A	8, 11	Sites 1 to 11 Sheepskin Creek	Luggate-Cromwell Road, Upper Clutha.	Diverse kanuka, and mixed kanuka/mingimingi–matagouri, scrub/shrubland communities in mid to lower reaches of the Sheepskin Creek catchment with intervening areas of pasture.
E37A	8, 11	SNA A	Kane Road – Hawea Back Road, Hawea Flat	Grey shrubland on rocky outcrop, including Coprosma intertexta, Coprosma propinqua, Coprosma tayloriae, Coprosma rigida, Coprosma crassifolius, Carmichaelia petriei, Melicytus alpinus, Discaria toumatou, Pteridium esculentum, Muehlenbeckia complexa and Cordyline australis.
E38A	8, 18a	SNA A Sites 1 to 5	Stevensons Road, Clutha River	Cushion fields (including Pimelea sericeovillosa subsp. pulvinaris) and kanuka stands.
E39A	8, 18, 24b	SNA A	Dublin Bay Road, Albert Town, Wanaka.	Short tussock grassland and cushion field.
E44A	8	SNA A Sites 1 to 2	Te Awa Road Hawea River	Hard tussock grassland with shrubland species, including kanuka, Ozothamnus leptophyllus and matagouri.
E45A	8	SNA A Sites 1 to 2	Te Awa Road Hawea River	Kanuka stands with other native species interspersed including Coprosma propinqua, Ozothamnus leptophyllus, matagouri and stands of bracken fern.
F2A	10	SNA A	Branch Creek, Cardrona Valley	Shrubland including Dracophyllum longifolium, Dracophyllum uniflorum, Olearia avicennifolia, Olearia arborscens, Olearia nummularifolia, Olearia odorata, and Coprosma propinqua, with a small pocket of silver beech forest.

Identifier	Map Number	SNA Site Name	Property or location Reference	Description/Dominant Indigenous Vegetation
F2B	10	SNA B Sites 1 to 3	Branch Creek, Cardrona Valley	Shrubland consisting of matagouri, Olearia odorata, Olearia bullata, Aristotelia fruiticosa, Coprosma propinqua, Coprosma tayloriae, Carmichaelia petriei, sweet briar, elderberry, Melicytus alpinus, Rubus schmidelioides and Meuhlenbeckia australis.
F2C	10	SNA C Sites 1 to 2	Branch Creek, Cardrona Valley	Shrubland consisting of matagouri, Olearia odorata, Olearia bullata, Aristotelia fruiticosa, Coprosma propinqua, Carmichaelia petriei, sweet briar, elderberry, Melicytus alpinus, Rubus schmidelioides and Meuhlenbeckia australis.
F2D	10	SNA D	Branch Creek, Cardrona Valley	Shrubland consisting of matagouri, Olearia odorata, Olearia bullata, Aristotelia fruiticosa, Coprosma propinqua, Coprosma tayloriae, Carmichaelia petriei, sweet briar, elderberry, Melicytus alpinus, Rubus schmidelioides and Meuhlenbeckia australis.
F21A	10	SNA A	Hillend Station, Wanaka	Coprosma-matagouri-Olearia shrubland with some elder and briar and a small pocket of silver beech forest.
F21B	10	SNA B Sites 1 to 3	Hillend Station, Wanaka	Shrubland including matagouri, Coprosma propinqua, kanuka – manuka, Olearia odorata, briar and elder.
F21C	10	SNA C Sites 1 to 2	Hillend Station, Wanaka	Beech forest fragments with extensive areas of regenerating shrubland.
F22A	10	SNA A Sites 1 to 2 Back Creek	Back Creek, Cardrona Valley.	Grey shrubland dominated by Olearia odorata, Coprosma propinqua and matagouri.
F26A	10	SNA A	Avalon Station, Cardrona Valley	Grey shrubland including Coprosma propinqua, matagouri, Olearia odorata and briar.
F26B	10	SNA B	Avalon Station, Cardrona Valley	Grey shrubland including Olearia spp., Coprosma propinqua, matagouri and Corokia cotoneaster.
F26C	10	SNA C Sites 1 to 3	Avalon Station, Cardrona Valley	Grey shrubland including Olearia lineata, Coprosma propinqua, matagouri, Hebe salicifolia and Carmichaelia kirkii.
F31A	13, 15a	SNA A Kawarau Faces	Waitiri Station, Kawarau Gorge.	Shrubland heavily dominated by matagouri and sweet briar but also includes Coprosma propinqua and to a lesser degree Olearia odorata.
F32A	13, 30	SNA A Sites 1 to 3 Owen Creek	Remarkables Range.	Grey shrubland dominated by Olearia species, Coprosma propinqua, Discaria toumatou, Carmichaelia petriei, Melicytus alpinus, Rubus schmidelioides and Meuhlenbeckia species.
F32B	13, 30	SNA B Rastus Burn	Remarkables Range.	Grey shrubland dominated by Olearia species, Coprosma propinqua, Discaria toumatou, Carmichaelia petriei, Melicytus alpinus, Rubus schmidelioides, and Meuhlenbeckia species.
F40A	13, 15a	SNA A	Gibbston Valley	Grey shrubland largely dominated by matagouri and Coprosma propinqua, but also includes populations of Olearia spp. and Muehlenbeckia complexa.

Identifier	Map Number	SNA Site Name	Property or location Reference	Description/Dominant Indigenous Vegetation
F40B	13, 15a	SNA B	Gibbston Valley	Grey shrubland including Olearia odorata, Olearia lineata, Discaria toumatou, Coprosma propinqua, Melicytus alpinus, Muehlenbeckia complexa, Rubus schmidelioides, Carmichaelia petriei, Clematis quadribracteolata and Hebe salicifolia.
F40C	13, 15a	SNA C	Gibbston Valley	Grey shrubland.
F40D	13, 15a	SNA D	Gibbston Valley	Grey shrubland dominated by matagouri and kowhai, but also includes Coprosma propinqua, Melycitus alpinus, Coprosma crassifolia and Muehlenbeckia complexa.
G28A	10, 26	SNA A Site 6	Coronet Peak (Bush Creek)	Olearia odorata–matagouri shrubland.
G28A	10, 26	SNA A Site 7	Coronet Peak (Bush Creek)	Mountain beech forest.
G33A	10	SNA A	Ben Lomond Station, Upper Shotover River	Mixed mingimingi–matagouri–Olearia spp. shrubland.
G33B	10	SNA B	Ben Lomond Station, Upper Shotover River	Mixed mingimingi–matagouri–Olearia spp. shrubland.
G33C	9	SNA C	Ben Lomond Station, Upper Shotover River	Extensive manuka scrub & shrubland community and mountain beech forest.
G34A	7	SNA A	Alpha Burn Station, West Wanaka	Kanuka, mingimingi-matagouri-kohuhu-broadleaf-manuka/ bracken shrubland.
G34B	7	SNA B	Alpha Burn Station, West Wanaka	Kohuhu-broadleaf shrubland merging with mingimingi-matagouri/ bracken shrubland.
G34C	7	SNA C	Alpha Burn Station, West Wanaka	Mixed broadleaf–kohuhu–mingimingi–matagouri–bracken shrubland.
G34D	7	SNA D	Alpha Burn Station, West Wanaka	Mixed beech forest, manuka forest, montane shrubland.
2A	5	Hunter River Delta	G38 270 557	WERI: A braided river used for fishing and recreational boating activities. An important site for bird breeding.
16A	10	Caspar Flat Bush	E40 669 936	SSWI: An area with mountain beech. Bird species present include yellow breasted tit, rifleman, grey warbler and silvereye. Reasonable canopy but low plant diversity (natural for environment).
17A	10	Left Branch bush	E40 665 925	SSWI: An area of mountain beech, mountain toatoa, small leaf Coprosmas and ferns. A very steep south facing habitat. Reasonable canopy but very little plant diversity (natural for environment). Bird species include yellow breasted tit, rifleman, silvereye and grey warbler. Some large slips.
18A	10	Butchers Gully Bush	E40 665 906	SSWI: An area with mountain beech and mountain toatoa. Bird species include grey warbler, rifleman and yellow breasted tit. A steep south facing habitat. Reasonable canopy but little plant diversity. Some slipping.

Identifier	Map Number	SNA Site Name	Property or location Reference	Description/Dominant Indigenous Vegetation
35A	9, 10	Mount Aurum Remnants	S123 520 930	SSWI: An area with mountain beech, situated in gullies and on southern faces. Reasonable canopy, but low plant diversity. Yellow breasted tit, rifleman and grey warbler present.
38A	12	Moke Lake	S132 470 738	WERI, SSWI: A steep montane lake surrounded by tussock farmland. Brown trout fishery.
40A	12	Lake Isobel	S132 406 807	WERI: A lake with restiad bog and tussock land (Chionochloa species).
41A	12	Lake Kirkpatrick	S132 477 704	WERI, SSWI: A sub-alpine lake with Carex bog and surrounded by tussock farmland. Common native water-fowl present. More important as trout fishery.
42A	12, 38	Few Creek Bush (includes 127)	S132 440 675	SSWI: A moderate sized plain beech forest (red beech, mountain beech) with common forest birds, including brown creeper, fantail, bellbird, rifleman, grey warbler and yellow breasted tit.
43A	12, 38	Twelve Mile Bush	S132 420 655	SSWI: Reasonable sized bush with more diversity than usual, with red beech, mountain beech, broadleaf shrubbery, bracken and tussock surrounds. Good range of common forest birds, including brown creeper, fantail, bellbird, rifleman, grey warbler and yellow breasted tit. Very good lakeshore diversity.
57A	31	Lake Johnson	F41 735 695	WERI, SSWI: An eutrophied lowland lake, rush and sedge swamp (Carex species - Cyperaceae).
69A	13	Shadow Basin Tarn	F41 798 639	Montane lake and montane flush surrounded by steep slopes of snow tussock, cushion vegetation and herb fields.
71A	13	Lake Alta (adjoins 70)	F41 801 632	WERI: A montane lake surrounded by steep snow tussock slopes with extensive cushion vegetation and herb fields.
72A	13	Upper Wye Lakes	F41 812 612	WERI: Four montane lakes surrounded by scree and snow tussock. Cushion vegetation and herb fields.
91A	5	Dingle Lagoon	G39 220 347	WERI SSWI: A lagoon with a sloping edge with good plant communities and populations of paradise shelduck, mallard, grey duck and Canada geese.
114A	6, 9	Mt Earnslaw Forest and Bush Remnants	E40	SSWI: A healthy area of bush with red beech, totara, mountain beech, Grisilinea, fuchsia, wineberry, Coprosma sp., hard fern. Good numbers of bush birds present, including yellow breasted tit, rifleman, bellbird, grey warbler and silvereye.
126A	32	Gorge Road Wetland	S132 555 720	Significant site of insects and plants (Carox socta).

33.8 Framework for the use of biodiversity offsets

The following sets out a framework for the use of biodiversity offsets. It should be read in conjunction with the NZ Government Guidance on Good Practice Biodiversity Offsetting in New Zealand, August 2014:

a. restoration, enhancement and protection actions will only be considered a biodiversity offset where they are used to offset the anticipated residual effects of activities after appropriate avoidance, minimisation, remediation and mitigation actions have occurred as per Policy 33.2.1.6, i.e. not in situations where they are used to mitigate the adverse effects of activities;

b. a proposed biodiversity offset should contain an explicit loss and gain calculation and should demonstrate the manner in which no net loss or preferably a net gain in biodiversity can be achieved on the ground;

c. a biodiversity offset should recognise the limits to offsets due to irreplaceable and vulnerable biodiversity and its design and implementation should include provisions for addressing sources of uncertainty and risk of failure of the delivery of no net loss;

d. restoration, enhancement and protection actions undertaken as a biodiversity offset are demonstrably additional to what otherwise would occur, including that they are additional to any remediation or mitigation undertaken in relation to the adverse effects of the activity;

e. offset actions should be undertaken close to the location of development, where this will result in the best ecological outcome;

f. the values to be lost through the activity to which the offset applies are counterbalanced by the proposed offsetting activity which is at least commensurate with the adverse effects on indigenous biodiversity, so that the overall result is no net loss, and preferably a net gain in ecological values;

g. the offset is applied so that the ecological values being achieved through the offset are the same or similar to those being lost;

h. as far as practicable, the positive ecological outcomes of the offset last at least as long as the impact of the activity, and preferably in perpetuity. Adaptive management responses should be incorporated into the design of the offset, as required to ensure that the positive ecological outcomes are maintained over time;

i. the biodiversity offset should be designed and implemented in a landscape context – i.e. with an understanding of both the donor and recipient sites role, or potential role in the ecological context of the area;

j. the development application identifies the intention to utilise an offset, and includes a biodiversity offset management plan that:

    i. sets out baseline information on indigenous biodiversity that is potentially impacted by the proposal at both the donor and recipient sites;

    ii. demonstrates how the requirements set out in this appendix will be addressed;

    iii. identifies the monitoring approach that will be used to demonstrate how the matters set out in this appendix have been addressed, over an appropriate timeframe.

(While this appendix sets out a framework for the use of biodiversity offsets in the Queenstown Lakes District Council District Plan, many of the concepts are also applicable to other forms of effects management where an overall outcome of no net loss and preferably a net gain in biodiversity values are not intended, but restoration and protection actions will be undertaken).