

- 9.20.3.4 The effect of activities over an extended period of time, having regard to 9.20.3.1 – 9.20.3.3 above.

9.21 ACTIVITIES AND CLEARANCE OF INDIGENOUS VEGETATION AND INDIGENOUS PLANT SPECIES

Note:

These rules are an interim measure to protect potential areas of significant conservation value until the notification of a variation (or plan change) addressing indigenous vegetation. These interim rules and any appendices, definitions and methods that are specific only to these rules are to be reconsidered as part of the variation process. The Council undertakes to review these rules with a view to notifying a variation (or plan change) by 28 February 2009.

There are rules both for the clearance of areas containing indigenous vegetation which covers plant communities as defined in the Plan and for the clearance of individual threatened indigenous plant species. Rules 9.21.1.1 and 9.21.1.2 apply down to the level of individual plants; Rules 9.21.1.3 to 9.21.1.6 apply to indigenous vegetation communities as defined. The effect of the definition of indigenous vegetation is that it is permitted to clear indigenous species if the area to be cleared does not meet the criteria contained in the definition of indigenous vegetation and as long as none of the individual plants to be destroyed are listed in Appendix 13 or Appendix 14.

Permitted Activities – Activities and Clearance of Indigenous Vegetation and Indigenous Plant Species

- 9.21.1 The clearance of indigenous vegetation and indigenous plant species shall be a permitted activity provided that all of the following conditions are met:
- 9.21.1.1 The indigenous plant species are not listed in Appendix 13 (Schedule of Threatened and Uncommon Plants);
 - 9.21.1.2 For clearance of indigenous plant species on the Canterbury Plains, the species is not contained in Appendix 14 (Schedule of Regionally Significant Plants on the Canterbury Plains);
 - 9.21.1.3 The indigenous vegetation is not located above 900m above mean sea level;
 - 9.21.1.4 The indigenous vegetation is not located in a naturally occurring wetland;
 - 9.21.1.5 The indigenous vegetation clearance does not exceed 100m² per hectare in any continuous 3 year period within a distance of 20m of any lake, any naturally occurring wetland or any river or stream; and
 - 9.21.1.6 No clearance of indigenous vegetation shall exceed:
 - (a) 5,000m² in area on any site in any continuous period of three years, except where the vegetation clearance is carried out within an area of improved pasture; or
 - (b) 500m² in area in any continuous period of three years, where the indigenous vegetation has a closed canopy over that area and the average height of that canopy is greater than or equal to 3m; or

- (c) 500m² in area of matagouri (in one continuous block of indigenous vegetation), in any continuous period of three years, where the average height of the canopy of the matagouri is greater than or equal to 1.5m; or;
- (d) 1,000m² of Chionochloa spp (tall tussock) in any continuous period of three years, except where this occurs as a secondary component within an area of improved pasture.

For the purposes of this standard:

Improved pasture shall mean an area of pasture where species composition and growth has clearly been modified and enhanced for livestock grazing by cultivation or top-dressing and over-sowing, or direct drilling, and where exotic pasture species are obvious;

The canopy height is to be determined over each area of 1 hectare, where the vegetation is greater than 1 hectare in area or over the lesser area where the area of vegetation is less than 1 hectare.

9.21.2 Rule 9.21.1 does not apply to the following:

- 9.21.2.1 Vegetation which was planted for harvesting, shelter belt or amenity purposes;
- 9.21.2.2 Indigenous vegetation which is an understorey within a plantation forest, or indigenous vegetation which is an area within a plantation forest where, during the previous or current rotation, either seedlings did not strike or trees were wind thrown; or indigenous vegetation which is to be cleared to re-establish access tracks previously used for planting, maintenance or harvesting of a plantation forest.
- 9.21.2.3 Re-establishment of access tracks previously used for planting, maintenance or harvesting of a forestry activity;
- 9.21.2.4 Maintenance of existing utilities (including irrigation infrastructure), tracks, drains, structures, roads, fire breaks and fence lines but not their extension;
- 9.21.2.5 Clearance of land planted in exotic species but containing sparsely distributed wetland plants.

Discretionary Activities – Activities and Clearance of Indigenous Vegetation and Indigenous Plant Species

9.21.3 Any activity which does not comply with Rule 9.21.1.4, 9.21.1.5 or 9.21.1.6 shall be a discretionary activity.

Non-Complying Activities – Activities and Clearance of Indigenous Vegetation and Indigenous Plant Species

9.21.4 Any activity which does not comply with Rule 9.21.1.1, 9.21.1.2, 9.21.1.3 or 9.21.1.4 shall be a non-complying activity.

APPENDIX 12

PROCESS AND CRITERIA FOR IDENTIFYING SIGNIFICANT SITES

Introduction

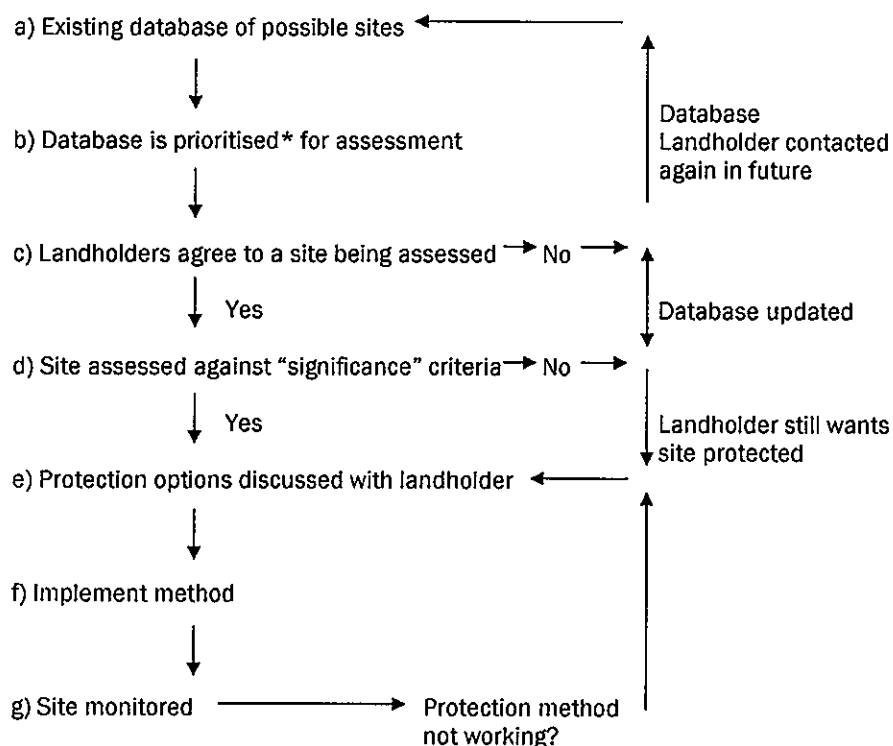
Appendix 12 outlines the process the Council will use to identify whether a site is a “significant area of indigenous vegetation or habitat of indigenous fauna”, under section 6 (c) of the Act.

The appendix describes:

- the processes used to identify possible sites;
- the criteria used to assess if these sites are “significant”; and
- the process for protecting “significant” sites.

Identifying Sites

1. Voluntary Agreements



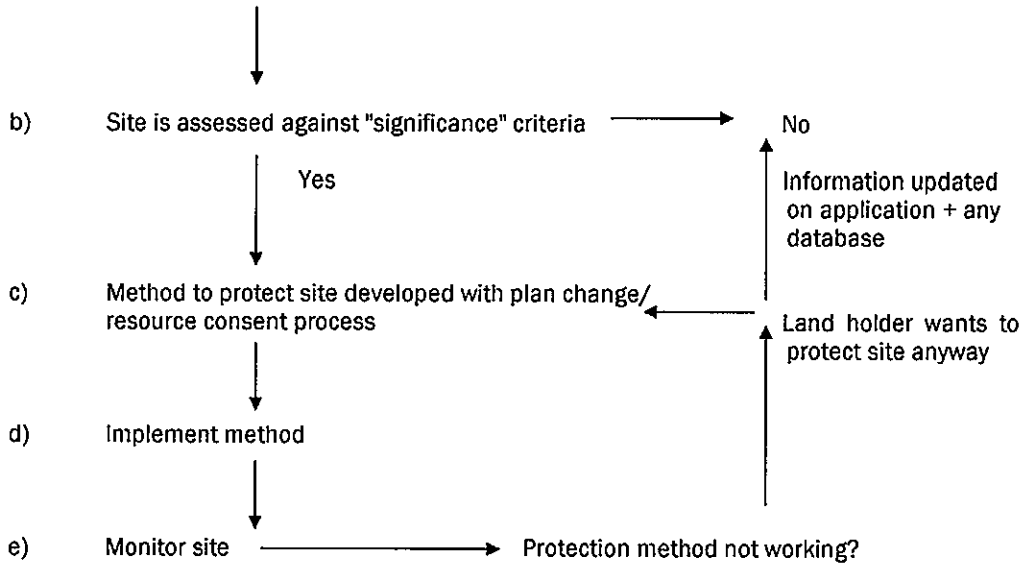
* Priority based on changes in activities on the site, site location, and site type.

2) Plan Changes or Resource Consents

a) i) Site is subject to a plan change

Or

ii) Site is subject to a resource consent for an activity where "ecological values" are considered.



Significant Criteria

- A site is assessed to see if it is “significant” under section 6(c) of the Act, using the seven criteria listed in Table E12.1.
- Each site is ranked “high”, “medium”, or “low” on each criterion.
- As a guide a site that has one or more “high” rankings, or five or more “medium rankings among the primary criteria will be considered for protection. A site that has four “medium” rankings among the primary criteria will be considered for protection if it ranks highly for the secondary criteria.

For example, a site that has one “high” ranking and six “lows” may be “significant” if the “high” ranking is for “rarity or special features”. It may be less “significant” if the “high” ranking is for “surrounding land uses and conditions.”

A site with four “mediums”, three “lows” and a willing landholder may be protected before a similar site with five “mediums”, two “lows” and an unwilling landholder.

3) Variation to Identify Sites for Inclusion in District Plan

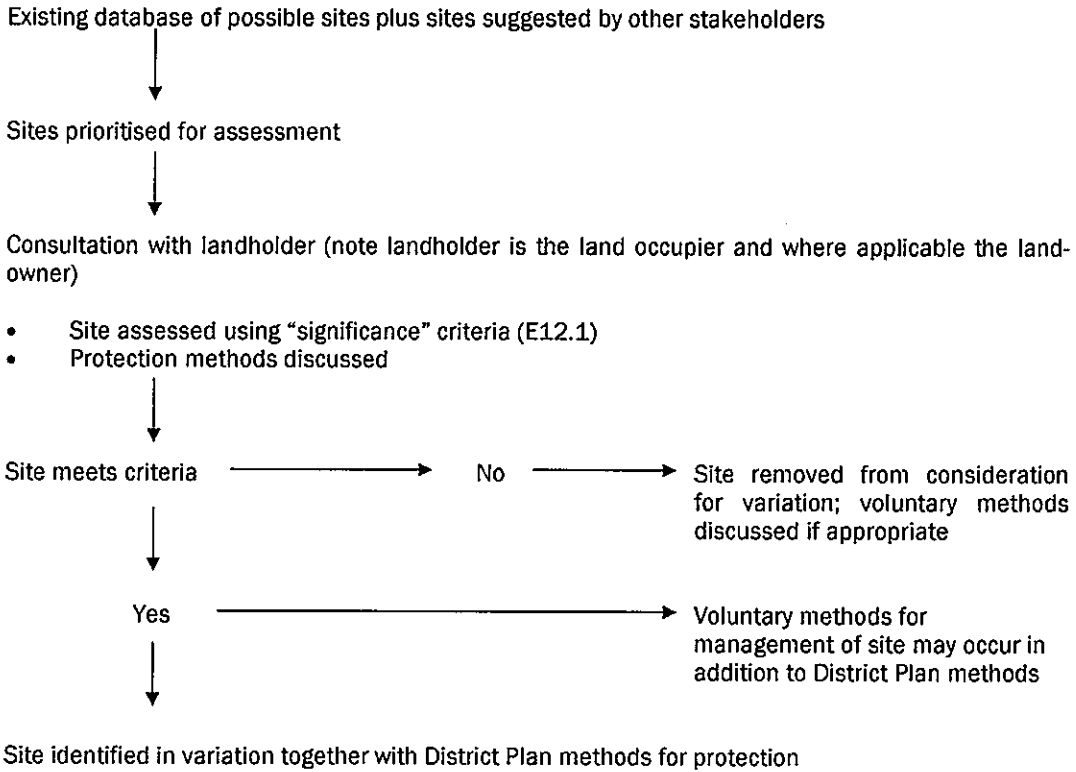


Table E12.1 – Criteria for Assessment of Areas of Significant Indigenous Vegetation

Primary Criteria	Description
Representativeness	<p>The degree to which current vegetation and fauna is representative of that which formerly occupied Selwyn District, measured at the scale of ecological districts. This identifies the ecosystems that have suffered the greatest impact from human activities. It can be assessed at two baseline levels, (1) at the time of European settlement or (2) prior to human arrival. The extent to which the LENZ environment(s) of the site are represented within the protected natural area should also be assessed.</p> <p>This criterion places a site which is poorly represented within an ecological district at a higher ranking than a site which is represented in proportion to its original extent. This is because Selwyn District Council wants to concentrate their initial efforts on vegetation types that have suffered the greatest impact from human activities</p>
Examples	
High	<p>Podocarp forest or dry kanuka woodland on the Canterbury Plains.</p> <p>Bog pine/mountain toa-toa woodland of intermontane basins.</p> <p>Red tussock grasslands.</p> <p>Sand dunes dominated by indigenous species.</p>
Medium	<p>High country mountain beech forest.</p>
Low	<p>Alpine snow tussock grasslands.</p>

Primary Criteria	Description
Diversity and Pattern	<p>Diversity is the number of indigenous habitats and species contained in an area. Like habitats must be compared with like because diversity differs markedly between different habitats. Pattern refers to changes in the distribution and abundance of species/habitats across the site, and is driven by underlying variation in the environment, e.g. aspect differences, natural disturbance, altitudinal change, soil characteristics. It can be represented by successional sequences and ecological gradients. High species diversity provides for greater interaction between species while habitat diversity allows ecological processes (e.g. dispersal, nutrient transfer) to operate across different ecosystems.</p> <p>Containing diverse habitats and strong ecological variation at a higher ranking than similar sites that are less diverse and contain only one habitat. This is because Selwyn District Council wants to concentrate their initial efforts on sites which have the greatest potential to preserve ecological processes and interactions.</p>
Examples	
High	<p>Sand dunes with many indigenous species.</p> <p>An intact gradient from wetland through shrubland forest.</p>
Medium	<p>Grazed shrublands with several shrub species present.</p>
Low	<p>A uniform patch of tussock grassland with exotic intertussock vegetation.</p> <p>Low-stature matagouri in rough pasture.</p>

Primary Criteria	Description
Rarity and Special Features	<p>Rarity refers to the presence of threatened or naturally rare indigenous species, and the degree to which types of habitat or ecosystem have been reduced from their former extent. It should be assessed on both a national scale and on the scale of ecological districts. Special features refers to any unusual natural biotic or abiotic characteristic of the site which contributes to its value, for example distinctive landforms such as limestone outcrops or caves; the presence of unusual associations of species; species at their distribution limits.</p> <p>This criterion places sites which contain rare species or special features at a higher priority than sites where these features are not known to occur. This is because Selwyn District Council wants to concentrate their initial efforts on sites which are of greatest importance for conserving indigenous biodiversity.</p>
Examples	
High	<p>Site contains a species listed as 'gradual decline' or higher under the New Zealand Threat Classification System (Hitchmough 2002).</p> <p>Wetlands or sand dunes dominated by indigenous species.</p> <p>Rare plants growing on a limestone outcrop.</p> <p>A site containing species at their distribution limits.</p>
Medium	<p>Site contains a species listed as 'sparse', 'range restricted', or 'data deficient' under the New Zealand Threat Classification System (Hitchmough 2002).</p> <p>Vegetation is very common within the district but uncommon elsewhere.</p>
Low	<p>Site contains no rare or threatened species and the vegetation type is very common within the district and elsewhere.</p>

Primary Criteria	Description
Naturalness	<p>The extent to which the site has been modified directly or indirectly by human activities. For most sites in Selwyn District the extent of modification by fire, habitat destruction, logging, or pest impacts will be quite evident. For some larger or less accessible sites, the indigenous character may be relatively intact compared to smaller and less isolated sites.</p> <p>This criterion places sites showing evidence of disturbance at a lower ranking than sites which are apparently undisturbed and predominantly indigenous in character. This is because Selwyn District Council wants to concentrate their initial efforts on the most intact sites.</p>
Examples	
High	<p>Ungrazed alpine snow tussock grasslands with minor occurrences of exotic species.</p> <p>Forest on the Port Hills with emergent podocarps and few exotic understorey species</p>
Medium	<p>Secondary forest without podocarps.</p> <p>Montane tussock grasslands where indigenous woody plants are scarce</p>
Low	<p>Scattered indigenous shrubs and trees in stands of gorse or broom.</p> <p>Dunes dominated by marram grass and other exotic species.</p> <p>Short tussocks in pasture on foothills.</p>

Primary Criteria	Description
Ecological Context	<p>The degree to which an area of indigenous habitat or vegetation has links to other such areas or contributes to the ecological significance of the immediate vicinity. Such areas have a significant ecological function if they are within the flying distance for the majority of native birds or if they increase habitat suitability for terrestrial and aquatic fauna by providing cover, shelter, food or nesting sites, or provide a buffer from adverse impacts.</p> <p>The intention of this criterion is to ensure that the ecological functions of areas of indigenous vegetation are taken into consideration. The criterion places sites that are well-buffered and help to maintain ecological processes in the surrounding environment at a higher priority than sites which are poorly buffered and do not contribute to the functioning of neighbouring ecosystems. This is because Selwyn District Council wants to concentrate their initial efforts on sites that are the most important for maintenance of ecological function and linkages.</p>
Examples	
High	<p>Continuous riparian forest</p> <p>Wetlands with links to river systems.</p> <p>Coastal shrublands providing nesting habitat for seabirds.</p> <p>Whole catchments covered by indigenous vegetation.</p>
Medium	<p>Stands of flax or kowhai in rough pasture that provide a seasonal food source for tui and bellbird.</p>
Low	<p>Kanuka woodland surrounded by pasture and crops and distant from other areas of indigenous forest.</p>

Primary Criteria	Description
Size and Shape	<p>This criterion refers to the size of an area of vegetation or habitat and the degree to which its shape influences the viability of the site. Large sites are likely to meet the habitat requirements of a greater range of species because they contain more resources (e.g. nesting habitat; flowers and fruit) than small sites. Shape determines the ratio of 'core' to 'edge' habitat within a patch of vegetation. For a fixed patch size, a compact shape will contain more 'core' habitat than a linear patch, or a patch with irregular boundaries. Adverse effects such as exposure to wind, stock browse, and weed invasion are more important at the edges of a patch.</p> <p>For a given vegetation type, large, compact sites will be accorded higher priority than small sites with irregular boundaries. This is because Selwyn District Council wants to concentrate their initial efforts on sites that have the greatest chance of remaining viable.</p>
Examples	
High	<p>Compact areas of forest >9 ha.</p> <p>Large areas of alpine tussock grassland.</p>
Medium	Linear remnants of riparian forest or shrubland.
Low	Scattered mountain beech trees in an area of pasture.

Primary Criteria	Description
Fragility, Threat and Buffering	<p>Refers to any specific threats to the site and its overall susceptibility and resilience to the effects of such threats. The degree to which the site is buffered (i.e. protected from threats) is important. This is related to surrounding vegetation and landuse and the degree of topographic protection. Threats include factors such as fire and invasion of pest plants and animals. Different vegetation types might be equally at risk but differ markedly in resilience - for example adjacent hill country forest remnants and montane tussock grasslands might be equally exposed to fire but the tussock grassland would be much more likely to recover from its effects. The nature of the threat must also be assessed, i.e. whether the risk can be easily reduced by a small management change or whether it is not easily mitigated.</p> <p>Areas of well-buffered or resilient vegetation with few or easily-mitigated threats will be accorded higher priority than highly susceptible sites exposed to chronic threats that are not easily mitigated. This is because Selwyn District Council wants to concentrate their initial efforts on sites that have the greatest chance of remaining viable.</p>
Examples	
High	<p>(High = more threatened , fragile)</p> <p>Mountain toatoa and bog pine stands in tussock grasslands under pastoral management.</p> <p>Sand dune communities not yet invaded by marram grass.</p>
Medium	<p>Unfenced forest remnants surrounded by pasture.</p> <p>Tussock grassland with scattered wilding conifers</p>
Low	<p>Ungrazed alpine snow tussock grasslands.</p> <p>Extensive high country mountain beech forests.</p>

Protection Options

- Protection of “significant sites” is in partnership with landholders and other stakeholders, through either:
 - Voluntary (process 1);
 - Plan changes and resource consents (process 2); or
 - District Plan identification and rules (process 3).
- The method(s) used to protect a site is/are specific to each site, taking into account the factors listed in Table E12.2, and any other relevant matters including objectives, policies or rules in this Plan.

Table E12.2 – Factors to Consider in Protecting Significant Sites

Factor	Explanation
Landholder	Views on protecting the site. Activities they want to undertake on and around the site. Preferred options. Willing to be involved in managing or enhancing the site. Willing to have other groups involved.
Site Characteristics	What work is needed to maintain or protect the site? What is the cost and feasibility of that work? How much “effort” is needed relative to its ecological “significance?” Are there other similar sites that are easier to maintain?
Options available	What “protection” options are available for that site? Is the land regulated by other statutes; e.g., Crown Pastoral Land Act 1998? Is there high demand for re-zoning and subdivision, e.g., Port Hills and around Christchurch?
Cost of various options	Relative costs of “protection” options compared with the protection levels they give. Costs of protection options compared with the “significance” of the site.
Interested parties	Are there other interested parties willing to help fund the protection of a site? Does the landholder want other parties involved? NOTE: The involvement of other parties does not confer any rights of access or ownership to these parties
Other values	Does the site have other values as well as being ecologically significant? For example is it an outstanding natural feature or part of an outstanding landscape; or is it a heritage site, waahi tapu site, or site of mahinga kai? Do these other values make some protection methods for the site more cost-effective?

Protection Methods

Table E12.3 provides examples of some of the options that may be used to protect sites. The list is not exhaustive. Options should be tailored to meet the specific needs of each site.

Table E12.3 – Examples of Protection Options

Option	Comments
Do nothing	<p>The site is not under any threats from existing or proposed land uses.</p> <p>Other “protection” mechanisms already apply to the land.</p> <p>The land holder is already contemplating protection through another process; e.g., tenure review.</p> <p>The general (interim) rules for indigenous vegetation will apply through the District Plan in any case.</p>
Tenure review	<p>If a landholder is contemplating tenure review, assessing the “significance” of sites may assist in establishing their value to be “traded”.</p>
Covenants	<p>Legal protection of the site.</p> <p>Landholder retains ownership and may be able to negotiate some “use” rights or conditions.</p> <p>Good for small sites; or sites scattered amongst a large property; or where land owner is reluctant to have a site change ownership.</p>
Management plans	<p>Can be voluntary or incorporated into District Plan (legally enforceable).</p> <p>Good where owner wants to continue some use of the site or may want to undertake an activity in the future which may not be allowed if he/she allows the site to be protected or enhanced now.</p>
Purchase	<p>Council may consider purchasing a very special site.</p> <p>Other private organisations may purchase sites.</p> <p>Need to be large enough to be self-sustaining, have access for maintenance.</p> <p>Council may not purchase sites unless there are recreational benefits for ratepayers.</p>

APPENDIX 13

SCHEDULE OF THREATENED AND UNCOMMON PLANTS**Schedule of Threatened and Uncommon Plants (based on de Lange et al. 1999, N.Z.J. Bot. 37(4): 603-629)**

Beech forest	<i>Alepis flavida</i>
Beech forest	<i>Peraxilla colensoi</i>
Beech forest	<i>P.tetrapetala</i>
Beech forest and sub-alpine shrublands	<i>Pittosporum patulum</i>
Bluffs	<i>Ischnocarpus novae-zelandiae</i>
Bluffs Port Hills	<i>Myosotis australis</i> var. <i>lytteltonensis</i>
Bluffs Port Hills	<i>Anogramma leptophylla</i>
Foot hills forest	<i>Melicytus flexuosus</i>
Foot hills forests	<i>Coprosma obconica</i> sens. Str.
Foot hills forests	<i>C.pedicellata</i>
Foot hills bluffs	<i>C.torulosa</i>
Grey (small leaved) shrubland – Montane	<i>Helichrysum dimorphum</i>
Grey (small leaved) shrubland – Montane	<i>Hebe cupressoides</i>
Grey (small leaved) shrubland – Montane	<i>Coprosma intertexta</i>
Grey (small leaved) shrubland – Montane/Port Hills	<i>Olearia fimbriata</i>
Grey (small leaved) shrubland – Montane	<i>Carmichaelia crassicaule</i>
Grey (small leaved) shrubland – Montane	<i>C.kirkii</i>
Grey (small leaved) shrubland – Montane	<i>Coprosma wallii</i>
Lake and tarn margins	* <i>C.juncea</i>
Limestone bluffs	<i>Carex inopinata</i>
Limestone bluffs	<i>Australopyrum calcis</i> subsp. <i>Optatum</i>
Limestone bluffs	<i>Myosotis colensoi</i>
Lowland forest	<i>Heostylus mciranthus</i>
Lowland forest	<i>Teucrium parvifolium</i>
Lowland forest	<i>Tupeia Antarctica</i>

Beech forest	<i>Alepis flavida</i>
Lowland forest	<i>Brachyglottis sciadophila</i>
Lowland forest and shrublands	<i>O.fragrantissima</i>
Lowland forest and shrublands	<i>Anemanthele lessoniana</i>
Lowland shrubland	<i>Muehlenbeckia astonii</i>
Lowland shrublands	<i>Senecio dunedinensis</i>
Lowland wetlands	<i>Urtica linearifolia</i>
Lowland/montane forest	<i>Pseudopanax ferox</i>
Lowland/montane forest and shrublands	<i>Korthalsella salicornioides</i>
Montane and subalpine shrublands	<i>Hebe armstrongii</i>
Montane wetlands	<i>Amphibromus fluitans</i>
River beds	<i>Muehlenbeckia ephedroides</i>
Saline wetlands	<i>Sebaea ovata</i>
Short tussock grassland	<i>Brachyscome pinnata</i>
Short tussock grassland	<i>Chenopodium detestans</i>
Short tussock grassland	<i>Lepidium sisymbrioides</i> subsp. <i>Sisymbrioides</i>
Snow tussock grassland	<i>Montigena novae-zelandiae</i>
Snow tussock grassland	<i>E.nitidulus</i>
Tarn margins	<i>Crassula peduncularis</i>
Tarn margins	<i>Gratiola nana</i>
Tarn margins	<i>Iphigenia novae-zelandiae</i>
Tarn margins	<i>Isolepis basilaris</i>
Tarn margins	<i>Cardamine (a)</i> (CHR 312947; Tarn")
Tarn margins/river beds	<i>Luzula celata</i>
Tarn/lake margins	<i>Gnaphalium luteo-album</i> var. <i>compactum</i>
Wetlands	* <i>Juncus holoschoenus</i> var. <i>Holoschoenus</i>
Wetlands	<i>Carex tenuiculmis</i>
Wetlands	<i>Deschampsia caepitosa</i> var. <i>macrantha</i>
Wetlands	<i>Ucinia strictissimi</i>
Wetlands	<i>Plantago obconica</i>

*Presumed extinct in Canterbury

APPENDIX 14

**SCHEDULE OF REGIONALLY SIGNIFICANT PLANTS ON THE
CANTERBURY PLAINS**

Species	Common name	Plant type	Information Source
<i>Aciphylla subflabellata</i>	Speargrass	Dicot herb	Plains survey
<i>Austrofestuca littoralis</i>	Sand tussock	Grass	Johnson 1992
<i>Carmichaelia australis</i>	Native broom	Shrub	Heenan 1996
<i>Carmichaelia monroi</i>	Native broom	Shrub	Heenan 1995
<i>Chionochloa rubra</i>	Red tussock	Grass	Plains survey
<i>Dacrycarpus dacrydioides</i>	Kahikatea	Tree	Plains survey
<i>Dacrydium cupressinum</i>	Rimu	Tree	Plains survey
<i>Daucus glochidiatus</i>		Dicot herb	Heenan1
<i>Desmoschoenus spiralis</i>	Pingao	Sedge	Johnson 1992
<i>Discaria toumatou</i>	Matagouri	Shrub	Plains survey
<i>Eleocharis neozelandica*</i>	Sand spike sedge	Rush	Dopson et al. 1999
<i>Kunzea ericoides</i>	Kanuka	Tree	Plains survey
<i>Melicytus alpinus</i>	Porcupine shrub	Shrub	Plains survey
<i>Olearia adenocarpa</i>		Shrub	Heenan & Molloy 2004
<i>Prumnopitys taxifolia</i>	Matai	Tree	Plains survey
<i>Pseudopanax ferox</i>	Fierce lancewood	Tree	Shanks et al. 1990
<i>Ranunculus ternatifolius</i>		Dicot herb	Heenan pers. comm.
<i>Sophora microphylla</i>	Kowhai	Tree	Plains survey
<i>Sophora prostrata</i>	Prostrate kowhai	Shrub	Plains survey

