Christchurch District Plan
Site of Ecological Significance

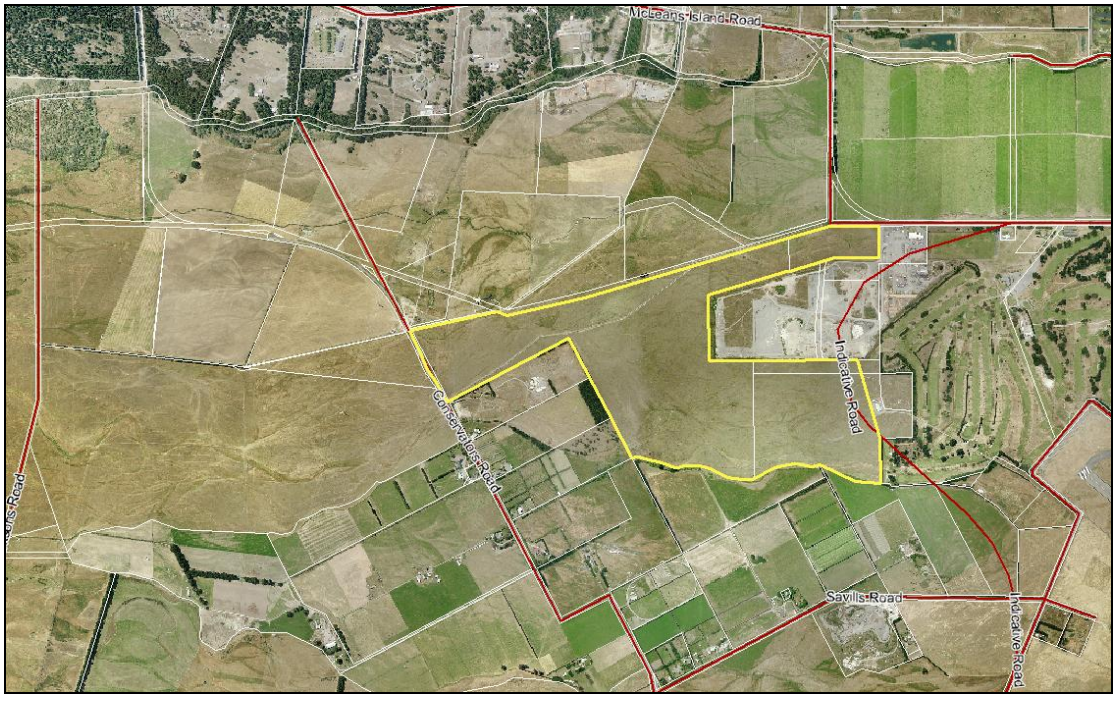
Site Significance Statement

Site name:		Conservators Road Dry Plains Grassland
Site number:		SES/LP/16
Physical address of site:	**(1)**	151 Conservators Road Harewood
	(2)	891 Pound Road Harewood

Summary of Significance:

The Conservators Road Dry Grasslands site is significant because it contains a relatively large area of vegetation that is representative of the Low Plains Ecological District including threatened plant and invertebrate species.

Site Map



Additional Site Information

Central point NZTM: N5185629, E1560041

Area of SES (ha): 69.90 ha

Site Description

The dry plains grasslands in this area of Christchurch represent what is left of once extensive areas of former stony Waimakariri River bed and river terraces. The sheep-grazed semi-natural grasslands contain a range of significant communities supporting populations of indigenous plants and insects. The site is different from most of the other savannah grasslands in that the soils are deeper so it is more completely vegetated than other old river channels and terrace sites.

Extent of Site of Ecological Significance

This SES extends eastward from the edge of the carriageway on Conservators Road (i.e. including the grass verge within the road reserve) and includes the entire CCC owned parcel of land, and extends into the Christchurch International Airport owned land as shown on the location map.

Assessment Summary

The Conservators Road Dry Plains Grasslands Site has been evaluated against the criteria for determining significant indigenous vegetation and significant habitat of indigenous fauna listed in Appendix 3 of the Canterbury Regional Policy Statement (Environment Canterbury, 2013) (see below) referring also to the Wildland Consultants (2013) Guidelines and advice from the relevant Specialist Ecologist Groups. Under these criteria the site is ecologically significant because it meets the representativeness (criterion 1 & 2), and rarity/distinctiveness criteria (criteria 3 & 4).

Assessment against Significance Criteria

Representativeness

1. Indigenous vegetation or habitat of indigenous fauna that is representative, typical or characteristic of the natural diversity of the relevant ecological district. This can include degraded examples where they are some of the best remaining examples of their type, or represent all that remains of indigenous biodiversity in some areas.

The site is significant under this criterion.

Despite being degraded, this site contains vegetation that is representative of the natural diversity of the Low Plains Ecological District, and combined with landforms comprises an area that is most similar in composition and structure to those communities that existed in 1840.

Vascular plant species observed at the site during a rapid survey in September 2014 include the following[1]:

- *Carex breviculmis* sedge
- *Carex resectans* sedge
- *Carmichaelia australis* broom
- *Carmichaelia corrugate* prostrate broom
- *Connorchloa tenuis*
- *Crassula colligata*
- *Dichondra brevifolia* dichondra
- *Dichondra repens* dichondra
- *Discaria toumatu* matagouri
- *Leptinella serrulata* leptinella
- *Leucopogon fraseri*
- *Melicytus alpinus* porcupine shrub
- *Microtis unifolia* orchid
- *Muehlenbeckia axillaris* pohuehue
- *Muehlenbeckia ephedroides* poheuhue
- *Oxalis exilis* oxalis
- *Olearia adenocarpa* plains olearia
- *Poa maniatoto* a grass
- *Raoulia monroi* raoulia
- *Scleranthus uniflorus* cushion plant
- *Sophora microphylla* South Island kowhai
- *Wahlenbergia gracilis*

[1] Site visit and rapid survey of site undertaken by Dr Antony Shadbolt (CCC Project Ecologist), Brian Patrick (Wildlands Consultants) and Arthur Adcock (CCC Ranger Services) in August 2014 (See also Patrick 2014).

Thirteen species of indigenous bryophytes and lichens were recorded by Meurk *et al.* (1993) from within the site, and although not surveyed as part of this assessment are also considered likely to still occur within this site.

- *Barbula crinita*
- *Cladia aggregata*
- *Cladonia spp.*
- *Hypnum cupressiforme*
- *Neofuscelia spp.*
- *Peltigera spuria*
- *Polytrichum juniperinum*
- *Pseudocyphellaria coerulescens*
- *Racomitrium lanuginosum*
- *Tortula princeps*
- *Triquetrella papillata*
- *Weissia controcersa*
- *Xanthoparmelia tasmanica*

Indigenous invertebrate species present within this site include wolf spiders, the undescribed boulder copper butterfly (Canterbury boulder copper of Patrick & Patrick, 2012), and the following species recorded by Patrick (2014).

- *Arctesthes catapyrrha* (geometrid)
- *Capua semiferana*
- *Conocephalius semivittatus* (grassland katydid)
- *Eudonia submarginalis*
- *Eudonia manganeutis*
- *Eurythecta robusta* (tortricid moth)
- *Monomorium antarcticum* (native ant)
- *Nysius huttoni* (small bug)
- *Orocrambus corruptus*
- *Orocrambus cyclopicus*
- *Orocrambus ordishi* (with flightless female)
- *Phaulacridium marginale* (small grasshopper)
- *Pteronemobius bigelowi* (field cricket)
- *Pterophorus innotatalis* (plume moth).
- *Scoparia exilis*

2. Indigenous vegetation or habitat of indigenous fauna that is a relatively large example of its type within the relevant ecological district.

The site is significant under this criterion.

Indigenous dryland vegetation on the Canterbury Plains comprises only fragments of what was previously present, and although there are other tiny dryland fragments nearby to the site, none still contain native plants (Partridge 2007). At 69.90 hectares, this site is considered to comprise a relatively large example of this type of vegetation in the Low Plains Ecological District.

Rarity/Distinctiveness

3. Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former extent in the Region, or relevant land environment, ecological district, or freshwater environment.

The site is significant under this criterion.

This site contains vegetation that has been reduced to less than 20% of its former area in the Low Plains Ecological District. The Threatened Environment Classification reports that less that 10% of indigenous cover remains in the Low Plains Ecological District (See Walker *et al.* 2007; Lloyd *et al.* 2013).

4. Indigenous vegetation or habitat of indigenous fauna that supports an indigenous species that is threatened, at risk, or uncommon, nationally or within the relevant ecological district.

The site is significant under this criterion.

The site contains populations of threatened plant species listed in de Lange *et al.* (2013) including:

- *Carmichaelia corrugata* — At Risk/Declining
- *Leptinella serrulata* — At Risk/Naturally Uncommon
- *Muehlenbeckia ephedroides* — At Risk/Declining
- *Olearia anenocarpa* — Threatened/Nationally Critical
- *Raoulia monroi* — At Risk/Declining

Furthermore, populations of *Melicytus alpinus* and *Carmichaelia australis* within this site are also significant under this criterion as they are considered locally rare, with very few populations remaining in the savannah grasslands (Patrick 2014)

The site hosts populations of the At Risk/Naturally Uncommon tortricid moth (*Eurythecta robusta)* (Patrick 2014).

5. The site contains indigenous vegetation or an indigenous species at its distribution limit within Canterbury Region or nationally.

Site not assessed under this criterion

6. Indigenous vegetation or an association of indigenous species that is distinctive, of restricted occurrence, occurs within an originally rare ecosystem, or has developed as a result of an unusual environmental factor or combinations of factors.

Does not meet criterion

Diversity and Pattern

7. ***Indigenous vegetation or habitat of indigenous fauna that contains a high diversity of indigenous ecosystem or habitat types, indigenous taxa, or has changes in species composition reflecting the existence of diverse natural features or ecological gradients.***

   Does not meet criterion

Ecological Context

8. ***Vegetation or habitat of indigenous fauna that provides or contributes to an important ecological linkage or network, or provides an important buffering function.***

   Does not meet criterion

9. ***A wetland which plays an important hydrological, biological or ecological role in the natural functioning of a river or coastal system.***

   Does not meet criterion

10. ***Indigenous vegetation or habitat of indigenous fauna that provides important habitat (including refuges from predation, or key habitat for feeding, breeding, or resting) for indigenous species, either seasonally or permanently.***

    Site not assessed under this criterion

Site Management

Existing Protection Status

In public ownership

Threats and risks	Management recommendations	Support package options N/A
• Pest plant incursion	• Monitor pest plant infestations and implement weed control as required. • Assess new pest plant incursions and implement control as required • Assess potential for pest plants on adjacent land parcels to spread into the SES and consult with neighbouring property owners/managers regarding control.	•
• Further species loss	• Identify and mark existing native plant populations • Re-introduce recently locally extinct species	•
• Changes to soil structure & fertility as a result of changes in land management that threaten existing ecosystem function	• Implement a land management change process so that inappropriate actions do not occur • Assess any attempts to change the irrigation or fertiliser application regime as part of the land management change process.	•
• Undesirable impacts of grazing	• Develop a stock grazing programme that will allow continued use of the land for grazing purposes whilst preserving the existing ecological values. • Promote research and monitoring to determine most appropriate stock management regime(s).	•

• Browsing damage to plants	• Consider installation of rabbit proof fencing where appropriate within the SES (including individual plant patches) and eradicate pest animals from within fenced area(s)	•
• Fire damage through excessive grass growth	• Ensure that fire risk is kept low without compromising existing ecological values	•
• Inappropriate planting	• Ensure any planting (e.g. farm shelter, restoration plantings) do not compromise existing ecological values.	•

References

De Lange, P. J., Rolfe, J. R., Champion, P .D., Courtney, S. P., Heenan, P. B., Barkla, J. W., Cameron, E. K., Norton, D. A., and Hitchmough, R. A. (2013) *Conservation status of New Zealand indigenous vascular plants, 2012.* Department of *Conservation, Wellington, New Zealand.*

Environment Canterbury (2013) *Canterbury Regional Policy Statement 2013*. Environment Canterbury.

Lloyd, K., McClellan, R., Hutchison, M., Patrick, B., and Shaw, W. (2013) *Guidelines for the application of ecological significance criteria for indigenous vegetation and habitats of indigenous fauna in Canterbury region*. Report prepared for Environment Canterbury by Wildlands Consultants, Rotorua, New Zealand.

Meurk, C. D., Ward, J. C., and O'Connor, K. F. (1993) *Natural areas of Christchurch: evaluation and recommendations for management as heritage.* Christchurch City Council, Christchurch, New Zealand.

Patrick, B. H. (2014) *Christchurch's savannah grasslands (Draft 27th August 2014)*. Unpublished Report for Christchurch City Council (TRIM 14/1419474).

Patrick, B.H. & Patrick, H.J.H. 2012: Butterflies of the South Pacific. University of Otago Press. 250 pages

Walker, S., Cieraad, E., Grove, P., Lloyd, K., Myers, S., and Porteous, T. (2007*) Guide to users of the threatened environment classification.* Landcare Research, Lincoln, New Zealand.

Assessment completed by: Dr Antony Shadbolt
Date: 26th November 2014

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Statement updated by: XXX
Date: XXX

PLEASE NOTE THIS STATEMENT IS BASED ON INFORMATION AVAILABLE AT THE TIME OF WRITING. DUE TO THE DYNAMIC NATURE OF ECOSYSTEMS, FUTURE REASSESSMENT OF THE SITE MAY BE NECESSARY TO REFLECT ANY CHANGES IN KNOWLEDGE OF ITS ECOLOGICAL SIGNIFICANCE.