

West Melton Land Feasibility Assessment: Ecology

✦ Prepared for

Environment Canterbury

✦ December 2025



PATTLE DELAMORE PARTNERS LTD
Level 4, 111 Customhouse Quay
Wellington 6011
PO Box 6136, Wellington 6141, New Zealand

Tel +64 4 471 4130
Web www.pdp.co.nz



solutions for your environment

Quality Control Sheet

TITLE West Melton Land Feasibility Assessment: Ecology

CLIENT Environment Canterbury

ISSUE DATE 15 December 2025

JOB REFERENCE C050830021

Revision History

REV	Date	Status/Purpose	Prepared By	Reviewed by	Approved
1	10/12/2025	Draft for client review	Nicki Papworth	Jarred Arthur	Jarred Arthur
2	15/12/2025	Final	Nicki Papworth	Jarred Arthur	Jarred Arthur

DOCUMENT CONTRIBUTORS

Prepared by

SIGNATURE



Nicki Papworth

Reviewed and Approved by

SIGNATURE



Jarred Arthur

Limitations:

This report has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Environment Canterbury. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the report. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This report has been prepared by PDP on the specific instructions of Environment Canterbury for the limited purposes described in the report. PDP accepts no liability if the report is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

© 2025 Pattle Delamore Partners Limited

Executive Summary

Canterbury Regional Council (Environment Canterbury) is investigating the feasibility of using Council-owned leasehold land for the development a solar farm. The land is situated in the West Melton Reserve Area and covers approximately 2,672 ha of predominantly farmed land split over 9 separate leasehold blocks. A component of the feasibility assessment is evaluating the ecological sensitivity of the area to the construction and operation of solar farm infrastructure.

Pattle Delamore Partners (PDP) conducted a review of existing ecological information including reports and memorandums commissioned or authored by Environment Canterbury staff. This information was supplemented by publicly available databases and third-party reports. The desktop review was followed by a two-day site walkover by PDP ecologists to verify published records. High-level ecological values were mapped and then risks to these values assigned based on construction-phase and operational effects likely to occur with instalment of solar arrays.

Broadly, the potential development area consists of land ranging in low ecological value to high ecological value. High value areas contain some of the best examples of indigenous dryland vegetation in the district including rare and threatened species that provide essential habitat to indigenous fauna. Some communities are actively managed through plant maintenance and the control of browsing mammals. Moderate value land contains threatened plant communities, but also exotic vegetation that provides habitat for indigenous fauna including indigenous reptiles. Low value land is predominantly exotic grassland but may contain small areas significant flora and fauna. Sections of the Paparua Water Race Network have been situated at the site for over 100 years and support communities of indigenous fish and invertebrates.

The construction and operation of infrastructure for the purpose of generating solar electricity can potentially cause numerous impacts on ecological values if not managed appropriately. This includes the impacts from earthworks and vegetation clearance on habitats and significant flora and fauna, and the enduring impacts of landform changes and structures on habitat availability and quality, hydrology, and wildlife movement and behaviour. These effects may occur both within the boundaries of the land area developed, but also neighbouring ecosystems that are connected to the land.

The majority of the moderate and high value land is situated in the eastern extent of the land area of interest. Development of this land should be avoided in order minimise impacts on significant flora and fauna. This also applies to adjacent low value areas to avoid the creation of adverse edge effects. Pathways for minimising and remedying adverse effects of development are highly unlikely for areas where habitats for rare and threatened species floral species are

present, whereas losses of habitat from the clearance of exotic vegetation may be able to be mitigated and/or offset. In the first instance, however, land with low ecological values in the western extent of the area should be prioritised for further investigations into the viability of developing a solar farm.

The findings of this assessment are a useful first step to evaluating the high-level viability and options for potentially developing the land. However, further investigations will require finer resolution assessments of ecological values and effects as guided by more detailed works footprints, construction methodologies and infrastructure designs. Ideally this would follow an iterative process whereby an environmentally design process is informed by the advice of ecologists.