The Point Solar Farm: Response to Ecological Issues Raised by section 53 submissions

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Introduction

Far North Solar Farms Ltd (FNSF) has applied under the Fast-Track Approvals Bill to establish The Point Solar Farm at the northern end of Lake Benmore, Mackenzie District, South Canterbury.

Wildlands undertook additional ecological surveys in February 2026 to inform five draft management plans submitted with the application, which included targeted surveys for:

- Avifauna
- Lizards
- Invertebrates
- Threatened plants
- Pest mammals

The survey findings and proposed measures underpin our response to issues raised in the Section 53 reports.

This memorandum addresses matters raised by the Canterbury Regional Council and the Department of Conservation and accompanies the Applicant's broader response to ecological issues identified by submitters.

Canterbury Regional Council

Effects in avifauna, y conditions (paras 4, 17-21, 46-49, 54)

Key concerns raised:

- Main concern: uncertainty in magnitude of bird mortality (especially Nationally Critical/Endangered species such as kākī/black stilt) and efficacy of proposed mitigations.
- Recommend adaptive management and additional compensation/offset if monitoring shows residual effects are greater than anticipated (include specific thresholds in the Avifauna Management Plan / Bird Collision Management Plan).
- Further consultation with DOCregarding night-time vertical positioning of panels) – may create new collision risk; consider alternating angles or time-of-year adjustments.
- CRC supports the proposed predator-free dryland reserve (14 ha) and invertebrate sanctuary, but wants it clearly linked to consent conditions.

- Consent requirements and scope (number, format, and what is in scope).Form and enforceability of conditions (more refinement needed).

Response:

Effects on avifauna

We acknowledge that information on bird strike in relation to solar farms in New Zealand is limited. Measures to mitigate potential effects on birds are provided in a comprehensive Avifauna Management Plan (AMP), which stipulates post-construction monitoring and lists clear mortality thresholds. Should any threshold be triggered, adaptive management measures will be implemented in consultation with DOC and guided by a Bird Collision Management Plan (BCMP). Key mitigation measures and mortality thresholds have been carried over into the consent conditions.

We also acknowledge that any adverse potential effect on kākī/black stilt, however unlikely, will have a high magnitude of effect. Accordingly, the AMP includes a robust post-construction monitoring program to track bird mortality rates, including kākī and other vulnerable species. The plan includes provisions for adaptive management, allowing for adjustments to be made based on monitoring results and emerging data.

If carcasses of Threatened or At Risk species are identified, the three-year post-construction monitoring may need to be extended. In addition, an independent review will be undertaken to determine whether further effects management is needed, which could include changes to on-site protocols such as the use of appropriate bird deterrent devices or additional compensation for off-site breeding areas of certain species (over and above the $1,000,000 DOC Avifauna Compensation Strategy). Measures to address effects on avifauna are provided for in the AMP , Pest Mammal Management Plan, and consent conditions.

To further understand the risk of collision to birds, FNSF is willing to engage a biostatistician to undertake an analysis which could be informed by avian mortality surveys, searcher efficiency trials, and carcass persistence trials.

Regarding the night-time storage of the solar panels, FNSF has acknowledged the concerns of ECan regarding the position of the solar panels at night. They will now have a 55-degree night rest position from after sunset until before sunrise to minimise reflectivity at night.

Invertebrate reserve

We note that ECan is broadly supportive of the proposed 14-hectare invertebrate reserve. Management measures proposed for the reserve (including pest animal control and) are covered in the TIMP and PMMP, which are reflected in the conditions.

Conditions

FNSF has contracted an expert condition writer to ensure that the conditions framework, including the implementation of management plans, is robust. We are willing to consult with ECan and other parties to ensure that the conditions are as clear and effective as possible.

Department of Conservation

Terrestrial habitats and vegetation (paras 4.12-4.17)

Key issues raised:

- Site on Critically Endangered outwash gravel ecosystem.

- Threatened plants (e.g. *Lepidium solandri*) immediately adjacent to the solar array; edge effects from irrigation/plantings likely.
- Low survey effort to date; more species likely present. Need to address edge effects (no irrigation within 100 m of boundary).

Response:

Landform

It is acknowledged that the proposed solar farm is on a late Otiran inland outwash gravel landform that can support an 'originally rare/naturally uncommon' ecosystem that is classified as 'Critically Endangered'. However, within the proposed solar array footprint, this ecosystem is severely depleted and largely comprises exotic grass and herbaceous weeds. We consider it unlikely to recover without intervention. Only two indigenous plant species have been recorded inside the solar array footprint (resurrection lichen/*Xanthoparmelia semiviridis*, At Risk – Declining; and onion orchid/*Microtis unifolia*, Not Threatened). These species are rare and sparsely distributed, occurring in exotic grassland/herbfield. The outwash habitat within the solar array footprint has already been almost entirely lost.

Threatened plants

Targeted surveys for threatened plants at the site found *Lepidium solandri* (Maniototo peppercress, Threatened – Nationally Critical) on the periphery of the site (outside the solar array footprint), and outside the site on surrounding terrace edges. The Vegetation Management Plan (VMP) sets out comprehensive monitoring and adaptive management for threatened plants (including *Lepidium solandri*) on and around the site, as well as enhancement measures.

Quantitative plot surveys found only two indigenous species inside the solar array footprint: resurrection lichen (*Xanthoparmelia semiviridis*, At Risk – Declining) in 10 plots and onion orchid (*Microtis unifolia*, Not Threatened) in two plots. No Threatened or At Risk vascular plants were recorded inside the panel area.

Resurrection lichen can survive and often thrives in disturbed environments. It can survive long periods of drought and will regrow when broken into small pieces. Resurrection lichen requires open ground to thrive. Dense vegetation such as grass excludes it and, therefore, a large part of the solar array footprint does not provide suitable habitat. The periphery of the site (outside the solar footprint) provides higher quality habitat for indigenous plant species. The VMP sets out methods to manage this area for indigenous dryland vegetation (outwash gravel ecosystem) restoration, including resurrection lichen. Additionally, as resurrection lichen thrives in disturbed environments (including roadside habitats), it is likely to persist within the solar array footprint post-construction and for the long term.

Edge effects and irrigation

It was originally intended to use an automatic irrigation system to establish indigenous vegetation at the site, noting that DOC has always sought a planting regime that includes no irrigation. Therefore, the updated proposed irrigation regime has been reduced to better align with what DOC seeks, while ensuring plants establish. For example, all landscape plants and irrigated areas are at least 40 metres from threatened plant species such as *Lepidium solandri*. In addition, irrigation will be via water crystals and/or a truck/tractor with a boom arm with a direct top-down spray, which will enable the irrigation to be sprayed 'into' the site and away from threatened plant populations. We also note that irrigation will not occur during strong wind days when spray may drift south and east of the site.

In summary, the Landscape Management Plan (LMP) and proposed consent conditions stipulate strict conditions for the irrigating plants, so that potential edge effects on *Lepidium solandri* and other indigenous dryland plant communities outside (and within) the site are avoided. Edge effects are addressed by way of monitoring and adaptive management as prescribed in the VMP.

Effects Management (section 5)

We consider the updated AEE and draft management plans (informed by the February 2026 surveys) sufficiently address the concerns raised by DOC with regards to effects management. We acknowledge the uncertainty associated with bird strike at solar farms in New Zealand, which is why a comprehensive post-construction monitoring and adaptive management program will be implemented (as per the Avifauna Management Plan). More information on effects on avifauna is provided in our response on cumulative effects below.

Ecological Enhancement & Compensation (paras 5.8 and 5.12)

Key issues raised:

- Constraints and potential effectiveness of smaller-scale, intensive predator-fenced reserve (12–15 hectares) and site-wide predator control. DOC supports these in principle but requires further detail, including legal protection, long-term funding, and measurable outcomes.

- Providing avifauna compensation through support for wide-area predator control measures, which would build on pest control work already being undertaken by DOC and community groups.
- Formalise in conditions; ensure additionality and linkage to effects.

Response:

Pest-proof invertebrate reserve

For clarity, we confirm that the proposed pest-proof reserve that was originally proposed to protect and enhance lizard values has, following the February fauna surveys, been changed to a reserve to protect indigenous terrestrial invertebrates (namely grasshopper and weta species). We acknowledge the practical challenges of locating the reserve across a gully in terms of disturbance during construction and the feasibility of maintaining the fence to prevent incursion by small-bodied predators such as mice and weasels. The proposed invertebrate reserve will be located on even terrain to the south of the gullies (on the eastern side of the site) and includes habitat that is of value to endemic invertebrates.

The proposed pest-free invertebrate reserve (*c*.14 hectares) is described in detail in the Terrestrial Invertebrate Management Plan. FSNF has agreed to legally protect the reserve and provide funding to maintain the reserve for the life of the project. We can confirm that the proposed reserve is additional to existing conservation activities in the Basin, i.e. it would not occur without The Point solar farm.

Monitoring of key invertebrate species will be undertaken annually for the first three years following the onset of construction, then once every three years thereafter for twelve years. Monitoring will use transects for hand-searching both within and outside the panel area, including in the invertebrate reserve. Invertebrate enhancement at invertebrate reserve will present potential avenues for scientific research into invertebrate habitat requirements, helping to fill in the gaps in our knowledge.

Predator control – both inside and outside the invertebrate reserve – is detailed in the Pest Mammal Management Plan. Site-wide predator control will be undertaken for the life of the project and includes management targets for specific pest animals as detailed in the consent conditions.

Compensation for avifauna

FNSF has consulted with DOC with regard to the proposed **$1,000,000 DOC Avifauna Compensation Strategy** (ACS), which DOC has agreed to in principle.The ACS would fund a range of targeted basin-wide actions. This proposed compensation is additional to existing conservation programs being undertaken in the Basin and will help to address any residual site-specific effects.

Cumulative Effects (paras 5.29-5.32)

Key issues raised:

- Major concern with prospect of up to nine proposed solar farms (~4,500 hectares, ~3,000 MW) in the Mackenzie Basin.
- The Point is in a high-bird-activity area; cumulative collision risk and habitat loss could be significant.
- Transmission constraints do not remove the need to consider full potential. The Panel must address holistically (with Haldon etc.).

Response:

A level of concern regarding the potential for cumulative effects in the MacKenzie Basin is warranted given the large number of proposed solar farms. Of the solar farms currently under consideration in the Basin, three have notably higher potential to generate cumulative effects around the northern end of Lake Benmore: The Twizel Solar Project, The Point Solar Farm, and Haldon Solar Project. We conclude this due to both the spatial clustering of these three projects and due to their proximity to an Internationally Important Bird Area.

There are no standardised methods for the consideration of cumulative effects (*c.f.* assessments of ecological effects). We considered cumulative effects using a bespoke process that considered the duration and magnitude of effect, the biodiversity values affected, the mitigation proposed within mitigation packages that may act to mitigate cumulative effects and uncertainty (**Table 1**). We note that diffuse and cumulative effects are, globally, more poorly understood than direct effects and that dealing with this uncertainty is a core concern in this assessment. We have taken a precautionary approach when assigning levels of effects. Several cumulative effects warrant further discussion:

- ***Avifauna collision with solar panels.*** Based on current avian behavioural research, the lake effect is expected to be only minor. Further, there are multiple waterbodies already present in the area that should prove more attractive to waterbirds. While these factors limit the likelihood of this effect occurring, the potential risk is substantial. Three large proposed solar farms border rivers, wetlands, and deltas that are important breeding, foraging, and roosting habitats for a variety of Threatened and At Risk avifauna species, including kakī, matuku-hūrepo/Australasian bittern (*Botaurus poiciloptilus*, Threatened – Nationally Critical) and kotoreke/marsh crake (*Zapornia pusilla affinis*, At Risk – Declining). If effects are significant from one solar farm, the simultaneous construction of several solar farms could lead to unsustainable impacts on these threatened bird populations. Planned mitigation is likely to limit the level of this effect. FNSF intends to install solar panels that have anti-reflective panel surfaces, which will reduce the lake effect. Importantly, the solar farm's Avifauna Management Plan includes post-construction monitoring and adaptive management to address the potential effects of collisions. Given the proximity of multiple solar farms to braided rivers and wetlands supporting threatened avifauna,and the small population sizes of species such

as kakī, the cumulative collision and disturbance risk is conservatively assessed as moderate to high. However, this level of effect is highly dependent on the adequacy of adaptive management.

- ***Habitat fragmentation and loss of connectivity***. This effect will be most important for clustered solar farms, although we note that the rivers running between these three solar farms already create important breaks in connectivity for terrestrial species such as lizards and ground invertebrates. The effect may be most important for invertebrates, although we are confident this can be appropriately mitigated and compensated for through site-wide pest control and the construction of the proposed 14-hectare reserve. Substantial impacts on avifauna are unlikely given their mobility.

- ***Mortality of flora and fauna.*** Vehicle strikes and crushing during solar panel installation, together with trenching and minor earthworks and other actions at the site, may result in the injury or mortality of species. The level of this effect is limited given that habitats within the impact footprint at The Point Solar Farm (primarily degraded grassland). Kakī could be disproportionately affected due to their breeding being concentrated near three proposed solar farms. However, this species primarily occupies the braided river so is more likely to be affected by diffuse effects.

- ***Progressive habitat loss and simplification.*** All valuable habitat at the proposed solar farm has been avoided, including the areas of dryland and stonefield. The degraded nature of the vegetation and habitats within the solar array footprint limits the impact of this project. However, despite much of the vegetation within individual solar farm footprints being modified or exotic, the cumulative loss of remaining dryland, stonefield, and shrubland elements across multiple developments represents a progressive simplification of an already highly modified landscape.

Of the potential cumulative impacts, the potential impact of greatest concern is avifauna collision with solar panels. We agree that this effect to be poorly understood, although based on the current information it is unlikely that this effect will pose a substantial risk, and that any effect is likely to be manageable via the proposed mitigation. An approach emphasising an abundance of caution is warranted in this situation, including rigorous monitoring and adaptive management programs implemented by the solar farm projects.

Table 1 – Potential cumulative effects considered in this assessment.

Potential Effect	Duration	Magnitude	Potential Level of Effect After Mitigation	Certainty
Habitat fragmentation and loss of connectivity.	For the life of the solar farms	Low across all five solar farms; moderate for the three solar farms clustered at northern end of Lake Benmore	Ranging from moderate loss to a net gain, depending on the species, location, and management intervention.	Low
Mortality of flora and fauna.	Permanent loss	Low to moderate, depending on habitat quality at each solar farm	Low to moderate.	High for flora and birds; moderate for lizards and invertebrates
Progressive habitat loss and simplification.	For the life of the solar farms, some level of permanent effect.	Low to moderate	Low for fauna and moderate for dryland and stonefield habitats.	High

Water quality degradation.	Temporary	Low	Low	High
Large-scale herbicide use.	For the life of the solar farms	Low	Very low to low, so long as dryland herbfields or gravelfields are avoided for the protection of sensitive invertebrates.	Moderate
Avifauna collision with solar panels.	For the life of the solar farms	Moderate	Moderate to high.	Low
Fauna disruption during construction.	Temporary	Negligible to Low	Low for avifauna, invertebrates, and lizards.	High for avifauna and invertebrates, low for lizards
Increased ongoing disruption	For the life of the solar farms	Negligible to Low	Generally low, potentially moderate for sensitive avifauna.	High
Landscape-scale management interventions.	For the life of the solar farms	N/A	Net gain	Moderate
Climate and microclimate	For the life of the solar farms	Low to Moderate	Low to moderate (depending on existing plant communities)	Low

Conditions and Management Plans (para 6.3)

Key issues raised:

- Conditions must be certain and enforceable, with clear objectives/performance standards. Management plans (avifauna mortality monitoring, lizard/robust grasshopper, ecological enhancement) must be drafted and reviewed by Panel before approval.
- Include carcass monitoring and autopsy, triggers for intervention, anti-reflective coatings/deterrents, and no-irrigation buffers.
- Workshop conditions with DOC, specialist drafter, and parties.

Response:

As previously mentioned, Wildlands has prepared a suite of management plans following the February targeted surveys which address how effects on indigenous fauna will be managed. In addition, the results of the quantitative vegetation survey have also been provided in the form of the memo. The vegetation survey confirms that no threatened vascular plant species are present in the solar farm footprint.

The Avifauna Management Plan provides a comprehensive methodology that includes carcass monitoring and triggers for adaptive management, which are also contained in the consent conditions. The following mitigation measures have been incorporated into the AMP: pre-works nesting surveys, setbacks from active nests, applying anti-reflective coatings to panels, providing a space between the solar arrays, and appropriate nighttime storage of panels to minimise reflectivity.

We note that FNSF has contracted an expert condition writer to ensure that the conditions framework, including the implementation of management plans, is robust. We are willing to consult with DOC and other parties to ensure that the conditions are as clear and effective as possible.

Survey and Baseline Information (para 4.7)

Key issue raised:

- Current surveys are inadequate (single day for most taxa). AgScience report has "no probative value".

Response:

As previously mentioned, targeted fauna and flora surveys were carried out in February 2026. These surveys supersede those undertaken by AgScience.

Wildlife Act Approvals (para 2.9)

Key issue raised:

- Separate approvals required for protected species (skinks, gecko, grasshopper). Will be sought outside FTAA.

Response:

Wildlands will prepare a Wildlife Act Authority for all protected fauna species at the site (in consultation with DOC). Wildlands has prepared WAAs on behalf of numerous development projects in New Zealand and we have a good working relationship with the DOC Permissions team.