

Under the

FAST-TRACK APPROVALS ACT 2024

In the matter of

an application for approvals to construct and
operate an approximately 670-hectare solar farm
to supply electricity to the national grid

By

FAR NORTH SOLAR FARM LIMITED
Applicant

**SECOND SUPPLEMENTARY STATEMENT OF EVIDENCE OF SUSAN WALKER
TERRESTRIAL ECOLOGY**

12 June 2026

Environmental Defence Society Inc

PO Box 91736

Victoria Street West

Auckland 1142

Shay Schlaepfer, Chief Operating Officer and In-house Counsel

Email: shay@eds.org.nz

Counsel Acting: Rob Enright

rob@publiclaw9.com

Introduction

1. My full name is Susan Walker.
2. I have been asked by the Environmental Defence Society to provide further supplementary expert evidence on the ecological evidence provided by the Applicant on 29 May 2026 in relation to the Far North Solar Farm Limited's (**Applicant**) proposed 670-hectare solar farm at the northern shore of Lake Benmore between the Pukaki River and the Ohau C hydro canal.
3. My qualifications and experience are set out in my original evidence in chief, dated 19 February 2026.

Code of Conduct

4. I have read the Environment Court code of conduct for expert witnesses, and I have prepared this evidence in accordance with that code. I confirm that my evidence is within my area of expertise, except where I state I am relying on the evidence of another person. I have acknowledged the material and expertise relied on in the preparation of this evidence and in forming my opinions. To my knowledge I have not omitted to consider any material facts known to me that alter or detract from the opinions I express in this evidence.

Scope

5. This evidence responds to the following ecological information provided by the Applicant on 29 May 2026:
 - a. Response to Request for Information 5 – The Point Solar Farm Application under the Fast-track Approvals Act 2024 (File ref: FTAA-2509-1100)¹

¹ https://www.fasttrack.govt.nz/_data/assets/pdf_file/0011/28010/RFI-5-response-2-29-May.pdf

- b. Wildland Consultants. (2026). Vegetation Management Plan for The Point Solar Farm. Wildland Consultants Contract Report No. 6621h-iii. Prepared for Far North Solar Farms Ltd. 24pp.²

6. It responds to the Panel's interest in knowing whether:³

- a. The updated information satisfies (in whole or in part) any concerns previously expressed in my evidence and supplementary evidence;
- b. There are material deficiencies in the information now before the Panel; and
- c. There are further amendments required to the updated condition sets, as to any ecology matters.

Summary

7. In my opinion, the updated information does not satisfy previously expressed concerns and remains materially deficient because:

- a. The ecological values of the terrace edges have not been adequately documented.
- b. Setbacks from the solar farm and landscape screening from the terrace edge are inadequate and overlook available information on the measured extent of edge effects from similar activities on similar substrates.
- c. The proposed monitoring will not be able to detect adverse effects with the necessary resolution and timeliness.

² https://www.fasttrack.govt.nz/_data/assets/pdf_file/0025/24991/6621h-iii-The-Point-Solar-Farm-Vegetation-Management-Plan-DRAFT-06-03-26_clean.pdf

³ Request for information in relation to the Point Solar Farm application under the Fast-track Approvals Act 2024, dated 3 June 2026 (RFI No. 12) (https://www.fasttrack.govt.nz/_data/assets/pdf_file/0030/28677/FTAA_2509-1100_TPS_-_RFI12_inviting-s53_comments_3-Jun-26-1_Redacted.pdf)

- d. Information on the nature of any adaptive management and evidence of its likely effectiveness is still missing.
- e. Vegetation monitoring and management actions are described in draft or in revisable plans outside consent conditions. Therefore, neither monitoring nor measures to address adverse effects appear to be enforceable.

8. I consider that amendments are required to the updated condition sets to:

- a. Specify a minimum setback of landscape screening plantings and solar array areas from all terrace edges around the site.
- b. Specify outcome measures for edge effects (e.g. no more than a 10% increase in exotic grass cover within 10 m of screening plantings or panels), along with:
 - i. A detailed vegetation monitoring methodology that is capable of (and of sufficient statistical power to) determine whether the condition is complied with, along with data, analysis and reporting standards;
 - ii. A set of actions to be taken should an edge effect be detected; and
 - iii. A timeframe that is the full duration of the consent; and
- c. An appropriate reporting frequency for monitoring and reporting to the consent authority.

Ecological information for the terrace edge (and how it will be collected in the future) remains inadequate

9. The Panel requested (request 3.2(g)) that the Applicant “provide specific detailed information on the level of effort applied to the proposed surveys for Maniototo

peppercress (*Lepidium solandri*; Threatened - Nationally Critical)".⁴ That information is not provided in Applicant's response.

10. Instead, the response describes only past surveys; and that description is at odds with the information provided in the relevant vegetation survey report.⁵ Past survey effort on the terrace edges is described by the Applicant as "detailed" and as "intensive and precautionary".⁶ However (as noted in my supplementary evidence⁷), the vegetation survey report states (Section 4.2.1) that "*areas outside of the site boundary were not systematically searched*".⁸
11. Furthermore, mapped 'Areas of targeted indigenous plant searches' in Figure 1 of that vegetation survey report *exclude* the terrace edges where most records of *Lepidium solandri* have been made (by others) in the past.⁹ The un-surveyed section includes most of the terrace edge that is adjacent to the southern landscape screening plantings (as shown in the Landscape Mitigation Plan response).¹⁰
12. Therefore, surveys of the terrace edges are markedly incomplete. Information on their values remains most inadequate where it is most needed: i.e., beside most of the proposed irrigated landscape screening plantings, where any values will be most

⁴ https://www.fasttrack.govt.nz/_data/assets/pdf_file/0011/28010/RFI-5-response-2-29-May.pdf

⁵ Wildland Consultants 2026. Vegetation and Habitat Surveys of The Point Solar Farm, January-February 2026.

https://www.fasttrack.govt.nz/_data/assets/pdf_file/0019/21817/2d815fcac51eaa0831aa378423b48dec96410045.pdf

⁶ Response to request 3.2(g) in Response to Request for Information 5 – The Point Solar Farm Application under the Fast-track Approvals Act 2024 (File ref: FTAA-2509-1100) (https://www.fasttrack.govt.nz/_data/assets/pdf_file/0011/28010/RFI-5-response-2-29-May.pdf)

⁷ Walker supplementary evidence, dated 27 February 2026, paragraph 12. (https://www.fasttrack.govt.nz/_data/assets/pdf_file/0015/21723/Environmental-Defense-Society.pdf)

⁸ Section 4.2.1. of Wildland Consultants 2026. Vegetation and Habitat Surveys of The Point Solar Farm, January-February 2026.

https://www.fasttrack.govt.nz/_data/assets/pdf_file/0019/21817/2d815fcac51eaa0831aa378423b48dec96410045.pdf

⁹ Walker evidence in chief, dated 19 February 2026, Attachment 3 and paragraph 35. Note that the yellow points on Figure 2 of Wildlands Vegetation Management Plan appear to be not only Wildlands' 12 records but also my 30 records (which I passed on to them).

¹⁰ https://www.fasttrack.govt.nz/_data/assets/pdf_file/0012/25014/PTS_RMM_Landscape-Mitigation-Plan_Response.pdf

at risk from edge effects. There is also no information given in the Applicant's response on how that information deficiency will be addressed in the future.

Setbacks from the terrace edges are inadequate

13. In response to the Panel's request 3.2(a), the Applicant says it considers that the likelihood of measurable effects reaching the terrace edge communities is low, on the basis that solar panels are not immediately adjacent, and that the site is underlain by highly permeable outwash gravels.¹¹
14. However, as noted in my evidence there are reliably measured and documented edge effects on similar substrates in the Mackenzie Basin that extend hundreds of metres from the edges of both exotic forestry and irrigation into adjacent indigenous vegetation.¹² In describing its ecological rationale for minimum setbacks (in response to the Panel's request 3.2(c)), the Applicant does not refer to this evidence nor explain why effects are not expected to occur here across similar distances. I can see no reason why those effects would *not* occur; the proposed screening involves planted woody species and irrigation, and is therefore similar to the activities that have caused edge effects elsewhere in the Mackenzie Basin, and will be on similarly permeable substrates.¹³
15. I could not find documentation of the actual distances proposed for the setbacks of screening plantings and solar panel arrays from the terrace edge in the information provided. Wildlands in their response to s53 comments noted that "all landscape plants and irrigated areas are at least 40 metres from threatened plant species such

¹¹ Response to request 3.2(a) in Response to Request for Information 5 – The Point Solar Farm Application under the Fast-track Approvals Act 2024 (File ref: FTAA-2509-1100). (https://www.fasttrack.govt.nz/_data/assets/pdf_file/0011/28010/RFI-5-response-2-29-May.pdf)

¹² Walker evidence chief paragraph 44. This evidence is available and is referenced as Walker, S 2020. Measured edge effects on indigenous grassland and shrubland vegetation on low-relief topography in Canterbury. Manaaki Whenua – Landcare Research Contract Report LC3866, prepared for Environment Canterbury.

¹³ The Landscape Mitigation Plan response does not refer to the reliably measured and documented evidence on edge effects in the Mackenzie Basin either. In its section 2.2 (pp. 3 to 4) the landscape architect's report makes an incorrect assumption that there needs to be hydrological connectivity for an edge effect to occur. Their ecological inference that there is no edge effect due to the survival of some dryland indigenous plants in two places (without providing any information on either distances or population trend) is also unreliable in my opinion.

as *Lepidium solandri*.”¹⁴ That statement cannot be relied on, however, because (as explained above) Wildlands’ surveys explicitly excluded the terrace edges where most observations of *Lepidium solandri* have been made in the past, and beside which most of the landscape screening plantings are proposed. The Applicant’s response to the Panel’s request 3.2(d) describes only the setback distance between the screening plantings and the title boundary (not the terrace edge, which is the relevant distance).

16. In response to the Panel’s request 3.2(a), the Applicant refers to “Substantial setbacks” based on “Wildlands recommendations, Ecological Enhancement Plan 6621g”,¹⁵ but I cannot see where that Plan refers to edge effects or provides recommended setbacks. “Large setbacks to sensitive terrace edges (as per Wildlands)”¹⁶ are also referred to by the Applicant in its response to request 3.2(a) but I have found no recommended distance in Wildlands’ advice. In response to the Panel’s request 3.2(c), the Applicant say that response to Wildlands’ advice for setbacks from avifauna and wetland protection “led to avoidance of the highest-value terrace-edge and gully habitats”.¹⁷ But the highest-value terrace edges for *Lepidium solandri* were not surveyed, and landscape screening plantings are proposed along the adjacent title boundary, so these high-value terrace edges are not avoided.

¹⁴ Page 3 in Wildland Consultants 2026. The Point Solar Farm: Response to Ecological Issues Raised by section 53 submissions.
https://www.fasttrack.govt.nz/_data/assets/pdf_file/0020/21827/497a3d1366e58b39be44ea8dedcb78a1b71e8c6f.pdf

¹⁵ Wildland Consultants 2025. Ecological Enhancement Plan for The Point Solar Farm, Twizel. Contract Report No. 6621g. Dated May 2025.
https://www.fasttrack.govt.nz/_data/assets/pdf_file/0018/13626/a0f55ccb50ac3787eb0ab73e151eddeb63abdc6d.pdf

¹⁶ Response to request 3.2(c) in Response to Request for Information 5 – The Point Solar Farm Application under the Fast-track Approvals Act 2024 (File ref: FTAA-2509-1100).
(https://www.fasttrack.govt.nz/_data/assets/pdf_file/0011/28010/RFI-5-response-2-29-May.pdf)

¹⁷ Response to request 3.2(a) in Response to Request for Information 5 – The Point Solar Farm Application under the Fast-track Approvals Act 2024 (File ref: FTAA-2509-1100).
(https://www.fasttrack.govt.nz/_data/assets/pdf_file/0011/28010/RFI-5-response-2-29-May.pdf)

17. The information provided does not alter my opinion¹⁸ that a setback of at least 100 metres will be needed to limit edge effects of irrigated plantings and the solar panel array on the significant vegetation values on the terrace edges.

Proposed monitoring will not be able to detect adverse effects with the necessary resolution and timeliness

18. The revised Vegetation Management Plan¹⁹ now includes a proposal to monitor edge effects using a transect-based method.²⁰ Although this is a step forward, the method proposed in the Plan would not be capable of detecting a relevant effect (such as a 10% increase in exotic grass cover within 10 m of the screening plantings or panels) in a timely manner. For example:

- a. 25-metre intervals for quadrats along the transects are inappropriate. Quadrats can be smaller than 2m² but must be placed much closer together nearer to the activity (i.e., plantings or panels) or they will be incapable of detecting an effect in a timely manner (i.e., as the effect moves outwards from the disturbed boundary towards the terrace edge);²¹

¹⁸ Paragraph 46 in Walker evidence in chief dated 19 February 2026 (https://www.fasttrack.govt.nz/__data/assets/pdf_file/0018/21366/a2e657315996c3a0208a2471ca5418cb47d1df7d.pdf), and paragraph 27 in Walker supplementary evidence dated 27 February 26 (https://www.fasttrack.govt.nz/__data/assets/pdf_file/0015/21723/Environmental-Defense-Society.pdf).

¹⁹ https://www.fasttrack.govt.nz/__data/assets/pdf_file/0025/24991/6621h-iii-The-Point-Solar-Farm-Vegetation-Management-Plan-DRAFT-06-03-26_clean.pdf

²⁰ I recommended 'permanent transects (with multiple quadrats along each) running from the Project site (including footprint, perimeter and buffer zone) across the adjacent terrace edges and down the terrace risers' in my supplementary evidence paragraph 28.

²¹ An example of appropriate quadrat sizes and spacings are provided by the method in Walker, S 2020. Measured edge effects on indigenous grassland and shrubland vegetation on low-relief topography in Canterbury. Manaaki Whenua – Landcare Research Contract Report LC3866, prepared for Environment Canterbury. In that study, sampling intensity along transects decreased with distance from the boundary. Each vegetation sampling transect had up to twenty-six 1 m² sampling plots (quadrats), with the plot spacing based on a log series (plots located at 0, 2, 6, 9, 13, 18, 22, 27, 31, 37, 42, 48, 53, 60, 67, 74, 82, 90, 99, 110, 121, 134, 149, 166, 188, and 200 m along the transect from the edge).

- b. Exact cover estimates will need to be recorded: broad classes of vegetation cover (as proposed)²² cannot detect changes in cover at appropriate resolution;
- c. A power analysis (based on preliminary data) is needed to determine the minimum number of both quadrats and transects for each 'treatment' to ensure that there is a high (e.g. 90 to 95%) probability of detecting a change when one occurs;
- d. A minimum number of transects does not guarantee that representation will be appropriate to measure effects. Adequate representation of edges of both irrigated plantings and unplanted edges would need to be specified in monitoring conditions so that cause and effect could be established; and
- e. Because edge effects may be slow to develop (some can take decades to be expressed) the minimum monitoring timeframe should be the duration of consent.

19. A transect method (if adjusted as set out above) should be appropriate to measure common indicators of edge effects (in particular a change in the cover of exotic grasses) but will not be adequate or appropriate to monitor Threatened or At-Risk plant species simply because too few will be intercepted.

20. The Applicant's response to the Panel's request 3.2(f) does not provide specific details of how the proposed dryland threatened plant monitoring programme would detect a statistically significant (20%) decline.

21. Detecting a statistically significant decline (e.g. of 20%) in populations of Threatened or At-Risk plant species is possible but will likely require a different and bespoke

²² It is proposed that 'the percentage cover of foliage for each species will be estimated visually using six cover classes (<1%; 1-5%; 6-25%; 26-50%; 51-75%; 76-100%)'. There is no way to know if the cover of a plant or plant group has changed by a certain amount (e.g. by 10 or 20%) if the cover is recorded in classes only.

monitoring design for each species.²³ It is appropriate, in my opinion, that those monitoring designs are developed in advance of consenting based on adequate information on the present locations of those species, so that the monitoring and reporting requirements can be specified in consent conditions.

Information on the nature of any adaptive management and evidence of its likely effectiveness is still missing

22. The Panel asked how dryland species communities will be adaptively managed (request 3.2(e)). The Applicant's response provides neither certainty of what would be done, nor evidence that any of the proposed actions would be useful or appropriate.
23. A reference to further refinement of the adaptive management plan by suitably qualified ecological specialists prior to construction provides no reassurance because - to my knowledge - there is little, if any, experimental evidence, expertise or experience available to provide greater certainty that edge effects can be adaptively managed.
24. The reason for recommending a precautionary setback distance (100 m) is that there may be little that can realistically and practically be done to remedy an edge effect if one develops.
25. If monitoring detects a 10% increase in exotic grass cover within 10 m of the screening plantings within the 100 m setback, I recommend the following actions to minimise the adverse effects:
- a. Remove the screening plantings, along with their irrigation (if plantings are not removed, they are likely to remain a persistent source of exotic grass encroachment towards the terrace edge);

²³ For example, DOC has implemented bespoke monitoring for some *Lepidium solandri* populations in the Mackenzie Basin.

- b. Hand weed out any exotic grasses that are encroaching within 20 m of the terrace edge, and within any indigenous vegetation that remains between the former screening plantings and the terrace edge;
- c. Remove (by herbicide spray or mechanically) any grass sward that has developed elsewhere in the setback, and within the zone of previous screening plantings. If the grass sward is chewings fescue or another herbicide resistant species, then mechanical removal will be necessary. Great care will be needed to ensure that any herbicides are not applied in any circumstances that could lead to spray drift towards the terrace edges (including in apparently windless temperature inversion conditions, when moisture droplets carrying herbicide are likely to move imperceptibly downslope).

26. If there is encroachment of exotic grasses from beneath unscreened solar panels, I recommend hand weeding of exotic grasses within 20 m of the terrace edge and within any indigenous vegetation, and herbicide or mechanical control of exotic grasses elsewhere within setbacks.

Neither monitoring nor measures to address adverse effects appear to be enforceable

27. I was unable to find vegetation monitoring and associated vegetation management actions described or set out in consent conditions. If they appear only within draft (or revisable, or adaptive) management plans they may not need to be monitored by the consent authority and therefore risk not being complied with.

28. In my opinion, to provide greater certainty and enforceability, amendments are needed to the condition sets to give them more specificity, including:

- a. Specify a minimum setback from all terrace edges around the site of 100m for both landscape screening plantings and solar array areas;
- b. Specify outcome measures for edge effects (e.g. no more than a 10% increase in exotic grass cover) and statistically significant declines (e.g.

no more than 20%) in populations of named Threatened or At-Risk plant species, along with:

- c. Detailed and specific vegetation monitoring methodologies that have sufficient statistical power and are technically capable of determining whether the specified change has or has not occurred (i.e. the condition is or is not complied with), along with data, analysis and reporting standards;
- d. A timeframe that is the full duration of the consent; and
- e. An appropriate reporting frequency for monitoring and reporting to the consent authority.

Dr Susan Walker

12 June 2026