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MEMO

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FROM: Anne Wilkins | Principal Landscape Architect | Novo Group

PROJECT REF: 0003069

RCA REF: RC245775

1352 HOMEBUSH ROAD AGRIVOLTAIC DEVELOPMENT: LANDSCAPE AND VISUAL EFFECTS PEER REVIEW

Introduction

1. The following memo provides a Landscape Peer Review on behalf of Selwyn District Council (SDC) of the Landscape and Visual Effects Assessment (referred to as the **'LVA'**) which was prepared for the Applicant (Darfield Solar and Energy Storage Ltd) and provided by Mansergh Graham Landscape Architects Ltd (MGLA).

2. An application (RC245775) has been received for resource consent to establish a ground-mounted agrivoltaic development at 1352 Homebush Road, Darfield. The site and proposal (refer to AEE for full details) are outlined by **Figure One** below:

Site Component / Feature	Details
Application	Application to construct a ground-mounted agrivoltaic development, established over approximately 148ha, including: • Approximately 188,000 photovoltaic (PV) modules (solar panels). • A site substation area, battery storage systems and inverters • An admin building and parts warehouse. • Perimeter deer-style security fence. • Mitigation planting.
Location	1352 Homebush Road, Darfield (legally described as Lot 2 DP 60325 (RT CB36A/467) and Lot 1 DP 434071 (RT 529207)).
Zone	General Rural Zone (GRUZ) under the under the Partially Operative Selwyn District Plan (POSDP).

Figure 1: Proposal Details

Peer Review

3. The information that I have reviewed includes the Landscape, Natural Character and Visual Assessment Report (**LVA**), Site Layout Plans, Planting Plans, ZTV Maps and Graphic Attachment provided by Mansergh Graham Landscape Architects (MGLA).

4. I have also reviewed the information provided in the **RFI** Response Letters dated 10th and 25th February 2025, alongside the associated attachments which included additional visualisations, amended plans and written responses.

5. A site visit was undertaken on the 4th of November 2024 for analysis, review of sightlines and data gathering. Photos were taken during the site visit at key locations for reference and assessment. Additionally, a desktop analysis of site surrounds including SDC data, GIS, Google Earth and LINZ Maps has been undertaken.

6. I have formed the following peer review to assist decision-makers in managing the potential effects on landscape and visual values associated with the proposal. The purpose of my review is to narrow down any discrepancies in my own versus the reviewed **LVA** report (rather than undertake a full assessment of the proposal) to achieve practical solutions for maintaining the integrity of the landscape and environment as the paramount objective.

7. My peer review applies the following analysis (Figure Two below) to assess the robustness of the conclusions made in the provided **LVA**.

	Peer Review Outline
A	*Whether the methodology, including the use of best practice guidelines, adopted to assess landscape and visual effects is appropriate, and the methodology clearly outlined.*
B	*Whether the analysis and classification of the landscape context and the receiving environment of the site is robust and corresponds to the landscape attributes and values.*
C	*Whether the assessment has accurately assessed against the relevant statutory guidelines (that are relevant to Landscape and Visual Effects Matters).*
D	*Whether the overall landscape and visual effects rating and the scale of the effects is appropriate.*
E	*Whether any key issues or considerations have been overlooked in the assessment, in order to narrow-down any key areas of discrepancy or disagreement.*
F	*If required (as it relates to the above) whether appropriate design and/or mitigation has been explored, whether any further mitigation is required, and any overall recommendations.*

Figure 2: Peer Review Outline

(A) Methodology

8. The effects assessment methodology is outlined within the **LVA**[1], with further details specific to each section presented at the beginning of each corresponding section within the **LVA**. The inclusion of a methodological flow chart and rating system tables in **Appendices 1** and **2** clarified the methodology.

9. The method and rating scale has been aligned with the seven-point scale methodology as per the *Te Tangi a Te Manu Aotearoa New Zealand* Landscape Assessment Guidelines and offers direct comparison to the RMA threshold. It is stated that the photomontages in the Graphic attachment have been prepared using the NZILA Visual Simulations Best Practice Guide (BPG) 10.2.

10. Further details on the ZTV Map were requested in point three of the RFI. These included separated maps with improved quality, removed labels, confirmation that the ZTV map includes existing shelter belts / vegetation within the site (that have been proposed to be removed) and that proposed mitigation planting has not been included in the ZTV modelling and depiction of the modelling extent. Two separate maps were provided as a high-quality PDFs in the RFI response (**Attachment 3 and 4**). The information provided in the response was acceptable.

11. Overall, the **LVA** assessment outlines a detailed review, and the methodology applied is appropriate for assessing the landscape and visual effects of the proposed development. It assists having the attached **Appendix Two (LVA)** to understand the rating scale the author attaches to each rating scale that has formed the basis of the effects evaluation. However, there is a conflicting summary where the **LVA** states[2] that *"A Low effect rating that is less than minor is identified as such"* and **Appendix Two (LVA)** states that a Low rating is Minor.

(B) Landscape Context and Receiving Environment

12. The overlapping dimensions of landscape (physical, perceptual, and associative) are described aligning with *Te Tangi a te Manu* Guidelines. The **LVA** identifies the location for the proposed development and situates it within the wider landscape, describing its current character as *"a mosaic of agricultural land containing pasture, crops, shelter belts and rural settlements[3]".* In response to the RFI[4] a memo was provided outlining the wider

[1] Page 7 LVA
[2] Page 29 LVA
[3] Page 17 LVA
[4] Section 5 of RFI dated 10/11/24

environment, including detail on the relationship between the application site and surrounding publicly accessible conservation areas.

13. The physical environment summary describes the site and surrounds as having flat topography with subtle undulation that has been heavily modified by agricultural practices and developed into large rural lots. It outlines the predominant land use is pastoral grazing with some forage cropping, dissected by hedgerows, shelterbelts and clusters of specimen trees that are primarily exotic species. The Fonterra, Darfield dairy processing facility, Kimberley Substation and associated transmission lines, SH73, the Midland Rail Line and pivot irrigation systems are built features contributing to the peri-rural developed nature of the immediate surrounding environment. The LVA refers to the single waterbody water race that dissects the site, and the Ecological Report states *"Due to the presence of diadromous fish of conservation interest upstream of the site, the water race may provide a migratory pathway and scored 'moderate' on measures of ecological context*." Effort has not been made to retain or enhance this area, or in the Landscape Mitigation Planting to adopt any habitat enhancement at / within this location or adjacent to proposed culverts etc. which presents an opportunity for biophysical enhancement to offset any effects of the proposal.

14. The **LVA** outlines the perceived and experienced factors of the landscape as "*the plains landscape is expressive of its glaciofluvial and alluvial origins, with its containing topography, the Front Range and Malvern Hills forming the enclosing skylines."* I agree that the landscape geomorphic expressions are evident in the overall expression. The intervening shelterbelts creating intimate views through to expansive, wide-ranging views out to Canterbury's iconic natural wide-open space. There is a definite visual relationship between the Canterbury plains, the sky, and the mountain backdrop which is evident across the area. Furthermore, it is important to note that the association with a strong rural character is evident at the site i.e. the overriding contextual value is related to a rural character.

15. The **LVA** outlines in summary the associative factors, including shared and recognized values related to natural features (eg. Malvern Hills and Front Ranges) and recreational infrastructure. The nearby Wāhi Taonga and Outstanding Natural Landscapes (ONL), are identified. It is noted *"the key associations relate to sites of significance to the surrounding natural features (including the McHughs Forest Park, Malvern Hills, Front Range, Puketeraki Range, Mount oxford, Mount Thomas, Waimakariri River, Hawkins River, and Selwyn/Waikirikiri River), as well as the surrounding rural landscape[5]".* Generally, I agree with the associative values outline. Furthermore, the presence of the natural features, being

[5] Page 27 LVA

particularly the adjacent foothills and ranges, are highly expressive features that are visually evident from the surrounding areas and form a background to the rural areas.

16. In general, I agree with the description of the receiving environment as presented in the **LVA**. I find that the structure of describing the landscape context and values forms an appropriate foundation for the landscape and visual effects assessment. The referencing of landscape attributes and values throughout the report indicates correspondence between the classification of the receiving environment and its key characteristics.

(C) Statutory Assessment

17. The **LVA** considers matters with the Resource Management Act (RMA), the Canterbury Land and Water Regional Plan and The Canterbury Regional Policy Statement (CRPS). The **LVA** then outlines a statutory assessment against the relevant objectives and policies under both the Operative Selwyn District Plan (OSDP) and the Partially Operative Selwyn District Plan (POSDP).

18. **Figure Three** below outlines my evaluation only where, if required, it is apparent the **LVA** either has not assessed the proposal explicitly against the relevant provisions, or the review is in contention. Where I have not made comment or referenced certain Policies, it can be assumed that I am in general agreement with the findings of the **LVA**. This will ensure that all issues are narrowed down for evaluation and key issues for consideration are determined.

19. In summary, on the basis of the below assessment as outlined against each provision, I find that the proposal may not be aligned with a number of key policies in the OSDP (being Policy B2.2.6, B3.4.67 and B3.4.7) and the POSDP (being Policy EI-P2 and GRUZ P1 and Matter EI-MAT 2) and therefore cannot concur that the development as presented is consistent with the requirements of the Selwyn District Plan.

Policy / Matter	Description
Operative Selwyn District Plan (OSDP) – Site is within Outer Plains Zone	
Policy B2.2.6	*Require utility structures to be made of low reflective materials.*
Assessment	The **LVA** noted[6] that the panels will have an anti-reflective coating, and that PV tracking can help to avoid adverse glare. The RFI response that *"the use of PV*

[6] LVA page 63

Policy / Matter	Description
	tracking management is no longer proposed to mitigate the effects of glare while the screen planting grows.[7]".
	Note that while outlined (LVA / Peer Review) the glare assessment is a specialist topic and while commented on by Landscape Architects, it should be presumed that panels may have a high degree of glare overall and/or **specialist advice should be sought in this regard**.
Policy B3.4.3	*Avoid, remedy or mitigate significant adverse effects of activities on the amenity values of the rural area.*
Assessment	**Refer to Scale of Effects – Landscape Effects Section (D) following** where I find that the proposal is **inconsistent** with the above policy. Summarised as the open spaces amenity values are not sufficiently maintained as the current character of the site is currently open rural land.
Policy B3.4.6	*Maintain low levels of building density in the Rural zone and the predominance of vegetation cover.*
Assessment	**Refer to Scale of Effects – Landscape Effects Section (D) following** where I find that the proposal is **inconsistent** with the above policy. Summarised as the landscape will be fully developed aside from 10 meter wide landscape and access road areas around the boundary.
Policy B3.4.7	*Avoid high rise buildings or highly reflective utility structures.*
Assessment	Note that while outlined (LVA / Peer Review) the glare assessment is a specialist topic and while commented on by Landscape Architects, it should be presumed that panels may have a high degree of glare overall and/or **specialist advice should be sought in this regard.**
Partially Operative Selwyn District Plan (POSDP) – Site is within General Rural Zone	
Policy EI-P2	*Minimise the adverse effects of important infrastructure, and renewable electricity generation on the physical and natural environment by:* *locating, designing and operating development while minimising the effects on, the amenity values of the surrounding environment, public access and the health and safety of people.*
Assessment	**Refer to Scale of Effects – Visual Effects Section (D) following** where I find that the proposal is **inconsistent** with the above policy.

[7] Point 9 i) of DSES – SDC s92 response letter 2

Policy / Matter	Description
	Summarised as the open spaces amenity values are not sufficiently maintained as the current character of the site is currently open rural land.
Matter EI-MAT 2	*Visual Amenity:* *1. Visual amenity values of the streetscape or road.* *2. Visual amenity values of the locality.* *3. The outlook from adjoining properties*
Assessment	**Refer to Scale of Effects – Visual Effects Section (D) following,** where it is outlined that I find the proposal is inconsistent with several matters. Summarised as the visual amenity values are not sufficiently protected particularly from Loes Road where the outlook will be significantly altered.
Policy GRUZ-P1	*Maintain or enhance rural character and amenity values of rural areas by:* *retaining a low overall building density;* *retaining a clear delineation and contrast between the district's rural areas and urban areas; and*
Assessment	**Refer to Scale of Effects – Visual Effects Section (D) following** where I find that the proposal is **inconsistent** with the above policy. Summarised as the open spaces amenity values are not sufficiently maintained as the current character of the site is currently open rural land.

Figure 3: Review of Statutory Assessment[8]

(D) Scale of Effects

Landscape Capacity

20. An assessment of the landscape capacity was provided in the form of Visual Absorption Capability (**VAC**). The **LVA** defines this as the ability of the landscape to integrate a development or feature into its existing visual character without significant change. The **LVA** rates the sites' ability to absorb the proposal ranges from **Poor to Very Good**, depending on distance, screening and directness of view. The **LVA** states that the **VAC** for each view location was undertaken however it is not explicitly outlined / shown which viewpoints have been assessed as having a **Poor VAC.** It is stated that *"**Poor** ratings occur*

[8] Page 59-69 of the LVA outlines the policy review

from locations where direct views are available, with little screening provided by intervening topography, vegetation, or existing buildings (within 200m of the site).[9]".

21. I would conclude, that based on the proposal components prior to plant growth, and corresponding with the **LVA** authors rating scale, that the proposal aligns with a **Poor** as (as shown in **Figure Four** below) **VAC**[10]. The current proposal cannot be outlined as **Very Good** or **Good**[11] when considering this relies on partial or complete screening of existing landscape features.

Poor	The proposed development/activity would be clearly visible but would not act as a primary focal attraction, and/or; It would be expected that the proposed development/activity would alter the existing character of the surrounding landscape or view in which it is seen, and/or; The development/activity may introduce a new visual element into the landscape or view. The development/activity may be viewed infrequently in that or similar landscape types.

Figure 4: A Poor Landscape Capacity VAC Rating Scale (LVA[12])

22. The landscape capacity is based on benchmarks which include the character envisaged in the district plan, and the ability to accommodate the development before compromising the sites landscape values (attributes). The contributing factors as to the landscape capacity to absorb the development are summarised as:

- The site is located at a prominent corner of the State Highway, a key arterial route through Selwyn, just north of the residential cluster in Darfield.
- The proposal will be clearly visible; however, the flat and open nature of the landscape, with limited elevation and topographical variation, restricts views mostly to nearby areas.
- The site's character will shift significantly—from a rural, grazed landscape to a heavily developed area featuring substantial infrastructure, including a substation and large-scale solar panels.
- There is a risk of precedent and cumulative effects, particularly with the remaining open land to the north of the Fonterra proposal site. This area could potentially be developed further over time, contributing to a more urbanised character. The

[9] Page 37 of LVA
[10] In alignment with the **LVA Appendix 3** methodology
[11] In reference to the LVA Landscape VAC rating scale.
[12] The VAC rating descriptions are outlined in **Appendix 3**

proposal will serve as a key visual element when viewed alongside the adjacent Fonterra factory.

- The site is in a sensitive visual location, clearly visible from key public viewpoints. Before any plant screening is established, the installation of 148 hectares of solar panels will be a stark and unexpected feature in the existing rural landscape.

Landscape Effects

23. The **LVA** describes that the nature and scale of the proposed agrivoltaic development will alter the landscape character from a predominantly rural one to a hybrid landscape blending agriculture with energy infrastructure outlining that "*the site will continue to be experienced as a rural or a hybrid agricultural-energy generation site*[13]". The **LVA** states *"while the proposed agrivoltaic development will alter the landscape character within the site (from rural to energy generation), the site will still be experienced as rural due to the extensive proposed mitigation planting, which will screen the development from view from most surrounding viewer locations".* The **LVA** assesses[14] *"when effects on landscape character are considered collectively, the proposal will have a* ***low*** *(wider landscape) to* ***low-moderate*** *(local landscape) adverse effect on the key features and the overall characteristics of the landscape within and immediately surrounding the application site"*.

24. **Rural character** - The proposal does not maintain a rural character or present any hybrid features that combine rural and infrastructural elements. It removes open space and lacks rural boundary treatments, offset areas, or visible rural land uses that would typically help express a rural setting. Once planting is established, any limited grazing that might occur will be screened and largely hidden from view. In practical terms, the entire site will be developed, with no separate areas or margins retained for rural activity.

    The solar farm will significantly reduce the undeveloped, pastoral character of the site by introducing extensive built form. While sheep grazing may continue, the overall rural appearance and use of the land will be noticeably altered.

    Offset rural bands are a well-established method for protecting rural character, especially along sensitive edges, but they are not included in this proposal. As a result, the development does not support or reflect the surrounding rural environment, and the contribution of rural land uses is minimal and not visually evident.

[13] Page 61 LVA.
[14] Page 29 LVA.

25. **Open space** - The proposed boundary planting and overall site layout will remove the openness of the landscape, including existing views across the site toward the Ranges. The development is built-up and dense, with no open space areas retained. As a result, the rural character of the site will be lost, and the landscape will be significantly altered.

    In contrast, the surrounding environment is defined by a sparse settlement pattern—mainly farm dwellings and sheds located along roads, separated by large, irrigated paddocks. These properties are typically oriented to capture views of open space and distant mountains. The proposal does not reflect this character and disrupts the openness that defines the local landscape.

    While mitigation is proposed through post-implementation landscape planting, this will not immediately address the adverse landscape effects. And while it may seem logical to screen the development with boundary planting to hide the built elements, extensive planting is not a common feature in the surrounding landscape. Introducing dense boundary vegetation blocks the open views currently experienced across the site and obscure the typical rural activities visible to those passing through the area.

    The proposal therefore does not align with several policies in the Rural Volume of the OSDP and the General Rural Zone provisions of the POSDP. These include reduced amenity values, changes to existing views, and the transformation of the site from a rural landscape to a built-up, infrastructure-dominated environment.

26. Overall, I concur that landscape values will be adapted. Key influential characteristics of the site will be changed permanently to an infrastructure-based landscape. This proposal represents a clear change in both the activity and character of the site. The built infrastructure will make the site stand out as distinctly different from its rural surroundings. Although the broader landscape is already modified for rural production, it remains expansive, flat, and open qualities that this development will disrupt.

Cumulative Effects

27. The cumulative effects are outlined in the **RFI** response dated 10/02/25[15]. The statement rightly notes that cumulative effects is the combination of the proposed development and adjoining Fonterra factory. The response discusses the contrast of the two visual forms, the large footprint with low vertical element of the agrivoltaics proposal with the comparatively small footprint but dominating vertical element of the existing Fonterra factory. It concludes "*The contrasting nature of the horizontal versus vertical aspects of*

[15] Point 6 of DSES – SDC s92 response 2 letter – 10th Feb 2025.

these two adjoining facilities is such that it largely mitigates the cumulative visual effects of the proposal to the receiving environment."

28. Cumulative effects assess the combination of existing and consented development and consider the potential irreversible changes to the overall landscape character. The cumulative effects are largely tied to the effects on rural characteristics and the impacts on open space values. The cumulative effect of these changes, both in terms of physical alterations and perceptual shifts, erodes the rural authenticity of the site and its surroundings.

The existing Fonterra dairy factory already represents a significant built form within the rural landscape. With the proposed solar farm adjoining it, it is important to consider whether the cumulative effect of these developments pushes the area beyond an acceptable threshold for rural development. Together, they signal a shift in the character of the land—from a rural, productive environment to one dominated by infrastructure. This marks a fundamental change in the area's identity, where it can no longer be reasonably described as rural in character.

While the combined development could be considered a form of rural sprawl, it is currently somewhat contained by the adjacent road network, particularly to the south. However, the northern portion of the site, bounded by Auchenflower Road, remains vulnerable. This area risks becoming an isolated pocket of residual rural land, susceptible to future development. If developed, it would likely tip the landscape beyond a critical threshold, resulting in a complete transformation from rural to industrial character.

Further, the proposal involves the removal of several tall shelterbelts that currently screen views to the lower areas of the Fonterra site, especially from the State Highway. Although boundary planting is proposed as a form of mitigation, it will take time to establish and will not adequately address the cumulative visual effects in either the short or long term. In fact, the removal of existing vegetation may increase exposure to industrial elements, exacerbating the overall impact on rural amenity and landscape values.

Summary - Landscape Effects

29. The summary of the landscape effects as outlined within the LVA and the Peer Review is outlined in **Figure Five** below.

Effect	Category	LVA Findings	Peer Review Findings (see above findings)
Landscape Capacity	Magnitude of change and sensitivity.	**VAC ranging from Poor to Very Good.**	In relation to VAC ratings, the landscape displays a Poor Visual Absorption Capacity[16] As summarised above, the landscape capacity is **limited** in its capacity to absorb development.
Landscape Effects	Effects on biophysical, associative and perceptual values as well as character, amenity and intrinsic values of the landscape.	**Low**[17] for the wider landscape. **Low-moderate (minor)** for the local landscape.	Permanent and irreversible change to the landscape character evident. Landscape effects will be **low-moderate** (minor). Effects could be reduced with the recommendations outlined (Section (F)).
Cumulative Effects	The irreversible changes to the overall landscape character as well as accumulation of forms (etc.	Mitigated by contrast of horizontal and vertical elements.	Permanent and irreversible change to the landscape. Risk to precedent and vulnerable area to north. Cumulative effects will be **moderate** (more than minor). Effects could be reduced with the recommendations outlined (Section (F)).

Figure 5: Landscape Effects Scale Summary

Temporary Effects

30. The temporary effects of the proposal on the receiving environment have been substantially assessed in the **LVA**. The **LVA** outlines anticipated temporary effects on the surrounding landscape character and visual amenity.

31. Construction works and the construction phase (12-18 months), is outlined in the **LVA** noting that anticipated increased activity associated with site preparation and construction works and construction traffic will draw attention to the site. Construction is noted to involve

[16] Based on the authors LVA VAC Methodology scale.
[17] It is unclear in the LVA whether this refers to a 'minor' or 'less than minor' scale

the removal of internal shelter belts, construction of a perimeter fence and gravel track and installation of panels and associated components. The number of personnel on site will vary throughout the construction period, reaching up to 100 people per day. Construction related temporary effects ratings vary significantly in the LVA but are assessed to range between very low and moderate.

32. The **LVA** assigns a temporary rating is assigned to each identified viewing group under the Effects to Visual Amenity section[18]. Moderate temporary effects in the **LVA** are outlined as localised to areas adjacent. The LVA states that following construction, short-term effects are expected as the proposed mitigation planting establishes, which is estimated to take 4-6 years to achieve visual impermeability.

33. The **LVA** outlined the short-term adverse effects on visual amenity values are predicted to range between very low and moderate, reducing to a very low to low permanent effect once the planting is established. For viewers exiting McHughs Forest Park, the effect may be more noticeable, potentially reaching moderate levels at limited times of the day when glint and glare is experienced.

34. The duration of effects is discussed in terms of both construction and plant growth. According to the LVA and the **RFI**, full visual screening from planting will take 4–6 years to establish. However, the RFI also refers to a temporary effects duration of 18 months, which appears to relate only to the construction phase and does not anticipate the overall impact of the proposal prior to plant growth. Overall, to consider a reduction in visual effects during this interim period, early planting along key boundaries should be considered prior to construction. This would allow vegetation to begin establishing early and provide partial screening sooner, acting as a proactive mitigation measure (see Section (F) following).

Summary - Temporary Effects

35. Overall, I concur with the **LVA** sentiments on the major impacts plant growth and establishment will have on mitigating the proposal. I anticipate that overall, the temporary adverse visual effects would be **moderate**, prior to any mitigation planting establishing and filling in to the desired height and density. **Figure Six** summarises the temporary effects as identified by the LVA and the RFI response[19] and the Peer Review. The temporary effects are anticipated to be considered in relation to overall Visual Effects outlined in the following sections.

[18] Page 39-55 of the LVA
[19] Attachment 7 – Viewer Location Rating Map

Location	LVA / RFI Summary	Peer Review Commentary
Public Roads: *transient viewing group*		
State Highway 73[20]	**Low-moderate** (minor)	Temporary effects would be **moderate** (more than minor). The current proposal assumes no early establishment of planting prior to implementation.
Loes Road	**Low-moderate** (minor)	
Homebush Road	**Not identified**	
Auchenflower Road	**Low** (minor)[21]	Temporary effects would be **low-moderate** (minor).
Residential Dwellings: *residential dwelling fixed viewer / higher sensitivity generally*		
1433 Homebush Road	**Low-moderate** (minor)	**Moderate** (more than minor) under the current proposal which assumes no early establishment of planting prior to implementation.
32 Loes Road	**Moderate** (more than minor	
68 Loes Road	**Moderate** (more than minor)	
Recreational: *recreational viewer / associated with landscape / higher sensitivity*		
McHughs Forest Park	**Low-moderate** (minor)	**Moderate** (more than minor) under the current proposal which assumes no early establishment of planting prior to implementation.
Commercial / Industrial: *semi-transient viewer*		
Fonterra Industrial[22]	**Moderate** (more than minor)	APA received / effects not considered.
Timing: *Anticipated degree / extension of effects as outlined*		
Duration of Effects outlined above	For a duration of 18 months[23]	For a duration of minimum 4 years until visual screening is achieved as outlined in the LVA[24] and RFI[25]

Figure 6: Table of Temporary Effects

[20] Within a 2km radius as shown on map
[21] Viewpoint 15 LVA Page 57
[22] Site to the immediate west
[23] Noted on Attachment 7 Viewer Location Ratings Map RFI Response 25th Feb
[24] LVA Page 5 Paragraph
[25] RFI 10th Feb Response

Visual Effects

36. The **LVA** identifies a visual catchment (via the generation of a ZTV map) and identification of viewing locations and audiences. Further clarification regarding the Visual Simulations, ZTV Map, Viewpoint Maps and wider views were provided in the **RFI** response[26]. The **LVA** discusses common visual effects then provides a detailed description of viewing groups which is assimilates into similar viewing locations, assessing each group in terms of Existing Visual Amenity, Public Views, Private Views, Glare, Mitigation, Permanent Effect Ratings and Temporary Effects. Viewpoint location photographs and visual simulations are provided in **Appendix 6**.

37. As outlined in Section (A) Methodology, there are inconsistencies within the tables in the **LVA** that make it difficult to accurately assess the underlying visual effects. **Figure Seven** exemplifies the range of scales applied to each group, but the outcomes remain unclear. Specifically, the terms "Low," "Minor," and "Less than Minor" are used interchangeably without clear distinction (as noted in the Methodology). Due to these discrepancies, I am unable to provide a comparative assessment column, as is typically done in the Landscape and Temporary Effects tables above. Instead, I will refer to the Summary Table on Pages 56 and 57 of the LVA, which contains the ratings as provided.

	*Construction Effects (Temporary Effect)**	*Development - Unmitigated (Long term or Permanent Effect)*	*Development - Mitigated (Long term or Permanent Effect)*
Group 5 *VL 15 -VL 20 public and private* *Auchenflower Road*	*low to low-moderate – public*	*very low (less than minor) – public (VL 16 and VL 18 – VL 21)* *low (less than minor) – public (VL 17)* *low (minor) – public (VL 15)* *no effect – private*	*very low (less than minor) – public (VL 18 – VL 21)* *no effect to very low – (less than minor) - public (VL 16 and VL 17)* *low – (minor) – public (VL 15)*

Figure 7: Ratings scale for Visual Effects Variation Example

38. The Landscape Guidelines define a visual effect as *"a kind of landscape effect. It is a consequence for landscape values as experienced in views. Visual effects are a subset of landscape effects. A visual assessment is one method to help understand landscape effects.[27]"*. The significance of a visual effect is influenced by the visibility, distance, duration of the view, the size of the viewing audience, the scale, nature and duration of the proposal, its overall visual prominence and the context in which it is seen.

[26] Point 2, 3 & 5 and associated Appendices of the DSES – SDC s92 response 2 letter – 10th Feb 2025
[27] Te Tangi a te Manu Page 135

Public Roads

39. The key public views of the proposal will be from the immediate surrounding road network including:

- Approximately 3-4km stretch of State Highway 73 / West Coast Road.
- Approximately 3km stretch of Homebush Road
- Loes Road
- Auchenflower Road

40. The roads in the area have a 100 km/h speed limit, meaning most vehicles travel approximately 1 km in 35–45 seconds. While some shorter local trips may occur, most people moving through this landscape are likely covering longer distances. As a result, the solar farm will form only a small part of a broader visual experience through the wider rural landscape. While some visual effects may be reduced by the transient nature of road users—who typically experience views for short periods—the impact of the proposal along key routes remains significant. The State Highway is not just a local road; it is a major arterial route through the Selwyn District and serves as a gateway to the wider Canterbury region. Even if individual exposure is brief, the frequency and volume of travel mean the effects are experienced by a large number of people. This route is expected to offer expansive, uninterrupted views of rural landscapes, consistent with the character of the Canterbury Plains. The introduction of large-scale infrastructure, such as solar panels and associated development, disrupts this rural outlook. It reduces the quality and integrity of the visual experience along a corridor that plays a vital role in shaping how the broader rural landscape is perceived. Therefore, while viewer sensitivity may be lower due to movement, the scale of the proposal and its visibility along such a prominent route makes the visual effects more pronounced and incompatible with the anticipated rural character of the area.

41. The visual amenity for road users in this area is defined by expansive views across flat rural paddocks, occasional shelterbelts, and visible rural activities, all set against a wide, open sky that characterises the plains landscape. The introduction of built infrastructure, such as the proposed solar farm, would disrupt this experience and diminish the rural character that currently prevails. The site is visible from multiple points along the State Highway, including key vantage points where important views across the landscape—and to the wider contributing landscape—are clearly experienced. The proposal is not consistent with the key elements that define the area's landscape character and values,

such as rural openness and low-density land use. It does not align with the rural character or the open space qualities that contribute to the identity of this landscape.

42. In addition to long-term effects, there will be noticeable visual impacts from both temporary and cumulative changes, as previously outlined. Visual amenity values experienced from key public routes—such as the State Highway and Homebush Lane, which runs alongside a recreational reserve—will not be maintained, at least in the short term prior to the establishment of screening vegetation.

Residential dwellings

43. There are a number of residential dwellings in the area. Housing density across the plains is generally low and consists of farming related dwellings. The area to the south is the populated area of Darfield but no views are evident from the main township. Given the low-lying nature of the plains, the surrounding shelter belts and offsite mitigation, the number of direct views from adjacent residential dwellings are limited. These can be confined to potentially occurring from:

- 1433 Homebush Road
- 32 and 68 Loes Road
- 526 Auchenflower Road
- LLRZ Zoned Land
- Racecourse Hill rural residential dwellings
- Kimberley rural-residential dwellings
- Landsborough Subdivision (Landsborough Dr / Whitcombe Pl)

44. The dwellings located along Loes Road and the property at 1433 Homebush Road are among the most sensitive and directly affected residential viewpoints in relation to the proposed development. These properties currently benefit from expansive, open views across a predominantly rural landscape that includes large paddocks, shelterbelts, and distant views toward the foothills and mountain ranges. These views contribute significantly to the rural amenity and character of the area and form an important part of the everyday visual experience for residents.

45. With the implementation of the solar farm, these open space views will be permanently altered. The introduction of extensive areas of solar panels will create a stark visual contrast to the existing rural land use, replacing the sense of openness with a more enclosed, built-up appearance. The scale, density, and uniformity of the solar infrastructure will likely dominate the foreground of these views, significantly diminishing the rural outlook (see Temporary Effects).

    Although boundary planting is proposed as a mitigation measure, it will have the dual effect of screening the solar development and also obstructing existing open space views. In doing so, the planting may further reduce the perceived rural character by enclosing the view with dense, linear vegetation—effectively replacing long-range vistas with vegetative barriers. Over time, as the planting matures, this will further reduce the spaciousness and openness currently experienced from these dwellings.

    Additionally, the potential for glint and glare effects from the solar panels introduces a further layer of visual disturbance. While these effects are expected to be limited and subject to management through panel orientation and anti-reflective coatings, their presence cannot be entirely ruled out, particularly from elevated or direct sightlines.

    In summary, the proposal will result in a substantial and permanent change to the visual environment for these dwellings. The transformation from an open, rural outlook to one dominated by infrastructure and screening vegetation will have a lasting impact on visual amenity and rural character. These effects are considered to be of a moderate level due to the sensitivity of the receptor group (residents), the scale of change, and the permanence of the development.

46. The remaining dwellings in the area have either provided written approval (Affected Party Approval – APA) or are sufficiently separated from the proposal site by distance and existing off-site mitigation measures. As a result, potential adverse effects on these properties are considered to be appropriately managed or less significant..

Recreational Views

47. While views from **McHughs Forest** may be brief and experienced in passing, they are associated with recreational activity and carry a higher degree of sensitivity as a result. Visitors to the forest anticipate views across a rural landscape, contributing to the overall recreational and amenity value of the experience. Given this context, the introduction of large-scale infrastructure in the surrounding area may compromise these expectations and diminish the quality of the visual experience. Although not a primary viewing location, the

sensitivity of the viewer group—recreational users seeking natural and rural amenity—elevates the significance of any adverse effects.

48. **The Canterbury Foothills** and their associated recreational tracks are valued landscape features in the region. The primary concern relating to the proposal from these elevated viewpoints is the potential for glare and glint, along with cumulative visual effects when considered alongside existing development. However, distance acts as a mitigating factor, reducing the potential impact. The **LVA** and subsequent **RFI** provided a clear summary of these effects, concluding that visual impacts from these elevated areas are **very low**. I concur with this assessment—the combination of distance, topography, and the scale of surrounding landscape features means that the visual effects on users of the Canterbury Foothills and associated tracks are minimal.

Summary - Visual Effects

49. While the proposal aims to minimize adverse visual effects through planting, it does not adequately address the broader impacts on amenity and landscape values, of which visual effects are just one aspect. Post-implementation landscape planting is proposed as mitigation, but it does not immediately reduce the potential adverse effects, including the increase in infrastructure, the alteration of views, and the shift from a rural character to a built-up, developed environment. The Visual Effects findings are outlined in **Figure Eight** below.

Location	Distance	Visibility	Peer Review Summary
Commercial / Industrial / Other: *Semi-transient views. Medium sensitivity.*			
3792 West Coast Rd Fonterra	Immediately adjacent (< 10m)	High	APA received / effects not considered.
Public[28] Roads[29]: *Transient nature. Experienced in passing / speed. Generally lower sensitivity group.*			
State Highway 73	Immediately adjacent south / west (< 10m)	High	Visual effects will be **moderate** (more than minor). Effects could be reduced with the recommendations outlined and following 4-6 years of post-planting mitigation screening.
Homebush Road	Immediately adjacent south (< 10m)	High	

[28] Assumes vehicular users and cycle
[29] Within a 2km radius as shown on buffer LVA ZTV Map i.e. assumes user groups within a 2km range travelling.

Location	Distance	Visibility	Peer Review Summary
Loes Road	Immediately adjacent east (< 10m)	High	Visual effects will be **low-moderate** (minor). Effects could be reduced with the recommendations outlined and following 4-6 years of post-planting mitigation screening.
Auchenflower Road	Immediately adjacent north / northeast (< 10m)	High / Partial	
Rural Roads	Outside 2km buffer	Limited / Partial	Visual effects will be **very low – low** (less than minor).
Residential Dwelling: Fixed views. Permanent changes. Generally higher sensitivity.			
1352 Homebush Road	Immediately adjacent south (< 10m)	High	APA received / effects not considered.
Lot 2 DP 460046 LLRZ Zoned Land	Adjacent land to the southeast (< 50m at closest point)	High	APA received / effects not considered.
1433 Homebush Road	Adjacent land to the west (< 400m)	High / Partial offsite mitigation	Visual effects will be **moderate**. Effects could be reduced with the recommendations outlined **and** following 4-6 years of post-planting mitigation screening.
32 Loes Road	Adjacent land to the west (< 50m)	High / Partial offsite mitigation	Fixed views will be permanently altered. Visual effects will be **moderate**.
68 Loes Road	Adjacent land to the west (< 50m)	High	
526 Auchenflower Road	Land to the north-west (< 700m)	Limited due to offsite mitigation and distance	Fixed views are offset by significant offsite mitigation elements. Distance is a mitigating factor. Visual effects will be **very low** (less than minor).
Racecourse Hill rural residential dwellings	Land to the north-west (< 700m)		
Kimberley rural-residential dwellings	Land to the north-west (< 700m)		
Landsborough Subdivision (Landsborough Dr / Whitcombe Pl)	Land to the north-west (< 700m)		

Location	Distance	Visibility	Peer Review Summary
Recreational Views: *Semi-transient. Experience based. Character / landscape view. Higher sensitivity.*			
McHughs Forest	Immediately adjacent south (< 10m)	High	Visual effects will be **low-moderate** (minor). Effects could be reduced with the recommendations outlined **and** following 4-6 years of post-planting mitigation screening.
Canterbury Foothills	~10km	Limited	Distance as a key mitigating factor. Visual effects will be **very low.**

Figure 8: Table of Visual Effects

(E) Key Issues or Considerations

50. **Landscape effects** - specifically character where the proposal will significantly alter the receiving environment, diminishing rural outlook and the sense of openness.

51. **Cumulative effects** evident - the combined impact of the Fonterra dairy factory and the proposed solar farm risks shifting the area from a rural to an industrial character, surpassing acceptable thresholds for development. The removal of shelterbelts potentially increases exposure to industrial elements and further erodes rural amenity.

52. **Visual effects** – being the effects on the State Highway 73 / Homebush Road users to a degree, and namely the two identified dwellings on Loes Road (32 and 68) and at 1433 Homebush Road. The solar farm will permanently change views, replacing open paddocks with large areas of solar panels. While mitigation planting will screen the development, it will also obstruct the open space views, reducing the rural character. Additionally, the potential for glint and glare effects from the panels could further impact the visual amenity.

53. **Temporary effects** evident - The LVA and RFI state that full visual screening will take 4–6 years, with temporary effects lasting 18 months during construction. However, the proposal lacks sufficient pre-implementation measures to mitigate these temporary effects. At the start of the project, the landscape will be at its most impacted, and proactive considerations should be made to reduce temporary effects, which could last up to 18 months and persist for up to 6 years.

(F) Mitigation / Recommendations

54. The primary purpose for my consideration of mitigation options and recommendations for the applied proposal is to consider:

- Where the developable envelope of the solar farm could be on the site that maximises developable areas while protecting landscape values.
- How best to mitigate the potential immediate visual effects of the proposed solar farm from surrounding private and public viewpoints, being so far that the temporary effects present the 'worst-case' scenario and also will represent an obvious and evident change to the landscape.
- How best to maintain the farmland around and underneath the panels to protect the Darfield rural fringe area.
- How to achieve other positive environmental outcomes for the site, including restoration of any potentially biophysical valued areas or options for enhancement.

55. The following outlines recommendations that could be considered in order to reduce the potential adverse landscape and visual effects which have been identified both in the LVA and Peer Review.

56. **Maintain Rural Character:** Clear evidence should be provided on how grazing and other rural elements will be maintained at the site. While pasture control and grazing are theoretically feasible, practical success can vary. Specific plans for sustaining rural character through managed grazing should be outlined.

57. **Boundary Offsets:** A buffer zone could be established along the State Highway boundary and / or in key visual areas to retain some rural character and mitigate visual impact. This offset would help preserve the rural landscape and minimize the visibility of the development from key roads. A buffer zone of 100 metres (at least) would ensure sufficient space for open areas for grazing to be retained. It also aligns more closely with the offset of the Fonterra Factory (setback from the road) along the State Highway and would act to minimise visual impact from 1433 Homebush Road.

58. **Early Planting Establishment:** Prior to the development's implementation, early planting should be established, particularly along Loes Road and Homestead Road and the State Highway. This proactive approach will help mitigate visual impacts as the project

progresses. Additionally, the proposed substation should incorporate landscaping or screening to minimize the visual intrusion of built structures.

59. **Construction Laydown Area Visibility:** The construction laydown area and access route, concentrated in the mid/southeast section of the site, are highly visible. Careful planning should be applied to minimize the visibility of this area during construction, with possible temporary screening during this phase. Or alternative locations could be considered that set this further back from the more visual areas.

60. **Increase Width of Planted Strips:** The width of planted strips should be increased where possible to allow for additional layered planting. This will enhance visual screening and provide more substantial mitigation over time.

61. **Ecological Considerations:** The existing watercourse, identified in the Ecological Report but not in the Landscape Plans, should be considered as a potential biodiversity corridor. Offset riparian-type planting could be introduced in strategic locations to enhance ecological value, support habitat migration, and create additional open space areas. This would also enhance open spaces across the site.

62. **Shade Cloth Mitigation:** A worst-case scenario analysis of the shade cloth should be conducted to ensure that its use will not exacerbate any visual or environmental issues. Recommendations should be made to mitigate any adverse effects related to its installation and use. Colouration and extension and materials should be highly controlled.

63. **Species Considerations:** The use of *Akeake* species, identified as a seeding / risk in the district, should be reconsidered. It is essential to assess the potential effects on the nearby vegetated block along Homebush Road and explore species that would reduce any risk to the adjacent area, while maintaining landscape and biophysical value.

Conclusion

64. As outlined above, several key issues may lead to adverse landscape and visual effects. Both the LVA and the Peer Review conclude that temporary and visual effects from Loes Road residential dwellings will be more than minor, while landscape effects are expected to be low-moderate overall. Additionally, I find that the current proposal will result in cumulative landscape effects, with changes to the landscape character that do not align with the provisions of the Proposed Selwyn District Plan. Visual effects will also be evident from State Highway, as well as from residential, recreational, and road views along Homebush Road. The recommendations provided above may help reduce these impacts.