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17 January 2025

Selwyn District Council

Attn: Jane Anderson, Consultant Planner Via email: <u>Jane.Anderson@selwyn.govt.nz</u>

Kia ora Jane

RE: RC245775 - Darfield Solar and Energy Storage Ltd Response to the Request for Further Information

This letter sets out the response from the Darfield Solar and Energy Storage Ltd ("DSES") to the further information matters identified in the Selwyn District Council ("SDC") letter dated 12 November 2024. The responses are provided in the table below.

I trust the information in this response addresses the further information requests, however, if there are any outstanding matters please do not hesitate to get in touch.

Yours sincerely,

Andrew Brown

Mitchell Daysh Limited

andrew.brown@mitchelldaysh.co.nz

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SI	OC Request	DSES Response
Tra	ansport	
1.	Please provide further information regarding the assessment of the right hand turns at the S73 / Homebush Road intersection, including	Refer to Response to Request #1 in the NZCE Darfield Agrivoltaic Facility: Section 92 Request for Further Information Response (Transportation) Memo provided as Attachment 1 to this response.
	 Please clarify why 80 vehicles per hour has been assumed as the maximum threshold for right hand turns 	
	 b. Whether minor works are required to enable a through vehicle to safely pass a right- turning vehicle in the live land 	
2.	Please provide correspondence from NZTA that demonstrates support for the proposed mitigation measures at the intersection during construction	Refer to Response to Request #2 in the NZCE Darfield Agrivoltaic Facility: Section 92 Request for Further Information Response (Transportation) Memo provided as Attachment 1 to this response.
3.	Please provide a copy of the LCSIA and correspondence with KiwiRail regarding the recommendations of the LCSIA	Refer to Response to Request #3 in the NZCE Darfield Agrivoltaic Facility: Section 92 Request for Further Information Response (Transportation) Memo provided as Attachment 1 to this response.
4.	Please provide an updated Glare Assessment report that demonstrates the extent to which the proposed boundary plantings mitigate glare effects on public roads and comment on how glare effects may create road safety effect prior to the plantings reaching a 2 – 3m height.	Refer to Response to Request #4 in the NZCE Darfield Agrivoltaic Facility: Section 92 Request for Further Information Response (Transportation) Memo provided as Attachment 1 to this response.

SDC Request

DSES Response

Additional Comments

It is noted that the Plans provided do not appear to identify an intended parking area. It is considered likely that there will be sufficient space on site to accommodate this. However, please note that additional consents may be required if the future parking area does not comply with the Partially Operative District Plan.

In order to maintain the existing agricultural activities on site, it is anticipated that vehicles with agricultural implements (such as mowers, balers, drills and sprayers) may be required. In the event that agricultural implements will be required, the applicant may wish to consider the proposed setback of the solar array from internal and road boundaries and whether there is sufficient space for manoeuvring.

The engineering drawings 2000-2001 and 3002-3003 contained within Appendix 12A of the Resource Consent show parking being provided adjoining the site office, west of the BESS units.

The detailed design of the development will include accommodating any maintenance equipment and machinery necessary for the site, as well as compliant turning circles for fire appliances to manoeuvre safely within the internal access track network.

Landscape

 Please confirm the height / sizing or the warehouse and administration building Refer Drawing DAR-103 and Drawing DAR-104 in the drawing set provided as Attachment 2 to this response.

6. Please confirm the anticipated standardised angle and subsequent height of the solar panel array that can be expected for most of the time (i.e. a 3m height for 90% of the time, 50/50 change ratio or otherwise)

Trackers will have the ability to rotate panels +/- 60 Degrees from horizonal. The panel inclination gradually alters throughout the day, following the path of the sun. Refer Drawing DAR-101 in the drawing set provided as Attachment 2 to this response. The panel drawings in our drawing set shows the panels set flat, and at maximum angle (60 degrees). Maximum and minimum height limits as shown, to reflect the upper and lower limits of the range of heights the panels could be erected to above ground level. The range is required to accommodate minor undulations in ground levels.

As per drawing DAR-101, the maximum height of the panel in the horizonal position will vairy from 1.43m to 2.07m depending on ground conditions.

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		At the maximum 60° panel inclination, the maximum height will vairy from 2.45m to 3.10m.
		The time spent at maximum inclination (and hence maximum height) is quite short and occurs at the start and end of each day. This varies as a result of the seasonal changes to the length of daylight hours. The diagram referred to as Figure 5 within the Glint and Glare Memo (Appendix 9) of the Resource Consent Application shows how the angle of the panels varies during the day in relation to the angle of the sun.
Ec	ology	
7.	Please provide a complete vegetation species list and descriptions of the habitats present	Refer to Response to #7 in the Darfield Solar – Section 92 Response to Items 7, 8, 9 and 10 (Ecology) Memo provided as Attachment 3 to this response.
8.	Please provide a full list of bird species found in the desktop survey and an assessment of the likelihood of these species being present at the site.	Refer to Response to #8 in the Darfield Solar – Section 92 Response to Items 7, 8, 9 and 10 (Ecology) Memo provided as Attachment 3 to this response.
9.	Please provide results from fish surveys (either as a standalone methodology), or in combination with eDNA metabarcoding, following the 6-replicate methodology	Refer to Response to #9 in the Darfield Solar – Section 92 Response to Items 7, 8, 9 and 10 (Ecology) Memo provided as Attachment 3 to this response.
10.	Please provide evidence of an assessment of species potentially present within the area, and surveys for lizards or justification as to why this is not necessary at the site. Surveys should be undertaken using DOC approved methods by an appropriately qualified and permitted herpetologist.	Refer to Response to #10 in the Darfield Solar – Section 92 Response to Items 7, 8, 9 and 10 (Ecology) Memo provided as Attachment 3 to this response.

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Highly Productive Land	Highly Productive Land		
Please advise if the applicant has investigated the economics of installing irrigation.	The HPL matters requested reach beyond the scope of what the NPS-HPL is directing Council to consider under Clause 3.9(3). Nothing under the NPS-HPL can require HPL to be used to its maximum productive potential, rather, it seeks to ensure that HPL is protected from inappropriate development. Effects on productive land capacity are addressed in section 6.8 of the Assessment of Environmental Effects and the specialist report attached as Appendix 2 to the AEE. This demonstrates that the productive capacity of the site will remain largely unchanged and effects will be less than minor (and the existing grazing use can continue largely unchanged). In light of this DSES considers that the HPL matters requested are not necessary for consideration of the application.		
12. Please advise if the applicant have a	DSES does not have a baseline nutrient loss (Overseer) for the property.		
baseline nutrient loss (Overseer) for the property.	This is not considered necessary in the context of this application for the reasons given above.		
13. There is limited detail on the type of Solar panels, apart from noting that they are single axis trackers. The type of drive mechanism is important as this can impact the farm management programme. The layout of them is also important for the movement of vehicles.	Further detail of the solar panels and drive mechanism will not be known until the detailed design / procurement stage of the project. It is not practicable to specify this information at this at this stage, nor is it considered necessary for the reasons given above.		
Please provide further information to address these matters.			
Glint and Glare			
14. Please provide a diagram with all dimensions of the solar array	Refer updated drawing set provided as Attachment 2 to this response.		
15. Please confirm the following:	Refer updated drawing set provided as Attachment 2 to this response.		
Single Axis Tracking with Shade backtracking system.	To confirm the particular points raised:		
Orientation : 7.5467° (This needs to be confirmed. Most east-west	The installation is Single Axis Tracking with shade backtracking system;		

SDC Request	DSES Response
tracking arrays have rotation axis orientation along true north i.e. 0°) Max tilt angle: 60° Rotation Axis: Height Above Ground 1.4m (some heights noted to be 1.5m in Forgesolar data provided) Solar Panels: with Anti Reflective Coating Are Solar Panels arranged about Rotation Axis in: 1P (single panel in portrait arrangement) or 2P (2 panels in portrait arrangement) or 1L (1 panel in landscape arrangement) or 2L (2 panels in landscape arrangement) (confirmation of arrangement would be helpful)	 The orientation is deliberately offset from true north (to 7.5467°) as this configuration facilitates the installation of more panels and in terms of overall generation capacity the benefit of the extra panels outweighs the slight loss in solar intensity received; Maximum tilt angle is 60°; Rotation axis height: varies according to topography (min c.1.4m, max c. 2.1m) – refer Drawing DAR-101 in the updated drawing set provided as Attachment 2 to this response; Solar panels have anti-reflective coating; Panels will be installed in the 1P configuration (single panel in portrait arrangement).
1. That given the maximum height of the proposed solar arrays are potentially 3.1m based on the drawings provided by the applicant NZ Clean Energy Ltd, that any proposed landscape mitigation planting be at least 4m high to ensure adequate screening from any potential view by observer points.	Refer to Memo Darfield Agrivoltaic Development: Request for Additional Information (S92) Response, Mansergh Graham, Dated 9 December 2024, and provided as Attachment 4 to this response. As outlined in the memo, DSES wish to reiterate that landscape mitigation planting is not required to be 4m high to achieve appropriate mitigation of glare to receivers external to the site. Glint and glare modelling has confirmed that landscape mitigation planting to a minimum height of 3m is sufficient to achieve effective mitigation of any glare that may be generated by the proposed development. A revised glint and glare condition is proposed in line with the recommendations of the Mansergh Graham memo. This is intended to replace condition 22 of the proposed conditions lodged as Appendix 7 of the application documents. This is provided as Attachment 5 to this response.
That landscape planting along Auchenflower Road and towards and around the Homebush Road and State highway 73	Refer to the Memo <i>Darfield Agrivoltaic Development: Request for Additional Information (S92) Response</i> , Mansergh Graham, Dated 9 December 2024, and provided as Attachment 4 to this response. Refer above regarding minimum landscape mitigation planting height.

intersection be at least 4m high

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	to ensure it is above any potential view of the solar arrays and be sufficiently dense enough to eliminate potential glare from the solar array.		
3.	In relation to the above, to provide interim screening where plants still need to reach expected established heights to ensure mitigation of glare towards road traffic and so provide margins of safety to road traffic until planned established heights of plants can be reached.	 Memo Darfield Agrivoltaic Development: Request for Additional Information (S92) Response, Mansergh Graham, Dated December 2024, and provided as Attachment 4 to this response; and Memo NZCE Darfield Agrivoltaic Facility: Section 92 Request for Further Information Response (Transportation), Don McKenzie, provided as Attachment 1 to this response. 	
4.	To ensure that the planned mitigation landscape plantings themselves do not create any hazard by obscuring any view towards oncoming traffic especially at the road intersections being considered.	Refer to memo NZCE Darfield Agrivoltaic Facility: Section 92 Request for Further Information Response (Transportation), Don McKenzie, provided as Attachment 1 to this response.	

16. Please confirm that the proposal will result in a change of land use and whether the proposal is a permitted activity under regulation 8(4)b and provide comment as to whether it is "highly unlikely that there will be a risk to human health if the activity is done to the piece of land"

Regulation 5 of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (the "NES Soil") sets out when the regulations apply in any particular set of circumstances and deals specifically with applicability where a 'piece of land' is production land, as is the case here. It specifies that the regulations apply if a person wants to:

- (a) remove a fuel storage system from the piece of land or replace a fuel storage system in or on the piece of land:
- (b) sample or disturb—
- (i) soil under existing residential buildings on the piece of land:

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	(ii) soil used for the farmhouse garden or other residential purposes in the immediate vicinity of existing residential buildings:
	(iii) soil that would be under proposed residential buildings on the piece of land:
	(iv) soil that would be used for the farmhouse garden or other residential purposes in the immediate vicinity of proposed residential buildings:
	(c) subdivide land in a way that causes the piece of land to stop being production land:
	(d) change the use of the piece of land in a way that causes the piece of land to stop being production land.
	As none of these circumstances apply in the current instance (in particular, with continued grazing the land does not cease being production land), the NES-Soil regulations do not apply.
	DSES also note that this is consistent with the approach taken for the recent decision in relation to KeaX solar farm at Buckleys Road, Brookside (RC235464), where the circumstances are broadly similar (refer Decision notice, paragraph 9 and s42A Report paragraphs 40-42).
	Notwithstanding that the requirements of the NES-Soil do not apply, in the interests of due diligence DSES have commissioned Babbage to undertake a Detailed Site Investigation to ensure that any potential health concerns are identified and addressed. At time of this writing, the report is not yet complete, but Babbage have preliminary results and confirm that it is highly unlikely that there will be a risk to human health if the activity is done to the piece of land.
	Th email correspondence with Babbage to this effects is provided as Attachment 6 to this reply.

Noise

The Assessment of Noise Effects has been peer reviewed by Marshall Day Acoustics (MDA). MDA have not requested any further information, however they have provided the following comments regarding the separation distance proposed by Styles Group (SG):

"In their calculations, SG has used a piling rig sound power level of approximately 111 dB LWA (83 dB LAeq at a distance of 10 metres). Based on measurements we have conducted at other locations, piling sound power levels in the range 120 to

 $\ensuremath{\mathsf{DSES}}$ confirms that the conditions proposed by MDA as below are acceptable.

New Condition as per SG condition 3 with suggested text amendments (additions red underlined and deletion struckout):

Xx Construction activities must be conducted in accordance with NZS 6803: 1999 "Acoustics – Construction Noise" and must comply with the "long-term duration" noise limits contained within Table 2 and Table 3 of that Standard.

- 10. The CNMP shall include, but not be limited to
- (a) The applicable permitted noise standards
- (b) The programme of works and hours of operation
- (c) Identification of surrounding noise sensitive receivers

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130 dB LWA are more typical, depending on the pile type and equipment used. Taking the median value of 125 dB LWA, a separation distance of approximately 200 metres will be required to achieve the nominated noise limit of 70 dB LAeq."

MDA are concerned that the "quantity, noise level and duration of percussive piling that is proposed will potentially result in adverse community reaction and requires further justification" and that 50m setback distance is likely to be too small for establishing communication protocol with residents.

As a result, MDA accept SG's recommendation that construction noise be managed and assessed in accordance with NZS6803: 1999 Acoustics – Construction Noise, noting that inherent in this standard is a requirement to adopt best practicable options to minimise noise from the site through the Construction Noise Management Plan (CNMP). Further to this, MDA have recommended a number of amendments to the consent conditions provided in Appendix 7 of the AEE. These amendments are attached as Appendix 3 for your information.

(d) Written communication with occupants of all occupied dwellings or minor dwellings that are within 200 metres of proposed piling works at least ten (10) days prior to the commencement of activities on site. The written advice shall set out:

- i. a brief overview of the construction works.
- ii. the working hours and expected duration,

iii. an evaluation of piling methodology to demonstrate the Best Practicable Option has been adopted.

- iv. all mitigation measures to be implemented.
- v. the procedure for recording concerns/complaints regarding noise.
- vi. details of the management and mitigation measures required to comply with the relevant noise limits when piling works are undertaken within 200m of any occupied building that has not provided written approval.
- 11. Condition 10(d)vi does not apply if receivers (dwellings or minor dwellings) within 200m of the extent of works provide their written approval to authorise temporary exceedances of the construction noise limits.
- 12. (No changes proposed)

Operational Noise

..

- 20. (No changes proposed)
- 21. No later than six weeks prior to commencement of construction of the solar farm, the consent holder shall provide Council with a report setting out an acoustic assessment from a suitably qualified and experienced acoustic expert that demonstrates the selected plant and layout will achieve compliance with the noise limits in Condition 20. The report shall include an assessment of the cumulative sound power levels for all electro-mechanical plant and confirm any proposed mitigation measures that must be incorporated in the layout, design and operation of the activity.

22. New condition

Within 6 weeks of the project becoming operational, a suitably qualified and experienced acoustic consultant shall perform measurements to confirm compliance with both the daytime and night-time noise limits in Condition 20. The assessment shall include an objective analysis of any special audible characteristics during the day and at night, in accordance with Appendix B4 of NZS 6802:2008 Acoustics - Environmental Noise.

(a) Should the sound commissioning survey indicate that the noise limits are exceeded, then the mitigation options that will be implemented will be clearly outlined, including timeframes for the completion of these mitigation works.

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	(b) Following completion of any a mitigation measures, the sound commissioning survey will be repeated and an updated report provided to Council
Buildings	
17. Please provide additional information regarding the office building and parts warehouse to confirm compliance with the Partially Operative District Plan	Refer Drawings DAR-103 and Dar-104 in the updated drawing set provided as Attachment 2 to this response. Building dimensions and locations comply with the permitted activity requirements of the POSDP (EI-REQ13 and 15–17). The buildings will be clad in accordance with the reflectivity requirements (EI-REQ14).
18. Please provide additional information regarding how the BESS will be housed	Refer Drawing DAR-107 in the updated drawing set provided as Attachment 2 to this response.
Plains Flood Management	
19. Please provide a Flood Assessment Certificate (FAC) to confirm compliance with Rule NH-R2. Note - the location of the office / parts warehouse and possibly the BESS will	The CKL flood risk assessment demonstrates that although the site is within the Plains Flood Management Overlay, the actual level of risk, as modelled for the 500 year ARI flood event, is minimal, with the deepest flooding on the site (close to the existing entrance from Homebush Road) having a depth of 0.3m. Proposed condition 24 (Appendix 7 of the application documents) specifies that: <i>Inverters, batteries and transformers shall be</i>
be required to determine the minimum floor level for the FAC. For information regarding this process please use the following link: https://www.selwyn.govt.nz/property-Andbuilding/resource-consent/flooding-assessment-certificates	established at a minimum height of 0.3 m above the 200 Year ARI flood level where they are positioned. As there is no reason to suppose that compliance cannot readily be achieved, it is considered appropriate to obtain the FAC at the detailed design stage.
Geotechnical Assessment	
20. Please provide a geotechnical assessment of the site from a suitably	The geotechnical aspects of the site will be used to inform the detailed design phase of the works and are therefore, not relevant at this stage of the consent process. Notwithstanding, DSES note that the site is flat and the preliminary investigations show that the

SDC Request	DSES Response
qualified and experienced practitioner.	site is suitable for the proposed development. DSES have engaged the project Engineers to undertake a Geotechnical assessment however, this work is not programmed in until the necessary consents have been obtained.
	At this stage in the process, the geotechnical assessment, prepared based on a desktop review of information regarding the site and provided as Attachment 7 to this response, is considered sufficient.
Earthworks	
21. Please confirm that the applicant will provide an ESDCP as a condition of	Provision for an ESDCP is included in the proposed regional conditions (conditions 3-5 and 7 – see below). The applicant is happy for these conditions to be also attached to a district consent.
consent	PRIOR TO COMMENCEMENT OF WORKS
	3. All erosion and sediment control measures detailed in the ESCDP required by Condition 4 of this resource consent must be
	installed prior to the commencement of any earthworks or stripping of vegetation and topsoil occurring on the site.
	EROSION AND SEDIMENT AND DUST CONTROL
	4. The Consent Holder must submit an Erosion Sediment and Dust Control Plan (ESDCP) to the Manager for certification at least
	20 working days prior to the proposed date of works authorised under this consent commencing. The ESDCP must be
	prepared in consultation with the contractor undertaking the works and a suitably qualified and experienced person and be
	in general accordance with the Canterbury Regional Council "Erosion and Sediment Control Toolbox for the Canterbury
	Region" (ESCT) or an equivalent industry guideline. If an alternative guideline is used, the ESCDP must provide details of the
	relevant alternative methods used and an explanation of why they are more appropriate than the ESCT.
	5. The ESDCP must include as a minimum the following:
	(a) The specific sediment control measures that will be implemented to ensure compliance with the conditions of this
	resource consent;
	(b) Details for inspection and maintenance of erosion and sediment control measures;
	(c) Identification of the discharge points where stormwater is discharged onto land or infiltrates into land;
	(d) Measures for stabilising the site and appropriate decommissioning of all erosion and sediment control measures after

works have been completed.

SDC Request	DSES Response
	6. The discharge shall not commence until certification has been received from Canterbury Regional Council, except that if the ESCDP has not been reviewed and/or certified within ten working days of its receipt by Canterbury Regional Council the Regional Leader the discharge may commence.
	7. The ESCDP may be amended at any time. Any amendments shall be:
	(a) Only for the purpose of improving the efficacy of the erosion and sediment control measures and shall not result in reduced discharge quality; and
	(b) For the purpose of applying best practicable measures to mitigate dust and/or sediment transport off-site;
	(c) Consistent with the conditions of this resource consent; and
	(d) Submitted in writing to the Canterbury Regional Council, Attention: Regional Leader Compliance Monitoring, prior to any amendment being implemented.
Reverse Sensitivity	
22. Please provide further information regarding the potential reverse sensitivity issues for this Development Area	Refer noise contour plan at Appendix B of the Styles Group noise assessment (Appendix 8 of the lodged application documents). The solar array itself does not generate noise – the nearest "noise generating infrastructure" is the southernmost inverter, which is located at approximately NZTM 1526606E 5187419N and is well over 250m from the nearest boundary of the LLRZ (Lot 2 DP 460046).
	There is no potential for reverse sensitivity effects on the solar installation arising from any future development of the LLRZ (Lot 2 DP 460046).
It is also noted that the owners of Lot 2 DP 460046 have provided affected party approval for the proposal, but that the information they were provided with may not have clearly identified this potential future impact on the development of this area.	DSES have confirmed that the landowner of Lot 2 DP 460046 is also the landowner of the project site, and the occupier of the dwelling on the subject site that will be surrounded by the proposed solar installation. The owner understands the acoustic implications on potential future development of Lot 2 DP 460046.

General Matters

SDC Request	DSES Response
23. Please confirm if NZ Clean Energy or Darfield Solar and Energy Storage Limited are an Electricity Operator as defined by the Electricity Act 1992.	This is addressed in the AEE at page 43. Notwithstanding, DSES is not an Electricity Operator as defined by the Electricity Act 1992, and consequently, the activity does not meet the definition of "important infrastructure" under the Partially Operative Plan. Nonetheless, the proposed activity is an "energy" activity and therefore comes under the energy chapter.
24. Please provide further information regarding what rehabilitation will be required to enable the site to	DSES have dealt with the rehabilitation of the sites in other projects recently consented (Masterton Solar and Energy Storage Project, located at 3954A State Highway 2, Masterton, Carterton District Council reference RM240005 through the inclusion of the following condition. DSES accepts the inclusion of a condition of this nature in the District consent.
continue to be used for land based primary production.	XX Decommissioning of Development Conditions
p, p	1. At least six (6) months prior to undertaking the decommissioning of the development in accordance with Condition 2 below, a Decommissioning Management Plan shall be prepared, submitted to, and certified by the Consent Authority. The following matters regarding decommission of the development shall be outlined:
	(a) The methodology for removal of all structures and associated infrastructure administered by the Consent Holder;
	(b) The intended disposal location for all structures and associated infrastructure to be removed from the site;
	(c) The methodology for reinstatement of the site to predevelopment standard;
	(d) The soil testing strategy to be implemented with regards to the confirmation that, as a result of decommissioning the development, the site is suitable to return to the full productive agricultural use standard it was in immediately prior to the development being established;
	(e) A Construction Traffic Management Plan (CTMP) shall be prepared and submitted to the Consent Authority roading manager for certification at least one (1) month prior to the commencement of the decommissioning activities within the site. The CTMP shall include, but not be limited by, the following matters:
	(i) Management of traffic within the adjacent road network;
	(ii) Approximate schedule for heavy vehicle movements and procedure for notifying the Consent Authority of any periods of higher movement numbers;
	(iii) Specification of any additional measures necessary during periods of activities which involve high levels of construction traffic on nearby properties (including communication and any necessary physical management steps); and
	(iv) The procedure for recording concerns/complaints regarding construction traffic; and
	(f) A completion report shall be provided to the Consent Authority no more than six (6) months following completion of the decommissioning of the development. The completion report shall confirmation of compliance with the requirements of Condition

1 as well as the Decommissioning Management Plan, as well as the findings of the testing required under Condition 1(d) above were, and what, if any, remedial actions were subsequently undertaken.

Advice Notes

The actions required to be undertaken in order to achieve compliance with this condition may result in additional resource consent/s being required. The responsibility, including all associated costs, of obtaining of any such resource consent/s, including any specialist reporting and the Consent Authority processing fees, shall be born wholly by the Consent Holder.

It is noted that there may be elements of the development that Orion wishes to take responsibility for. As the Consent Holder would no longer be the agent administering those elements, removal of those elements may not be possible.

2. Prior to the end of the 35 year consent duration, the Consent Holder shall remediate the site in accordance with the Decommissioning Management Plan, including removing all structures, as well as any associated infrastructure administered by the Consent Holder, including (but not limited to) PV modules, tracking table posts and mechanisms, BESS units, substation (only that located within the subject site), switchyard station building, and site office building. Where relevant, all associated electrical cables shall either be removed or decommissioned in accordance with electricity transmission industry best practice and standards.

Advice Notes

The Consent Holder shall be responsible for the subsequent disposal of all equipment removed from the site associated with the decommissioning of the development in accordance with this consent condition. The equipment shall be removed from the site to a suitably certified disposal or recycling facility, or returned to the manufacturer of the equipment if an agreement for such disposal process applies.

It is noted that there may be elements of the development that Orion] wishes to take responsibility for. As the Consent Holder would no longer be the agent administering those elements, removal of those elements may not be possible.

Cultural Effects

- 25. Mahaanui Kurataiao Limited have requested the following conditions as set out in their Cultural Advice Report, dated 18/11/24.
 - 1. The duration of this consent must not exceed 15 years.

We accept Conditions 2 – 6 and 8-9, but cannot accept 1,7 or 10 for the reasons given below.

Condition 1 is impractical given the scale of investment in the solar facility and hence the need for security of term. As per the application, DSES seeks a 35 year term for the consent.

Condition 7 potentially contradicts SDC Engineers request for access to maintain and clean water races. This has now been resolved between SDC, ECan and Mahaanui Kurataiao Ltd.

- 2. An Accidental Discovery Protocol (ADP) must be in place during all earthworks required to give effect to this consent to deal with archaeological finds and protect the interests of mana whenua. This condition does not constitute a response under the Heritage New Zealand Pouhere Taonga Act (HNZPT 2014).
- 3. A site-specific Erosion and Sediment Control Plan (ESCP) for any earthworks required to give effect to this consent must be developed and implemented onsite during all earthwork activity. All contractors working on-site must be made aware of this plan and strictly adhere to it. This plan must:
 - Ensure the protection of the surrounding environment including water soil and air.
 - Restrict sediment runoff and erosion from entering the drain.
- An accidental discovery protocol for contaminated soils must be developed and implemented in case unexpected contamination is identified in the soil.
- 5. Excavated contaminated material must be removed from site,

In summary it is agreed that one side of the water race be kept clear for SDC maintenance purposes, and the opposite side of the water race subject to riparian planting within the 4-5m balance area. Email correspondence in this regard is provided as Attachment 8 to this response.

Condition 10 could result in a considerable cost over 35 year consent period, without a clear indication of what the implications of the monitoring would be (including the frequency of monitoring and what course of action, if any, would be required to be taken if adverse results received etc). We would need additional advice from Mahaanui Kurataiao Ltd on what they envision this condition entailing.

Further to Condition 10, please refer to the attached information sheet outlining chemical composition of panels, which is provided as Attachment 9 to this response. This information sheet has been prepared based on EU standards, and as such outlines various human and environmental health implications of the components, and how to manage those in the unlikely event that those chemicals are exposed to natural hazards or other incidents that could lead to environmental or human exposure.

We note that the provider of this information sheet does not produce panels of a suitable size for DSES needs for this site. As such, it is highly unlikely that any model of panel produced by them will be utilised in this development. This information is provided on the basis that the chemicals utilised within panels is relatively consistent across the industry.

It is also noted that the construction standard of modern panels utilises more robust external materials than older models, making them less susceptible to extreme weather events and other exposure incidents than those older models.

- disposed of at an appropriate facility, and not reused onsite.
- 6. The applicant must establish and maintain indigenous planting on site to enhance the cultural landscape, increase indigenous habitat, filter sediment and sequester carbon.
- 7. Indigenous planting must be established within a riparian buffer zone from the drains to protect and enhance the ecological values of the waterways. The plants must mature to a height of at least the width of the waterway.
- 8. Untreated stormwater must not be discharged into the drains.
- A site survey for wetlands and springs must be undertaken on site by a suitably qualified wetland specialist prior to any works commencing on site.
- (a) Any waipuna/springs or artesian flows discovered must be protected, naturalised and not be capped.
- (b) Wetland areas on site must be retained and planted with an indigenous riparian margin.
- 10. There must be a regular monitoring program for contaminants and the

accumulation of heavy metals in soil.

Engineering

26. Please advise if the applicant is proposing to change this, such as by carrying out a boundary adjustment or subdividing the residential area with access from Homebush Rd that is excluded from the solar farm works?

The land subject to the application is owned by the occupant of the existing dwelling. There is no proposal to undertake a boundary adjustment or subdivision as part of this application.

Stormwater

27. Stormwater must be managed onsite in accordance with the Environment Canterbury Land and Water Regional Plan. Measures included in Stormwater Management Plan are not reflected in design drawings.

Untreated Stormwater must not enter the Water Race. It is unclear if the assessment includes consideration of both water races, and whether the proposed Erosion and Sediment Measures would apply to both water races.

ECan requirements have been addressed through the Regional application. This is captured in SMP at a level of detail sufficient for current purposes, and additional detail can be provided at detailed design / engineering plan approval stage under the ECan process.

DSES also proposed that the ECan conditions include a requirement to only discharge onto or into land within the boundary of the site.

Additionally, Jane Anderson (SDC Consultant Planner) confirmed, via email dated 5.12.24, that 'The Development Engineer has advised that the information received from the Surface Water Team was not correct and helpfully the GIS mapping system has been recently updated (as detailed below) and therefore we can confirm that the second race is indeed closed and does not need to be included in the design or assessment for the proposal.'

Please provide comment.

28. Please advise of any potential adverse effects on the stability of the support structures proposed to be located in close proximity to both water races. Jane Anderson (SDC Consultant Planner) confirmed, via email dated 5.12.24, that 'As the second race is closed, further information regarding the possible impact of the "support structures" and foundations being constructed within the second race is no longer required. On further review of the application, it is noted that the application does not seek to construct foundations and support structures within the north-south water race. On this basis, it is considered that a response to question 27 of the RFI is not required.'

SDC Request	DSES Response	
Water Race Bylaw		
29. Please advise how Water Race bylaw requirements will be met for the north–south water race (identified in light green in Figure 2 below).	The provision referred to in the s92 request relates to building setback (not earthworks which the request speaks to). Noting the confirmation from Jane Anderson regarding water race 2, DSES confirm there are no buildings within the setback zone set out in the Bylaw for water race 1.	
30. Please confirm that the required 5 metre setback will be provided for the east – west water race (identified in light blue in Figure 2 above, and noting that it follows a slightly different path from that identified in the plan) – noting that while the water race may be located with the Fonterra site in places, the setback will still apply.	Noting the confirmation from Jane Anderson regarding water race 2, DSES confirm there will be no structures within 5m of the water race 1 (all inverter locations are indicative only and will be confirmed as 5m or more away at detailed design stage).	
31. Please confirm that sufficient space will be provided for both water races for machinery for cleaning and maintenance purposes.	See reply #25 (Cultural conditions) above. Agreement has been reached between SDC, ECAN, and Mahaanui Kurataiao Ltd. to plant one side of water race 1, whilst leaving the other clear for access. (As per #28 above the second water race is closed and not applicable). There is sufficient space within the site layout and design to accommodate the required access. Imposition of an easement in gross for said access is a matter between SDC and the landowner, which DSES is not. DSES would not oppose this where required.	
Additional comments		
Water Race –	Noted.	
The Development Engineer has also provided the following comments regarding additional culverts on the water		

race:

"The design proposes additional culverts on the water race, applicant is to be

SDC Request	DSES Response
aware that new culverts on a water race will require engineering acceptance from SDC. Permission will also be required for any temporary shutdowns of the water race for culvert installation. Culvert installation will also need to be witnessed by SDC staff."	
Transport - 32. Please confirm the proposed surface of the haul road	As set out in Section 3.1 'Calculation of Access Tracks' in the CKL Engineering report (Appendix 12 to the application), surfacing will include the importation of pavement metal which will be placed as 300mm – 500mm compacted layer of Blue/Brown rock.
Water supply – The Development Engineer has identified concerns regarding the likely availability/sustainability of relying on rainwater for the potable water supply of the compound.	DSES acknowledge this comment and note that the water supply matter has been discussed in Section 3.10 of the application document.

- ATTACHMENT 1 NZCE DARFIELD AGRIVOLTAIC FACILITY: SECTION 92 REQUEST FOR FURTHER INFORMATION RESPONSE (TRANSPORTATION)

 MEMO
- ATTACHMENT 2 UPDATED DRAWING SET (REV11, 17 DEC 2024)
- ATTACHMENT 3 DARFIELD SOLAR: SECTION 92 RESPONSE TO ITEMS 7, 8, 9 AND 10 (ECOLOGY) MEMO
- ATTACHMENT 4 DARFIELD AGRIVOLTAIC DEVELOPMENT: REQUEST FOR ADDITIONAL INFORMATION (S92) RESPONSE (GLINT AND GLARE) MEMO

ATTACHMENT 5 - REPLACEMENT GLINT AND GLARE CONDITION (DISTRICT CONDITION 22)

ATTACHMENT 6 - CONFIRMATION OF LOW RISK TO HUMAN HEALTH

ATTACHMENT 7 – DESKTOP GEOTECHNICAL ASSESSMENT

ATTACHMENT 8 – EMAIL CORRESPONDENCE REGARDING WATER RACE TREATMENT

ATTACHMENT 9 – INDICATIVE PANEL CONTENTS INFORMATION SHEET