

Note to the draft conditions: Text shown in black is that supplied by the Applicant on 12 June 2026. Tracking shows the Panel's changes and additions. Panel comments are added (where necessary) to assist with understanding the Panel's reasoning behind changes.

CRC tracked changes (in two colours)

Land Use Consent under section 9 of the RMA

Administering Authority: Mackenzie District Council

Activity:

1. The construction, operation, maintenance and decommissioning of the Haldon Solar Farm, including the use and storage of hazardous substances, earth works, vegetation clearance and for structures and activities not otherwise provided for in the General Rural Zone in the Mackenzie District Plan.
2. The construction, operation, maintenance and decommissioning of a substation associated with the Haldon Solar Farm.
3. The upgrade of an existing National Grid Transmission Line under Regulation 39 of the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

Location – Haldon Station, Haldon Arm Road, Twizel

Legal Description: Part Reserve 1358, Record of Title CB437/82

Commencement Date:

Lapse Date: 01 July 2036

Duration: 35 years, unless it has been surrendered or cancelled at an earlier date

Commented [JE1]: This information is useful in this document but noting it won't be present on the final set of conditions for the Applicant. Consider mentioning this in condition 0/Definitions to make it easier what the consent conditions refer to when they state "activities authorised by this consent".

	Definitions	Panel comment	CRC comments
0	Activity:		As per comments
1.	The construction, operation, maintenance and decommissioning of the Haldon Solar Farm, including the use and storage of hazardous substances, earth works, vegetation clearance and for structures and activities not otherwise provided for in the General Rural Zone in the Mackenzie District Plan. The construction, operation, maintenance and decommissioning of a substation associated with the Haldon Solar Farm. The upgrade of an existing National Grid Transmission Line under Regulation 39 of the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.		below regarding defining the activities this consent authorises.
	General Conditions	Panel comment	
1.	Compliance with plans The Solar Farm must be constructed, operated, maintained and decommissioned in general accordance with the information and plans submitted by the Consent Holder in support of application number FTAA-2508-1097. Plans and information that comprise this application are listed in Attachment 6. In the event of any conflict between the documents listed in Attachment 6, or any management plan prepared under these conditions, and these conditions, the conditions prevail. Pursuant to clause 26 of Schedule 5 of the Fast-track Approvals Act 2024, this resource consent will lapse 10 years from the date of its commencement unless it has been given effect to, surrendered or been cancelled at an earlier date. Pursuant to clause 26 of Schedule 5 of the Fast-track Approvals Act 2024, this resource consent will lapse 10 years from the date of its commencement unless it has been given effect to, surrendered or been cancelled at an earlier date.	Shifted from previous conditions 6 and 7. Lapse date included above.	Think the lapse date needs to remain a condition of consent, otherwise not enforceable.
2.	This resource consent will expire 35 years from the date of commencement of the consent unless it has been surrendered	Duration	

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	or cancelled at an earlier date pursuant to the Resource Management Act 1991.	included above	
3.	Monitoring fees Pursuant to section 36 of the Resource Management Act 1991, the Consent Holder must pay the actual and reasonable costs incurred by Mackenzie District Council when monitoring the conditions of these resource consents, including but not limited to costs associated with: a) site visits; b) review and certification of management plans; c) monitoring of works; and d) administration.		
4.	Complaints management The Consent Holder must maintain a register of any complaints received regarding the activities authorised by these resource consents. As a minimum, the register must include: a) the name and contact details (if supplied) of the complainant; b) the nature and details of the complaint; c) the location, date and time of the complaint and the alleged event giving rise to the complaint; d) weather conditions at the time of the complaint, where relevant to the complaint; e) other activities in the area that may have contributed to the complaint; f) the outcome of the Consent Holder's investigation into the complaint; and g) a description of any measures taken by the Consent Holder to respond to the issue raised by the complainant.		
5.	The Consent Holder must notify Mackenzie District Council of any complaint received that relates to the activities authorised by these <u>this</u> resource consents as soon as reasonably practicable and no later than two working days after receiving the complaint.		
6.	The Consent Holder must respond to any complainant as soon as reasonably practicable and <u>in any event</u> , within five working days <u>of the complaint being received</u> , advise Mackenzie District	Clarification	

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	Council and the complainant of the outcome of the Consent Holder's investigation and all ny measures taken, or proposed to be taken, to respond to the complaint.		
7.	Compliance with plans The Solar Farm must be constructed, operated, maintained and decommissioned in general accordance with the information and plans submitted by the Consent Holder in support of application number FTA-2500-1097. Plans and information that comprise this application are listed in Attachment X.	Shifted to condition 1	
8.	In the event of any conflict between the documents listed in Condition 7 and these conditions shall prevail.	Shifted to condition 1	
9.	The Consent Holder must ensure that all contractors engaged to undertake activities authorised by this resource consent are supplied with a copy of and made aware of the conditions and management plans that apply to this resource consent that are relevant to their work area and the measures required for compliance with the conditions.		
10.	The Consent Holder must: a) notify the Mackenzie District Council as to the intended commencement date of any works authorised as part of this resource consent at least 20 working days before such works commence; b) appoint a representative(s) who must be the principal contact person for the Mackenzie District Council in regard to matters relating to this resource consent and: i. inform the Mackenzie District Council of the representative's name and contact details at least 10 working days before works authorised by this consent commence; and ii. in the event that the principal contact person changes, must inform the Mackenzie District Council of a new representative's contact details within 10 working days of the principal contact person's appointment as soon as practicable. Advice Note: The Consent Holder is to contact Mackenzie District Council through info@mackenzie.govt.nz.	Improved certainty	
11.	A copy of this resource consent and all management plans required in accordance with this resource consent must be kept		

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	on site at all times during the construction work and must be produced without unreasonable delay upon request from an agent of the Mackenzie District Council.		
	Kaitiaki Governance Group		
12.	At least three months prior to the commencement of <u>physical any construction</u> works, the Consent Holder must invite mana whenua to establish the Kaitiaki Governance Group in relation to the Solar Farm. The invitation must seek direction on the makeup of the Kaitiaki Governance Group, frequency of hui and group composition. <i>Advice Note: Mana whenua status is to be determined by Kā Papatipu Rūnaka which comprises Te Rūnanga o Arowhenua; Te Rūnanga o Waihao; and Te Rūnanga o Moeraki.</i>	Consistent wording	
13.	The Kaitiaki Governance Group must comprise: a) up to three representatives of the Consent Holder; and b) up to three representatives appointed by mana whenua who elect to participate in the Kaitiaki Governance Group. When and if required, representatives from the Canterbury Regional Council, Mackenzie District Council, the Department of Conservation, and/or the Landowners, may be invited to attend Kaitiaki Governance Group meetings by agreement of the Kaitiaki Governance Group.		
14.	The purpose of the Kaitiaki Governance Group includes: a) facilitating ongoing engagement and communication between the Consent Holder and mana whenua; b) supporting the preparation and overseeing the implementation of the Strategic Cultural Programme as described in Conditions 18 to 20 below; c) enabling discussions between the Consent Holder and mana whenua on the effectiveness of the measures implemented by the Consent Holder to manage impacts on mana whenua values; d) providing feedback to the Consent Holder on the required management plans; e) providing a forum for mana whenua to share mātauranga Māori and cultural perspectives relevant to the Project site and the surrounding environment;		

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	f) providing access to the site for the purposes of Mahika kai harvest and other customary practices; and g) identifying initiatives that recognise and provide for mana whenua values associated with the taiao. Advice Note: Initiatives may include, but are not limited to, interpretive signage, pouwhenua, and/or artworks in locations agreed between the Consent Holder and mana whenua.		
15.	The Consent Holder must invite the Kaitiaki Governance Group to meet at least quarterly during construction of the ProjectSolar Farm. Following constructionDuring operation of the solar farm (generation of electricity), the Kaitiaki Governance Group must meet at an agreed frequency, with at least one meeting held each calendar year.	Consistent wording and differentiating solar farm from works required in the Compensation Area.	
16.	The Consent Holder must: a) provide the Kaitiaki Governance Group with up-to-date information relevant to the design, construction, operation and decommissioning of the Solar Farm; b) seek advice from the Kaitiaki Governance Group on the draft management plans required by the conditions of this consent, at least twenty working days prior to their submission for certification; and c) record any advice provided by the Kaitiaki Governance Group (including advice from Aoraki Environmental Consultancy and/or Aukaha) on the draft management plans must be recorded and append that advice ed to the relevant management plan; and: c) The Consent Holder must d) record a response to each comment, describing how the advice has been adopted or otherwise into the management plan.	Improved clarity	
17.	The Consent Holder must maintain a record of matters raised through the Kaitiaki Governance Group and the Consent		

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	Holder's response to those matters. Such records must be made available to Mackenzie District Council on request.		
18.	Prior to the commencement of <u>physical construction works on Site for the Solar Farm</u> , a Strategic Cultural Programme must be prepared by the Kaitiaki Governance Group and provided to Mackenzie District Council for information. The Strategic Cultural Programme must be implemented for the duration of the Solar Farm.	Consistent wording and differentiating solar farm from works required in the Compensation Area.	
19.	The purpose of <u>the</u> Strategic Cultural Programme is to: a) set out a programme of works that integrates project outcomes and initiatives required by these resource consents to promote the mana of the taiao and the people; b) recognise and provide for mana whenua values of the area affected by the activities authorised by these resource consents and support the management of the impacts on those values through the implementation of monitoring, restoration and enhancement measures; and c) incorporate mātauranga Māori into environmental management associated with the Solar Farm.		
20.	The Strategic Cultural Programme, must include: a) Provision for participation of mana whenua in the monitoring, mitigation, restoration, and/or enhancement activities for the project site and other affected areas associated with the Solar Farm, as required by the conditions of these resource consents; b) mechanisms to incorporate mātauranga Māori into environmental management practices associated with the Solar Farm; c) cultural awareness or induction initiatives for project staff and contractors;		

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	d) processes to identify and respond to matters affecting mana whenua values, including the health and wellbeing of the taiao, that may arise during the construction or operation of the Solar Farm; and e) processes for periodic review of the programme to enable adaptation over time.		
21.	If mana whenua representatives invited to participate in the Kaitiaki Governance Group advise the Consent Holder that they do not wish to participate in the preparation or implementation of the Strategic Cultural Programme, the Consent Holder will not be required to comply with Conditions 18 to 20. For the avoidance of doubt, the Consent Holder must still demonstrate that reasonable steps have been taken to invite mana whenua to participate in accordance with Condition 12.		
22.	In the event no separate agreement is in place between the Consent Holder and mana whenua in relation to these resource consents, the Consent Holder must meet the costs of establishing, resourcing, and paying (on an ongoing basis for the duration of this consent, where applicable) for any of the roles and functions of mana whenua as set out in these conditions.		
23.	The Consent Holder must, subject to any relevant health and safety requirements, ensure that mana whenua representatives have access to all relevant parts of the Project <u>Site</u> to enable them to carry out any of the roles and functions as set out in these conditions.	Consistent wording	
Start of Works			
24.	Pre-construction site meeting Not less than <u>At least</u> 10 working days prior to any <u>construction</u> works authorised by this consent commencing on the site <u>Solar Farm</u>, the Consent Holder must hold a pre-construction <u>site</u> meeting that is located at <u>the site</u> and includes <u>must invite</u> representatives from: a) Mackenzie District Council; b) Canterbury Regional Council; c) Representatives of Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Te Rūnanga o Moeraki; d) Transpower NZ Ltd; e) the contractor; and f) any other party representing the Consent Holder.	Consistent wording, improved clarity and differentiating solar farm from works required in the Compe	

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	At a minimum, the following must be covered at the meeting: a) scheduling and staging of the works; b) responsibilities of and contact details for all relevant parties; c) expectations regarding communication between all relevant parties; d) ecological expectations and obligations; e) site familiarisation; and f) confirmation that all relevant parties have copies of this resource consent and all associated Management Plans and understand the obligations contained in those documents. Advice Note: <i>in the case that any of the invited parties, other than a party representing the Consent Holder, does not attend this meeting, the Consent Holder will have complied with this condition, provided the invitations are sent at least 15 working days prior to the meeting. -requirement is met. In relation to Transpower attendance, written notice of the pre-start construction meeting should be sent to: transmission.corridor@transpower.co.nz.</i>	nsation Area.	
	Construction Management Plan		
25.	No less thanAt least 20 working days prior to the commencement of any construction physical works on the sitesolar farm, the Consent Holder must submit a Construction Management Plan, that has been prepared by a suitably qualified and experienced construction manager, to the Mackenzie District Council for certification (the "initial Construction Management Plan"). Certification is required to demonstrate that the Construction Management Plan provides the means to achieve the purpose and matters set out in Condition 2623. Advice Notes:The Consent Holder must work with Mackenzie District Council to secure certification of the Construction Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Construction Management Plan will occur. The Construction Management Plan must be consistent with all other management plans for the consented activity certified by Canterbury Regional Council or Mackenzie District Council.	Consistent wording, improved clarity and differentiating solar farm from works required in the Competence Area.	

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26.	The purpose of the Construction Management Plan is to outline the construction methods and management procedures to be implemented on Site so as to avoid, remedy or mitigate adverse construction-related effects on the environment. To achieve this purpose, the plan must include: a) confirmation of the construction works programme, including staging of work and construction methodologies; b) site plans, including the location of installations, internal access routes, parking areas and laydown areas; c) identification of the key personnel and contact person(s); d) procedures for recording complaints regarding construction activities including the maintenance of a register of any complaints received regarding the construction activities, as provided for in Condition 44; e) methods and systems to inform and train all persons working on the site of potential environmental issues and how to avoid, remedy or mitigate potential adverse effects; f) publicity and safety measures, including signage, to inform adjacent landowners and occupiers and other road users; g) identification of management procedures to deal with any potential effects of construction activity on the environment; h) waste minimisation and management measures; i) measures to avoid introduction or spread of weed or pest species, including fencing requirements; j) information to demonstrate that construction activities undertaken on the site will meet the safe distances within the New Zealand Electrical Code of Practice for Electrical Safe Distances 2001 (NZECP 34: 2001) or any subsequent revision of the code, including: i. an outline of the construction methods and management procedures to be implemented on site so that works near the National Grid are undertaken safely and potential adverse effects on	Noise conditions included	
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	the National Grid assets are appropriately managed; and ii. protocols to ensure that existing transmission lines and support structures will remain accessible during and after construction activities; k) protocols to manage accidental discovery of contaminated materials; and <u>l) measures to ensure conditions 47 and 48 are met; and</u> <u>h)m) protocols to manage accidental cultural heritage and archaeology discovery and preservation of discovered artefacts, including a list of contact names and numbers relevant to that discovery, in accordance with condition 50.</u>		
27.	Prior to submitting the Construction Management Plan to Mackenzie District Council, the draft Construction Management Plan must be provided to Transpower NZ Ltd, with an invitation to provide feedback within 10 working days. The Consent Holder must ensure that all written feedback on the draft Construction Management Plan received from Transpower NZ Ltd within the 10-working day timeframe is provided to the Mackenzie District Council when submitted for certification. This must include a clear explanation of how comments on the draft Construction Management Plan have been addressed <u>- whether it has been incorporated into the final Plan, and if not, the reasons for its exclusion or excluded.</u>	Consistent wording with condition 31	
28.	<u>Work on the solar farm may not commence until the initial Construction Management Plan is certified by the Mackenzie District Council.</u>	Clarity that the certified plan needs to be in place.	
29.	The Construction Management Plan may be amended at any time. Any amendments must be: a) made in consultation with Transpower NZ Ltd; <u>b) only for the following purposes of:</u> i. -improving the efficacy of the management of construction effects-related management activities;	Improved clarity Advice note redundant.	

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	ii. for the purpose of applying best practicable measures to mitigate adverse effects; b)c) consistent with the conditions of this resource consent; and c)d) submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. <i>Advice Note:</i> The Consent Holder must work with Mackenzie District Council to secure certification of the amended Construction Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the amended Construction Management Plan will occur.		
29.	The certified Construction Management Plan is to must be complied with implemented throughout the construction phase of the projects solar farm.	Improved clarity and differentiating solar farm from works required in the Compensation Area.	
	Construction Traffic Management		
30.	At least No less than 20 working days prior to the commencement of any construction physical works on the Sites solar farm, the Consent Holder must submit a Construction Traffic Management Plan, prepared by a suitably qualified and experienced Traffic Engineer, to Mackenzie District Council for certification, prepared by a suitably qualified and experienced practitioner. Certification is required to demonstrate that the Construction Traffic Management Plan provides the means to achieve the purpose and matters set out in Condition [31]. <i>Advice note:</i>	Improved clarity and differentiating solar farm from works required in the	

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	The Consent Holder must work with Mackenzie District Council to secure certification of the Construction Traffic Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Construction Traffic Management Plan will occur.	Compensation Area. Advice note redundant	
91	The purpose of the Construction Traffic Management Plan is to ensure that: a) construction traffic, particularly heavy traffic, is safely accommodated along all routes to the Site; b) construction traffic can safely turn at intersections without affecting the safety of the intersections; c) construction traffic can safely turn onto and off the Site at the proposed access location without impacting the safety of the frontage road; d) vehicles associated with construction can be accommodated onsite; and e) adverse effects of the condition of the public road network as a result of construction traffic are avoided, remedied and mitigated.		
92	To achieve the purpose, the Construction Traffic Management Plan must include: a) details of the construction programme and planned traffic flows; b) scheduling of deliveries within construction hours; c) identification of travel routes, site access points and staff/contractor parking, including details of any measures to enable shared transport, <u>including compliance with conditions 38, 39 and condition 46;</u> d) details of signage to provide guidance to the Site; e) measures to manage road safety including such measures as signage, driver protocols, monitoring and reporting requirements; f) measures to minimise the effects of construction traffic on local amenity, including the management of dust from the use of unsealed roads; g) details of any road safety assessments undertaken;	Improved certainty	

	h) methods for recording and accounting for pavement maintenance (including structures such as bridges and cattlegrids), including compliance with conditions 43 to 45; i) planning for, and details of over-weight / over-dimension transport movements, including any relevant permit provisions; j) provision for planning and managing the safety and efficiency of stock movements in conjunction with vehicle movements associated with the solar farm; k) incident reporting mechanisms, recording and reporting methods, including steps for remedial actions (if required); l) provision for emergency services access; m) temporary traffic management planning, including at one-lane bridges; n) provision and publicity of contact details (such as an 0800 number) so that members of the public and road users have a known point of contact for any traffic related issues that may arise during the construction of the solar farm; o) measures to ensure no standing or parking of construction-related vehicles on public roads; and p) measures for the ongoing review of the effectiveness of the Construction Traffic Management Plan.		
33.	Prior to submitting the Construction Traffic Management Plan to Mackenzie District Council, the draft Construction Traffic Management Plan must be provided to the New Zealand Transport Agency with an invitation to provide feedback within 10 working days. The Consent Holder must ensure that all written feedback on the draft Construction Traffic Management Plan received from the New Zealand Transport Agency within the 10 working day timeframe is provided to Mackenzie District Council when submitted for certification. This must include a clear explanation of how each comment on the draft Construction Traffic Management Plan has been addressed - whether it has been incorporated into the final Plan, and if not, the reasons for its exclusion.		
35.	Work on the solar farm may not commence until the Construction Traffic Management Plan is certified by the Mackenzie District Council.	Clarity that the certify	

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		d plan needs to be in place.	
94.	The Construction Traffic Management Plan may be amended at any time. Any amendments must be: a) made in consultation with the New Zealand Transport Agency; b) only for the following purposes of: i. -improving the efficacy of the construction traffic management measures; ii. for the purpose of applying best practicable measures to mitigate adverse effects; - b)c) consistent with the conditions of this resource consent; and - c)d) submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. Advice Note: The Consent Holder must work with Mackenzie District Council to secure certification of the amended Construction Traffic Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the amended Construction Traffic Management Plan will occur.	Advice note redundant.	
95.	The certified Construction Traffic Management Plan is to must be implemented-complied with throughout the construction phase of the projectsolar farm.	Improved clarity and differentiating solar farm from works required in the Compensation Area.	

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Access		
36. Access to the Site for construction traffic must be via a single access point to be established from Haldon Arm Road within 200 m of grid reference (NZTM 2000) E1379570, N5086610. The access must be constructed so that it can accommodate truck and trailer units turning left into and right out of the site within the formed carriageway. A queue space of 24 m must be provided at the access, <u>within the site</u>.	Improved certainty	
37. No less than At least 20 working days prior to the commencement of physical construction works on the Sitesolar farm, the Consent Holder must submit the design of the access and parking areas as prepared by a suitably qualified and experienced practitioner to the Mackenzie District Council for certification that confirms the design is practicable for the intended use and constructed to an all-weather standard. The design of the car park must identify sufficient area to accommodate the anticipated parking demands, and the access is to include details regarding internal passing locations.	Improved certainty	
38. Prior to the commencement of operation of the Solar Farm (the first generation of electricity), the Consent Holder must provide plans of the proposed permanent access arrangement to the site to the Mackenzie District Council for certification. The permanent access must be designed to accommodate the vehicle tracking of the reasonably foreseeable maintenance vehicles including appropriate gate setbacks to ensure queuing does not extend to the public road carriageway. The formation of the permanent access shall must be to an all-weather standard and the Consent Holder is to confirm that appropriate sight distance is achieved to Haldon Arm Road. Areas of existing access that are redundant are to be returned to the existing verge condition. <i>Advice note: The Consent Holder may consider use of the construction access for ongoing operations and maintenance.</i>	Improved certainty	
39. Prior to the commencement of construction on the site, the Consent Holder must develop a detailed design for the upgrade of the intersection between the two legs of Haldon Road located approximately at grid reference (NZTM 2000 E1405270, N5114480) and known locally as "Dog Kennel Corner". The design of this upgrade must be undertaken in consultation with the New Zealand Transport Agency and the Mackenzie District Council in their capacities as Roading Authorities.		

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The design must be in general accordance with indicative works illustrated in Attachment 2 to this consent and incorporate: a) widening of the western leg of Haldon Road to accommodate a large heavy vehicle (such as a truck and trailer) to turn left in while a single-unit truck waits to turn right out and vice versa; b) realignment of the eastern leg of Haldon Road as it approaches State Highway 8 to improve the driver observation angle to the left; and c) associated line marking and signage. The final design must be submitted to the New Zealand Transport Agency and the Mackenzie District Council for certification in their capacities as Rooding Authorities.		
40 Prior to the commencement of construction on the site, the Consent Holder must undertake the upgrades at Dog Kennel Corner in accordance with the design as certified in Condition 4199. The completed State Highway 8 intersection realignment works must be certified by a suitably experienced Chartered Professional Engineer that the works have been completed in accordance with the certified design, with that certification provided to the New Zealand Transport Agency and Mackenzie District Council. Advice Notes: <i>It is a requirement of the Government Rooding Powers Act 1989 that any person wanting to carry out works on a state highway first gain the approval of the New Zealand Transport Agency for the works and that a Corridor Access Request (CAR) is applied for and subsequently a Work Access Permit issued (WAP) before any works commence. A CAR will be required for the State Highway 8 Intersection works.</i> Advice Note: <i>Detailed design approval from the New Zealand Transport Agency must be gained by the Consent Holder prior to applying for a CAR. The detailed design must be prepared by a suitably qualified professional. In developing the detailed design, the Consent Holder will need to consult with the New Zealand Transport Agency appointed Safety Engineer and the state highway maintenance contractor for the Mackenzie District Council.</i> Advice Note: <i>A Corridor Access Request is made online via www.submitica.co.nz. The CAR needs to be submitted at least 21 working days before the planned start of works. The Corridor Access Request will need to include:</i>		

	i. The detailed final design for the State Highway 8 / Haldon Road intersection upgrade; ii. A Construction Traffic Management Plan that has attained approval from the New Zealand Transport Agency appointed state highway maintenance contractor for the Mackenzie District Council.		
44.	At least two months prior to the commencement of construction activities of the solar farm, the Consent Holder must engage a suitably qualified and experienced road maintenance engineer to prepare a programme to assess and record the condition of the road surface on Haldon Road and Haldon Arm Road. This programme must be submitted to the Mackenzie District Council for certification at least 40 working days before the assessment is conducted. The inspection assessment and recording of the road surface condition must be undertaken in consultation with the Mackenzie District Council's Transportation Manager and may not occur until the programme is certified by the Mackenzie District Council. The road surface condition rating must be used as the baseline (including vehicle counts) for assessing the works required to return the road surface to at least its standard / condition prior to the commencement of the construction. <i>Advice Note:</i> The programme may be provided as part of the Construction Traffic Management Plan.	Improved certainty	
42.	The Consent Holder must reimburse the Mackenzie District Council for the cost of the road surface maintenance (potholes / surface rutting etc) caused by the activities authorised by this consent. The maintenance cost will be calculated on a prorate basis against the baseline heavy vehicle traffic volumes and taking into account any financial assistance received by Council for road maintenance or funding otherwise committed to road maintenance.		
43.	Following the completion of construction works, the Consent Holder must return the road surface condition of Haldon Road and Haldon Arm Road to no worse than that identified in the road surface condition survey carried out in accordance with Condition 43 of this consent at the Consent Holder's expense and to the satisfaction of the Mackenzie District Council, where not otherwise reimbursed in accordance with Condition 44.	Reservation of discretion removed	

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44.	Prior to the commencement of physical construction works on the Sitesolar farm, the Consent Holder must identify and commit to practicable measures to minimise private vehicle travel to and from the Site for construction workers during the construction period, including (but not limited to): a) car-pooling incentives, such as ride-share arrangements or other mechanisms, to encourage shared vehicle trips; b) shuttle bus or shared transport servicees operating between the Site and identified local accommodation hubs where construction staff are anticipated to be accommodated; and c) staggered construction start and finish times, where required, to reduce concentrated vehicle movements during peak periods. ConstructionPhysical works on the Site may not commence until the above matters have been certified in writing by Mackenzie District Council as meeting the requirements of this condition to minimise private travel to and from the site. The certified measures must be implemented and maintained for the duration of the construction period.	Improved certainty	
Construction General			
45.	All construction works must be restricted to between 7.30am and 6.00pm from Monday to Saturday. There must be no works on Sundays or public holidays. The restriction on hours of works does not apply to low noise generating activities, such as site set up or staff meetings, which may occur outside of these hours. Monday to Saturday only. Advice Note: This restriction does not apply to low noise creating activities such as site set up, electrical works or planting, which may occur outside of these hours Monday to Saturday only.	Improved certainty. Advice note deleted as it potentially conflicts with the condition.	
46.	Noise from construction work must not exceed the typical duration limits recommended in, and must be measured and assessed in accordance with, New Zealand Standard NZS 6803: 1999 "Acoustics – Construction Noise" as set out below:		

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	Time of week	Time period	Noise Limit		
			L _{aeq}	LAF _{max}	
	Weekdays	0630-0730	60	75	
		0730-1800	75	90	
		1800-2000	70	85	
		2000-0630	45	75	
	Saturdays	0630-0730	45	75	
		0730-1800	75	90	
		1800-2000	45	75	
		2000-0630	45	75	
	Sundays & Public Holidays	0630-0730	45	75	
		0730-1800	55	85	
		1800-2000	45	75	
		2000-0630	45	75	
Advice Note: For reference, the noise limits that apply at rural dwellings that are occupied when construction work is underway are provided in Table 4. The construction noise limits do not apply at any building that is unoccupied during construction work. NZS6803:1999 requires construction noise to be measured outside <u>occupied</u> buildings at a point 1m from the wall most exposed to the sound under investigation and at a height 1.2 to 1.5m above the relevant floor height (no adjustment for façade effect reflections is to be made to the measured sound level). NZS6803:1999 states that noise should not be measured for more than one-hour at any location, and that 15-minutes will often be adequate.			Table 4 not identified.		
47.	Prior to the commencement of <u>physic</u> at any construction works on the <u>Sitesolar farm site</u> , the Consent Holder must provide to the Mackenzie District Council a copy of the Erosion and Sediment Control Plan for the construction of the Solar Farm, <u>as that has been</u> certified by Canterbury Regional Council under the conditions of the regional consents for the Site. <u>The Erosion</u>			Final sentence and advice note are	

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	Sediment Control Plan must be prepared by a suitably qualified and experienced person, taking into account Environment Canterbury's Erosion and Sediment Control Toolbox. <i>Advice Note:</i> <i>The Erosion and Sediment Control Plan required by this condition is the same document certified by Canterbury Regional Council under the regional consents for the Site.</i>	redundant	
46.	In the event of discovery of sensitive material (which is not authorised to be disturbed by any resource consent or other statutory authority), the Consent Holder must take the following steps: - Immediately cease all works within 20 metres of any part of the discovery, including shutting down all earth disturbing machinery and stopping all earthmoving activities; - Secure the area of the discovery, including a sufficient buffer area to ensure that all sensitive material remains undisturbed; - Inform relevant authorities and parties immediately of the discovery, including: - New Zealand Police if the discovery of human remains or koiwi; - Mackenzie District Council in all cases; - Heritage New Zealand Pouhere Taonga if the discovery is an archaeological site, Māori cultural artefact, human remains or koiwi; and - Mana Whenua if the discovery is an archaeological site, Māori cultural artefact, or koiwi. - Wait for and enable an inspection of the site by the relevant authority or agency that must occur within 20 working days of notification; - Following site inspection and consultation with all relevant parties (including owner and eConsent holder), the Mackenzie District Council will determine the area within which work must cease; - Work within the area determined by the Mackenzie District Council above must not recommence until all of the following requirements, so far as relevant to the discovery, have been met:	This condition differs from the condition on the CRC consents. Alignment is preferred. The consent authorit ies may wish to propose a more aligned condition.	<u>CRC do not take issue with MDC consents having this wording.</u> <u>CRC prefers the CRC Accidental Discovery Protocol to MDC's as it provides more detail in terms of the requirements and procedures to be followed. CRC also consider it more enforceable. CRC leaves this matter up to the Panel to determine.</u>

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	i. Heritage New Zealand Pouhere Taonga has confirmed that an archaeological authority has been approved for the work or that none is required. ii. Any required notification under the Protected Objects Act 1975 has been made to the Ministry for Culture and Heritage. iii. Any material of scientific or educational importance must be recorded and if appropriate, recovered and preserved. iv. Where the site is of Māori origin and an authority from Heritage New Zealand Pouhere Taonga is not required, the Mackenzie District Council will confirm, in consultation with Mana Whenua, that: - any koiwi have either been retained where discovered or removed in accordance with the appropriate tikanga; and - any agreed revisions to the planned works to be/have been made in order to address adverse effects on mana whenua values.		
	Management of Existing Transmission Infrastructure		
49	The site must be designed, constructed and operated in accordance with the New Zealand Electrical Code of Practice for Electrical Safe Distances 2001 (NZECP 34:2001) or any subsequent revision to the code, including all buildings or structures are be located within 12 metres of any outer visible edge of the foundation of any National Grid support structure; except for non-conductive fencing, which can be located 6 metres from any outer visible edge of the support structure foundation. In addition: a) all buildings and structures must be located to ensure vehicle access is maintained to the National Grid transmission lines and support structures, for maintenance at all reasonable times, and emergency works at all times. b) all internal access roads and gates providing access to the National Grid transmission lines must have a		

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	minimum width of 6 metres, or a 4 metre accessway formation width provided there is at least 1 metre either side of the formation width to provide a physical width of 6 metres, to allow access for operation and maintenance of the National Grid transmission assets at all reasonable times, and emergency works at all times. All access road gates must have a minimum width of 6 metres; and c) Battery Energy Storage Systems (BESS) must be set back at least 50 metres from the centreline of any National Grid transmission line. Advice Note: Transpower has a right to access its existing assets under section 23 of the Electricity Act 1992. Any development on the site must not preclude or obstruct this right of access. It is an offence under section 163D of the Electricity Act 1992 to intentionally obstruct any person in the performance of any duty or in doing any work that the person has the lawful authority to do under section 23 of the Electricity Act 1992.		
50.	All machinery, vehicles and mobile plant must maintain a minimum clearance distance of 4m from the live overhead conductors (wires) of the National Grid transmission lines at all times to avoid the potential of machinery striking the lines. This includes any loads being lifted or transported underneath the transmission lines.		
51.	The substation works must be designed and constructed to limit the EMF-electro magnetic field exposure at or beyond the boundary of the Transpower Grid Injection Point, GIP Substation site to the International Commission on Non-Ionising Radiation Protection, <i>Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (1 Hz to 100 kHz)</i> (Health Physics, Vol 99, No. 6, Pg 818-836, Dec 2010).		
52.	Any Transpower Grid Injection Point, GIP Substation works or equipment must be designed to comply with NZS 6869:2004 Limits and Measurement Methods of Electromagnetic Noise from High-Voltage AC Power Systems, 0.15 to 1000 MHz.		
	Landscape Management		
53.	In the event that the woody vegetation currently present on the lakeshore of Lake Benmore / Te Ao Marama on the southern border of the solar farm site is programmed to be or has been removed to the extent that it no longer provides visual screening of the solar farm from Lake Benmore / Te Ao Marama, the Consent Holder must <u>successfully</u> implement the landscape	Improv ed certaint y	<u>Add requirement:</u> <u>Where indigenous species are used these are to be of ecosourced material. This is best practice.</u>

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	mitigation plan prepared by Boffa Miskell dated 26 February 2026 [Attachment Three3] <u>for the purpose</u> of restoring visual screening of views of the solar farm from Lake Benmore / Te Ao Marama. <u>Any planting required must occur within 12 months of the removal of the woody vegetation.</u> To achieve this landscape planting, the Consent Holder must: <u>a) secure plants that have been grown under contract and hardened off to suit the environment they are being planted into;</u> <u>a)b) Where indigenous plant species are procured, these are to be of eco-sourced material;</u> <u>b)c) undertake planting during the best time of year in this location to ensure establishment success;</u> <u>c)d) provide irrigation to ensure establishment success for the first two years; and</u> <u>d)e) undertake release weeding and replacement of any unsuccessful planting for the first two five years.</u>						
56.	<u>Prior to the operation of the Solar Farm (the first generation of electricity), the Consent holder must establish landscape mitigation planting in Conservation/Release Area 1 (as shown on Attachment 4), in accordance with the concept outlined in Attachment 5.</u> <u>To achieve this landscape planting, the Consent Holder must:</u> <u>a) secure plants that have been grown under contract and hardened off to suit the environment they are being planted into;</u> <u>b) Where indigenous plant species are procured, these are to be of eco-sourced material;</u> <u>b) undertake planting during the best time of year in this location to ensure establishment success;</u> <u>c) provide irrigation to ensure establishment success for the first two years; and</u> <u>d) undertake release weeding and replacement of any unsuccessful planting for the first two five years.</u>	This mitigation was advanced in response to a request for information. A condition is appropriate.	<u>Presumably, given condition 55 five-year timeframe, that condition 56 (d) should read as five years.</u> <u>Check clause numbering</u>				
54.	The Consent Holder must meet the minimum fencing requirements set out in the following table. <table><tr><th>Location</th><th>Specification</th></tr><tr><td></td><td></td></tr></table>	Location	Specification				<u>An objective for the fencing around the Compensation Area is to functionally remove</u>
Location	Specification						

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Commented [JJ2]: These fencing requirements are for the purposes of ecological outcomes. Put this condition under the Ecological Management section rather than Landscaping provisions.

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Solar Farm	A rabbit-permeable security fencing (up to 2 m) with 100 mm x 50 mm mesh.	for 2 m) with 100 mm x 50 mm mesh. Condition 76). This will not be achieved with a 1.2m fence. The fence needs to be at least 1.8m. While Minute 18 states Panel footnotes a requirement of a minimum of 1.2m. I believe this is in error – arising from lifting specifications of a fence type from a by double-gate airlocks, with the fence clear in its	
Enhancement — Compensation Area	Fence at minimum 1.82 m above ground with 56 mm mesh designed to exclude juvenile mice. Mesh material to be marine-grade 316 stainless steel (or similar) for corrosion resistance and longevity, with a wire gauge that resists rodent gnawing. Ground skirt: horizontal mesh apron extending 400–500 mm outward at ground level (pinned) or buried, to prevent burrowing and undermining. Solid cap (roller or curved cap) to prevent purchase by climbing animals. Gates: pest-proof, self-closing, preferably double-gate airlocks, with continuous mesh and seals matching the fence.	Minute 18 expectation for the fence to alleviate its concerns that The fence would need to be constructed and maintained to a standard capable of excluding the full suite of relevant mammalian predators including mice. And the Panels footnote lists cats, mustelid, hedgehog and rodents. Further Comment provided.	
Lizard Conservation Areas	Standard stock fencing with up to 0.5 m non-permeable polythene or similar, with buried toe to prevent lizards returning to the solar farm site.		
55. No Pp	Permanent structures associated with the development, except fencing, must not be erected within 300 m of Haldon Arm Road.		
56.	The final Compensation Area fence design and construction must be undertaken by a suitably qualified and experienced contractor in mammalian pest exclusion pest-fencing. The design is to target for exclusion possum, hedgehog, rodents (including mice), mustelids and feral cats.	For clarity state the species that the design is to exclude. This then aligns with and enables the pest control targets of Condition 76.	

Commented [JJ3]: An objective for the fencing around the Compensation Area to functionally remove feral cats. This will not be achieved with a 1.2m fence. The fence needs to be at least 1.8m. Published guidance and practical New Zealand sanctuary experience support a predator-proof fence height of at least 1.8 m where cats are a target predator. The fence should not rely on height alone, but should include an anti-climb hood or overhang, fine predator-proof mesh, a buried or ground-level skirt to prevent digging, secure gates, and an ongoing inspection and maintenance regime. Lower predator fences may be effective for some species such as rats, stoats or possums in some contexts, but 1.8 m remains the industry-standard height for excluding cats from fenced conservation sanctuaries. For references see: ZIP. (2022). *Driving Down the Costs of Predator Fences*. Zero Invasive Predators Ltd.

Karori Sanctuary Trust / Zealandia. (2021). *Zealandia Te Māra a Tāne predator exclusion fence design and maintenance*.

Reardon, J. T., Whitmore, N., Holmes, K. M., Judd, L. M., Hutcheon, A. D., Norbury, G., & Mackenzie, D. I. (2012). Predator control allows critically endangered lizards to recover on mainland New Zealand. *New Zealand Journal of Ecology*, 36(2), 141–150.

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57.	The Consent Holder must ensure that the fencing requirements, including inspection frequencies and maintenance and repair are undertaken in accordance with the Pest Animal Management Plan to ensure the fence integrity is maintained for the duration of the consent.		
Ecological Management			
58.	The Consent Holder must engage a suitably qualified and experienced ecologist to prepare an overarching Ecological Management Plan. The Ecological Management Plan must be developed in consultation with the Department of Conservation and submitted to Mackenzie District Council for certification no less than at least 20 working days prior to the commencement of any physical construction works for the initial construction of the solar farm on the Site (of either the solar farm or works required for the Compensation Area). Certification is required to demonstrate that the Ecological Management Plan will provide the means to achieve the purpose and matters set out in Condition 62(59). <i>Advice notes: The Consent Holder must work with Mackenzie District Council to secure certification of the Ecological Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Ecological Management Plan will occur.</i> <i>Seasonality requirements associated with any pre-construction surveys may dictate that the development and certification of the Ecological Management Plan will need to occur in advance of the minimum 20 working day requirement.</i>	Improved certainty Advice note redundant.	Addresses earlier comments from - Memorandum-CRC- Response-to-Minute-13-and-15-inc.- appendices- redacted.pdf
59.	The purpose of the Ecological Management Plan is to set out the response methods and management procedures to be implemented on site so as to avoid, remedy or mitigate potential adverse effects, and where required, offset and compensate for residual adverse ecological effects during the construction and operation of the solar farm. To achieve this purpose, the Ecological Management Plan must be in general accordance with the draft Ecological Management Plan provided as part of the applications and: a) include records of engagement with the Department of Conservation in relation to the development of the Ecological Management Plan, including details of how issues raised by the Department of Conservation have	As further changes have been made, this draft plan may no longer be	

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been addressed or reasons why they are not addressed; b) set out the approach that has been taken to the management of effects, including in relation to <u>applied</u> research, monitoring, adaptive management and fall-back effects management actions <u>in the event that predicted ecological outcomes are not achieved</u>; c) provide a summary of the ecological values assessments that have been undertaken and identify potential effects arising from the construction and operation of the solar farm; d) set out how effects are to be managed on: - the outwash ecosystem; - lizards; - Threatened and At-risk plants; - Threatened and At-risk invertebrates; and - avifauna. The Ecological Management Plan must also set out: e) <u>Ecological objective and outcomes including for those taxa and ecosystems listed in Condition 62(d)</u>; f) <u>Measures to avoid or minimise/mitigate or rehabilitate adverse ecological effects associated with Project activities</u>; e)g) day to day ecological management for the solar farm site, the conservation / release areas and the <u>enhancement site compensation area</u>; h) <u>Indigenous planting methods within the Solar farm and Compensation Area and conservation/release areas including ecosourcing and seed collection, plant propagation, site preparation, planting specifications, and planting maintenance and monitoring, outcome targets and adaptive management and contingency actions as required</u>. i) <u>Weed management within the Solar farm site and compensation area, including target species, control methods and targets and monitoring and adaptive management actions planting programmes and weed management, including monitoring requirements and control targets for weeds</u>;	wholly appropriate. Greater specificity about management plan components This condition	
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Commented [JJ4]: Be consistent with regards to capitalization of clauses. Looks like these are typically not capitalized.

g) pest animal management, including fencing requirements and animal control <u>elimination or reduction</u> targets as set out in the Pest Animal Management Plan; k) <u>Applied</u> research, monitoring and reporting commitments, including establishment of a Technical Review Panel; h) <u>adaptive management including response to triggers and thresholds linked to the stated ecological objectives and outcomes;</u> m) <u>compensation programme including triggers and applied research and monitoring to verify that ecological outcomes have been achieved</u> programme, including triggers and components; n) <u>roles and responsibilities; and</u> o) <u>data management; and</u> p) <u>timeframes for implementing and reviewing the Ecological Management Plan.</u> <u>In the event of conflict between the Ecological Management Plan and a flora or fauna specific management plans which sit under the EMP, the flora or fauna specific plan will prevail.</u> Advice note: The Consent Holder shall must work with the Department of Conservation to secure feedback on the Ecological Management Plan within 20 working days of its provision or alternatively confirm with the Department of Conservation a timeframe for which certification of the Ecological Management Plan will occur.	on could conflict with Technical Review Panel conditions Clarity in the case of conflicting provisions	
63. <u>Works on the Site (including the Compensation Area) may not commence until the Ecological Management Plan is certified by the Mackenzie District Council.</u>	Clarity that the certified plan needs to be in place.	
66. The Ecological Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and <u>must be:</u> a) <u>only for the purpose of:</u> i. <u>improving ecological outcomes; or</u>	Advice note redundant.	<u>Addresses earlier comments from- Memorandum-CRC-Response-to-Minute-13-and-15-inc.-appendices-redacted.pdf</u>

ii. for the purpose of applying best practicable measures to mitigate adverse effects; a)b) consistent with the conditions of this resource consent; and b)c) submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. <i>Advice note:</i> <i>The Consent Holder must work with Mackenzie District Council to secure certification of the amended Ecological Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the amended Ecological Management Plan will occur.</i>		
6+ The Consent Holder must undertake the anticipated activities <u>authorised by this consent</u> in accordance with the certified Ecological Management Plan at all times.	Improv ed certaint y	<u>List the activities or provide what these are within an advice note.</u> <u>At first use, or in glossary, define certified ecological management plan(s) as meaning the EMP and any certified flora, fauna, pest, lizard, plant, invertebrate, avifauna or monitoring plans required under these conditions.</u>
Technical Review Panel		<u>Technical Review Panel functions may conflict with MDC certification role and EMP amendment provisions. Recommend distinguishing between matters requiring Council certification; and matters the TRP can</u>

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			determine independently. See comment.
62.	The Consent Holder must establish a Technical Review Panel comprising representation from the Kaitiaki Governance Group, Mackenzie District Council, Canterbury Regional Council and the Department of Conservation prior to the commencement of physical construction works on the solar farm the initial construction of the solar farm. Meetings of the Technical Review Panel must be convened at the initiation of solar farm operation (the first generation of electricity), and the first, second, fifth and tenth anniversaries of the solar farm operations for the following purposes: a) to develop the applied ecological research programme and to administer the approval process for funding of applied ecological research b) to review the results from ecological monitoring and applied ecological research undertaken in accordance with the requirements of this consent; and c) to recommend amendments to ecological management plans and ecological monitoring programmes arising from the review of ecological monitoring results; and d) to review and confirm compensation recommendations should any of the avifauna adaptive management triggers set out in Condition-condition 121[111] be reached; and to administer the approval process for funding on applied ecological research as per Condition 119. In addition to the above, on the tenth anniversary of solar farm operations, and based on a further review of the outcomes of all monitoring and mitigation undertaken as required by this consent, the Technical Review Panel must will make a final determination on any requirement for ecological compensation in response to any residual ecological effects from the construction and operation of the solar farm that have not been avoided, mitigated or offset. The scale and nature of any compensation determined by the Technical Review Panel must be commensurate with the actual residual impacts that have been identified and will be binding on the Consent Holder.	Improved certainty More comprehensive oversight appropriate Moved from below Shifted from applied research condition	Addresses earlier comments from - Memorandum-CRC-Response-to-Minute-13-and-15-inc.-appendices-redacted.pdf Needs to also provide for the now-offered upfront (rather than only triggered- compensation) package of \$1m for avifauna and its implementation and review. Maintain this triggered- compensation as that might still apply regardless of this upfront avifauna compensation.

Commented [JJ5]: As an example.... Conditions 66 and 73 appear to give the Technical Review Panel a decision-making role in relation to adaptive management and compensation outcomes, including determinations that are binding on the Consent Holder. However, Condition 64 requires amendments to the Ecological Management Plan to be submitted to Mackenzie District Council for certification before implementation. It is unclear whether TRP determinations are intended to be advisory recommendations to inform amendments to certified management plans, or whether they are intended to be binding decisions that override or constrain Council's certification role. This should be clarified to avoid uncertainty about the respective roles of the TRP and the consent authority.

If the intention is that TRP determinations are binding, then the condition should still explain how that binding determination is incorporated into certified plans and what Council's certification role is limited to.

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Commented [JJ6]: Needs to provide for the now-offered compensation package of \$1m for avifauna and its implementation and review.

The Technical Review Panel must design and administer a programme of statistically robust applied ecological research and monitoring designed to improve the knowledge and understanding of effects of solar development in dryland environments, including: a) the effects of panel shading and associated microclimatic change on dryland vegetation, Threatened and At Risk plant species, and basking and other open-habitat invertebrates; b) the efficacy of salvage, propagation, translocation and relocation of Threatened and At Risk plants and invertebrates; c) bird-strike collision rates and mechanisms, and the reliability of the carcass-detection methodologies; and d) the ecological gains actually delivered by providing a compensation area, predator-exclusion fencing and pest management (including reduction and control). The Applied Research Programme must include independent peer review of research methods and reporting, have access to all monitoring data and reporting required by conditions of this consent, and publication where appropriate. Advice Note 1s: <u>The Kaitiaki Governance Group, Mackenzie District Council, Canterbury Regional Council and/or the Department of Conservation With regard to Mackenzie District Council's regulatory functions in administering this consent, the Mackenzie District Council may consider the nomination or appointment of an independent expert on their behalf of the Council to fulfil this role.</u> Advice Note 2: <u>Technical Review Panel and compensation elements of this condition were proposed on an Augier basis by the Applicant.</u> Advice Note 3: <u>If representatives invited to participate in the Technical Review Panel advise the Consent Holder that they do not wish to participate, the Consent Holder will not be deemed non-compliant with this condition. For the avoidance of doubt, the Consent Holder must still demonstrate that reasonable steps have been taken to invite the participants in accordance with this condition.</u>	on below and improved certainty. Improved certainty/workability	
69. The Technical Review Panel will determine its own processes and procedures for conducting its meetings and decision-making process. The Technical Review Panel may engage other specialist services for purposes of technical review or input on		

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	an as-required basis at the reasonable cost of the Consent Holder.		
64:	The Consent Holder must provide an appropriate level of <u>funding and administrative support</u> for the Technical Review Panel <u>to enable it to fulfil its functions as set out in condition 66:</u>	More than administrative support will be required, especially with bringing the research programme into the above conditions	<u>Appropriate level of funding and administrative support should be more clearly defined either within this condition or within condition 0 above.</u> <u>The proffered funding stated by the Applicant in their response to Minute 18 is insufficient to achieve Condition 66 research objectives to better understand effects of shading on plants and invertebrates, efficacy of various salvage methods: bird-strike management method efficacy and Compensation Area outcomes. Each of these areas would require a Masters or PhD programme level of effort. Proffered funding might only cover 1-2 student research programmes. Should a more accurate reflection of funding level requirement be wanted, I would recommend reconsideration of funding adequacy to match research objectives (consult</u>

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			with research providers). Either way, expectations of what an appropriate level of funding is would enable the councils compliance function for this condition.
	Enhancement Compensation Area and Release Sites	Consistent terminology	Noting this was previously titled Offset Enhancement Area.
65.	In order to achieve the outcomes anticipated by the certified ecological management plans, the Consent Holder must establish and maintain an enhancement compensation area of approximately 180 ha in size located to the north of the solar site and lizard and invertebrate release sites (as shown on Attachment Four, forming part of this consent) for the purpose of: a) maintaining and enhancing an area of outwash plain ecosystem with ecological values similar to the solar farm site including through appropriate native plantings and deployment of habitat features (e.g. boulders (boulder field boulder field) or coarse wood for the purpose of enhancing habitat and carrying capacity for invertebrates, lizards or threatened plants; b) providing bird foraging and nesting habitat in a pest-controlled environment; c) improving the likelihood of survival of relocated or salvaged invertebrates, and facilitating the recovery of resident invertebrates; d) improving the likelihood of survival of repatriated repatriation of Threatened or At-risk plants salvaged from the solar farm site and/or deriving from nursery propagation, protecting and or facilitating the recovery of existing threatened plant values; and/or the release of salvaged invertebrates; repatriation of Threatened or At-risk plants salvaged from the solar farm site and/or deriving from nursery propagation; and	Improved certainty	

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Commented [JJ8]: Presumably, given Applicant response to Minute 18, salvage of Threatened plants is not now proposed - they are to be avoided and buffered. However, plant material of the species (seed or otherwise) may be procured and established within the conservation area.

	c) g) monitoring and research <u>to verify stated outcomes and inform adaptive management and contingency actions where required.</u>		
66:	The <u>Enhancement Compensation</u> Area must include the following features: a) <u>Predator proof</u> fencing to that also excludes uncontrolled vehicle access and <u>is</u> designed in accordance with Condition 5754; b) removal of briar rose and stonecrop; c) pest management in accordance with the targets set out in Condition 7672; d) restoration planting; and e) provision for ongoing monitoring and maintenance.	Improv ed certaint y	
67:	Construction <u>works</u> must not commence on the solar farm until: <u>(a) the Compensation Area is established and fenced, and pest animal control is underway; and</u> <u>(b) the Mackenzie District Council has been provided with written confirmation that the Consent Holder has entered into an enduring legal arrangement to provide for the <u>Enhancement Compensation</u> Area to be protected in perpetuity for nature conservation. Such arrangements may include covenanting or similar registered title instrument.</u>	Ensurin g the Compe nsation Area is establis hed early, for any translo cation etc.	<u>Recommending defining what "underway" means in an advice note under this condition wording. Does it mean just starting, or erection of fences? Traps set etc.</u>
68:	The Consent Holder must manage the <u>Enhancement Compensation</u> Area for the life of the solar farm in accordance with the certified ecological management plans.		
69:	Based on the results from the ten-year Technical Review Panel review, and following consideration of the results of the ecological monitoring required by the conditions of this consent to determine whether the objectives of the certified ecological management plans have been achieved, the Technical Review Panel shall <u>must</u> determine the need for additional adaptive management responses that may include the following: a) increased or decreased pest control within the <u>Enhancement Compensation</u> Area; b) establishment of an additional <u>offset compensation</u> area of up to 170 ha if considered commensurate with the actual residual impacts identified; and /or		

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	c) other outcomes determined by the Technical Review Panel as part of the 10-year review described in Condition 6662.		
	Pest Animal Management Plan		
70.	The Consent Holder must engage a suitably qualified and experienced ecologist-mammalian in pest management expert to prepare a Pest Animal Management Plan. The Pest Animal Management Plan must be submitted to Mackenzie District Council for certification no less than at least 20 working days prior to the commencement of any physical works for the initial construction of the solar farm construction works on the Site (of either the solar farm or works required for the Compensation Area). Certification is required to demonstrate that the Pest Animal Management Plan will provide the means to achieve the purpose and matters set out in Condition [7172]. <i>Advice note: The Consent Holder must work with Mackenzie District Council to secure certification of the Pest Animal Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Plant Management Plan will occur.</i> <i>The Pest Animal Management Plan may be incorporated into the overarching Ecological Management Plan framework.</i>	Improved certainty, timing to align with Compensation Area establishment Advice note redundant.	
71.	The purpose of the Pest Animal Management Plan is to provide details on how pest animals will be managed on the solar farm, the enhancement-compensation area and the release areas during the construction and operation of the Solar Farm and achieve the target outcomes shown in Condition 7672. To achieve this purpose, the Pest Animal Management Plan must: - establish an initial eradication programme and an ongoing biosecurity and incursion detection and response protocol to achieve and maintain near-zero mammalian pest density within the fenced areas; - identify control measures and methodologies for how pest management will be undertaken, which will include descriptions of spatial configuration of bait lines and baiting and/or trapping details including types of baits/traps and frequency of baiting/servicing; - identify times of year to focus on particular pest management strategies;	Consistent wording and improved certainty	

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	d) identify control targets for each pest species (e.g. using tracking tunnel and / or trapping indices); e) <u>give effect to the Canterbury Regional Pest Management Plan; and</u> e)f) identify surveillance methodologies in accordance with standard accepted practice, including but not limited to trail cameras, waxtags, chew cards, tracking tunnels, kill and live capture traps.; f) establish mechanisms to report annually on the results of pest mammal to the Mackenzie District Council; and g)h) must set out the details of monitoring programmes for Baseline, Reduction Target and Response as per Condition 7974.																														
72	The following pest animal targets and thresholds will apply: <table><tr><th>Species</th><th>Location</th><th>Target</th></tr><tr><td rowspan="2">Possum</td><td>Solar Site</td><td><5% Residual</td></tr><tr><td>Conservation / Release Areas and Enhancement <u>Compensation area</u></td><td>Functional era</td></tr><tr><td rowspan="2">Rabbits</td><td>Solar Site</td><td>Annual review populations</td></tr><tr><td>Conservation / Release Areas and Enhancement <u>SiteCompensation area</u></td><td>Annual review populations</td></tr><tr><td rowspan="2">Rodents</td><td>Solar Site</td><td><10% tracking</td></tr><tr><td>Conservation / Release Areas and Enhancement <u>SiteCompensation area</u></td><td>Functional era</td></tr><tr><td rowspan="2">Hedgehogs</td><td>Solar Site</td><td><5% Residual</td></tr><tr><td>Conservation / Release Areas and Enhancement <u>SiteCompensation area</u></td><td>Functional era</td></tr><tr><td rowspan="2">Mustelids</td><td>Solar Site</td><td><5% Residual</td></tr><tr><td>Conservation / Release Areas and Enhancement <u>SiteCompensation area</u></td><td>Functional era</td></tr></table>	Species	Location	Target	Possum	Solar Site	<5% Residual	Conservation / Release Areas and Enhancement <u>Compensation area</u>	Functional era	Rabbits	Solar Site	Annual review populations	Conservation / Release Areas and Enhancement <u>SiteCompensation area</u>	Annual review populations	Rodents	Solar Site	<10% tracking	Conservation / Release Areas and Enhancement <u>SiteCompensation area</u>	Functional era	Hedgehogs	Solar Site	<5% Residual	Conservation / Release Areas and Enhancement <u>SiteCompensation area</u>	Functional era	Mustelids	Solar Site	<5% Residual	Conservation / Release Areas and Enhancement <u>SiteCompensation area</u>	Functional era		
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	Conservation / Release Areas and Enhancement <u>SiteCompensation area</u>	Functional era																													
Hedgehogs	Solar Site	<5% Residual																													
	Conservation / Release Areas and Enhancement <u>SiteCompensation area</u>	Functional era																													
Mustelids	Solar Site	<5% Residual																													
	Conservation / Release Areas and Enhancement <u>SiteCompensation area</u>	Functional era																													

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	Feral cats	Solar Site	<5% Residual Trap Catch	>10% Residual Trap Catch	
		Conservation / Release Areas and Enhancement Site Compensation area	Functional eradication	Any detection	
77.	<u>Works on the Site (of either the solar farm or works required for the Compensation Area) may not commence until the Pest Animal Management Plan is certified by the Mackenzie District Council.</u>		Certain ty of timing.		
79.	The Consent Holder must undertake the anticipated activities <u>authorised by this consent</u> in accordance with the certified Pest Animal Management Plan at all times.		Improv ed certaint y	<u>Similar to above comment specify what the activities are that this consent authorises.</u>	
74.	The Consent Holder must undertake the following monitoring of mammalian pest management: a) Baseline monitoring: Prior to the commencement of mammalian pest management, pest monitoring must be undertaken to establish baseline data on pest animal densities of target species; b) Reduction target monitoring: Commencing one year following the implementation of pest animal management, reduction target monitoring must be undertaken <u>in February, May, August and November of each year annually</u> to verify that the reduction targets outlined in the table contained in Condition 76[72]. c) Response monitoring: In the event monitoring required by (b) identifies that targets have not been achieved <u>on two consecutive monitoring occasions, or pest populations meet or exceed a and pest levels are consistent with the thresholds, outlined set out</u> in the Table in Condition 7672, the Consent Holder must implement additional pest animal management in accordance with the Pest Animal Management Plan.		Improv ed certaint y and increas ed frequen cy from annual checks propos ed, which is inadeq uate for a pest eradica tion area.		Formatted: Left
75.	The Consent Holder must provide an annual report prepared by a suitably qualified and experienced ecologist to Mackenzie District Council that sets out the results of the monitoring required in Condition 79 [74] . The report must also consider the status of the rabbit populations within the solar farm and <u>enhancement compensation</u> area and make recommendations				Formatted: Left

Commented [JJ9]: This will not be possible with a fence lower than 1.8m. See comment above at condition 57 regarding height of fence.

	on control levels to be maintained for purposes of controlling weeds within the <u>Site</u> .		
	Plant Management Plan		
76.	The Consent Holder must engage a suitably qualified and experienced ecologist in Threatened or At-risk dry-land plant ecology to prepare a Plant Management Plan. The Plant Management Plan must be developed in consultation with the Department of Conservation and submitted to Mackenzie District Council for certification no less than <u>at least</u> 20 working days prior to the commencement of any physical works for the initial construction of the solar farm <u>works on the Site solar farm</u>. Certification is required to demonstrate that the Plant Management Plan will provide the means to achieve the purpose and matters set out in Condition [7782]. <i>Advice notes: The Consent Holder must work with Mackenzie District Council to secure certification of the Vegetation Plant Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Plant Management Plan will occur.</i> <i>The Plant Management Plan may be incorporated into the overarching Ecological Management Plan framework.</i>	Improved certainty Advice note redundant	
77.	The purpose of the Plant Management Plan is to set out the methods and management procedures to be implemented on site so as to achieve no net loss of Threatened or At-risk dry-land plants during the construction and operation of the solar farm. To achieve this purpose, the Plant Management Plan must be in general accordance with the draft Plant Management Plan provided as part of the applications and: - detail the ecological management programme that will be implemented to avoid, remedy or mitigate the impacts on Threatened or At-risk dry-land plants during construction of the Haldon Solar Farm; - document the on-going management measures that will be adopted by the Consent Holder, including the avoidance, management, restoration and maintenance of Threatened or At-risk dry-land plants within both the Project Site and the Enhancement Site <u>Compensation area</u>; and - ensure that any long-term effects are appropriately managed through monitoring, adaptive management	As further changes have been made, this draft plan may no longer be wholly appropriate.	

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	where appropriate, and implementation of appropriate responses.		
78:	The Plant Management Plan must include: a) records of engagement with the Department of Conservation in relation to the development of the Plant Management Plan, including details of how issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; b) measures to be undertaken during construction to avoid or minimise effects on Threatened or At-risk dry-land plants, including: i. details of any pre-construction survey results (including seasonal considerations) and the flagging / isolating of Threatened or At-risk dry-land plants where identified or located <u>as per Condition 87</u>; ii. vegetation clearance protocols, including provision for supervision and oversight of works by a suitably qualified and experienced ecologist; iii. minimisation of earthworks and vehicle tracking through demarcation of access routes and co-locating of infrastructure such as roads, trenches and cabling; and iv. management of weeds, including monitoring requirements and control targets for weeds; c) identification of opportunities for seed collection, salvage, translocation and propagation of Threatened or At-risk dry-land plants, including identification or establishment of suitable nursery care; d) adaptive management responses, including those in described in condition 81, in the event that the purpose of the Plant Management Plan is not being or is unlikely to be met; and e) research, monitoring and reporting commitments.		<u>Edit to take into account Minute 18 Panel comments and Applicant's response to: Further pre-construction threatened plant surveys and avoidance measures: Lodestone confirms it has committed to complete pre-construction spring annual surveys for all Nationally Threatened plants. Further, we will include an exclusion buffer to ensure no shading from solar panels and no other effects caused by construction activities wherever a Nationally Threatened plant is identified.</u>
79:	The Plant Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and <u>must be:</u> <u>a) be only for the following purposes:</u>	Improved certainty	

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	i. fimproving ecological outcomes; ii. be for the purpose of applying best practicable measures to mitigate adverse effects; a)b) be consistent with the conditions of this resource consent; and b)c). submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. <i>Advice note:</i> <i>The Consent Holder must work with Mackenzie District Council to secure certification of any amendments within 20 working days of their provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the amended Plant Management Plan will occur.</i>	Advice note redundant	
85.	Construction works on the solar farm may not commence until the Plant Management Plan is certified by the Mackenzie District Council.	Certainty of timing	
86.	The Consent Holder must undertake the anticipated activities authorised by this consent in accordance with the certified Plant Management Plan at all times.	Improved certainty	
87.	Prior to the construction of the Solar Farm, the Consent Holder must engage a suitably qualified and experienced ecologist to prepare, in consultation with the Department of Conservation, a <u>statistically robust</u> pre-construction baseline monitoring plan for Nationally Threatened <u>or At-risk</u> dry-land plants within the solar farm and <u>enhancement Compensation Area</u> in accordance with the requirements of the Plant Management Plan. <u>The monitoring plan is to enable reporting on the ecological objectives and outcomes identified by the overarching EMP regarding Threatened and At-risk plant species.</u> The pre-construction <u>baseline</u> monitoring plan must include: a) records of engagement with the Department of Conservation in relation to the development of the pre-construction monitoring plan, including details of how issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; b) confirmation that the baseline survey will be undertaken during the months of September to	Improved certainty and protection outcomes	<u>Important to link the monitoring plan to the EMPs objectives and outcomes. As these are the outcomes linked to the actual effects of the activity.</u>

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	November prior to the start of construction to optimise detection probability for spring annuals; c) details of the scope and duration of the surveys; d) methodologies for the recording of the locations of any Nationally Threatened <u>or At-risk</u> dry land plants if/when discovered; e) any further actions that are to be taken to provide immediate <u>avoidance and</u> protection for the identified plants (e.g. placement of cages for protection) <u>that are Nationally Threatened</u>; and f) details on how appropriate ecological buffers are to be established around the identified plants to avoid damage during construction or operation of the solar farm and how that buffer is to be incorporated into the final design of the Solar Farm.		
82.	The Consent Holder must undertake the pre-construction baseline monitoring plan and submit the results of the monitoring and actions taken to identify and protect any Nationally Threatened plants to Mackenzie District Council prior to construction activities commencing on the <u>site</u> <u>Sitesolar farm</u> .		
83.	Where Nationally Threatened plant species are located within the solar farm, <u>the location of</u> those species along with an appropriate <u>(10m – 35m)</u> buffer <u>must</u> <u>will</u> be avoided in the solar farm layout <u>and permanently fenced using a standard stock exclusion fence</u> . <u>Exact buffer distances are to be informed by shade modelling.</u>	10m suggest ed – the Panel welcom es alternat e views with reasoni ng.	<u>Shade modelling undertaken by Nova. another solar farm applicant found a 10 to 35m setback was required to avoid shading target (threatened) plants.</u>
84.	During the construction of the Solar Farm, the Consent Holder must engage a suitably qualified and experienced ecologist to prepare an annual compliance monitoring report in accordance with the requirements of the Plant Management Plan. a) The annual compliance monitoring report must include: i. results of the pre-construction baseline surveys at the solar farm and the <u>Enhancement Compensation Area, including maps</u>;		

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Commented [JJ10]: Effects management determined by AEE undertaken for the Nova application (Attachment 2.14, Wildlands, March 2026) stated: Shade modelling undertaken by Nova (Appendix 3) identified a 27-metre maximum shadow in the middle of winter created by the solar panels in some parts of the site. To ensure that this shadow does not cast shade on areas of ecologically significant vegetation south of the panel area, a 10 to 35-metre panel setback has been applied to ecologically significant vegetation and locations of Threatened and At Risk plants, with the setbacks informed by the shade modelling at the site. Although no targeted surveys were undertaken outside the site, it is inferred that Threatened and At Risk plants and ecologically significant dryland habitat are present. The minimum set back from the panels to the edge of the site is 20 meters, in areas where shade modelling has identified an increase in shading as a result of the solar panels, a 35 meter set back has been applied to avoid potentially shading any Threatened and At Risk plants or habitat outside the site. The 35-metre setback in southern parts of the site is a conservative approach, as the maximum identified shadow length is eight metres shorter.

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	ii. confirmation of any incidental discovery of additional Threatened or At-risk plant specimens and actions taken to avoid effects on that specimen where practicable; iii. confirmation of any seed collection, plant salvage and/or translocations undertaken in accordance with the Plant Management Plan and associated consent conditions; iv. results of any salvage and relocation; v. any recommendation to improve the effectiveness of the Plant Management Plan. b) The Consent Holder must submit the compliance monitoring report to Mackenzie District Council on 1 July of each year for the duration of the construction of the Solar Farm.		
85.	Prior to the commencement of operations of the Solar Farm <u>(the first generation of electricity)</u>, the Consent Holder must engage a suitably qualified and experienced ecologist to prepare, in consultation with the Department of Conservation and the Technical Review Panel, a <u>statistically robust plant applied research and</u> monitoring plan to determine whether the objective of the Plant Management Plan is being achieved. The plant <u>applied research and</u> monitoring plan must include: a) records of engagement with the Department of Conservation in relation to the development of the plant monitoring plan, including details of how issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; b) a review of the findings from the monitoring undertaken during construction; c) confirmation of the representative monitoring locations within the solar farm and <u>enhancement compensation</u> area; d) sampling frequencies and methodologies including seasonal and/or cryptic species; e) records of environmental parameters including air temperature, soil temperature, soil moisture and light levels; f) results of the success of any seed collection, propagation and planting of plants undertaken;	Increased certainty of robust research and monitoring	

	g) review of the results of pest control measures; h) incidental discovery procedures; i) procedures for reviewing the effectiveness of the proposed monitoring; h) <u>independent peer review of the monitoring plan and reports by a suitably qualified and experienced ecologist and bio-statistician</u>; and jjk) reporting requirements, including the development and publishing of research and of an annual monitoring report.		
86	The Consent Holder must undertake the <u>applied research</u> monitoring <u>required anticipated</u> by the plant monitoring plan for <u>ten twenty</u> years following commencement of operation of the solar farm or until consistency with the objective of the Plant Management Plan has been demonstrated.	Improved certainty, and timeframe more appropriate for Threatened species monitoring	
87	The Consent Holder must submit the annual plant <u>applied research and</u> monitoring report to Mackenzie District Council on 1 July of each year for the duration of the monitoring period that includes the results of the <u>applied research and monitoring programme</u> and setting out of any adaptive management <u>or contingency</u> responses should the results indicate that the objective of the Plant Management Plan is not being or are unlikely to be achieved. If <u>applied research or</u> monitoring results indicate that the purpose of the Plant Management Plan is not being or are unlikely to be achieved, adaptive management <u>or contingency</u> responses include the following: a) additional seed collection, propagation and planting of Threatened or At-risk plants; b) increased pest control within the solar farm and <u>enhancement compensation</u> area; <u>and/or</u>	Potentially conflicts with Technical Review Panel condition	

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	c) payment of \$10,000 per Threatened or At-risk species failures towards recovery programmes for other populations of the affected species other actions as determined by the Technical Review Panel. Advice note: Compensation actions for Threatened or At-risk plants may provide for implementation by Department of Conservation.		
	Herpetofauna		
88.	The Consent Holder must engage a suitably qualified and experienced ecologist in herpetofauna to prepare a Lizard Management Plan. The Lizard Management Plan must be consistent with the document titled "Key Principles for Lizard Salvage and Transfer in New Zealand, 2019" and be developed in consultation with the Department of Conservation. The Lizard Management Plan must be submitted to Mackenzie District Council for certification no less than <u>at least</u> 20 working days prior to the commencement of any physical works for the initial construction <u>works on the Site of solar farm</u> the solar farm. Certification is required to demonstrate that the Lizard Management Plan will provide the means to achieve the purpose and matters set out in Condition 95. Advice note: The Consent Holder must work with Mackenzie District Council to secure certification of the Lizard Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Lizard Management Plan will occur. The Lizard Management Plan may be incorporated into the overarching Ecological Management Plan framework. <u>Where any conflict with the LMP and EMP arise, the lizard-specific provisions prevail for herpetofauna matters.</u>	Improved certainty Advice note redundant	
89.	The purpose of the Lizard Management Plan is to set out the response methods and management procedures to be implemented on site so as to achieve no net loss of herpetofauna during the construction and operation of the solar farm. To achieve this purpose, the Lizard Management Plan must be in general accordance with the draft Lizard Management Plan provided as part of the applications and include: a) records of engagement with the Department of Conservation in relation to the development of the Lizard Management Plan, including details of how	As further changes have been made, this draft plan	

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	issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; b) a description of the measures to minimise adverse effects on lizards, including through lizard salvage and relocation; b)c) <u>Location of release sites, including consideration of whether the predator-free compensation area is a preferable location;</u> c)d) requirements for release sites, including creation and enhancement of habitat and predator control; d)e) requirements for post-release monitoring and reporting; e)f) accidental discovery procedures; and f)g) roles and responsibilities.	may no longer be wholly appropriate. The compensation area may be a more suitable location than the small conservation areas.	
96.	<u>Construction works on the Site solar farm may not commence until the Lizard Management Plan is certified by the Mackenzie District Council.</u>	Certainty as to timing	
99.	The Lizard Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and <u>must be:</u> a) <u>be</u> only for the <u>following</u> purposes of: - improving ecological outcomes; be for the purpose of applying best practicable measures to mitigate adverse effects; a)b) <u>be</u> consistent with the conditions of this resource consent; and b)c) submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. <u>Advice notes:</u>	Improved certainty Advice note redundant	

	The Consent Holder must work with Mackenzie District Council to secure certification of the amended Lizard Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the amended Lizard Management Plan will occur.		
91.	The Consent Holder must undertake the anticipated activities authorised by this consent in accordance with the certified Lizard Management Plan at all times. Advice note: Nothing in these resource consents removes the need for the Consent Holder to apply for any approvals required under the Wildlife Act 1953. For the avoidance of doubt, this resource consent does not constitute lawful authority under the Wildlife Act.	Improved certainty.	Same comment as earlier, define the activities in advice note.
92.	During the construction of the Solar Farm, the Consent Holder must engage a suitably qualified and experienced practitioner to prepare an annual compliance monitoring report in accordance with the requirements of the Lizard Management Plan. a) The annual compliance monitoring report must include: - confirmation that any salvage and relocation operations were undertaken in accordance with the Lizard Management Plan and associated consent conditions; - results of any salvage and relocation; - if required, results of any monitoring at the release site(s), including pest monitoring results; - representative photos of the salvage methodologies used, and lizards captured at the salvage site(s) and release site(s); and - any recommendation to improve the effectiveness of lizard management of the Lizard Management Plan. b) The Consent Holder must submit the compliance monitoring report to Mackenzie District Council on 1 July of each year for the duration of the construction of the Solar Farm. c) Following the completion of all lizard salvage, relocation and associated monitoring, the annual compliance monitoring report shallmay, if consistent with the Lizard Management Plan, cease. The Consent		It is very likely that where >20 animals are salvaged the Lizard Management Plan will require monitoring, and that this might well require up to 5 or more years of monitoring. Therefore, proposed condition 99(c) to end compliance monitoring reporting a year after the last lizard release may not enable the reporting of LMP outcomes.

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	Holder must submit a final report summarising the implementation of the Lizard Management Plan to Mackenzie District Council within three months <u>of fulfilling the obligations of the Lizard Management Plan following the final lizard release.</u>		
93.	Prior to the commencement of operations of the Solar Farm, the Consent Holder must engage a suitably qualified and experienced ecologist to prepare in consultation with the Department of Conservation a lizard monitoring plan to determine whether the <u>objective purpose and stated no net loss outcomes for lizards have been achieved via the Lizard Management Plan in regard to the salvage and relocation programme and proposed compensation measures within the compensation area and conservation zones of the Lizard Management Plan is being achieved. The monitoring plan is to enable reporting on the ecological objectives and outcomes identified by the overarching EMP regarding herpetofauna.</u> The lizard monitoring plan must include: a) records of engagement with the Department of Conservation in relation to the development of the lizard monitoring plan, including details of how issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; b) <u>details of lizard monitoring methods at the solar farm site, compensation area and within the conservation zones including monitoring techniques, monitoring locations (maps), monitoring frequency, monitoring duration and data collection including records of environmental parameters including air temperature, soil temperature, soil moisture and light levels</u> b) <u>a review of the findings from the monitoring undertaken during construction;</u> c) <u>confirmation of the representative monitoring locations within the solar farm and release areas;</u> d) <u>c) sampling frequencies and methodologies for targeted species, including details</u> Details of any animal handling procedures that may be required as part of any Wildlife Act permissions; e) <u>d) records of environmental parameters including air temperature, soil temperature, soil moisture and light levels;</u>	Improved certainty	<u>This provision for a separate Lizard Monitoring Plan is duplicitous and may create conflict between both these plans and the overarching Ecological Management Plan (EMP). Recommend, unless reasoned for, that management plans and monitoring plans are covered by one plan that sits under the EMP.</u> <u>Regardless, recommend either one of the LMP are linked to the EMP objectives and outcomes.</u> <u>It is important to link the management/monitoring plan to the EMPs objectives and outcomes. As these are the outcomes linked to the actual effects of the activity.</u>

	f)e) review of the results of relevant pest control measures; g)f) incidental discovery procedures; h)g) procedures for reviewing the effectiveness of the proposed monitoring; and i)h) reporting requirements, including the development of an annual monitoring report.		
94.	The Consent Holder must undertake the monitoring required anticipated by the lizard monitoring plan for three-ten years following commencement of operation of the solar farm or until consistency with the objective purpose of the Lizard Management Plan has been demonstrated, <u>whichever is the longer period.</u>	Improved certainty and longer duration is appropriate for stated no net loss outcome	
95.	The Consent Holder must submit the annual lizard monitoring report to Mackenzie District Council on 1 July of each year for the duration of the monitoring period that includes the results of the monitoring and setting out of any adaptive management responses should the results indicate that the objective purpose of the Lizard Management Plan is not being or are unlikely to be achieved. If monitoring results indicate that the objective purpose of the Lizard Management Plan is not being or are unlikely to be achieved, adaptive management or contingency responses include the following: <u>Additional habitat enhancement for lizards within existing Compensation Area and/or conservation zones establishment of additional areas of suitable habitat for the species within the solar farm or release areas;</u> - increased pest control; and/or <u>The provision of additional compensation area(s) that are enhanced for lizards through mammalian pest</u>	Improved certainty	

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	management and/or habitat enhancement creation of additional release habitat c) d) other actions as determined by the Technical Review Panel.		
	Terrestrial Invertebrates		
96.	The Consent Holder must engage a suitably qualified and experienced ecologist in invertebrates to prepare a Terrestrial Invertebrate Management Plan. The Terrestrial Invertebrate Management Plan must be developed in consultation with the Department of Conservation and submitted to Mackenzie District Council for certification no less than at least 20 working days prior to the commencement of any physical works for the initial construction of the solar farm works on the Site solar farm. Certification is required to demonstrate that the Terrestrial Invertebrate Management Plan will provide the means to achieve the purpose and matters set out in Condition 104[97]. <i>Advice Note: The Consent Holder must work with Mackenzie District Council to secure certification of the Terrestrial Invertebrate Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Invertebrate Management Plan will occur.</i> The Terrestrial Invertebrate Management Plan may be incorporated into sits under the overarching Ecological Management Plan framework. <i>Where any conflict with the TIMP and EMP arise, the invertebrate-specific provisions prevail for invertebrate matters.</i>	Improved certainty Advice note redundant	
97.	The purpose of the Terrestrial Invertebrate Management Plan is to set out the response methods and management procedures to be implemented on site so as to achieve no net loss outcomes for robust grasshopper, minute grasshopper, Otago short-horned grasshopper and the Tekapo ground wētā within the solar farm site during the construction and operation of the solar farm. To achieve this purpose, the Terrestrial Invertebrate Management Plan must be in general accordance with the draft Invertebrate Management Plan provided as part of the applications and include: a) records of engagement with the Department of Conservation in relation to the development of the Terrestrial Invertebrate Management Plan, including	As further changes have been made, this draft plan may no	

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	details of how issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; b) details of pre-construction baseline surveys at both the solar farm site, and the <u>Compensation Area and the Conservation Zones Enhancement Area</u>; c) a description of the measures to minimise onsite adverse effects on invertebrates, including through pest-proof fencing, pest control, invertebrate salvage and relocation <u>such that the no net loss outcome will be achieved</u>; d) requirements for the release site(s) <u>within the Compensation Area</u> including fencing, habitat enhancement and predator control; e) an incidental discovery protocol; f) a description of the monitoring and reporting requirements; and g) roles and responsibilities.	longer be wholly appropriate.	
10:	<u>Construction works on the solar farm may not commence until the Terrestrial Invertebrate Management Plan is certified by the Mackenzie District Council.</u>	Certainly as to timing	
98:	The Terrestrial Invertebrate Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and <u>must be</u>: a) <u>be</u> only for the <u>following purposes of</u>: i. improving ecological outcomes; ii. <u>be for the purpose of</u> applying best practicable measures to mitigate adverse effects; a)b) be consistent with the conditions of this resource consent; and b)c) submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. <u>Advice Note:</u> <u>The Consent Holder must work with Mackenzie District Council to secure certification of the amended Terrestrial Invertebrate Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a</u>	Improved certainty Advice note redundant	

	timeframe for which certification of the amended Terrestrial Invertebrate Management Plan will occur.		
99.	The Consent Holder must undertake the anticipated activities authorised by this consent in accordance with the certified Terrestrial Invertebrate Management Plan at all times. Advice note: <i>Nothing in these resource consents removes the need for the Consent Holder to apply for any approvals required under the Wildlife Act 1953. For the avoidance of doubt, this resource consent does not constitute lawful authority under the Wildlife Act.</i>		Earlier comment about defining what the activities authorised by this consent in an advice note is also relevant here.
100.	During the construction of the Solar Farm, the Consent Holder must engage a suitably qualified and experienced ecologist to undertake prepare an annual compliance monitoring report in accordance with the requirements of the Terrestrial Invertebrate Management Plan. a) The annual compliance monitoring report must include: - results of the pre-construction baseline surveys at the solar farm, release sites and the compensation area and conservation/release areas Enhancement Area; - confirmation that salvage and relocation operations were undertaken in accordance with the Terrestrial Invertebrate Management Plan and associated consent conditions; - results of any salvage and relocation, including representative photos of the salvage methodologies used, and invertebrates captured at the salvage site(s) and release site(s); response of invertebrates to mammalian pest management and habitat enhancement within the compensation area and conservation zones; and if required, results of any monitoring at the release site(s), including pest monitoring results; representative photos of the salvage methodologies used, and invertebrates captured at the salvage site(s) and release site(s); and	Improved certainty of outcomes	Is the annual compliance monitoring reporting additional to reporting on the outcomes of each Management Plan? If not, it is confusing why reporting would cease following the last release of invertebrates into the Compensation Area as there will be years of monitoring and associated reporting post-final invertebrate release.

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	vi-v. any recommendation to improve the effectiveness of the Invertebrate Management Plan. b) The Consent Holder must submit the compliance monitoring report to Mackenzie District Council on 1 July of each year for the duration of the construction of the Solar Farm. c) Following the completion of all invertebrate salvage, relocation and associated monitoring, the annual compliance monitoring report shall cease. The Consent Holder must submit a final report summarising the implementation of the Terrestrial Invertebrate Management Plan to Mackenzie District Council within three months following the final invertebrate release.		
46	Prior to the commencement of operations of the Solar Farm, the Consent Holder must engage a suitably qualified and experienced ecologist to prepare, in consultation with the Technical Review Panel and the Department of Conservation, a terrestrial invertebrate monitoring plan to determine whether the purpose and stated no net loss outcomes for terrestrial invertebrates has been achieved via objective of the Terrestrial Invertebrate Management Plan is being achieved. The invertebrate monitoring plan must include: a) records of engagement with the Department of Conservation in relation to the development of the invertebrate monitoring plan, including details of how issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; b) a review of the findings from the monitoring undertaken during construction; c) confirmation of the representative monitoring locations within the solar farm, enhancement compensation area and invertebrate release site; d) sampling frequencies and methodologies for targeted species, including details of any animal handling procedures that may be required as part of any Wildlife Act permissions;	Improved certainty Technical Review Panel role in monitoring and reporting enhanced.	As for herpetofauna, I would bring both the management and monitoring of invertebrates into the one TIMP. This then sits under the EMP which specifies the objectives and outcomes the management plans are to deliver.

	e) records of environmental parameters including air temperature, soil temperature, soil moisture and light levels; f) review of the results of pest control measures; g) incidental discovery procedures; h) procedures for reviewing the effectiveness of the proposed monitoring i) independent peer review of the monitoring plan and reports; and j) reporting requirements, including publishing of research and the development of an annual monitoring report.		
40	The Consent Holder must undertake the monitoring anticipated by the invertebrate monitoring plan for <u>five twenty</u> years following commencement of operation of the solar farm or until consistency with the <u>objective purpose</u> of the Terrestrial Invertebrate Management Plan has been demonstrated, <u>whichever is the longer duration</u>.	Improved certainty and timeframe that is more appropriate for stated no net loss outcome.	
40	The Consent Holder must submit the annual invertebrate monitoring report to Mackenzie District Council on 1 July of each year for the duration of the monitoring period that includes the results of the monitoring and setting out of any adaptive management responses should the results indicate that the <u>objective purpose</u> of the Terrestrial Invertebrate Management Plan is not being or are unlikely to be achieved. If monitoring results indicate that the objective of the Terrestrial Invertebrate Management Plan is not being or are unlikely to be achieved, adaptive management responses include the following: a) establishment of additional areas of suitable habitat for the species within the solar farm or <u>enhancement site compensation area</u>;	Improved certainty	

	b) additional translocation of invertebrates to the release areas; c) increased pest control; and/or d) <u>creation of additional release habitat; and/or</u> e) other actions as determined by the Technical Review Panel.		
	Avifauna Management		
46	The Consent Holder must engage a suitably qualified and experienced ecologist in avifauna to prepare an Avifauna Management Plan. The Avifauna Management Plan must be developed in consultation with the Department of Conservation and submitted to Mackenzie District Council for certification no less than <u>at least</u> 20 working days prior to the commencement of any physical works for the initial construction of the solar farm works on the Site <u>solar farm</u>. Certification is required to demonstrate that the Avifauna Management Plan will provide the means to achieve the purpose and matters set out in Condition 113[105]. Advice Notes: The Consent Holder must work with Mackenzie District Council to secure certification of the Avifauna Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Avifauna Management Plan will occur. The Avifauna Management Plan may be incorporated into the overarching Ecological Management Plan framework. Where any conflict arises between the AMP and EMP, the avifauna-specific provisions prevail for avifauna matters.	Improv ed certaint y Advice note redund ant	
46	The purpose of the Avifauna Management Plan is to set out the response methods and management procedures to be implemented on site so as to achieve no net loss of Threatened or At-risk avifauna species during the construction and operation of the solar farm. To achieve this purpose, the Avifauna Management Plan must be in general accordance with the draft Avifauna Management Plan provided as part of the applications and include: a) records of engagement with the Department of Conservation in relation to the development of the Avifauna Management Plan, including details of how issues raised by the Department of Conservation have	No draft plan has been provide d	

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	been addressed or reasons why they are not addressed; b) design features of the solar farm that mitigate potential effects on birds, including panel tracking and stowing angles and management of lighting; c) identification of bird species that are likely to use or interact with both the solar farm site and <u>Enhancement Compensation Area</u>, and monitoring methodologies and frequencies to determine that use or interaction; d) methods for identifying nesting bird behaviours and protocols to minimise their disturbance when identified; e) details of the collision mortality thresholds and response actions required in accordance with Condition 121(112); f) requirements for reporting; and g) the review and evaluation of the Avifauna Management Plan.		
11	<u>Construction works on the solar farm may not commence until the Avifauna Management Plan is certified by the Mackenzie District Council.</u>	Certain ty as to timing	
46	The Avifauna Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and <u>must be:</u> a) <u>only for the following purposes of:</u> i. improving ecological outcomes; ii. <u>for the purpose of</u> applying best practicable measures to mitigate adverse effects; a)b) consistent with the conditions of this resource consent; and b)c) submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. <u>Advice Note:</u> <u>The Consent Holder must work with Mackenzie District Council to secure certification of the amended Avifauna Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which</u>	Improv ed certaint y Advice note redund ant	

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	certification of the amended Avifauna Management Plan will occur.		
10	The Consent Holder must undertake the anticipated activities <u>authorised by this consent</u> in accordance with the certified Avifauna Management Plan at all times.	Improved certainty	<u>Earlier comment about defining what the activities authorised by this consent in an advice note is also relevant here.</u>
10	Any construction works on Site occurring during the bird breeding season (1 July to 1 March) must be undertaken in accordance with the requirements of the Avifauna Management Plan and include the following requirements: a) a site inspection by a suitably qualified and experienced ornithologist / ecologist must be undertaken no more than 48 hours prior to works commencing to determine whether any indigenous birds are nesting on the Site on or in the vicinity of the construction area(s); b) if nesting birds, eggs or chicks are found, then works must not commence until after an exclusion zone has been established around the nesting birds, eggs or chicks within which construction must not commence until after nesting activities have ceased. Exclusion zones must be 100 metres, or smaller if considered appropriate by the suitably qualified and experienced ecologist; and c) if works are paused for eight successive days or more, then are resumed during the breeding season, a new site inspection in the vicinity of the construction area(s) will be required.		
	Bird Collision Monitoring Plan		
10	The Consent Holder must engage a suitably qualified and experienced ecologist in avifauna to prepare a Bird Collision Monitoring Plan. The Bird Collision Monitoring Plan must be developed in consultation with the Department of Conservation and submitted to Mackenzie District Council for certification no less than <u>at least</u> 20 working days prior to the commencement of any physical works for the initial construction of the solar farm <u>works on the solar farm</u> . Certification is required to demonstrate that the Bird Collision	Improved certainty Advice note redundant	

	Monitoring Plan will provide the means to achieve the purpose and matters set out in Condition 119[110]. <i>Advice Note:</i> <i>The Consent Holder must work with Mackenzie District Council to secure certification of the Avifauna Monitoring Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Avifauna Monitoring Plan will occur.</i>		
111	The purpose of the Bird Collision monitoring is to: a) minimise the risk of bird collision with Solar Farm Infrastructure; b) contribute to scientific knowledge of Threatened or At-risk avifauna species and their potential behavioural response to solar panels; and c) detect as best as possible the nature and extent of any collision of birds (in particular Threatened or At-risk avifauna species likely to be present on and around the Site) with Solar Farm infrastructure (particularly solar panels) leading to death or injury. To achieve this purpose, the Bird Collision Monitoring Plan must <u>reference the methods identified in Statistical advice for a solar power installation at Haldon Station, Canterbury, New Zealand</u> be in general accordance with the report prepared by Proteus provided as part of the applications and incorporate a monitoring design and methodologies for avifauna mortality surveys that inform the species-specific adaptive management triggers set out in Condition 121[112], including: a) records of engagement with the Department of Conservation in relation to the development of the Bird Collision Monitoring Plan, including details of how issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; b) industry-standard design measures to be employed to avoid or minimise avifauna collisions with Solar Farm Infrastructure; c) a monitoring programme design that includes: i. a methodology that provides for a detection probability of carcasses of at least 95 %	Improved certainty This report does not provide a template for a Bird Collision Monitoring Plan, therefore the plan cannot 'be in general accordance with' it.	

	likelihood for both large and small birds (separately) based on the Proteus advice; ii. the quantification of the abundance and identity of any bird carcasses found within the site through survey of a statistically representative portion of the solar farm site and set intervals; iii. pre-and post-construction searcher efficiency trials that assess observer detection of carcasses in the field including how manual human search, drone search or dog detection methods will be used, trialled, benchmarked and applied at the site to achieve the minimum target carcass detection level of 95%; and iv. carcass persistence trials that determine how detection probability changes over time as carcasses are scavenged or decay; d) requirements for reporting; and e) the review and evaluation of the Bird Collision Monitoring Plan.								
11	The Consent Holder must undertake the monitoring anticipated required by the Bird Collision Monitoring Plan for a period of not less than five years or five full seasonal monitoring periods from commencement of the installation of solar panels and ancillary infrastructure within the site.								
11	The results of each year of the avifauna monitoring must be measured against the adaptive management trigger for the individual species listed in the Table below. The annual mortality period will commence following the date of the installation of the first solar panel, and thereafter 1 July – 30 June annually, unless or until a review of the Avifauna Monitoring Plan confirms otherwise. The results of the monitoring programme will be summarised and presented to Mackenzie District Council for review on 1 August annually.								
<table><tr><th>Species</th><th>Conservation Status</th><th>Taonga Sp Tahu Sett</th></tr><tr><td>Black Stilt / Kaki</td><td>Threatened – Nationally Critical</td><td></td></tr></table>				Species	Conservation Status	Taonga Sp Tahu Sett	Black Stilt / Kaki	Threatened – Nationally Critical	
Species	Conservation Status	Taonga Sp Tahu Sett							
Black Stilt / Kaki	Threatened – Nationally Critical								

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Australasian Bittern / Matuku-hūrepo	Threatened – Nationally Critical	No		1
White Heron / kōtuku	Threatened – Nationally Critical	Yes		1
Black Fronted Tern / Tarapirohe	Threatened – Nationally Endangered	Yes		1
Any other nationally critical or endangered species				1
Any other nationally vulnerable species			Two carcasses detected within any one survey; or Three carcasses detected cumulatively in any consecutive 12-month period	
Any other at-risk species			Three carcasses detected within any one survey; or Five carcasses detected cumulatively in any consecutive 12-month period	
++ In the event that Bird Collision monitoring identifies that a mortality of any individual bird species listed in Condition 121++ the following will apply: a) the Consent Holder must notify the Department of Conservation, Te Rūnanga o Arowhenua; Te Rūnanga o Waihao; and Te Rūnanga o Moeraki, and the Mackenzie District Council within 48 hours of becoming aware of the exceedance; b) the suitably qualified and experienced person engaged for purposes of establishing the avifauna monitoring at the Haldon Solar Farm must undertake an investigation and complete a draft report on the possible cause of bird mortality within 15 working days of the Consent Holder notifying of the exceedance. This report must: i. identify whether any additional monitoring or investigation is required to further determine the potential cause of bird mortality; ii. provide details of any collision prevention / deterrent measures that could be applied; and		Notifica tion to mana whenua added		

	c) the draft report must be immediately provided to Te Rūnanga o Arowhenua; Te Rūnanga o Waihao; and Te Rūnanga o Moeraki; the Department of Conservation for review and comment; and d) the Consent Holder must submit the report (including any comments from Te Rūnanga o Arowhenua; Te Rūnanga o Waihao; and Te Rūnanga o Moeraki and the Department of Conservation and the Consent Holder's response to those comments) to the Mackenzie District Council for certification within 15 working days of provision of the draft report. A copy of the final report must also be provided to Te Rūnanga o Arowhenua; Te Rūnanga o Waihao; and Te Rūnanga o Moeraki, and the Department of Conservation.		
++	If Bird Collision monitoring identifies that the mortality of any individual bird species listed in Condition 121 ++ has equalled or exceeded the Adaptive Management Trigger for that individual species as a result of interactions with the solar installation, and the implementation of further mitigation measures have not prevented ongoing bird strike, then compensation of the following nature will apply: a) engagement with the Department of Conservation to identify targeted opportunities to further improve survival and breeding success of threatened and at-risk avifauna species; and b) assessment and quantification of the potential population benefits that could be achieved through additional investment in existing recovery programmes and management actions, which may include: i. expanding the intensity and spatial extent of predator control; ii. GPS tracking to better understand movement patterns and identify causes of mortality; iii. habitat enhancement measures, including pest plant control; iv. installation of markers to improve visibility of existing electrical transmission lines to reduce collision risk. Advice note: Avifauna compensation may provide for implementation by the Department of Conservation.		

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11	The Consent Holder's financial contribution to avifauna compensation shall comprise a payment of \$1,000,000 (CPI adjusted from 1 July 2026) to the Department of Conservation for the loss of avifauna habitat and residual risk of avifauna collision with solar farm infrastructure, payable on or before the first day of commencement of physical works on site. Payment of the specified financial contributions shall constitute full and final satisfaction of the Consent Holder's obligations under this condition. <i>Advice note: This condition has been proposed on an Augier basis by the Applicant.</i>		
12	<u>Construction works on the solar farm may not commence until the Bird Collision Management Plan is certified by the Mackenzie District Council.</u>	Certain ty as to timing	
11	The Bird Collision Monitoring Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and <u>must be</u>: a) <u>only for the following purposes of</u>: - improving outcomes for avifauna; for the purpose of applying best practicable measures to mitigate adverse effects; b) consistent with the conditions of this resource consent; and c) submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. <i>Advice Note:</i> <i>The Consent Holder must work with Mackenzie District Council to secure certification of the Bird Collision Monitoring Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Bird Collision Monitoring Plan will occur.</i>	Improv ed certaint y Advice note redund ant	
11	The Consent Holder must undertake the anticipated activities <u>authorised by this consent</u> in accordance with the certified Bird Collision Monitoring Plan throughout the monitoring period.	Improv ed certaint y	
Ecological Reporting			
11	The Consent Holder must prepare and submit an annual ecological report to the Mackenzie District Council, <u>the Technical Review Panel, the Kaitiaki Governance Group</u> and the	Improv ed content	<u>An ecological report would not set out the monitoring</u>

Department of Conservation within 20 working days of each anniversary of the commencement of construction of the solar farm. As a minimum, the annual report must set out the monitoring requirements outcomes of the overarching EMP and its certified ecological management and monitoring plans and associated monitoring conditions, including: a) the results of any baseline and ongoing ecological monitoring surveys; b) records of environmental parameters including air temperature, soil temperature, soil moisture and light levels; c) the results from any lizard and invertebrate salvage efforts that have occurred during construction; d) the outcomes of any ongoing plant translocation and propagation efforts; e) the outcomes of any weed and pest animal control undertaken; f) the results of bird collision monitoring; and g) <u>the results of any other ecological monitoring undertaken in accordance with the monitoring requirements anticipated by of this consent.</u> h) <u>an assessment and analysis of the monitoring data, including in relation to any trends in adverse effects on the environment by comparison with previous years;</u> i) <u>whether the various purposes of the ecology management plans are being achieved;</u> j) <u>identification of circumstances where monitoring has informed refinement to construction methods, effects management measures, or implementation of adaptive management;</u> k) <u>a summary of any non-compliances over the previous year, including the reasons for the non-compliance and the measures put in place to prevent the same incident happening again; and</u> g) <u>recommendations on any alterations to the monitoring to be implemented in the subsequent year, including the measures necessary to implement the recommended alteration.</u>	descrip tion. The Panel notes that the Applica nt may, subject to the comme nts of s53 invitees, prefer to consoli date all ecology monitor ing into a single, cohesiv e conditi on with clearer timefra mes, dates and respons ibilities.	<u>requirements. That is what is in the EMP and various management/monitoring plans. Link reporting back to the overarching objectives and outcomes of the EMP. These should all flow through into the various management/monitoring plans so should be consistent.</u>
++ The requirement for ongoing reporting will be reviewed on the tenth anniversary of solar farm operations as part of the		

Commented [JJ11]: Translocaiton - is this still relevant given avoidance of threatened plants. Perhaps still is if At Risk plants are being translocated.

	Technical Review Panel's determination on any requirement for ecological compensation and may be discontinued on the advice of the Technical Review Panel.		
124	Applied Ecological Research	Shifted to Technical Review Panel condition	
125	The Consent Holder shall must make available an annual financial contribution of \$10,000, with the first three years commitment to be made upfront at the commencement of construction, for the undertaking of applied ecological research designed to improve the knowledge and understanding of effects of solar development in dryland environments, including: a) —the effects of panel shading and associated microclimatic change on dryland vegetation, Threatened and At Risk plant species, and basking and other open-habitat invertebrates; b) —the efficacy of salvage, propagation, translocation and relocation of Threatened and At Risk plants and invertebrates; c) —bird-strike collision rates and mechanisms, and the reliability of the carcass-detection methodologies; and d) —the ecological gains actually delivered by providing an enhancement area, predator-exclusion fencing and pest control. The funding will be made available to appropriate research organisations. The funding shall must be administered by a process approved by the Technical Review Panel, and the results or findings of any research must be reported to the Technical Review Panel and be made publicly available.		
	Operational General Matters		
126	The maximum height of the configured PV modules solar panels, when tilted to the maximum angle, is no greater than will must be approximately 2.6 m above ground level. when tilted to the maximum angle, except where panels are otherwise subject to maintenance activities or in response to inclement weather.	Improved certainty	

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12	Between sunset and sunrise, the panels must be stowed at <u>the greater of</u> an angle of 60 degrees from horizontal, or the maximum stow angle allowed by the selected technology, except where panels are otherwise subject to maintenance activities or in response to inclement weather.	Improved certainty regarding 60 degrees being a minimum angle	
12	All panels installed and used on Site must be coated with an anti-reflective coating. All panels installed and used on Site must be coated in anti-reflective coating which contains no Per- and Poly Fluoroalkyl Substances (PFAS) and have gridlines.	<u>Recommended wording from CRC set to align.</u>	
12	Solar panels and array tables must be cleaned with water only. No chemical cleaning agents, detergents or additives may be used.		
12	All activities on the site, other than emergency service warning devices and sirens, must be designed, conducted and undertaken so as to ensure that the following noise limits are not exceeded at any point within the notional boundary of any noise sensitive activity within the site : 0700-2200 hours 2200-0700 At any time	Within the site appears to be an error?	
12	All transformers and structures on Site other than the photovoltaic surfaces and mounting systems must be finished in the colours Black, Dark Grey, Ebony, Flaxpod, Heritage Green, Ironsand, Karaka, Slate, Tidal Drift, Thunder Grey, Windsor Grey or similar and must meet a maximum reflectance value of 30%. This condition does not apply to any transmission pole and lines, solar panel housing and supporting structures or fencing.		
12	Outdoor lighting must not be used between the hours of 10:00pm and 6:00am, except where required for emergencies, maintenance, security or for health and safety purposes.		
12	Security lights must be fitted and controlled with a motion sensor.		
12	All fixed exterior lighting must be directed away from any adjacent roads and Lake Benmore.		

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13	All outdoor lighting must be shielded from above in such a manner that all the light shines below the horizontal.						
13	The correlated colour temperature of outdoor lighting must not exceed 3000 K.						
13	Only light-emitting diode, low pressure sodium and high-pressure sodium light sources must be used for outdoor lighting.						
13	The maximum level of light spill from outdoor lighting must not exceed the following horizontal or vertical illuminance levels on any adjoining site: <table><tr><td>2200 to 0600</td><td>1 lux</td></tr><tr><td>0600 to 2200</td><td>5 lux</td></tr></table>	2200 to 0600	1 lux	0600 to 2200	5 lux		
2200 to 0600	1 lux						
0600 to 2200	5 lux						
13	The Consent Holder must adopt all reasonable and practicable measures to prevent any dust caused by operations on the site from causing: a) an effect that is noxious, dangerous, offensive or objectionable at or beyond the site; or b) material damage to the National Grid transmission lines which cross the consent area.						
	Operational Management Plan						
13	No less thanAt least 20 working days prior to the commencement of the Solar Farm operations (the first generation of electricity), the Consent Holder must submit to Mackenzie District Council an Operational Management Plan for certification. Certification is required to demonstrate that the Operational Management Plan provides the means to achieve the purpose and matters set out in Condition 147136. <i>Advice Note:</i> <i>The Consent Holder must work with Mackenzie District Council to secure certification of the Operational Management Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Operational Management Plan will occur.</i>	Improv ed certaint y Advice note redund ant					
13	The purpose of the Operational Management Plan is to provide details on how the solar farm will be managed and operated to avoid, remedy or mitigate adverse operational-related effects on the environment. To achieve this purpose, the plan must include:						

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	a) contact details of the Site Manager on a 24 hour, 7 days a week basis; b) provision for Staff and visitor inductions and safety considerations; c) details of site signage; d) access track maintenance; e) details of Site security; f) procedures for panel and infrastructure maintenance and cleaning, including monitoring for panel damage and integrity; g) risk mitigation measures including appropriate disposal and recycling of any damaged panels as e-waste; h) procedures to be followed during and following high wind events of other natural disasters; i) emergency events and site remediation procedures in the event of contaminant discharge (e.g. fire or oil spill); and j) a reinstatement procedure after any electrical equipment is damaged by an emergency event or natural disaster.		
14	<u>Solar Farm operations may not commence until the Operational Management Plan is certified by the Mackenzie District Council.</u>	Certain ty of timing	
15	The Operational Management Plan may be amended at any time. Any amendment must be: a) <u>only for the following purposes of:</u> i. improving the efficacy of the management of operational effects; ii. for the purposes of applying best practicable measures to mitigate adverse effects; a) b) consistent with the conditions of this resource consent; and b) c) submitted in writing to Mackenzie District Council for certification, prior to any amendment being implemented. <u>Advice Note:</u>	Improv ed certaint y Advice note redund ant	

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	The Consent Holder must work with Mackenzie District Council to secure certification of the amended Operational Management Plan within 20 working days of their provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the amended Operational Management Plan will occur.		
144	The Operational Management Plan must be reviewed annually from the date the Solar Farm becomes operational (unless the requirement for review is waived by Mackenzie District Council). A review is to include assessment of the performance of the practices and procedures specified in the Operational Management Plan. Any amendment required by Mackenzie District Council arising out of this review must be incorporated into the Operational Management Plan without delay within 30 days of the review.	Improved certainty	
144	The Consent Holder must keep a hard copy of the certified Operational Management Plan on Site during the operation of the Solar Farm and the Consent Holder must undertake the anticipated activities <u>authorised by this consent</u> in accordance with the certified Operational Management Plan at all times.		
Emergency Response			
144	No less than At least 20 working days prior to the commencement of any physical construction works on the Site , the Consent Holder must prepare an Emergency Response Plan in consultation with Fire and Emergency New Zealand and submit the plan to the Mackenzie District Council for certification. Certification is required to demonstrate that the Emergency Response Plan provides the means to achieve the purpose and matters set out in Condition 153 [144] . <i>Advice Note:</i> The Consent Holder must work with Mackenzie District Council to secure certification of the Emergency Response Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the Emergency Response Plan will occur.	Improved certainty Advice note redundant	
144	The purpose of the Emergency Response Plan is to outline the methods and management procedures to be implemented on Site so as to avoid or minimise health and safety and fire risks on site throughout the life of the solar farm. To achieve this purpose, the plan must include:		

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	a) details of construction and operational activities occurring on the site; b) a description of the facilities including infrastructure details, site access(es), internal roads, provisions for and location of an onsite firefighting water supply; c) detail of operational risk management measures and procedures, including monitoring of alarms and faults and the management of vegetation; d) identification of foreseeable on-site and off-site fire events and other emergency risks that could occur at the facility (e.g. fires involving solar panel arrays, bushfires in the immediate vicinity or potential hazardous materials incidents); e) details of appropriate risk control measures to be implemented to safely mitigate potential risks to the health and safety of firefighters and other first responders (including electrical hazards) from the events identified in (d) above; f) other risk control measures that may need to be implemented in a fire emergency due to any unique hazards specific to the site; g) provision for on-site meeting(s) with Fire and Emergency New Zealand staff to familiarise emergency crews with the site and the Emergency Response Plan; and h) a procedure for a site representative to be available to attend whenever Fire and Emergency New Zealand are alerted to a fire at the site.		
++	Prior to submitting the Emergency Response Plan to Mackenzie District Council, the draft Emergency Response Plan must be provided to Fire and Emergency New Zealand with an invitation to provide feedback within 10 working days. The Consent Holder must ensure that all written feedback on the draft Emergency Response Plan received from Fire and Emergency New Zealand within the 10 working day timeframe is provided to the Mackenzie District Council when submitted for certification. This must include a clear explanation of how each comment on the draft Emergency Response Plan has either been addressed or excluded.		

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15	Construction works on the solar farm may not commence until the Emergency Response Plan has been certified by the Mackenzie District Council.	Certain ty of timing	
14	The Emergency Response Plan may be amended at any time. Any amendments must be: a) made in consultation with Fire and Emergency NZ; b) <u>only</u> for the <u>following</u> purposes of: i. improving the efficacy of the Emergency Response Plan and management of risks; ii. for the purpose of applying best practicable measures; - b)c) consistent with the conditions of this resource consent; and - c)d) submitted in writing to the Mackenzie District Council for certification prior to any amendment being implemented. <i>Advice Note:</i> <i>The Consent Holder must work with Mackenzie District Council to secure certification of the amended Emergency Response Plan within 20 working days of its provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the amended Emergency Response Plan will occur.</i>	Improv ed certaint y Advice note redund ant	
14	The Consent Holder must undertake the anticipated activities <u>authorised by this consent</u> in accordance with the certified Emergency Response Plan at all times.	Improv ed certaint y	Formatted: Left
14	During the operation of the Solar Farm, the following equipment must be monitored at all times by a remote central control room for the purposes of monitoring equipment faults and potential fires: a) electrical equipment; b) fault monitoring detection system(s); and c) CCTV system(s) that monitors the key components of the Solar Farm.		Formatted: Left
14	During the operation of the Solar Farm, the Control SCADA Control Building must be monitored at all times by an automatic fire detection and alarm system incorporating automatic notification to Fire and Emergency New Zealand.		Formatted: Left

14	The substation must be designed and operated to meet Transpower's "Substation Fire Mitigation Design Standard" (Transpower Reference TP.DS 61.06).		
14	The consent Consent Holder must, in consultation with Meridian Energy Limited, prepare, implement and maintain a current Emergency Hydro Inundation Response and Evacuation Plan for that part of the site subject to the Hydro Inundation Hazard Overlay in the Operative Mackenzie District Plan (or such replacement) for the purposes of minimising the risk to life and property (including assets) that may arise from the uncontrolled release of water from the Waitaki Power Scheme. The Emergency Hydro Inundation Response and Evacuation Plan must be provided to Mackenzie District Council prior to construction beginning on the site, and any subsequent updates of that Plan must be provided within 3 months of an update being finalised.		
15	All hazardous substances must be identified, handled and stored in accordance with the requirements of the Hazardous Substances and New Organisms Act (1996).	Redundant, as addressed by other legislation	
Decommissioning			
15	At least six12 months prior to the decommissioning of the Solar Farm, the Consent Holder must provide written notice to Mackenzie District Council and the Kaitiaki Governance Group of the intended commencement of decommissioning of the Solar Farm at least six months before the commencement of Solar Farm decommissioning.	More realistic timing	
15	At least three months prior to the decommissioning of the Solar Farm, the Consent Holder must submit a Decommissioning Management Plan prepared by a suitably qualified and experienced person to Mackenzie District Council for certification. Certification is required to demonstrate that the Decommissioning Management Plan provides the means to achieve the purpose and matters set out in Condition 165 [152] . <i>Advice Note:</i> <i>The Consent Holder must work with Mackenzie District Council to secure certification of the Decommissioning Management Plan within three months of its provision or alternatively confirm with Mackenzie District Council a timeframe for which</i>	Advice note redundant	

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	certification of the Decommissioning Management Plan will occur.		
15	The purpose of the Decommissioning Management Plan is to outline the methods and management procedures to be implemented on Site so as to avoid, remedy or mitigate adverse decommissioning-related effects on the environment. To achieve this purpose, the plan must include: a) details on all infrastructure to be decommissioned and specific infrastructure to remain on-site post-closure (if any) and, if so, reasons why it will remain on site; b) scheduling and timing for decommissioning; c) identification of management procedures to deal with any potential effects of decommissioning activity on the environment; d) identification of any remaining ecological management and monitoring obligations and details of how those will be addressed; e) details of waste management and minimisation of material removed from the site; f) details of how decommissioning-related traffic is to be managed; g) information to demonstrate that decommissioning activities undertaken on the site will meet the safe distances within the New Zealand Electrical Code of Practice for Electrical Safe Distances 2001 (NZECP 34: 2001) or any subsequent revision of the code, including: i. an outline of the methods and management procedures to be implemented on site so that works near the National Grid are undertaken safely and potential adverse effects on the National Grid assets are appropriately managed; and ii. protocols to ensure that existing transmission lines and support structures will remain accessible during and after decommissioning activities; h) any ongoing ecological enhancement measures; and i) details for finished ground cover at completion of decommission and future intended land use.		

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Commented [JJ12]: Is there any provisions to ensure these are addressed / resourced?

15	Prior to submitting the Decommissioning Management Plan to Mackenzie District Council, a copy of the draft Decommissioning Management Plan must be provided to Transpower NZ Ltd, with an invitation to provide feedback within 10 working days. The Consent Holder must ensure that all written feedback on the draft Decommissioning Management Plan received from Transpower NZ Ltd within the 10 working day timeframe is provided to the Councils when submitted for certification, along with a clear explanation of where any comment made on the draft Decommissioning Management Plan has or has not been incorporated into the Decommissioning Management Plan and, if not incorporated, the reasons why.		
16	<u>Decommissioning of the Solar Farm may not commence until the Decommissioning Management Plan has been certified by the Mackenzie District Council.</u>	Certain ty of timing	
15	The Decommissioning Management Plan may be amended <u>at any time. Any amendments must be:</u> a) <u>Only</u> for the <u>following</u> purposes <u>of:</u> i. improving the efficacy of the management of Decommissioning effects-related management activities; ii. <u>for the purpose of</u> applying best practicable measures to mitigate adverse effects; a)b) consistent with the conditions of this resource consent; and b)c) submitted in writing to the Mackenzie District Council for certification, prior to any amendment being implemented. <i>Advice Note:</i> <i>The Consent Holder must work with Mackenzie District Council to secure certification of any amended Decommissioning Plan within 20 working days of their provision or alternatively confirm with Mackenzie District Council a timeframe for which certification of the amended Decommissioning Plan will occur</i>	Improv ed certaint y Advice note redund ant	
15	The Consent Holder must undertake the <u>decommissioning anticipated activities</u> in accordance with the certified Decommissioning Management Plan.	Improv ed certaint y	
15	No more than 15 working days following completion of decommissioning works on the site, the Consent Holder must		

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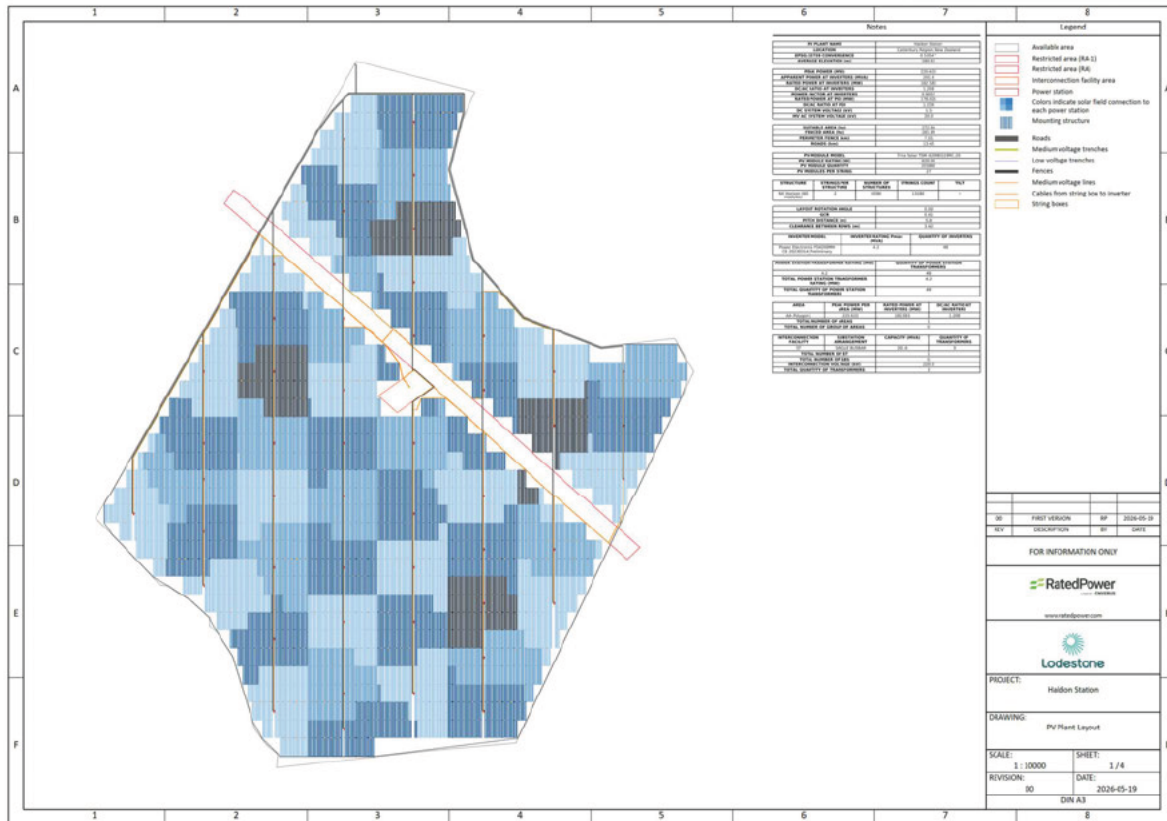
	provide a Detailed Site Investigation to Mackenzie District Council for certification. The Detailed Site Investigation must be prepared in accordance with the current edition of the Contaminated Land Management Guidelines No.1 as prepared by the Ministry for the Environment.		
15	In the event that the Detailed Site Investigation finds that contamination exceeds the applicable standards of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, a Remediation Action Plan and Site Validation Plan must be prepared in accordance with the current edition of the Contaminated Land Management Guidelines (editions 1 and 5). If required, the Remediation Action Plan and Site Validation Plan must be provided to the Mackenzie District Council for certification within 15 working days of the submission of the Detailed Site Investigation. <i>Advice Note:</i> <i>For the avoidance of doubt, the Remediation Action Plan is to be prepared in accordance with the relevant guidelines and requirements as set out by the Ministry for the Environment.</i>	Advice note redundant	
	Review		
15	The Mackenzie District Council may, under section 128 of the Resource Management Act 1991, initiate a review of any or all conditions of this resource consent annually in the month of the anniversary of the commencement of the consent, for the duration of the resource consent. Any such review of conditions must be for the purposes of: a) responding to any adverse effect on the environment which may arise from the exercise of the consent and which it is most appropriate to deal with at a later stage; b) dealing with any unanticipated adverse effects on the environment which may arise from the exercise of the consent, which it is appropriate to deal with at a later stage; c) reviewing whether or not any additional avoidance, remediation, mitigation, offset or compensation measures are required to address any adverse effects that Mackenzie District Council consider are not adequately addressed through implementation of the relevant conditions;	Improved certainty	

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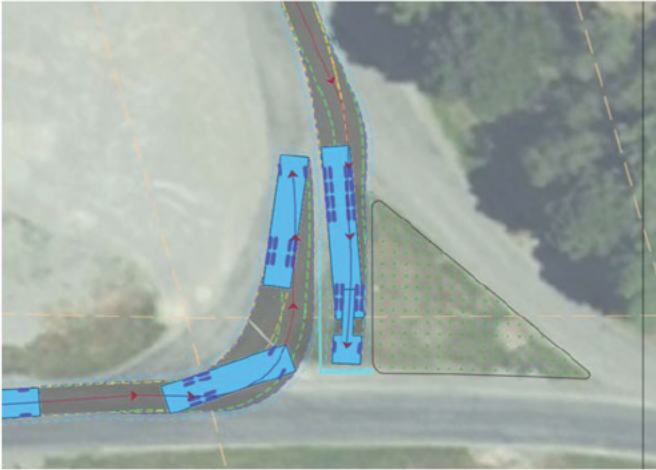
	d) <u>responding to any failures to meet monitoring requirements, particularly of bird strike;</u> e) <u>responding to any effects detected by the bird collision monitoring, including additional responses if bird fatalities exceed those listed in Condition 121; or</u> f) <u>ensuring that the conditions are effective and appropriate in managing the effects of the activities authorised by these consents.</u>		
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Attachment 1 – General Site Design Layout

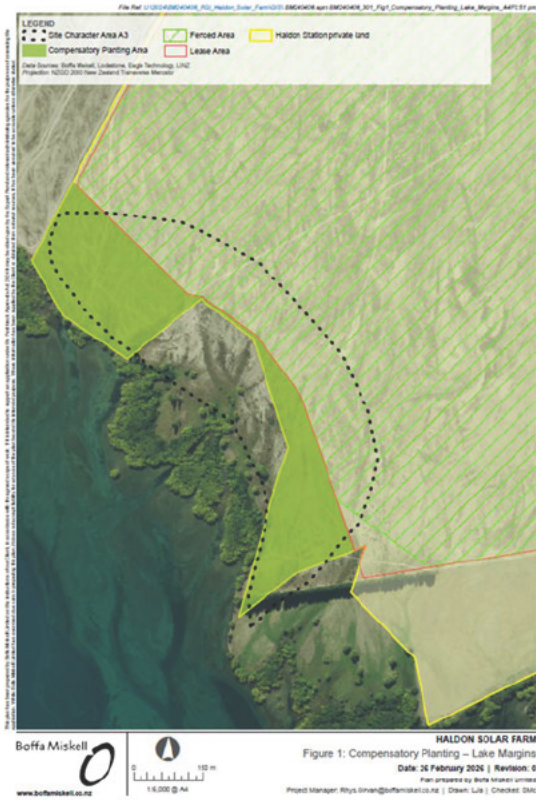


Attachment 2 – SH8 (Dog Kennel Corner) Indicative Works

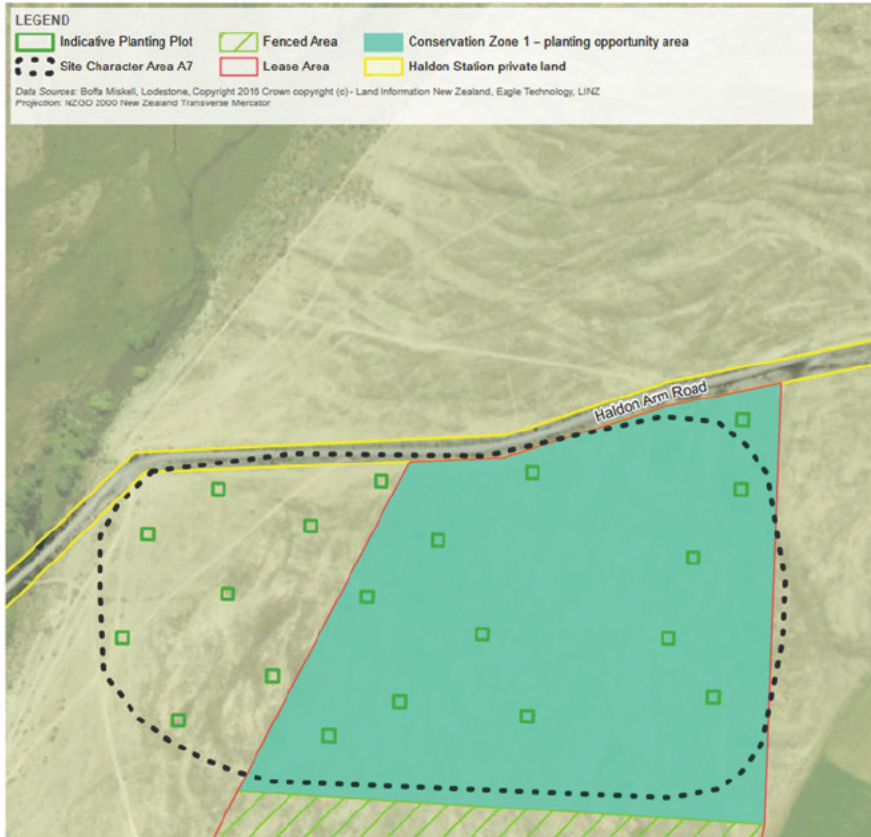


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LEGEND



Attachment 4 – Compensation Area

Attachment 5 - Landscape Planting for Conservation Area 1

Attachment 6 – List of application documents

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