Fast-track

Te Kāwanatanga o Aotearoa
New Zealand Government

Your Comment on the Haldon Solar Farm

Please include all the contact details listed below with your comments and indicate whether you can receive further communications from us by email at substantive@fastrack.govt.nz

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	Department of Conservation		
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☒	**I can receive emails and my email address is correct**	☐	**I cannot receive emails and my postal address is correct**

Please provide your comments below, include additional pages as needed.

Please find comments attached

Specific amendments to the draft conditions sought by the Department of Conservation (DOC) are attached, with comments and reasoning.

To assist the Panel in understanding DOC's rationale for those changes, key points are outlined below:

General Issues with Ecology Effects Management Conditions

- There is an absence of defined and measurable objectives, targets and performance standards in the draft conditions, particularly in the requirements for management plans. This leaves key ecological outcomes dependent on future and undefined "adaptive management," meaning there can be no certainty of what the long-term ecological effects of the solar farm will be. Measurable outcomes, targets and performance standards need to be clearly expressed in the conditions, not deferred to future, third party decision making;
- There is no robust evidence that predation is a limiting factor for invertebrates at the site, as this has not been tested on-site.[1] In fact, the development site has been shown to hold high numbers of threatened invertebrates, despite having no predator control. Given that, there is a real risk that a pest-proof fence will not result in any population benefits for invertebrates, and in fact, it could have the perverse outcome of reducing invertebrate populations within the fence following a mouse incursion (which in DOC's experience with such fences, will be highly likely). Expert commentary from Mr Warren Chinn, Invertebrate Ecologist, is filed alongside these s70 comments. In that commentary, Mr Chinn makes alternative suggestions for compensating for the significant effects on invertebrates.
- Similarly, it is unclear whether measures proposed for lizards will provide actual benefits, and a risk that they will have negative impacts on other species or lower the effectiveness of other mitigation. The fencing itself would result in significant disturbance of a fragile drylands ecosystem. DOC has significant concern about whether these measures will result in overall ecological benefits.
- The fencing would also entail substantial upfront cost, leading to a risk that if it is ineffective the consent holder will be disincentivised from making further investments.
- DOC considers the proposed avifauna "adaptive management" triggers and suggested provision of additional compensation are likely to be unenforceable.
- There are number of issues with workability of the draft avifauna collision monitoring conditions.
- DOC considers that the compensation measures should have been subject to the detailed assessment, consideration of options and consultation that would normally be applied to such measures.
- DOC have directly requested Lodestone seek a brief suspension of the Application to allow for workshopping of the ecology conditions but, although they agree that further work is required, they consider it can be addressed through management plans and the Technical Review Group once consent is granted. DOC disagrees – the original application was fundamentally flawed in its assessment of ecological values and effects, and the process since then has been severely limited by time

[1] Warren Chinn, paragraph 13, Statement of Advice, dated 13 July 2026

restrictions, lack of adequate baseline data (including spring surveys of flora), and a lack of meaningful engagement with DOC and other parties.

Technical Review Panel

- Given those concerns, DOC considers that the application is not at a stage where the ecological impacts can be understood sufficiently to enable a final decision, and there is a real risk that the significant ecological impacts at the development site will not be effectively compensated for. DOC's preference would be for a workshopped review of compensation measures, involving at least DOC and mana whenua. That would allow the compensation measures to be confirmed and reflected in the conditions, thus ensuring the adequacy and enforceability of those measures.
- If that does not occur, then the only way to avoid a risk of ineffective compensation would be to significantly amend the draft conditions to enable the Technical Review Panel to have substantial input into the approach to compensation. This would entail changes across many conditions to ensure the Technical Review Panel is engaged *before* compensation measures and management plans are finalised, and that when the measures are implemented the Panel is adequately informed and able to comment on monitoring results, adaptive management, and any further compensation;
- While not supportive of this proposition, DOC consider that if such approach is taken the role of the Technical Review Panel will need to be strengthened and clarified.
- DOC notes use of terminology in draft condition [66] that indicates the Technical Review Panel could bind the Consent Holder (e.g., the drafting has referred to making a "final determination" on additional compensation, and that the Technical Review Panel's determination will be "binding on the Consent Holder").
- DOC considers this wording to be inconsistent with caselaw and unlikely to be enforceable. In DOC's view the Technical Review Panel can only make recommendations to the Consent Authority, it cannot enforce the consent conditions, let alone impose new compensation requirements that haven't been considered under the current application/substantive decision-making process.
- To address this issue DOC has suggested the Panel make "recommendations" to the Consent Holder and Consent Authority, and that where thresholds are met or exceeded (i.e., Technical Review Panel findings that management plans are not being achieved, or bird mortality thresholds are triggered) the Technical Review Panel will make recommendations to the Consent Authority on initiating a review of the consent conditions in accordance with section 128 of the Resource Management Act 1991. In DOC's view, a comprehensive condition review by the Consent Authority, explicitly tied to recommendations of the Panel, is the appropriate mechanism to address adverse effects/residual effects not adequately managed under the consent.

- DOC also considers, based on its experience with similar groups, that the Technical Review Panel should be set up to provide independent expert advice rather than 'representation' (that -applying a literal meaning- entails representing a party's interests). As an example, DOC draws the Panel's attention to Conditions 68 – 74 of the Waverly/Waipipi Wind Farm conditions.[2]

- DOC notes issues with inconsistent drafting. One problematic example, for instance, is that the objectives to be achieved should all be contained in stand-alone conditions, not included solely as the purpose of EMP (which is the way a number of the conditions are currently drafted). That approach makes consequential drafting complex because ancillary conditions then have to refer to the "objectives of the EMP". This blurs what should be a clearly defined role between the original decision-maker (that sets the objectives / standards) and the *manner* in which those standards will be *implemented* (through the EMP). It raises the prospect of unlawful delegation and may create problems in enforcement. DOC has not had the time to go through all the conditions to remedy this problem.

Addendum: Lighting Conditions

- Regarding lighting, DOC has received specialist advice on the draft lighting conditions [138 – 145] to assess how they will manage lighting effects on birds. The advice is that changes are required to align these conditions with the good practice National Light Pollution Guidelines for Wildlife[3] for the purpose of minimising lighting effects on Threatened and At-Risk birds. Accordingly, DOC suggests:
    - That outdoor artificial lighting should not be used between the hours of 6 pm and 6 am;
    - Security lights be fitted fitted and controlled with a motion sensor and a timer so that the lighting turns off after 2 minutes;
    - In place of Condition 140 (directing lights away from Lake Benmore) a condition should be inserted that requires development of an artificial light management plan. The purpose of the lighting plan must include 'to reduce effects of lighting of the Project on bird species expected to be present within the vicinity of the Project'. It must have details on:
        - All fixed lighting must face downwards and be directed so that it only lights the intended area.
        - The lowest light intensity appropriate for the stated purpose of the light must be used.
        - Light spill from the site must not be able to be detected at any adjacent roads or Lake Benmore. Any open water shall not be illuminated.
        - Dark coloured, non-reflective surfaces shall be used wherever possible.

[2] Report and Decision of Independent Commissioners on behalf of the South Taranaki District Council Waverly/Waipipi Windfarm, see Conditions https://ref.coastalrestorationtrust.org.nz/site/assets/files/8872/decision_notification_002.pdf

[3] Australian Government, Department of Climate Change, Energy, the Environment and Water. See pg. 76 for guidance in relation to migratory birds National Light Pollution Guidelines for Wildlife. These guidelines have been applied in a number of resource consents in New Zealand to manage lighting effects on some of the bird species that will be interacting with the Haldon solar Farm. For example, see Conditions 16.1 – 16.6 of 2024 NZEnvC 238 Consent Order – TiGa Mineral and Metals Ltd.

- The colour temperature limit in Condition 142 (3000 K) is too high. Good practice for managing lighting effects on migratory birds indicates 2200 K is a more appropriate limit.
- The maximum light spill lux levels in Condition 144 should be adjusted downwards in accordance with good practice management of lighting effects on birds, as follows:

2200 to 0600	~~1~~ 0.3 lux
0600 to 2200	~~5~~ 1 lux

Linda Kirk
Fast-track Applications Manager

Acting pursuant to delegated authority on behalf of the Director-General of Conservation.

Date: 16 June 2026

Note: A copy of the Instrument of Delegation may be inspected at the Director-General's office at Conservation House Whare Kaupapa Atawhai, 18/32 Manners Street, Wellington 6011

Comments on draft conditions for a fast-track consenting application

Fast-track Approvals Act 2024 section 70

To: The Expert Panel

From: Department of Conservation

Regarding fast-track project: Haldon Solar Farm

Fast track Reference: FTAA-2508-1097

Comments on draft conditions of resource consent

Amendments made by the Panel are shown as underline and ~~strike-through~~ in black text, amendments recommended by DOC are shown in as underline and ~~strike-through~~ in red text.

Condition #	*Draft condition with marked up suggestions*	*Comments and reasoning*
Construction Management Plan		
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 and clear georeferenced plans identifying areas within which the use of vehicles and machinery is prohibited; ...	To provide certainty that identified ecological values, such as threatened plant species, are avoided.

Landscape Management

56

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.

To achieve this landscape planting, the Consent Holder must:

a) secure plants that have been grown under contract and hardened off to suit the environment they are being planted into;

b) undertake planting during the best time of year in this location to ensure establishment success;

c) ~~provide irrigation to~~ ensure establishment success for the first two years without use of on-going irrigation; and

d) undertake release weeding and replacement of any unsuccessful planting for the first two five years.

Irrigation within Conservation / Release Area 1 could lead to moisture-related edge effects in the adjoining Compensation Area, so should be avoided. Suitable plant selection and preparation should be able to avoid the need for irrigation.

57

The Consent Holder must meet the minimum fencing requirements set out in the following table.

Location	Specification
Solar Farm	A rabbit-permeable security fencing (up to 2 m) with 100mm x 50mm mm mesh.
~~Enhancement~~ Compensation Area	Fence ~~at minimum 1.2 m~~ up to 2 m above ground with ≤6 mm mesh designed to exclude juvenile mice and wallabies. Mesh material to be marine-grade 316 stainless steel (or similar) for corrosion resistance and longevity, with a wire gauge that resists rodent gnawing.

A 1.2m high fence would not exclude wallabies but would make it harder for them to get out once they got into the Compensation Area, creating a risk of intensified grazing pressure.

DOC's substantive concern is that there is no basis in the ecological evidence for fencing compensation area, and DOC suggests alternative compensation - see Commentary from

		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.	DOC's invertebrate expert Mr Warren Chinn[4].
	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.	
Ecological Management			
61	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 Technical Review Panel and 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 woks 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 **Error! Reference source not found.**.~~59~~….	Need to involve Technical Review Panel in finalising the ecological management measures.
62	… a) include records of engagement with Technical Review Panel and the the Department of Conservation in relation to the development of the Ecological Management Plan, including	Need to involve the Technical Review Panel in finalising the ecological management measures.

[4] Warren Chinn, Statement of Advice, dated 13 July 2026

	details of how issues raised by the Department of Conservation have been addressed or reasons why they are not addressed; … ***Advice note:*** *The Consent Holder ~~shall~~ must work with the Department of Conservation and Technical Review Panel to secure feedback on the Ecological Management Plan within 20 working days of its provision or alternatively confirm with the Department of Conservation and Technical Review Panel a timeframe for which certification of the Ecological Management Plan will occur.*	
64	The Ecological Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and the Technical Review Panel and must be: …	Need to involve the Technical Review Panel in any changes to the ecological management measures.
Technical Review Panel		
66	The Consent Holder must establish a Technical Review Panel (the Panel) comprising no fewer than five experts, with at least one ~~representation from~~ suitably-qualified and experienced expert in each of the following disciplines: a) biostatistics; b) dryland flora and ecosystems ecology; c) avifauna ecology; d) invertebrate fauna ecology; and e) herpetofauna ecology At least one expert should be appointed by each of 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 ~~for~~ solar farm ~~the initial construction of the solar farm~~. In the event that one or more of the Kaitiaki Governance Group, Mackenzie District Council, Canterbury Regional Council or the Department of Conservation do not appoint an expert, the Applicant must appoint a suitably qualified, independent and experienced expert(s) in the relevant discipline(s) to the Panel.	The role of the Panel is as independent technical experts, so it should be made up of suitable experts rather than organisational representatives. Given the range of values affected the Panel needs to be made up of specialists in all the relevant ecology fields. As above, need to involve the Technical Review Panel in finalising the ecological management measures. If one of the stakeholders included in this condition does not appoint an ecology expert the Consent Holder must appoint a suitable

Meetings of the Technical Review Panel must be convened prior to preparation of the Ecological Management Plan and annually thereafter (or more frequently as required), ~~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) provide expert input into the Ecological Management Plan, Pest Animal Management Plan, Plant Management Plan, Herpetofauna Management Plan, Terrestrial Invertebrate Management Plan, Avifauna Management and Avifauna Collision Monitoring Plans;

b) to supervise development of the applied ecological research programme and to administer the approval process for funding of applied ecological research, at the full cost of the Consent Holder;

c) to annually review the results from ecological monitoring and applied ecological research undertaken in accordance with the requirements of this consent to determine if the objectives of the certified Ecological Management Plan, Pest Animal Management Plan, Plant Management Plan, Herpetofauna Management Plan, Terrestrial Invertebrate Management Plan, Avifauna Management and Avifauna Collision Monitoring Plans are being met; ~~and~~

d) to recommend amendments to ecological management plans and ecological monitoring programmes arising from the review of ecological monitoring results; ~~and~~

e) to review and confirm compensation recommendations should any of the ecological management plan objectives not be met and/or avifauna adaptive management triggers set out in Condition **Error! Reference source not found.** be reached; and ~~and~~

f) To recommend and provide technical input into a review of the conditions of this consent in accordance with Condition [172] where:

   i. The Panel finds ecological management plan objectives (being objectives of the management plans referred to in Condition 66 (c)) are not being met; or

expert to establish the Panel.

The Panel must be involved in preparation and review of the relevant ecology management plans.

It would be inefficient and impractical for the Panel to design and administer the research themselves. The Panel should "supervise" the applied ecological research program.

The Panel's role in review of monitoring results should be to advise whether ecology management plan objectives are being met. Where the Panel finds ecology management plan objectives and/or compensation outcomes (no net loss) are not being achieved the Panel should make recommendations in accordance with the matters

ii. Amendments made to ecological management plans and monitoring recommended by the Panel have not been adopted by the Consent Holder or have not resulted in the ecological management plan objectives being met; or

iii. Ecological compensation recommended by the Panel has not been adopted by the Consent Holder or has not resulted in the ecological management plan objectives being met; or

iv. The Panel finds that compensation will not be sufficient to achieve the objectives of the ecological management plans, particularly to achieve no net loss of Rare, Threatened or At-Risk species or ecosystems.

~~to administer the approval process for funding on applied ecological research as per Condition 119.~~

In addition to the above which apply for the duration of this consent, on the tenth anniversary of solar farm operations, and every five years thereafter, 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~~ recommendation on any requirement for ecological compensation and/or section 128 condition review, 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~~ recommended by the ~~Technical Review~~ Panel must be commensurate with the actual residual effects ~~impacts~~ that have been identified ~~and will be binding on the Consent Holder~~.

The Technical Review Panel must oversee the design and ~~administer~~ administration of 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;

DOC has suggested in d) – f), i – iv. DOC notes use of terminology in the draft condition that indicates the Technical Review Panel could bind the Consent Holder (e.g., the drafting has referred to making a "final determination" on additional compensation, and that the Technical Review Panel's determination will be "binding on the Consent Holder"). DOC considers this wording to be inconsistent with caselaw and unlikely to be enforceable. Under the law, the Consent Authority or Technical Review Panel is also unlikely to have the ability to impose additional compensation without a s128 review or variation to consent conditions. To address this issue DOC has suggested the Panel make "recommendations" to the Consent Holder and Consent Authority, and that where thresholds are met or exceeded (i.e., Technical Review Panel findings that management plans are not being achieved, or bird mortality thresholds are tiggered) the Technical Review Panel will make recommendations to the

	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 the Panel decides it is appropriate.	Consent Authority on initiating a review of the consent conditions in accordance with section 128 of the Resource Management Act 1991. In DOC's view, a comprehensive condition review by the Consent Authority, explicitly tied to recommendations of the Panel, is the appropriate mechanism to address adverse effects/residual effects not adequately managed under the consent.
68	The Consent Holder must provide all ~~an appropriate level of~~ funding and administrative support for the Technical Review Panel to enable it to fulfil its functions, including paying any consultancy fees for consultants appointed to the Panel or engaged to undertake research.	Addition for clarity – given the technical expertise role of the Panel, it is likely that it could include consultants, and/or that consultants would be used to deliver research. All funding of the Panel must be at the cost of the Consent Holder.
~~Enhancement~~ Compensation Area and Release Sites		
69	In order to achieve the outcomes ~~anticipated by~~ of the certified ecological management plan, the Consent Holder must establish and maintain ~~an enhancement~~ a compensation area of ~~approximately~~ no	Habitat "improvement" (and maybe native plantings, depending on the method) will likely have adverse effects on the outwash plain

	less than-180 ha in size located to the north of the solar site and lizard and invertebrate release sites (as shown on Attachment ~~Four~~ 4) 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 (if appropriate) ~~and deployment of habitat features (e.g. boulders (boulderfield) 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 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 e) ensure the successful establishment, and persistence for five years, of 20 population clusters (comprising no fewer than 20 individuals) of TAR species, including Lepidium solandri, Convolvulus verecundus, Raoulia parkii, Raoulia australis, and Muehlenbeckia ephedroides 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 e. monitoring and research to verify stated outcomes and inform adaptive management and contingency actions where required.	ecosystem. Disturbance of the outwash plain substrate/surface should be avoided wherever possible and not locked in through the conditions. Addition to provide certainty of TAR species outcomes. We suggest that these population clusters should be established at the northern part of the Compensation Area, where the outwash terrace surface is more modified (or within the Restoration Area).
70	The ~~Enhancement~~ Compensation Area must include the following features:	Planting (excavating, fertilising, watering, weeding) can have a

	a) Predator proof fencing ~~to~~ that also excludes uncontrolled vehicle access and is designed in accordance with Condition **Error! Reference source not found.** ~~54~~; b) removal of brier rose and stonecrop and any other pest plants identified for control in the Ecological Management Plan; c) pest management in accordance with the targets set out in Condition **Error! Reference source not found.**; d) restoration planting, only if the ecological benefits outweigh any adverse effects on dryland ecological values; and e) provision for ongoing monitoring and maintenance.	significant adverse effect, especially on microhabitats, so should not be locked in through the conditions. DOC's substantive concern is that there is no basis in the ecological evidence for fencing compensation area, and DOC suggests alternative compensation - see Commentary from DOC's invertebrate expert Mr Warren Chinn[5].
71	Construction works must not commence on the solar farm until: (a) the Compensation Area is established and fenced, baseline surveys have been completed and reported, and pest animal control is underway, in accordance with the certified Ecological Management Plan; and …	Baseline surveys need to be complete before the site is disturbed. The Ecological Management Plan will set the final details and requirements for the Compensation Area, so needs to be reflected here.
72	The Consent Holder must manage the ~~Enhancement~~ Compensation Area and Restoration area(s) if relevant for the life of the solar farm in accordance with the certified ecological management plan~~s~~.	If the further restoration area is established, it will also need to be managed in accordance with the ecological management plan.
73	Based on the ~~results from the ten year~~ Technical Review Panel review in accordance with Condition [66], and following consideration of the results of the ecological monitoring required by the conditions of this	The area of additional compensation should not have an upper limit set

[5] Warren Chinn, Statement of Advice, dated 13 July 2026

	consent to determine whether the objectives of the certified ecological management plans have been achieved, the Technical Review Panel ~~shall~~ must ~~determine~~ recommend the need for additional adaptive management responses that may include the following: a) increased or decreased pest control within the ~~Enhancement~~ Compensation Area; b) establishment of an additional ~~offset~~ compensation area(s) of ~~up to~~ at least 170 ha if considered commensurate with the actual residual impacts identified; and /or other outcomes ~~determined~~ recommended by the Technical Review Panel, as part of the ~~10 year~~ review described in Condition **Error! Reference source not found.**.	through the conditions, and there should be flexibility for it to be made up of more than one area. Consequential amendments to reflect DOC's suggested changes in Condition 66.
Pest Animal Management Plan		
75	… g) establish mechanisms to report annually on the results of pest mammal control to the Mackenzie District Council and the Technical Review Panel; and …	The Technical Review Panel needs to receive and review monitoring results.
76	The following pest animal targets and thresholds will apply:	

Species	**Location**	**Target**	**Threshold (where additional management is required to be implemented)**
Possum	Solar Site	<5% Residual Trap Catch	>10% Residual Trap Catch

	Conservation / Release Areas and ~~Enhancement Site~~ Compensation Area	~~Functional eradication~~ Zero density	Any detection
Rabbits	Solar Site	Annual review of rabbit populations	~~In accordance with recommendations from annual review of rabbit populations~~
	Conservation / Release Areas and ~~Enhancement Site~~ Compensation Area	Annual review of rabbit populations	~~In accordance with recommendations from annual review of rabbit populations~~
Rodents	Solar Site	<~~10%~~ 5%tracking tunnel index	>15% tracking tunnel index
	Conservation / Release Areas and ~~Enhancement Site~~ Compensation Area	~~Functional eradication~~ Zero density	Any detection
Hedgehogs	Solar Site	<5% Residual Trap Catch	>10% Residual Trap Catch
	Conservation / Release Areas and ~~Enhancement Site~~ Compensation Area	~~Functional eradication~~ Zero density	Any detection
Mustelids	Solar Site	<5% Residual Trap Catch	>10% Residual Trap Catch

Zero density is the applicable term used in pest control measures.

DOC experience is that a 5% tracking tunnel index is the necessary target for rodents. Once 10% is reached populations would already be steeply increasing.

	Conservation / Release Areas and ~~Enhancement Site~~ Compensation Area	~~Functional eradication~~ Zero density	Any detection
Feral cats	Solar Site	<5% Residual Trap Catch	>10% Residual Trap Catch
	Conservation / Release Areas and ~~Enhancement Site~~ Compensation Area	~~Functional eradication~~ Zero density	Any detection

80	The Consent Holder must provide an annual report prepared by a suitably qualified and experienced ecologist to Mackenzie District Council and the Technical Review Panel that sets out the results of the monitoring required in Condition **Error! Reference source not found.** ~~74~~. The report must also consider the status of the rabbit populations within the solar farm and ~~enhancement~~ compensation area and make recommendations on control levels to be maintained for purposes of controlling weeds within the Site.	The Technical Review Panel needs to receive and review monitoring results.
Plant Management Plan		
81	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 the Technical Review Panel 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 solar farm. Certification is required to demonstrate that the Plant Management Plan will provide the means to achieve the purpose and matters set out in Condition [77].	The Technical Review Panel needs to receive and review monitoring results.
83	The Plant Management Plan must include: a) records of engagement with the Department of Conservation and the Technical Review Panel in relation to the development of the Plant Management Plan, including details of how issues	The Technical Review Panel needs to receive and review monitoring results.

	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; ii. vegetation clearance protocols, including provision for supervision and oversight of works by a suitably qualified and experienced ecologist; iii. ~~minimisation~~ avoidance of earthworks and vehicle tracking through demarcation of access routes and co-locating of infrastructure such as roads, trenches and cabling; and	Protection of these threatened plants will require outright avoidance of earthworks and tracking, not just minimisation.
84	The Plant Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and the Technical Review Panel and must be: …	The Technical Review Panel needs to be involved in any amendments to the Plant Management Plan.
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 and the Technical Review Panel, a statistically robust pre-construction baseline monitoring plan for Nationally Threatened or At-risk dry-land plants within the solar farm and ~~enhancement~~ Compensation Area in accordance with the requirements of the Plant Management Plan. The pre-construction baseline monitoring plan must include: a) records of engagement with the Department of Conservation and the Technical Review Panel in relation to the development of the pre-construction monitoring plan, including details of how	The Technical Review Panel needs to be consulted in preparation of the monitoring plan.

	issues raised by the Department of Conservation or Technical Review Panel 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 November prior to the start of construction to optimise detection probability for spring annuals; c) details of the scope and duration of the surveys, and the expertise and experience of the surveyors;	The expertise and experience of the people undertaking surveys is a critical factor in the accuracy of dryland field surveys.
89	Where Nationally Threatened plant species are located within the solar farm, the location of those species along with an appropriate (~~10m~~ 100m) buffer must ~~will~~ be avoided in the solar farm layout (and not be disturbed during construction or operation of the solar farm) and permanently fenced using a standard stock exclusion fence.	DOC considers that buffers will need to be considerably larger than 10m to protect against edge effects, especially microclimate changes. Based on observations of vegetation changes around irrigation, a buffer of 100m would be needed to ensure protection. The buffer areas need to be protected from disturbance from construction or operation.
90	… b) The Consent Holder must submit the compliance monitoring report to Mackenzie District Council and the Technical Review Panel on 1 July of each year for the duration of the construction of the Solar Farm.	The Technical Review Panel needs to receive and review monitoring results.
91	… a) records of engagement with the Department of Conservation and the Technical Review Panel in relation to the development of the plant monitoring plan, including details of how issues raised	The Technical Review Panel needs to be consulted in preparation of the applied research monitoring plan.

	by the Department of Conservation and the Technical Review Panel have been addressed or reasons why they are not addressed; …	
93	The Consent Holder must submit the annual plant applied research (in accordance with condition 91) and monitoring report to Mackenzie District Council and the Technical Review Panel on 1 July of each year for the duration of the monitoring period that includes the results of the applied research and monitoring programme and setting out of any adaptive management or contingency responses should the results indicate that the objective of the Plant Management Plan is not being or are unlikely to be achieved. If applied research or monitoring results indicate that the purpose of the Plant Management Plan is not being or are unlikely to be achieved, adaptive management or contingency 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 ~~enhancement~~ compensation area; c) management and legal protection of additional areas of outwash gravels ecosystem. d) ~~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, or in accordance with any condition review initiated under Condition 172.	Clarifying that applied research referred to here is as per Condition 91, to distinguish from applied research content of Ecological Management Plan. The Technical Review Panel needs to receive and review monitoring results. A key potential contingency response will be management and protection of additional outwash gravel ecosystem(s) elsewhere.
Herpetofauna		
94	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 and the Technical Review Panel. The Lizard Management Plan must be submitted to Mackenzie District Council for certification ~~no more than~~ at	The Technical Review Panel needs to be consulted in preparation of the Lizard Management Plan.

least 20 working days prior to the commencement of any ~~physical works for the initial~~ construction works on the ~~Site of~~ solar farm ~~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 **Error! Reference source not found.**.

95	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 and the Technical Review Panel in relation to the development of the Lizard Management Plan, including details of how issues raised by the Department of Conservation and the Technical Review Panel 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; c) Location of release sites, including consideration of whether the predator-free compensation area is a preferable location; d) requirements for release sites, including creation and enhancement of habitat and predator control; e) requirements for post-release monitoring and reporting; f) accidental discovery procedures; and g) roles and responsibilities.	The Technical Review Panel needs to be consulted in preparation of the Lizard Management Plan.

	The Lizard Management Plan must be consistent with the certified Ecological Management Plan prepared under Condition 61.	There is a risk that lizard management measures on their own could conflict with other ecological values, so there is a need to ensure that all ecological measures are integrated.
97	The Lizard Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and the Technical Review Panel and must be: …	The Technical Review Panel needs to be consulted in any amendments to the Lizard Management Plan.
100	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 ~~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~~ . The lizard monitoring plan must include: a) records of engagement with the Department of Conservation and Technical Review Panel in relation to the development of the lizard monitoring plan, including details of how issues raised by the Department of Conservation and Technical Review Panel have been addressed or reasons why they are not addressed; …	The Technical Review Panel needs to be consulted in preparation of the Lizard Management Plan.
Terrestrial Invertebrates		
103	The Consent Holder must engage a suitably qualified and experienced invertebrate 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 the Technical Review Panel and submitted to Mackenzie District Council for certification ~~no less than~~ at least	Change to improve clarity The Technical Review Panel needs to be consulted in preparation of the Terrestrial

	20 working days prior to the commencement of any ~~physical works for the initial~~ construction works on the ~~Site of~~ solar farm ~~the 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 **Error! Reference source not found.** ~~97~~.	Invertebrate Management Plan.
104	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 ~~of~~ 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 and the Technical Review Panel in relation to the development of the Terrestrial Invertebrate Management Plan, including details of how issues raised by the Department of Conservation and Technical Review Panel 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 Compensation Area and the Conservation Zones ~~Enhancement Area~~; c) a description of the measures to minimise onsite adverse effects on invertebrates, including through pest-proof fencing, pest control, invertebrate salvage and relocation such that the no net loss outcome will be achieved; d) requirements for the release site(s) within the Compensation Area including ~~fencing,~~ habitat enhancement and predator control; e) an incidental discovery protocol; f) a description of the monitoring and reporting requirements; and	The Technical Review Panel needs to be consulted in preparation of the Terrestrial Invertebrate Management Plan. Fencing could have negative impacts on invertebrates and other ecological values due to disturbance, predator incursion etc, so should not be locked in through conditions.

g) roles and responsibilities.

106	The Terrestrial Invertebrate Management Plan may be amended at any time. Any amendments must be prepared in consultation with the Department of Conservation and Technical Review Panel and must be: …	The Technical Review Panel needs to be consulted in any changes to the Terrestrial Invertebrate Management Plan.
109	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~~n~~ 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 and the Technical Review Panel in relation to the development of the invertebrate monitoring plan, including details of how issues raised by the Department of Conservation ~~and Technical Review Panel~~ have been addressed or reasons why they are not addressed; …	Changes for consistency with requirement to consult with the Technical Review Panel.
111	The Consent Holder must submit the annual invertebrate monitoring report to the Technical Review Panel and 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 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:	Changes to ensure the Technical Review Panel receive and evaluate the invertebrate monitoring report. This report should inform the recommendations on invertebrates from the Technical Review Panel to the Council.

Avifauna Management

112	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 the Technical Review Panel before being submitted to Mackenzie District Council for certification at ~~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 Avifauna Management Plan will provide the means to achieve the purpose and matters set out in Condition **Error! Reference source not found.**~~[105]~~.	Addition to ensure the Technical Review Panel is involved in preparation and review of the draft Avifauna Management Plan
113	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 and decommissioning 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 been addressed or reasons why they are not addressed; design and monitoring of features of the solar farm that, in accordance with current research literature, provide best practice approaches to mitigate potential effects on birds, including panel tracking and stowing angles and management of lighting;~~, and installation of markers to improve visibility of existing electrical transmission lines to reduce collision risk;~~	The avifauna management plan and other ecology management should address effect associated with decommissioning the solar farm. Decommissioning could have a range of effects on ecological values. As these design features would be experimental as avifauna mitigation their effectiveness should be monitored.

b) identification of bird species that are likely to use or interact with both the solar farm site and ~~Enhancement~~ Compensation Area, and monitoring methodologies and frequencies to determine that use or interaction;

c) methods for identifying nesting bird behaviours and protocols to minimise their disturbance when identified;

d) details of the collision mortality thresholds and response actions required in accordance with Condition **Error! Reference source not found.**~~[112]~~;

e) requirements for reporting;

f) Measures to avoid, remedy or mitigate adverse effects on avifauna values when the solar farm is decommissioned; and

the review and evaluation of the Avifauna Management Plan.

Bird Collision Monitoring Plan		
118	The Consent Holder must engage both a suitably qualified and experienced avifauna ecologist and biostatistician ~~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~~ at least 20 working days prior to the commencement of any ~~physical works for the initial~~ construction ~~of the solar farm~~ works on the solar farm. Certification is required to demonstrate that the Bird Collision Monitoring Plan will provide the means to achieve the purpose and matters set out in Condition **Error! Reference source not found.**~~[110]~~. …	A suitably qualified biostatistician and ecologist should prepare the Bird Collision Monitoring Plan. Bird Collision Monitoring will rely on appropriate statistical expertise.
119	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 reference the methods identified in *Statistical advice for a solar power installation at Haldon Station, Canterbury, New Zealand*[6] ~~be in general accordance with the report~~ prepared by Proteus provided as part of the applications and incorporate a monitoring design and methodologies, designed by suitably qualified and experienced biostatistician, for avifauna mortality surveys that inform the species-specific adaptive management triggers set out in Condition **Error! Reference source not found.**[~~112~~], including:

a) records of engagement with the Department of Conservation and the Technical Review Panel in relation to the development of the Bird Collision Monitoring Plan, including details of how issues raised by the Department of Conservation and Technical Review Panel have been addressed or reasons why they are not addressed;

b) ~~industry-standard~~ Ddesign 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 % likelihood for both large and small birds (separately) based on the Proteus advice;

ii. a methodology to account for rare and common bird species collision probabilities (i.e., to ensure collisions that may be of lower probability but higher ecological

"Solar farm infrastructure" is the appropriate terminology, there is no need to single out solar panels (noting solar panels are included in this terminology).

Avifauna effects of the solar farm in its entirety need to be managed.

The Condition should properly reference the 'Proteus' Report.

In DOC's view it is also important to address rare and common bird species collision probabilities i.e., a Nationally Critical bird

[6] Hamlin TJ, Jones TT, MacKenzie DI 2026. Statistical advice for a solar power installation at Haldon Station, Canterbury, New Zealand. Client Report for Lodestone Energy. Proteus Client Report 219. Proteus, Dunedin.

	impact are detected and monitored, as well as collisions which are more likely but of lower impact). iii. 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; iv. pre-and post-construction searcher efficiency trials that assess observer detection of carcasses in the field including how eDNA analysis of feather spots or smears, 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 v. carcass persistence trials that determine how detection probability changes over time as carcasses are scavenged or decay; and vi. a requirement that a suitably qualified and experienced avifauna ecologist(s) undertakes the monitoring. d) requirements for reporting; and the review and evaluation of the Bird Collision Monitoring Plan.	collision (such as Australasian Bittern) may be less likely but would have a significant impact. Addition to include eDNA analysis of feather spots or smears on panels as this is a necessary monitoring method. Must be undertaken by a suitably qualified and experienced avian ecologist (inexperienced staff should not be charged with monitoring as part of other solar farm maintenance activities - it is a high concentration and specific job, requiring ecology expertise).
120	The Consent Holder must undertake the monitoring ~~anticipated~~ required by the Bird Collision Monitoring Plan for a period determined by a suitably qualified biostatistician, but ~~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.	While 5 years is an appropriate minimum the duration should otherwise be recommended by a suitably qualified biostatistician. Detection probabilities for rare species will likely mean that more

		than 5 years monitoring is required to achieve a statistically meaningful result.
121	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.	Addition to clarify that threat classifications in the table would need to follow the most up-to-date Threat Classifications (as these are reviewed every 5 years).

Species	Conservation Status (as below or any subsequent classification under the New Zealand Threat Classification System)	Taonga Species as per Ngai Tahu Settlement Claims Act	Adaptive M Mortality)
Black Stilt / Kakī	Threatened – Nationally Critical	Yes	
Australasian Bittern / Matuku-hūrepo	Threatened – Nationally Critical	No	
White Heron / kōtuku	Threatened – Nationally Critical	Yes	
Black Fronted Tern / Tarapirohe	Threatened – Nationally Endangered	Yes	

	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

123	If Bird Collision monitoring identifies that the mortality of any individual bird species listed in Condition **Error! Reference source not found.** 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~~ the Technical Review Panel will make recommendations in accordance with Condition [66], including whether to initiate a review of the conditions of this consent in accordance with Condition [172]. ~~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~~	If fatalities of threatened species occur, depending on the rate, it would be inappropriate to delay compensation while experimental mitigation is trialled. Amendments to this condition to refer to the process in the Technical Review Panel Condition [66] and potential review condition. 123 a – b have been deleted as they would conflict with measures outlined in Condition 66.

	~~b) assessment and quantification of the potential population benefits that could must 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.*~~	Improved certainty. Any compensation measures must result in a population benefit if the AMP purpose of achieving no net loss is to be realised.
124	The Consent Holder~~'s financial contribution to avifauna compensation~~ shall ~~comprise a payment o~~f $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. ***Advice note:*** *This condition has been proposed on an Augier basis by the Applicant.*	The risk is extinction of an avifauna species. In that context, $1 million compensation is clearly short of full compensation, and the Technical Review Panel must be empowered to recommend other mechanisms including additional compensation. If there is any dispute about this issue, the Applicant should make that clear before the final decision is issued.

Ecological Reporting

128	The Consent Holder must prepare and submit an annual ecological report, prepared by suitably qualified and experienced ecologist(s) to the Mackenzie District Council, the Technical Review Panel, the Kaitiaki Governance Group and the Department of Conservation within 20 working days of each anniversary of the commencement of construction of the solar farm, or otherwise submit monitoring results to the Technical Review Panel in accordance with the condition of this consent. As a minimum, the annual report must set out the monitoring requirements of the certified ecological management 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) the results of any other ecological monitoring undertaken in accordance with the monitoring requirements ~~anticipated by~~ of this consent. h) 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; i) whether the various ~~purposes~~ objectives in the conditions that relate to ~~of~~ the ecology management plans are being achieved; j) identification of circumstances where monitoring has informed refinement to construction methods, effects management measures, or implementation of adaptive management;	Amendments to improve clarity.

	k) 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 l) recommendations on any alterations to the monitoring to be implemented in the subsequent year, including the measures necessary to implement the recommended alteration.	
129	~~The requirement for ongoing reporting will be reviewed on the tenth anniversary of solar farm operations as part of the Technical Review Panel's determination on any requirement for ecological compensation and may be discontinued on the advice of the Technical Review Panel.~~	Condition 66 addresses the need for on-going monitoring and removes the 10-year anniversary review (review by the Panel will be on-going for duration of the consent), making this draft condition redundant.
Operational General Matters		
131	All panels installed and used on Site must be coated with a~~n~~ bird sensitive anti-reflective coating.	The purpose of using anti-reflective coating should be, in part, to mitigate effects on birds.
Review		
172	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 the for the purposes of: a) responding to recommendations of the Technical Review Panel in accordance with Condition [66].	

b) 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;

c) 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;

d) 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;

e) responding to any failures to meet monitoring requirements, particularly of bird strike;

f) responding to any effects detected by the bird collision monitoring, including additional responses if bird fatalities exceed those listed in Condition **Error! Reference source not found.**; or

g) ensuring that the conditions are effective and appropriate in managing the effects of the activities authorised by these consents.