



memorandum

TO Tim Carter FROM Lizzie Civil
Carter Group Limited DATE 19 February 2026
RE Response to: Ryan Road Industrial Development Substantive Fast Track Application
– Christchurch International Airport Limited Initial Comments on draft Wildlife
Hazard Management Plan and Aviation Safety Matters

1.0 Introduction and Background

Carter Group Limited (CGL) requested Pattle Delamore Partners (PDP) to assess avifauna at 104 Ryans Road, Yaldhurst, Christchurch, to identify potential bird strike hazards and recommend design and management mitigations for a proposed industrial development directly south of Christchurch International Airport

PDP ecologists conducted a site assessment on 27 November 2024, evaluating habitat, species presence, and potential for native and endemic breeding birds. Five-minute bird counts at 15 locations recorded species composition, abundance, behaviour, and flight paths. Findings were used to assess avian strike risk against Christchurch International Airport Limited (CIAL) high-risk species criteria and inform pre- and post-development wildlife management, as well as site and infrastructure design, including building form, landscaping, and stormwater management.

The assessment concluded that the development is unlikely to increase bird strike risk. Removal of open grassland, scattered trees, and derelict buildings, combined with increased human activity, is expected to reduce overall bird presence, particularly of species that forage on rural seeds and insects. Some urban-adapted species, such as southern black-backed gulls, red-billed gulls, and rock pigeons, may persist or increase, but the overall risk profile is not expected to rise due to design implementation to manage bird activity. All conclusions are based on site-specific baseline monitoring.

Unmanaged open grassland and seed-bearing crops are recognised as high-risk habitats for bird strikes. Recent operational observations at CIAL confirm that small birds, including goldfinches and sparrows, are attracted to such areas and have caused at least one bird strike (CIAL, personal communication, 2026). While the risk is not eliminated until seed sources are removed, clearing or managing these high-risk habitats can reduce bird abundance and help mitigate strike risk. This underscores why the development, by removing open grassland, is expected to lower overall bird strike risk.

PDP prepared a draft Wildlife Hazard Management Plan (WHMP) aligned with the Christchurch City District Plan (CCDP) bird strike provisions and the CIAL WHMP. The draft WHMP provides a structured, adaptive, outcomes-based framework for pre- and post-development management, ensuring site design and operational measures (e.g., landscaping, stormwater, and lighting) minimise bird strike risk, with ongoing consultation with CIAL.

2.0 Response to Christchurch International Airport

CIAL's memorandum, *'Ryans Road Industrial Development Substantive Fast Track Application Christchurch International Airport Initial Comments on Draft Wildlife Hazard Management Plan'* was sent to Carter Group and Novo Group on 21 November 2025 and was also Attachment #4 of the CIAL 18 December 2025 comments addressing Minute #6. The memorandum acknowledged receipt of the 104 Ryan Road Draft WHMP and raised several aviation safety concerns associated with the proposed development.

CIAL noted that any potential increase in bird activity and associated bird strike risk cannot be meaningfully assessed in isolation from broader aviation safety considerations. They stated that CIAL had not been adequately engaged throughout the process on these wider aviation safety matters. CIAL commissioned Avisure to assist with this review of the WHMP and that due to the short period of time to review the draft WHMP the comments are preliminary.

2.1 Overview of PDP's Response

The draft WHMP has been provided to support the consenting assessment of the proposal and is intended to be read alongside the proposed consent conditions. The draft WHMP comprehensively addresses the potential risks of bird attraction and bird strike during both the construction phase and ongoing operational use of the site. It sets out clear risk avoidance, mitigation, monitoring, and management measures appropriate to the location and nature of the development.

The proposed industrial development contains individual lots that will be subdivided, and ownership and operational responsibility will transfer to new owners over time. For this reason, the WHMP has been deliberately supported by proposed consent conditions designed to ensure that obligations are enforceable and binding on future landowners and occupiers. These conditions provide the mechanism through which WHMP requirements will be implemented, monitored, and maintained into the future, rather than relying on voluntary compliance or assumed awareness of aviation safety matters. See Appendix 1 for a copy of these proposed consent conditions that specifically relate to the WHMP. PDP had direct input into the drafting of these conditions. The proposed conditions are considered to be consistent with, and in many respects exceed the normal industry standard expected for a development of this type in this location.

PDP acknowledges CIAL's effort in reviewing the draft WHMP and notes that, as a draft document, it can be refined and adapted through the post-consenting review/consultation process as specified in the conditions. In particular, the items highlighted as missing or inadequately assessed in the summary of the Avisure advice can be further considered and detailed as required.

Overall, PDP considers the draft WHMP, together with the proposed consent conditions, provide a robust and enforceable framework for managing bird attraction and bird strike risk during construction and operation of the proposed development. Responsibility for implementation and compliance is clearly defined, and accountability is maintained in perpetuity with consent conditions applying to all current and future owners, tenants, and operators. Accordingly, PDP considers that the proposed approach appropriately manages bird strike risk and provides the level of certainty required for aviation safety in this context.

2.2 PDP Response to WHMP Initial Review Comments

Section 1.1 – Predicted Reduction in Bird Activity

The Avisure peer review appears to misunderstand the conclusions of the draft WHMP. While the PDP memorandum and draft WHMP anticipates a reduction in overall bird activity because of habitat change, it explicitly acknowledges that certain higher-risk species (including spur-winged plovers, southern black-backed gulls, red-billed gulls, and rock pigeons) may persist or increase in association with industrial development.

The draft WHMP does not equate reduced overall bird numbers with reduced bird strike risk. Rather, it adopts a species-specific, risk-based approach that recognises that strike risk depends on behaviour and flight patterns, not simply abundance. For this reason, targeted mitigation, design controls, and monitoring measures are proposed via the draft WHMP to manage (and lessen) any ongoing risk from higher-risk species.

The suggestion that the WHMP relies on overall bird number reductions as a proxy for strike risk does not accurately reflect the assessment.

Section 2.0 – REPA Focus

The peer review appears to focus on a single reference to the REPA in Section 2.0 of the WHMP without considering the draft WHMP as a whole. While the section identifies the western portion of the site as being within the REPA and Protection Surfaces, this reflects the elevated sensitivity of that specific area rather than limiting the assessment to it.

Sections 1.1, 1.2, and Section 2 of the draft WHMP clearly identify that the entire site lies within the 3 km Bird Strike Management Area and assesses risk accordingly. The management framework applies across the full development area, consistent with its location within that zone.

The specific emphasis on the REPA is deliberate and proportionate to bird strike risk. International strike data (including ICAO and FAA datasets) consistently demonstrate that the majority of bird strike incidents occur at low altitude during take-off and landing, with a significant proportion occurring below 500 feet AGL. Areas immediately adjacent to runway thresholds are therefore particularly sensitive in aviation safety terms. Highlighting the REPA reflects this recognised risk gradient and is not an understatement of broader 3 km zone risk. This detail can be added to the draft WHMP to clarify why the REPA is one of the focal points for assessment and management.

Section 3.3.2 – Species Risk Classification

The apparent inconsistency in species risk classification reflects the use of two different bird risk classification systems in the draft WHMP: CIAL's current three-tier system (low, medium, high) and the updated five-tier New Zealand Aviation Wildlife Hazard Group (NZAWHG) framework (negligible to extreme). Translating species between these systems has resulted in some terminology and placement inconsistencies in the WHMP at its risk assessment.

The final WHMP, following engagement with CIAL, will adopt a single, consistent risk classification framework and ensure that all species identified as presenting moderate to high strike risk are clearly aligned with the relevant management provisions.

Table 6 – Passive Management

Table 6 and the associated draft WHMP provisions are intentionally framed in an outcomes-based and adaptive manner rather than prescribing rigid or detailed future design and management solutions. The draft WHMP sets clear performance standards to avoid the creation of bird-attractant features, requires monitoring of bird activity, and establishes an escalation framework when and where initial mitigation

measures are found to be ineffective. This approach pragmatically recognises that detailed building design, landscaping, and operational practices will evolve over time and that prescriptive requirements could unnecessarily constrain future development without improving aviation safety outcomes.

The draft WHMP is accompanied by proposed consent conditions that provide the appropriate enforcement mechanism to ensure bird attractants are effectively managed. These conditions are intended to mandate compliance with the WHMP, require remedial action where monitoring identifies unacceptable bird activity, and restrict bird-attractant planting across private lots. Ongoing maintenance obligations and compliance requirements will apply to current and future owners, tenants, and operators, ensuring adherence to the WHMP and long-term accountability following subdivision and transfer of ownership

Collectively, the draft WHMP and proposed consent conditions provide a robust, enforceable framework that delivers aviation safety outcomes while allowing adaptability in implementation within defined parameters.

Section 6.2 – Determination of “Significant Number”

The reference to a “significant number” is intentionally framed in performance-based terms and tied to deviation from baseline site conditions and elevated strike risk, as set out in Section 6.2 of the WHMP. Bird activity varies seasonally and in response to environmental factors, and fixed numerical thresholds may not accurately reflect risk over time.

The draft WHMP therefore adopts an adaptive monitoring framework, with management escalation triggered where activity departs from pre-development baseline site conditions or poses increased strike risk. If greater numerical specificity is considered necessary, trigger thresholds can be refined in consultation with CIAL post-consent (as per conditions) to ensure they remain proportionate and risk-based.

To make it more clear we will edit the WHMP to state the following: *For the purposes of this WHMP, a ‘significant number’ of birds is determined relative to baseline site conditions established through pre-development monitoring. Activity is considered significant when it deviates substantially from normal averages or when the measurable presence of extreme- or high-risk species indicates an elevated bird strike risk. Upon reaching these thresholds, immediate management or dispersal measures must be implemented in consultation with CIAL to reduce strike risk.*

In addition proposed condition 109 relating to the WHMP has been updated to clarify that the purpose of the WHMP is to ensure that that the development will not increase the existing level of bird strike risk at Christchurch International Airport.

Section 6.3 – Management of Medium Risk Species

Please see comment under “Section 3.3.2 - Species Risk Classification” above. Species risk categories will be reassessed in consultation with CIAL following the completion of the CIAL WHMP review.

Table 7 – Active Management Measures

While some of the identified active management measures may present practical challenges in an industrial setting, they are included in the WHMP to ensure that all available options are identified and understood. These measures can be considered and implemented in consultation with CIAL if elevated bird activity or strike risk arises. This provides flexibility to select the most appropriate and feasible response in the most appropriate context. We can add detail about how certain options may be more challenging.

Section 7.4 – Escalation Procedures

As stated under “Table 6 – Passive Management” above, the WHMP uses an adaptive, outcomes-based approach, linking escalation triggers to deviations from baseline bird activity and the presence of extreme- or high-risk species, rather than fixed numerical thresholds. “Elevated activity” is determined relative to findings obtained during routine monitoring, with immediate action required where persistent high-risk activity is observed. Increased activity will be documented in the Wildlife Hazard Log, ensuring traceability and accountability. Wording can be added to clarify that escalation occurs promptly based on observed conditions and in consultation with CIAL.

Section 7.5 – Monitoring Requirements - Response

As per responses above.

Section 8.1 – WHMP Review – Response

The draft WHMP does not assume that baseline bird numbers are inherently acceptable. Baseline conditions are established through site-specific monitoring, and reviews are triggered when activity deviates from these observed averages or when extreme- or high-risk species are present. This ensures that any unexpected increase in risk, regardless of initial baseline levels, will prompt timely review and adaptive management in consultation with CIAL. If necessary, we can add a single clarifying sentence as below:

“Baseline conditions are established through site-specific monitoring, and any deviation from these observed averages, or the presence of extreme- or high-risk species, will trigger a review and appropriate management action.”

The draft WHMP is tailored to the scale of an off-airport development and aligns with CIAL’s broader WHMP, which manages off-airport hazards. Detailed SOPs, forms, KPIs, and personnel qualifications are not included, as these are addressed in CIAL’s airport-wide plan. The draft WHMP provides sufficient guidance for site managers and future lot owners, with escalation and communication to CIAL where required to maintain aviation safety.

3.0 Conclusion

The draft WHMP for the Ryan’s Road development provides an adaptive, outcomes-based framework tailored to the proposed off-airport industrial site. It identifies potential bird strike hazards, specifies mitigation and monitoring measures, and establishes escalation and communication procedures in consultation with CIAL.

Site-specific baseline monitoring underpins triggers for elevated activity and the presence of extreme- or high-risk species, ensuring timely and proportionate management. The plan aligns with CIAL’s airport-wide WHMP, which manages broader off-airport risks and relies on enforceable consent conditions to maintain accountability across future lot owners and operators.

Where greater specificity is suggested (e.g., numerical thresholds or escalation protocols), the WHMP’s precautionary, risk-based approach allows for refinement while maintaining flexibility and effectiveness. Overall, the draft WHMP, along with proposed consent conditions, delivers a robust, practical framework to manage bird strike risk throughout construction and operation, consistent with aviation safety best practice.

This memorandum has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Carter Group Limited (CGL) and Novo Group. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the memorandum. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This memorandum has been prepared by PDP on the specific instructions of CGL for the limited purposes described in the memorandum. PDP accepts no liability if the memorandum is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

© 2026 Pattle Delamore Partners Limited

Prepared by



Lizzie Civil

Service Leader – Ecology

Reviewed and Approved by



Jarred Arthur

Technical Director - Ecology

Appendix 1 – Proposed Consent Conditions relating to the WHMP

109.	<p>Prior to any development works commencing on the application site, the ‘Draft Wildlife Hazard Management Plan’ (WHMP) prepared by PDP and submitted with the application must be finalised by the Consent Holders suitably qualified Ecologist specialising in Avifauna, for certification by CCC under (Condition 110 below).</p> <p>The final WHMP shall cover bird strike hazards during both the construction stage and the operational phase (for the lifetime for the development) to address the ongoing management and monitoring of bird strike risk at 104 Ryans Road and 20 Grays Road to ensure that the development will not increase the existing level of bird strike risk at Christchurch International Airport.</p> <ol style="list-style-type: none"> a. The final WHMP must be prepared: <ol style="list-style-type: none"> i. Giving consideration to consistency with the Christchurch International Airport Limited (CIAL) WHMP to detail management methods to help reduce bird strike risk associated with the site and CIAL airport operations; and ii. Giving CIAL and in particular their suitably qualified Ecologist specialising in Avifauna and Wildlife Manager an opportunity to participate in further consultation with the Consent Holders suitably qualified Ecologist / Avifauna expert. If CIAL does not provide a response to the WHMP within 20 working days of receiving it, the consultation will be deemed as satisfied. Evidence of this consultation (or the opportunity provided to do so) is to be submitted to CCC with the certification. b. Specifically, for the construction phase the final WHMP must include as a minimum: <ol style="list-style-type: none"> i. Pre-development mitigation measures (e.g., mowing site grass to disperse birds in a southward direction away from the CIAL flight path). ii. Passive and active management methods including, surveillance and monitoring, grounds management specifications (i.e., recommended grass heights to deter high-risk species), and seasonal bird counts (this could be completed by CIAL and/or site surveillance personnel). iii. Management of earthworks including location and size of stockpiles, seasonal timing of earthworks, size of areas being earth worked or depressions in the ground that may result in ponding water. iv. Landscape design standards to avoid bird attracting plant and grass species. v. Communication plan of development timelines with CIAL before development works take place to mitigate potential avifauna issues and offer support if any issues arise. vi. Appointment of a Site Manager responsible for implementing the WHMP and provision of their contact details to CIAL. vii. Roles and responsibilities - including liaising with external stakeholders (e.g., CIAL) to determine the obligations of respective organisations and their personnel.
------	---

	<ul style="list-style-type: none"> viii. Monitoring and review procedures of WHMP, including liaison with CIAL with increases in bird numbers onsite being communicated so appropriate counter-measures can be implemented. c. Specifically, the WHMP for the operational phase must include as a minimum: <ul style="list-style-type: none"> i. On going roles and responsibilities for the lifetime of the development - including liaising with external stakeholders (e.g., CIAL) to determine the obligations of respective organisations and their personnel. ii. Passive and active management methods – surveillance and monitoring, grounds management specifications (i.e., recommended grass heights to deter high-risk species), and seasonal bird counts (this could be completed by CIAL and/or site surveillance personnel). iii. Landscape design standards and mitigations to avoid bird attracting plant and grass species iv. Waste and pest management procedures for lots/ activities. v. Mitigation options in relation to flat roof buildings and roosting/ nesting in building rafters. vi. Lighting designed not to attract insects which are a food source for birds. vii. Monitoring and review procedures of WHMP – this must include liaison with CIAL with increases in bird numbers onsite being communicated so appropriate counter-measures can be implemented. viii. In addition to monitoring by the site manager, annual bird counts conducted by an avian ecologist for 5 years following development is necessary to monitor the impacts of management measures in place.
<p>110.</p>	<p>The WHMP required by Condition 109 above must be provided to CCC (via email to rcmon@ccc.govt.nz) for certification by their Ecologist specialising in Avifauna at least 10 working days prior to any works commencing on site.</p> <p>The Ecologist specialising in Avifauna must certify the WHMP if:</p> <ul style="list-style-type: none"> a. Evidence is provided of consultation with CIAL’s Ecologist specialising Avifauna and/ or Wildlife Manager, including an explanation of how any feedback raised by them have been incorporated in the final WHMP. b. In accordance with (109 a. ii) if CIAL does not provide a response to the WHMP within 20 working days of receiving it, Condition 110(a) may be deemed satisfied. <p>The matters in conditions 109 b. and c. are included in the WHMP.</p>
<p>111.</p>	<p>Once certified under Condition 110, the WHMP must be implemented at all times by the Consent Holder and any contractors during the construction phase and by the owners and operators of lots 1 – 126, Lots 200 – 201 and Lots 400 and 500 as they are developed with buildings and activities are established and operated.</p>
<p>112.</p>	<p>A consent notice regarding on going adherence to the certified WHMP in Conditions 110 and 111 above shall be placed on each title (Lots 1 – 126, Lots 200 and 201 and Lots 400 and 500).</p>