



memorandum



TO	Carter Group Limited	FROM	Lizzie Civil Pattle Delamore Partners (PDP)
	Carter Group Limited	DATE	19 November 2025
RE	Wildlife Hazard Management Plan (WHMP) response to CIAL bird strike-related comments – 104 Ryan Road		

My full name is Elizabeth (Lizzie) Hannah Civil

I hold a degree in Science, majoring in Biodiversity Management. I am currently a Service Leader – Ecology at Pattle Delamore Partners (PDP), a position I have held since 2023.

My previous work experience includes serving as Grounds and Wildlife Manager at Auckland International Airport for seven years, Airfield Environmental Officer and Airfield Manager at the Royal New Zealand Air Force (RNZAF) Whenuapai Airbase for two years, and Director of Civil Ecology for five years. I also served as Chair of the New Zealand Aviation Wildlife Hazard Group (NZAWHG) for eight years.

I have been asked by Carter Group Limited to provide a response to bird strike related matters contained in written comments on the Ryans Road Industrial Development application from persons invited by the Panel to comment under section 53 of the Act. Please see section 2 below for addressed comments.

Although this is not an Environment Court proceeding, I confirm that I have read the Environment Court Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023 and agree to comply with it. I confirm that the opinions expressed in this statement are within my area of expertise except where I state that I have relied on the evidence of other persons. I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

1.0 Purpose

This cover letter outlines how the November 2025 draft *Wildlife Hazard Management Plan (WHMP)* for the 104 Ryans Road (and 20 Gray's Road) Industrial Development responds to Christchurch City Council (CCC) and Christchurch International Airport Limited's (CIAL) bird strike-related comments (15 September 2025 submission). Below we highlight where each concern is addressed within the WHMP.

2.0 Comments Addressed

2.1 Stormwater Design and Drainage

Concern: *stormwater basins, even if compliant with CCDP 6.7.4.3.1, may still attract waterfowl. CIAL prefers infiltration (soak pit) systems with no standing water.*

Addressed in WHMP Section 6 Table 6— Passive Management (Open waterbodies/drainage):

The WHMP states:

- ✧ *“stormwater facilities will consist of a Filterra Bioscape approach. This will create zero standing water except in rare extreme high intensity rainfall”.*
- ✧ *“Improve drainage wherever practicable, ensure correct drainage reinstatement following works”.*

2.2 Landscape Planting and Vegetation Management

Concern: *need detailed landscaping plan using low-attractance species and ecological review per CCDP Appendix 6.11.9.*

Addressed in WHMP section 6 Table 6:

- ✧ Landscape plans have considered bird attractiveness and bird strike risk. Species that have low food abundance have been selected. Buffer zoning vegetation has included trees that are open in structure. The plant species list within the Filterra Bioscape 360 planting guide varies from the CCDP 2024, Appendix 6.11.9 list however all selected species are grass/tussock species supplying little to no flowers and/or berries and of low bird attractancy.
- ✧ Restrict landscaping on the individual lots to species in Appendix 6.11.9 Plant Species for Water Bodies and Stormwater Basins in the Bird strike Management Area in Appendix 6.11.7.5

Note: CIAL independent Ecologist from Avisure based in Australia, stated that they were unfamiliar with the proposed tree species relying on google. All selected plant species have been selected by our avian ecologist who is familiar with local conditions. Selected species have little to no food source for birds (flowers and berries), open crown structures or more sparse leaf coverage. They are of low attractance to avian species when compared with similar native options.

Passive Management (Vegetation):

- ✧ Specifies use of low-attractance species, e.g. Lemonwood (*Pittosporum eugenioides*), upright red maple (*Acer 'Bowhall'*), etc.
- ✧ Notes that vegetation in stormwater areas will also comprise low-attractance species such as tussock and grasses.

Post-development Management:

- ✧ Notes addressing post management vegetation management such as crown-lifting, weed control restricted landscaping on individual lots (Table 6).

2.3 Construction and Earthworks Management

Concern: *construction activities (ponding, stockpiles, seeding) may attract birds, such as gulls and plovers.*

Addressed in WHMP Section 7 – Wildlife Procedures (Construction phase mitigation):

The WHMP includes separate subsections on *Pre-construction*, *During construction*, and *Post construction* mitigations.

Table 6 – Passive Management (Grass/Open substrate):

The WHMP requires the applicant to:

- ✧ Sow **Avanex® deterrent grass** and **daily monitoring of open substrate**.
- ✧ Directs *“temporary deterrents (e.g. windrows on pigtales)” and minimising open earth exposure*.
- ✧ *“where possible, avoid earthworks between late July and mid-February, as disturbed ground can attract migratory birds seeking foraging and nesting habitat. If non-avoidable ensure increased active management and monitoring to reduce possible increase bird attractive and bird strike risk”.*
- ✧ Outlines roles and responsibilities for the pre and post construction (5.2).

2.4 Wildlife Hazard Management Plan Conditions and Certification

Concern: *conditions need clear certification requirements and ongoing review by CCC/CIAL.*

Addressed in WHMP Section 5.2 – Implementation:

- ✧ Defines clear roles/responsibilities, including *CIAL Wildlife Team* for technical support and dispersal coordination.
- ✧ States *“the site developer/WHMP coordinator will maintain clear communication pathways with CIAL, CCC, and other relevant stakeholders”.*
“Reports on monitoring results, mitigation actions, and any incidents will be shared according to agreed timelines”.
- ✧ States individual lot owners must *“understand and comply with details specified within the WHMP – post construction protocols”.*

Monitoring & Review:

- ✧ Specifies ongoing monitoring, review and reporting requirements to ensure effectiveness.
- ✧ CCC will **certify** the WHMP with **CIAL consultation prior to implementation**.

2.5 Building and Roof Design

Concern: industrial rooftops may provide roosting/nesting opportunities for gulls and pigeons.

Addressed in WHMP Section 6, Table 6 – Passive Management (Buildings):

- ✧ Directs to *“incorporate bird-deterrent design features”, “avoid ledges or rafters”, and “install bird spikes or bird-slope sections”.*
- ✧ States *“industrial building doors should remain closed when not in active use”.*
- ✧ Specifies lighting design that avoids blue hues (insect attractant).

2.6 Monitoring and Active Management

Concern: WHMP should specify monitoring frequency, trigger thresholds, reporting, and escalation procedures.

Addressed in WHMP Section 6, Table 7– Active Management:

- ✧ “Active management measures are implemented when avifauna activity exceeds normal site averages”.
- ✧ Details non-lethal and lethal control techniques (Table 7).
- ✧ Specifies escalation to “CIAL’s Wildlife Control Team for further assessment”.

Section 5.0 – Monitoring & Review:

- ✧ Covers **reporting (Section 8.2)** and review frequency.
- ✧ **PDP BSA 2025** includes PDP bird count data to benchmark future monitoring.
- ✧ States that “annual bird counts conducted by an avian ecologist for 5 years following development is necessary to monitor the impacts of management measures in place”.

2.7 Extreme to High Risk Species Focus

Concern: management needs to focus on key species identified by CIAL (spur-winged plover, gulls, pigeons, harriers).

Addressed in WHMP Section 4 – Findings from PDP’s Bird Strike Assessment:

- ✧ Discusses all four key extreme to high risk species and their behaviours.
- ✧ **Section 6.1 – Passive Management of High-Risk Species** and **Section 6.2 – Active Management of High-Risk Species** both provide targeted measures.

2.8 Birdstrike Risk to Helicopters

- ✧ **Concern:** CCC has expressed concerns regarding specific bird risk to Garden City Helicopters.

Addressed in WHMP Section 4.4 – Avifauna Strike Risk

- ✧ Due to the downward propeller wash of helicopters, birds are unlikely to influence them in the same way as planes. The CAA suggests the relatively low airspeed, the large amount of downwash air, and the noise of helicopters results in lower risk of bird strike occurring, despite the sharing of airspace between helicopters and birds (CAA, n.d.).
- ✧ CAA data gathered from their online database that indicates bird incidents (strikes and near miss) involving helicopters at CIAL from 2013-2025 occurred two times in comparison with bird incidents with aeroplanes (2712 times).
- ✧ Helicopter strikes make up 0.07% of bird incidents in relation to any aircraft. Across the country, bird incidents with helicopters occurred 94 times over the same period in comparison with aeroplanes (17,261), making up 0.49% of bird incidents in relation to all aircraft.
- ✧ Also indirectly addressed in Section 6 under passive and active management measures. Reducing overall bird presence will continue to reduce risk of bird strike to helicopters.
- ✧ We suggest that this information is removed from the WHMP once agreed the risk is low as its not fit for purpose.

3.0 Summary Table

CIAL/CCC Issue	Section/Table addressing issue in WHMP
Stormwater basins/soak pits	6/6
Landscape species attractancy	6/6
Construction/earthworks	7/5.2
Plan certification/review	5.2
Roof and building design	6/6
Monitoring & triggers	6/7
Focus extreme to high risk species (southern black backed gull, rock pigeon, swamp harrier and spur-wing plover)	4,6.1 & 6.2
Bird strike risk to helicopters	4.4 & 6

4.0 Conclusion

The November 2025 WHMP **substantially addresses all bird strike-related issues** raised by CCC and CIAL.

The plan aligns with **CAA AC 139.16**, **CCDP 6.7**, and **CIAL's WHMP best-practice framework**.

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Prepared by



Rhiannon Warren

Ecologist

Reviewed by



Lizzie Civil

Service Leader - Ecology

Approved by



Jarred Arthur

Technical Director – Ecology