

**From:** Kate McKenzie  
**To:** [Pest Review](#)  
**Cc:** [Rhys Boswell](#); [Brodie Akacich](#)  
**Subject:** CIAL Submission on Canterbury Regional Pest Management Plan  
**Date:** Monday, 3 July 2017 3:52:34 PM  
**Attachments:** [image003.png](#)  
[image005.png](#)  
[image007.png](#)  
[CIAL - Submission on Canterbury Regional Pest Management Plan - 3 July 2017 - Submission Form.pdf](#)  
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To whom it may concern,

Please find attached CIAL's submission on the proposed Canterbury Regional Pest Management Plan, and accompanying submission form.

Regards,

**Kate McKenzie**  
**Senior Planner - Land Use**

**T** 03 353 7716  
**M** 027 600 3586  
**F** 03 353 7730  
**E** [kate.mckenzie@cial.co.nz](mailto:kate.mckenzie@cial.co.nz)  
**W** [christchurchairport.co.nz](http://christchurchairport.co.nz)  
**P** PO Box 14001, Christchurch 8544, New Zealand



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**My normal office hours are 8:30am-4:00pm Monday, Tuesday and Thursday.**

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## Submission on Proposal for the Canterbury Regional Pest Management Plan 2017-2037

Submitter ID:

File No:

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**Return your signed submission by 5:00pm, Monday 3 July 2017:**

By Post:  
Freepost 1201  
Proposal for the Canterbury Regional Pest Management Plan  
P O Box 345  
Christchurch 8140

Or by email:  
[pestreview@ecan.govt.nz](mailto:pestreview@ecan.govt.nz)

Full Name: <u>Kate McKenzie</u>	Phone (Hm): <u>—</u>
Organisation*: <u>Christchurch International Airport Ltd</u>	Phone (Wk): <u>03 353 7716</u>
* the organisation that this submission is made on behalf of (where applicable)	
Postal Address: <u>PO Box 14001,</u>	Phone (Cell): <u>0276003886</u>
<u>Christchurch 8544</u>	Postcode: <u>—</u>
Email: <u>kate.mckenzie@cial.co.nz</u>	Fax: <u>—</u>
Contact name and postal address for service of person making submission (if different from above): _____ _____	
Signature: <u>Kate M</u>	Date: <u>3/7/2017</u>
<small>(Signature of person making submission or person authorised to sign on behalf of person making the submission – Please note a signature is <u>not</u> required if the submission is made by electronic means).</small>	

☐

I do not wish to be heard in support of my submission; or

☒

I do wish to be heard in support of my submission; and if so,

☐

I would be prepared to consider presenting my submission in a joint case with others making a similar submission at any hearing



3 July 2017

RPMP Review  
Environment Canterbury  
PO Box 345  
Christchurch 8140

To whom it may concern,

## **Canterbury Regional Pest Management Plan Review – Submission from Christchurch International Airport Ltd**

Christchurch International Airport (CIA/the Airport) is the largest airport in the South Island, and is capable of handling large international aircraft which arrive on long haul routes from Europe, Asia and the Pacific, plus daily services to and from Australia.

Christchurch International Airport Ltd (CIAL) is an airport company established under the Airport Authorities Act 1996. Section 3 of that Act confers the power on CIAL to establish, improve, maintain, operate and manage the Airport and acquire land for those purposes. CIAL is responsible for the safe and efficient operation of the Airport.

In February 2016, CIAL provided feedback on the Canterbury Regional Pest Management Plan (CRPMP) discussion document. This submission follows on from the initial feedback given on the CRPMP, and seeks inclusion of a number of avian species in the CRPMP to manage populations which increase the risk of Bird Strike at the Airport.

### **Bird Strike**

'Bird strike' is the term referring to a collision between birds and aircraft. Most bird strike incidents occur on and in the vicinity of airports, where aircraft fly at lower elevations at which some species of bird also fly.

The risk of bird strike on an airport relates to the level and form of bird activity both within the boundary of an airport and in the surrounding areas. Birds attracted to land uses around airports can migrate onto the airport itself or across flight paths, increasing the risk of collisions.

Any bird, even a small one, has the potential to cause damage to an aircraft. The size of the bird exponentially increases the potential damage that may be caused in a bird strike event due to the increased mass involved. There is also a greater likelihood of a strike if there are a great number of birds of the same species flying, feeding or nesting in flocks. Birds that fly at high altitudes are a threat as they transit between resting and feeding opportunities across the airport and / or its flight paths. Therefore, birds which represent a more significant threat to aircraft are large birds or flocking birds - making bird species that are both large and flocking the greatest threat.

### **Bird Strike Risk Management at CIAL**

CIAL is required to ensure the Airport meets all safety and compliance requirements for passengers, visitors and aircraft. Civil Aviation Authority (CAA) Rule 139.71 requires aerodrome operators to have an environmental management programme for minimising or eliminating wildlife hazard. Bird



strike is a significant safety risk which requires diligent management and CIAL collaboration with local government and surrounding landowners.

CIAL works extremely hard to ensure that the risk of bird strike hazards is as low as reasonably practicable on-Airport. CIAL also has invested significantly in management of bird strike risk off-airport, including seeking land use planning rules through the Christchurch Replacement District Plan process which limit activities which may increase bird activity in the vicinity of the airport. CIAL also organises and contributes to bird control operations as required to manage populations of birds around the airport. The Canterbury Regional Pest Management Plan (CRPMP) review process provides a further avenue for CIAL to pursue to manage species which pose a risk to aircraft.

PROBABILITY					
SEVERITY	Very High	High	Moderate	Low	Very Low
Very High	3	3	3	3 Duck	2 Shag, Canada Goose
High	3	3	3 BB Gull	2 Oyster catcher	2
Moderate	3	3 Plover	2 Hawk Pigeon	1	
Low	3	2	1 Gull	1 Starling	1 Magpie
Very Low	2 Sparrow	1	1 Finch	1 Skylark Swallow Owl Blackbird	1 Thrush

The three risk levels are defined as follows:

- Level 1** No further actions required beyond measures currently in place
- Level 2** The current residual risk requires review of available options and possible action.
- Level 3** The current residual risk requires further action to reduce it.

**Figure 1: Risk matrix for bird strike species at Christchurch International Airport**

Figure 1 is an excerpt from the Airport's Wildlife Hazard Management Plan, which shows CIAL's assessment of the bird strike risk associated with a number of species present locally. The required actions are determined based on a standard probability/severity risk analysis matrix. The probability is based on the known strike rate at the Airport, and the severity is based on the damages a

particular species could cause.

Many of the species identified in the risk matrix are managed on-airport, however there are three species which are of concern to CIAL and which require management off-airport to reduce risk to aircraft:

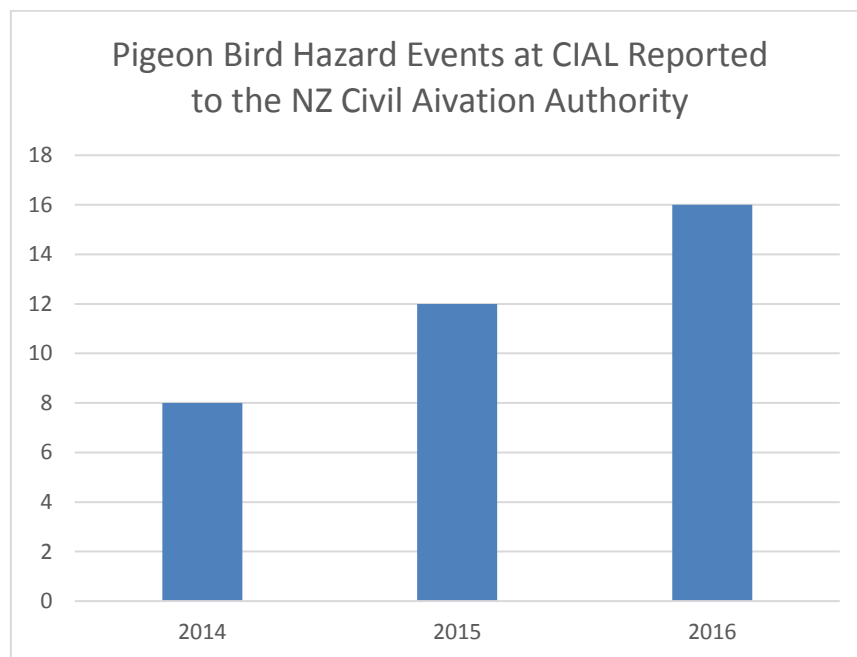
- Rock pigeon
- Canada Goose
- Southern Black-backed Gull

This submission addresses each of these species, and outlines the amendments CIAL seeks to the Regional Pest Management Plan to help manage these populations.

### **Rock Pigeon**

*(Columba livia domestica)*

Rock pigeons are small birds, however they have recently been seen in larger numbers around the Airport and have been responsible for bird strike incidents. These birds have a dense flocking nature, and therefore any bird strike events are usually multiple strike events, increasing the risk of serious damage to aircraft. It is CIAL's contention that Rock Pigeon numbers are increasing exponentially around the greater Christchurch area, and the risk of bird strikes are therefore also increasing. Rock pigeons not only present a bird strike risk at the Airport, but also cause economic loss through cereal silage crop consumption, and are a public health risk in cities. It is understood that in certain locations such as Riccarton Bush they may also be impacting on endangered bird conservation efforts.



**Figure 2: Total number of strike/near strike events at Christchurch International Airport Ltd (NZCAA Bird Hazard data)**

Figure 2 demonstrates that the bird hazard associated with Rock Pigeons is increasing annually at Christchurch International Airport. To the end of May this year there have been 7 Pigeon Bird Hazard events notified at CIAL, one of which was a strike event. Figures 3 and 4 are observations of Pigeon overflights recorded by CIAL's Airfield Safety Officers during June 2016 and June 2017, demonstrating an increase in the incidence of Pigeons being observed flying in the vicinity of the Airport.



**Figure 3: Pigeon Overflights observed at Christchurch International Airport Ltd during June 2016 (Source: CIAL BirdTAB software)**

Since providing our feedback on the CRPMP discussion document, CIAL has commissioned an ornithologist to better understand the Rock Pigeon patterns of movement which are resulting in the frequent transits across the Airport's flight paths. It has been identified that Rock Pigeons are roosting in Christchurch CBD buildings (particularly earthquake damaged and abandoned buildings) at night, and flying north of the Waimakariri River to feed. There are other smaller populations roosting at Riccarton Bush, Hagley Park, the Botanic Gardens and other buildings around Christchurch.

The population explosion being experienced at the Airport has been exacerbated by an increase in roosting opportunities in the CBD and a significant land use change to intensive dairy farming in the Eyrewell area. The intensive dairy farming is providing substantial feeding opportunities for these pigeons, which have a preference for grain and are targeting recently sewn cereal crop paddocks and also cereal silage being fed out to animals. A similar land use change is now occurring in the Canterbury Plains south of the Waimakariri River, due to recent irrigation schemes which have provided further opportunity for intensification, which explains the increased flight path variation observed at the Airport (Figure 4).



**Figure 4: Pigeon Overflights observed at Christchurch International Airport Ltd during June 2017 (Source: CIAL BirdTAB software)**

CIAL has spent some time researching pigeon feeding habits and understands that pigeons consume an average of 70g of food per day. We are observing some flocks in excess of 2000 birds transiting across the flight paths at present. A flock of this size could therefore consume 140kg of cereal silage per day, which represents a significant economic and production loss for farmers.

It is CIAL's view that the pigeon population is widespread, and while a reduction in numbers would be ideal, the population is at a level that "sustained control" is a pragmatic management option for this species.

CIAL considers that this species presents a significant risk to the safety of aircraft using the Airport, and it is not possible for CIAL to manage the population by itself. The management (and preferably reduction) of the population can only be achieved by proactive control by removing roosting opportunities and targeting feeding sites.

- **CIAL seeks the inclusion of the Rock Pigeon under Section 6.4 of the CRPMP, as a pest to be managed under a sustained control programme.**



## **Canada Goose** (*Branta Canadensis*)

Canada Geese are of particular interest to CIAL. To date there have been no Canada Geese bird strike events recorded at the Airport, however they have been recorded on the airfield and are regularly sighted at water bodies within 3 nautical miles of the airfield. There have also been a number of near strikes reported to CIAL/Air Traffic Control by pilots operating from CIA. Due to their size and flocking nature, these birds pose a significant risk to aircraft. As can be seen from Figure 1 above, while the probability of a strike is very low, the severity of such a strike would be significant.

We are aware that Canada Geese are causing problems for other organisations and industries, and there is a possibility that some of these organisations may seek the inclusion of the Canada Goose as a pest species in the Canterbury Regional Pest Management Plan (CRPMP) as part of this review process.

CIAL is actively working with Environment Canterbury on the development of a collaborative approach to managing Canada Goose numbers in the greater Christchurch area through the development of a 'Canada Goose Management Plan'. We will continue to pursue this as a management method, however to date there has been insufficient progress with this non-statutory control method to satisfy CIAL that this will be completed in time to proactively manage the population. At the very least, this species should be recorded as an Organism of Interest, as without proactive management the population could increase considerably during the 20 year life of the proposed CRPMP.

Regional monitoring carried out by CIAL suggests that the population of Canada Goose is increasing annually. With co-ordinated efforts by multiple stakeholders, past control programmes indicate that the population can be reduced by annual moult cull control efforts, and therefore the species can be managed by 'progressive containment'.

- **CIAL seeks that the Canada Goose is included as an Organism of Interest in Appendix 2 of the Canterbury Regional Pest Management Plan.**
- **In the event that the non-statutory management method currently being explored (the Canada Goose Management Plan) does not proceed before 2018, CIAL seeks that the Canada Goose is included under Section 6.3 of the CRPMP, as a pest to be managed under a progressive containment programme.**

## **Southern Black-backed Gull** (*Larus dominicanus*)

The Southern Black-backed Gull is a large gull which has an established population on the Waimakariri River and other braided rivers in Canterbury. The bird poses a significant risk to aircraft due to its large size (approximately 1kg compared to the much smaller and endangered Red-billed and Black-billed gulls) and the proximity of some colonies to the Airport. Southern Black-backed Gulls are also considered a pest bird by many conservation agencies because of their tendency to predate on endangered braided river birds.

CIAL has focused control efforts on colonies on the Waimakariri River, and recently has been working with Environment Canterbury to manage these populations, and the control efforts appear to be successful in this area. This demonstrates that the species can be managed effectively through proactive and targeted control, however we are uncertain whether the species is being controlled effectively at a regional level.

While coordinated management is successfully occurring in the vicinity of the Airport, further statutory intervention is not considered necessary by CIAL, however if management efforts were to fall away over the 20 year life of the CRPMP, the population in this area could quickly increase. This would have significant biodiversity effects, as well as posing an unacceptable risk to aircraft safety in the vicinity of the Airport.

- **CIAL seeks that the Southern Black-backed Gull is included as an Organism of Interest in Appendix 2 of the Canterbury Regional Pest Management Plan.**

## **Submission Summary**

Bird strike poses a very real risk to aircraft using Christchurch International Airport. CIAL is committed to pursuing avenues available to manage bird species which pose the greatest risk to aircraft in the greater Christchurch area, including Canada Geese, Southern Black-backed Gulls and Rock Pigeons. The species of concern to CIAL generally cause wider economic, biodiversity and public health issues, and therefore warrant management at a regional level.

On this basis, CIAL seeks the inclusion of the aforementioned species in the Canterbury Regional Pest Management Plan as specified in this submission.

CIAL wishes to be heard in support of its submission.

Kate McKenzie

Senior Planner – Land Use

Christchurch International Airport Ltd

