



District Council of
Mount Remarkable

Little Corella Management Plan 2020



AIM

The aim of this plan is to reduce the negative impacts that the Little Corellas are having on residents, wider community, infrastructure and vegetation within the District Council of Mount Remarkable (DCMR). Specifically the plan aims to reduce the future impacts the Little Corellas are having on the townships of Wilmington, Melrose and Wirrabara.

While it would be considered impossible to totally eliminate Little Corellas from the landscape it is accepted that certain management strategies have yielded results in minimising the impacts of Little Corellas in populated areas. It is acknowledged that the management actions prescribed in this plan are likely to be successful in dispersing the species from the townships, potentially moving the flocks to other areas outside of township areas where they are likely to have less impact.

The broader scale problem is a matter for discussion with major stakeholders including Councils, LGA and the State Government and to consider options produced by the report per the Uni SA - Discovery Circle report "[Little Corellas Social and Ecological Research for Management in South Australia](#)".

The Little Corella management plan will evolve as actions are trialled and new information becomes available.

BACKGROUND

The Little Corella (*Cacatua sanguinea*) is a native Australian parrot from the Cockatoo family. This species has benefitted greatly from the changes to the landscape of Southern Australia which has been brought about by broad scale pastoral practices. These practices have resulted in a substantial increase in food and water resources and subsequently, the species has increased in both range and abundance. In many areas in rural and in some cases suburban areas in Southern Australia, large flocks of these parrots descend on private properties and often in townships where they can cause a multitude of issues to the local environment, economy and well-being of residents.

The Little Corella has been present in the Flinders Ranges for approximately 80 years, and over the past decades large flocks of the birds have descended on the rural townships each summer.

Historically the Little Corella's southern range extent was north of the Flinders Ranges. Since the 1920's the range of the Little Corellas in South Australia has expanded substantially southward. The numbers of Little Corellas in DCMR area has increased significantly since 2012. The Little Corellas have been observed in large numbers in several townships within the region with numbers increasing significantly each year. It has been observed that flocks of Little Corellas have been sighted loafing in trees in Wilmington, Melrose and Wirrabara where this has led to a number of problems reported by local residents.

Over the last five seasons the numbers of birds sighted in local township areas has increased significantly. There have been many attempts to manage the problem at a Council level in the past, but these have been piecemeal and limited, or yielding short term effect. Work carried out traditionally by Department for Environment & Water (DEW) to remove eggs from nesting sites has declined over the years and has contributed to the increasing numbers of birds.

Many management strategies have been implemented by Councils with Little Corella problems. Through research it appears that only a handful of strategies have had any effect in discouraging the birds from settling in an area, and only those strategies that have committed persistent resources have had any positive results.

The most widely accepted and most effective strategy to discourage Little Corellas from priority areas is to prevent the large flocks of the birds establishing a permanent roost site once they complete their breeding season. This involves careful monitoring and vigilance of the birds and implementing deterrence strategies as soon as the first scout birds arrive in the townships. A combination of sound and sight deterrence strategies is to be used in the DCMR area to ameliorate the negative impacts of large Little Corella flocks. It is widely accepted that localised large scale culling of large numbers of individuals from a Little Corella flock is not an effective strategy to combat the issue. This is largely due to the dynamic nature of flocks, with individuals from nearby flocks across the landscape regularly emigrating and immigrating through sub populations. However, this Action Strategy recommends that scout bird pairs bonds be broken by the shooting of one individual from each pair. This may prevent birds from establishing roost sites in the area and also could prevent other birds settling in the area. The strategy recommends conservative and strategic culling of corellas when they enter the townships.

Importantly, this plan acknowledges that by discouraging and displacing Corella flocks in Wilmington, Melrose and Wirrabara the flocks may then become an issue in neighbouring townships. This issue is central to the management of Little Corellas in South Australia and can only be addressed by landscape scale strategies implemented across the state.

This adaptive management plan outlines monthly timelines for deterrence strategies and has inbuilt mechanisms for regular monitoring and evaluation.



Large flocks of Little Corella on farmland in close proximity of townships



 Corella Activity Townships

LITTLE CORELLA BEHAVIOUR

Little Corellas will flock in their hundreds and thousands in these centralised areas across rural southern Australia. Banding studies in the Flinders Ranges (St John 1991) and in the Southern Fleurieu (Temby 2010) have shown that each individual flock is not stable and is subject to frequent emigration and immigration as individuals and small groups move between larger flocks. Subsequently, each flock in rural South Australia must be treated as a dynamic group with individuals that can readily move between flocks across the landscape.

Across southern Australia, the summer flocks of Little Corellas exhibit predictable daily behavioural patterns.

A typical daily activity pattern for Little Corellas is to start calling at first light. As the light grows birds begin to move about the roost trees and they begin communicating loudly. Birds often fly to the tops of exposed or dead trees to warm up and bask in the sun before moving away to feed. The birds will fly off to forage for food in a sown crop or pasture stubble. Birds will feed from 1- 5 hours after feeding, the birds will usually congregate at diurnal roosting spots which often are in towns. Here the birds will be quite loud as they communicate with each other. During this diurnal rest period, birds may continue to call, especially young birds that beg for regurgitated food from their parents. Little Corellas will return to the evening roost site near sunset and are often noisy while settling to roost.

In addition to daily activity patterns there are seasonal activity patterns. These are influenced by food availability and breeding activities. During the spring birds will pair off to breed and usually disperse over the countryside. They will generally feed near their breeding place. After the young fledge (usually November) they will join growing flocks. This is generally when flocks form as they aggregate into larger flocks heading into the summer weather. The Little Corella's diet is based on plant food including a wide range of seeds, fruits, flowers, nuts, bulbs and corns. Little Corellas have learnt that many commercial crops provide a good source of food in the form of cereal grains.

The problems associated with Little Corellas vary significantly depending on location. One of the main problems reported to council are, but not limited to, excessive noise, where large numbers of Corellas will periodically start calling en masse and fly about calling, this noise can be very distracting and disturbing to residents. Other nuisance reported has been damage to trees, damage to houses such as solar panels, wiring, hoses and roofing. Damage to public infrastructure such as street lighting has also been reported. Many trees within the region are in distress and wear the scars of Little Corellas where they have been stripped of foliage.

Little Corella damage is not restricted to physical damage and noise. Many native birds have been displaced by large numbers of Little Corellas invading areas normally inhabited by other species.

While it is not entirely understood why this species is so destructive to its surroundings, several theories exist.

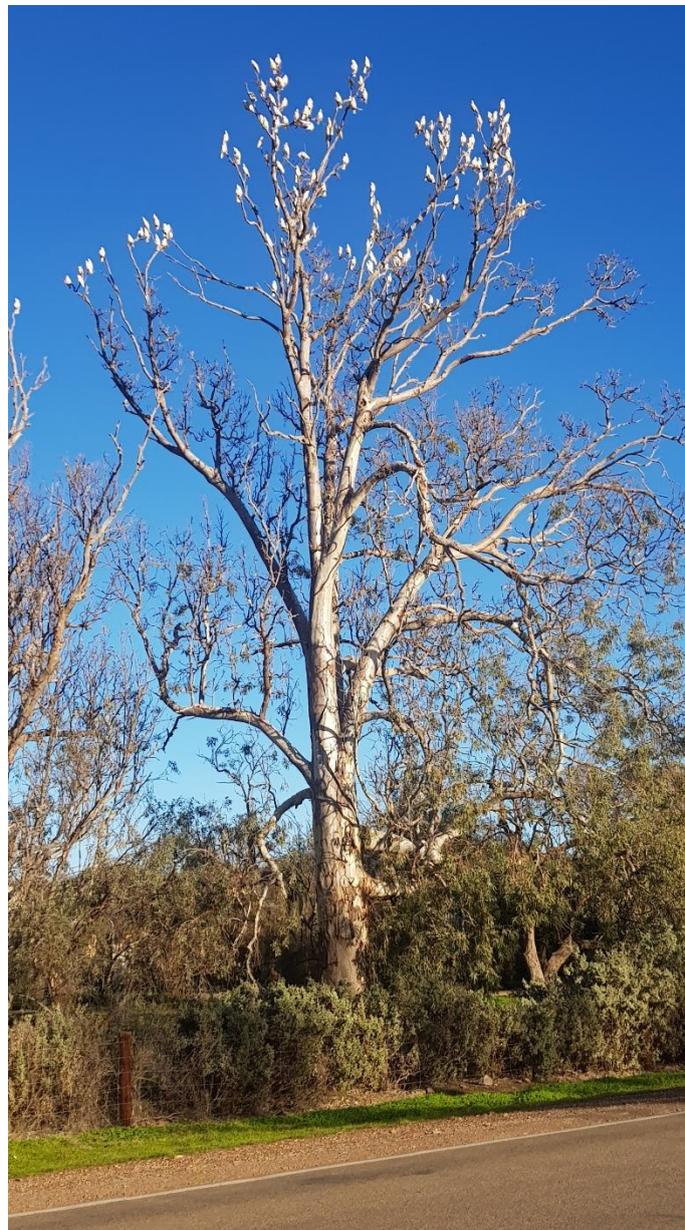
Aspects of the Little Corella's behaviour is the damage they cause and the way they use their beaks as a grasping tool, a chisel, pliers and a digging implement and in combination with their tongue, a fine instrument capable of husking tree branches. The beak is used for cracking hard outer casings of seeds, digging out insects from wood and soil, excavating nesting hollows and nesting cavity entrances, feeding, drinking, preening, courtship, caring for young and is important for mobility in tree canopies and foliage. The beak is made of keratin and is therefore continually growing, much like mammals claws. The birds must maintain and trim their beaks accordingly to keep themselves in peak physical fitness. Little Corellas therefore are likely to cause destruction of the implements that they use to maintain their beaks, which are often the trees that they are nesting in.

Little Corellas have been reported to Council for damage to buildings, aerials, lights fittings, wiring and digging up of newly laid turf on sporting grounds. This has a significant financial implication to Councils, not-for profit community organisations and residents.

The birds may also browse their roosting tree extensively so they can have a 360° view from their roost site. By creating this view, the flock is once again increasing their chances of survival as they are more likely to see predators approaching.

It has also been noted that the Little Corella is a playful species and that they entertain themselves by chewing and browsing while they are perched. This playful behaviour is often seen by young corellas playing with sticks and rolling on the ground and may be a part of social cohesion.

The Little Corella is found in a large variety of environments, but always near permanent water. It is found on open plains, grasslands, sedge plains, saltbush, arid woodlands, coastal mangroves, cultivated farmlands, rocky ranges, woodlands and Mallee adjoining Riverland and areas of Adelaide, Melbourne and Sydney.



Little Corellas (*Cacatua sanguinea*) roosting in River Red Gums (*Eucalyptus camaldulensis*).

WHAT HAS BEEN DONE SO FAR?

DCMR along with several passionate community members of Wilmington, Melrose and Wirrabara have actively been managing the Little Corella issue in both towns for a number of years. These strategies to date have had limited success due to the number of birds.

Several strategies have been used in an adhoc manner mainly reacting to complaints in local township areas. The following have been applied with limited success. Most complaints relate to bird activity either at sunrise or sunset when it has been impractical to dedicate staff to the complaints.

Shooting

Selective shooting of Little Corellas with rifles has proven to be a very effective method to disperse birds away from priority areas within DCMR.

The Little Corella is an unprotected species under the National Parks and Conservation Act 1972 and therefore can be shot as part of a management program. Anyone undertaking shooting of the species must abide with the Animal Welfare Act 1985 to ensure that suffering of the animals is minimised. Any shooting to be undertaken within or nearby the townships of Wilmington, Melrose and Wirrabara must be approved by the local SAPol representative.

Broad scale culling of Little Corellas by shooting is likely to be an inefficient method of management due to the local emigration and immigration of birds between flocks.

It is recommended that shooting be used in conjunction with a variety of management techniques in order to relocate corella flocks. Scout birds arrive in Wilmington, Melrose and Wirrabara at the start of summer and are usually in pairs. It is recommended that one individual of the pair is shot before the pair become established at the site. It is hoped that the surviving bird would depart the area and potentially prevent others establishing at the site. As more scout birds arrive, this procedure should be repeated. Selective shooting of birds should continue throughout the season if corellas become established within the towns. For best effect, shooting should be performed at random and different times each day.

Scaring Tactics – Bird Scarer Gun

Council have purchased a ‘bird scarer gun’ Gas Gun for each of towns, Wilmington, Melrose and Wirrabara and is operated by a community member at various intervals during the day at different locations. Results from the use of the gas guns has been positive in getting the birds to move but given the limited time and resources it only results in the birds returning the next day. The use of gas guns in populated areas is limited due to operating hours keeping noise and distress to the population to a minimum. Council receives a number of complaints from residents as the use of the gas gun affects family pets, namely dogs.



WHAT CAN WE DO MOVING FORWARD?

Strategies to Consider

The problems associated with large Little Corella flocks are not isolated to DCMR. Neighbouring Councils such as the Flinders Ranges Council, District Council of Orroroo Carrieton and Northern Areas Council experience the same issues. It has been identified that without a regional or broader approach the problem will just be shifted from one Council area to another.

Bird Scaring (gas gun) combined limited lethal shooting

The use of gas guns is useful in moving birds from their resting place. The idea of dislodging them from a location with a gas gun has been positive in the past. An intense program of scaring birds as trialled successfully in the Case study: Quorn Caravan Park, Management strategy 2004-2015 has proven to be successful.

On this, the EPA has previously issued Environmental Noise Guidelines related to the use of Audible Bird-Scaring Devices. It is noted that these mainly relate to their use in primary production areas in proximity of residences on adjoining properties, rural living allotments and residential areas of townships. The EPA notes that the “testing of gas gun devices indicates that the resultant noise levels from one shot to the next, and from one model of gas gun to another can vary substantially”.

Due to noise restrictions such devices may only be used between 7am and 8pm. The guidelines provide that they must not exceed a prescribed noise level of 100dBA from each shot and that not more than 6 shots can occur in any hour. Topography/ proximity of nearby houses and weather conditions are contributing factors that influence the achievement of these performance-based objectives (for instance, the guidelines recommend separation distances of 300m from the nearest house but these would increase in an area with ‘valley’ topography such as Wilmington and Melrose).

The intention is to use such mechanisms to encourage the Corella flocks to move out of the township areas into spaces where any other measures, such as subsequent culling, can occur more readily and safely.

This is to be followed by the introduction of a contractor shooter to cull a number of scout birds. The combination of scaring and culling has reportedly been successful in deterring birds from roosting. This is an ongoing strategy that requires persistent attention to the bird roosting sites and needs to commence upon the presence of the first scout birds appearing and beyond.

Trapping and Gassing

In Practice, trapping and euthanising birds is time consuming and requires the birds to be attracted to the trapping site, usually with food. The focus on trapping and gassing is on number reduction and has no impact on the problems caused by the birds. To have any real impact of this strategy would require dedicated resources and a significant budget allocation.

Council in conjunction with the Flinders Ranges Council trialled this strategy in 2012 with minimal impact. It was found the trapping and euthanizing of the bird was time consuming and not cost effective.

Visual Decoys

The use of visual decoys has been around for centuries an undoubtedly the oldest method of scaring birds. Many modern equivalents are available today such as scarecrows, dead birds hung or spread on the ground, plastic bags or wine cask inners, balloon with big eyes displayed on them, reflective tapes, mirrors, humming tapes, plastic birds of prey, birds of prey kites and lately model remote control drones.

A combination of these deterrents can be applied as part of an integrated management program. The combination of these often yields long lasting effects if maintained over long periods of time.

Advantages of visual decoys are, low cost, quiet and unlikely to disturb local residents.

Strobe lights – Visual deterrent

Strobe lights, high intensity white lights and high powered torches have been found to be effective deterrents for the birds. This would take place a sunset as the birds are settling down to roost for the night, the flashing lights have been proven to make the birds uneasy during roosting times causing them to fly off.

Laser Lights – Visual deterrent

The purpose of the laser light is to startle the birds and make them uncomfortable at the roosting site. The birds will leave the site if they are disturbed by the laser light. The laser is pointed at the branches where the birds are roosting. The laser is not lethal to the birds. Laser lights and flashing torches are inexpensive with cost of less than \$100 per item.

Community Awareness, Monitoring Behaviour and Movement

An important part of Little Corella management will be to understand their behaviour. To have an effective management approach it is necessary to know where the flocks are roosting, feeding and how they move about during the day.

The public are invited to report any Little Corella activity to Council to assist in a more effective approach. Council staff are aware that there will be sensitivities to introducing lethal elements to Council's Corella response plan and particularly that increased noise disturbance is very likely to result in localised complaints. Both may result in potentially negative publicity, to address this staff are mindful of the importance of communication and looking at ways to advise the community of Council's intentions in advance of these activities and this will also include keeping SAPOL advised in advance as a matter of course.

Council staff will advise residents adjacent to operational areas (radius of 200m) directly via written correspondence and provide advice more broadly via a media release when carrying out any actions on the birds.

Monitor and Evaluate

Monitor and evaluate the plan and regularly record strategies and how effective they were. Record bird activity at different sites and monitor behaviour patterns.

Review the plan seasonally if needed to ensure techniques are either working or ineffective. Adjust Little Corella Management Plan according to the bird's behaviour and movements from location to location.

Management Objectives

- Prevent Little Corella from establishing roosts in the Wilmington, Melrose and Wirrabara areas.
- Keep the number of birds to less than 200 per township, or;
- Ensure that Little Corellas do not Roost in any of the townships in any of the neighbouring Council areas as combined management plan.
- Minimise the impact of Little Corellas behaviour on trees and other infrastructure.
- Establish areas where it is acceptable for the Little Corellas to roost at night without causing early morning nuisance. These areas to be determined as suitable.
- Lobby State Government in an effort to seek assistance from the LGA and relevant State Government stakeholders to reinstate strategies that have since ceased over recent times.

Legislative Requirements

The Little Corella is currently classified as an unprotected species under the National Parks and Conservation Act 1972. Therefore this species can be legally shot by landowners or employees without a destruction permit. A permit is required though if the birds are to be euthenased by way of trapping and gassing.

Any persons undertaking Little Corella euthanasia as part of ongoing management actions must ensure that they comply with the animal welfare standards outlined in the Animal Welfare Act 1985 to ensure any suffering to individuals is minimised.

Any shooting actions undertaken within the townships or their outskirts in the DCMR must have permission from local representatives of SAPol.



Appendix 1. Feasibility/Acceptability criteria matrix

Control Option	Technically possible	Will it work?	Practically possible ?	Cost Benefit	Environmental Acceptable?	Political /legal Acceptable	Social Acceptable
Noise makers- Gas guns	Yes	Yes	Yes	Yes	Yes	Yes	Yes/No
Visual deterrents	Yes	In conjunction With other strategy	Yes	Yes	Yes	Yes	Yes
Decoys deterrents	Yes	???	No	No	Yes	Yes	Yes
Shooting	Yes	In conjunction With other strategy	Yes	Yes	Yes	???	???
Trap and Gas	Yes	???	No	No	Yes	Yes	No
Egg destruction	No	No	No	No	Yes	Yes	Yes

Control Recommendations

As a result of looking at options and analysing the criteria matrix it makes economic and technical sense to utilise a combined bird scaring option with limited shooting. To gain further effect it is recommended that the use of visual deterrents be used in conjunction with the scaring and shooting option. This strategy combines the best possible options within the scope of available budget and resources.

Control strategies are to commence in the later part of the year around November when scout birds are looking for areas to roost for the season. It is anticipated that an intense scaring campaign in conjunction with other deterrents including shooting be used within the first 4-6 weeks of beginning the campaign. An early intervention will hopefully deter birds from settling in the township areas and forcing the birds into the greater country landscape.

References:

- Action Strategy for the Little Corella 2015-2019, Flinders Ranges Council
- Department of Environment and Natural Resources (2011). *'Little Corella (Cacatua sanguinea) Resource Document.'*
- St John, B. (1991). *'Management of Little Corellas in the lower Flinders Ranges'*. South Australian National Parks Service
- Temby, I. (1999). *'Managing impacts of the Little Corella in the Fleurieu Peninsula'*

