## WILDLIFE BOX - REPORT

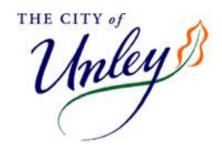
City of Unley - Monitoring and Servicing for 2021



A Rainbow Lorikeet chick, in a Small Parrot Box (056), at Goodwood Primary school.

All photos contained within this report were taken during 2021, associated with surveying or maintenance activities, unless otherwise noted.

Report produced by James Smith, fauNature® April 2021.





# TABLE OF CONTENTS

WILDLIFE BOX - REPORT	1
TABLE OF CONTENTS	2
SUMMARY	3
HISTORICAL DEVELOPMENTS	4
LOCATION & IDENTIFICATION	6
MONITORING & MAINTENANCE	7
ARTIFICIAL HOLLOW USAGE	8
Fauna recorded during survey	9
Wildlife Box Usage by Location	10
Other Fauna	13
Maintenance	13
CONCLUSIONS & RECOMMENDATIONS	14
REFERENCES	17
APPENDIX A: LOCATIONS	18
APPENDIX B: PHOTO SUMMARY	24
APPENDIX C: GOOGLE MAP	27

A mother Brushtail with a young joey, in a Possum Box (019), at Ridge Park.



## **SUMMARY**

The City of Unley's wildlife box programme has been operating since 2009. The wildlife boxes were designed, together with the council's indigenous planting programme, to support biodiversity across the city. The aim of the programme is to enhance habitat for, and management of hollow dependent urban fauna, within the city.

This report details the wildlife and maintenance activities that took place during 2021. The boxes were serviced during March-April 2021, then surveyed for breeding activity in October 2021.

One hundred and eighty-three boxes were Figure 1: Two Rainbow Lorikeet The wildlife boxes are serviced/surveyed. located within council parks, in street trees, on



chicks, in a Small Parrot Box (006), Ridge Park.

The Wildlife Box Programme has enjoyed another strong year in 2021. occupancy was 54%, over the survey periods. Total box activity of 92% was recorded, when 'In Use' over the year and 'Used in Last 12 Months' are considered together (Table 2; page 9). This is above the peak usage seen in 2019, and consistent with the high rate of occupancy observed over the last five years.

school grounds, community centres and private homes across the city.

The numbers of Rainbow Lorikeets (Figure 1), Galahs and Rosellas, using wildlife boxes during 2021, were all strong. Total numbers of eggs and chicks were high, with 72 and 86, observed respectively for the year. A European Starling nesting events was again recorded in 2021. Brushtail Possum numbers were at a historical high (14) recorded in autumn, however Ringtails numbers were down considerably on earlier, with just two noted in autumn.

The program maintained its wildlife box numbers over the previous 12 months.

The Wildlife Box Program has supported high numbers of native species and also allowed Unley residents to observe, appreciate and even learn a little more about the cities wildlife. The programme continues to assist the City of Unley in meeting its biodiversity objectives.

## HISTORICAL DEVELOPMENTS



Figure 2: Montage of student painted WBs from DPTI Install phase (2013).

Unley Council (UCC) engaged fauNature® to install, then subsequently service and monitor artificial hollows/wildlife boxes (WBs) across the city. The installations were staged in phases over a decade, and the activities associated with the WBs has been reported on annually.

The first Installations took place in May 2009. Initially 28 boxes were placed in Ridge and Heywood Parks, with a single box on Windsor St, Parkside. These WBs were monitored and serviced for the next two years, with progress reports submitted in 2010<sup>1</sup> and 2011<sup>2</sup>.

The Wildlife Box Monitoring and Evaluation Reports<sup>1,2</sup> were presented to the elected members, who endorsed an expansion of the An additional 24 WBs were programme. installed, across the city during 2012 (Figure 3), and a report detailing monitoring and maintenance activities for the year was Figure 3: Early Install (20012), a submitted3.

Small Parrot Box (037), on Windsor

During 2013 the Department for Planning, Transport and Infrastructure (DPTI) approached fauNature® to deliver a number of Wildlife Box Building Workshops. These workshops and associated activities, undertaken by local primary school students, produced an additional 42 WBs, which were installed in late 2013 (Figure 2 & 6). Once installed, the majority of the boxes became the property of Unley Council; further details can be found in the Wildlife Box Monitoring and Evaluation Report<sup>4</sup> (2013) and DPTI - Community Wildlife Project report.<sup>5</sup>

In late 2013 UCC added the management of ten Brushtail Boxes in Fullarton Park, installed some years previously by a pest controller, to the ongoing WBs program;



Figure 4: Kookaburra (109) and Pardalote (110) Boxes at Heywood Park (2019).

further details can be found in the Wildlife Box Monitoring and Evaluation Report<sup>6</sup> (2014).

Habitat enhancement in Heywood Park, together with the need to protect remnant grey box (*Eucalyptus macrocarpa*) saw an additional 17 WBs installed in August 2015. These boxes included the traditional brushtail, medium parrot and bat boxes, but also large parrot, kookaburra and pardalote boxes (Figure 4), installed in the interests of increasing biodiversity. The total number of WBs associated with the Unley Wildlife Box Program then stood 124. These were included in the 2015 and 2016 Monitoring and Evaluation Reports<sup>7, 8</sup>.

Opportunities for expanding the WB program were identified during 2016/17. Using

biodiversity off-set stock, from the Ferguson Ave tree replacement project, 25 WBS were installed, primarily off Ferguson Ave (5; Myrtle Bank) and in Orphanage Park (11; Goodwood), with the remainder added to the smaller parks across the city. Resident requests also prompted the Install of eight boxes in the park off Fern Ave (Fullarton) and along Windsor St South. The 2017 Monitoring and Evaluation Report<sup>9</sup> recorded a total of 157 WBs in-service across the city.

The City of Unley Biodiversity Officer (Kat Ryan) supported a wildlife box building project undertaken at Goodwood Primary School during Terms 3 & 4, 2017. The majority of these WBs were installed within the school grounds (8), with the rest installed in Orphanage Park (2), in June 2018. A total of 167 WBs were in-service across the City of Unley in 2018<sup>10</sup>.

UCC were approached by a resident in Myrtle Bank, and were gifted two Small Parrot Boxes. These WBs were installed in Ridge Park (June 2019), at the request of Joel Ashforth. A second resident near Goodwood Oval, offered to pay for a couple of Large Parrot Boxes, providing memorial plaques to be attached. In conjunction with this offer, Kate Ryan had Goodwood Primary School produce another 10 WBs, and paint all 12 for Installation. Construction took place in May 2019, with Install in August/October 2019, bringing the number of boxes to 178<sup>11</sup>.

Five additional WBs were added in early 2020, to Wilberforce Walk in Everard Park, through the Biodiversity Officer. The total number of WBs across the City of Unley, now stands at 186 - wildlife box reports 2020.<sup>12</sup> No WBs were added in 2021.

## LOCATION & IDENTIFICATION

One-hundred and eighty-six WBs are currently installed across the UCC and it is essential to keep track of these assets. For each WB, the following information has been recorded: location (park/road), box type, box orientation, tree type, box height, GPS coordinates and a unique identifying number (Appendix A).

During the 2017 survey period the replacement of the identification numbers commenced, using a formally designed numbering system (Figure 5). This process was completed during 2018 and will be included for future Installations.

GPS coordinates/locations are recorded for Figure 5: Identification number (016) each box (e.g. -34.96059S : 138.60158E) to on a Bat Box, in Ridge Park (2017).



ensure council staff or contractors can locate the boxes, as necessary.



Figure 6: Identification number, on a painted Small Parrot Box (057), in Orphanage Park.

Most of the WBs are painted a pale green (Figure 5). By contrast, the boxes constructed with the assistance of local Goodwood and Black Forest Primary School students have been individually decorated, so each is unique in its own way, as can be seen from the collection of images displayed (Figures 2 & 6).

## MONITORING & MAINTENANCE

Specific wildlife observations were made for each of the WBs. Additionally, general wildlife observations were made for the area where the WBs were located, during servicing and monitoring. Species present were noted, particularly those taking an interest in or utilising these WB resources.

The servicing and monitoring processes involve the WBs being inspected, initially from the ground, then at the height of the WB externally and finally internally (Figure 7). The WBs are assessed for evidence of use by wildlife, as well as overall condition. Details of the findings are recorded.



Figure 7: Medium Parrot Box (049) at Everard Park, with three Galah eggs.

Servicing/maintenance for WBs is recommended once per year, to ensure WBs offers:

- 1) A safe resource for both people and animals using the area/WBs;
- 2) Minimise potential impact on the tree;
- 3) To maximise the useful life of the WB.

February to May is an ideal time to service the WBs, as by this time most birds will have completed their nesting. Species like Brushtail Possums or micro-bats may be present year round, so while servicing can still be undertaken, it might only be partially completed. When there is fauna occupying a WB, additional precautions are taken.

During the servicing, besides recording wildlife activity, the WBs are cleaned out, and where necessary, new nesting material is added. The securing mechanisms for the WBs are also adjusted, to allow for tree growth and to maximise safety.

The monitoring surveys take place during spring (Sept-Nov), so assessment is made during the period of highest nesting activity.

Photographs are taken during both monitoring and maintenance activities. These highlight the various signs of wildlife utilising the WBs (e.g. adults, chicks, eggs, fur, feathers, chewing, staining, etc) and the condition of the boxes. Some of these photos have been used within the report itself, with a selection of additional images displayed in Appendix B.

## ARTIFICIAL HOLLOW USAGE

The WBs were serviced in March-April and then monitored in October 2021. One hundred and eighty-three (183) WBs were serviced and/or monitored in 2021. The WBs are distributed across nineteen locations - throughout the city (Table 1; Appendix A). Two additional privately installed boxes were observed in Forest Avenue Reserve. Twenty-two damaged or bee occupied WBs were replaced in 2021.

Table 1: Details the number of artificial hollows installed and monitored across the City of Unley during 2021.

Locations	Number
Black Forest PS, BLACK FOREST	9
Crommer Pde, MILLSWOOD	14
Devon St & Railway Tce, GOODWOOD	4
Ferguson Ave, MYRTLE BANK	5
Forestville Res.,GOODWOOD	16
Fullarton Park, FULLARTON	10
Goodwood Oval, GOODWOOD	15
Goodwood PS, GOODWOOD	12
Henry Codd, PARKSIDE	2
Heywood Park, UNLEY PARK	27
Hillsley Ave, EVERARD PARK	3
Jellicoe Ave, KINGS PARK	5
McLeary Park, PARKSIDE	3
Orphanage Park, Millswood	12
Ridge Park, MYRTLE BANK	22
Souter Park, GOODWOOD	4
Wilberforce Walk, Everard Park	5
Windsor St South, PARKSIDE	8
Windsor St, PARKSIDE	7
Private Boxes, Forest Ave Res., Black Forest	2

The WBs collectively included:

- 66 Brushtail Possum Boxes (BPB)
- 54 Medium Parrot Boxes (MPB)
- 42 Small Parrot Boxes (SPB)
- 4 Large Parrot Box (LPB)
- 2 Kookaburra Boxes (KbB)
- 3 Pardalote Boxes (PdB)
- 12 Bat boxes (BtB)
- Plus, one Non-fauNature WB and three WBs on private property.



Figure 8: Three Galah chicks in a

### Fauna recorded during survey

Utilisation of the WBs by native fauna was again *Large Parrot Box (107), Heywood* high in 2021. Wildlife recorded using the WBs, numerically and as a percentage, resulted in one of the most successful years ever (Table 2). Various fauna species used 96 WBs (54%; Figure 8), on at least one of the two servicing/monitoring days. Seventy-nine WBs were "In-Use" during Spring; 49 in Autumn and 31 "In-Use" during both observation periods.

Table 2: UCC Year-on-Year Comparison 2016-18

Year	No. Wildlife Boxes "Available"	'In Use' <sup>1</sup>	Used in Previous 12 Months <sup>2</sup>	Empty/ Unused <sup>2</sup>
2019 No.	175	93	67	15
2019 %		53.1%	38.3%	8.6%
2020 No.	161	74	71	1 <i>7</i>
2020 %		46.0%	44.1%	10.5%
2021 No.	177	96	67	14
2021 %		54.2%	37.9%	<b>7.9</b> %
		1: Full year	2: Exc. In Use & Empty	

Five different bird and two possum species were recorded. The maximum number of wildlife species observed using the WBs over the two periods included:

• Possums (individuals): 14 Common Brushtail (*Trichosurus vulpecula*) in autumn and two Ringtail (*Pseudocheirus peregrinus*) also in autumn. This represent an increase in Brushtail usage, though a substantial reduction in Ringtail usage across the year. Reasons for the latter are unknown.

• Birds: the WBs were inhabited by 46 pairs of Rainbow Lorikeets (Trichoglossus haematodus; Figure 9), 11 Galahs (Eolophus roseicapilla), three Adelaide Rosellas (*Platycercus* elegans), two Eastern Rosellas (Platycercus eximius), and one European Starling (Sturnus vulgaris). Five nests of unidentified Rosellas and one nest of unidentified parrots, were also recorded. Collectively 158 chick Figure 9: Two Rainbow Lorikeet eggs in a and eggs were observed specifically



Medium Parrot Box (088), along Cromer Pde.

associated with the WBs during the spring survey, which is a strong performance.

Bats: evidence of usage, was recorded in two BtB in 2021.

An additional, 67 (37%) WBs displayed evidence of activity (Used in the Last 12



Figure 10: Small Parrot Box (139) well used by Rainbow Lorikeets, in Orphanage Park.

Months) in Spring and 94 (51%) in Autumn, ranging from remains of eggs, chewing and scratching, disturbed bedding material, faecal matter, dead chicks, two dead possums, insect castings, fur and feather (Figure 10). contained bees during the spring survey period, together with one non-fauNature box in Black Forest. The autumn 2021 survey, recorded nine feral bee hives.

Assessment was made on 177 WBs, available during the peak period of the year, in Spring. WBs "In Use" were up compared to 2020, as well as 2019 which exhibited the highest historical usage recorded. WBs "Used in the Last 12 Months" was comparable to 2018 and 2019, though marginally down on 2020. When the "In

Use" and "Used in the Last 12 Months" data are combined, the number of WBs used in both numerical and percentage terms for 2021, is the highest ever level recorded (92.1%). The overall numbers of parrot chicks observes (86) was high, with the number of eggs observed (72), was similar to many of the recent years.

### Wildlife Box Usage by Location

The larger parks contain between nine and 27 WBs, with occupation rates combining 'In Use' and "Used in last 12 Months" realising 73-100% occupation. Almost half of the sites, when including both small and large parks, recorded 100% usage for the past year.

Orphanage Park has demonstrated consistent faunal usage. Ten boxes were available to wildlife in spring 2021, of which six were In Use and four had been Used in the Previous 12 Months. Rainbow Lorikeets were most commonly recorded, however a Brushtail Possum was also observed in the park during spring. Feral bees had occupied two of the boxes.

Fullarton Park contains 10 WBs. Possum occupancy is consistent at this location, with three possums recorded and all boxes having been used across the year. Two Brushtail Possum were observed during the spring observation period, and one Ringtail Possum was also recorded. No breeding parrots were seen at this location during Spring 2021.



Figure 11: Brushtail Possum in a Small Parrot Box (063), at Forestville.

Forestville contains 16 WBs, of these nine (56%) were In Use and six (38%) had been Used in the Last 12 Months, with all except one having been used over the recording period. Six pair of Rainbow Lorikeets, a pair of Rosellas (unidentified), a pair of Galahs and a Brushtail Possum (Figure 11) were all observed.

Fourteen WBs are installed along Cromer Pde, of these five (36%) were In Use when surveyed, two contained nesting Rainbow Lorikeets, two rosellas and one a Brushtail Possum. Additionally, seven WBs had been Used in the last 12 Months and

one box was unavailable to wildlife, containing a bee hive.



Figure 12: A Rainbow Lorikeet egg and chick in a Medium Parrot Box (055), at Goodwood Primary School.

Goodwood Primary School contains 11 available WBs, of these seven (64%) were 'In Use' and three (27%) had been 'Used in the Last 12 Months'. Six pair of Rainbow Lorikeets and a pair of Galahs (Figure 12) were recorded. One box contained a feral bee hive.

Fifteen WBs are distributed along Windsor St (North & South), of these five (33%) were In use during spring and seven Used in the previous 12 Months. Demonstrating 86% usage across the year. Species recorded included Rainbow Lorikeets, Galahs and a pair of unidentified rosellas. A feral bee hive was recorded in one of

the WBs.

Ridge Park contains 22 WBs. Ringtail Possum (Figure 13) occupancy was historically high at this location, with only one specimen was observed during autumn 2021 and none during the spring survey. Two Brushtail Possums were seen during the autumn survey, with none observed in spring. Only a solitary unidentified possum was seen during the spring survey. Three pair of Rainbow Lorikeets, a pair of Galahs and an unidentified parrot were also recorded. Marbled Geckoes were again observed. Bat droppings were also recorded in one of the bat boxes.

Six WBs were In Use at Heywood Park over the Ridge Park, with a Ringtail Possum spring survey period. Two Brushtail Possums were in residence. recorded. Two dead possums (unidentified) were



Figure 13: Small Parrot Box (006) in

also recorded within brushtail boxes, and additional five WBs, had been used by unidentified possums in the past 12 months. WBs also supported three pair of Rainbow Lorikeets, a pair of Galahs and Adelaide Rosellas. Droppings from an unidentified bat (Figure 14) were also recorded from Heywood Park.



Figure 14: Bat dropping in a Bat Box (026), in Heywood Park.

The WBs in the smaller locations across the city consist of mixed avian usage, including parrot, possums, ducks (2020) and starlings. Evidence of parrot nesting or roosting activity was recorded in the majority of WBs whether they were located in schools, streets or parks during the Spring period.

Eight failed breeding events were observed in Spring 2021, the majority involved parrots, including Rainbow Lorikeets and Galahs, however the remains of three possums was also observed. The failure of parrot breeding events is relatively common in studies of wild populations, both in natural and artificial hollows.13 Recent local observations suggest that Galahs in particular, contribute to lorikeet

and rosella nesting mortality. No indications were observed, to account for the possum fatalities.

#### Other Fauna

Marbled Gecko were found in or behind numerous boxes. They typically live under bark or in natural hollows and take advantage of WBs, when present, particularly if the boxes are unoccupied (Figure 15).

Spiders were recorded throughout the survey and are common in WBs, particularly Huntsmans (Sparassidae) using bat or pardalote boxes; where bird and possum movement is limited.

Bee hives were recorded in five WBs during in autumn (Figure 16), and another six in Spring 2021. Figure 15: Two Marble Geckos in These autumn hives were removed, with bees being a Bat Box (012), at Ridge Park. re-homed and the WBs replaced, prior to spring



2021. The WB were removed following the spring 2021 survey, will be replaced during the autumn 2022 maintenance period.



Figure 16: Bee hive in a Brushtail Box (017), Ridge Park.

Parrot and possum WBs are extensively used. Specialist boxes for more difficult to attract or territorial species are by contrast, rarely used. Bats are occasional visitors to the boxes. A live bat has only ever been recorded in a single box, in any year. Bat droppings have been found relatively frequently, with bat faeces recorded in two boxes during spring. Bat boxes represent the largest number of individual WBs, to be vacant annually. Kookaburra boxes (2) and Pardalote boxes (3) were introduced in 2015, in an attempt to broaden species diversity, unfortunately to date neither of these boxes have been used by the target species.

#### Maintenance

For the first time in some years all WBs were in service during spring 2021. Various boxes are damaged by wildlife each year. The two key areas necessitating replacement include: 1) compromised roof allowing water ingress, or 2) compromised door (hinge or securing pin). Three WBs have had their roofs damaged by parrots, to the extent that they require replacement (Heywood Park, Windsor St and Jellicoe Pde). An additional three boxes, two of which were part of the earliest installations, have reached the end of their useful life, with the doors failing. These also require replacement during the autumn 2022 maintenance period.

Once bee hives are removed, these boxes similarly require replacement. Six WBs were observed containing hives during spring 2021. Additionally, UCC staff, fauNature or the bee removalist noted an additional five hives over summer. which were subsequently removed. In all, 11 boxes require replacement due to feral bees.



However, over the last few years the replaced.

Historically, a compromised WB floor Figure 17: Damaged Medium Parrot Box (067), would also require replacement. Black Forest Primary School, had its floor

service period of such boxes has been extended, where the rest of the box is sound. This has been achieved by inserting substitute floors, removing the need to replace the entire WB (e.g. Figure 17), extending the life of the box.

# CONCLUSIONS RECOMMENDATIONS

H



Figure 18: Five Eastern Rosella chicks in a Medium Parrot Box (058), in Forestville Res.

The approach UCC is taking continues to have a positive impact on the local hollow dependant These WBs supply much-needed habitat for a range of wildlife species. This year has again been very successful, with 92% of the available WBs being utilised over the previous 12 months (Table 2; Figures 18, 19 & 20). The WBs enhance local biodiversity and expose UCC residents to hollow dependant wildlife that are able to co-exist with us, across the City.

The numbers of WBs that are now installed across Unley is 186. This includes includes 168 WBs in council parks, reserves or verges, 15 in schools (Goodwood PS and Black Forest PS) and three on private property. Plus an additional private WB in Forest Ave Reserve. The second,

containing a feral bee hive, was removed in late 2021.

The WBs are serviced (& monitored) between February and May annually (when usage is at its lowest and a second monitoring occurs during the September-November breeding peak, each year. Annual servicing will continue to maximise the safety and functionality of the WBs, minimise the impact to host trees and enable WB damage or occupation by feral bees to be identified, so these resources can be maintained. This approach is working well and producing very successful results.

It is recommended reporting continues annually.



Figure 18: A Brushtail Possum in a Possum

As of writing feral bees from all boxes *Box (142), at Orphanage Park.* identified in the spring 2021 survey, plus

additional hives reported, have been removed. Feral bees are the second greatest threat to hollow dependant fauna, after habitat clearance. It is recommended that boxes with active hives, simply be removed and replaced, as this approach is the most cost effective option.

Six WBs have deteriorated, due to wildlife or time, to the point where they require replacement in 2022. These include three Medium Parrot (021, 036 & 047) at various locations and three Brushtail Boxes (008, 015 & 122) in Ridge Park. In the cases of the parrot boxes, this is likely due to Galah damage, while with Brushtail



Figure 19: Five Adelaide Rosella Chicks in a Medium Parrot Box (152), on Windsor St South.

Boxes these have been in service for many years and have reached the end of their useful life.

Since 2017 fauNature has implemented an electronic locating and recording system. The boxes are also 'located' on Google Maps, this information can be supplied in either hard copy or electronic form, as required (see Appendix C).

In 2020, Kat Ryan had discussed

the possibility of expanding the WBs through the central section of the city, in conjunction with the local schools in the area. This has not progressed due the

impact of COVID-19, however as restrictions ease, it may be worth revisiting these plans.

The ongoing assessment continues to be very positive, which reinforces the strategy for enhancing wildlife by Unley Council. *fauNa*ture® would welcome the opportunity to investigate additional areas across the city where the Installation of WBs is likely to increase the presence of native species, as this will be appreciated by wildlife and local residents alike.

fauNature® welcomes any questions regarding this report.

## REFERENCES

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# **APPENDIX A: LOCATIONS**

### Unley Council - Wildlife Box Locations (2021)

Tree Location - Street/Park	Latitude	Longitude	WB #	WB Type	Tree Type	WB Height	Activity	WB Condition
Black Forest PS, BLACK FOREST	-34.96044	138.57428	65	SPB	Eucalypt	3	Surveyed	Good
Black Forest PS, BLACK FOREST	-34.96077	138.57270	67	MPB	Eucalypt	6	Surveyed	Fair
Black Forest PS, BLACK FOREST	-34.96069	138.57488	68	MPB	Eucalypt	4	Surveyed	Good
Black Forest PS, BLACK FOREST	-34.96068	138.57294	69	SPB	Eucalypt	5	Surveyed	Good
Black Forest PS, BLACK FOREST	-34.95934	138.57562	70	SPB	Eucalypt	3	Surveyed	Good
Black Forest PS, BLACK FOREST	-34.96013	138.57643	71	MPB	Eucalypt	4	Surveyed	Good
Black Forest PS, BLACK FOREST	-34.96045	138.57610	72	MPB	Eucalypt	5	Surveyed	Good
Black Forest PS, BLACK FOREST	-34.96041	138.57635	148	SPB	Eucalypt	4	Surveyed	Fair
Black Forest PS, BLACK FOREST	-34.95932	138.57600	149	MPB	Eucalypt	5	Surveyed	Fair
Crommer Pde, MILLSWOOD	-34.95942	138.58283	75	BPB	Eucalypt	4	Surveyed	Good
Crommer Pde, MILLSWOOD	-34.95508	138.58648	79	SPB	Eucalypt	3	Surveyed	Fair-replace floor
Crommer Pde, MILLSWOOD	-34.95600	138.58645	80	MPB	Eucalypt	4	Surveyed	Replace (bees)
Crommer Pde, MILLSWOOD	-34.95617	138.58638	81	SPB	Eucalypt	3	Surveyed	Good
Crommer Pde, MILLSWOOD	-34.95645	138.58625	82	MPB	Eucalypt	3	Surveyed	Good
Crommer Pde, MILLSWOOD Crommer Pde,	-34.95682	138.58600	83	SPB	Eucalypt	3	Surveyed	Fair
MILLSWOOD Crommer Pde,	-34.95703	138.58578	84	MPB	Eucalypt	4	Surveyed	Good
MILLSWOOD Crommer Pde,	-34.95713	138.58565	85	SPB	Eucalypt	3	Surveyed	Good
MILLSWOOD Crommer Pde,	-34.95745	138.58532	86	MPB	Eucalypt	3	Surveyed	Good
MILLSWOOD Crommer Pde,	-34.95758	138.58515	87	SPB	Eucalypt	4	Surveyed	Fair
MILLSWOOD Crommer Pde,	-34.95866	138.58377	88	MPB	Eucalypt	3	Surveyed	Good
MILLSWOOD Crommer Pde,	-34.95885 -34.95890	138.58355	89 90	SPB BPB	Eucalypt	4	Surveyed	Good
MILLSWOOD Crommer Pde,	-34.95890	138.58338 138.58288	90	SPB	Eucalypt Eucalypt	4	Surveyed	Good
MILLSWOOD Devon St & Railway Tce, GOODWOOD	-34.95273	138.58583	73	BPB	Eucalypt	4	Surveyed	Good
Devon St & Railway Tce, GOODWOOD	-34.95180	138.58569	76	ВРВ	Eucalypt	6	Surveyed	Good

Devon St &								
Railway Tce, GOODWOOD	-34.95162	138.58594	77	ВРВ	Eucalypt	4	Surveyed	Good
Devon St & Railway Tce, GOODWOOD	-34.95276	138.58587	78	MPB	Eucalypt	5	Surveyed	Good
Ferguson Ave, MYRTLE BANK	-34.96007	138.63376	134	SPB	Eucalypt	6	Surveyed	Fair
Ferguson Ave, MYRTLE BANK	-34.95985	138.63386	135	BPB	Eucalypt	8	Surveyed	Good
Ferguson Ave, MYRTLE BANK	-34.95968	138.63331	136	BPB	Eucalypt	5	Surveyed	Good
Ferguson Ave, MYRTLE BANK	-34.95957	138.63267	137	ВРВ	Eucalypt	5	Surveyed	Good
Ferguson Ave, MYRTLE BANK	-34.95938	138.63264	138	SPB	Eucalypt	7	Surveyed	Fair
Forestville Res.,GOODWOOD	-34.95247	138.58370	38	MPB	Eucalypt	5	Surveyed	Fair
Forestville Res.,GOODWOOD	-34.95238	138.58408	39	MPB	Eucalypt	5	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95225	138.58415	40	BPB	Eucalypt	6	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95238	138.58382	41	MPB	Eucalypt	5	Surveyed	Fair-Replace floor
Forestville Res.,GOODWOOD	-34.95141	138.58341	42	MPB	Eucalypt	4	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95238	138.58355	43	SPB	Eucalypt	5	Surveyed	Fair
Forestville Res.,GOODWOOD	-34.95190	138.58360	44	MPB	Eucalypt	5	Surveyed	Fair
Forestville Res.,GOODWOOD	-34.95192	138.58395	45	ВРВ	Eucalypt	5	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95198	138.58382	58	MPB	Eucalypt	5	Surveyed	Fair
Forestville Res.,GOODWOOD	-34.95152	138.58360	59	SPB	Eucalypt	5	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95208	138.58417	60	SPB	Eucalypt	4	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95087	138.58455	61	MPB	Eucalypt	4	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95110	138.58445	62	ВРВ	Eucalypt	5	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95118	138.58457	63	SPB	Eucalypt	4	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95177	138.58415	64	ВРВ	Eucalypt	5	Surveyed	Good
Forestville Res.,GOODWOOD	-34.95223	138.58380	66	BtB	Eucalypt	5	Surveyed	Fair
Fullarton Park, FULLARTON	-34.95792	138.62521	95	ВРВ	Other	5	Surveyed	Good
Fullarton Park, FULLARTON	-34.95805	138.62456	96	ВРВ	Other	4	Surveyed	Good
Fullarton Park, FULLARTON	-34.95791	138.62483	97	ВРВ	Pine	4	Surveyed	Good
Fullarton Park, FULLARTON	-34.95838	138.62464	98	ВРВ	Eucalypt	4	Surveyed	Good
Fullarton Park, FULLARTON	-34.95760	138.62453	99	BPB	Other	6	Surveyed	Good
Fullarton Park, FULLARTON	-34.95743	138.62471	100	BPB	Eucalypt	6	Surveyed	Good
Fullarton Park, FULLARTON	-34.95801	138.62579	101	BPB	Eucalypt	3	Surveyed	Fair
Fullarton Park, FULLARTON	-34.95823	138.62526	102	ВРВ	Other	3	Surveyed	Good
Fullarton Park, FULLARTON	-34.95768	138.62490	103	ВРВ	Eucalypt	5	Surveyed	Good
Fullarton Park, FULLARTON	-34.95761	138.62504	104	ВРВ	Other	4	Surveyed	Fair

Goodwood Oval, GOODWOOD	-34.95685	138.58322	92	MPB	Eucalypt	5	Surveyed	Fair
Goodwood Oval, GOODWOOD	-34.95671	138.58273	93	SPB	Eucalypt	5	Surveyed	Fair
Goodwood Oval, GOODWOOD	-34.95641	138.58272	94	BPB	Eucalypt	5	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95643	138.58410	170	BtB	Eucalypt	4	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95639	138.58372	171	BtB	Eucalypt	4	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95630	138.58420	172	ВРВ	Eucalypt	6	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95579	138.58440	173	SPB	Eucalypt	5	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95635	138.58424	174	MPB	Eucalypt	6	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95598	138.58403	175	SPB	Eucalypt	6	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95650	138.58420	176	LPB	Eucalypt	7	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95583	138.58367	177	MPB	Eucalypt	6	Surveyed	Fair
Goodwood Oval, GOODWOOD	-34.95528	138.58344	178	BPB	Eucalypt	6	Surveyed	Fair
Goodwood Oval, GOODWOOD	-34.95509	138.58301	179	BPB	Eucalypt	4	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95670	138.58319	180	LPB	Eucalypt	6	Surveyed	Good
Goodwood Oval, GOODWOOD	-34.95585	138.58298	181	ВРВ	Eucalypt	4	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95219	138.58725	53	MPB	Eucalypt	5	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95167	138.58952	54	MPB	Eucalypt	4	Surveyed	Fair
Goodwood PS, GOODWOOD	-34.95100	138.58847	55	MPB	Eucalypt	5	Surveyed	Fair
Goodwood PS, GOODWOOD	-34.95162	138.58845	56	SPB	Eucalypt	6	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95143	138.58907	158	SPB	Other	5	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95182	138.58953	159	MPB	Other	5	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95183	138.58928	160	MPB	Eucalypt	4	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95185	138.58906	161	MPB	Other	4	Surveyed	Replace (bees)
Goodwood PS, GOODWOOD	-34.95203	138.58869	162	SPB	Other	4	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95204	138.58846	163	ВРВ	Eucalypt	5	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95160	138.58846	164	BPB	Eucalypt	6	Surveyed	Good
Goodwood PS, GOODWOOD	-34.95220	138.58747	165	SPB	Other	5	Surveyed	Good
Henry Codd, PARKSIDE	-34.94687	138.61613	34	MPB	Eucalypt	7	Surveyed	Good
Henry Codd, PARKSIDE	-34.94732	138.61623	35	SPB	Eucalypt	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96168	138.59978	19	ВРВ	Other	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96148	138.59965	20	SPB	Eucalypt	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96100	138.59988	21	MPB	Eucalypt	5	Surveyed	Replace (damaged)
Heywood Park, UNLEY PARK	-34.96097	138.59977	22	ВРВ	Eucalypt	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96075	138.59976	23	SPB	Eucalypt	5	Surveyed	Fair
Heywood Park, UNLEY PARK	-34.96112	138.60206	24	ВРВ	Eucalypt		Surveyed	Good

Hovergood Dark								
Heywood Park, UNLEY PARK	-34.96122	138.60208	25	BtB	Eucalypt	4	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96155	138.60208	26	BtB	Eucalypt	4	Surveyed	Fair
Heywood Park, UNLEY PARK	-34.96155	138.60208	27	BtB	Eucalypt	4	Surveyed	Fair
Heywood Park, UNLEY PARK	-34.96088	138.60217	28	ВРВ	Eucalypt	3	Surveyed	Fair
Heywood Park, UNLEY PARK	-34.96089	138.60128	105	BPB	Other	3.5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96168	138.59978	106	ВРВ	Other	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96061	138.60162	107	LPB	Eucalypt	8	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96155	138.60208	108	MPB	Eucalypt	4	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96055	138.60188	109	KbB	Eucalypt	6	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96055	138.60188	110	PdB	Eucalypt	6	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96168	138.59978	111	ВРВ	Other	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96062	138.60200	112	BtB	Eucalypt	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96062	138.60200	113	MPB	Eucalypt	5	Surveyed	Fair
Heywood Park, UNLEY PARK	-34.96063	138.60197	114	ВРВ	Eucalypt	5	Surveyed	Fair
Heywood Park, UNLEY PARK	-34.96092	138.60207	115	ВРВ	Eucalypt	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96100	138.60205	116	ВРВ	Eucalypt	4	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96118	138.60202	117	ВРВ	Eucalypt	4	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96118	138.60202	118	PdB	Eucalypt	3	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96165	138.60213	119	LPB	Eucalypt	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96173	138.60213	120	PdB	Eucalypt	5	Surveyed	Good
Heywood Park, UNLEY PARK	-34.96168	138.59978	121	Kbb	Eucalypt	6	Surveyed	Good
Hillsley Ave, EVERARD PARK	-34.95238	138.57509	49	MPB	Eucalypt	5	Surveyed	Fair
Hillsley Ave, EVERARD PARK	-34.95277	138.57513	50	MPB	Eucalypt	5	Surveyed	Fair
Hillsley Ave, EVERARD PARK	-34.95259	138.57486	131	SPB	Eucalypt	5	Surveyed	Good
Jellicoe Ave, KINGS PARK	-34.96479	138.59603	46	MPB	Eucalypt	5	Surveyed	Good
Jellicoe Ave, KINGS PARK	-34.96445	138.59568	47	МРВ	Eucalypt	5	Surveyed	Replace (damaged)
Jellicoe Ave, KINGS PARK	-34.96418	138.59533	48	ВРВ	Eucalypt	6	Surveyed	Good
Jellicoe Ave, KINGS PARK	-34.96392	138.59516	129	ВРВ	Eucalypt	5	Surveyed	Good
Jellicoe Ave, KINGS PARK	-34.96407	138.59521	130	MPB	Eucalypt	5	Surveyed	Fair
McLeary Park, PARKSIDE	-34.94253	138.61298	31	MPB	Eucalypt	5	Surveyed	Good
McLeary Park, PARKSIDE	-34.94268	138.61300	32	MPB	Eucalypt	5	Surveyed	Good
McLeary Park, PARKSIDE	-34.94259	138.61378	33	ВРВ	Eucalypt	5	Surveyed	Good
Orphanage Park, Millswood	-34.95641	138.59175	57	SPB	Eucalypt	5	Surveyed	Good
Orphanage Park, Millswood	-34.95715	138.59220	139	ВРВ	Pine	5	Surveyed	Good
Orphanage Park, Millswood	-34.95699	138.59281	140	MPB	Pine	5	Surveyed	Good

Orphanage Park,	24.05740	420 F0240	4.44	DDD	F a a l m t	-	C	Cand
Millswood Orphanage Park,	-34.95719	138.59310	141	BPB	Eucalypt	5	Surveyed	Good
Millswood	-34.95660	138.59232	142	BPB	Eucalypt	5	Surveyed	Good
Orphanage Park, Millswood	-34.95651	138.59221	143	MPB	Other	4	Surveyed	Replace (bees)
Orphanage Park, Millswood	-34.95607	138.59209	144	BPB	Pine	5	Surveyed	Good
Orphanage Park, Millswood	-34.95684	138.59222	145	SPB	Eucalypt	5	Surveyed	Good
Orphanage Park, Millswood	-34.95582	138.59189	146	SPB	Pine	5	Surveyed	Good
Orphanage Park, Millswood	-34.95617	138.59210	147	MPB	Eucalypt	7	Surveyed	Fair
Orphanage Park, Millswood	-34.95729	138.59172	166	ВРВ	Pine	6	Surveyed	Replace (bees)
Orphanage Park, Millswood	-34.95731	138.59159	167	BPB	Eucalypt	5	Surveyed	Good
Ridge Park, MYRTLE BANK	-34.96038	138.63993	1	BtB	Eucalypt	4	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96035	138.63990	2	BtB	Eucalypt	4	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96032	138.63987	3	MPB	Eucalypt	4	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96023	138.64025	4	BPB	Eucalypt	5	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96020	138.64027	5	MPB	Eucalypt	5	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96003	138.64088	6	SPB	Eucalypt	5	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96027	138.64128	7	ВРВ	Eucalypt	5	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96027	138.64128	8	ВРВ	Eucalypt	5	Surveyed	Replace (damaged)
Ridge Park, MYRTLE BANK	-34.96038	138.63993	9	BtB	Eucalypt	4	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96065	138.64165	10	SPB	Eucalypt	5	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96130	138.64078	11	BtB	Eucalypt	4	Surveyed	Good
Ridge Park, MYRTLE BANK	-34.96133	138.64075	12	BtB	Eucalypt	4	Surveyed	Good
Ridge Park, MYRTLE BANK	-34.96150	138.64072	13	MPB	Eucalypt	4	Surveyed	Good
Ridge Park, MYRTLE BANK	-34.96186	138.64029	14	ВРВ	Eucalypt	5	Surveyed	Good
Ridge Park, MYRTLE BANK	-34.96038	138.63993	15	BPB	Eucalypt	4	Surveyed	Replace (damaged)
Ridge Park, MYRTLE BANK	-34.96098	138.63912	16	BtB	Eucalypt	4	Surveyed	Good
Ridge Park, MYRTLE BANK	-34.96072	138.63971	17	BPB	Other	6	Surveyed	Good
Ridge Park, MYRTLE BANK	-34.96075	138.63955	122	ВРВ	Eucalypt	5	Surveyed	Replace (damaged)
Ridge Park, MYRTLE BANK	-34.96225	138.64012	123	ВРВ	Eucalypt	7	Surveyed	Fair-Replace floor
Ridge Park, MYRTLE BANK	-34.96179	138.63925	124	ВРВ	Eucalypt	5	Surveyed	Good
Ridge Park, MYRTLE BANK	-34.96130	138.64156	168	SPB	Eucalypt	6	Surveyed	Fair
Ridge Park, MYRTLE BANK	-34.96212	138.64005	169	SPB	Eucalypt	6	Surveyed	Good
Souter Park, GOODWOOD	-34.94964	138.59365	51	SPB	Other	4	Surveyed	Good
Souter Park, GOODWOOD	-34.94967	138.59331	52	MPB	Other	4	Surveyed	Good
Souter Park, GOODWOOD	-34.95038	138.59301	132	ВРВ	Eucalypt	3	Surveyed	Good
Souter Park, GOODWOOD	-34.95035	138.59343	133	MPB	Other	4	Surveyed	Good

Souter Park,						_		
GOODWOOD	-34.94967	138.59331	52	MPB	Other	6	Survey	Fair
Souter Park, GOODWOOD	-34.95038	138.59301	132	BPB	Eucalypt	4	Survey	Good
Souter Park, GOODWOOD	-34.95035	138.59343	133	MPB	Other	4	Survey	Good
Wilberforce Walk, EVERARD PARK	-34.95055	138.58105	182	MPB	Eucalypt	5	Survey	Good
Wilberforce Walk, EVERARD PARK	-34.95057	138.58073	183	MPB	Eucalypt	5	Survey	Good
Wilberforce Walk, EVERARD PARK	-34.95058	138.58048	184	ВРВ	Eucalypt	5	Survey	Good
Wilberforce Walk, EVERARD PARK	-34.95059	138.58032	185	SPB	Eucalypt	5	Survey	Good
Wilberforce Walk, EVERARD PARK	-34.95060	138.58020	186	ВРВ	Eucalypt	5	Survey	Good
Windsor St South, PARKSIDE	-34.95459	138.61668	150	BPB	Eucalypt	5	Survey	Fair
Windsor St South, PARKSIDE	-34.95489	138.61671	151	MPB	Eucalypt	5	Bees	Bees
Windsor St South, PARKSIDE	-34.95541	138.61675	152	MPB	Eucalypt	5	Bee Removal	Good
Windsor St South, PARKSIDE	-34.95564	138.61685	153	BPB	Eucalypt	7	Survey	Good
Windsor St South, PARKSIDE	-34.95570	138.61692	154	MPB	Eucalypt	6	Survey	Good
Windsor St South, PARKSIDE	-34.95564	138.61743	155	BPB	Eucalypt	7	Survey	Fair
Windsor St South, PARKSIDE	-34.95593	138.61686	156	SPB	Eucalypt	5	Survey	Fair
Windsor St South, PARKSIDE	-34.95615	138.61684	157	SPB	Eucalypt	5	Install	Good
Windsor St, PARKSIDE	-34.95008	138.61633	18	MPB	Eucalypt	6	Survey	Good
Windsor St, PARKSIDE	-34.94845	138.61623	36	MPB	Eucalypt	5	Survey	Fair
Windsor St, PARKSIDE	-34.94999	138.61623	37	SPB	Eucalypt	4	Survey	Good
Windsor St, PARKSIDE	-34.94794	138.61618	125	SPB	Eucalypt	5	Survey	Good
Windsor St, PARKSIDE	-34.94905	138.61630	126	MPB	Eucalypt	4	Survey	Fair
Windsor St, PARKSIDE	-34.95026	138.61630	127	ВРВ	Eucalypt	4	Box Serviced	Good
Windsor St, PARKSIDE	-34.95126	138.61642	128	ВРВ	Eucalypt	6	Survey	Good

## APPENDIX B: PHOTO SUMMARY

### Unley Council - Selected wildlife box observational records (2021).



No. 010: Two Rainbow Lorikeets - Small Parrot Box, Ridge Park.



No. 016: Bat dropping - Bat Box, at Ridge Park.



No. 023: Brushtail Possum - Small Parrot Box, Heywood Park.



No. 027: Marble Gecko - Bat Box, Heywood Park.



No. 032: Two Rainbow Lorikeet chicks -Small Parrot Box, McLeary Park.



No. 036: Rainbow Lorikeet chick & egg -Small Parrot Box, Windsor St.



No. 042: Two Rainbow Lorikeet eggs -Medium Parrot Box, Forestville Reserve.



No. 050: Two Rainbow Lorikeet chicks -Medium Parrot Box, Hillsley Ave.



No. 065: Three Unidentified Rosella chicks -Small Parrot Box, Black Forest PS.



No. 068: Three Galah chicks - Medium Parrot Box, Black Forest Primary School .



No. 123: Galah chick - Medium Parrot Box, Cromer Pde.



No. 021: Brushtail Possum - Small Parrot Box, Cromer Pde.



No. 097: Brushtail Possum - Brushtail Box, Fullarton Park.



No. 104: Ringtail Possum - Brushtail Box, Fullarton Park.



No. 105: Dead Brushtail Possum - Possum Box, Heywood Park.



No. 152: Three Galah chicks - Large Parrot Box, Heywood Park.



No. 152: Unidentified rosella, three chicks & four eggs - Medium Parrot Box, Windsor St.



No. 185: Six Starling eggs - Small Parrot Box, Wilberforce Walk.

# APPENDIX C: GOOGLE MAP

Unley City Council - Mapped locations for wildlife boxes (2021).

