
**MINISTERIAL STATEMENT 1094 (COND. 6.1 - 6.3)
WESTERN RINGTAIL POSSUM SURVEY REPORT
(1 – 2 NOVEMBER 2023)**

**CAPECARE, URBAN AND COMMERCIAL NEW
DEVELOPMENT, AGED CARE NATURALISTE TERRACE,
DUNSBOROUGH, W.A.**

REPORT PREPARED FOR

**RAY VILLAGE AGED SERVICES INCORPORATED trading as CAPECARE
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NATURALISTE TERRACE, DUNSBOROUGH, W.A.

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WESTERN RINGTAIL POSSUM SURVEY REPORT (1 -2 NOVEMBER 2023)
Capecare, Urban and Commercial New Development, Aged Care
Naturaliste Terrace, Dunsborough, W.A.

Our Reference:

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EXECUTIVE SUMMARY

Armstrong Reserve is situated within the City of Busselton (City) and is located approximately 500 m north of the Dunsborough business centre and bounded by Armstrong Place to the south, Gifford Road to the east, residential housing to the north and Naturaliste Terrace to the west.

Ray Village Aged Services Incorporated trading as Capecare (Capecare) has developed a 1.28 ha portion of Armstrong Reserve, Naturaliste Terrace, Dunsborough (the development footprint; now Lot 600), for the purpose of constructing and operating an aged care facility (*Capecare Dunsborough*), with the balance gazetted into three lots, specifically:

- City of Busselton retaining vesting of Reserve 25339 (Lots 3000 and 601) for the purpose of 'Landscape Protection'; and
- Water Corporation retaining vesting of Reserve 40445 (Lot 258) for the purpose of 'Drainage'.

Ministerial Statement 926, allowing the project to commence, was published on the 21 January 2013, and subsequently updated with Ministerial Statement 1094 in March 2019.

Condition 6.1 of Ministerial Statement 1094 requires the submission of an Environmental Management Plan (EMP) for the remaining portion of Armstrong Reserve outside the Development Envelope to mitigate significant residual impacts of the proposal on a priority ecological community Dunsborough Swamp Forest.

Condition 6.2 of Ministerial Statement 1094 requires the EMP be prepared in consultation with the City and identifies specific aspects for inclusion and Condition 6.3 requires that Capecare implement the approved EMP.

The approved EMP (Endplan Environmental 2019) includes several commitments made by Capecare as part of the project approval as outlined in the EMP for Armstrong Reserve including but not limited to the conduct of twice annual surveys for the presence of *P. occidentalis* for **three** years following commencement of vegetation clearing.

This report presents the results of the monitoring survey of Armstrong Reserve (post clearing **year 3, survey 2**) conducted during the 1st-2nd November 2023 that comprised:

1. Daytime targeted search for evidence of WRPs (e.g., dreys, tree hollows, scats, individuals);
2. Nocturnal counts (two consecutive nights) to determine the distribution and abundance of Western Ringtail Possums (WRPs) within Armstrong Reserve; and
3. Preparation of a factual report (this report).

In relation to the survey findings:

- No further dreys / potential nesting hollows were observed additional to the 30 dreys/hollows reported during the first (S1) survey conducted in February 2023 during the day-time survey that preceded the initial night-time spotlighting survey. Prospective nesting sites comprise a mixture of dreys, hollows and nesting boxes;
- Thirteen WRP's were recorded during the evening of 1st November 2023 during good observation conditions;

- A further 15 WRP's were recorded on the evening of 2nd November 2023 under similar (clear, cloudless with limited wind conditions) that prevailed during the period;
- WRP's were observed to be in very good condition, generally stationary and closely associated with regrowth Peppermint (*Agonis flexuosa*) located on the boundaries of the reserve;
- Peppermint and vegetation in general within the reserve was observed to be in sound condition, though the density of the leaf canopies was reduced relative to the previous spring survey (S2 2022); and
- No Brushtail Possums (*Trichosurus vulpecula hypoleucus*) were observed.

Observed WRPs ranged from juveniles or small females to mature breeding males. Three pairs of possums were observed in close proximity.

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1. INTRODUCTION

1.1 Background

Ray Village Aged Services Incorporated trading as Capecare (Capecare) has developed a 1.28 ha portion of Armstrong Reserve, Naturaliste Terrace, Dunsborough (the development footprint) now designated as Lot 600.

The aged care facility, known as *Capecare Dunsborough*, is situated within the municipal boundary of the City of Busselton and is located approximately 500 m north of the business centre of Dunsborough. The facility is bounded by Armstrong Place to the south, Gifford Road to the east, residential housing to the north and Naturaliste Terrace and the remaining vegetated portion of Armstrong Reserve to the west (**Figure 1**).

The remaining vegetated portion of Armstrong Reserve has subsequently been gazetted into three separate Lots with the City of Busselton retaining vesting of Reserve 25229 (Lots 3000 and 601) for the purpose of 'Landscape Protection' and the Water Corporation retaining vesting of Reserve 40445 (Lot 258) for the purpose of 'Drainage' (**Figure 2**).

Ministerial Statement 926, allowing the project to commence, was published on the 21 January 2013, and subsequently updated with Ministerial Statement 1094 in March 2019.

Condition 6.1 of Ministerial Statement 1094 required the preparation of an Environmental Management Plan (EMP) for the remaining portion of Armstrong Reserve outside of the development envelope to mitigate significant residual impacts of the proposal on a priority ecological community Dunsborough Swamp Forest. Specific concerns relating to fauna included impacts on:

1. ¹*Pseudocheirus occidentalis* (Western Ringtail Possum); and
2. *Ctenotus ora* (Coastal Plains Skink)

Condition 6.2 of Ministerial Statement 1094 required the EMP be prepared in consultation with the City and identifies specific aspects for inclusion and Condition 6.3 requires that the approved EMP be implemented by Capecare.

Bushland outside of the development envelope is to be retained and managed in accordance with the Armstrong Reserve EMP (EndPlan Environmental 2019). The EMP has been prepared in consultation with the Department of Water and Environmental Regulation's (DWER) EIA Planning Branch, the City of Busselton and the Department of Biodiversity, Conservation and Attractions (DBCA).

As part of the project's State environmental approvals, the approved EMP includes commitments made by Capecare for Armstrong Reserve including conducting twice yearly surveys for the presence of *P. occidentalis* (Western Ringtail Possum – WRP) for three years following commencement of vegetation clearing.

¹ The Western Ringtail Possum (*Pseudocheirus occidentalis*) is listed as Critically Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* and the *WA Biodiversity Conservation Act 2016*

This report presents the results of the second annual sampling event (post-clearing **year 3, survey 2**) of Armstrong Reserve consistent with approval requirements. The survey was conducted over the period 1 - 2 November 2023.

1.2 Objectives

To protect and conserve the Critically Endangered *P. occidentalis* by monitoring post-construction population status, specifically to determine within the limits of the survey the number and distribution of WRPs utilising Armstrong Reserve.

1.3 Scope of Works

The scope of work includes undertaking:

1. Daytime targeted search for evidence of WRPs (e.g., dreys, tree hollows, scats, individuals);
2. Nocturnal counts (two consecutive nights) to determine the distribution and abundance of WRPs within Armstrong Reserve; and
3. Preparation of a report (this report).

2. METHODOLOGY

2.1 Field Survey Methodology

The adopted methodology closely follows the recommended procedures and requirements of the 'Development Planning Guidelines' for a preliminary survey of WRPs' (Department of Environment and Conservation 2009) and is informed by methodology previously applied by fauna specialists operating on-site. A copy of the approval to conduct the survey is shown in **Appendix 1**.

A pre-survey identification of dreys and potential hollows was undertaken prior to night surveying, and locations mapped for subsequent reference. The nesting habitat survey comprised a review of sites previously identified during the post-clearing **year 3, survey 1** (EndPlan Environmental, 2023 unpublished report: IBSA-2023-0161.). Despite good observation conditions, no additional prospective sites were identified during the traverses undertaken to identify further prospective sites.

The diurnal search conducted on the 1 November 2023, involved a series of close-spaced grid traverses (minimum 20m spacing) conducted on foot using a GPS enabled tablet and computer-based mapping programme (www.ozexplorer.com.au) for guidance and as a data recorder. The presence of a dense leaf litter layer in low-lying areas and water in the drainage lines required occasional deviation from the traverse line.

Nocturnal counts were undertaken on the 1 and 2 November 2023. The sampling procedure involved systematic searching of the entire Reserve by way of close spaced traverses and perimeter searches on foot, using a narrow-beamed halogen hand torches (Ikelite Super 8: www.ikelite.com/collections/pc-flashlights) to sight individual WRPs or their eye reflection. Torches were held at eye level and swept slowly side to side. Data and observations were recorded directly to the tablet.

2.2 Survey Constraints

The effectiveness of targeted WRP field surveys at Armstrong Reserve is impacted by topography, access, vegetation structure and composition. These factors, together with seasonal water within drainage features, limit spotlighting along defined lines especially in the north-central portion of the site. Western Ringtail Possum surveys within the Reserve are further complicated by contiguous tree canopies crossing lot boundaries and with it the home range of animals that may influence continuity of records.

Spotlighting surveys are of more limited use in dense vegetation that makes up the north, central and western portions of the Reserve as there is limited light penetration through the canopy.

During the period of this survey, drainage lines held water. Relative to previous good growing conditions of vegetative (leaf) material within overstorey species especially *Agonis flexuosa* (Coastal Peppermint), the canopy was observed to be reduced relative to the previous spring (S2 2022) survey. Significant quantities of leaf litter were observed to be accumulating, on the north-east boundary along Gifford Road, and in the *Melaleuca* dominated areas in the central north-west area of the Reserve, especially in the drainage lines.

Despite these limitations, it is considered that adequate searching was undertaken to assess the WRP population within the Reserve.

3. RESULTS

3.1 Vegetation Types

A detailed description of flora and vegetation within Armstrong Reserve is provided in specialist surveys conducted in Spring 2005, 2006 and 2007 (Coffey Environment 2008) and 2009 (Ecoscape 2010). Knowledge of vegetation types is important in that the ability to detect the relative abundance of WRP within the Reserve is likely to vary between the different vegetation communities. As noted in the initial pre-clearing WRP survey report (Onshore Environmental 2019), and experienced in this monitoring event, the ease of detection of WRP within the Reserve is likely to vary between the different vegetation communities with more dense vegetation making detection more difficult (e.g., in the low-lying *Melaleuca raphiophylla* Low Open Forest).

In summary, the Reserve contains the following three distinct vegetation types²:

1. **CcAfMxOF** - *Corymbia calophylla*, *Agonis flexuosa* and mixed species Open Forest to Low Woodland occasionally over *Jacksonia furcellata* Tall Open Shrubland occasionally over *Acacia divergens*, *Acacia pulchella* and *Daviesia divaricata* Open Heath over *Xanthorrhoea preissii*, *Hibbertia hypericoides* and mixed species Open Low Heath to Low Shrubland over mixed Open Herbland and mixed Open to Very Open Sedgeland on dryland soils in a thin strip along the northern boundary as well as in the south-west corner of the site.
2. **AfCcErBILOF** - *Agonis flexuosa*, *Corymbia calophylla*, *Eucalyptus rudis* and *Banksia littoralis* Low Open Forest to Open Woodland over *Hakea varia*, *Jacksonia furcellata* and *Viminaria juncea* Tall Open Shrubland over Mixed Open Shrubland over *Hibbertia hypericoides* and *Xanthorrhoea* spp. Low Open Shrubland over *Mesomalaena tetragona* and mixed species Sedgeland over *Caesia micrantha* and *Conostylis aculeata* Very Open Herbland occurring at the transition from dryland to wetland soils in a thin strip near the northern boundary as well as in the south-east corner of the site.
3. **MrErAfLOF** - *Melaleuca raphiophylla*, *Eucalyptus rudis*, *Agonis flexuosa* Low Open Forest or Woodland over *Viminaria juncea*, *Hakea varia* Tall Open Shrubland over *Xanthorrhoea preissii* Low Open Shrubland to Low Open Heath over *Lepidosperma squamatum*, *Cyathochaeta avenacea*, *Tetraria capillaris* and mixed species Sedgeland on waterlogged (damp) soils in the centre of the site extending from Naturaliste Terrace to Gifford Road.

The location of each vegetation type is shown on **Figure 3**.

3.2 Weather Observations

Annual rainfall measured at Cape Naturaliste was above average during calendar year 2022. A prominent summer drought is evident, with below average to mean maximum and minimum temperatures during the summer period. Key meteorological measurements during the survey period are summarised in **Table 1** (over the page).

² Vegetation types are identified in Offshore Environmental (2019).

TABLE 1: Survey Daily Weather, Cape Leeuwin (BOM Site- 009519)

Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9 am			3 pm		
		Min	Max				Dir	Spd	Time	Temp	RH	Cld	Dir	Spd	MSLP
		°C	°C	mm	mm	hours		km/h	local	°C	%	g th		km/h	hPa
30	Mo	13.5	18.0	0.2			SE	44	23:53	14.5	65		S	24	1024.3
31	Tu	11.6	20.5	0			ESE	50	23:39	16.6	64		ENE	31	1024.2
1	We	14.7	21.8	0			ESE	50	00:15	19.4	68		E	26	1022.4
2	Th	15.6	21.2	0			SE	63	19:32	18.8	67		E	41	1023.8
3	Fr	15.0	21.4	0			E	57	00:05	18.4	69		ESE	41	1021.4
4	Sa	17.8	22.6	0			ENE	57	03:18	20.0	69		ESE	31	1017.2
5	Su	18.5	23.2	0			SE	46	18:57	20.8	74		ESE	17	1015.0

Source: BOM <http://www.bom.gov.au/climate/current/month/wa/archive/202311.summary>
 (accessed 17 Nov 2023)

Rainfall for the year to end October 2023 were well below average.

Conditions during the survey were warm days and moderate night conditions, with strong easterly winds reflecting a summer pattern. Light wind conditions and cloudless skies dominated the night surveys of both the 1 and 2 November 2023.

3.3 Results

3.3.1 Drey Survey

Thirty WRP dray's or trees/stags with hollows and nesting boxes that could be used as a diurnal retreat were identified during the Year 3 S1 (February 2023) previously reported. In relation to the review of these sites and additional observations made during this survey:

- Dry winter conditions have resulted in reduced leaf material and may have contributed to deterioration of nesting hollows / stags;
- Nesting hollow / stag site D09 is severely impacted by termite activity;
- Nesting hollow / stag site D10 is in poor condition and at risk of substantive collapse.

While no bees were observed in the nesting box at D13, there was no evidence of WRP usage.

Western Ringtail Possum dreys, nesting boxes or trees/stags with hollows that may function as diurnal retreats during this sampling event are summarised in **Table 2** (over the page) and their locations shown in **Figure 2**.

TABLE 2: Listing and Summary Description of Dreys and Nesting Hollows 1 -2 November 2023

Obs. No.	Location ³		Description
	E	N	
D01	324273	6279333	Drey, good condition. 8 m AGL
D02	324266	6279339	Drey in <i>Corymbia calophylla</i> (Marri) at 10m AGL
D03	324221	6279374	Hollow Marri 10mAGL
D04	324245	6279408	Stag Hollow Marri 5mAGL. Stag partially collapsed (S2 survey, Nov 2022) and no longer viable
D05	324218	6279448	Hollow on Marri 7mAGL
D06	324112	6279403	Drey in <i>Melaleuca raphiophylla</i> (Swamp Paperbark) at 9mAGL
D07	324099	6279395	Drey in <i>Agonis flexuosa</i> (Peppermint) at 10mAGL
D08	324063	6279372	Drey in Swamp Paperbark 4mAGL
D09	324047	6279391	Hollow in standing Marri trunk
D10	324186	6279478	Hollows in Marri trunk (stag)
D11	324249	6279351	Hollow in Marri 10mAGL
D12	324025	6279440	Drey in Peppermint 10mAGL
D13	324115	6279463	Possum box in Peppermint 4mAGL.
D14	324100	6279489	Drey in Peppermint 12mAGL
D15	324137	6279494	Drey in Peppermint 14mAGL
D16	324238	6279450	Drey in Marri 10mAGL
D17	324243	6279408	Hollow in Marri 10mAGL
D18	324281	6279375	Hollow in Marri 5mAGL
D19	324305	6279333	Hollow in Marri 5mAGL
D20	324094	6279390	Hollow in Swamp Paperbark 1.5mAGL
D21	324043	6279400	Drey in Swamp Paperbark (6m AGL)
D22	324234	6279367	Drey Peppermint (4m AGL)
D23	324265	6279382	Drey in Swamp Paperbark (7m AGL)
D24	324191	6279459	Drey in Swamp Paperbark (6m AGL)
D25	324071	6279393	Drey in Swamp Paperbark (4m AGL)
D26	324157	6279435	Hollow in Swamp Paperbark (4m AGL)
D27	324210	6279460	Drey in Peppermint (6 m AGL)
D28	324161	6279500	Drey in Marri (xx m AGL)
D29	324100	6279371	Circular nesting box at about 5m A H D
D30	324267	6279400	Large drey 5m AGL in Peppermint

Examples of weathered hollows D09 and D10 observed within Armstrong Reserve are presented in **Plates 1 - 2** (over the page) respectively. Extensive Quenda (*Isodon obesulus fusciventer*) diggings were observed in the central-eastern portion of the Reserve.

³ All locations are in Zone 50 GDA94

PLATE 1: Hollow
D09 exhibiting
Severe Termite
Activity



PLATE 2: Stag D10 at risk of
substantive collapse

3.3.2 Possum Survey

A total of 28 WRPs were observed over the sampling event, with 13 (D1 01 – D1 15) observed during the night of 1 November 2023 and 15 (D2 16 – D28) observed on the 2 November 2023 (refer to Table 3).

TABLE 3: Listing and Summary Description of WRP Observed 1 -2 November 2023

Obs.No.	Location ⁴		Description
	E	N	
S2-23_D1-01-02	324216.9	6279370	Two WR P's in mature Rudi's 10 m in from fence line @5m AGL. Evening cool, calm. no moon
S2-23_D1-03	324274	6279379	small WRP in mature multi stemmed <i>Agonis</i> feeding at 4 m AGL.
S2-23_D1-04	324219	6279465	large WRP moving through Tall spindly <i>Agonis</i> at 6mAGL. Good condition
S2-23_D1-05	324196.9	6279498	
S2-23_D1-06	324162.1	6279519	large WRP in large <i>Agonis</i> at 8 mAGL
S2-23_D1-07	324092.4	6279471	324092.439E 6279470.708N
S2-23_D1-08-09	324024.1	6279409	2 WRP in mature <i>Agonis</i> at 5m
S2-23_D1-10	324153.3	6279410	small WRP in spindly <i>Agonis</i> at 4m AGL. Feeding
S2-23_D1-11	324269.6	6279378	small WRP in small <i>Agonis</i> under Marri overstory. Resting in fork at 2 m AGL
S2-23_D1-12	324209.9	6279421	large WRP in Marri at 6m travelling E. Good condition.
S2-23_D1-13	324205.5	6279456	Large WRP in multi-stemmed <i>Agonis</i> at about 5m AGL.
S2-23_D2-14	324218.9	6279365	Mature WRP in large <i>E rudis</i> bordering reserve. 5 m AGL
S2-23_D2-15	324225.8	6279363	WRP, juvenile in small <i>Agonis</i> bordering reserve. 2m AGL
S2-23_D2-16	324227.6	6279333	WRP Mature in good condition in large <i>Agonis</i> bordering reserve (in Lot 600) at 3 m
S2-23_D2-17	324227.9	6279330	Small WRP in adjacent Marri at 7.0 m AGL.
S2-23_D2-18	324258.2	6279378	Mature WRP feeding in <i>Agonis</i> approx. 6 m AGL.
S2-23_D2-19	324261.4	6279398	Mature WRP in <i>Agonis</i> approx. 4 m AGL bordering Gifford Rd. Feeding
S2-23_D2-20	324216.9	6279453	Small WRP in substantial <i>Agonis</i> at approx 6m. Feeding.
S2-23_D2-21	324188.6	6279496	Large WRP in <i>Agonis</i> at approx. 5m AGL. Feeding until disturbed.
S2-23_D2-22	324089.7	6279474	Pair of mature WRP in <i>Agonis</i> on N edge of Reserve, adjacent to housing at 5 m AGL
S2-23_D2-23	324089.7	6279474	Small WRP in <i>Agonis</i> at approx. 3m AGL.
S2-23_D2-24	324007.3	6279411	Small WRP in multi-stemmed <i>Agonis</i> amongst dense stand on W end of reserve at 3 m AGL
S2-23_D2-25	324095.1	6279391	Small WRP near to ground (about 2 m AGL) in <i>Melaleuca</i> hollow.
S2-23_D2-26	324170.7	6279435	Small WRP in multi-stemmed <i>Agonis</i> lower branches feeding. 4 m AGL. Beneath <i>E rudis</i> canopy
S2-23_D2-27	324123.1	6279428	Mature WRP in <i>Agonis</i> travelling approx 4 m AGL
S2-23_D2-28	324093.5	6279438	Mature WRP in good condition travelling through dense <i>Melaleuca</i> . 5 m AGL

The location of WRP observations are identified in **Figure 4**.

⁴ All locations are in Zone 50 GDA94

3.3.3 Other Observations

As evidenced by abundant diggings on bunds within seasonally inundated areas in the central eastern portion of the Reserve, abundant populations of Quenda are present. Dense understorey provides foraging opportunities and protection from predators.

4. DISCUSSION

Western Ringtail Possums are predominantly found inhabiting Coastal Peppermint (*A. flexuosa*)/Tuart (*Eucalyptus gomphocephala*) forests on the Swan Coastal Plain within the area Bunbury to Augusta (Department of Parks and Wildlife 2017), particularly where they exhibit limited anthropogenic disturbance and have low indices of fragmentation.

4.1 Summary of Previous Survey Findings

4.1.1 Surveys Conducted Prior to Capecare Development

The area surveyed prior to construction of the Capecare development commencing was approximately 4.22 ha, being the entire lot between Naturaliste Terrace to Gifford Road known collectively as Armstrong Reserve.

A WRP survey of Armstrong Reserve (ATA Environmental 2006) based on nocturnal spotlighting for WRP and diurnal searches for dreys recorded 21 dreys and 11 tree hollows and 19 possums on 5 October 2005 and 21 possums on 7 October 2005.

In 2011, Ecoscape (2012) conducted a WRP survey of Armstrong Reserve and used five transects surveyed over four consecutive nights. A total of nine WRPs were observed.

A pre-clearing Targeted WRP Survey was conducted during 23 - 24 October 2019 and followed a similar methodology to that reported here. A total of 11 dreys and two suitable hollows were recorded within the Reserve during daytime searches, with totals of 17 and 21 WRPs recorded within the Reserve during the associated two nights of nocturnal searches (Onshore Environmental 2019).

4.1.2 Surveys Conducted Following Capecare Development

Clearing of the Capecare development envelope comprising 1.28 ha occurred over the period 28 October - 2 November 2019.

Following commencement of the project, WRP surveys have been conducted on the balance of land, being City Reserve 252299 (Lots 3000 and 601) for the purpose of 'Landscape Protection'; and Water Corporation retaining the vesting of Reserve 40445 (Lot 258), an area of 2.84 Ha.

A Spring survey of WRP and dreys within Armstrong Reserve was conducted on the 27 – 28 November 2020. Seven dreys and 14 WRP observations were recorded during the two-night survey. The weather on the first night was rainy and on the second night heavy cloud was experienced (Terrestrial Ecosystems 2020).

An autumn survey of WRP and dreys within Armstrong Reserve was conducted on the 16 – 17 March 2021. Seven WRP observations were recorded on each of the survey nights, and 16 dreys observed during the diurnal search (Terrestrial Ecosystems 2021).

A late summer (end February) survey of dreys and WRP using a similar method was conducted on the 27 – 28 February 2022. During the survey, 20 WRP in total were observed, with nine WRP observed during the evening of 27 February 2022 and 11 WRP observed on the 28 February 2022 (Endplan Environmental 2022a).

A spring (early November) survey of dreys and WRP using a similar method was conducted on the 1 – 2 November 2022. During the survey, 22 WRP in total were observed, with 12 WRP observed during the evening of 1 November 2022 and 10 WRP observed on the 2 November 2022 (EndPlan Environmental 2022b).

A late summer (mid-February) survey of dreys and WRP using a similar method was conducted on the 13 – 14 February 2023. During the survey, 43 WRP in total were observed, with 21 WRP observed during the evening of 13 February 2023 and 13 WRP observed on the 14 February 2023 (EndPlan Environmental 2023).

4.2 Survey Findings – November 2023

Approval to conduct the survey was obtained from the Department of Biodiversity, Conservation and Attractions (refer to **Appendix 1**) and a late summer WRP survey conducted comprising:

1. Daytime targeted search for evidence of WRPs (e.g., dreys, tree hollows, scats, individuals); and
2. Nocturnal counts (two consecutive nights) to determine the distribution and abundance of WRPs,

undertaken at Armstrong Reserve (Reserves 25229 and 40445) adjoining the Capecare facility.

It is considered the effectiveness of targeted WRP field surveys at Armstrong Reserve during the event was impacted by vegetation structure and composition, and to a lesser extent topography and access.

The following points are relevant:

- Significantly below average rainfall during 2023 has resulted in a reduced leaf canopy and accordingly improved visibility and thick leaf litter layer; and
- Observation conditions were otherwise excellent on the night of both the 1 and 2 November 2023, being cool and clear with minimal winds.

Notwithstanding, it is considered that good perimeter access and a small search area supported the outcome as adequately reflecting the WRP population status within the survey area.

In relation to the survey findings:

- While no additional dreys, hollows, stags, or nesting boxes were identified during the day-time survey, the condition of standing trunks D9 and D10 were observed to have decreased significantly to the extent that hollow use is less likely;
- Fifteen WRPs were recorded during the excellent observation conditions of 1 November 2023;
- Western Ringtail Possums were stationary, with several pairs observed on each night. While WRP were principally observed in immature and regenerating *Agonis* on the southern and eastern perimeter of the Capecare development and along Gifford Road, a number were evident in more open stands of *Agonis* in proximity to housing along the Northern boundary.
- A further 13 WRPs were recorded during similarly good observation conditions on the 2 November 2023; and

- Western Ringtail Possums were observed to be principally sedentary and appeared to be in good condition.

Observed WRPs ranged from juveniles or small females to mature breeding males. Lower representation was noted in the central portion of the site comprising mixed species sedgeland on seasonally waterlogged (dampland) soils extending from Naturaliste Terrace to Gifford Road. *Agonis* trees in this area are more mature than those present on the perimeter of the Reserve and demonstrate greater canopy spacing.

The November 2023 WRP survey undertaken within Reserves 25339 and 40445 adjoining *Capecare Dunsborough*, confirms that the remnant vegetation remains in very good condition and continues to support a stable and healthy population of WRP.

The number of WRPs observed during early November represents the minimum number of WRPs that were utilising the 2.94 ha survey area during this survey conducted following completion of construction of the aged care facility.

5. REFERENCES

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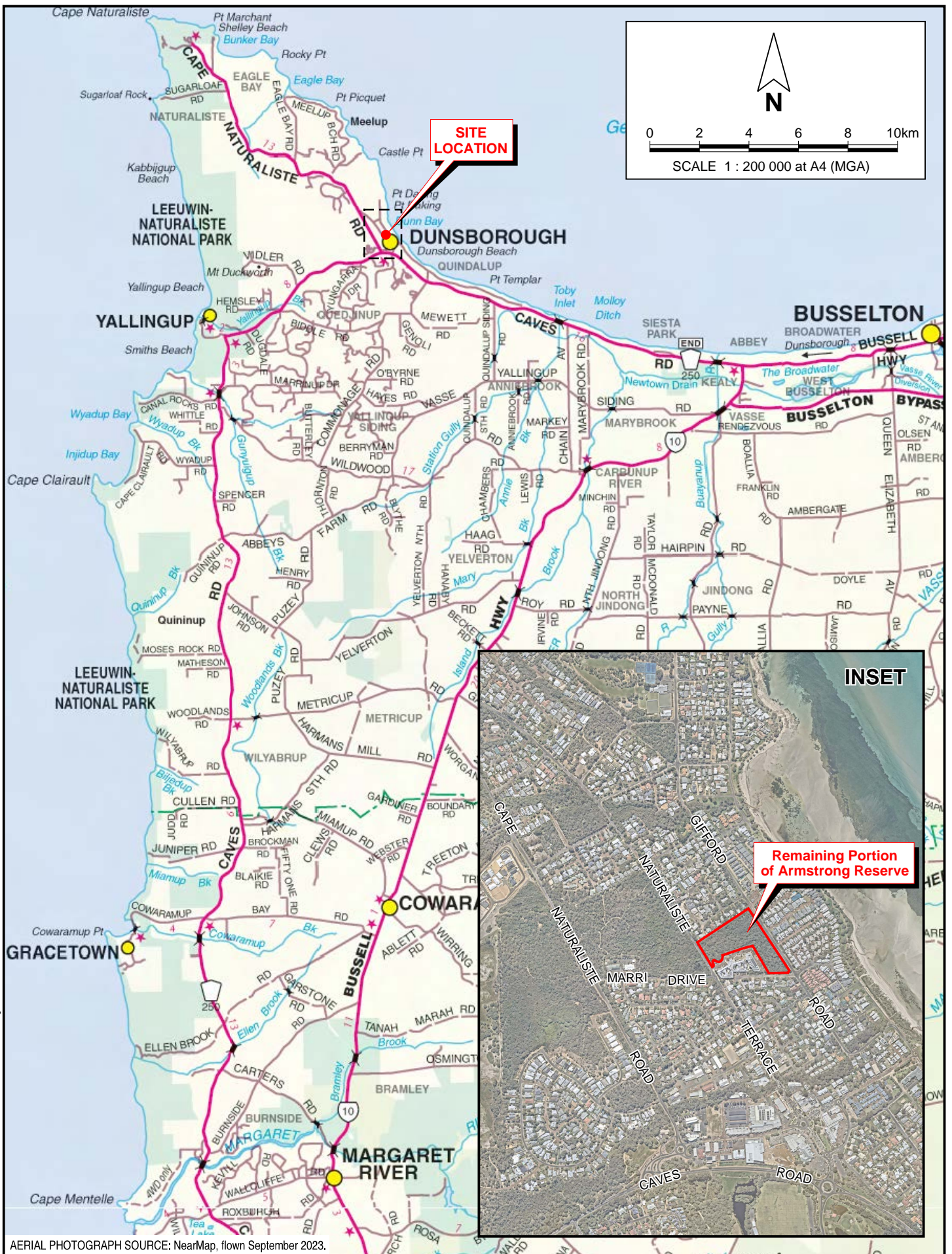
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EndPlan Environmental 2023, *Ministerial Statement 1094 (Conditions 6.1 - 6.3) Western Ringtail Possum Survey Report (13 -14 February 2023)*. Unpublished report RVA294_06_V1 dated 26 April 2023 prepared for Capecare.

FIGURES

MINISTERIAL STATEMENT 1094 (COND. 6.1 - 6.3) WESTERN RINGTAIL POSSUM SURVEY REPORT, (1 – 2 NOVEMBER 2023)

**CAPECARE, URBAN AND COMMERCIAL NEW DEVELOPMENT, AGED CARE
NATURALISTE TERRACE, DUNSBOROUGH, W.A.**



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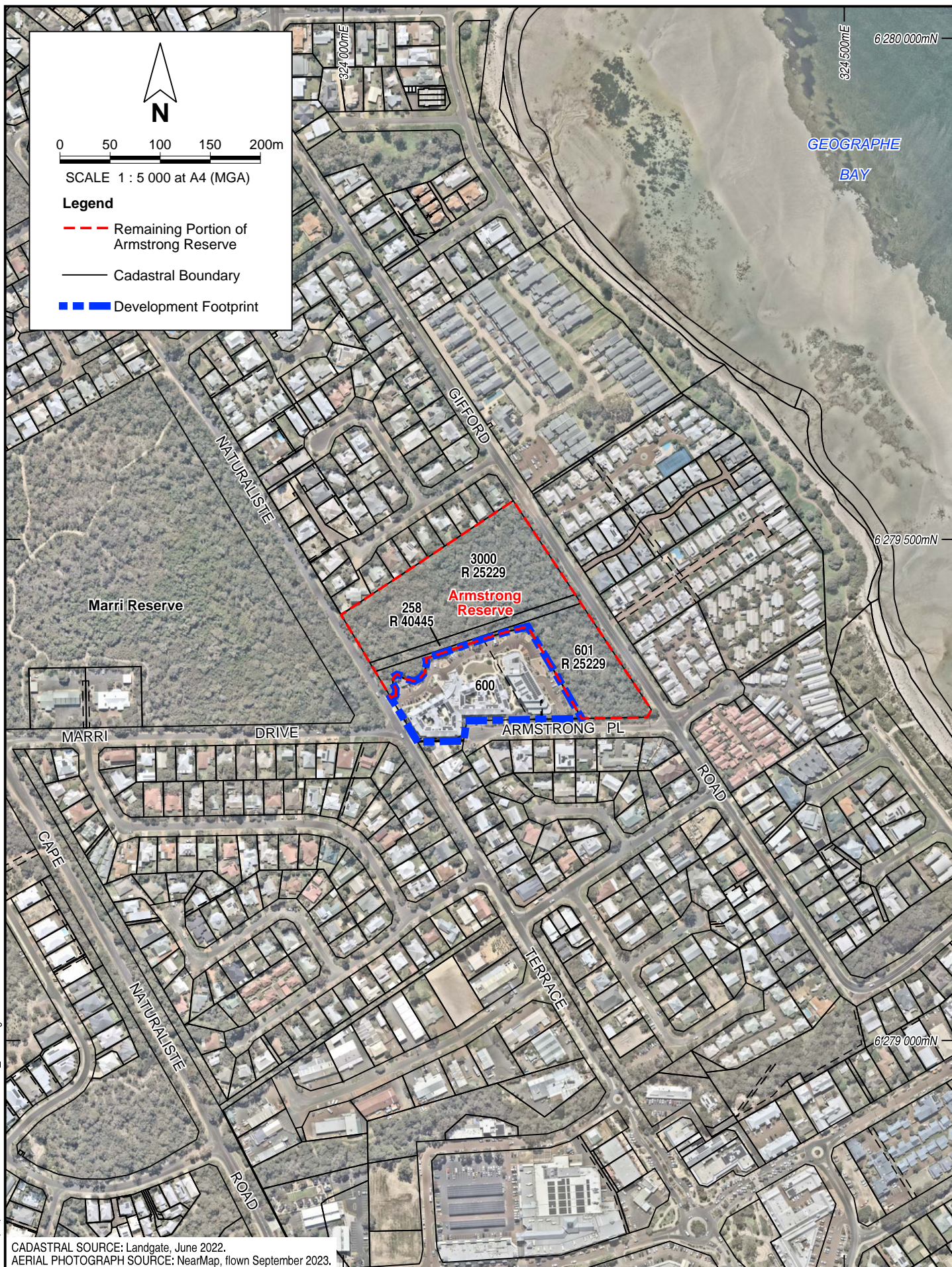
Ray Village Aged Care Services Inc t/a Capecare
MINISTERIAL STATEMENT 1094 (CONDITIONS 6.1 - 6.3)
WESTERN RINGTAIL POSSUM SURVEY REPORT (1 -2 NOV 2023)

Date: 16 Nov 2023
Drawn: B. Van der Wiele

REGIONAL LOCATION

Figure 1

Report No. RVA294_08



CADASTRAL SOURCE: Landgate, June 2022.
AERIAL PHOTOGRAPH SOURCE: NearMap, flown September 2023.

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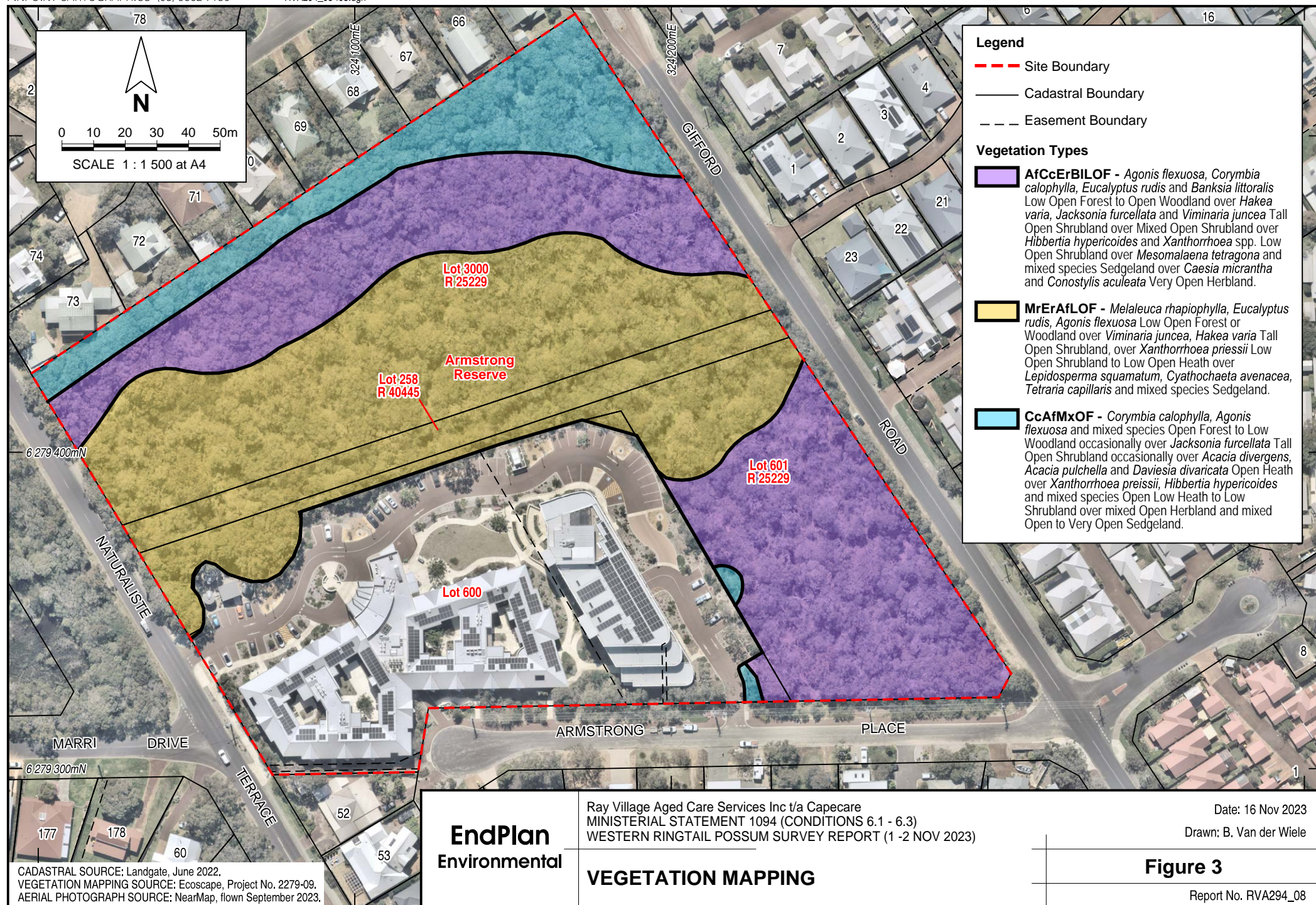
Ray Village Aged Care Services Inc t/a Capecare
MINISTERIAL STATEMENT 1094 (CONDITIONS 6.1 - 6.3)
WESTERN RINGTAIL POSSUM SURVEY REPORT (1 -2 NOV 2023)

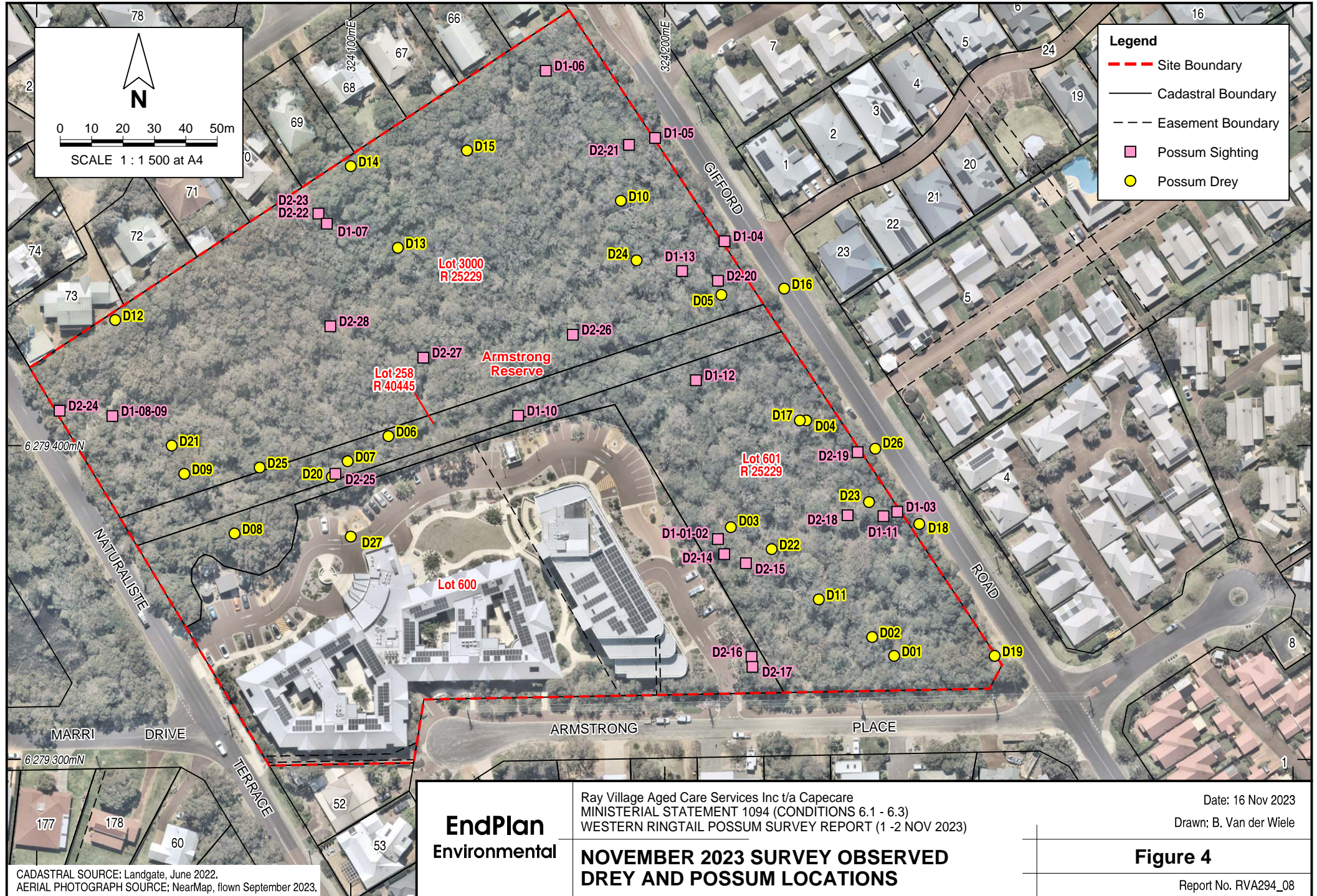
Date: 16 Nov 2023
Drawn: B. Van der Wiele

CADASTRE AND RESERVE DESIGNATIONS

Figure 2

Report No. RVA294_08





APPENDIX

MINISTERIAL STATEMENT 1094 (COND. 6.1 - 6.3) WESTERN RINGTAIL POSSUM SURVEY REPORT, (1 – 2 NOVEMBER 2023)

**CAPECARE, URBAN AND COMMERCIAL NEW DEVELOPMENT, AGED CARE
NATURALISTE TERRACE, DUNSBOROUGH, W.A.**

APPENDIX 1

AUTHORISATION TO TAKE OR DISTURB THREATENED SPECIES (TFA 2223-0194)

Source: Department of Biodiversity, Conservation and Attractions



AUTHORISATION TO TAKE OR DISTURB THREATENED SPECIES

Section 40 of the Biodiversity Conservation Act 2016

AUTHORISATION DETAILS

Authorisation number: TFA 2223-0194

Authorisation duration: From date signed by Minister's delegate below until 29 February 2024.

AUTHORISATION HOLDER

Bernadette van der Wiele

EndPlan Environmental

7 Bushland Close

Dunsborough WA 6281

AREA TO WHICH THIS AUTHORISATION APPLIES

Armstrong Reserve (R25229 and R40445), Dunsborough (DBCA Blackwood District).

AUTHORISED ACTIVITY

Purpose of taking/disturbance:

Monitor western ringtail possums within Armstrong Reserve in accordance with Ministerial Statement 1094 (conditions 6.1 and 6.2) and the associated Environmental Management Plan to identify any long-term effects from the Ray Village Aged Services (Capecare) development.

Threatened species authorised to be taken/disturbed (including conservation status):

Western ringtail possum, *Pseudocheirus occidentalis* (Critically Endangered)

Quantity of threatened species authorised to be taken/disturbed:

Any number of western ringtail possums may be disturbed by the monitoring activities.

Authorised taking/disturbance methodology:

Disturb western ringtail possums during spotlighting surveys using a hand-held halogen torch with a narrow beam. Transects will be walked during surveys.

Dates within which taking/disturbance authorised:

From date signed by Minister's Delegate below until 29 February 2024.

AUTHORISED PERSONS

Bernadette van der Wiele

Additional personnel who are suitably qualified and experienced in the Authorised Activities working under the direction of the Authorisation Holder.

Field assistants working under the direct supervision of the Authorisation Holder or suitably qualified and experienced named Authorised Persons.

CONDITIONS

1. The written authorisation of the person in possession or occupation of the land accessed and upon which threatened fauna is taken or disturbed must:
 - a. state location details (including lot or location number, street/road, suburb and local government authority);
 - b. state land owner or occupier name, and contact phone number;
 - c. specify the time period that the authorisation is valid for;
 - d. be signed and dated; and
 - e. be attached to this Authorisation to take or disturb threatened species at all times.
2. This Authorisation to take or disturb threatened species, and any other written authorisation or lawful authority which authorises the take or disturbance of fauna on specified locations for the Authorised Activities must be carried at all times while conducting Authorised Activities and be produced on demand by a wildlife officer.
3. Authorised Persons who are not suitably qualified and experienced in the Authorised Activities, and field assistants assisting with the Authorised Activities, must be working under direct supervision of experienced and competent named Authorised Persons.
4. Any inadvertently captured species of non-target threatened fauna or non-threatened fauna (threatened fauna as defined in *Biodiversity Conservation Act 2016* Section 19) is to be released immediately at the point of capture. Details of such fauna must be included in the fauna taking/disturbance return as required under this Authorisation.
5. The Authorisation Holder, unless specified in the Authorised Activities, must not:
 - a. release any threatened fauna in any area where it does not naturally occur;
 - b. transfer threatened fauna to any other person or authority (other than the Western Australian Museum) unless the fauna is injured or abandoned fauna (condition 6); or
 - c. dispose of the remains of threatened fauna in any manner likely to confuse the natural or present-day distribution of the species.
6. All threatened fauna injuries, unexpected deaths, unplanned euthanasia, and abandoned young or eggs, must be reported by the Authorisation Holder to the DBCA Wildlife Protection Branch, Wildlife Licensing Section (wildlifelicensing@dbca.wa.gov.au) to notify of the incident and for advice on treatment or disposal. All deceased threatened fauna must be offered to the Western Australian Museum.
7. The Authorisation Holder must create, compile and maintain records and information as required in a DBCA approved "Return of Fauna Taken/Disturbed" of all fauna taking/disturbance activities as they occur.

8. A DBCA approved "Return of Fauna Taken/Disturbed" must be completed in full (including nil taking/disturbance details) and submitted to DBCA Wildlife Licensing Section (wildlifelicensing@dbca.wa.gov.au) prior to the end of the Authorisation duration and, if the Authorisation duration is greater than 12 months, prior to the end of each annual period of the Authorisation (from the date signed by the Minister's delegate) (refer to "Additional Information" section below). Where a licence to take or disturb fauna is issued in conjunction with this Authorisation to take or disturb threatened species, a combined "Return of Fauna Taken/Disturbed" may be completed and submitted.
9. A written report detailing the undertaken Authorised Activities, outcome, unintended incidents, injuries and mortalities of threatened fauna, implemented monitoring, mitigation and management, and explaining the records and information as required in a DBCA approved "Return of Fauna Taken/Disturbed" must be submitted, in addition to a "Return of Fauna Taken/Disturbed" to DBCA Wildlife Licensing Section (wildlifelicensing@dbca.wa.gov.au).

ADDITIONAL INFORMATION

1. Before undertaking the Authorised Activity, permission must be obtained from: (a) the owner or occupier of private land; or (b) the department or authority controlling Crown land, on which the threatened fauna occurs. This includes obtaining the written endorsement from Department of Biodiversity, Conservation and Attractions (DBCA) if the Authorised Activity is proposed for land managed by DBCA.
2. This Authorisation to take or disturb threatened species does not constitute lawful authority issued under regulations 4 and 8 of the *Conservation and Land Management Regulations 2002*. Contact the applicable Department District Officer for further information.
3. The approved DBCA "Return of Fauna Taken/Disturbed" template can be obtained from DBCA Wildlife Licensing Section (wildlifelicensing@dbca.wa.gov.au).
4. Any interaction involving nationally listed threatened fauna that may be harmful to the fauna and/or invasive may require approval from the Commonwealth Department of Climate Change, Energy, the Environment and Water (<https://www.dcceew.gov.au/environment/biodiversity/threatened/permits>). Interaction with such species is controlled by the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* and *Environment Protection and Biodiversity Conservation Regulations 2000*.
5. It is the responsibility of the Authorisation Holder to ensure that they comply with the requirements of all applicable legislation.
6. An Authorisation to take or disturb threatened species does not constitute an animal ethics approval or a licence to use animals for scientific purposes as required under the *Animal Welfare Act 2002* and *Animal Welfare (Scientific Purposes) Regulations 2003*. Enquiries relating to the Animal Welfare Act scientific purposes licence and animal ethics committee approvals are to be directed to the Western Australian Department of Primary Industries and Regional Development (<https://www.agric.wa.gov.au/animalwelfare>).

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 Dr Margaret Byrne
 Executive Director of Biodiversity and
 Conservation Science
 AS DELEGATE OF THE MINISTER
 DATE:13/.....2...../2023

EndPlan Environmental is an Associate Member of the



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