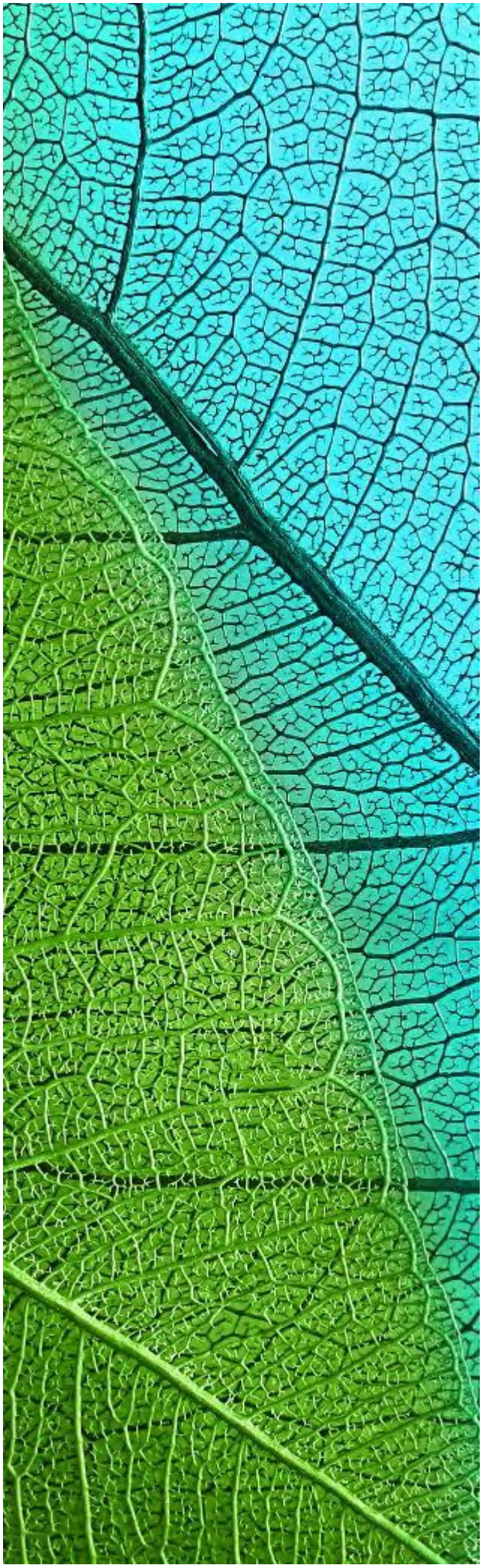

Modeina Estate Precinct 2 (EPBC 2011/6063)

Compliance Report – Year 7

Prepared for DFC (Project Management) Pty Ltd

November 2024
Report No. 7045.70 (1.1)

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1. Introduction

This Compliance Report addresses the conditions of approval 2011/6063 under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) held by the approval holder – DFC (Project Management) Pty Ltd ('DFC') – for the Modeina Precinct 2 residential development. The Approval was dated 25 July 2015; a Consolidated Variation Notice was issued by the Department of the Environment and Energy on 9 November 2018. This Compliance Report refers to this current Notice and is referred to herein as the 'Approval'.

Construction activities commenced within Precinct 2 as defined in Appendix 1 of the approval on 9 October 2018. To date, construction activities are completed in Project Areas A1 and B, while ongoing in A2 and C2, with commencement in D as of 16 September 2022. This report provides evidence of compliance with the conditions of the approval relevant to these three project areas, in particular:

- Condition 1 – construction activities contained to the overall project area
- Condition 2 – the implementation of sediment and erosion control measures during construction activities
- Conditions 3 & 4 – Growling Grass Frog Management Plan
- Condition 5 – no more than eleven (11) Spiny Rice-flower impacted in Project Areas A1 and A2
- Condition 6 – offsets secured and offset management implemented for Project Area A1
- Condition 6A – offsets for impacts associated with Project Area A2
- Conditions 7 & 8 – offsets secured and offset management implemented for Project Area B
- Conditions 13, 14, 16 & 17 – construction activities not undertaken in Project Areas C1, C2 & D and the Grassland Reserve
- Condition 14A – Grassland Reserve Management Plan
- Condition 18 – offset shapefiles and attributes provided to the Department
- Condition 19 – advising the Minister within 30 days of commencement of construction
- Condition 21 – preparation of this Compliance Report
- Condition 26 – approved management plans published on the approval holder's website within 1 month of approval

This compliance report draws together information from the following sources:

- Reporting, correspondence and mapping files compiled by Nature Advisory (formerly Brett Lane and Associates (BL&A)) on behalf of DFC (Project Management) Pty Ltd
- Grassland Reserve monitoring undertaken on 3 July 2024 and onsite compliance monitoring undertaken on 30 September 2024 by botanists from Nature Advisory
- Weed management reporting provided by Australian Ecosystems
- Offset landowner monitoring reports

This report was prepared by a team from Nature Advisory comprising Cody Hajnal (Botanist), Kate Thurkle (Botanist) and Merinda Day-Smith (Senior Botanist and Project Manager) with additional information supplied by the approval holder. Sources of information and observations are indicated throughout.

2. Onsite monitoring

2.1. Compliance monitoring – September 2024

An onsite compliance monitoring inspection was conducted on 30 September 2024. During this assessment, all areas of Precinct 2 were inspected on foot, including the interfaces of areas currently undergoing construction works with surrounding land currently protected as 'No Go' areas and the Growling Grass Frog Management Buffer. Prior to this assessment, monitoring of the Grassland Reserve was conducted on 3 July 2024.

Information relevant to the conditions of the approval was gathered throughout Precinct 2 to supplement information provided by the approval holder. This included information on the following:

- Precinct 2 development area:
    - The presence of 'No Go' fencing and sediment/erosion control measures on the boundaries between construction areas and 'No Go' areas
    - The extent of noxious and high threat weeds and evidence of weed control
- Grassland Reserve:
    - Weed cover estimates for each weed species
    - Overall weed cover estimate
    - Information on the status and health of Spiny Rice-flower plants
    - Assessment of biomass
    - Monitoring of evidence of pest animals
    - Assessment of the integrity of fencing around the perimeter of the reserve
- Growling Grass Frog Management Buffer:
    - Evidence of personnel briefing
    - Overall weed cover estimate and evidence of weed control
    - Evidence of the removal of pest animal harbour
    - Status of any seeding/revegetation works

2.2. Growling Grass Frog monitoring

Pre-construction Growling Grass Frog population and habitat monitoring commenced in January 2017 during the November 2016–February 2017 breeding season. A further eight annual breeding season population and habitat monitoring events were undertaken in November 2017 (one month following commencement of construction (Year 1), December 2018/January 2019 (Year 2), November 2019 (Year 3), November 2020 (Year 4), December 2021 (Year 5),December 2022 (Year 6), December 2023 (Year 7) and December 2024 (Year 8).

A summary of the monitoring methods and outcomes is provided in Section 3.2.

3. Compliance with approval conditions

The Approval conditions relate to the protection of the following Matters of National Environmental Significance (MNES) listed under the EPBC Act and located across six project areas within the precinct – Project Areas A1, A2, B, C1, C2 & D:

- The grassland ecological community *Natural Temperate Grassland of the Victorian Volcanic Plain* (NTGVVP) – located in discreet patches across the precinct
- Striped Legless Lizard (*Delma impar*) habitat – coinciding with all areas of mapped NTGVVP
- Spiny Rice-flower (*Pimelea spinescens* subsp. *spinescens*) plants

The definitions from the Approval that apply to the terms shown in bold throughout this document are listed in Appendix 1 of this report.

3.1. Conditions 1 and 2 – construction activities

Conditions 1 and 2 of the Approval read as follows:

1. The **approval holder** must ensure that **construction activities** do not occur outside of the **project area** as illustrated at Appendix 1.

2. The **approval holder** must implement sediment and erosion control measures consistent with **best practice pollution, sediment and erosion control guideline(s)** for the duration of **construction activities**.

Condition 1 compliance

Construction activities were underway at the time of the Year 4 (October 2021) assessment, with a combination of temporary construction fencing and post-and-wire fencing installed around areas of Project Areas A1, A2 and C2 where works were occurring.

During the Year 5 (October 2022) assessment, construction was occurring in Project Areas A2, C2 and D. Appropriate construction and post-and-wire fencing were in place, in good condition and kept closed to prevent activities occurring outside the Project Area.

During the Year 6 (October 2023) assessment, construction was occurring in Project Areas A2, C1, C2 and D. Temporary construction and post-and-wire fencing were in place and generally in good condition. Some areas of temporary construction fencing had openings that need to be closed to prevent activities occurring outside the Project Area. These areas were address following the survey.

During the current Year 7 (September 2024) assessment, construction continued to occur in Project Areas A2, C1 and D. Temporary construction and post-and-wire fencing were in place and generally in good condition.

Condition 2 compliance

Prior to continued construction, sediment fencing is required to be installed between construction zones and the Kororoit Creek environs and retained native vegetation.

At the time of the Year 4 (October 2021) assessment, suitable sediment fencing was in place to protect the Grassland Reserve and wherever construction was occurring. No stockpiles, machinery/equipment laydown or washdown areas were observed within the Growling Grass Frog Management Buffer.

The Year 5 (October 2022) assessment recorded that the sediment fencing was mostly appropriately placed and in good condition. No stockpiles, machinery/equipment laydown or washdown areas were observed within the Growling Grass Frog Management Buffer.

Flooding of the creek line had left some of the sediment fencing in a state of disrepair in areas where revegetation work had commenced; this was rectified, however, the location of sediment fencing here is not achieving any practical purpose now that the jute matting has been laid, therefore it should be removed.

Sediment fencing and trapped sediment remaining in place since earlier construction works, and therefore no longer required, should be removed before it deteriorates to the point where the trapped sediment breaches the fabric barrier and washes into Kororoit Creek, as well as becoming plastic litter.

At the time of the Year 6 (October 2023) assessment, the majority of sediment fencing observed was in poor condition. Sediment fencing was repaired in areas following the survey. No stockpiles, machinery/equipment laydown or washdown areas were observed within the Growling Grass Frog Management Buffer.

The current Year 7 (September 2024) assessment observed that most of the sediment fencing present around the construction area was variable from non-existent, to poor and adequate. Since the survey sediment fencing has been repaired in the required areas between construction zones and the Kororoit Creek environs and retained native vegetation and is now compliant. No machinery/equipment laydown or washdown areas were observed within the Growling Grass Frog Management Buffer.

3.2. Conditions 3 and 4 – Growling Grass Frog Management Plan

Conditions 3 and 4 of the Approval read as follows:

3. The **approval holder** must prepare a site-specific **Growling Grass Frog** Management Plan; which is required to be consistent with **best practice Growling Grass Frog management guidelines**. The plan must outline how significant impacts to **Growling Grass Frogs** will be avoided or mitigated and as a minimum must include:
    a. Management measures demonstrating how the **Growling Grass Frog buffer zone** will be demarcated to minimise vehicle access;
    b. Details of revegetation, **environmental weed** control measures and other management activities within the **Growling Grass Frog buffer zone**;
    c. Details of any **construction activities** and management measures to avoid **significant impacts** during construction; and
    d. Measures to ensure any on-site personnel will be informed of their obligations under the **Growling Grass Frog** Management Plan.

4. **Construction activities** must not commence in **Project Areas A1, A2, C1, C2** and **D** until the site specific **Growling Grass Frog** Management Plan has been approved by the **Minister** in writing. Construction in **Project Area B** can proceed prior to approval of the site-specific **Growling Grass Frog** Management Plan. The site specific **Growling Grass Frog** Management Plan must be implemented.

Conditions 3 and 4 compliance

BL&A Report 7045 (29.7) *Growling Grass Frog Management Plan* (GGFMP) was approved by the Minister in writing on 20 September 2017 and is available for viewing on the proponent's website at https://www.denniscorp.com.au/about-dennis-family/initiatives-and-awards/sustainability/. Of the project areas listed above, construction commenced in Project Area A1 (only) on 9 October 2017.

This compliance reporting is made against the construction phase management and monitoring actions for the Growling Grass Frog Management Buffer (GGFMB) outlined in Tables 6 and 7 of the GGFMP. These actions and the relevant section of the GGFMP are listed below under the four core requirements of the Plan outlined in Condition 3:

- Demarcation of GGFMB – Condition 3a:
    - Staged construction and temporary access restrictions (GGFMP Section 5.2.2)
- Weed control measures and revegetation – Condition 3b:
    - Weed management (GGFMP Sections 5.2.3 and 6.2)
    - Revegetation (GGFMP Section 6.4)
- Construction management measures to avoid significant impacts – Condition 3c:
    - Temporary access restrictions (GGFMP Section 5.2.2)
    - Sediment control (GGFMP Section 5.2.4)
    - Works within the GGFMB (GGFMP Section 5.2.5)
- On-site personnel informed of their obligations – Condition 3d:
    - Personnel briefing (GGFMP Section 5.2.1)

A summary of the outcomes of Growling Grass Frog habitat quality monitoring and population monitoring (Section 6.6.2 and Table 7 of the GGFMP) is also provided.

Personnel briefing

A briefing was provided by BL&A on 26 September 2017 to all key personnel on the presence of occurrence of Growling Grass Frog (GGF) in the Kororoit Creek environs and the emergency protocols in the event that the species is encountered during construction. Key personnel present included DFC (Project Management) Pty Ltd project managers, as well as all construction site managers.

Information brochures on this species were provided for display in all site offices, providing a physical description of the species, their population distribution, habitat and similar species. Construction site managers have included this briefing in the environmental briefing for all construction personnel.

Staged construction and temporary access restrictions

As outlined in the compliance reporting against Condition 1, 'No Go' construction fencing was inspected by BL&A in November 2018 and found to restrict the construction of lots and roads associated with residential stages to land comprising Project Areas A1 and B. These project area boundaries fall on the development side of the boundary of the GGFMB in all cases.

During the Nature Advisory November 2020 inspection, a combination of temporary construction fencing and post-and-wire fencing was installed around Project Area A1 to restrict construction to this area. Wire mesh farm fencing was appropriately installed around all areas of retained native vegetation.

During the Nature Advisory October 2021 inspection, a similar combination of fencing was installed around Project Areas A1, A2, C2 and small areas of C1 to restrict construction to these areas and protect areas of retained native vegetation including the Grassland Reserve. In addition to this, as of January 2023, construction fencing was also installed around Project Area D.

At the time of the Year 6 (October 2023) assessment, a combination of temporary construction fencing and post-and-wire fencing was installed around Project Areas A1, A2, C1, C2 and parts of Project area D.

The placement and integrity of temporary construction fencing around the works area was found to be mostly appropriate and sound. Some stretches of fence were found to be leaning causing gaps to occur. Additionally, two larger gaps were observed at either end of a temporary fence where they had not been affixed to adjacent fences. Furthermore, the temporary construction fencing used to surround the works associated with the drainage outfalls is of insufficient height, stability, and gauge. In particular, the fencing used allows access for native wildlife (i.e., Eastern Grey Kangaroo) to enter the works area and become trapped or injured. These issues were brought to the attention of the approval holder. Action was immediately taken by repairing construction fencing and installing temporary kangaroo fencing around revegetation and works area to deter Kangaroos from entering and getting trapped.

The current Year 7 (September 2024) assessment had temporary construction fencing installed throughout Project Areas A2, C1 and D. The quality and integrity of the construction fencing was in good condition overall and appropriately placed.

Weed management

2017/2018: Greening Australia weed management actions

Weeds across Precinct 2 were mapped by Greening Australia in August 2017 as part of their Weed Management Strategy. Weed management across Precinct 2 and including the GGFMB was then undertaken by Greening Australia between September 2017 and October 2018.

Within the GGFMB this included:

- Removal, consolidation and burning of woody weeds (African Boxthorn and Sweet Briar)
- Brush cutting of dead biomass
- Herbicide treatment of grassy and herbaceous weeds – up to eight (8) visits
- Biomass reduction burns – up to six (6) burns

In particular, the following three high-threat weeds that were found to be of greatest threat to environmental values were targeted:

- African Boxthorn (a woody weed)
- Artichoke Thistle (a herbaceous weed)
- Serrated Tussock (a herbaceous/grassy weed)

During herbaceous weed control visits, the following additional high-threat weeds were also targeted (all but one herbaceous weeds):

- Chilean Needle Grass
- Fennel
- Paterson's Curse
- Scotch Thistle
- Spear Thistle
- Sweet Briar

2017/2018: Greening Australia weed management outcomes

Weed survey reports from Greening Australia have been prepared for August 2017, February 2018 and June 2018. They document an overall reduction in extent and cover of the three highest threat weed species.

The monitoring inspection undertaken by BL&A in November 2018 of the GGFMB generally concur with the survey results provided by Greening Australia (with minor exceptions), as follows:

- African Boxthorn – in August 2017 found in extremely high numbers within the GGFMB; now observed to be largely eradicated – i.e. less than 1% cover;
- Artichoke Thistle – in August 2017 found in large swathes in and adjacent to the GGFMB in its northern section and at the top of the escarpment near the eastern section at up to 30% cover, including pocket outbreaks with up to 70% cover; now reduced to an overall cover of approximately 20%, with an area in the southeast section exhibiting approximately 30% cover and smaller pocket outbreaks of up to 60% cover; and
- Serrated Tussock – in August 2017 occurring within the GGFMB at cover levels of between 60–100% in all sections except for the southeast corner; now largely controlled to less than 10% cover in the northwest and reduced to 20% cover on the eastern flank of the GGFMB, it still exhibits very high cover (up to 100%) in a narrow band at the bend in the GGFMB previously described as 'the Point'.

An infestation of Fennel previously recorded in the eastern flank of the GGFBM has also been eradicated.

It is understood that ongoing weed control focused on these remaining outbreaks of Artichoke Thistle and Serrated Tussock within the GGFMB (along with the broader precinct), as well as the remaining target weeds listed above.

2019: Australian Ecosystems weed management outcomes

A weed survey report from Australian Ecosystems has been prepared in October 2019. It documents an overall reduction in extent and cover of the high threat weed species, with the exception of Artichoke Thistle which is germinating readily in areas of exposed soil due to the control of other weeds, namely Serrated Tussock and Twiggy Turnip.

2020: Australian Ecosystems weed management outcomes

Weed survey reports from Australian Ecosystems were prepared in April 2020, June 2020, October 2020 and December 2020. They document an overall reduction in extent and cover of the high threat weed species, mainly due to the targeted and effective control of Artichoke Thistle. However, it states that ongoing management is required, as weed species such as Twiggy Turnip and Artichoke Thistle will take advantage of bare ground areas where previous weed control has taken place.

2021: Australian Ecosystems weed management outcomes

Weed survey reports from Australian Ecosystems were prepared in April, August, October, and December 2021 and are provided in Appendix 5. The reports document low prevalence of some high threat herbaceous weed species (Spear Thistle, Fennel, Cape weed and Paterson's Curse). However, the resulting increase in space has led to increases in high threat weedy grass species (Toowoomba Canary Grass, Chilean Needle Grass and Serrated Tussock) as well as lower threat species such as Wild Oat. The reports state that many Toowoomba Canary Grass plants along the creek have remained untreated so as to reduce erosion concerns. Going forward, the future treatment regime will aim to reduce widespread herbicide treatment where individuals are close to high-value vegetation. Instead, slashing regimes interspersed with selective treatments may be preferred.

2022: Australian Ecosystems weed management outcomes

Weed survey reports from Australian Ecosystems were prepared in March, June and September 2022 and are provided in Appendix 5. The reports document significant overall reduction in extent and cover of the high threat weed species in 2022, mainly driven by removal of woody and herbaceous high-threat

weeds. However, whilst management of woody and herbaceous weeds such as African Boxthorn, Bridal Creeper, Artichoke Thistle and Serrated Tussock have been largely successful, cover of Great Brome significantly increased. This latter increase is likely a result of the extended, extremely wet spring growing period rather than an indicator of inadequate management. Future actions should focus on treatments of invasive annual grasses, particularly in proximity to area of retained native vegetation and revegetation works.

The compliance monitoring inspection undertaken by Nature Advisory in October 2022 generally concurs with the 2022 weed survey results provided by Australian Ecosystems. However, it should be noted that two new emergent or newly widespread species were recorded, being Desert Ash along the creekline and Great Brome in vast areas of the precinct including the Grassland Reserve; there was no documentation of this weed by Australian Ecosystems or the 2021 monitoring report.

2023: Australian Ecosystems weed management outcomes

Weed survey reports from Australian Ecosystems were prepared in March, June and September 2023 and are provided in Appendix 5. The reports document significant overall reduction in extent and cover of the high threat weed species in 2023, mainly driven by removal of woody and herbaceous high-threat weeds. However, whilst management of woody and herbaceous weeds such as African Boxthorn, Bridal Creeper, Artichoke Thistle and Serrated Tussock have been largely successful, cover of Great Brome significantly increased. This latter increase is likely a result of the extended, extremely wet spring growing period rather than an indicator of inadequate management. Future actions should focus on treatments of invasive annual grasses, particularly in proximity to area of retained native vegetation and revegetation works.

The compliance monitoring inspection undertaken by Nature Advisory in October 2023 generally concurs with the 2023 weed survey results provided by Australian Ecosystems. Additionally, the two emergent species recorded by Nature Advisory in 2022 (Desert Ash and Great Brome) were still present. Since the October assessment Australian Ecosystems has agreed to expand their targeted weed management to include these species over the next 12 months.

2024: Australian Ecosystems weed management outcomes

Weed survey reports from Australian Ecosystems (AE) were prepared in March, June, and September 2024 and are provided in Appendix 5. The reports document a general reduction in extent and cover of high threat weed species in 2024, which have been the key focus of elimination.

The compliance monitoring inspection undertaken by Nature Advisory on 30 September 2024 somewhat concurs with the 2024 weed survey results provided by Australian Ecosystems.

Whilst the management of woody and herbaceous weeds such as African Box-thorn and Horehound have been overall successful. There have been some increases in cover of other high threat weeds such as Artichoke Thistle, particularly in the development zones and Grassland Reserve. This has been attributed to the extended Spring like weather of the 2024 summer as well as the continued development works within the development zone allowing for the colonisation of the opportunistic species.

AE target weed species have been reported to decline across the site between management events. However, several emerging high threat species such as Bridal Creeper, Desert Ash and Sweet Briar were observed scattered in moderate quantities throughout the site. It is understood over the next 12 months AE will increase management efforts to further control target species and expand management efforts to include new and re-emerging threats to remain compliant with the Management Plan.

Furthermore, weeds within the Grassland Reserve require continued monitoring and management, particularly Wild Oat and Ribwort and Serrated Tussock. Artichoke establishing within the Grassland

reserve has largely been treated and controlled since feedback was provided after the last site survey in September.

Revegetation

In 2018, large-scale revegetation of the GGFMB had not yet commenced, with the exception of landscaping works associated with a drainage swale constructed within the GGFMB in its northern section. Typical sedge and rush plantings were in good health in this area, and weed cover was negligible due to effective weed-matting.

As of November 2020, revegetation and landscaping works have occurred in the GGFMB in areas adjacent to the recent development in the north-west and the south-east of the precinct. Native grasses, sedges, prostrate shrubs and eucalypts have been planted, and jute mat has been used for weed suppression and erosion control (Photo 1). Supplementary planting has also occurred within retained native vegetation areas that were adjacent to these recently developed areas.

Photo 1: Revegetation works in the south-east portion of the GGFMB

As of October 2021, no further revegetation had occurred. The majority of planted species have survived, grown and began to colonise areas of the jute matting that have degraded (Photo 2). Scattered weeds such as Sow Thistle, Giant Mustard, Wild Oat and Toowoomba Canary-grass were dispersed throughout the revegetation areas at low cover, but are being controlled as evidenced by a number of sprayed and dead individuals.

Photo 2: Well-established grassland revegetation in the north-west of the GGFMB, showing high cover and diversity of native species, and control of Toowoomba Canary-grass

As of October 2022, additional revegetation has occurred within the GGFMB, with jute matting appropriately installed for weed suppression and soil stabilisation. Previously revegetated areas have established well, with most planted species having survived, grown and began to colonise. Native grass species diversity is high and forbs frequently occupying inter-tussock spaces. Weeds such as Sow Thistle, Wild Oat and Toowoomba Canary-grass were scattered throughout the established revegetation areas at low covers.

As of October 2023, revegetation and jute matting was present along much of the GGFMB and adjacent recent development. No additional revegetation was apparent and while some areas are establishing well, much of the GGFMB revegetation areas in the east had been degraded (Photo 3) with low establishment of planted species, damage to jute matting, weed invasion and moderate damage from rabbits. Furthermore, bare ground caused by previous drainage outfalls works has created an optimal site for weed invasion. These issues were brought to the attention of the approval holder for immediate rectification in July 2023. It is understood repair and continued revegetation of this site is planned for autumn 2024. Revegetation in the northwest remains well established.

Photo 3: Evidence of degraded revegetation works along the GGFMB in the east of the study area.

The current survey (September 2024) observed that repair and revegetation has occurred in compliance with the plan and additional revegetation of the Kororoit Creek environs had occurred adjacent to developed areas in the north-west and the south-east of the precinct as detailed in the revegetation plan. The majority of planted species in these areas have survived, grown and colonised each area.

Additional areas of revegetation in Zones 2, 3 and 4 had been planted with a base of jute matting. These recently revegetated areas were found to still be slow in establishing or individuals missing which is likely due to previous rabbit activity recorded within the precinct. Furthermore, many weeds had colonised the spaces in the jute matting intended for planted species.

The proponent continues to invest great efforts with the revegetation however, it is understood there are some continued issues including low seedling success, weed management, herbivory and flooding events. The appointed landscaping contractors have continued to address these issues throughout the contract. Although revegetation is not occurring at the expected rate observed success of the revegetation is starting to develop throughout the earlier established revegetation zones.

The most recent revegetation to have occurred within the precinct is to the east of the Grassland Reserve, within Zone 5. Given how recent the revegetation works in Zone 5 are, it is too early to comment on the success and recommendations for this area.

Photo 4: Well established revegetation and scattered weeds in northwest of the GGFMB (2024).

Photo 5: Recent revegetation works within Zone 5 (2024).

Sediment control

As outlined in the compliance reporting against Condition 2 of the Approval, appropriate sediment and erosion control fencing was observed in 2018 in conjunction with construction fencing on sections of the boundaries of construction areas that occurred on an uninterrupted upslope from Kororoit Creek.

At the three locations where one or more of the fencing panels had fallen, sediment fencing was affected and was not providing an effective barrier. These were brought to the attention of the approval holder for immediate rectification.

No stockpiles, machinery/equipment laydown or washdown areas were observed within the Growling Grass Frog Management Buffer – i.e. within 35 metres of the Kororoit Creek.

The proponent had advised that sediment/erosion control fencing installation was completed by a civil contractor by 6 October 2017. Construction commenced within Project Area A1 on 9 October 2017. (Note: Project Area B construction has now been completed and is addressed in Section 3.6).

At the time of monitoring in November 2020, sediment fencing was not evident outside of completed construction areas. Sediment fencing must be installed to protect areas abutting future construction works prior to their commencement and must be constructed according to the requirements of Construction Environmental Management Plans approved by Melton City Council – the Responsible Authority for State approvals.

At the time of monitoring in October 2021 and October 2022, appropriate sediment fencing was in place where construction activities are occurring. As noted in 2020, such fencing must be installed to protect areas abutting future construction works prior to their commencement.

During the Year 6 monitoring (October 2023) sediment fencing was not present around all areas of construction (Photo 6). Sediment fencing was present around some areas of construction and revegetation however this was damaged and had collapsed in many areas therefore not providing an appropriate barrier to Kororoit Creek from adjacent construction works (Photo 7). These issues were brought to the attention of the approval holder for immediate rectification in July and October 2023.

Photo 6: Sediment fencing not present around areas of earthworks

Photo 7: Collapsed and damaged sediment fencing.

During the current Year 7 monitoring (September 2024) sediment fencing was not present around all areas of construction (Photo 8). Sediment fencing was present around some areas of construction and revegetation however this was damaged and had collapsed in many areas therefore not providing an appropriate barrier to Kororoit Creek from adjacent construction works (Photo 9). These issues were brought to the attention of the approval holder for immediate rectification in October 2024 and have since been repaired in compliance with the EMP.

Photo 8: Sediment fencing not present around areas of earthworks

Photo 9: repaired sediment fencing. Provided by DFC Oct 2024.

Works in the GGFMB

The November 2018 BL&A inspection noted the recent construction of a sewer connection and drainage outfall within the GGFMB in the northwest of the Precinct 2 project area. It was further observed that temporary construction fencing and sediment/erosion control fencing had been erected around the perimeter of these works, providing a continuous barrier between the works and the Kororoit Creek.

An area of land in the far western section of the GGFMB was observed in November 2018 to be clear of vegetation in preparation for landscaping works. It was understood that silt fencing would be installed along the margin of Kororoit Creek in this area prior to any earthworks, if required.

It was also understood that direct seeding of this area and revegetation works would commence in this area in early 2019.

As of November 2020, revegetation and landscaping works have occurred in the GGFMB in areas adjacent to the recent development in the north-west and the south-east of the precinct. Native grasses, sedges, prostrate shrubs and Eucalypts have been planted, and jute mat has been used for weed suppression and erosion control. A bioswale and drainage outlet into the Kororoit Creek has also been constructed in the south-east portion of the GGFMB.

As of October 2021, no new works have taken place within the GGFMB since the previous monitoring in November 2020. It was evident that weed control had been undertaken across broad sections of the GGFMB area. This weed control had targeted high threat weeds, namely Serrated Tussock and Artichoke Thistle. Wild Oat and Toowoomba Canary-grass were in abundance in the GGFMB. It is understood that these weeds are being retained for the time being to maintain bank stability and avoid erosion. However, these weeds should be slashed as vegetation fringing the creek is currently too dense and tall to be suitable for GGF (Photo 10), as well as to prevent further spread of seed.

As of October 2022, additional works have taken place within the GGFMB since the monitoring in October 2021. It was evident that weed control had been undertaken across broad sections of the GGFMB area. This had targeted high threat weeds, namely Artichoke Thistle and Serrated Tussock. Great Brome, Wild

Oat, Chilean Needle-grass and Toowoomba Canary-grass were in abundance in the GGFMB. As noted in 2021, while Toowoomba Canary-grass is being retained for the time being to aid soil stability prior to revegetation works, slashing is required to regularly keep biomass low and impede seed dispersal. At the time of the assessment, rapid spring growth had occurred, and slashing should be undertaken prior to seed set.

Photo 10: High density weed cover adjacent to Kororoit Creek in the GGFMB

During the year 6 monitoring (October 2023) vegetation within the Growling Grass Frog Buffer zone was largely found to be unsuitable due to excessive growth, and should be maintained as low, grassy vegetation up to 10 centimetres high. In addition, the fence delineating the Growling Grass Frog buffer zone was damaged, broken or loose in numerous areas. These issues were brought to the attention of the approval holder for immediate rectification in July and October 2023. As noted in 2021, while Toowoomba Canary-grass is being retained for the time being to aid soil stability prior to revegetation works, slashing is required to regularly keep biomass low and impede seed dispersal. At the time of the assessment, rapid spring growth had occurred, and slashing should be undertaken prior to seed set (Photo 11). The approval holder has since provided evidence that slashing has taken (October 2023) place within the GGFMB and biomass appears to be maintained to suitable levels for GGF (Photo 12).

Photo 11: Tall dense vegetation along Kororoit Creek within the GGFMB as of October 2023

Photo 12: Evidence of slashing within GGFMB as of December 2023

During the current year 7 monitoring (September 2024) fencing around the GGFMB had been rectified in compliance with the plan and vegetation within the Growling Grass Frog Buffer zone was largely found to be maintained as low, grassy vegetation. Few areas of tall, dense grassy vegetation were present within the Growling Grass Frog Buffer zone. Most areas, grass height and density were largely appropriate at the time of the assessment, regular ongoing slashing is required to keep biomass levels low and impede seed dispersal of Toowoomba Canary-grass and maintaining low biomass levels during the GGF active period.

Habitat and population monitoring

Pre-construction Growling Grass Frog population and habitat monitoring commenced in January 2017 during the November 2016–February 2017 breeding season. A further four annual breeding season population and habitat monitoring events were undertaken in November 2017 (one month following commencement of construction (Year 1), December 2018/January 2019 (Year 2), November 2019 (Year 3), November 2020 (Year 4), December 2021 (Year 5), December 2022 (Year 6), December 2023 (Year 7) and December 2024 (year 8). The reporting for the Year 8 monitoring event is provided in Appendix 2 and a summary provided below.

During each monitoring event, the following was undertaken:

- A habitat assessment was conducted with photographs and habitat notes taken at three survey sites from 2017 to 2020, with a fourth survey site added in 2021. Particular attention was paid to the presence of in-stream and fringing creek-edge vegetation as well as other fauna in and surrounding the creek; and
- Call playback and visual search surveys were conducted over two nights during appropriate weather conditions at each of the survey sites after dusk for each monitoring event.

A habitat assessment, call playback and visual search surveys were conducted by Nature Advisory at the four survey sites on the 11th and 21st November 2024. Weather conditions leading up to and during the surveys were considered optimal to detect Growling Grass Frog. The Year 8 monitoring survey did not detect the presence of Growling Grass Frog within the study area. Absence of Growling Grass Frog for the fourth season in a row suggests that Growling Grass Frog have been displaced from the study area and the study area is too isolated to allow repopulation from other sites.

Potential contributing factors to this displacement include the flooding of local waterways and the construction a stormwater basin outside the DFC development area, which may have impacted water quality and habitat suitability during construction. The persistent presence of mosquito fish, a known predator of GGF tadpoles, has also likely hindered GGF recovery.

Based on the ongoing site observations and monitoring, apart from the disrepair of a section of the erosion control fence (now corrected), and grass biomass levels, it is likely that any alteration to water quality, including sedimentation, nutrients, incursion of predatory species, chemical residue and gross pollutant volume are a result of factors beyond the control of DFC and are unrelated to compliance issues under the Growling Grass Frog Management Plan.

In accordance the with the Modeina Precinct 2 Growling Grass Frog Management Plan (GGFMP), failure to detect Growling Grass Frog over the course of two annual rounds of population monitoring is a trigger which requires corrective action. To address this, testing of water quality upstream and downstream of outfalls (beyond mixing zone) was conducted in May 2023. It was found water quality in the three Kororoit sites and one constructed wetland were all within the range typically observed in urban waterways with few minor exceedances.

In compliance with the GGFMP it is recommended that continued corrective action is taken within the next 12 months to better understand the absence of GGF. This includes:

- Increased maintenance of weeds and biomass levels of grass within the GGFMB. For example, in addition to the regular management, extra slashing of grass should occur in September to ensure it is cut low (particularly Toowoomba Canary-grass) prior to the GGF active season. Management of high threat weeds around GGF survey sites should also increase.
- Undertake comprehensive water quality testing in 2025 and follow recommendations for management as per the results of the 2025 water quality report.

3.3. Condition 5 – Spiny Rice-flower impacts in Project Area A1

Condition 5 of the Approval reads:

5. The **approval holder** must ensure that the action does not impact more than eleven (11) individual **Spiny Rice-flower** plants within the combined area of **Project Areas A1** and **A2.**

As of November 2020, construction has commenced in Project Area A1 only.

A survey of Spiny Rice-flower in Project Areas A1 and A2 was undertaken by BL&A on 8 August 2016. This survey recorded a total of eleven (11) Spiny Rice-flower plants compared to the seven (7) Spiny Rice-flower previously approved for removal in these project areas. Of these previously identified plants, some were found to be still present whilst others had since died.

An application for a variation to the Approval was made by the proponent and the Approval was varied by the Department in January 2017 to allow for the removal of these eleven plants.

The eleven plants recorded in 2016 were separated spatially across the combined area of Project Areas A1 and A2 (approximately 35 hectares in area), with most occurring as isolated individuals. Given the large combined area of Project Areas A1 and A2 and the isolated nature of many of the records from August 2016 leading to a reduced likelihood of recruitment and an increased likelihood of plant attrition, it is considered unlikely that this number will have increased prior to the commencement of construction in October 2017.

No additional surveys were conducted into the status of these plants in 2020, 2021, 2022, 2023 or 2024. This condition is now satisfied.

3.4. Condition 6 – Project Area A1 offsets secured and implemented

Condition 6 of the Approval reads:

6. The approval holder must not commence **construction activities** in **Project Area A1** until the following are met:
   a. A direct offset, consistent with the **EPBC Act Environmental Offsets Policy**, has been secured to compensate for the impacts to 6.053 hectares of **NTGVVP** and 6.053 hectares of **Striped Legless Lizard habitat**;
      i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and
      ii. The **Department** has been provided with written confirmation and supporting evidence demonstrating that the offset has been secured.

BL&A Report 7045 (46.2) *Modeina Estate Project Area A1 EPBC Act Offset Management Plan* was approved by the Minister on 20 September 2017. Written evidence of the securing of the Karabeal offset site by way of a Section 69 Agreement under the *Conservation, Forests and Lands Act 1987* (Vic.) had been provided to the Department via email on 12 May 2017. Construction activities commenced in Project Area A1 on 9 October 2017.

The EPBC Act offsets for impacts to 6.053 hectares of *Natural Temperate Grassland of the Victorian Volcanic Plain* (NTGVVP) and 6.053 hectares of Striped Legless Lizard habitat were secured across part of a property in Karabeal in Victoria's west.

Implementation of the offset had commenced immediately following the execution of the Section 69 Agreement on 3 April 2017. The first annual monitoring report was provided to the Victorian Department of Environment, Land, Water and Planning (DELWP) on 21 April 2018.

Work undertaken in the first year (2018) included the following actions:

- Ongoing monitoring of boundary fencing – continued to be in stock-proof condition
- Ongoing monitoring for woody weeds – little or no cover of woody weeds identified
- Quarterly monitoring for pest animals – little to no activity identified.

Works undertaken in the second year (2019) included the following actions:

- Ongoing monitoring of woody weeds and eradication where identified
- Control of herbaceous weeds including Toowoomba Canary-grass, Yorkshire Fog, Paspalum, Spear Thistle and South African Orchid
- Fox shooting as required
- Monitoring for rabbit warrens and removal as required
- Ecological burning as required
- Strategic grazing as required (following formal approval from DELWP for this activity – not currently included in the Management Plan for the site).

A site inspection by DELWP on 13 August 2019 determined that deeming of compliance was reliant on the meeting the following obligations:

- Woody weeds – ensure all woody weeds are cut and painted as per the Management Plan.
- Herbaceous weed control – ensure high threat weeds are controlled.
- Fencing – realign the northern boundary fence to match the site area.
- Rubbish – remove old internal fencing wire and any rubbish from the sites.

The following were also noted:

- Ecological burning was recommended as an additional weed control measure.
- Burrows are to be monitored to determine the species responsible and eradication action taken if resulting from pest presence.
- No evidence of Red Fox was found.

Works undertaken by the landholder in the third year (2020) included the following actions:

- Firebreaks prepared and cool burning of areas 2 and 3
- Lopping and chemical treatment of Cypress and Ash trees
- Removal of corrugated iron and posts in the creek areas

Works undertaken by the landholder in the fourth year (2021) included the following actions:

- Cool burning of site 4/mosaic burn in June

- Burning dead Cypress trees
- Weed control works such as spraying grassy weeds and cut-and-pasting woody weeds
- Commenced removal of old fence in the creek area (75%)

The 2022 management practices within the Karabeal offset site are provided in Appendix 8, and included the following actions:

- Maintained existing and install additional fencing (stockproof)
- Control of wood and herbaceous weeds
- Pest animal control (rabbits and foxes)
- Biomass control with grazing and controlled burning

The 2023 management practices within the Karabeal offset site are provided in Appendix 8, and included the following actions:

- Maintained existing and install additional fencing (stockproof)
- Control of wood and herbaceous weeds
- Pest animal control (rabbits and foxes)
- Biomass control with grazing and controlled burning

The 2024 management practices within the Karabeal offset site included the following actions:

- Maintained perimeter fencing (stockproof)
- Relocation of fencing in wrong location
- Control of woody and herbaceous weeds, specifically:
    - 2023 actions
        - 240 young River Red-trees were removed to thin out the site to allow remaining trees to grow to maximum height. This was done via cut and paste.
        - Phalaris Scotch Thistle in the southern area of site 5, western end of site 4, eastern end of site 3, both sides of the Creek area, small triangular northern paddock and left of the creek.
        - Bed Straw/ Cleavers will be monitored amongst the treed areas and treated as needed.
    - 2024 actions
        - Spot spraying of invasive weeds over entire property focusing on Stink Wort, Scotch Thistle and Whip Thistle. Timing was planned to avoid seeding of these weeds
- Control of foxes using bait in winter and spring 2023.
- Biomass control with grazing and controlled burning of Site 3.

3.5. Condition 6A – Project Area A2 offsets secured

Condition 6A of the Approval reads:

6A. The approval holder must not commence **construction activities** in **Project Area A2** until either 6A(a) or 6A(b) are met:

a. A direct offset, consistent with the **EPBC Act Environmental Offsets Policy**, has been secured to compensate for the impacts to 4.277 hectares of **NTGVVP** and 4.277 hectares of **Striped Legless Lizard habitat**;
   i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and
   ii. The **Department** has been provided with written confirmation and supporting evidence demonstrating that the offset has been secured;

OR

b. In a manner consistent with the **Melbourne Urban Development Policy**, secure an offset for impacts to 4.277 hectares of **NTGVVP** and 4.277 hectares of **Striped Legless Lizard habitat** associated with **Project Area A2**. Documentary evidence that the offset has been secured must be provided to the **Department** with 14 days of being secured.

Condition 6A compliance

MUD Policy payment

The proponent has made payment under the Melbourne Urban Development Policy for offsets under the MUD Policy to compensate for the impacts to 4.277 hectares of NTGVVP and 4.277 hectares of Striped Legless Lizard habitat. Proof of this payment has been provided to the Department.

Therefore, the required offsets for Condition 6A have been secured, the condition met, and works may commence in Project Area A2.

3.6. Conditions 7 & 8 – Project Area B offsets secured and implemented

Conditions 7 and 8 of the Approval read:

7. The **approval holder** must not commence **construction activities** in **Project Area B** until either 7(a) or 7(b) are met:
   a. A direct offset containing a minimum of 100 **Spiny Rice-flower** plants has been secured;
      i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and
      ii. The **Department** has been provided with written confirmation and supporting evidence that demonstrate the offset has been secured.
   b. The **Minister** agrees in writing that condition 15 (a–e) has been satisfied.

8. The **approval holder** must not commence **construction activities** in **Project Area B** until the following are met:
   c. A direct offset, consistent with the **EPBC Act Environmental Offsets Policy**, has been secured to compensate for the impacts to 1.824 hectares of **NTGVVP** and 1.824 hectares of **Striped Legless Lizard habitat**;
      i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and
      ii. The **Department** has been provided with written confirmation and supporting evidence that demonstrate the offset has been secured.

Conditions 7 & 8 compliance

BL&A Report 7045 (35.4) *Modeina Estate Precinct 2 – Project Area B (School Site) EPBC Act Offset Management Plan* was approved by the Minister on 7 March 2017 and written evidence of the securing of two offset sites (Campbelltown and Karabeal) by way of a Section 69 Agreement under the *Conservation, Forests and Lands Act 1987* (Vic.) provided to the Department via email on 12 May 2017. Native vegetation removal and construction of the school site within Project Area B was undertaken in January 2018.

The EPBC Act direct offset of 100 Spiny Rice-flower was secured on the Campbelltown offset site in Victoria's west; the direct offset for impacts to 1.824 hectares of *Natural Temperate Grassland of the Victorian Volcanic Plain* (NTGVVP) and 1.824 hectares of Striped Legless Lizard habitat were secured across part of the Karabeal property.

Implementation of the offset across both sites had commenced immediately following the execution of the Section 69 Agreements on 3 April 2017. The first annual monitoring report was provided to the Victorian Department of Environment, Land, Water and Planning (DELWP) on 21 April 2018.

Work to be undertaken by the landholder in the first year 2018 included the actions outlined below.

Campbelltown

- Fencing of individual offset sites within the broader property by July 2017
- Limited eradication of woody weeds in Spring and Autumn 2017
- Fox shooting undertaken

Karabeal

- Ongoing monitoring of boundary fencing – continued to be in stock-proof condition
- Ongoing monitoring for woody weeds – little or no cover of woody weeds identified
- Quarterly monitoring for pest animals – little to no activity identified

Work to be undertaken by the landholder in the second year 2019 included the actions outlined below.

Campbelltown

- Ongoing eradication of woody weeds
- Control of herbaceous weeds including Toowoomba Canary Grass, Spear Thistle and St John's Wort
- Fox shooting as required
- Monitoring for rabbit warrens and removal as required
- Strategic grazing as required
- Ecological burning as required

Karabeal

- Ongoing monitoring of woody weeds and eradication where identified
- Control of herbaceous weeds including Toowoomba Canary Grass, Yorkshire Fog, Paspalum, Spear Thistle and South African Orchid
- Fox shooting as required
- Monitoring for rabbit warrens and removal as required

- Ecological burning as required
- Strategic grazing as required (following formal approval from DELWP for this activity – not currently included in the Management Plan for the site).

Work to be undertaken by the landholder in the third year 2020 included the actions outlined below.

Campbelltown

- Fumigation and collapsing of burrow of European Rabbit recorded just outside the site's southern boundary.
- Control of all woody weeds including Sweet Briar regrowth and Plum and remove all fruits and cut branches.
- Control of herbaceous weeds including Toowoomba Canary Grass, St John's Wort, Bulbous Meadow-grass, Cat's Ear, Cocksfoot, Spear Thistle, Ribwort, Dock and Brown-top Bent.
- Remove wire from internal fencing.
- Monitoring for any impacts to growth of seeding of native grasses by kangaroos and control if required.
- Strategic grazing as required.
- Ecological burning as required.

Karabeal

- Re-align fencing to the east to match site area.
- Remove unused fencing, wire and old iron.
- Remove internal fencing unless pulse grazing is to be implemented.
- Monitor small burrows to determine species responsible and control if required.
- Control of all woody weeds including Boxthorn and non-indigenous species including Blue Gum, Spotted Gum, Cypress and Ash.
- Introduce higher level of weed control than originally prescribed in the Management Plan, incorporating spot spraying and burning and consider addition of strategic pulse grazing to reduce weed cover.
- Liaise with local CMA to control erosion along drainage line and continue to monitor for any increase.
- Assign names to paddocks to allow for greater clarity of management action requirements and accuracy of specific practices.

Work to be undertaken by the landholder in the fourth year 2021 included the actions outlined below.

Campbelltown

- Fumigation of European Rabbit burrows.
- Cutting and pasting of Sweet Briar plants, burning of Blackberry bushes and control of Artichoke Thistle and non-native Dock.
- Monitoring for any other weeds and vermin.

Karabeal

- Firebreaks prepared and cool burning of areas 2 and 3
- Lopping and chemical treatment of Cypress and Ash trees

- Removal of corrugated iron and posts in the creek areas

Work to be undertaken by the landholder in the fifth year 2022 included the actions outlined below.

Campbelltown

- Maintained perimeter fencing (stockproof)
- Monitoring and control of woody and herbaceous weeds
- Monitoring and control of pest animals (rabbits and foxes)
- Biomass control with grazing, noted that a controlled burn had been undertaken in Year 4

Karabeal

- Maintained perimeter fencing (stockproof)
- Relocation of fencing that was positioned incorrectly
- Monitoring and control of woody weeds
- Pest animal control (rabbits and foxes)
- Noted that a mosaic burn had been undertaken in Year 4

Work to be undertaken by the landholder in the sixth 2023 year included the actions outlined below.

Campbelltown

- Maintained existing and install additional fencing (stockproof)
- Monitoring and control of woody and herbaceous weeds
- Monitoring and control of pest animals (rabbits and foxes)
- Biomass

Karabeal

- Maintained existing and install additional fencing (stock/vermin proof)
- Control of wood and herbaceous weeds
- Pest animal control (rabbits and foxes)
- Install grazing prevention enclosures to reduce pressure from Macropod grazing
- Biomass control with grazing and controlled burning

Annual monitoring reports conducted by the landowner are provided for Karabeal and Campbelltown in Appendix 8 and Appendix 9 respectively.

Work to be undertaken by the landholder in the seventh year 2024 included the actions outlined below.

Campbelltown

- Maintained existing and install additional fencing (stockproof)
- Monitoring and control of woody and herbaceous weeds
- Monitoring and control of pest animals (rabbits and foxes) as well as overgrazing from macropods
- Ecological Biomass Burning

Karabeal

- Maintained existing and install additional fencing (stock/vermin proof)
- Control of wood and herbaceous weeds
- Pest animal control (rabbits and foxes)
- Install grazing prevention enclosures to reduce pressure from Macropod grazing
- Biomass control with grazing and controlled burning

Annual monitoring reports conducted by the landowner are provided for Karabeal and Campbelltown in Appendix 8 and Appendix 9 respectively.

3.7. Conditions 13, 14, 16 & 17 – no construction activities in Project Areas C1, C2 & D

Conditions 13, 14, 16 and 17 of the Approval read (in part, paraphrased):

13. The **approval holder** must not commence **construction activities** in **Project Area C2** until… [direct offsets are secured for impacts to NTGVVP, Striped Legless Lizard habitat and Spiny Rice-flower].
14. The **approval holder** must not undertake **construction activities** within the Grassland Reserve, to be located in **Project Area B** as per Appendix 1.
16. The **approval holder** must not commence **construction activities** in **Project Area D** until… [a direct offset is secured for impacts to NTGVVP, Striped Legless Lizard habitat].
17. If condition 15 (a–d) cannot be met in full:
    a. the **approval holder** must not commence **construction activities** within **Project Area D**; until the following are met:
        i. Adequately compensate for impacts to **Spiny Rice-flower** plants located within **Project Area D** with an alternative offset. This offset strategy must be prepared following consultation with the **Department**; and
        ii. The **Minister** has provided written notification to the **approval holder** that conditions 14 and 15 no longer apply.

Conditions 13, 14 & 16 compliance

Offsets secured for Project Areas C1, C2 & D

The Nature Advisory November 2021 site inspection determined that no construction had commenced in Project Area D (including the Grassland Reserve), but that construction had commenced in Project Area C1 and C2. Evidence that an appropriate offset has been secured has been provided (Cressy Offset Site). The perimeter of the Grassland Reserve was fenced with a wire mesh fence in February 2017 and remains in place and is of suitable design. The 2020 monitoring report recommended that the gate in the south-eastern corner be made rabbit-proof, and appropriate modifications have since been made.

The Nature Advisory November 2022 site inspection determined that construction had commenced within Project Area D and C2 (including the Grassland Reserve) in September 2022, but no construction had commenced within Project Area C1.

The Nature Advisory November 2023 site inspection determined that construction has commenced in Project Areas C1, C2 and D and the condition is now satisfied.

A site inspection was not undertaken in 2024 as the condition was satisfied in the November 2023 site inspection.

Condition 17 compliance

Alternative offset

BL&A Report 7045 (51.4) *Modeina Precinct 2 – Spiny Rice-Flower Alternative Offset Strategy* was approved by the Minister on 9 November 2018.

Project Areas C1, C2 & D Offset Management Plan

BL&A Report 7045 (55.2) *Modeina Precinct 2, Project Areas C1, C2 & D – Cressy Offset Management Plan* was approved by the Minister on 9 November 2018.

Implementation of the offset had commenced immediately following the execution of the TFN Covenant on 20 March 2019. The fifth annual monitoring report is provided as Appendix 7.

Construction may now commence in Project Area C1.

Evidence that Condition 15 no longer applies

Written notification that Condition 15 no longer applies was provided by the Department by email on 28 November 2018 (Appendix 3. Grassland Monitoring Report, year 7 (2024)

Appendix 4).

3.8. Condition 14A – Grassland Reserve Management Plan

Condition 14A of the Approval reads:

> 14A. The **approval holder** must, in consultation with a **suitably qualified ecologist**, develop a **Grassland Reserve Management Plan** for the protection and management of **protected matters** within the **Grassland Reserve**. The **Grassland Reserve Management Plan** must be submitted to the **Minister** for approval 6 months prior to the commencement of **construction activities** within 100 metres of **Project Area D**. The approved **Grassland Reserve Management Plan** must be implemented.
>
> The **Grassland Reserve Management Plan** must:
>
> a. include existing baseline data and other supporting evidence that documents the baseline conditions of **protected matters** within the **Grassland Reserve**;
>
> b. outline specific management actions to protect and maintain **protected matters** within the **Grassland Reserve**; and
>
> c. outline annual monitoring and reporting on the condition of **protected matters** within the **Grassland Reserve** for a period of 10 years from the commencement of the Plan.

Condition 14A compliance

BL&A Report 7045 (43.4) *Modeina Estate, Burnside – Grassland Reserve Management Plan* was submitted to the Minister for approval on 8 May 2018 and was approved by the Minister on 9 November 2018 and is available for viewing on the proponent's website at https://www.denniscorp.com.au/about-dennis-family/initiatives-and-awards/sustainability/. Construction activities were found not to have occurred within 100 metres of either Project Area D or the Grassland Reserve during the November 2020 Nature Advisory inspection.

This compliance reporting is made against the construction phase management and monitoring actions outlined in Appendix 4 of the GRMP. These actions and the relevant section of the GRMP are listed below under the three core requirements of the Plan outlined in Condition 14A:

- Baseline data – Condition 14A (a) (GRMP Section 3.4.1)
- Construction and 10-year management actions – Condition 14A (b) (GRMP Sections 3.3 & 3.4)
- Monitoring and reporting – Condition 14A (c) (GRMP Section 3.5)

Vegetation overview

Baseline data

Baseline data on the condition, overall weed cover and individual high-threat weed covers was collected during the November 2018 BL&A site inspection.

As of November 2018, the Grassland Reserve was considered to comprise the following:

- 65% cover of native flora;
- 20% cover of introduced flora (weeds); and
- 15% cover of organic matter (leaf litter) and inter-tussock spaces.

Monitoring and reporting – Year 2

Year 2 assessment on the condition, overall weed cover and individual high-threat weed covers was collected during the December 2019 Nature Advisory site inspection.

As of December 2019, the Grassland Reserve was considered to comprise the following:

- 70% cover of native flora;
- 15% cover of introduced flora (weeds); and
- 15% cover of organic matter (leaf litter) and inter-tussock spaces.

A 5% increase in cover of native flora and consequently a 5% reduction in introduced species cover has been recorded since the previous monitoring report in November 2018.

Kangaroo Grass was the dominant grass species in the reserve. While grassy cover was high, a suitable amount of inter-tussock space was present allowing for a diversity of other native flora to occur including Spiny Rice-flower (*Pimelea spinescens subsp. spinescens*), Pink Bindweed (*Convolvulus sp.),* Common Fireweed (*Senecio quadridentatus*), Black Cottonbush (*Maireana decalvans*), Kidney Weed (*Dichondra repens*), Black-anther Flax-lily (*Dianella revoluta*) and Narrow Plantain (*Plantago gaudichaudii*).

Arching Flax-lily (*Dianella longifolia var. grandis*), listed as vulnerable on the DELWP Advisory List of Threatened Plants in Victoria (DELWP Advisory list) was known to occur in the reserve, and was still present during the December 2019 monitoring.

Fragrant Saltbush (*Rhagodia parabolica*), listed as rare on the DELWP Advisory List, was also re-recorded in the reserve during the December 2019 monitoring.

A reduction in cover of Wild Oat from 12% to 6% is likely attributed to well-timed and managed environmental burns, reducing the biomass before the grass sets seed, creating inter-tussock space for a suite of native species to recruit. This is also likely the reason for the emergence of new weeds such as Galenia, Onion Grass and Delicate Hair-grass, and the increase in cover of other weed species such as Squirrel-tail Fescue and Large Quaking Grass.

Selective herbicide control has seen the reduction and potential eradication of a range of exotic species, namely; Serrated Tussock, Artichoke Thistle, Ox-tongue and Big Heron's-bill.

Monitoring and reporting – Year 3

Year 3 assessment on the condition, overall weed cover and individual high-threat weed covers was collected during the November 2020 Nature Advisory site inspection.

As of November 2020, the Grassland Reserve was considered to comprise the following:

- 80% cover of native flora;
- 10% cover of introduced flora (weeds); and
- 17% cover of organic matter (leaf litter) and inter-tussock spaces.

A 10% increase in cover of native flora and consequently a 5% reduction in introduced species cover has been recorded since the previous monitoring report in December 2019, continuing the trend of an increase in quality since the baseline report in 2018.

Kangaroo Grass continues to be the dominant grass species in the reserve. While grass cover was high, a suitable amount of inter-tussock space was present in the most recently burnt area, allowing for a diversity of other native flora to occur, including Spiny Rice-flower (*Pimelea spinescens* subsp. *spinescens*), Pink Bindweed (*Convolvulus angustissimus*), Common Fireweed (*Senecio quadridentatus*),

Blue Grass-lily (*Caesia calliaantha*), Kidney Weed (*Dichondra repens*), Black-anther Flax-lily (*Dianella revoluta*) and Yellow Rush-lily (*Tricoryne elatior*). In areas which were not recently burnt, inter tussock spacing was low, subsequently resulting in less native flora diversity.

Arching Flax-lily (*Dianella longifolia* var. *grandis*), listed as vulnerable on the DELWP Advisory List of Threatened Plants in Victoria (DELWP Advisory list) was known to occur in the reserve, and was still present during the November 2020 monitoring.

Fragrant Saltbush (*Rhagodia parabolica*), listed as rare on the DELWP Advisory List, was also re-recorded in the reserve during the most recent visit.

A reduction in overall weed cover is likely attributed to well-timed and managed environmental burns and selective weed control, reducing the biomass before the grass sets seed, enabling native grasses to dominate. However, this is also likely the reason for the emergence of new weeds such as Sow Thistle, Prickly Lettuce and Cocksfoot; the re-emergence of Artichoke Thistle, Red Brome and Serrated Tussock; and the increase in cover of other weed species such as Pimpernel and Rye Grass (Table 1). These species have all readily recruited on exposed ground from weed control. It is recommended that indigenous grass species such as Kangaroo Grass or Spear Grasses are planted into areas which have been subject to weed control, primarily along the eastern edge of the reserve.

Concerningly, the following high threat weeds have emerged within the reserve; Paterson's Curse, South African Orchid and Gazania. These species are currently at a negligible cover, but are required to be controlled immediately. During the assessment, individual plants were hand removed.

Additionally, Drooping Cassinia, previously considered native, is now considered an invasive weed. Five individual plants were recorded within the grassland reserve. This species can rapidly colonise an area and is therefore required to be eradicated.

An estimate of cover for weed species in the grassland reserve against estimates in 2018 and 2019 are presented in Table 1. Plants highlighted in grey are considered to be weeds which must be a priority in future weed management of the reserve. Green indicated a reduction in cover, while orange indicates an increase.

Monitoring and reporting – Year 4

Year 4 assessment on the condition, overall weed cover and individual high-threat weed covers was collected during the October 2021 Nature Advisory site inspection.

As of October 2021, the Grassland Reserve was considered to comprise the following:

- 75% cover of native flora;
- 15% cover of introduced flora (weeds); and
- 16% cover of organic matter (leaf litter) and inter-tussock spaces.

The cover of native and introduced flora has remained relatively stable since the last monitoring survey in December 2020. Native flora cover decreased by 5% and weed cover increased by 5%.

The combined cover of organic matter and inter-tussock spaces has remained relatively stable with a slight (1%) decline. The changes in covers observed are within normal limits.

Kangaroo Grass continues to be the dominant grass species in the reserve. A diverse range of indigenous species occurred in inter-tussock spaces including Spiny Rice-flower (*Pimelea spinescens* subsp. *spinescens*), Black-anther Flax-lily (*Dianella revoluta*), Sheep's Burr (*Acaena echinata*), Blue Grass-lily (*Caesia calliantha*), Grassland Wood-sorrel (*Oxalis perennans*), Common Woodruff (*Asperula conferta*)

and Kidney Weed (*Dichondra repens*) amongst others. These species were largely confined to parts of the reserve which had been burnt in 2019.

The presence of Spiny Rice-flower, listed as Critically Endangered under both the EPBC Act and the FFG Act, is discussed in greater detail below.

Three Arching Flax-lily (*Dianella longifolia* var*. grandis*) were found within the reserve. This species is listed as Critically Endangered under the FFG Act.

One Fragrant Saltbush (*Rhagodia parabolica*), listed as Vulnerable under the FFG Act, was also detected in the reserve.

High-threat weeds detected and removed during the monitoring survey in 2020, namely Paterson's Curse, South African Orchid and Gazania, were not observed during the recent site assessment. Five additional weed species were detected since the previous monitoring survey including one Horehound plant.

The increase in weed cover observed is largely due to an increase in the cover of Serrated Tussock, Wild Oat, Drooping Cassinia and Ribwort. Of these species, Drooping Cassinia and Serrated Tussock are considered to be of most concern, with the capacity to outcompete even perennial native species. Weed cover remains high towards the northern and eastern boundaries of the reserve and control efforts should focus on these areas.

Monitoring and reporting – Year 5

Year 5 assessment on the condition, overall weed cover and individual high-threat weed covers was collected during the October 2022 Nature Advisory site inspection.

As of October 2022, the Grassland Reserve was considered to comprise the following:

- 58% cover of native flora
- 35% cover of introduced flora
- 6% cover of organic matter (leaf litter)
- 18% cover of inter-tussock spaces and
- 15% cover of bare ground

This represents a 17% decrease in cover of native flora since the previous monitoring. It should be noted that this decrease is in the relative proportion of area covered by native species, and does not necessarily correlate with a decline in the amount of native vegetation present. Kangaroo Grass continues to be the dominant grass species in the reserve.

The overall weed cover in the grassland reserve was estimated to be 35%, which is 20% more than the previous monitoring. The main factor driving this increase is likely the extended, mild spring weather with continuous high rainfall, with such conditions particularly conducive to enhanced growth of annual exotic grasses. This likely also coincided with bare ground made available following the ecological burn.

The presence of Spiny Rice-flower, listed as Critically Endangered under both the EPBC Act and the FFG Act, is discussed in greater detail below.

Two Arching Flax-lily (*Dianella longifolia* var*. grandis*) were found within the reserve. This species is listed as Critically Endangered under the FFG Act.

One Fragrant Saltbush (*Rhagodia parabolica*), listed as Vulnerable under the FFG Act, was also detected in the reserve as per previous surveys. This species does not naturally occur within grasslands and has likely arisen from bird distribution from local landscaping planting.

Introduced species were evenly distributed throughout the recently burnt area with Squirrel-tail Fescue, Pimpernel and Wild Oat being the most dominant species. The cover of weeds in the unburnt area was low in the western section and high in the eastern section near the boundary. A high cover of Wild Oats was the dominant weed within this area (Photo 13). In addition, the perimeter of the entire reserve had a high cover of weeds, including species such as Wild Oats, Squirrel-tail Fescue and Giant Mustard. Individuals of the high threat weed, Artichoke Thistle *Cynara cardunculus* subsp. *flavescens*, were also observed scattered within the unburnt area.

Photo 13: Weed cover is high near the eastern boundary

Monitoring and reporting – Year 6

Year 6 assessment on the condition, overall weed cover and individual high-threat weed covers was collected during the October 2023 Nature Advisory site inspection.

As of October 2023, the Grassland Reserve was considered to comprise the following:

- 60% cover of native flora
- 35% cover of introduced flora
- 5% cover of organic matter (leaf litter)
- 15% cover of inter-tussock spaces and
- 10% cover of bare ground

The cover of native and introduced flora has remained relatively stable since the last monitoring survey in October 2022. Native flora cover increased by 2% and weed cover remained at 35%. Organic matter has remained similarly stable decreasing by 1%. Inter-tussock spaces decreased by 3% and bare ground decreased by 5%. Overall, the condition of the grassland reserve has had little to no improvement in response to the controlled burning in year 5 from the annual monitoring assessment in 2022.

Weed cover remains high primarily due to an abundance of annual grasses, which includes Wild Oat and Squirrel-tail Fescue. These species are most likely responding to the extended, mild spring weather with continuous high rainfall and limited post fire weed control of which being particularly conducive to

enhanced growth of annual exotic grasses. The previous report in 2022 also stated that the unburnt areas in the western section had a higher cover of native vegetation and a low cover of weeds compared to the eastern aspect of the site. In-field observations in 2023 suggest that this has been exacerbated over time with little management and mitigation actions to limit the spread of the Wild Oat and other introduced grass species. The effect of annual grass domination limits the ability of grassland species to persist and colonise bare ground.

Introduced species were unevenly distributed throughout the reserve, however, Squirrel-tail Fescue, Wild Oat, Ribwort, Red Brome were consistently the most dominant species. Other weeds that could pose a threat in future include Large Quaking-grass, Lesser Quaking-grass and Great Brome. These species should be managed to reduce their increasing cover so that native species can regenerate in these areas.

The presence of Spiny Rice-flower, listed as Critically Endangered under both the EPBC Act and the FFG Act, is discussed in greater detail below. One individual of Fragrant Saltbush, listed as Vulnerable under the FFG Act, was also detected in the reserve. This species does not naturally occur within grasslands and has likely arisen from bird distribution from local landscaping planting. It should be removed from the reserve as it will displace native species.

Photo 14: Area of high weed cover in the east of the Grassland Reserve

Monitoring and reporting – Year 7

Year 7 assessment on the condition, overall weed cover and individual high-threat weed covers was collected during the September 2024 Nature Advisory site inspection.

As of September 2024, the Grassland Reserve was considered to comprise the following:

- 65% cover of native flora

- 40% cover of introduced flora
- 8% cover of organic matter (leaf litter)
- 6% cover of inter-tussock spaces and
- 2% cover of bare ground

The cover of native and introduced flora has both increased since the last monitoring survey in October 2023. Native and introduced cover both increased by 5%. Organic matter has remained stable with a slight increase by 3%. Inter-tussock spaces decreased by 9% and bare ground decreased by 8%. This is expected with increased time since fire.

Control of high threat weeds has largely been successful as showing in Table 1, with most target species reducing or stabilising over the management period. Emerging infestations have also been managed, for example, an infestation of Artichoke Thistle was observed in the winter audit and promptly managed over the following quarter. Weed cover remains high primarily due to an abundance of annual grasses, which includes Wild Oat and Squirrel-tail Fescue. The 2022 report stated that the burnt areas in the western section had a higher cover of native vegetation and a low cover of weeds compared to the eastern unburnt aspect of the site. In-field observations in 2023 and 2024 suggest that this pattern has continued over time despite management actions taken in accordance with the GRMP.

The Grassland Reserve Management Plan states that biomass management includes burning at least every 2-3 years. The last burn within the reserve occurred on the western half in 2022. As now the eastern half is has high biomass and annual weeds, DFC has indicated a burn will be scheduled at the appropriate time next year (2025) followed by chemical control of emergent weeds which is compliant with this management action.

Introduced species were unevenly distributed throughout the reserve, however, Squirrel-tail Fescue, Wild Oat and Ribwort were consistently the most dominant species. Other weeds that could pose a threat in future include Large Quaking-grass, Lesser Quaking-grass and Great Brome. Extra management of these species is recommended to reduce their increasing cover so that native species can regenerate in these areas. The prescribed burn followed by weed control mentioned above is expected to contribute to the reduction of this threat.

The presence of Spiny Rice-flower, listed as Critically Endangered under both the EPBC Act and the FFG Act, is discussed in greater detail below.

Table 1: Weed cover estimates – Grassland Reserve

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
African Box-thorn	*Lycium ferocissimum*	<1%	<1%	<1%	<1%	0%	0%	0%	Not observed
Artichoke Thistle	*Cynara cardunculus* subsp. *flavescens*	<1%	0%	<1%	<1%	<1%	<1%	<1%	Few recruits observed
Big Heron's-bill	*Erodium botrys*	<1%	0%	<1%	<1%	<1%	0%	<1%	Few individuals observed
Black Medic	*Medicago lupulina*	0%	0%	<1%	<1%	<1%	0%	0%	Not observed
Black Nightshade	*Solanum nigrum*	-	-	-	-	-	-	<1%	Newly recorded species
Burr Medic	*Medicago polymorpha*	0%	0%	0%	<1%	<1%	0%	<1%	Few individuals observed
Charlock	*Sinapis arvensis*	0%	0%	0%	0%	<1%	0%	0%	Not observed
Chilean Needle-grass	*Nassella neesiana*	<1%	0%	0%	<1%	0%	0%	0%	Not observed
Cleavers	*Galium aparine*	0%	0%	<1%	0%	<1%	<1%	<1%	Few individuals observed
Cocksfoot	*Dactylis glomerata*	0%	0%	<1%	<1%	0%	0%	0%	Not observed
Common Centaury	*Centaurium erythraea*	0%	0%	0%	<1%	0%	<1%	<1%	Scattered throughout

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
Common Vetch	*Vicia sativa*	-	-	-	-	-	-	<1%	Newly recorded species
Delicate Hair-grass	*Aira elegantissima*	0%	<1%	1%	1%	<1%	5%	5%	Present throughout the reserve
Drooping Cassinia	*Cassinia sifton*	*	*	<1%	1%	0%	0%	0%	Not observed
Flatweed	*Hypochaeris radicata*	0%	0%	<1%	<1%	0%	<1%	<1%	Few individuals observed
Galenia	*Galenia pubescens* var. *pubescens*	0%	<1%	0%	0%	0%	0%	0%	Not observed
Garden Dandelion	*Taraxacum officinale spp. agg.*	-	-	-	-	-	-	<1%	Newly recorded species
Gazania	*Gazania linearis*	0%	0%	<1%	0%	0%	0%	0%	Not observed
Giant Mustard	*Rapistrum rugosum*	0%	0%	0%	0%	1%	0%	2%	Present primarily within the eastern half of the reserve
Great Brome	*Bromus diandrus*	0%	0%	0%	0%	<1%	3%	0%	Not observed
Hogweed	*Polygonum aviculare*	-	-	-	-	-	-	<1%	Newly recorded species
Horehound	*Marrubium vulgare*	0%	0%	0%	<1%	0%	0%	0%	Not observed

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
Large Quaking-grass	*Briza maxima*	2%	3%	<1%	<1%	<1%	2%	2%	Present throughout the reserve
Lesser Quaking-grass	*Briza minor*	0%	0%	0%	<1%	<1%	2%	2%	Present throughout the reserve
Narrow-leaved Clover	*Trifolium angustifolium*	<1%	<1%	<1%	0%	<1%	<1%	0%	Not observed
Onion Grass	*Romulea rosea*	0%	2%	<1%	<1%	1%	<1%	1%	Present throughout the reserve
Ox-tongue	*Helminthotheca echioides*	<1%	0%	0%	<1%	<1%	0%	<1%	Few individuals observed
Paterson's Curse	*Echium plantagineum*	0%	0%	<1%	0%	0%	0%	0%	Not observed
Perennial Veldt-grass	*Ehrharta calycina*	0%	0%	0%	<1%	0%	0%	0%	Not observed
Pimpernel	*Lysimachia arvensis*	<1%	<1%	1%	1%	1%	<1%	1%	Present primarily along the reserve boundary
Prickly Lettuce	*Lactuca serriola*	0%	0%	<1%	<1%	<1%	<1%	<1%	Present primarily along the reserve boundary
Red Brome	*Bromus rubens*	<1%	0%	<1%	<1%	0%	10%	0%	Not observed

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
Soft Brome	*Bromus hordaceus*	-	-	-	-	-	2%	2%	Scattered throughout.
Ribwort	*Plantago lanceolata*	3%	1%	<1%	1%	1%	5%	3%	Scattered throughout
Rye Grass	*Lolium* sp.	1%	<1%	<1%	0%	0%	<1%	<1%	Scattered throughout
Serrated Tussock	*Nassella trichotoma*	<1%	0%	1%	3%	1%	1%	2%	Scattered throughout. Evidence of weed control.
Small-flowered Mallow	*Malva parviflora*	-	-	-	-	-	-	<1%	Newly recorded species
Soursob	*Oxalis pes-caprae*	-	-	-	-	-	-	<1%	Newly recorded species
South African Orchid	*Disa bracteata*	0%	0%	<1%	0%	0%	0%	0%	Not observed
Sow Thistle	*Sonchus* spp.	0%	0%	1%	<1%	1%	1%	1%	Present primarily along the reserve boundary
Squirrel-tail Fescue	*Vulpia bromoides*	1%	2%	1%	1%	8%	10%	2%	Scattered throughout.
Twiggy Turnip	*Brassica fruticulosa*	<1%	<1%	<1%	<1%	0%	1%	1%	Present primarily along the reserve boundary

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
Wall Fumitory	*Fumaria muralis*	-	-	-	-	-	-	<1%	Newly recorded species
Wall Pellitory	*Parietaria judaica*	-	-	-	-	-	-	<1%	Newly recorded species
Wild Oat	*Avena* sp.	12%	6%	5%	6%	11%	15%	20%	Dominant within the eastern half of the reserve
Wild Sage	*Salvia verbenaca*	-	-	-	-	-	-	<1%	Newly recorded species
Total weed cover in Grassland Reserve		**~ 20%**	**~ 15%**	**~ 10%**	**~ 15%**	**~ 35%**	**~ 35%**	**~ 40%**	

Notes: Grey = Weeds in the Grassland Reserve that are considered to be a priority for weed control. Green = Weeds which have reduced in cover. Orange = New emergent weeds and weeds that have maintained or increased in cover. ***** = Plant not considered a weed at time of assessment.

Spiny Rice-flower

Baseline data

Several Spiny Rice-flower (SRF) plants occur within the Grassland Reserve. As per the ongoing research being undertaken in this area by Debbie Reynolds, some plants are in cages. All SRF plants recorded during an updated targeted survey of the reserve in 2016 were tagged with metal tags/rings and have unique identification numbers.

During the November 2018 monitoring, 29 SRF plants were selected at random and notes were recorded on their status and health. Of the 29 SRF plants assessed, 25 were in good health, while two were reduced to a mass of woody stems, and the remaining two were reduced to dead material above ground.

In addition to the 29 tagged plants assessed, six SRF recruits (small plants without tags) were recorded in the north-west of the reserve. These six plants are expected to be new plants that have recruited following recent biomass control burns in the reserve.

Monitoring and reporting – Year 2

179 Spiny Rice-flowers (SRF) have been recorded within the Grassland Reserve during a detailed targeted survey in 2016. All SRFs were tagged with metal tags/rings and have unique identification numbers.

During the December 2019 monitoring, all SRF plants were attempted to be located and notes were recorded on their status and health. Of the 179 SRFs assessed, 162 were re-recorded in good health, while seven were not found, and the remaining ten, only the tags were found with no plants observed. It can be assumed that these plants are either dormant or dead.

In addition to the tagged plants, 35 new SRF plants were recorded (plants without tags) throughout the reserve. Of these 35 plants, seven of them may be the remaining tagged plants which were not found, while the remaining 28 plants are small and likely to be new recruits that have emerged following management of biomass through ecological burns and weed control.

Monitoring and reporting – Year 3

Of the total of 197 plants recorded in November 2019, 106 (53.8%) were re-recorded during November 2020. The low number of re-detection has been attributed to the high cover of biomass making visual detection of the plants difficult. The majority of the recorded plants were large individuals which grew above the dense cover of grasses. When smaller plants were located, they were typically hidden beneath a dense cover of vegetation. In contrast, last year's survey was conducted after a recent prescribed burn, reducing biomass and enabling plants to be readily detected, particularly smaller individuals which were difficult to detect during the recent survey.

The low number of individuals recorded creates difficulty in accurately assessing the health of the population. In subsequent years, monitoring must be undertaken only after prescribed burns to enable optimal conditions for SRF detection, which in turn will provide a greater insight into the stability of the SRF population within the reserve. It was noted that the individuals which were found were in good health, with no dead plants observed, suggesting that the overall population of SRF is likely stable.

Monitoring and reporting – Year 4

Prior to the survey, DFC informed of an especially high biomass accumulation in the reserve. This was primarily due to excessive growth of introduced grass species in response to unusually long-term, favourable growing conditions for these threats. In order ensure visibility of Spiny Rice-flower

and therefore detection during the survey, it was recommended that slashing to above 15cm be conducted beforehand. This management action was undertaken approximately one week before the survey and resulted in a potentially more accurate assessment of the occurrence of Spiny Rice-flower in the reserve, which were in full flower at the time.

A total of 222 Spiny Rice-flower plants were recorded within the reserve during the June 2021 targeted survey. This was an increase of 25 (13%) and 116 (109%) on that found in 2020 and 2019 respectively, and included numerous young plants indicating that the species was successfully recruiting. Most of the individuals observed were in good health, except for three dead specimens located in the translocation area, however, it is likely that these were identified as failed translocations as indicated in previous surveys, as each had a marker and only rotted main stems remained suggesting that the loss was not recent.

Due to the density of plants, unstable GPS accuracy during the survey (as a result of heavily overcast, rainy conditions), and the problems with identifying individual records evident from previous survey efforts (partly from the loss of tags), no attempt was made to match observations with existing datapoints. The general distribution, however, remained similar but with clear expansion of the population into previously unestablished areas of the reserve. There was also a notable increase in the number of plants recorded in the translocation site, indicating stabilisation of the transplants and successful recruitment of this sub-population. Eighteen plants were found at this location, which is a 100% increase on then number recorded in 2020.

Monitoring and reporting – Year 5

A total of 145 Spiny Rice-flower plants were recorded within the reserve during the August 2022 targeted survey (as mapped in Figure 1), in comparison to the 106 plants recorded in 2020 and 222 in 2021. The age of plants, and therefore recruitment, could not be determined this year because plant emerging post-burn would in some cases have had the appearance of recruits. All individuals observed were in good health.

The fluctuation in numbers through the years is most likely a result of recruitment resulting in higher numbers and failure to detect due to difficulty locating individuals because of high biomass levels.

Due to the density of plants, unstable GPS accuracy during the survey, and the problems with identifying individual records evident from previous survey efforts, no attempt was made to match observations with existing datapoints. The general distribution, however, remained similar but with clear expansion of the population into previously unestablished areas of the reserve.

Monitoring and reporting – Year 6

A total of 233 Spiny Rice-flower were recorded within the reserve during the targeted survey in May 2023. This corresponded to a 60% increase from the previous year (145 individuals). Although fluctuating, population numbers appear to be stable over monitoring years with 222 plants recording in 2021, 106 in 2020 and 197 in 2019.

The observed records included numerous young plants indicating that the species was successfully recruiting. All individuals observed were in good health. The fluctuation in numbers through the years may a response to burn regimes or seasonal climate resulting in individuals remaining dormant some years or mass recruiting after fire. Furthermore, survey efforts may have affected in the eastern half of the reserve due to a high biomass of Kangaroo Grass, limiting species detection.

Prior to the survey, a controlled burn was operated in the western half of the reserve in Autumn 2022. The controlled burn was undertaken in accordance with the approved *Grassland Reserve Management Plan* (BL&A 2018). As a result, biomass levels in the western half of the Grassland

Reserve were low, revealing high exposure of inter-tussock space and therefore, visibility to detect the target species. In contrast, very low bare ground was observed on the eastern side due to a thick cover of Kangaroo Grass. This may explain variation in species found during survey efforts between the west and east section.

Due to the density of plants, unstable GPS accuracy during the survey, and the problems with identifying individual records evident from previous survey efforts (partly from the loss of tags), no attempt was made to match observations with existing datapoints. Additionally, delineation of what constitutes an individual plant can be subjective, and because the plants in the burnt area had only relatively recently begun resprouting, many that were yet to emerge may have been undetectable. The general distribution, however, remained similar but with clear expansion of the population into previously unestablished areas of the reserve.

An increase in the number of plants recorded was observed in the translocation site. Due to the stable numbers of individuals recorded in previous years, these plants have been shown to have successfully established. The lower numbers detected in this area in the previous year is either a result of a failure to detect due to high biomass levels or surface material removed by planned burns.

Monitoring and reporting – Year 7

A total of 89 Spiny Rice-flower (SRF) were recorded within the reserve during the targeted survey in July 2024. This corresponded to a 62% decrease from the previous year (233 individuals). Although fluctuating, population numbers appear to be variable but stable over monitoring years with 145 plants recorded in 2022, 222 plants recording in 2021, 106 in 2020 and 197 in 2019.

The observed fluctuation in SRF records following targeted surveys may be attributed to the species' unique response to fire and other disturbances. After a fire event, the underground rootstock of SRF can regenerate, producing a large number of above-ground shoots. This phenomenon can create the appearance of mass recruitment, where what seems to be multiple individuals are actually shoots originating from the same rootstock. In subsequent years, as the above-ground material grows and merges, several individuals previously recorded merge to a single interconnected plant. This natural growth pattern often results in a reduction in the number of individuals counted during follow-up surveys.

Furthermore, this year the survey effort is likely to have been affected across the reserve due to the high biomass of grasses, limiting species detection.

Although observations are lower, the general distribution of Spiny Rice-flower within the reserve has remained similar to previous monitoring events. Additionally, all individuals recorded appeared to be in good health with no evidence of disease or herbivory.

Management actions have remained compliant with the GRMP. A burn is planned for Autumn next year in 2025 to control weeds, reduce biomass and may increase detectability for the following targeted survey.

Biomass

Baseline data

Biomass levels in the Grassland Reserve differed based on recent burning in particular sections of the reserve. In areas of the reserve that had been recently burned, biomass was low, with large inter-tussock spaces between the dominant Kangaroo Grass. In the areas not subject to recent burning, biomass levels were high, with limited space between tussocks.

Monitoring and reporting – Year 2

Biomass levels in the Grassland Reserve differed based on recent burning in particular sections of the reserve. In the eastern half of the reserve that had been recently burnt, biomass was low, with large inter-tussock spaces between the dominant Kangaroo Grass. In areas where grass had been slashed, biomass was high. In the areas not subject to recent burning or slashing, biomass levels were moderate, with more limited space between tussocks. An overall assessment of the organic litter cover was estimated at 20%.

Monitoring and reporting – Year 3

Biomass levels in the Grassland Reserve differed across the site. In areas that had been burnt in the previous year, biomass was moderate, however in areas which had not been burnt, biomass was high. The majority of these burnt areas had moderate inter-tussock spaces between the dominant Kangaroo Grass, enabling the growth of forbs such as Spiny Rice-flower, Blue Grass-lily and Yellow Rush-lily. In the areas not subject to recent burning, biomass levels were high, with more limited space between tussocks. An overall estimate of leaf litter was 10% cover, with bare ground estimated at approximately 7% overall, and absent in some areas.

Monitoring and reporting – Year 4

Biomass levels in the Grassland Reserve were moderate and within the normal range expected of Plains Grassland vegetation. On average, biomass was higher in parts of the reserve which had not been burnt in 2019. Slashing undertaken in June 2021 had resulted in a moderate cover of leaf litter (15%) across the reserve. This, combined with the very low cover of bare ground (1%) may limit forb recruitment in the short term until litter decomposition and/or a controlled burn occurs. This slashing was undertaken at the recommendation of Nature Advisory in lieu of a controlled burn in autumn 2021 to improve accuracy of Spiny Rice-flower population data. Controlled burns must therefore be undertaken in autumn 2022, particularly in the south-eastern corner of the reserve which was not burnt in 2019 and along the eastern boundary where weed cover is high.

Monitoring and reporting – Year 5

Biomass levels in the Grassland Reserve varied based on time elapsed since areas was burnt. On average, biomass was low within the recently burnt area (Photo 15), high in the west of the unburnt area (Photo 16) and moderate in the east of the unburnt area. The unburnt area with a high cover of biomass may limit forb recruitment.

The recent ecological burn in the western half of the site has reduced the biomass and increased inter-tussock spaces, potentially enabling the recruitment of a greater diversity of native flora species in the reserve. However, as well as promoting the regeneration of native species, it has also led to the germination establishment of introduced species: primarily annual grasses. An ecological burn should therefore be followed up with prescribed weed control for any new weeds.

Photo 15: Grass biomass in the burnt area

Photo 16: Grassland in the unburnt area where biomass is very high, predominantly due to an overabundance of Kangaroo Grass.

Monitoring and reporting – Year 6

Kangaroo Grass continues to be the dominant grass species in the reserve. Other native grasses observed include Long-hair Plume-grass, Rigid Panic and Tussock Grass. *A* diverse range of indigenous species occurred in inter-tussock spaces including Spiny Rice-flower, Smooth Rice-flower, Black-anther Flax-lily, Sheep's Burr, Grassland Wood-sorrel, Cottony Fireweed, Slender Speedwell, Common Woodruff, Varied Raspwort, and Kidney Weed.

Biomass levels had increased in the burnt area compared to 2022 levels as demonstrated by the decrease in both bare ground and inter-tussock space compared with the 2022 survey. Biomass was higher in the east in areas of high weed cover (Photo 14) and lower in the west were weed cover was lower (Photo 17).

Photo 17: Typical biomass level in the west of the grassland reserve as of October 2023

Monitoring and reporting – Year 7

Biomass levels in the Grassland Reserve during the current monitoring was found to be very high (Photo 18). Areas of both native and introduced vegetation within the Grassland Reserve had increased biomass levels which is expected with increased time since fire.

The current EMP/Grassland Reserve Management Plan currently states that ecological burning should be undertaken at least every 2-3 years at the prescribed time (autumn). As such, an ecological burn will be undertaken in accordance with the EMP to reduce biomass across the Grassland Reserve next year (2025). An ecological burn is to be followed by increased weed management to prevent weed recruitment after fire.

Kangaroo Grass continues to be the dominant grass species in the reserve. Other native grasses observed include Long-hair Plume-grass, Rigid Panic and Tussock Grass. *A* diverse range of indigenous species occurred in inter-tussock spaces including Spiny Rice-flower, Smooth Rice-flower, Black-anther Flax-lily, Sheep's Burr, Grassland Wood-sorrel, Cottony Fireweed, Slender Speedwell, Common Woodruff, Varied Raspwort, and Kidney Weed.

Photo 18: Typical biomass level in the west of the grassland reserve as of September 2024

Evidence of pest animals

Baseline data

No evidence of pest animals was recorded in the grassland reserve.

Monitoring and reporting – Year 2

No evidence of pest animals was recorded in the grassland reserve. As such, no pest animal control is currently required.

Monitoring and reporting – Year 3

No evidence of pest animals was recorded in the grassland reserve. As such, no pest animal control is currently required.

Monitoring and reporting – Year 4

During the site assessment, one inactive rabbit burrow was found within the reserve. No rabbit scats were detected within the reserve. Evidence of warren ripping and the presence of rabbit scats in land adjacent to the eastern boundary of the reserve suggest that rabbits have been frequenting the locality. Rabbit proof fencing has been fixed to the bottom of the gate in the southeastern corner of the reserve to prevent rabbits from entering the site.

Monitoring and reporting – Year 5

During the site assessment, rabbit activity was detected within the reserve (Photo 19). With the integrity of the fencing intact, it is likely that rabbit-proofing measures on the gate require further review and additional mitigation measures may be required.

Photo 19: Rabbit activity within the reserve

Monitoring and reporting – Year 6

While there was evidence of substantial European Rabbit activity adjacent to the reserve no rabbit activity was detected within the reserve. Diggings were found within the Grassland Reserve; these were potentially from bush rats or similar native fauna as no rabbit scats were found, however, the high population of rabbits outside the reserve greatly increases the likelihood of access and destruction within protected areas. In November fencing around the grassland reserve was upgraded to permanent, post and wire rabbit proof fencing as part of stage 33, however the reserve should continue to be monitored for rabbit activity.

Monitoring and reporting – Year 7

While there was evidence of substantial European Rabbit activity adjacent to the reserve, no rabbit activity was detected within the reserve. No rabbit scats were found within the Grassland Reserve. The permanent post and wire rabbit proof fencing surrounding the grassland reserve installed during the previous year has so far been effective at excluding rabbits.

Figure 1: Spiny Rice-flower Monitoring 2024 & threatened species and weeds within the Grassland Reserve

Construction and 10-year management actions

Integrity of fencing

At the time of the previous monitoring, fencing integrity around the reserve was sound and 'No-Go Zone' signage was in place at 30 metre intervals.

The Year 3 annual monitoring report recommended that the gate in the south-eastern corner be made rabbit-proof and, at the time of the October 2021 (Year 4) assessment, appropriate modifications to this gate have been made.

At the time of the October 2022 (Year 5) assessment, the integrity of the fencing, gate and signage were checked around the entire reserve and were found to be in good condition. However, the evidence of recent rabbit activity within the reserve indicates that access is still being achieved somewhere. This is most likely at the gate, suggesting the current rabbit-proofing measure requires assessment and appropriate adaptive action taken to mitigate potential impacts.

During the Year 6 monitoring (October 2023) the integrity of the fencing, gate, and signage were checked around the entire reserve and were found to be in good condition. Observed slack in fencing adjacent to the reserve (Photo 20) has since been repaired as part of the Stage 33 development works in November. Previous years have mentioned the presence of rabbit activity within the reserve; however, these were not observed in the 2023 assessments, suggesting that appropriate adaptive action has been taken to mitigate potential impacts.

Photo 20: Permanent fencing upgrade around grassland reserve as part of stage 33.

As of October 2023, there has been an increased occurrence of litter within the reserve. The fence along the western boundary of the reserve is limiting blow in from surrounding areas and work sites, however many fragments are still scattered throughout the reserve. One concern in particular is the inappropriate dumping of mulch within the Grassland Reserve. Dumping of material from outside the reserve increases the risk of introduction of pathogens and additional weed species, which could be detrimental to the protected native vegetation within the reserve.

Since the assessment was conducted it has been reported that regular monitoring of litter has been undertaken and disposed as required.

During the Year 7 monitoring (September 2024), the integrity of the fencing, gate and signage were checked around the entire reserve and were found to be in excellent condition. Since the previous monitoring event in October 2023, the fence has been upgraded to a permanent post and wire rabbit proof fence and the gate has been moved to the northern boundary (along Havana Circuit) of the grassland reserve. Occurrence of litter within the grassland reserve has decreased since the previous assessment likely due to the upkeep of the fencing, reduction of construction in areas directly adjacent to the grassland reserve and regular monitoring and disposal of litter.

Sediment and surface water control

At the time of the October 2021 (Year 4) assessment, sediment fencing in Stage 21 upslope of the Grassland Reserve was appropriately installed. The October 2022 (Year 5) assessment did not add further comment.

As of October 2023, sediment fencing was only partially present around the reserve and was not present adjacent all areas of earthworks (Photo 21).

Photo 21: No sediment fencing adjacent areas of construction and earthworks.

As of September 2024, no sediment fencing was present around the areas adjacent to the grassland reserve which is primarily due to the completion of earthworks and no commencement of construction. Once future earthworks and construction are undertaken, the land to the west of the grassland reserve along Melrose Close and Star Mews (Stage C2 and D), sediment fencing will be reinstated along the western boundary of the grassland reserve prior to the commencement of said works.

Photo 22: Western boundary of the grassland reserve.

Weed control

Weed control actions in 2024 have been undertaken in the Grassland Reserve by Australian Ecosystems, the results of which are summarised here and presented in the reports in Appendix 6.

In particular, the three most prolific high-threat weeds identified in the GRMP have been drastically reduced in cover from the data collected in January 2017, as described below and detailed in Table 1.

- African Boxthorn:
    - January 2017 (GRMP) – a number of large individuals near the eastern boundary
    - November 2018 – no mature individuals observed
    - December 2019 – no mature individuals observed, small emergent plants recorded
    - November 2020 – no large individuals observed, small emergent plants recorded
    - October 2021 – no large individuals observed, medium-sized emergent plants recorded
    - October 2022 – no living individuals observed, one dead individual detected
    - October 2023 – no individuals observed
    - September 2024 – no individuals observed
- Artichoke Thistle:
    - January 2017 (GRMP) – an infestation recorded in northern section
    - November 2018 – less than 1% cover with only a small number of recruits
    - December 2019 – no individuals observed
    - November 2020 – immature plants observed in disturbed ground

- October 2021 – small plants observed, most of which had been recently sprayed
- October 2022 – A number of plants observed in the unburnt section, less than 1% cover
- October 2023 – A number of individuals present along eastern boundary, including new recruits
- September 2024 – less than 1% cover with few recruits observed

- Serrated Tussock:
  - January 2017 (GRMP) – large infestations and spreading
  - November 2018 – less than 1% cover with only a small number of individuals
  - December 2019 – no individuals observed
  - November 2020 – many immature plants observed along the southern edge (1% cover)
  - October 2021 - many plants observed near eastern and northern boundary (3% cover)
  - October 2022 – scattered throughout, with more in the unburnt area (2% cover) than burnt area (1% cover)
  - October 2023 – scattered throughout (1% cover)
  - September 2024 – Scattered throughout (2% cover) , with evidence of weed control

Weed outbreaks previously recorded adjacent to the grassland reserve were controlled as follows:

- Fennel:
  - January 2017 (GRMP) – a large infestation of Fennel occurred immediately to the east of the reserve boundary, on the eastern side of the existing dirt track
  - November 2018 – infestation eradicated
  - December 2019 – evidence of individuals recently sprayed
  - November 2020 – no individuals observed
  - October 2021 – no individuals observed
  - October 2022 – not documented; assumed no individuals observed
  - October 2023 – no individuals observed
  - September 2024 – no individuals observed

Revegetation

Revegetation works are not required to occur in the Grassland Reserve.

Landscape planting

Adjacent landscape plantings have commenced to the east of the Grassland Reserve since the previous monitoring event in 2023.

3.9. Conditions 18, 19, 21 & 26

Conditions 18, 19, 21 & 26 read as follows:

18. The **approval holder** must ensure that **offset attributes** and **shapefiles** for all offset sites are provided to the **Department** at the timing of submitting their corresponding **offset management plan**.

19. Within 30 days after the commencement of **construction activities**, the **approval holder** must advise the **Minister** in writing of the actual date of commencement of **construction activities**.

21. Within three months of every 12-month anniversary of the commencement of **construction activities**, the **approval holder** must publish a report on its website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the **Department** at the same time as the compliance report is published. Compliance reports must remain on the approval holder's website for 12 months from the date of publishing. The requirement to submit compliance reports will cease following written agreement with the **Minister**.

26. Unless otherwise agreed to in writing by the **Minister**, the **approval holder** must publish all management plans referred to in these conditions of approval on the approval holder's website. Each management plan must be published on the website within 1 month of being approved. The **approval holder** must notify the **Department** within 5 days of publishing the plan on the website. The management plans must remain on the website for the period this approval has effect.

Condition 18 compliance

Shapefiles and offset attributes of the following have been provided to the Department corresponding with the submission of each offset plan:

- Karabeal offset site – corresponding to the Project Area B Offset Management Plan (OMP) and the Project Area A1 OMP;
- Campbelltown offset site – corresponding to the Project Area B OMP; and
- Cressy offset site – corresponding to the Project Areas C1, C2 & D OMP.

Condition 19 compliance

The proponent advised the Minister in writing within 30 days of the commencement of construction, commencing 9 October 2017. Evidence of this is provided in Appendix 5.

Condition 21 compliance

As required in the written advice from the Department (Appendix 5) this Compliance Report is to be published on the approval holder's website before 9 January 2025.

Condition 26 compliance

All management plans relating to construction activities that have commenced are published on the approval holder's website at https://www.denniscorp.com.au/about-dennis-family/initiatives-and-awards/sustainability.

End of Year 7 Compliance Report

Appendix 1: Approval 2011/6063 – Consolidated Variation Notice dated 9/11/2018

Australian Government
Department of the Environment and Energy

VARIATION OF CONDITIONS ATTACHED TO APPROVAL
Burnside Development – The Point, Victoria (EPBC 2011/6063)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

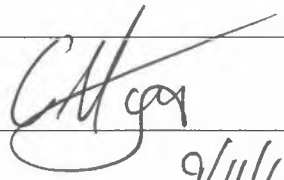
Approved action

Person to whom the approval is granted	DFC (Project Management) Pty Ltd ABN: 83 161 448 139
Approved action	To develop Modeina Estate Precinct 2, a residential housing development in the Melbourne suburb of Burnside, Victoria [see EPBC Act referral 2011/6063 and variation to proposal dated 26 March 2015].

Variation

Variation of conditions attached to approval	The variations are: Revoke conditions 9, 10, 11 and 12. Delete conditions 13, 14, 15, 16,17 and Appendix A attached to the approval dated 20 July 2015 and substitute with the conditions specified below. Add Appendix B, condition 14A and definitions for 'Grassland Reserve' and 'Grassland Reserve Management Plan' as specified below.
Date of effect	This variation has effect on the date the instrument is signed

Person authorised to make decision

Name and position	Greg Manning Assistant Secretary Assessments (WA, SA, NT) & Post Approvals Branch
Signature	
Date of decision	9/11/18

Date of decision	Conditions attached to approval
Original approval dated 20/07/2015	To minimise impacts of the action on listed threatened species and ecological communities: 1. The **approval holder** must ensure that **construction activities** do not occur outside of the **project area** as illustrated at Appendix A.
Original approval dated 20/07/2015	2. The **approval holder** must implement sediment and erosion control measures consistent with **best practice pollution, sediment and erosion control guideline(s)** for the duration of **construction activities**.
Original approval dated 20/07/2015	3. The **approval holder** must prepare a site specific **Growling Grass Frog** Management Plan; which is required to be consistent with **best practice Growling Grass Frog management guidelines**. The plan must outline how significant impacts to **Growling Grass Frogs** will be avoided or mitigated and as a minimum must include: a. Management measures demonstrating how the **Growling Grass Frog buffer zone** will be demarcated to minimise vehicle access; b. Details of revegetation, **environmental weed** control measures and other management activities within the **Growling Grass Frog buffer zone**; c. Details of any **construction activities** and management measures to avoid **significant impacts** during construction; and d. Measures to ensure any on-site personnel will be informed of their obligations under the **Growling Grass Frog** Management Plan.
Variation dated 04/08/2017	4. **Construction activities** must not commence in **Project Areas A1, A2, C1, C2** and **D** until the site specific **Growing Grass Frog** Management Plan has been approved by the **Minister** in writing. Construction in **Project Area B** can proceed prior to approval of the site-specific **Growing Grass Frog** Management Plan must be implemented.
Variation dated 04/08/2017	*Project Area A1 and A2* 5. The **approval holder** must ensure that the action does not impact more than eleven (11) individual **Spiny Rice-flower** plants within the combined area of **Project Areas A1** and **A2.**
Variation dated 04/08/2017	6. The approval holder must not commence **construction activities** in **Project Area A1** until the following are met: a. A direct offset, consistent with the **EPBC Act Environmental Offsets Policy**, has been secured to compensate for the impacts to 6.053 hectares of **NTGVVP** and 6.053 hectares of **Striped Legless Lizard habitat**; i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and ii. The **Department** has been provided with written confirmation and supporting evidence demonstrating that the offset has been secured.
Variation dated 04/08/2017	6A. The approval holder must not commence **construction activities** in **Project Area A2** until either 6A(a) or 6A(b) are met: a. A direct offset, consistent with the **EPBC Act Environmental Offsets Policy**, has been secured to compensate for the impacts to

Date of decision	Conditions attached to approval
	4.277 hectares of **NTGVVP** and 4.277 hectares of **Striped Legless Lizard habitat**; i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and ii. The **Department** has been provided with written confirmation and supporting evidence demonstrating that the offset has been secured; OR b. In a manner consistent with the **Melbourne Urban Development Policy**, secure an offset for impacts to 4.277 hectares of **NTGVVP** and 4.277 hectares of **Striped Legless Lizard habitat** associated with **Project Area A2**. Documentary evidence that the offset has been secured must be provided to the **Department** with 14 days of being secured.
Variation dated 04/08/2017	*Project Area B* 7. The **approval holder** must not commence **construction activities** in **Project Area B** until either 7(a) or 7(b) are met: a. A direct offset containing a minimum of 100 **Spiny Rice-flower** plants has been secured; i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and ii. The **Department** has been provided with written confirmation and supporting evidence that demonstrate the offset has been secured; OR b. The **Minister** agrees in writing that condition 15 (a–e) has been satisfied.
Variation dated 04/08/2017	8. The **approval holder** must not commence **construction activities** in **Project Area B** until the following are met: a. A direct offset, consistent with the **EPBC Act Environmental Offsets Policy**, has been secured to compensate for the impacts to 1.824 hectares of **NTGVVP** and 1.824 hectares of **Striped Legless Lizard habitat**; i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and ii. The **Department** has been provided with written confirmation and supporting evidence that demonstrate the offset has been secured.
As varied on the date this instrument was signed	9. Revoked
As varied on the date this instrument was signed	10. Revoked

Date of decision	Conditions attached to approval
As varied on the date this instrument was signed	11. Revoked
As varied on the date this instrument was signed	12. Revoked
As varied on the date this instrument was signed	*Project Area C1, C2 and D* 13. The **approval holder** must not commence **construction activities** in **Project Area C2** until the following are met. a. A direct offset, consistent with the **EPBC Act Environmental Offsets Policy**, has been secured to compensate for the impacts to 3.283 hectares of **NTGVVP** and 3.283 hectares of **Striped Legless Lizard habitat**; i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and ii. The **Department** has been provided with written confirmation and supporting evidence that demonstrate the offset has been secured. b. A direct offset is secured containing a minimum of 60 **Spiny Rice-flower** plants. An **offset management plan** must be prepared and submitted to the **Minister** for approval. The approved **offset management plan** must then be implemented by the **approval holder**.
As varied on the date this instrument was signed	14. The **approval holder** must not undertake construction activities within the **Grassland Reserve**, to be located in **Project Area D** as per Appendix B.
As added on the date this instrument was signed	14A. The **approval holder** must, in consultation with a **suitably qualified ecologist**, develop a **Grassland Reserve Management Plan** for the protection and management of **protected matters** within the **Grassland Reserve**. The **Grassland Reserve Management Plan** must be submitted to the **Minister** for approval 6 months prior to the commencement of **construction activities** within 100 metres of **Project Area D**. The approved **Grassland Reserve Management Plan** must be implemented. The **Grassland Reserve Management Plan** must: a. include existing baseline data and other supporting evidence that documents the baseline conditions of **protected matters** within the **Grassland Reserve**; b. outline specific management actions to protect and maintain **protected matters** within the **Grassland Reserve** ; and c. outline annual monitoring and reporting on the condition of **protected matters** within the **Grassland Reserve** for a period of 10 years from commencement of the Plan.
As varied on the date this instrument was signed	15. The **approval holder** must not commence **construction activities** within **Project Area D and Project Area C1** until the **Minister** agrees in writing that the following are met: a. A **suitably qualified ecologist** has confirmed in writing that each transplant site is demonstrating recruitment by propagated plants;

Date of decision	Conditions attached to approval
	b. A **suitably qualified ecologist** has prepared a report to peer review the results of the **Spiny Rice-flower Propagation Project**; c. The **approval holder** has submitted the peer review report to the **Minister** for review; and d. The **Minister** has reviewed the report and determined it demonstrates the **Spiny Rice-flower Propagation Project** has resulted in a **viable and self sustaining Spiny Rice-flower** population at each transplant recipient site, and supports the **target number** of **established Spiny Rice-flower** plants across the sites; Note: Condition 15e was revoked on the date this instrument was signed.
As varied on the date this instrument was signed	16. The **approval holder** must not commence **construction activities** in **Project Area D** until the following are met. a. A direct offset, consistent with the **EPBC Act Environmental Offsets Policy**, has been secured to compensate for the impacts to 3.963 hectares of **NTGVVP** and 3.963 hectares of Striped Legless Lizard habitat; i. An **offset management plan** has been prepared and submitted to the **Minister** for approval, and the **approval holder** has received written confirmation that the **offset management plan** has been approved. The approved **offset management plan** must be implemented by the **approval holder**; and ii. The **Department** has been provided with written confirmation and supporting evidence that demonstrate the offset has been secured. b. Condition 15 has been satisfied.
As varied on the date this instrument was signed	17. If condition 15 (a–d) cannot be met in full: a. the **approval holder** must not commence **construction activities** within **Project Area D** and **Project Area C1**; until the following are met: i. Adequately compensate for impacts to **Spiny Rice-flower** plants located within **Project Area D** and **Project Area C1** with an alternative offset. This offset strategy must be prepared following consultation with the **Department**; and ii. The **Minister** has provided written notification to the **approval holder** that condition 15 no longer applies Note: Condition 17b was revoked on the date this instrument was signed.
Original approval dated 20/07/2015	*Administrative Conditions* 18. The **approval holder** must ensure that **offset attributes** and **shapefiles** for all offset sites are provided to the **Department** at the timing of submitting their corresponding **offset management plan**.
Original approval dated 20/07/2015	19. Within 30 days after the commencement of **construction activities**, the **approval holder** must advise the **Minister** in writing of the actual date of commencement of **construction activities**.
Original approval	20. The **approval holder** must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval,

Date of decision	Conditions attached to approval	
dated 20/07/2015		including measures taken to implement the management plans, and make them available upon request to the **Department**. Such records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the **Department's** website. The results of audits may also be publicised through the general media.
Original approval dated 20/07/2015	21.	Within three months of every 12 month anniversary of the commencement of **construction activities**, the **approval holder** must publish a report on its website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the **Department** at the same time as the compliance report is published. Compliance reports must remain on the approval holder's website for 12 months from the date of publishing. The requirement to submit compliance reports will cease following written agreement with the **Minister**.
Original approval dated 20/07/2015	22.	Upon the direction of the **Minister**, the **approval holder** must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the **Minister**. The independent auditor must be approved by the **Minister** prior to the commencement of the audit. Audit criteria must be agreed to by the **Minister** and the audit report must address the criteria to the satisfaction of the **Minister**.
Variation dated 04/08/2017	23.	If the **approval holder** wishes to carry out any activity otherwise than in accordance with management plans as specified in the conditions, the **approval holder** must submit to the **Department** for the **Minister's** written approval a revised version of that management plan. The varied activity shall not commence until the **Minister** has approved the revised management plan in writing. The **Minister** will not approve a revised management plan unless the revised management plan will result in an equivalent or improved environmental outcome over time. If the **Minister** approves the revised management plan, then it must be implemented in place of the management plan originally approved.
Original approval dated 20/07/2015	24.	If the **Minister** believes that it is necessary or convenient for the better protection of listed threatened species and ecological communities to do so, the **Minister** may request that the **approval holder** make specified revisions to the management plans specified in the conditions and submit the revised management plan for the **Minister's** written approval. The **approval holder** must comply with any such request. The revised approved management plans must be implemented. Unless the **Minister** has approved the revised management plans then the **approval holder** must continue to implement the management plan originally approved, as specified in the conditions.
Original approval dated 20/07/2015	25.	If, at any time after 5 years from the date of this approval, the **approval holder** has not **substantially commenced** the action, then the **approval holder** must not **substantially commence** the action without the written agreement of the **Minister**.
Original approval	26.	Unless otherwise agreed to in writing by the **Minister**, the **approval holder** must publish all management plans referred to in these conditions of approval on the approval holder's website. Each management plan

Date of decision	Conditions attached to approval
dated 20/07/2015	must be published on the website within 1 month of being approved. The **approval holder** must notify the **Department** within 5 days of publishing the plan on the website. The management plans must remain on the website for the period this approval has effect.

Date of decision	Definitions attached to approval
Original approval dated 20/07/2015	**Approval holder** - the person undertaking the action who holds the project approval.
Original approval dated 20/07/2015	**Best practice Growling Grass Frog management guidelines** - these include the most recent versions of *Guidelines for managing the endangered Growling Grass Frog in urbanising landscapes (Victorian Department of Sustainability and Environment, 2010)*, *Procedure statement for translocation of threatened native vertebrate fauna in Victoria (Victorian Department of Sustainability and Environment, 2013)*, *Bellarine Peninsula Ramsar Site Strategic Management Plan (DEPI, 2003)*, *Urban Stormwater Best Practice Environmental Management Guidelines (CSIRO, 1999)*, Constructed Wetlands Guidelines (Victorian Government and Melbourne Water Corporation, 2010) and *Water Sensitive Urban Design Guidelines (Victorian Government and Melbourne Water Corporation, 2013)*.
Original approval dated 20/07/2015	**Best practice pollution, sediment and erosion control guidelines** - the most recent version of relevant guidelines on pollution, sediment and erosion control, such as the *Construction Techniques for Sediment Pollution Control (EPA Publication No. 275, 1991)*; and *Environmental Guidelines for Major Construction Sites (EPA Publication No. 480, 1996).*
Original approval dated 20/07/2015	**Construction activities** - includes but is not limited to clearing of vegetation, the erection of any onsite temporary structures and the use of heavy duty equipment for the purpose of breaking the ground for infrastructure or earthworks. This does not include maintenance or use of existing access tracks, erection or construction of **security fencing** and signage, or investigative activities such as accessing the site for surveying or planning purposes.
Original approval dated 20/07/2015	**Department** - the Australian Government Department administering the ***EPBC Act***.
Original approval dated 20/07/2015	**Environmental Management Plan** - the document developed by a **suitably qualified ecologist** to the satisfaction of the **Department**, detailing the long-term management of **protected maters** within **Project Area D** and **Project Area C1**.
Original approval dated 20/07/2015	**Environmental weeds** - invasive native and non-native plants including: i listed Victorian Declared Noxious Weeds, including Artichoke Thistle *(Cynara cardunculus)*, Fennel (*Foeniculum vulgare)* and Spiny Rush(*Juncus acutus)*; ii. listed Victorian Invasive Plants, including Mirror Bush (*Coprosma repens)*, Pampas grass (*Cortaderia sp.)*, Italian buckthorn (*Rhamnus alaternus*) and Spartina/Cord Grass (*Spartina anglica* and *Spartina* x *townsendii)*; and

Date of decision	Definitions attached to approval
	iii. listed Weeds of National Significance, including Madeira vine (*Anredera cordifolia*), Asparagus weeds / Bridal Creeper (*Asparagus aethiopicus, A. africanus, A. asparagoides, A. asparagoides Western Cape form, A. declinatus, A. plumosus, A. Scandens* [excluding *A. Officinalis and A. Racemosus*]), Brooms including Flax-leaf Broom (*Cytisus scoparius, Genista monspessulana* and *G. linifolia,*), African boxthorn (*Lycium ferocissimum*), Chilean needle grass (*Nassella neesiana*), Serrated tussock (*Nassella trichotoma*), Blackberry (*Rubus fruticosus agg.),* Silverleaf nightshade (*Solanum elaeagnifolium*), Willows (*Salix spp.* [excluding *S. Babylonica*, *S. Calodendron* and *S. reichardtii*]), Gorse (*Ulex europaeus*).
Original approval dated 20/07/2015	**EPBC Act** - the *Environment Protection and Biodiversity Conservation Act 1999* (Cth)
Original approval dated 20/07/2015	**EPBC Act Environmental Offsets Policy** - the Australian Government policy document titled: *EPBC Act environmental offsets policy, Department of the Environment, 2013 Policy guiding the use of offsets under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).*
Original approval dated 20/07/2015	**Established Spiny Rice-flower** – A Spiny-Rice flower plant that meets the following: i. was introduced into the area through the **Spiny Rice-flower Propagation Project**; and ii. is at least 2 years old.
As added on the date this instrument was signed	**Grassland Reserve** – the area of **NTGVVP** within **Project Area D** set aside as a permanent reserve, identified in Appendix B.
As added on the date this instrument was signed	**Grassland Reserve Management Plan** - specific management plan for the Grassland Reserve.
Original approval dated 20/07/2015	**Growling Grass Frog** – the frog species *Litoria raniformis,* protected under the **EPBC Act.**
Original approval dated 20/07/2015	**Growling Grass Frog buffer zone** - the area identified as Growling Grass Frog Buffer in Appendix A.
Original approval dated 20/07/2015	**Melbourne Urban Development Policy** - the document *Policy Statement for Melbourne urban development proposals needing consideration under Parts 7, 8 and 9 of the EPBC Act*, Department of the Environment, February 2014, online: http://www.environment.gov.au/system/files/resources/dc154fd1-d526-4e7d-9a8e-bd17f8ceac15/files/melbourne-urban-development_1.pdf
Original approval dated 20/07/2015	**Minister** - the Australian Government Minister administering the *EPBC Act* and includes a delegate of the Minister.
Original approval dated 20/07/2015	**NTGVVP** – is the threatened ecological community *Natural Temperate Grassland of the Victorian Volcanic Plain,* protected under the **EPBC Act.**

Date of decision	Definitions attached to approval
Original approval dated 20/07/2015	**Offset attributes –** an '.xls' file capturing relevant attributes of the offset site, including the EPBC reference ID number, the physical address of the offset site, coordinates of the boundary points in decimal degrees, the EPBC Act protected matters that the offset compensates for, any additional EPBC Act protected matters that are benefiting from the offset, and the size of the offset in hectares.
Original approval dated 20/07/2015	**Offset management plan** - an offset management plan must: • include baseline information for the offset site(s); • include details of how the offset(s) are consistent with the **EPBC Act Environmental Offsets Policy**; • demonstrates how the offset site(s) will be protected for long term conservation purposes; • include details of short and long term management measures, include timeframes for management measures for the site(s); • and identify the short and long term arrangements and responsibilities of parties in the management of the site(s).
Variation dated 04/08/2017	**Project Area A1** - the area identified as Project Area A1 in Appendix A.
Variation dated 04/08/2017	**Project Area A2** - the area identified as Project Area A2 in Appendix A.
Original approval dated 20/07/2015	**Project Area B –** the area identified as Project Area B in Appendix A.
Original approval dated 20/07/2015	**Project Area C1 –** the area identified as Project Area C1 in Appendix A.
Original approval dated 20/07/2015	**Project Area C2** – the area identified as Project Area C2 in Appendix A.
Original approval dated 20/07/2015	**Project Area D** – the area identified as Project Area D in Appendix A.
Original approval dated 20/07/2015	**Project area** – the area contained within the Proposed Residential Stage Boundaries, identified by a dashed red line in Appendix A.
Original approval dated 20/07/2015	**Protected matters** – **NTGVVP, Spiny Rice-flower, Striped Legless Lizard** and **Growling Grass Frog.**
Original approval dated 20/07/2015	**Security fencing** - a fence with locked gated access that prevents access by the public, while allowing dispersal of **Striped Legless Lizard.**
Original approval dated 20/07/2015	**Shapefile -** an ESRI Shapefile containing '.shp', '.shx' and '.dbf' files and other files capturing attributes including at least the EPBC reference ID number and EPBC protected matters present at the relevant site. Attributes should also be captured in '.xls' format.
Original approval dated 20/07/2015	**Significant impact -** as described in Significant Impact Guidelines 1.1 – Matter of National Environmental Significance (Department of the Environment, 2013) and any specific significant impact guidelines.
Original approval dated 20/07/2015	**Spiny Rice-flower -** the plant species *Pimelea spinescens subsp. spinescens*, protected under the **EPBC Act**.

Date of decision	Definitions attached to approval
Original approval dated 20/07/2015	**Spiny Rice-flower Propogation Project** - refers to the Spiny Rice-flower Propagation Project prepared by BL&A 2013.
Original approval dated 20/07/2015	**Striped Legless Lizard** - the lizard species *Delma impar*, protected under the **EPBC Act**
Original approval dated 20/07/2015	**Striped Legless Lizard habitat** - is any grassland (exotic and native) that may be utilised by the **Striped Legless Lizard** for breeding, sheltering, foraging or ranging.
Original approval dated 20/07/2015	**Substantially commenced** - means the installation of any permanent infrastructure associated with the action.
Original approval dated 20/07/2015	**Suitably qualified ecologist** - a person with relevant tertiary qualifications in ecology, botany or environmental science and at least 5 years of experience in surveying and field work relevant to the relevant **Protected Matter**, or any other person agreed to in writing by the **Department.**
Original approval dated 20/07/2015	**Target number** - refers to the target total of 800 individual plants as set out in the **Spiny Rice Flower Propagation Project**. In the event the person taking the action secures direct offsets for **Spiny Rice-flower** to compensate for impacts in the **project area**, the target number will be reduced on a 1:1 basis following written confirmation from the **Minister.**
Original approval dated 20/07/2015	**Trust for Nature** - meaning the organisation Trust for Nature (http://www.trustfornature.org.au/).
Original approval dated 20/07/2015	**Viable and self-sustaining** - means that the specified **Spiny Rice-flower** population demonstrates: i. Numbers of annually flowering male and female plants in proportions similar to that in natural populations; ii. That new germinants are recruiting in numbers similar to that in natural populations; and iii. A growing population where recruitment exceeds mortality to a similar extent as other managed populations

Date of decision	**Appendix A**
As varied on the date this instrument was signed	Modeina Estate Stage Development Plan, showing boundaries of **Project Areas A1, A2, B, C1, C**2 and **D**

Date of decision	**Appendix B**
As added on the date this instrument was signed	Grassland Reserve, located within **Project Area D**

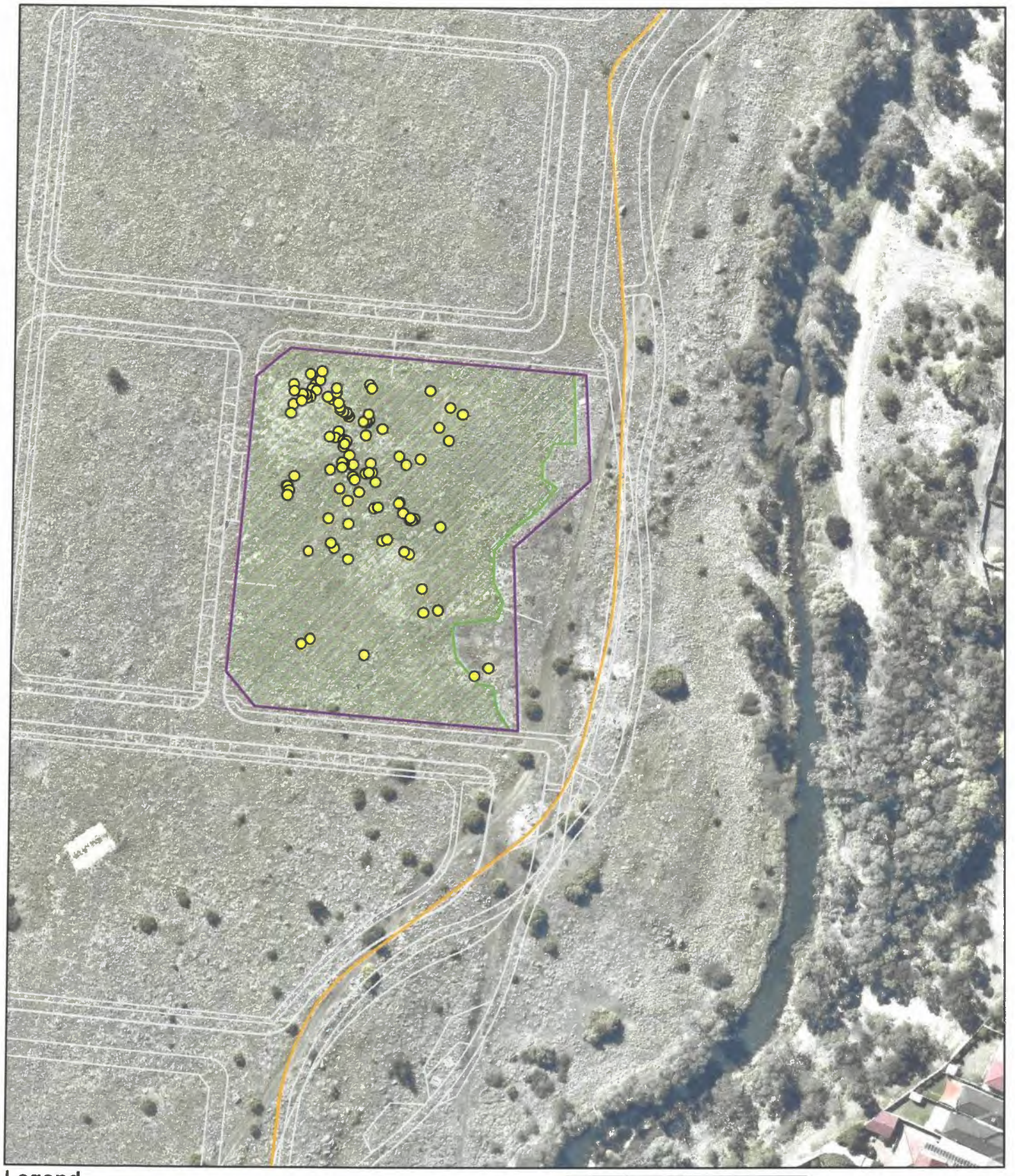
APPENDIX A


D
C2
A2
GRASSLAND RESERVE
ENLARGEMENT NOT TO SCALE
KORORIOIT CREEK
A2
C1
A1
D
SEE ENLARGEMENT
C2
GRASSLAND RESERVE
A2
A1
A1
B
PROPOSED SCHOOL SITE 3.5ha
WESTWOOD DRIVE
ROCKBANK MIDDLE ROAD
ROCKBANK MIDDLE ROAD
KORORIOIT CREEK
DENNIS FAMILY CORPORATION
MODEINA
Stage Comparison Plan
Concept Plan
Precinct 2
LEGEND:
Precinct 2
65.49ha
Growling Grass Frog Habitat
35m from centreline of Kororoit Creek
Existing Sewerage and or Drainage Easements
Retained Native Vegetation
Spiny Rice Flowers
Spiny Rice Flowers to be Retained
Growling Grass Frog Buffer
Reserve
Project Areas
Grassland Reserve
Project Area A1
Project Area A2
Project Area B
Project Area C1
Project Area C2
Project Area D
0
100
200
scale 1:2500 @ A1
DATE: 28 June 2018
REF: 29743 001
DWG: 2974300ZC
16 Eastern Road | South Melbourne
Victoria 3205 | PO Box 5075
Australia | 03) 9699 1400
www.veris.com.au
DEVELOP WITH CONFIDENCE
formerly Brace Jessop
veris

i. Numbers of annually flowering male and female plants in proportions similar to that in natural populations;

ii. That new germinants are recruiting in numbers similar to that in natural populations; and

iii. A growing population where recruitment exceeds mortality to a similar extent as other managed populations.



Legend

- Precinct 2
- Grassland Reserve
- NTGVVP
- Spiny Rice-flower

Metres
0 15 30 60

Modeina Precinct 2 - Grassland Reserve		
Project: Modeina Estate		
Client: DFC (Project Management) Pty Ltd		
Project No.: 7045	**Date: 14/06/2018**	**Created By: N. May / M. Wright**

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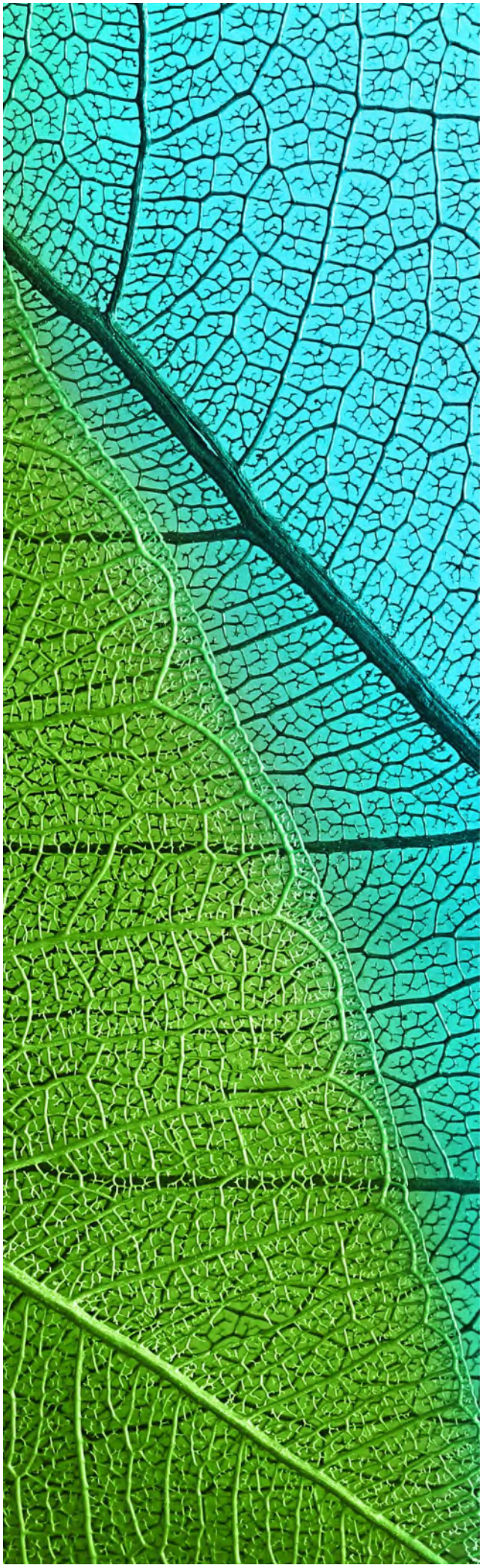
N

APPENDIX B

Appendix 2: Growling Grass Frog monitoring report – Year 8



Modeina Estate Precinct 2

Growling Grass Frog Monitoring – Year 8

Prepared for DFC (Project Management) Pty Ltd

November 2024
Report No. 7045.70 (1.1)

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Tables

Figures

1. Introduction

DFC (Project Management) Pty Ltd engaged Nature Advisory to undertake annual monitoring for Growling Grass Frog (*Litoria raniformis*) in the environs of Kororoit Creek adjacent to the Modeina Precinct 2 development, Burnside. In the Modeina Precinct 2 Growling Grass Frog Management Plan (GGFMP) – prepared by Nature Advisory to address Condition 3 of the EPBC Act approval 2011/6063 – DFC has committed to undertaking this annual monitoring during the construction of Modeina Precinct 2 and for two years post-construction.

The scope of the monitoring program includes:

- A targeted survey for Growling Grass Frog conducted over a minimum of two evenings during optimal weather conditions (i.e., warm, and windless nights) during the breeding season (November to February) at three locations along Kororoit Creek adjacent to Precinct 2, including:
    - Visual encounter surveys involving spotlighting in areas of suitable habitat, such as along vegetated margins; and
    - Call playback at three locations – each location within close proximity of existing wetlands along the creek.
- Characterisation and photographing of habitats at each location in daylight hours and evening weather conditions recorded.

This report is divided into the following sections:

Section 2 describes the methods used and sources of information for the investigation, including any limitations, where applicable.

Section 3 provides the results of each survey, documenting the location and abundance of Growling Grass Frog along this section of the creek.

The Year 8 monitoring and reporting was undertaken by Danielle Eastick (Zoologist), Joel Ellis (Zoologist), Tara Cavallo (Zoologist), Ben Vasic (Zoologist) and Merinda Day-Smith (Senior Botanist & Project Manager).

2. Existing Information and Methods

2.1. Existing information

Growling Grass Frog is known to be present in this section of the Kororoit Creek based on historic survey data, including Victorian Biodiversity Atlas records from nine separate occasions between 1998-2017 (DELWP 2022). The Kororoit Creek corridor is also identified as important for the conservation of Growling Grass Frog within the Melbourne Growth Area (Biosis Research 2012)

Koroit Creek has been identified as supporting an important population under the federal *Environmental Protection and Biodiversity Conservation* (EPBC) *Act 1999* (EHP 2011).

2.2. Methods

2.2.1. Survey site selection

Three sites were selected in the original pre-construction surveys in January 2017 along the Kororoit Creek adjacent to Modeina Precinct 2 (

Figure 1) and have been used in subsequent surveys. These are in suitable breeding habitat for Growling Grass Frog (larger pools of deep water with instream and fringing vegetation) and in some cases coinciding with previous records (Sites 1 & 2). An additional site was added to replace site 1 due to the lack of detection and incompatible habitat characteristics of site 1 and established on 3rd January 2019. Because Growling Grass Frog was recorded in a reconstructed wetland, which is now fully revegetated and provides quality habitat, this area was added as a fifth site since the 2021 monitoring season.

2.2.2. Habitat assessment

The habitat assessment was conducted by two zoologists during the afternoon of the 11th November 2024. Habitat notes were taken at each survey site. Particular attention was paid to the presence of in-stream and fringing creek-edge vegetation.

2.2.3. Call playback and visual searches

Surveys for Growling Grass Frog were undertaken in accordance with the survey guidelines outlined in the *Significant impact guidelines for the vulnerable Growling Grass Frog (Litoria raniformis)* (DEWHA 2009), the *Survey guidelines for Australia's threatened frogs* (DEWHA 2010), and the *Biodiversity Precinct Planning Kit* (DSE 2010).

Call playback and visual search surveys were conducted by two zoologists at four sites on the 11th & 21st November 2024 beginning at sunset. Each survey site was surveyed twice over a period of two nights when weather conditions were considered appropriate to detect Growling Grass Frog – i.e., warm evenings with an air temperature of 15˚C or more, and moderate to no wind. Under these conditions frogs are more likely to be calling and active. A reference site close to the study area, where GGF are known to occur, was checked for GGF activity. On both evenings GGF responded to GGF call playback and indicated that GGF are active in the area.

At each survey site 45 minutes was spent searching for GGF. Field surveys took place between 19:55 (after sunset, almost dark) and 23:00 Australian Eastern Daylight time (AEDT). At the beginning of each survey, a period of 5 minutes was spent at the water's edge listening and recording frog species and their abundance. This was immediately followed by five minutes playback of a recorded male Growling Grass Frog advertisement call. A further 5 minutes was then spent listening for a response.

Following call playback and listening, each site was systematically searched for frogs with a spotlight for 30 minutes.

The species and number of frog species seen and/or heard at each survey site and notes on the nature and quality of habitat were also recorded.

At Site 5, visual inspection of the water's edge was hindered due to dense vegetation, but listening was not impacted.

Figure 1: Survey site locations

Project: GGF Monitoring Program
Client: DFC (Project Management) Pty Ltd
Date: 22/12/2022

- GGF Management buffer
- Rock platforms
- Monitoring sites
- 2018 Growling Grass-frog observation
- 2019 Growling Grass-frog observation
- 2020 Growling Grass-frog observation

N

Metres
0 110

Nature Advisory
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Layers - Created by: mghasemi - Z:\2007 Jobs\7045 (Burnside 'The Point' Development - BL)\7045.37 (GGF monitoring - MW)\Mapping\GIS\7045.25 Survey site locations 191213.mxd

3. Results

3.1. Habitat assessment

Habitat within the study area was found to be like previous years, however weed density has increased in areas. The proponent is currently addressing and undertaking adaptive weed management in accordance with the GGFMP.

3.1.1. Site 2

Site 2 was located in the central part of the study area, at a distinct bend in the creek which supported abundant emergent vegetation dominated by various rushes (*Juncus* spp.), Common Water-ribbons and Broadleaf Cumbungi. Fringing vegetation also included Slender Knotweed, Tall Club-sedge, Curled Dock, and Kikuyu. Occasional overhang of branches from the canopy of River Red-gum was also present. Large boulders featured on the edge of the creek, with abundant smaller rocks throughout the water and fringing edges, creating many cavities.

North of the creek were two artificial dams fed by stormwater runoff to the north. These dams were recently constructed by Melbourne Water and are now complete, outside of the DFC management area. These were separated by an earth-covered, dry, rocky causeway. The revegetation from 2023 had established around the southern dam, creating tall fringing vegetation, improving the habitat which is now potentially suitable habitat for Growling Grass Frog. The west side of the dams was dominated by weeds including Toowoomba Canary-grass, Wild Oat, and Curled Dock at the water's edge. The eastern side was primarily Rushes, Broadleaf Cumbungi, Tall Club-sedge, Slender Knotweed and Pale Knotweed. Large flat rocks were abundant around the wetland and throughout the connecting causeway.

There was limited floating vegetation in both the creek and the dams at Site 2.

Figure 2: Northern bend in Kororoit creek and the adjacent wetlands at Site 2.

3.1.2. Site 3

Site 3 was located to toward the eastern end of the study area at a natural basalt rock bridge platform. Vegetation was dominated by Narrowleaf Cumbungi, which was present as fringing vegetation (Figure 3). Other common fringing species included Tall Club-sedge, Slender Knotweed, Spike Rush and other rushes. Some instream vegetation including Common Water-ribbons was present. Many instream rocks were present in this section of Kororoit Creek. There was limited floating vegetation present (<5%) in the form of Water Ribbons.

Revegetation works are established on the western bank above the survey site, however these areas are becoming overgrown by weeds, particularly Toowoomba Canary Grass. The eastern side of the creek is primarily mowed for pedestrian walking tracks.

Figure 3: Rock platforms fringing and emergent vegetation and adjacent revegetation at Site 3.

3.1.3. Site 4

Site 4 was located toward the north-western region of the study area, near an existing rock escarpment. Vegetation was dominated by Broadleaf Cumbungi and Common Reed. Slender Knotweed was also present within the fringing vegetation. Submerged vegetation was present in the form of Water Ribbons (25% cover). The creek had a River Red-gum canopy with some fallen logs and debris scattered on the edges of the banks and caught among the in-stream vegetation. The waterline appeared to be low in this area of the creek.

The surrounding banks were dominated by dense infestations of introduced Chilean Needle-grass and Toowoomba Canary-grass which did not look as though it had been mowed for a long period of time. Revegetation works have been undertaken on the slope between the creek and the development, however this was being overgrown by weeds. Additionally, the erosion control fence had been and broken and flattened in areas, now revegetation is complete the sediment fencing must be removed.

Figure 4: Aquatic and emergent vegetation and adjacent revegetation that is overgrown with weeds at Site 4

3.1.4. Site 5

Site 5 was an artificial wetland associated with the recreation areas of the adjacent housing estate. The site comprised several small to medium areas of open water with dense fringing vegetation dominated by native rushes, Tall Club-sedge, and Leafy Twig-rush. Dense plantings of Tall Sedge, Common Tussock-grass and Spiny-headed Mat-rush surrounded the wetland, and these areas are beginning to be encroached by weeds, such as Blackberry, and large amounts of rubbish.

Areas of open water appeared to hold reasonable depth and were connected to drainage lines at either end, including a dry rocky outfall area leading to Kororoit Creek. Floating aquatic vegetation was present but was unable to be identified from a distance.

Figure 5: Dense vegetation (L) and encroaching blackberry (R) throughout the artificial wetland at Site 5

3.2. Growling Grass Frog survey

During the November 2024 survey, no Growling Grass Frogs were detected. Other frog species were detected at all survey sites at varying densities (Table 1). Species detected were common, widespread species: Common Eastern Froglet, Eastern Banjo Frog, Southern Brown Tree Frog and Striped Marsh Frog.

Table 1: Growling Grass Frog survey results 2024

Date	Site	Start time	Temp (°C)	Wind (KPH)	Frog Species observed
11/11/24	2	22:10	18.9	5.4	Common Eastern Froglet (5) Eastern Banjo Frog (2)
	3	20:15	20.4	7.9	Common Eastern froglet (2)
	4	22:50	18.7	5.2	Common Eastern froglet (2) - upstream
	5	21:00	18.4	6.4	Common Eastern Froglet (10) Striped Marsh Frog (10) Eastern Banjo Frog (5)

Date	Site	Start time	Temp (°C)	Wind (KPH)	Frog Species observed
21/11/2024	2	21:40	20	8	Southern Brown Tree Frog (2)
	3	20:45	20	8	Southern Brown Tree Frog (1)
	4	22:20	20	8	Eastern Banjo Frog (1)
	5	19:55	20	8	Common Eastern Froglet (3) Eastern Banjo Frog (6) Southern Brown Tree Frog (1)

3.2.1. Other species

Two mammal species were recorded during GGF surveys: an Eastern Grey Kangaroo was observed at Site 4, and Grey-headed Flying Fox at Site 2. Grey-headed Flying Fox are an EPBC Act listed species, and it is positive to observe them foraging in the retained River Red Gums lining the creek. Two short-finned eel were observed in the creek at site 2. Several small fish (2-6cm), likely mosquito fish were observed at site 3.

4. Discussion and recommendations

The Year 8 monitoring survey did not detect the presence of Growling Grass Frog within the study area. Absence of Growling Grass Frog for the fourth season in a row suggests that Growling Grass Frog have been displaced from the study area and the study area is too isolated to allow repopulation from other sites. Potential contributing factors to this displacement include the flooding of local waterways and the construction of a stormwater basin outside the DFC development area, which may have impacted water quality and habitat suitability. The persistent presence of mosquito fish, a known predator of GGF tadpoles, has also likely hindered GGF recovery. Additionally, the potential presence of Chytrid fungus in the Kororoit Creek river could also be impacting GGF populations.

All the threats mentioned above are common to urban and peri-urban waterways and were likely present prior to the commencement of development. As such, these threats are not to be solely attributed to the proponent's compliance with the GGFMP.

With the exception of high grass biomass levels and weed encroachment (which are being addressed in accordance with the management plan), vegetation and structural characteristics of habitat at the survey site locations was comparable with previous assessments and considered to be of suitable, high quality for Growling Grass Frog.

Two species of fish were identified. Short-finned Eel (*Anguilla australis*) was observed within in the creek at Site 2, which is known to prey on frogs. Eastern Gambusia or Mosquito Fish (*Gambusia holbrooki*) was recorded at Site 2 in the creek. Eastern Gambusia is an introduced species that preys on Growling Grass Frog tadpoles. This species has been recorded in previous surveys at Sites 2, 3 and 4.

In accordance the with the Modeina Precinct 2 Growling Grass Frog Management Plan (GGFMP), failure to detect Growling Grass Frog over the course of two annual rounds of population monitoring is a trigger which requires corrective action. To address this, testing of water quality upstream and downstream of outfalls (beyond mixing zone) was conducted in May 2023. It was found water quality in the three Kororoit sites and one constructed wetland were all within the range typically observed in urban waterways. A water quality assessment will be undertaken in 2025 with a more extensive water testing scope.

As per section 5.2.4 of the GGFMP (BL&A 2017), monitoring of the integrity of the fence is to be undertaken daily. It is understood the collapsed fencing in site 4 will be promptly removed now that revegetation has been established in compliance with the GGFMP.

Based on the ongoing site observations and monitoring, apart from the disrepair of the erosion control fence, and grass biomass levels, it is likely that any alteration to water quality, including sedimentation, nutrients, incursion of predatory species, chemical residue and gross pollutant volume are a result of factors beyond the control of DFC and are unrelated to compliance issues under the Growling Grass Frog Management Plan.

However, in compliance with the GGFMP it is recommended that continued corrective action is taken within the next 12 months to better understand the absence of GGF. This includes:

- Increased maintenance of weeds and biomass levels of grass within the GGFMB. For example, in addition to the regular management, extra slashing of grass should occur in September to ensure it is cut low (particularly Toowoomba Canary-grass) prior to the GGF active season. Management of high threat weeds around GGF survey sites should also increase.
- Undertake comprehensive water quality testing in 2025 and follow recommendations for management as per the results of the 2025 water quality report.

5. References

Biosis Research 2012, *Review of habitat corridors for Growling Grass Frog* Litoria raniformis *within Melbourne's Urban Growth Areas*, Report for the Department of Sustainability and Environment.

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Nature Advisory 2024, *Modeina Estate – Precinct 2 Growling Grass Frog Monitoring Year 8*, Report No. (7045.68), Prepared for DFC (Project Management) Pty Ltd.

Appendix 1. Water Quality Monitoring report, Aquatica Environmental, 2023

AQUATICA ENVIRONMENTAL

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ABN 83 572 211 867

Our Ref: RPT000435

16 May 2023

DFC (Project Management) Pty Ltd
Attn.: Alan Barnes
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Via email: alan.barnes@denniscorp.com.au
CC email: cameron.lee@denniscorp.com.au; chrisd@natureadvisory.com.au; brettl@natureadvisory.com.au

Dear Alan,

REPORT: Water Quality Monitoring of Kororoit Creek for Modeina Estate Growling Grass-frog Management Plan

1. INTRODUCTION

Aquatica environmental was engaged by Dennis Family Corporation (Project Management) Pty Ltd (DFC) to undertake water quality monitoring as a requirement under conditions in the growling grass frog (*Litoria raniformis*, GGF) Management Plan (GGFMP, Nature Advisory 2017) for Modeina Estate development in Burnside, Victoria.

The monitoring was required at the four sites identified in Figure 1. The GGFMP does not stipulate what water quality parameters are required to be monitored, other than that:

> "*Testing of water quality upstream and downstream of outfalls (beyond mixing zone) to determine the influence of stormwater inputs and whether water quality meets the objectives for water quality in the catchments of Port Phillip Bay as per the SEPP (Waters of Victoria) guidelines.*" (Nature Advisory 2017))

According, Aquatica Environmental scoped the project to include and sample for water quality parameters in broad accordance with those detailed in the Victorian Department of Energy, Environment and Climate Action's (DEECA) Growling Grass Frog Habitat Design Standards (the standards, DELWP 2017). The water quality parameters included from the standards included in situ sampling for pH, salinity, turbidity, etc. and water samples collected for laboratory analysis including E-coli, ammonia, total nitrogen, total phosphorus, etc.

Note, that since 2017 the State Environmental Protection Policy (i.e. SEPP), as referenced in the GGFMP, has been replaced by the Environmental Reference Standard (ERS, EPA 2021). Accordingly, the results of the water quality sampling have been compared to the ERS objectives for the "*urban segment*".

2. METHODOLOGY

2.1. Task 1: Water quality Sampling

At each of the four water quality sampling sites the following was collected:

- Site GPS coordinates.
- Upstream and downstream facing site reference photographs.
- in situ water quality samples using a calibrated Hannah Instruments HI9829 multiparameter water quality metre for the following parameters:
  - pH;
  - Temperature;

- Salinity / electrical conductivity;
- Dissolved oxygen; and
- Turbidity.

- collection of water quality samples for analysis by our preferred laboratory, ALS, for the following parameters:
  - *E coli*;
  - Ammonia;
  - Nitrate;
  - Nitrite;
  - Total Kjeldahl Nitrogen (TKN);
  - Total nitrogen; and
  - Total phosphorus.

3. RESULTS

3.1. Sampling Sites

Four sites were sampled including three in Kororoit Creek (Sites 2-4) and one in a constructed wetland (Site 5)(Figure 1).

The sampling was undertaken on the 9th May 2023. Weather conditions on the day of sampling were cold and overcast, with air temperatures ranging between approximately 12.2°C and 13 °C and with approximately 0.2 millimetres of rain falling during the sampling (BOM 2023). Approximately 15 millimetres of rain fell in the 24 hours and 37 millimetres consistently over the seven days leading up to the sampling (BOM 2023).

Site GPS coordinates, details and photographs provided in Attachment A.

Figure 1 The sampling sites (Source: Nature Advisory)

3.2. In Situ Water Quality

The results of the in situ water quality sampling are provided in Table 1. In accordance with the GGFMP the results have been compared to the ERS objectives (EPA 2021) and GGF water quality standards (DELWP 2017).

Kororoit Creek Sites 2 to 4 returned ecologically similar results, reflective of a lotic (i.e. flowing) waterway with the sites being proximal to each other. Constructed wetland Site 5 varied slightly, though still ecologically similar, reflective of a lotic (i.e. still) wetland.

All parameters at all site were within the ERS objectives and GGF water quality standards, with the exception of dissolved oxygen end turbidity at Site 5. In both cases the ERS objective was exceeded, though not to a degree that would be ecologically significant too GGF.

Overall, the in situ results are all well within the range to be expected from an urban waterway and none of the results indicate an ecologically significant threat to GGF.

Table 1 In situ water quality results

Parameter	Units	ERS Objectives (EPA 2021)	GGF Water Quality Standards (DELWP 2017)	Site 2	Site 3	Site 4	Site 5
pH	**pH units**	≥6.5*, ≤8.2**	6.0 – 8.5	7.77	7.86	7.91	7.76
Dissolved Oxygen (DO)	**%**	≥60*, <130#	-	66.4	65.5	71.2	26.4
	ppm	-	-	7.25	7.16	7.78	2.85
Salinity / Electrical Conductivity (EC)	**µS/cm**	≤3,000	<5,000	1,160	1,155	1,143	232
	ppm	-	-	580	577	572	116
	PSU	-	-	0.58	0.58	0.57	0.11
Turbidity	**NTU**	≤30	<40	17.0	14.4	16.0	31.2
Temperature	**Deg. Celsius**	-	-	11.69	11.61	11.67	12.22

* 25th percentile; ** 75th percentile; # Maximum; orange highlight = exceeds objective and/or standard

3.3. Laboratory Water Quality

The results of the laboratory water quality results are provided in Table 2 (laboratory data as Attachment B). In accordance with the GGFMP the results have been compared to the ERS objectives (EPA 2021) and GGF water quality standards (DELWP 2017).

The results were relatively consistent across the three Kororoit Creek sites (Sites 2 to 4), with slight but anticipated differences in the constructed wetland (Site 5). The GGF water quality standard for ammonia was exceeded at all four sampling sites (Table 2). Outside of the standard there is little known and a paucity of information about the chemical attributes and water quality tolerances of GGF. However, it is known that the species inhabits water bodies with a wide range of water quality values including even within untreated storm water ponds and sewage treatment lagoons (DELWP 20107).

No other parameter exceeded its relevant ERS objective or GGF water quality standard.

Overall, the laboratory water quality results are all well within the range to be expected from an urban waterway and none of the results indicate an ecologically significant threat to GGF.

Table 2 Laboratory water quality results

Parameter	Units	ERS Objectives (EPA 2021)	GGF Water Quality Standards (DELWP 2017)	Site 2	Site 3	Site 4	Site 5
E.coli	Orgs/100mL	-	<150##, <1,000^	280	160	250	41
Ammonia (NH_3)	mg/L	-	<0.010	0.049	0.031	0.026	0.15
Nitrite (NO_2)	mg/L	-	-	0.002	0.004	0.003	0.014
Nitrate (NO_3)	mg/L	-	-	0.051	0.068	0.045	0.13
Total Kjeldahl Nitrogen	mg/L	-	-	0.69	0.51	0.62	0.73
Total nitrogen	mg/L	<1.2**	<1	0.75	0.58	0.67	0.87
Total phosphorus	mg/L	<0.11**	<0.1	0.071	0.052	0.06	0.10

** 75th percentile; ## Primary contact; ^ Secondary contact; orange highlight = exceeds objective and/or standard

4. CONCLUSION AND RECOMMENDATIONS

Overall, the single round of water quality sampling found water quality in the three Kororoit Creek sites and one constructed wetland site were all within the range typically observed in urban waterways. Only minor exceedances of the ERS objectives for dissolved oxygen and turbidity were observed at Site 5 and the GGF standard for ammonia at all four sites.

None of the results, or exceedance, indicate an ecologically significant threat to GGF.

Should further rounds of water quality sampling be required the following recommendations are made:

- Ensure that the methodology described in this report is adhered to allow temporal comparison (i.e. changes over time).
- Ensure the same sampling locations used.
- Consider undertaking the sampling at different times of year particularly during GGF breeding in order to understand the water quality parameters during that key period (i.e. sampling could be undertaken during annual GGF surveys).

If you have any questions or would like to discuss this report or any other matter further, please do not hesitate to call me on 0413 935 497. We look forward to the opportunity of continuing to work with DFC and NA on this project.

Kind Regards,

Aaron Jenkin
Director and Principal Scientist Aquatic Ecology
Aquatica Environmental

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e Aaron@AquaticaEnvironmental.com.au
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5. REFERENCES

BOM (2023). Bureau of meteorology. Weather observations for Essendon airport. Available online at: http://www.bom.gov.au/products/IDV60901/IDV60901.95866.shtml

DELWP (2017). Growling Grass Frog Habitat Design Standards Melbourne Strategic Assessment. The State of Victoria Department of Environment, Land, Water and Planning. Available online at: https://www.msa.vic.gov.au/__data/assets/pdf_file/0019/73414/Growling-Grass-Frog-Habitat-Design-Standards_March2017.pdf

EPA (2021). Publication 604.2: Guideline for Environmental Management (GEM). Rapid Bioassessment Methodology for Rivers and Streams. Environmental Protection Authority Victoria, Southbank.

Nature Advisory (2017). Modeina Estate – Precinct 2 Growling Grass Frog Management Plan. Report No. 7045 (29.7) prepared for Denis Family Corporation. Dated September 2017.

Attachment A - Sampling Sites

Site 2

37°44’19.8”, 144°45’15.8”

Site 3

37°44’13.0”, 144°45’41.5”

Site 4

37°44’42.0”, 144°45’33.6”

Site 5

37°44’48.3”, 144°45’28.7”

ATTACHMENT B – Laboratory Data

CERTIFICATE OF ANALYSIS

Batch No: **23-30528**
Final Report **90987**

Client: **Aquatica Environmental**
Contact: **Mr. Aaron Jenkin**
Address: 220 Old Eltham Road
LOWER PLENTY
VIC
3093

Laboratory Scoresby Laboratory
Address Caribbean Business Park,
22 Dalmore Drive,
Scoresby,
VIC 3179
Phone 03 8756 8000
Fax 03 9763 1862
Contact: Linna Truong
Client Manager
Linna.Truong@alsglobal.com

PO No: **000435**
Sampler Name: **Aaron Jenkin**
ALS Program Ref: **AQUATICA**
Program Description: **Analysis for Aquatica Environmental**
Client Ref: **Moderna Estate GGF**

Date Sampled: **09-May-2023**
Date Samples Received: **09-May-2023**
Date Issued: **16-May-2023**

The hash (#) below indicates methods not covered by NATA accreditation in the performance of this service .

Analysis	*Method*	*Laboratory*	*Analysis*	*Method*	*Laboratory*
Colilert (2000)	MM514	Scoresby	NH3 as N (LL)	WK055SA	Scoresby
NO2 as N (FIA)	WK057A	Scoresby	NO3 as N (FIA)	WK058A	Scoresby
TKN (Calc)	WK261PA	Scoresby	TN/TP (LL)	WK262PA & WK267 PA	Scoresby

Signatories

Name	*Title*	*Name*	*Title*
Chatura Perera	**Team Leader Nutrients**	**Hoa Nguyen**	**Analyst**
Simone Rhodes	**Analyst**		

Samples not collected by ALS and are tested as received.
Calculated results are based on raw data.

Samples are tested within holding time unless otherwise stated.

Batch No: **23-30528**
Report Number: **90987**
Client: **Aquatica Environmental**
ALS Program Ref: **AQUATICA**
Program Description: **Analysis for Aquatica Environmental**

Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
8580335	NONE	MOD2	WATER	09/05/23
8580336	NONE	MOD3	WATER	09/05/23
8580337	NONE	MOD4	WATER	09/05/23

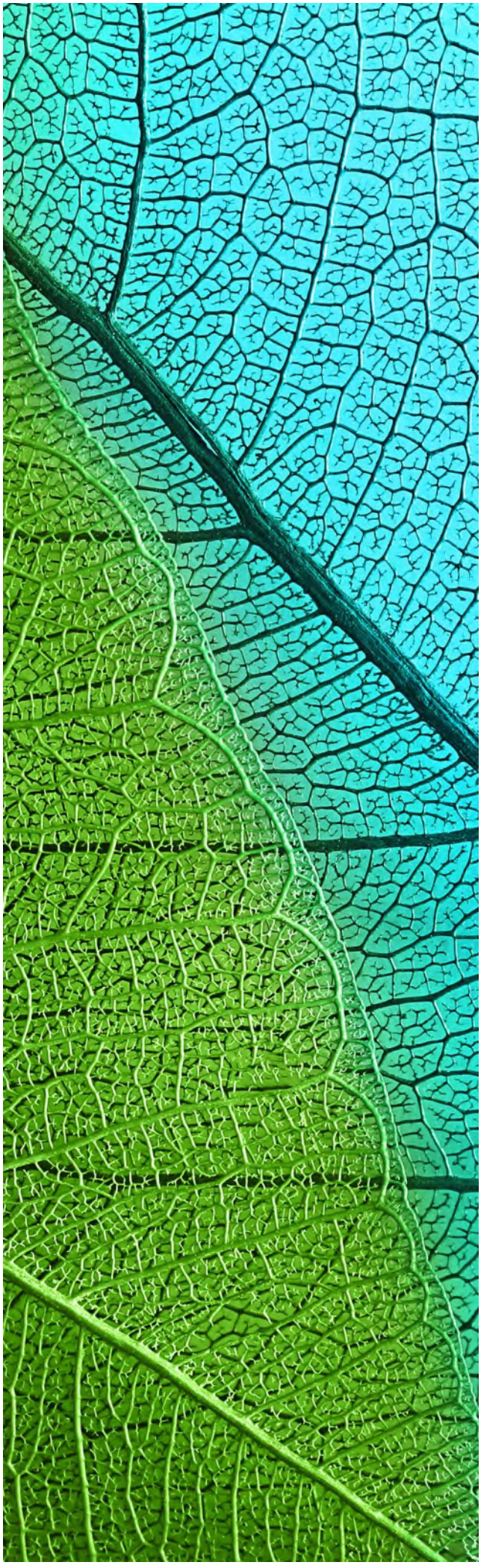
Analysis - Analyte	*Sample No. Site Code Units*	8580335 NONE	8580336 NONE	8580337 NONE
NO3 as N (FIA) - Nitrate, as N	mg N / L	0.051	0.068	0.045
NO2 as N (FIA) - Nitrite, as N	mg N / L	0.002	0.004	0.003
NH3 as N (LL) - Ammonia, as N	mg N / L	0.049	0.031	0.026
TN/TP (LL) - Total Nitrogen, as N	mg N / L	0.75	0.58	0.67
TN/TP (LL) - Phosphorus, total as P	mg P / L	0.071	0.052	0.060
TKN (Calc) - TKN (via Calculation)	mg/L	0.69	0.51	0.62
Colilert (2000) - E.coli	MPN/100mL	280	160	250

Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
8580338	NONE	MOD5	WATER	09/05/23

Analysis - Analyte	*Sample No. Site Code Units*	8580338 NONE
NO3 as N (FIA) - Nitrate, as N	mg N / L	0.13
NO2 as N (FIA) - Nitrite, as N	mg N / L	0.014
NH3 as N (LL) - Ammonia, as N	mg N / L	0.15
TN/TP (LL) - Total Nitrogen, as N	mg N / L	0.87
TN/TP (LL) - Phosphorus, total as P	mg P / L	0.10
TKN (Calc) - TKN (via Calculation)	mg/L	0.73
Colilert (2000) - E.coli	MPN/100mL	41

A blank space indicates no test performed.

Appendix 3. Grassland Monitoring Report, year 7 (2024)



Modeina Estate, Precinct 2, Burnside

Grassland Reserve Annual Monitoring – Year 7

Prepared for DFC (Project Management) Pty Ltd

November 2024
Report No. 7045.70 (1.1)

Nature Advisory
(Formerly Brett Lane & Associates Pty Ltd)
5/61-63 Camberwell Road
Hawthorn East, VIC 3123
PO Box 337, Camberwell VIC 3124
(03) 9815 2111
www.natureadvisory.com.au

Contents

Tables

Figures

1. Introduction

DFC (Project Management) Pty Ltd engaged Nature Advisory Pty Ltd to undertake annual monitoring of the Grassland Reserve in Precinct 2 of Modeina Estate, Burnside. This is Year 7 of annual monitoring which is a requirement of the 10-year management plan outlined in *Modeina - Grassland Reserve Management Plan* (BL&A 2018).

A survey of the grassland reserve was undertaken on 30 September 2024, to determine the following:

- The cover of native vegetation within reserve
- The cover of weeds within the reserve
- Biomass levels within the reserve
- Weed cover estimates for each weed species
- Monitoring of pest animals to determine the need for pest animal control
- Visual checks to determine any grassland reserve maintenance that may be required

A separate survey targeting Spiny Rice-flower was also undertaken on 3 July 2024, to determine the abundance and health of the species during the flowering period of the species.

This information provides an assessment of the outcomes based on the current management actions as well as guiding adaptation to future management of the site.

This report was prepared by a team from Nature Advisory comprising Cody Hajnal (Botanist), Kate Thurkle (Botanist) and Merinda Day-Smith (Senior Botanist and Project Manager).

2. Management Actions Completed

Management of the grassland reserve was undertaken by Australian Ecosystems in Year 7 and includes the following:

- Control of weeds within the reserve
- Maintenance of fencing and signage
- Installation of rabbit proof fencing

Data from the monitoring assessment in 2022 was separated into burnt (west) and unburnt (east) areas to gain a better understanding of the quality of vegetation following a controlled burning. The assessments conducted in 2023 aimed to gauge its effects on native and introduced vegetation over time and whether it was beneficial for the native population. This was further assessed in the 2024 field surveys and the results will help tailor management actions and improve outcomes for the reserve in future.

3. Monitoring Results

The results of the monitoring assessment are outlined in Table 1.

Overall, the condition of the grassland reserve has seen significant improvement in response to the controlled burning conducted in year 5 (2022) on the western half. The cover of native vegetation has increased slightly to 65%, as has the cover of weeds 40% (Table 1). However, weed cover remains high primarily due to an abundance of annual grasses, which includes Wild Oat and Squirrel-tail Fescue largely on the eastern unburnt side. These species are most likely responding to the extended, mild spring weather with continuous high rainfall and limited biomass control over the preceding years.

Previous reports in 2022 and 2023 stated that the unburnt areas in the western section had a higher cover of native vegetation and a low cover of weeds compared to the eastern section of the reserve. In-field observations in 2024 suggest that this trend continues and supports the burning biomass control method to limit the spread of the Wild Oat and other introduced grass species. Although Spiny Rice Flower numbers have remained relatively stable, weed invasion is a key threat to the population of Spiny Rice Flower that needs to continue to be controlled. Weeds are being managed in accordance with the EMP and management needs to remain consistent and ongoing as they continue to pose a threat to Spiny Rice Flower. The effect of annual grass domination limits the ability of grassland species to persist and colonise bare ground (Photo 1). As you can see from the records, SRF observations were significantly higher in the previously burnt half of the reserve.

Table 1: Cover estimates within the grassland reserve.

% Cover	Overall cover 2023	Overall cover 2024
Native vegetation	60%	65%
Introduced vegetation	35%	40%
Organic matter	5%	8%
Bare ground	10%	2%
Inter-tussock spaces	15%	6%

Photo 1: Weed invasion the eastern section of the reserve

3.1. Assessment of biomass

Biomass levels in the Grassland Reserve during the current monitoring was found to be very high. Areas of both native and introduced vegetation within the Grassland Reserve had increased biomass levels.

The current EMP currently states that ecological burning should be undertaken at least every 2-3 years at the prescribed time (autumn). As such, it is recommended that an ecological burn is undertaken in accordance with the EMP to reduce biomass across the Grassland Reserve within the next year. An ecological burn is to be followed by increased weed management to prevent a similar invasion of weeds after the previous ecological burn in Year 5 (2022).

Kangaroo Grass continues to be the dominant grass species in the reserve. Other native grasses observed include Long-hair Plume-grass, Rigid Panic and Tussock Grass. *A* diverse range of indigenous species occurred in inter-tussock spaces including Spiny Rice-flower, Smooth Rice-flower, Black-anther Flax-lily, Sheep's Burr, Grassland Wood-sorrel, Cottony Fireweed, Slender Speedwell, Common Woodruff, Varied Raspwort, and Kidney Weed.

The presence of Spiny Rice-flower, listed as Critically Endangered under both the *Environmental Protection and Biodiversity Act 1999* ('EPBC Act') and the *Flora and Fauna Guarantee Act 1988* ('FFG Act'), is discussed in greater detail in Section 3.2.

Arching Flax-lily individuals were still present within the reserve (Figure 1). This species is listed as Critically Endangered under the FFG Act.

Figure 1: Threatened species and weeds within the grassland reserve

Project: Grassland Reserve Monitoring **Client**: DFC Project Management **Date**: 8/11/2024

Grassland Reserve **Threatened species** **Weed species**

High weed cover
SRF locations
Arching Flax-lily
Fragrant Saltbush
Artichoke Thistle
Bridal Creeper
Sticky Hop-bush

N

Metres
0 9

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3.2. Spiny Rice-flower

A targeted survey of Spiny Rice-flower was conducted in accordance with the methods outlined in the *Significant Impact Guidelines for the critically endangered Spiny Rice-flower* Pimelea spinescens *subsp*. spinescens (DEWHA 2009), on 3 July 2024.

A total of 89 Spiny Rice-flower were recorded within the reserve during this survey (Figure 2). This corresponded to a 62% decrease from the previous year (233 individuals).

- 2016: 179 individuals
- 2019: 197 individuals
- 2020: 106 individuals
- 2021: 222 individuals
- 2022: 145 individuals
- 2023: 233 individuals
- 2024: 89 individuals

All individuals observed were in good health. The fluctuation in numbers through the years may be a response to burn regimes or seasonal climate resulting in individuals remaining dormant some years or mass recruiting after fire. Furthermore, this year the survey effort is likely to have been affected across the reserve due to the high biomass of grasses, limiting species detection.

Due to the density of plants, unstable GPS accuracy during the survey, and the problems with identifying individual records evident from previous survey efforts (partly from the loss of tags), no attempt was made to match observations with existing datapoints. Additionally, delineation of what constitutes an individual plant can be subjective. The general distribution of Spiny Rice-flower within the reserve has remained similar to previous monitoring events.

A decrease in the number of plants recorded was observed in the reserve during the current year. This is likely due to a failure to detect Spiny Rice-flower due to high biomass levels of native grasses in the reserve. High biomass levels will be controlled in 2025 as per the ecological burning schedule for the Spiny Rice-flower reserve.

Figure 2: Spiny Rice-flower Monitoring 2024

Project: Grassland Reserve Monitoring **Client**: DFC Project Management **Date**: 8/11/2024

Grassland Reserve

SRF locations

N

Metres

0 9

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3.3. Weed cover estimates

Weed cover estimates for 2018, 2019, 2020, 2021, 2022, 2023 and 2024 are presented in Table 2. Species highlighted in grey indicate weeds considered to be a priority for future weed management within the reserve. Cells highlighted in green indicate a reduction in cover from the previous year, while cells highlighted in orange indicate an increase in cover.

Introduced species were unevenly distributed throughout the reserve, however, Squirrel-tail Fescue, Wild Oat and Ribwort were consistently the most dominant species. Other weeds that could pose a threat in future include Large Quaking-grass and Lesser Quaking-grass. These species should be managed to reduce their increasing cover so that native species can regenerate in these areas.

The cover of weeds in the previously unburnt area was low in the western section (Photo 2) and high in the eastern section (Photo 1). A high cover of Wild Oat was the dominant weed within this area and should be controlled by slashing regularly to prevent seed set. Few recruits of the high threat weed, Artichoke Thistle, were observed scattered throughout the north and east of the reserve and should be targeted as a priority during weed control efforts.

Whilst not a weed, one individual of Sticky Hop-bush was detected in the reserve (Figure 1 and Photo 4). This species does not naturally occur within grasslands and has likely arisen from distribution from local landscaping planting. It should be removed from the reserve as it will displace native grassland species.

In addition, the perimeter of the entire reserve had a high cover of weeds, including species such as Wild Oats, and Squirrel-tail Fescue (Photo 3). Although there have been control efforts for high threat species, weed control efforts should focus on these areas and grass species to prevent weeds from spreading further into the reserve.

Nine new weed species were identified during the current monitoring assessment (Table 2). Of these, two species (i.e., Soursob and Wild Sage) are considered to be priority for weed control as they are high threat weeds.

Photo 2: Previously unburnt area of the reserve with reduced weed cover

Photo 3: Boundary of the reserve with high cover of weeds

Photo 4: Sticky Hop-bush located within the Grassland Reserve

Table 2: Weed cover estimates – Grassland Reserve

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
African Box-thorn	*Lycium ferocissimum*	<1%	<1%	<1%	<1%	0%	0%	0%	Not observed
Artichoke Thistle	*Cynara cardunculus* subsp. *flavescens*	<1%	0%	<1%	<1%	<1%	<1%	<1%	Few recruits observed
Big Heron's-bill	*Erodium botrys*	<1%	0%	<1%	<1%	<1%	0%	<1%	Few individuals observed
Black Medic	*Medicago lupulina*	0%	0%	<1%	<1%	<1%	0%	0%	Not observed
Black Nightshade	*Solanum nigrum*	-	-	-	-	-	-	<1%	Newly recorded species
Burr Medic	*Medicago polymorpha*	0%	0%	0%	<1%	<1%	0%	<1%	Few individuals observed
Charlock	*Sinapis arvensis*	0%	0%	0%	0%	<1%	0%	0%	Not observed
Chilean Needle-grass	*Nassella neesiana*	<1%	0%	0%	<1%	0%	0%	0%	Not observed
Cleavers	*Galium aparine*	0%	0%	<1%	0%	<1%	<1%	<1%	Few individuals observed
Cocksfoot	*Dactylis glomerata*	0%	0%	<1%	<1%	0%	0%	0%	Not observed
Common Centaury	*Centaurium erythraea*	0%	0%	0%	<1%	0%	<1%	<1%	Scattered throughout

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
Common Vetch	*Vicia sativa*	-	-	-	-	-	-	<1%	Newly recorded species
Delicate Hair-grass	*Aira elegantissima*	0%	<1%	1%	1%	<1%	5%	5%	Present throughout the reserve
Drooping Cassinia	*Cassinia sifton*	*	*	<1%	1%	0%	0%	0%	Not observed
Flatweed	*Hypochaeris radicata*	0%	0%	<1%	<1%	0%	<1%	<1%	Few individuals observed
Galenia	*Galenia pubescens* var. *pubescens*	0%	<1%	0%	0%	0%	0%	0%	Not observed
Garden Dandelion	*Taraxacum officinale spp. agg.*	-	-	-	-	-	-	<1%	Newly recorded species
Gazania	*Gazania linearis*	0%	0%	<1%	0%	0%	0%	0%	Not observed
Giant Mustard	*Rapistrum rugosum*	0%	0%	0%	0%	1%	0%	2%	Present primarily within the eastern half of the reserve
Great Brome	*Bromus diandrus*	0%	0%	0%	0%	<1%	3%	0%	Not observed
Hogweed	*Polygonum aviculare*	-	-	-	-	-	-	<1%	Newly recorded species

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
Horehound	*Marrubium vulgare*	0%	0%	0%	<1%	0%	0%	0%	Not observed
Large Quaking-grass	*Briza maxima*	2%	3%	<1%	<1%	<1%	2%	2%	Present throughout the reserve
Lesser Quaking-grass	*Briza minor*	0%	0%	0%	<1%	<1%	2%	2%	Present throughout the reserve
Narrow-leaved Clover	*Trifolium angustifolium*	<1%	<1%	<1%	0%	<1%	<1%	0%	Not observed
Onion Grass	*Romulea rosea*	0%	2%	<1%	<1%	1%	<1%	1%	Present throughout the reserve
Ox-tongue	*Helminthotheca echioides*	<1%	0%	0%	<1%	<1%	0%	<1%	Few individuals observed
Paterson's Curse	*Echium plantagineum*	0%	0%	<1%	0%	0%	0%	0%	Not observed
Perennial Veldt-grass	*Ehrharta calycina*	0%	0%	0%	<1%	0%	0%	0%	Not observed
Pimpernel	*Lysimachia arvensis*	<1%	<1%	1%	1%	1%	<1%	1%	Present primarily along the reserve boundary
Prickly Lettuce	*Lactuca serriola*	0%	0%	<1%	<1%	<1%	<1%	<1%	Present primarily along the

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
									reserve boundary
Red Brome	*Bromus rubens*	<1%	0%	<1%	<1%	0%	10%	0%	Not observed
Soft Brome	*Bromus hordaceus*	-	-	-	-	-	2%	2%	Scattered throughout.
Ribwort	*Plantago lanceolata*	3%	1%	<1%	1%	1%	5%	3%	Scattered throughout
Rye Grass	*Lolium* sp.	1%	<1%	<1%	0%	0%	<1%	<1%	Scattered throughout
Serrated Tussock	*Nassella trichotoma*	<1%	0%	1%	3%	1%	1%	2%	Scattered throughout. Evidence of weed control.
Small-flowered Mallow	*Malva parviflora*	-	-	-	-	-	-	<1%	Newly recorded species
Soursob	*Oxalis pes-caprae*	-	-	-	-	-	-	<1%	Newly recorded species
South African Orchid	*Disa bracteata*	0%	0%	<1%	0%	0%	0%	0%	Not observed
Sow Thistle	*Sonchus* spp.	0%	0%	1%	<1%	1%	1%	1%	Present primarily along the reserve boundary

Common name	Species name	Cover estimate 2018	Cover estimate 2019	Cover estimate 2020	Cover estimate 2021	Cover estimate 2022	Cover estimate 2023	Cover estimate 2024	Notes 2024
Squirrel-tail Fescue	*Vulpia bromoides*	1%	2%	1%	1%	8%	10%	2%	Scattered throughout.
Twiggy Turnip	*Brassica fruticulosa*	<1%	<1%	<1%	<1%	0%	1%	1%	Present primarily along the reserve boundary
Wall Fumitory	*Fumaria muralis*	-	-	-	-	-	-	<1%	Newly recorded species
Wall Pellitory	*Parietaria judaica*	-	-	-	-	-	-	<1%	Newly recorded species
Wild Oat	*Avena* sp.	12%	6%	5%	6%	11%	15%	20%	Dominant within the eastern half of the reserve
Wild Sage	*Salvia verbenaca*	-	-	-	-	-	-	<1%	Newly recorded species
Total weed cover in Grassland Reserve		**~ 20%**	**~ 15%**	**~ 10%**	**~ 15%**	**~ 35%**	**~ 35%**	**~ 40%**	

Notes: Grey = Weeds in the Grassland Reserve that are considered to be a priority for weed control. Green = A reduction in cover. Orange = An increase in cover. * = Species not considered a weed at time of assessment.

3.4. Fencing

New permanent fencing and gates have been installed since the previous monitoring assessment.

The integrity of the fencing, gate, and signage were checked around the entire reserve and were found to be in excellent condition.

No rabbit activity was recorded within the reserve, suggesting that the fencing is adequately excluding rabbits from the reserve.

3.5. Litter

Occurrence of litter within the reserve has significantly decreased since the previous assessment. Fencing surrounding the reserve (Photo 5) is limiting blow in from surrounding areas and work sites, however, several fragments were recorded throughout the reserve (Photo 6). Removal of litter is undertaken regularly and continues to be managed accordingly.

Photo 5: Fence around the reserve limiting litter occurrence within the Grassland Reserve.

Photo 6: Occurrence of scattered litter within the Grassland Reserve.

4. Actions required

Based on the results of the Year 7 annual monitoring survey, it is recommended that management actions continue as outlined in the *Grassland Reserve Management Plan*. These include the following:

- Undertake a burn in autumn 2025 in accordance with the EMP of the eastern half of the reserve followed by weed control when weed species begin to emerge.
- Ensure that signage to the public is maintained, the gate remains closed and padlocked at all times.
- Maintain the existing rabbit-proofing measure with the weighted meshing at the bottom so that no gaps are able to be created and rabbits are unable to push through, or by the fixed base of mesh running along the bottom of the gate entrance and buried to 30 centimetres, so that the gate sits flush when closed with no gap underneath.
- Monitor regularly for rubbish and remove when observed.
- Check the integrity of fences and signage regularly, and maintain in good condition.
- Undertake weed control within the reserve at regular intervals, prioritising species highlighted in grey in Table 2.
- Undertake increased weed control within the eastern half of the reserve to reduce the cover of the dominant Wild Oat, Squirrel-tail Fescue and Ribwort that have persisted following the burn in Year 5 (2022).
- Undertake regular slashing of the Wild Oats in the eastern section of the unburnt area, to prevent seed set.
- Undertake weed control in a 10-metre buffer around the perimeter of the reserve to reduce the likelihood of weed propagules entering the reserve from surrounding land.

5. References

Brett Lane & Associates (BL&A) 2018, *Modeina Estate Grassland Reserve Management Plan* - Report no. 7045 (43.4), Brett Lane & Associates Pty Ltd, Hawthorn East, consultant report prepared for DFC.

DEWHA 2009, *Background Paper to EPBC Act Policy Statement 3.11 - Nationally Threatened Species and Ecological Communities: Significant Impact Guidelines for the Critically Endangered Spiny Rice-flower* (Pimelea spinescens *subspecies* spinescens). Available from: http://www.environment.gov.au/resource/significant-impact-guidelines-critically-endangered-spiny-rice-flower-pimelea-spinescens.

Nature Advisory 2020, *Modeina Estate Grassland Reserve – Annual Monitoring Year 3* – Report No. 7045.64 (1.0), prepared for DFC.

Nature Advisory 2021, *Modeina Estate Grassland Reserve – Annual Monitoring Year 4* – Report No. 7045.65 (1.2), prepared for DFC.

Nature Advisory 2022, *Modeina Estate Grassland Reserve – Annual Monitoring Year 5* – Report No. 7045.66 (2.1), prepared for DFC.

Nature Advisory 2023, *Modeina Estate Grassland Reserve – Annual Monitoring Year 6* – Report No. 7045.68 (1.0), prepared for DFC.

Appendix 4: Written notification that Condition 15 no longer applies

From: Ruth Crabb <email address redacted >
Sent: Wednesday, 28 November 2018 11:11 AM
To: Tess Trewin < email address redacted >
Cc: Hagen Ganahl < email address redacted >
Subject: RE: EPBC 2011/6063 Burnside Development Modeina [SEC=UNCLASSIFIED]

Hi Tess,

Thank you for your email, and apologies for the delay in responding.

Condition 17 of EPBC approval 2011/6063 is intended to apply if condition 15 cannot be met in full. The Alternative Offset Strategy approved on 9 November 2018 sets out adequate compensation for impacts to Spiny Rice-Flower plants within Project Areas C1 and D, through the provision of direct offsets within the Cressy offset property. The Offset Management Plan for the Cressy property was also approved on 9 November 2018, and contains the necessary direct environmental offsets for impacts within Project Areas C1, C2 and D.

It is the Department's view that condition 17 is satisfied by the attached approval letter, as the Alternative Offset Strategy and Cressy Offset Management Plan for Project Areas C1, C2 and D would not have been approved against this condition had DFC not tabled the inability to meet the requirements of condition 15 in terms of the Spiny Rice-Flower Propagation Project.

I have also spoken with the Office of Compliance regarding this matter, and they have recommended that you retain and attach this email to your annual compliance report so that documentation is obvious.

Kind regards,

Ruth Crabb
Senior Project Officer
Post Approvals Section
Assessments (WA, SA, NT) and Post Approvals Branch
Environment Standards Division
Department of the Environment and Energy

Appendix 5: Acknowledgement of commencement of action

Australian Government
Department of the Environment and Energy

Our reference: 2011/6063

Contact Officer: Keith Horwood
Telephone: (02) 6274 1933
Email: epbcmonitoring@environment.gov.au

Mr Mal Wright
Senior Ecologist
Brett Lane & Associates Pty Ltd
PO Box 337
CAMBERWELL VIC 3124

Dear Mr Wright

Commencement of the Action, Burnside Development – The Point, VIC, EPBC 2011/6063

I am writing to you about the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval 2011/6063.

In accordance with the condition 19, you were required to notify the Department of the action's commencement date. Thank you for notifying the Department that the action commenced on 9 October 2017. Because the action commenced on this date, please complete the following tasks in accordance with the approval conditions by the mentioned due dates.

Condition 21 - Annual Compliance Report

The Annual Compliance Report for the period 9 October 2017 to 8 October 2018 must be published and submitted to the Department before 9 January 2019. The Annual Compliance Report must continue to be published and submitted to the Department until the expiry of the project 31 February 2035.

Please email the Annual Compliance Report, and the details of its publication, to epbcmonitoring@environment.gov.au

Please maintain accurate records of all activities associated with, or relevant to, the approval conditions so that they can be made available to the Department on request. These documents may be subject to audit and be used to verify compliance. Summaries of audits may be published by the Department.

For information about the Monitoring and Audit program, see the Department's website at http://www.environment.gov.au/topics/about-us/legislation/environment-protection-and-biodiversity-conservation-act-1999/complian-2

If you would like to discuss this matter further, please contact Keith Horwood on (02) 6274 1933.

Yours sincerely

Shonelle Meagher
Assistant Director
Environmental Audit Section
Office of Compliance

13 October 2017

Appendix 6: 2024 Australian Ecosystems weed survey reports

Weed Survey Report

Modeina Estate - Phase 2 -

March 2024

Submitted by Adam Gallagher

Australian Ecosystems Pty Ltd

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Contents

1.0 Introduction

Australian Ecosystems (AE) has prepared this report for Dennis Family Corporation (Project Management) Pty Ltd. This report details the results of weed surveys conducted in March 2024 within the area described as 'Stage 2 Modeina'. This report should be read in conjunction with, 'Modeina Weed Management Strategy' that Greening Australia prepared in 2017.

2.0 Weeds Surveyed

This survey has captured these weed species listed below:

- African Boxthorn *(Lycium ferocissimum)*
- Artichoke Thistle (*Cynara cardunculus)*
- Spear Thistle *(Cirsium vulgare)*
- Bridal Creeper *(Asparagus asparagodies)*
- Cape weed (*Arctotheca calendula)*
- Century Plant *(Agave Americana)*
- Fennel *(Foeniculum vulgare)*
- Galenia *(Galenia pubescens)*
- Horehound *(Marrubim vulgare)*
- Paterson's Curse *(Echium plantagineum)*
- Prickly Pear *(Opuntia spp.)*
- Sweet Briar *(Rosa rubiginosa)*
- Chilean Needle Grass *Nassella neesiana)*
- Toowoomba canary grass *(Phalaris aquatica)*
- Serrated Tussock *(Nassella trichotoma)*

Determined by:

The weeds detailed within this report have been taken from the Modeina Weed Management Strategy that Greening Australia prepared in 2017. Only species that are widespread and/or have a high level of risk have been chosen to be controlled within these areas.

3.0 Survey Methodology

The above-mentioned species were surveyed using the Random Quadrant Sampling Method. Within each zone, four quadrants 5-meter X 5-meter were used to measure the current number of weed species present and then converted to a percentage cover. The results from these quadrants were then extrapolated to obtain a percentage cover across each of the zones. The results of these surveys are displayed over the following pages of the report.

3.1 Woody weeds

For this survey woody weeds are classified as African Boxthorn *(Lycium ferocissimum)*, Century Plant *(Agave Americana),* Fennel *(Foeniculum vulgare),* Prickly Pear *(Opuntia spp.)* and Sweet Briar *(Rosa rubiginosa)*.

As a result of the extremely low abundance of all species in each zone, individual counts were undertaken, with each individual being assigned a percentage cover value of 2% to project maximum canopy coverage once mature. It is noteworthy that the observed species were primarily in their juvenile stage, with a projected canopy cover of less than 2% of 25m2. In Zone 3, the cluster of Prickly Pear (Opuntia spp.) has been eliminated and no new growth sited. Similarly, in Zone 4, only a one patch of the Century Plant (Agave Americana) remain, and they, too, are experiencing a reduction in regrowth.

3.2 Herbs and Grass Weeds

Efforts are clearly being made to minimize or control the presence of herb and grass weeds in all areas. These weeds include Artichoke Thistle (Cynara cardunculus), Scotch Thistle (Onopordum acanthium), Spear Thistle (Cirsium vulgare), Bridal Creeper (Asparagus asparagoides), Cape weed (Arctotheca calendula), Galenia (Galenia pubescens), Horehound (Marrubium vulgare), Paterson's Curse (Echium plantagineum), Chilean Needle Grass (Nassella neesiana), Toowoomba canary grass (Phalaris aquatica), and Serrated Tussock (Nassella trichotoma). Significant progress has been made in reducing the presence of Toowoomba canary grass (Phalaris aquatica) in several areas, and further reductions are expected during future maintenance visits. There has been a 1% increase of Artichoke Thistle (Cynara cardunculus) in the Development Zone due to extended Spring weather in Early Summer.

3.3 Changes

Construction work is ongoing within the development zone, which has resulted in a reduction of approximately 70% of the area surveyed. Recent works along the roadside of Zone 3, has resulted in a 50% reduction of the area, and along the road edge in Zone 2, reducing the area by 75%. These construction works do not affect the survey results of this or any previous survey.

4.0 Details of Surveyed Weeds

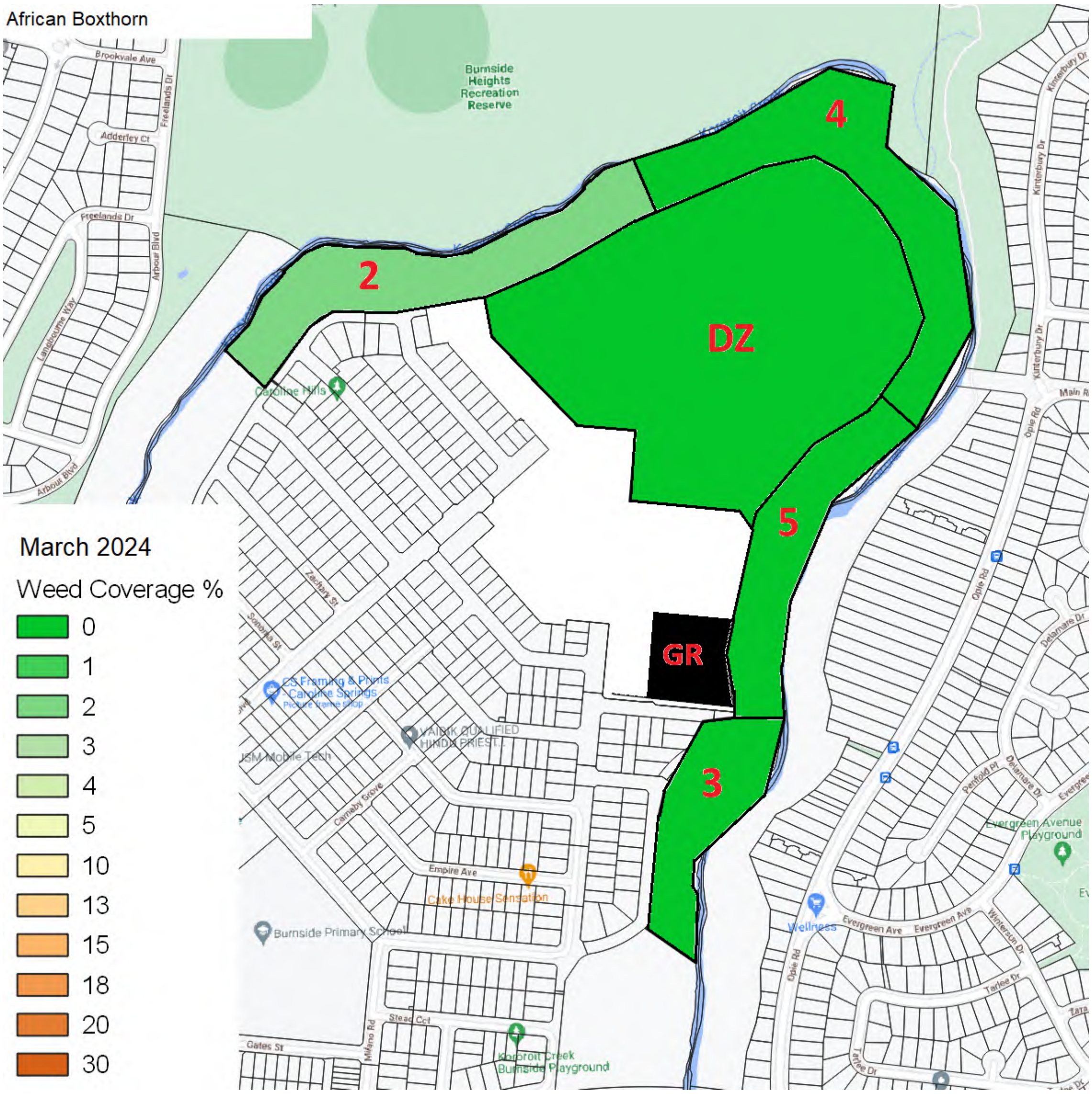
4.1 African Boxthorn - Lycium ferocissimum

Regionally Controlled & Weed of National Significance **Target coverage <1%**

Current coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**2%**	**0%**	**0%**	**0%**	**0%**
December 2023	2%	0%	0%	0%	0%
September 2023	0%	2%	0%	0%	0%
June 2023	0%	1%	0%	2%	0%
March 2023	0%	0%	0%	2%	2%
September 2022	0%	0%	0%	1%	1%
June 2022	0%	0%	0%	1%	1%
March 2022	0%	1%	0%	0%	1%
December 2021	0%	0%	0%	0%	1%
October 2021	0%	0%	0%	0%	1%
August 2021	1%	1%	1%	1%	2%
April 2021	1%	1%	1%	1%	1%
Dec 2020	0%	1%	1%	0%	1%
Oct 2020	0%	1%	1%	0%	1%
June 2020	0%	1%	1%	0%	1%

African boxthorn is a rounded, woody, densely branched and very thorny large shrub up to 5 metres high. African boxthorn reproduces exclusively by seed, which is commonly eaten by birds, seed is viable when excreted. These plants are often found near places where birds have perched such as trees, poles, and powerlines. It was widely planted as a hedge plant before its weedy potential was realised. Spread also occurs from contaminated produce and materials. African boxthorn is a fast-growing invasive species that, if untreated, spreads quickly. Seeds may germinate year-round and early root growth is rapid, ensuring young plants are competitive. Plants take at least two years to flower, producing flowers and fruit mostly in summer. Some flowering and fruit production occurs at other times of year. Sometimes deciduous in winter, with new leaves and active growth in spring. Broken roots and cut stumps can sprout regrowth.


African Boxthorn
Burnside Heights Recreation Reserve
2
4
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

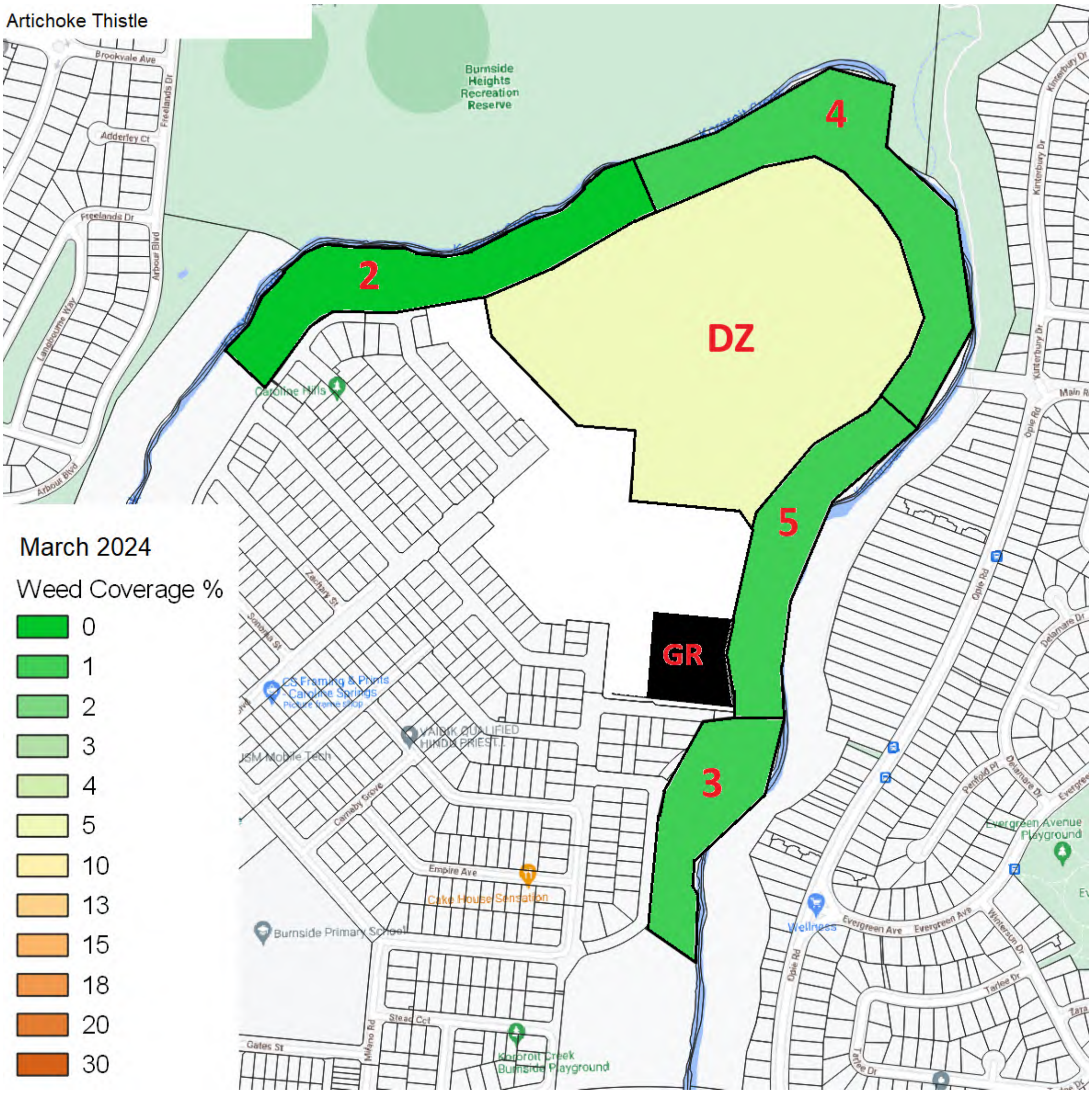
4.2 Artichoke Thistle - Cynara cardunculus

Regionally Controlled **Target coverage < 5%**

Current coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**1%**	**1%**	**1%**	**5%**
December 2023	0%	1%	2%	2%	4%
September 2023	1%	1%	2%	3%	3%
June 2023	2%	1%	2%	2%	4%
March 2023	3%	1%	0%	3%	4%
September 2022	1%	0%	0%	1%	4%
June 2022	1%	0%	0%	1%	10%
March 2022	2%	0%	0%	2%	2%
December 2021	0%	0%	0%	0%	5%
October 2021	0%	0%	0%	0%	10%
August 2021	5%	2%	15%	15%	10%
Apr 2021	15%	2%	2%	2%	5%
Dec 2020	5%	2%	5%	2%	5%
Oct 2020	5%	5%	2%	2%	10%
June 2020	2%	10%	5%	5%	10%

A perennial or biennial spiny thistle with annual tops and a cluster of large bright purple flowers that are 5-8 cm in diameter during summer. The mature plant is erect, with stems 1- 2 m tall arising from a bushy rosette up to 2 m wide and tall. The stem is strongly ribbed and covered with downy grey hairs and usually single at the base and branched towards the top. The large, grey green leaves are deeply lobed and spiny with woolly hairs underneath.



Artichoke Thistle
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
2
4
DZ
5
GR
3
Burnside Heights Recreation Reserve

4.4 Spear Thistle - Cirsium vulgare

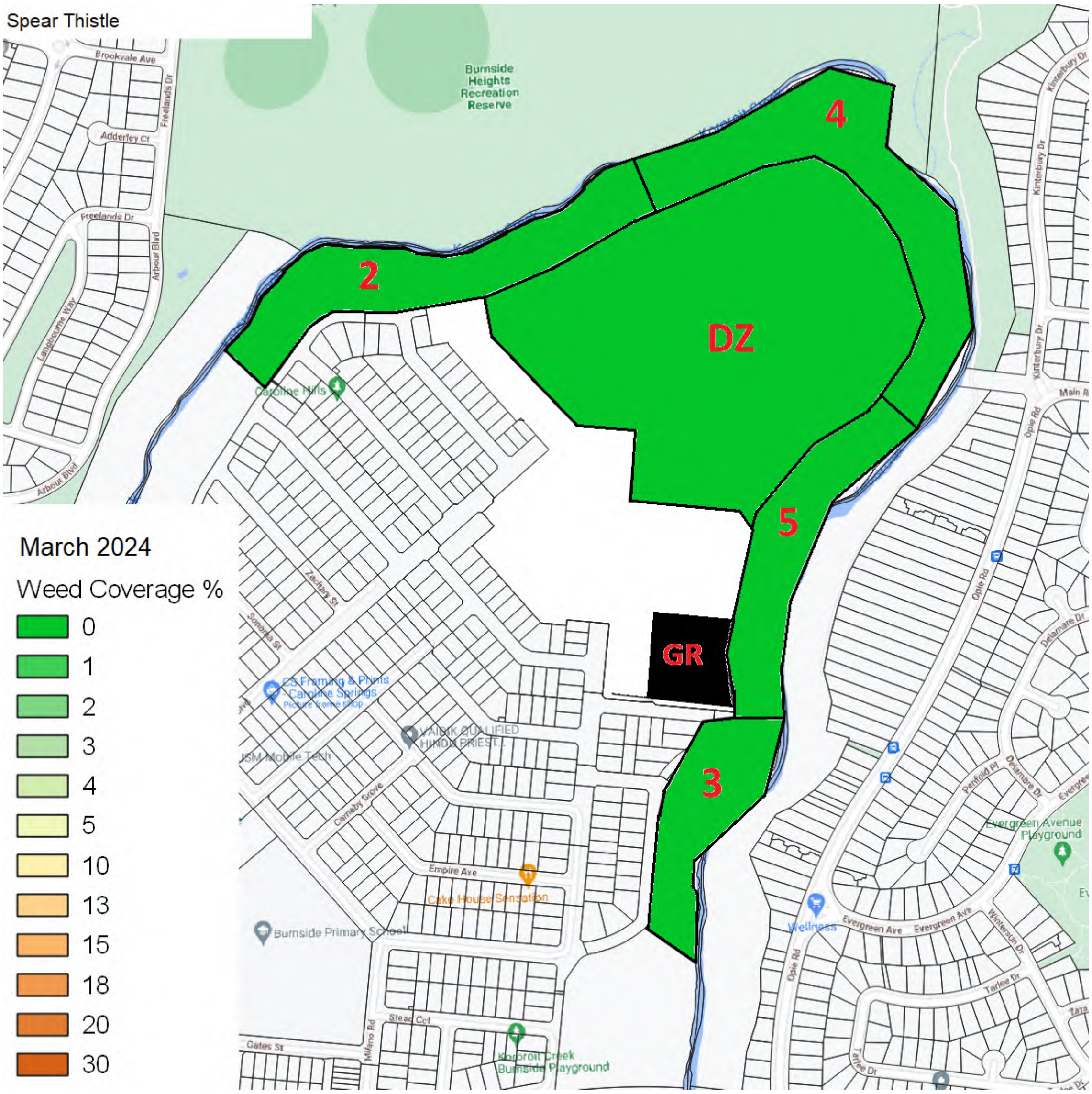
Regionally Controlled Weeds ***Target coverage <5%***

Current coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**0%**	**0%**	**0%**	**0%**
December 2023	0%	0%	0%	0%	0%
September 2023	0%	0%	0%	0%	0%
June 2023	0%	0%	0%	0%	0%
March 2023	0%	0%	0%	0%	0%
September 2022	0%	0%	0%	0%	0%
June 2022	0%	0%	0%	0%	0%
March 2022	0%	0%	0%	0%	0%
December 2021	0%	0%	0%	0%	0%
October 2021	0%	0%	0%	0%	0%
August 2021	0%	0%	0%	0%	0%
Apr 2021	0%	0%	0%	0%	0%
Dec 2020	1%	0%	0%	0%	1%
Oct 2020	1%	0%	0%	0%	1%
June 2020	1%	0%	0%	0%	1%

An annual or short-term perennial herb with erect growth to 1.5 m tall. Stems have spiny wings and are cobwebby. Upper leaf surface is dark green and rough while the lower surface is white with short, matted hairs.

A common species of wet or summer-moist land, including swamps, depressions, drains, wasteland, pastures, and cultivated soils. Prefers open, non-shaded environments, heavy textured soils, and good fertility.



Spear Thistle
Burnside Heights Recreation Reserve
2
4
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

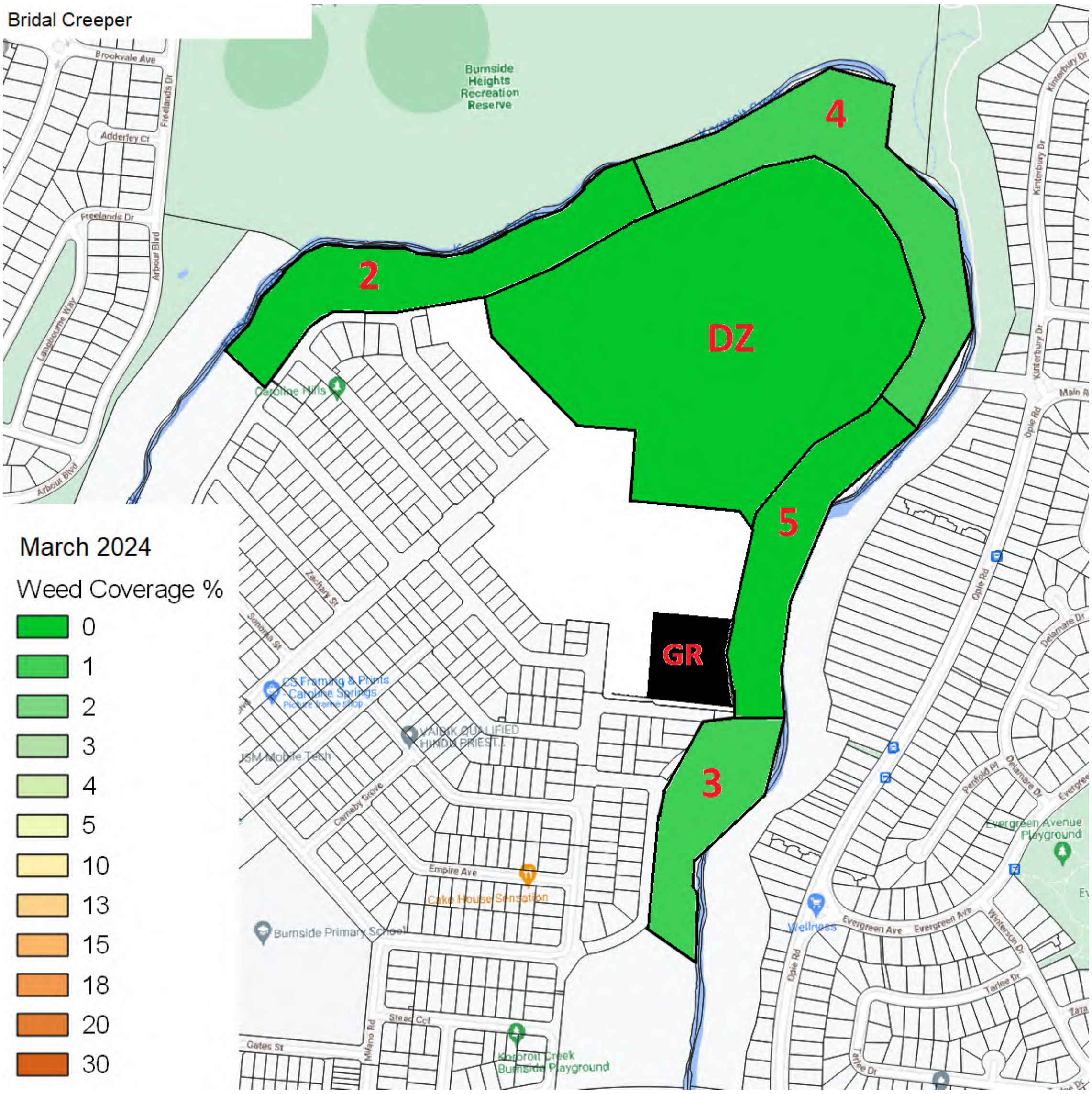
4.5 Bridal Creeper - Asparagus asparagodies

Regionally Controlled - Weed of National Significance **Target coverage < 1%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**1%**	**0%**	**1%**	**0%**
December 2023	1%	1%	0%	0%	0%
September 2023	1%	1%	0%	0%	0%
June 2023	1%	1%	0%	0%	0%
March 2023	1%	1%	0%	0%	0%
September 2022	1%	1%	0%	0%	0%
June 2022	1%	1%	0%	0%	0%
March 2022	2%	1%	0%	0%	0%
December 2021	2%	2%	2%	0%	0%
October 2021	3%	3%	2%	0%	0%
August 2021	5%	4%	3%	0%	0%
Apr 2021	1%	1%	1%	0%	0%
Dec 2020	0%	1%	1%	0%	0%
Oct 2020	0%	0%	1%	0%	0%
June 2020	0%	0%	1%	0%	0%

It is regarded as one of the worst weeds in Australia because of its invasiveness, potential for spread, and economic and environmental impacts. Bridal creeper entered the country as a garden plant and is now a major weed of bushland in southern Australia, where its climbing stems and foliage smother native plants. It forms a thick mat of underground tubers which impedes the root growth of other plants and often prevents seedling establishment. Rare native plants, such as the rice flower *Pimelea spinescens*, are threatened with extinction by Bridal Creeper.



Bridal Creeper
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
2
4
DZ
5
GR
3
Burnside Heights Recreation Reserve

4.6 Cape weed - Arctotheca calendula

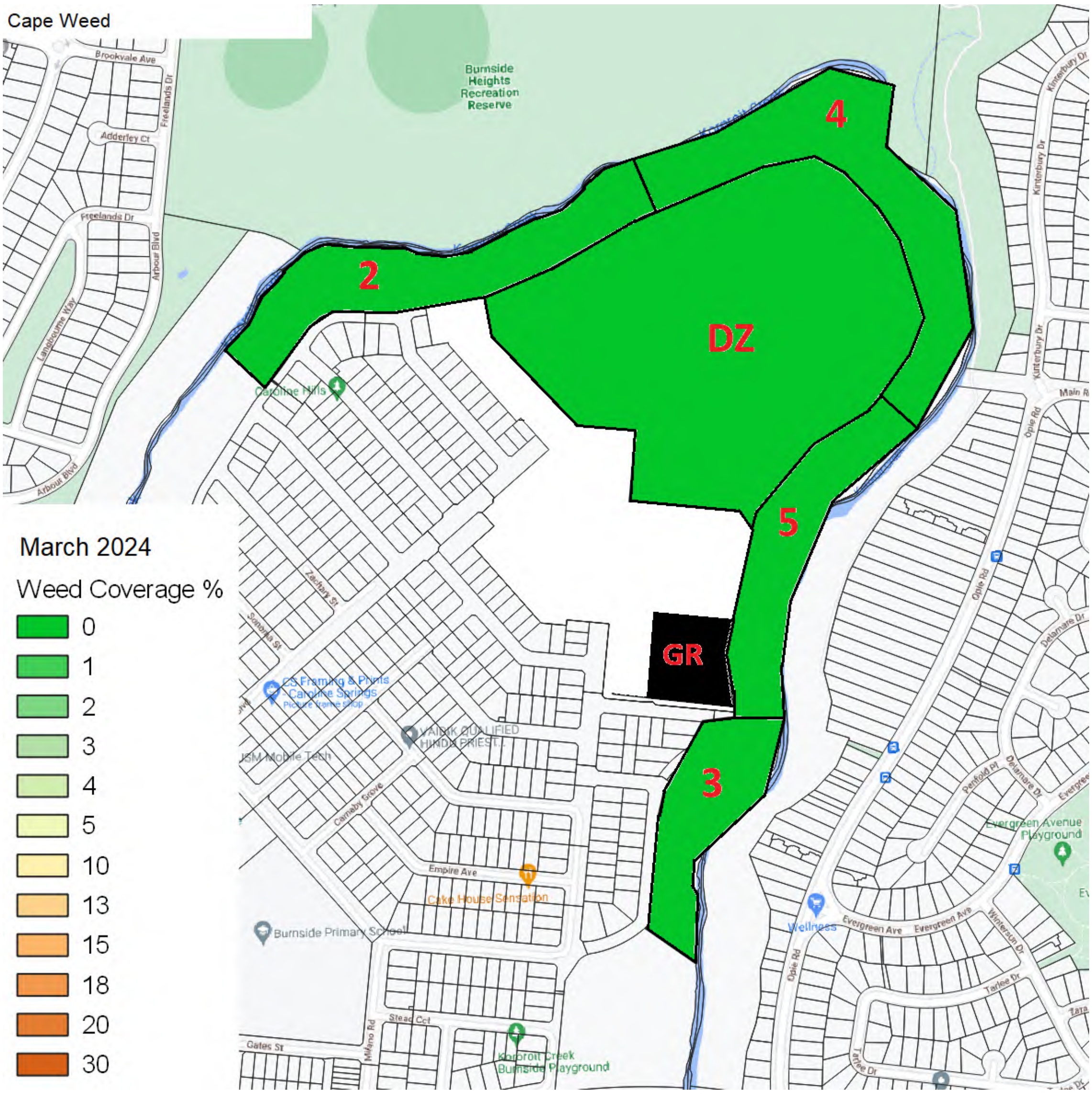
Not declared or considered noxious **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**0%**	**0%**	**0%**	**0%**
December 2023	0%	0%	0%	0%	0%
September 2023	0%	0%	0%	0%	0%
June 2023	0%	0%	0%	0%	0%
March 2023	0%	0%	0%	0%	0%
September 2022	0%	0%	0%	0%	0%
June 2022	0%	0%	0%	0%	0%
March 2022	0%	0%	0%	2%	2%
December 2021	0%	0%	0%	0%	0%
October 2021	0%	0%	0%	0%	0%
August 2021	0%	0%	0%	0%	0%
Apr 2021	0%	0%	0%	0%	0%
Dec 2020	0%	0%	0%	0%	0%
Oct 2020	0%	1%	1%	1%	0%
June 2020	2%	2%	0%	2%	0%

This plant is widespread and common weed in pastures, lawns, cultivation, and waste areas across Victoria. Typically, a plant of fresh-water habitats but may occur on the fringes of saline swamps and flats during wetter periods.

It is stemless or shortly stemmed, herb, 80 cm wide and 30 cm high, with a taproot and a basal rosette of leaves. Leaves are 5-25 cm long and 2-6 cm wide.



Cape Weed
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

4.7 Century Plant - Agave americana

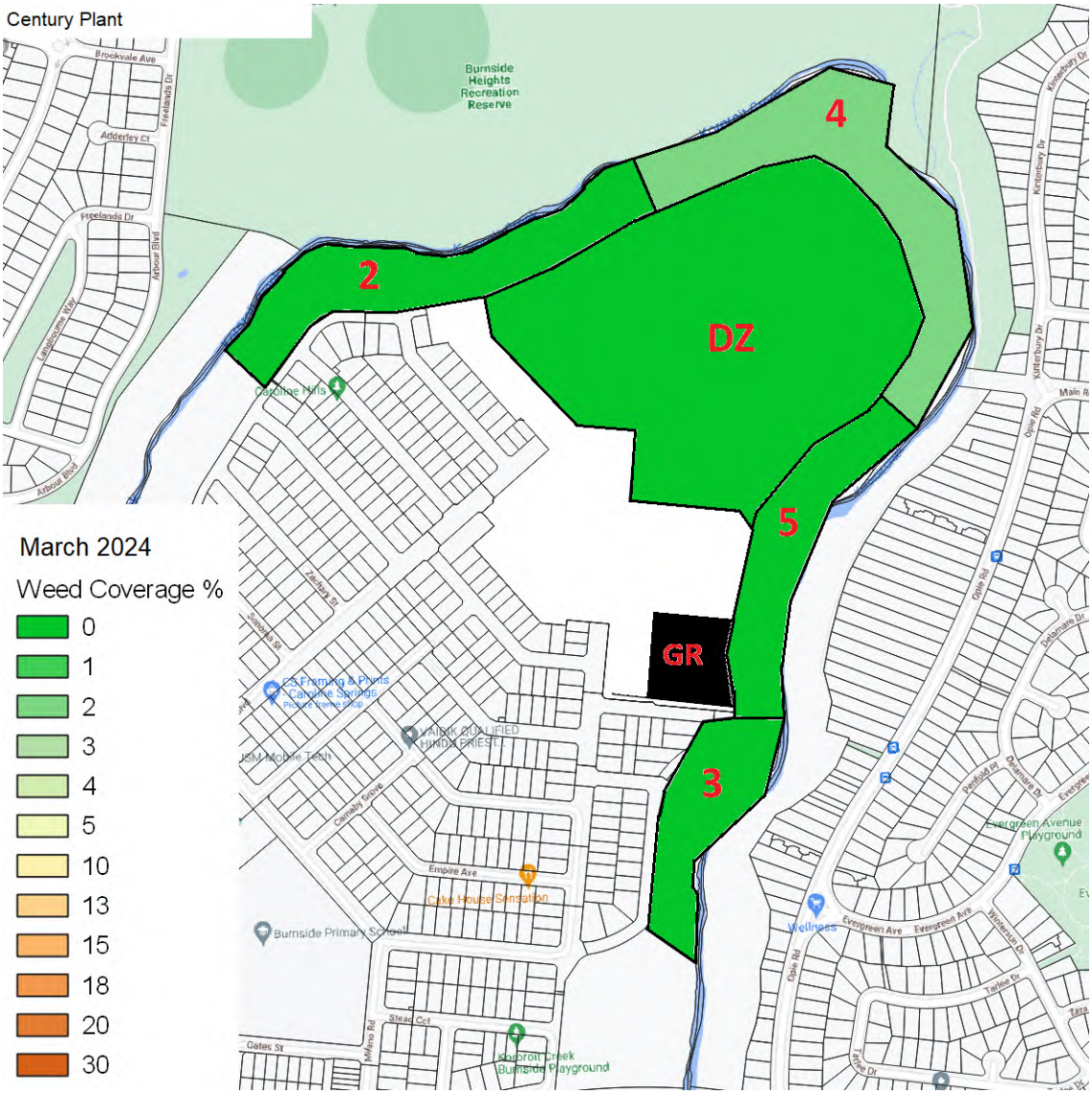
Not declared or considered noxious **Target coverage < 1%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**2%**	**0%**	**0%**	**0%**
December 2023	0%	2%	0%	0%	0%
September 2023	0%	2%	0%	0%	0%
June 2023	0%	2%	0%	0%	0%
March 2023	0%	2%	0%	0%	0%
September 2022	0%	1%	0%	0%	0%
June 2022	1%	0%	0%	0%	0%
March 2022	0%	0%	0%	0%	0%
December 2021	0%	0%	0%	0%	0%
October 2021	0%	0%	0%	0%	0%
August 2021	0%	0%	0%	0%	0%
Apr 2021	1%	0%	0%	0%	0%
Dec 2020	1%	0%	0%	0%	0%
Oct 2020	1%	0%	0%	0%	0%
June 2020	1%	0%	0%	0%	0%

A very large and long-lived rosette-forming plant, growing 1-2 m high and 2-4 m across.

Older individuals may sometimes develop a short woody stem at the base of the plant and commonly produces numerous suckers which form a large clump or colony. When fully mature this plant will develops a massive flower cluster on a robust flowering stem 6-12 m tall.


Century Plant
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

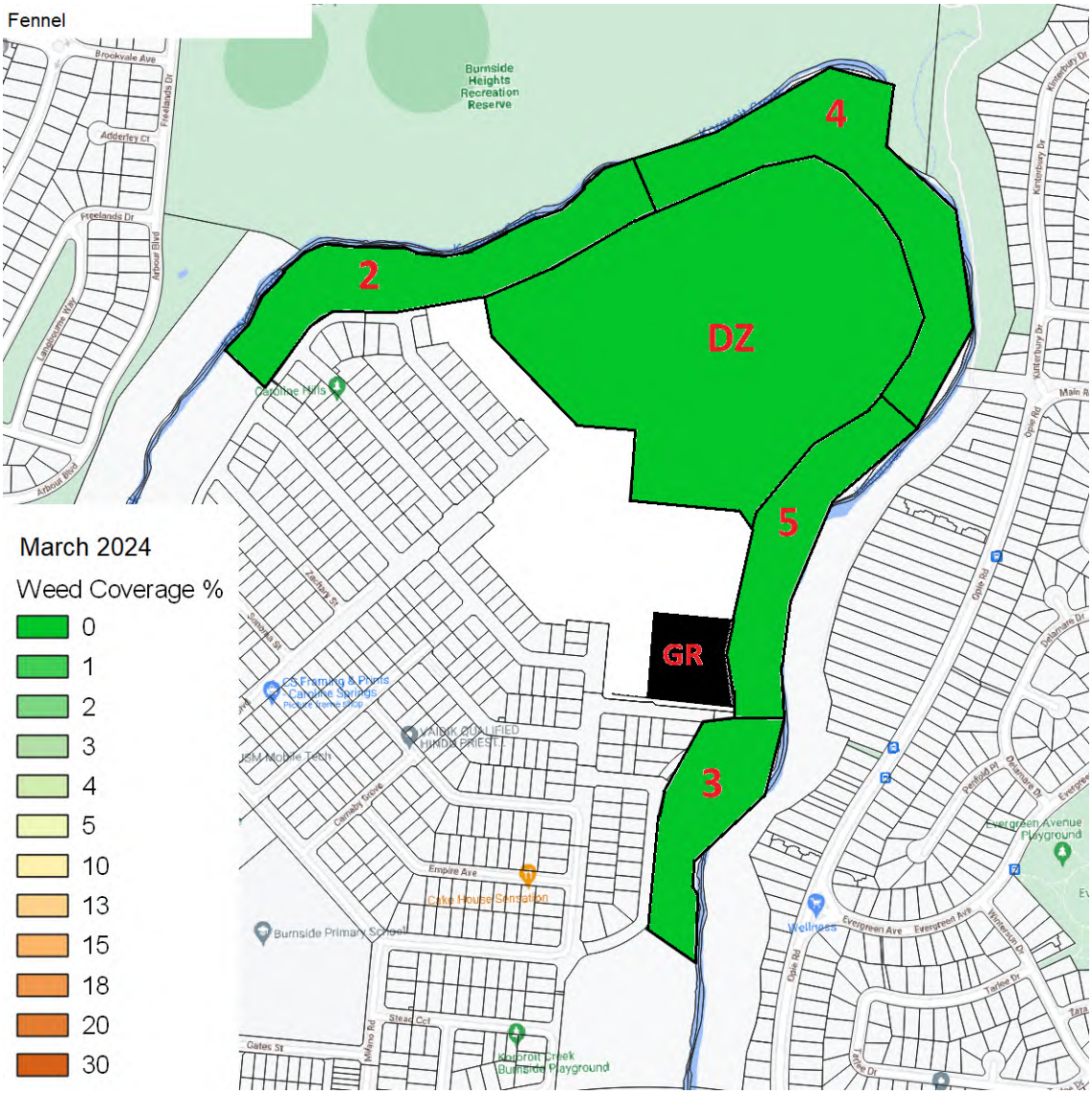
4.8 Fennel - Foeniculum vulgare

Restricted Weeds **noxious** **Target coverage < 1%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**0%**	**0%**	**0%**	**0%**
December 2023	0%	0%	0%	0%	0%
September 2023	0%	0%	0%	0%	0%
June 2023	0%	0%	0%	0%	0%
March 2023	0%	0%	0%	0%	0%
September 2022	0%	0%	0%	0%	0%
June 2022	0%	0%	0%	0%	0%
March 2022	0%	0%	0%	0%	0%
December 2021	0%	0%	0%	0%	0%
October 2021	0%	0%	0%	0%	0%
August 2021	0%	0%	0%	0%	0%
Apr 2021	0%	0%	0%	0%	0%
Dec 2020	1%	0%	0%	1%	0%
Oct 2020	0%	0%	0%	0%	0%
June 2020	0%	0%	0%	0%	0%

An erect multi-stemmed perennial herb commonly 1.5 to 2.0 metres high. It is found along waterways, drainage lines and in seasonally moist locations within grasslands and woodlands. Dense infestations may restrict access to waterways. A soft, herbaceous plant the high growth of the plant may be a nuisance to people.


Fennel
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

4.9 Galenia - Galenia pubescens

Not declared or considered noxious **Target coverage < 5%**

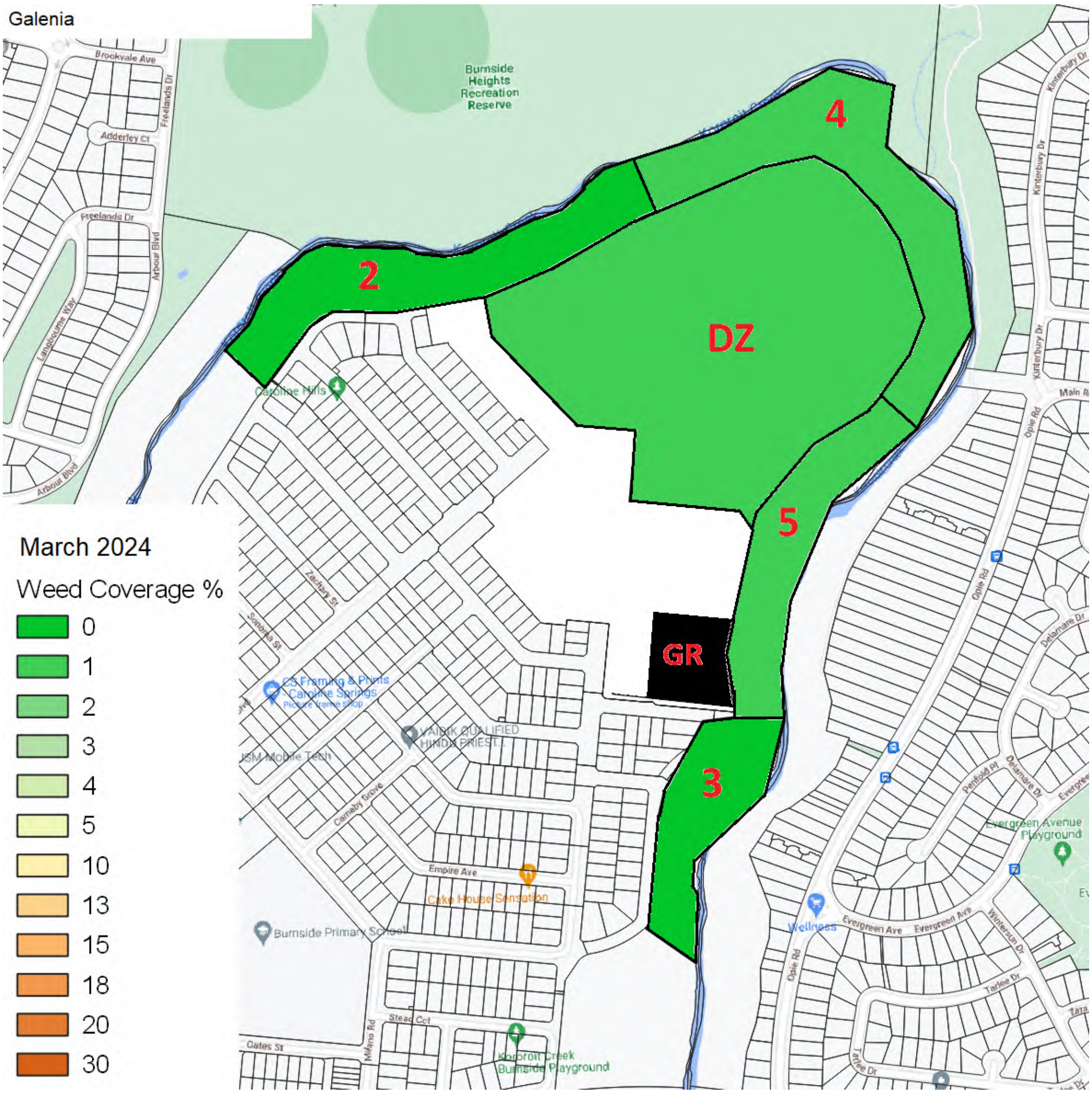
Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**1%**	**1%**	**0%**	**1%**
December 2023	0%	1%	1%	0%	1%
September 2023	0%	1%	1%	0%	1%
June 2023	0%	1%	1%	0%	1%
March 2023	1%	0%	1%	0%	1%
September 2022	1%	0%	1%	0%	1%
June 2022	1%	0%	1%	0%	2%
March 2022	2%	0%	1%	1%	4%
December 2021	1%	1%	1%	1%	5%
October 2021	1%	1%	1%	1%	10%
August 2021	1%	1%	1%	1%	0%
Apr 2021	1%	1%	1%	1%	0%
Dec 2020	1%	1%	0%	1%	0%
Oct 2020	0%	0%	0%	1%	0%
June 2020	1%	0%	1%	0%	0%

This perennial creeping, herbaceous plant growing to about 60 cm high and 1–2 m wide.

It is deep rooted and flowers from late spring to early autumn. Galenia reproduces by seed. Most dispersal of seed occurs by wind, water, birds and livestock. Movement of contaminated soil by vehicles and equipment can also contribute to its spread.

Drought and salt tolerant, galenia grows over and smothers existing vegetation by forming a thick dense mat. It invades coastal dunes, pastures, disturbed areas, lawns, roadsides and rocky outcrop vegetation. Galenia is known to produce nitrates that can be toxic to stock.


Galenia
Burnside Heights Recreation Reserve
2
4
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

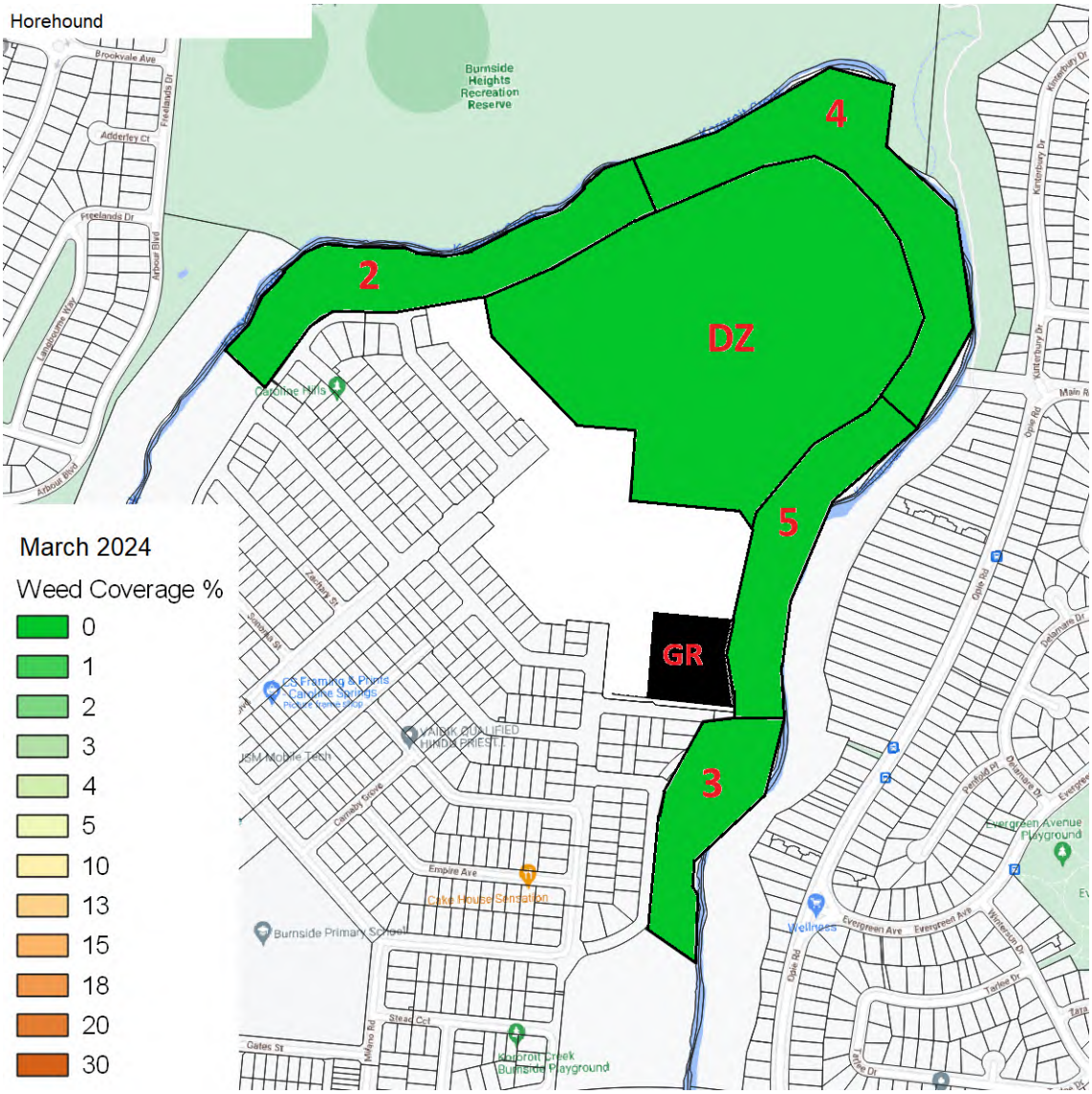
4.10 Horehound - Marrubim vulgare

Not declared or considered noxious **Target coverage <5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**0%**	**0%**	**0%**	**0%**
December 2023	0%	0%	0%	0%	0%
September 2023	0%	0%	0%	0%	0%
June 2023	0%	0%	0%	0%	0%
March 2023	1%	0%	0%	0%	0%
September 2022	1%	0%	0%	0%	0%
June 2022	1%	0%	0%	0%	0%
March 2022	0%	1%	1%	0%	0%
December 2021	0%	0%	0%	0%	0%
October 2021	0%	1%	0%	4%	3%
August 2021	0%	1%	0%	1%	0%
Apr 2021	0%	1%	0%	1%	0%
Dec 2020	0%	1%	1%	1%	0%
Oct 2020	1%	0%	1%	0%	0%
June 2020	0%	1%	0%	1%	0%

A bushy perennial plant, 30 to 80 cm high, sharply aromatic when crushed, covered with dense whitish hairs. Horehound thrives on poor soil and in waste places. It invades poor pastures which provide little competition. Horehound contains a bitter alkaloid which makes it unpalatable for grazing livestock. As well as being an agricultural weed of pastures horehound has become an important environmental weed because of its ability to invade disturbed native vegetation.


Horehound
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

4.11 Paterson's Curse - Echium plantagineum

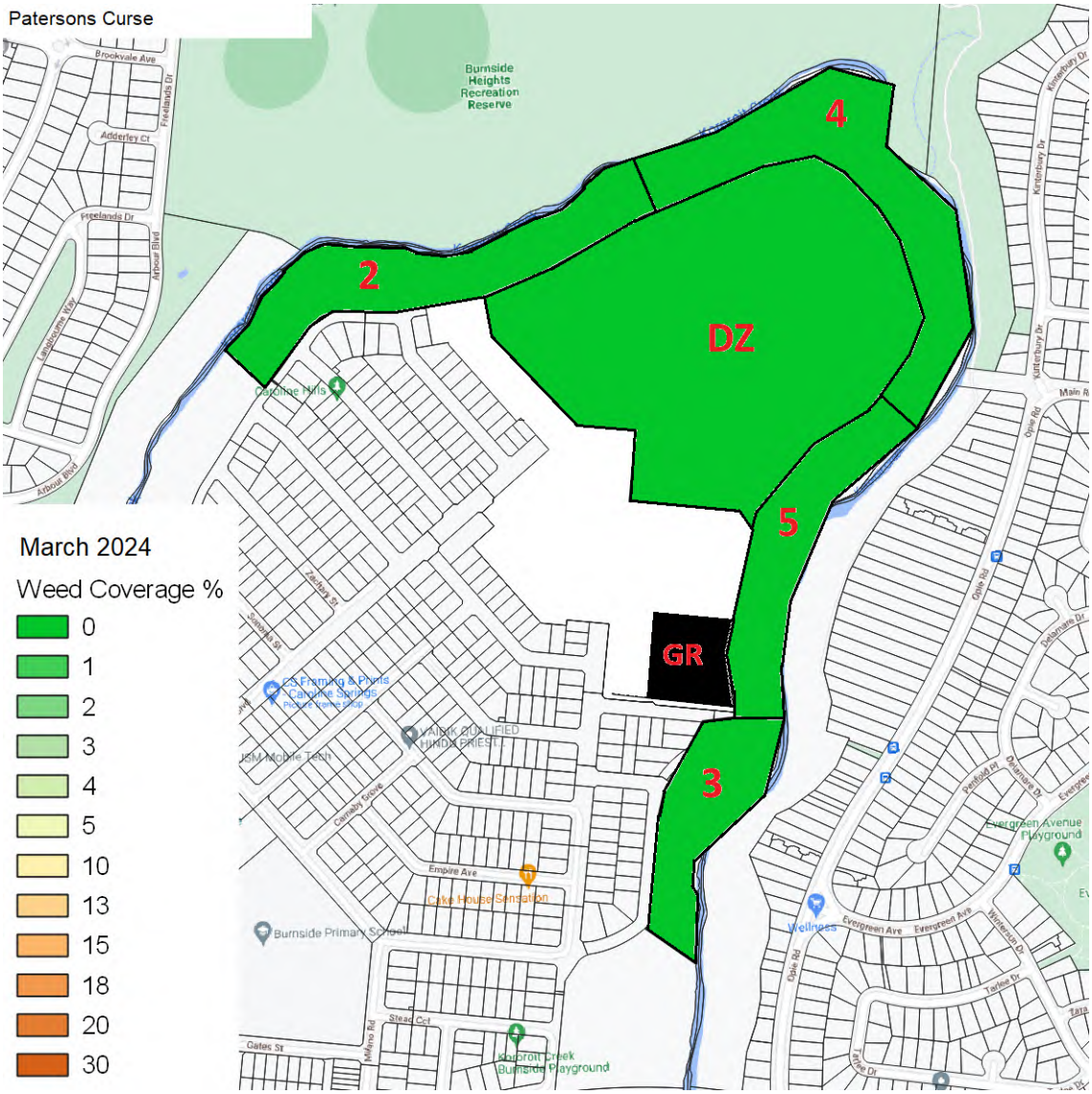
Regionally controlled **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**0%**	**0%**	**0%**	**0%**
December 2023	0%	0%	0%	0%	0%
September 2023	0%	0%	0%	0%	0%
June 2023	0%	0%	0%	0%	0%
March 2023	0%	0%	0%	0%	0%
September 2022	0%	0%	0%	0%	0%
June 2022	0%	0%	0%	0%	0%
March 2022	2%	0%	0%	2%	2%
December 2021	0%	0%	0%	0%	0%
October 2021	0%	0%	0%	0%	10%
August 2021	0%	0%	0%	2%	10%
Apr 2021	0%	0%	0%	0%	0%
Dec 2020	1%	1%	1%	1%	2%
Oct 2020	2%	1%	1%	2%	2%
June 2020	2%	2%	5%	5%	5%

Paterson's curse is an annual, occasionally biennial, herb that grows as a rosette in autumn and winter and produces flowering stalks in spring and early summer. The rosette usually grows parallel to the ground; however, the leaves may be erect in dense vegetation.

Plants begin to produce flowering stalks in late winter, commence flowering in early spring and die in summer. The flowers are usually purple but may be blue or pink. The first mature seeds are produced four to six weeks after flowering commences.


Patersons Curse
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

4.12 Prickly Pear - Opuntia spp.

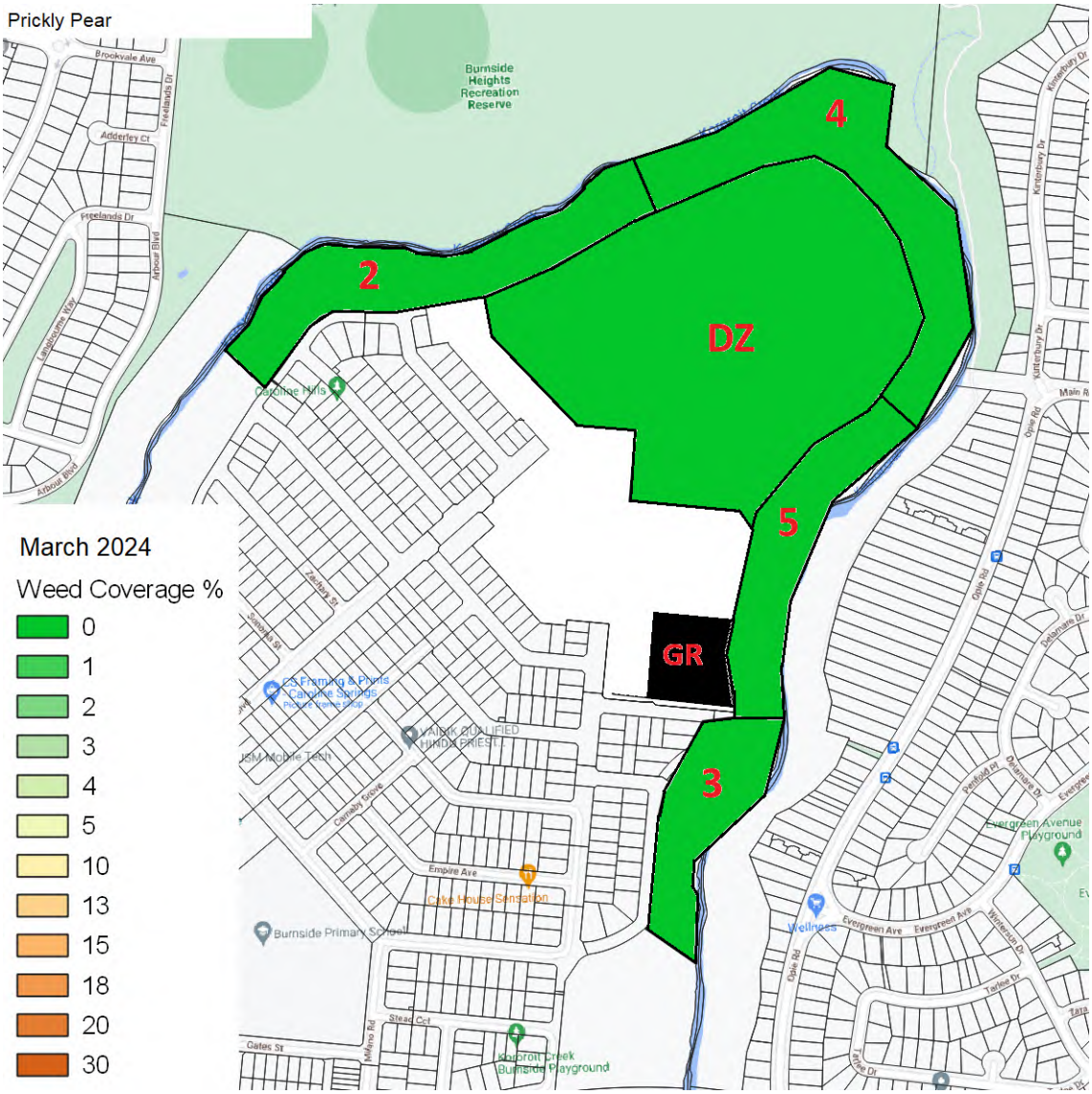
Regionally controlled **Target coverage <5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**0%**	**0%**	**0%**	**0%**
December 2023	0%	0%	0%	2%	0%
September 2023	0%	0%	0%	2%	0%
June 2023	0%	1%	0%	2%	0%
March 2023	0%	0%	0%	2%	0%
September 2022	0%	0%	0%	1%	0%
June 2022	0%	0%	0%	1%	0%
March 2022	0%	0%	0%	0%	0%
December 2021	0%	0%	0%	0%	0%
October 2021	0%	0%	0%	1%	0%
August 2021	0%	1%	0%	1%	0%
Apr 2021	0%	1%	0%	1%	0%
Dec 2020	0%	1%	0%	1%	0%
Oct 2020	0%	1%	0%	1%	0%
June 2020	0%	1%	0%	0%	0%

Prickly pear is an erect succulent shrub which can grow to a height of 5 m. The stems of prickly pear are commonly grey green to light green. The plant usually has one main woody stem with dense prickles, which gives way to several side branches made up of fleshy segments. The segments are approximately 45 cm long, 15 cm wide and 1-2 cm thick, with the upper segments appearing to droop.

Each plant segment has areoles, which are growing points where new segments, flowers or roots can be produced. Each areole has short tuffs of finely barbed bristles and sometimes one to five sharp, 5 cm long spines. Spines are more common on segments that are older and lower on the plant.


Prickly Pear
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

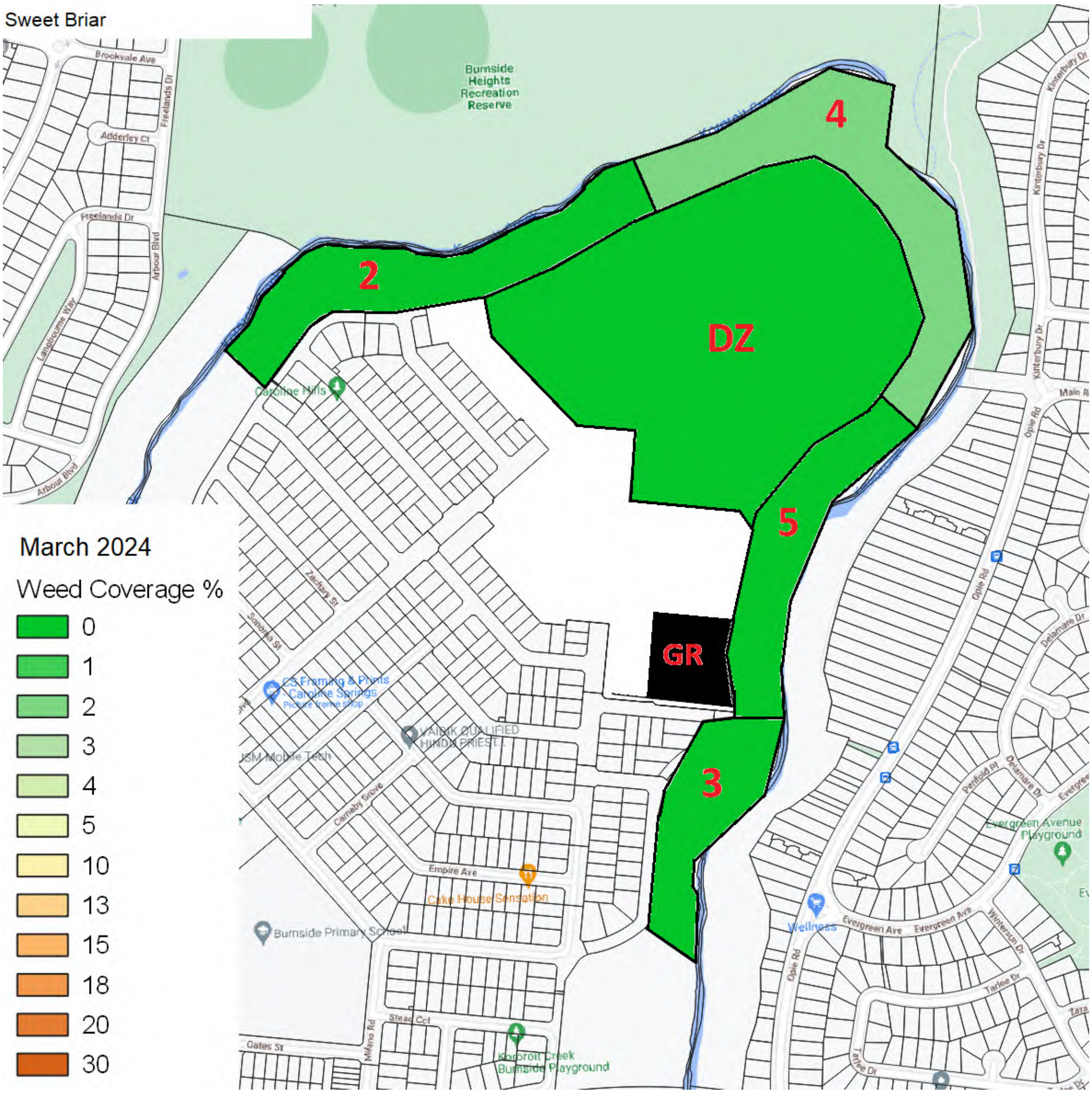
4.13 Sweet Briar - Rosa rubiginosa

Regionally Controlled **Target coverage <1%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**2%**	**2%**	**0%**	**0%**	**0%**
December 2023	2%	2%	0%	0%	0%
September 2023	2%	2%	0%	0%	0%
June 2023	2%	1%	0%	0%	0%
March 2023	2%	2%	0%	0%	0%
September 2022	0%	0%	0%	0%	0%
June 2022	0%	0%	0%	0%	0%
March 2022	0%	2%	0%	0%	1%
December 2021	0%	0%	0%	0%	1%
October 2021	1%	1%	1%	1%	1%
August 2021	1%	1%	1%	1%	1%
Apr 2021	1%	1%	1%	1%	1%
Dec 2020	1%	1%	0%	0%	0%
Oct 2020	1%	1%	0%	0%	0%
June 2020	1%	1%	1%	0%	0%

Sweet briar is a perennial woody shrub up to 3m tall. The stem is usually many (and can be up to several hundred) stems arising from the rootstock; erect or scrambling, up to 3 metres high, green and smooth to brown and somewhat roughened, woody, branched, spreading and sometimes trailing, heavily covered with down-curved prickles up to 1.5 cm long.


Sweet Briar
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

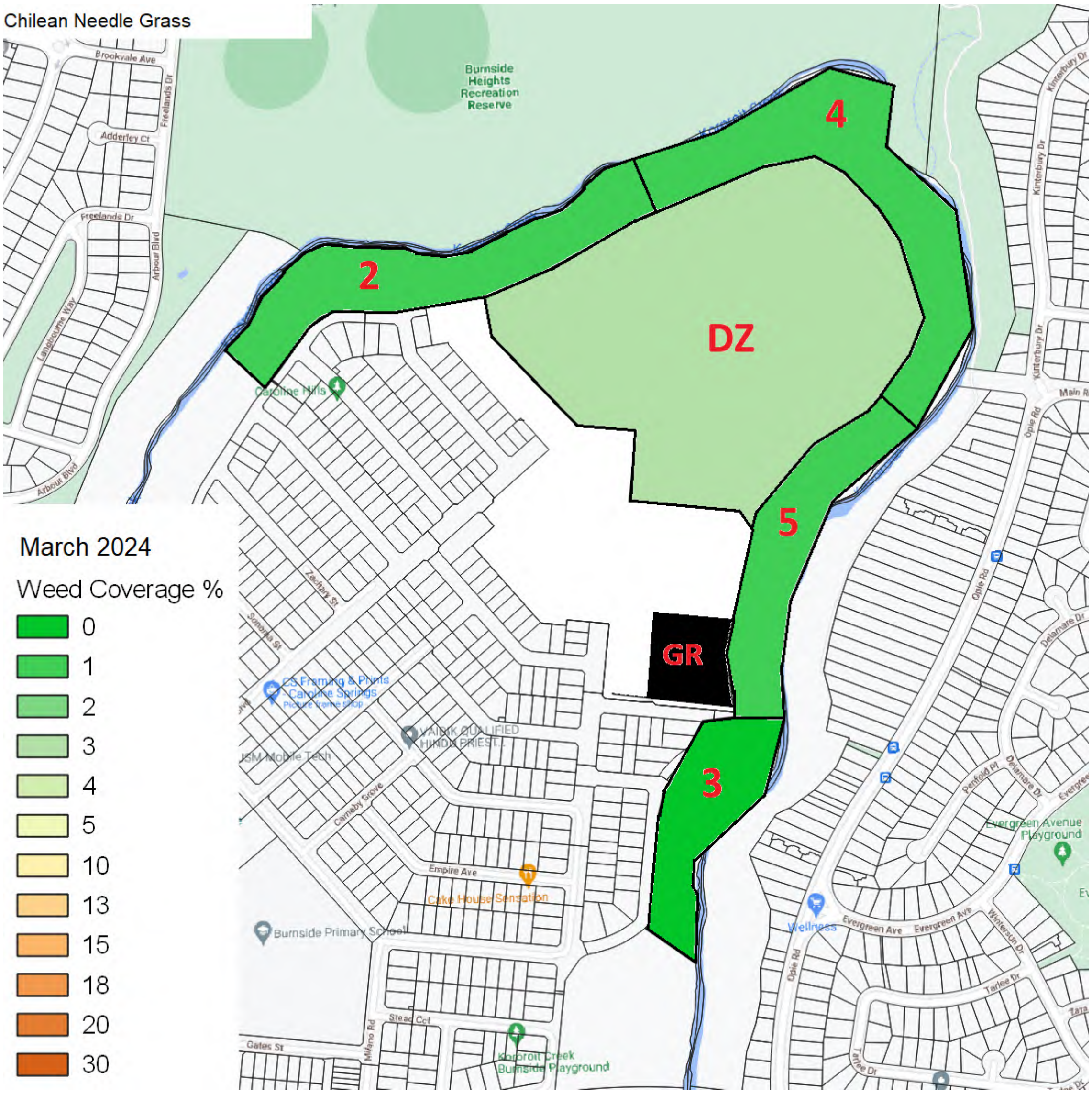
4. 14 Chilean Needle Grass - Nassella neesiana

Regional restricted **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**1%**	**1%**	**1%**	**0%**	**3%**
December 2023	1%	2%	1%	0%	3%
September 2023	1%	2%	1%	0%	3%
June 2023	2%	1%	1%	0%	4%
March 2023	2%	1%	1%	0%	4%
September 2022	2%	1%	0%	0%	4%
June 2022	2%	1%	0%	0%	5%
March 2022	5%	10%	5%	5%	15%
December 201	5%	5%	5%	5%	20%
October 2021	5%	3%	5%	5%	15%
August 2021	5%	3%	5%	5%	15%
Apr 2021	2%	2%	5%	5%	2%
Dec 2020	0%	0%	2%	2%	2%
Oct 2020	0%	0%	2%	5%	2%
June 2020	0%	0%	2%	1%	2%

Chilean needle grass is a tussocky perennial in the Spear grass group of grasses growing to about 1 m high. It leaves are hairless and are normally grow to 30 cm long and 5 mm wide. With the flowering head being to 40 cm long.


Chilean Needle Grass
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
2
4
DZ
5
GR
3
Burnside Heights Recreation Reserve
Brookvale Ave
Adderley Ct
Freelands Dr
Arbour Blvd
Caroline Hills
Empire Ave
Cake House Sensation
Burnside Primary School
Gates St
Stead Cct
Kororoit Creek Burnside Playground
Evergreen Ave
Evergreen Avenue Playground
Wellness
Opie Rd
Kinterbury Dr
Main Rd

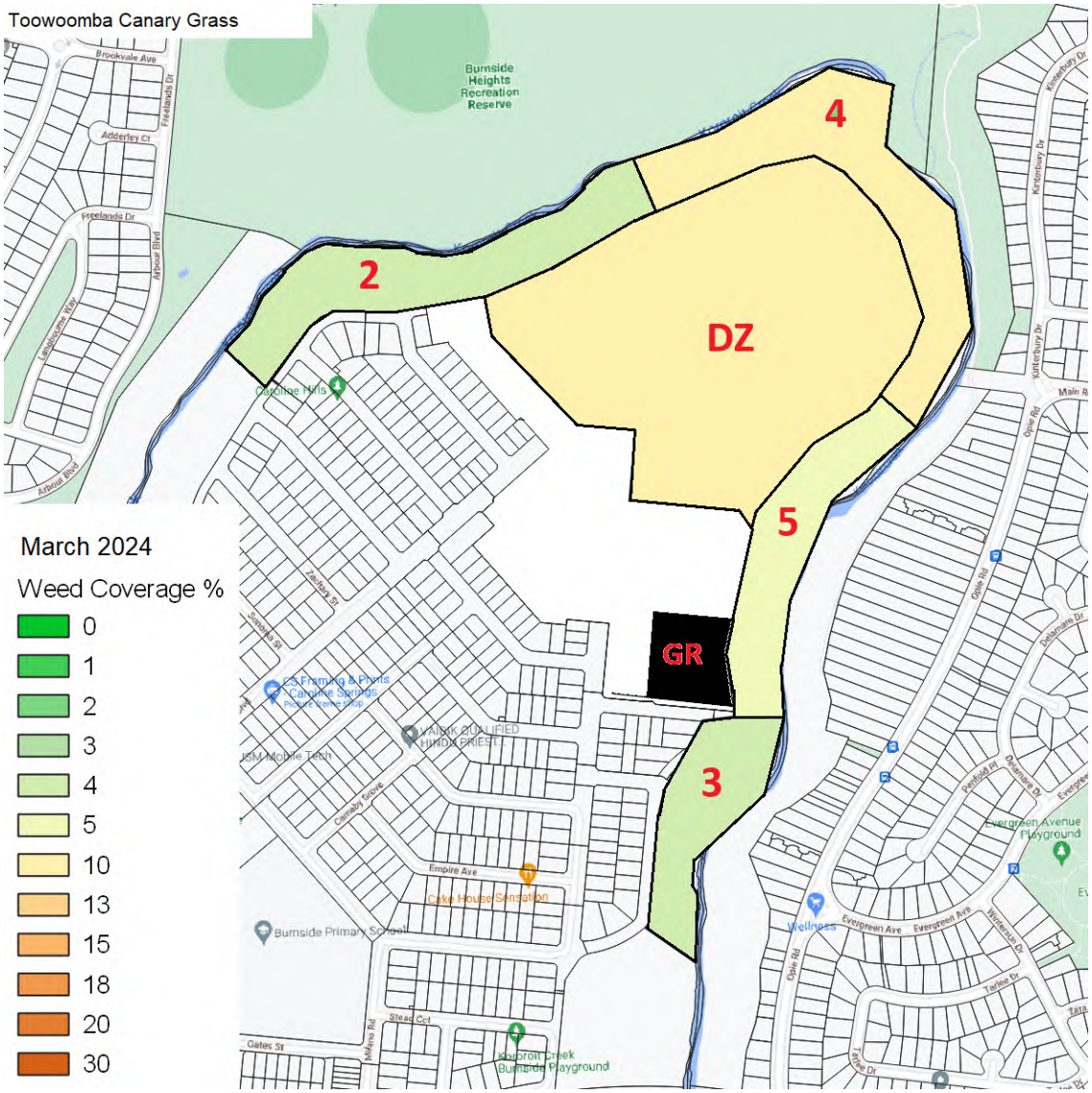
4.15 Toowoomba canary grass - Phalaris aqatica

Not declared and considered noxious **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**4%**	**10%**	**5%**	**4%**	**10%**
December 2023	4%	10%	10%	4%	10%
September 2023	4%	10%	15%	4%	10%
June 2023	5%	15%	25%	5%	10%
March 2023	5%	10%	20%	5%	10%
September 2022	10%	10%	15%	5%	10%
June 2022	10%	15%	20%	10%	15%
March 2022	20%	20%	20%	20%	20%
December 2021	25%	25%	20%	25%	30%
October 2021	15%	20%	20%	20%	4%
August 2021	13%	18%	20%	20%	4%
Apr 2021	5%	5%	5%	5%	2%
Dec 2020	2%	2%	2%	2%	0%
Oct 2020	5%	5%	5%	5%	0%
June 2020	2%	2%	2%	2%	0%

Widely used as a pasture species where annual rainfall exceeds 450 mm. It prefers fertile, seasonally moist sites. Commonly spreads from pastures, road verges and drainage ditches to adjacent indigenous vegetation. Toowoomba canary grass invades dry coastal vegetation, heathland and heathy woodland, lowland grassland and grassy woodland, dry sclerophyll forest and woodland, damp sclerophyll forest, riparian vegetation, and freshwater wetlands.


Toowoomba Canary Grass
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
4
2
DZ
5
GR
3
Burnside Heights Recreation Reserve
Caroline Hills
Burnside Primary School
Cake House Sensation
Evergreen Avenue Playground
Wellness
Kororoit Creek Burnside Playground

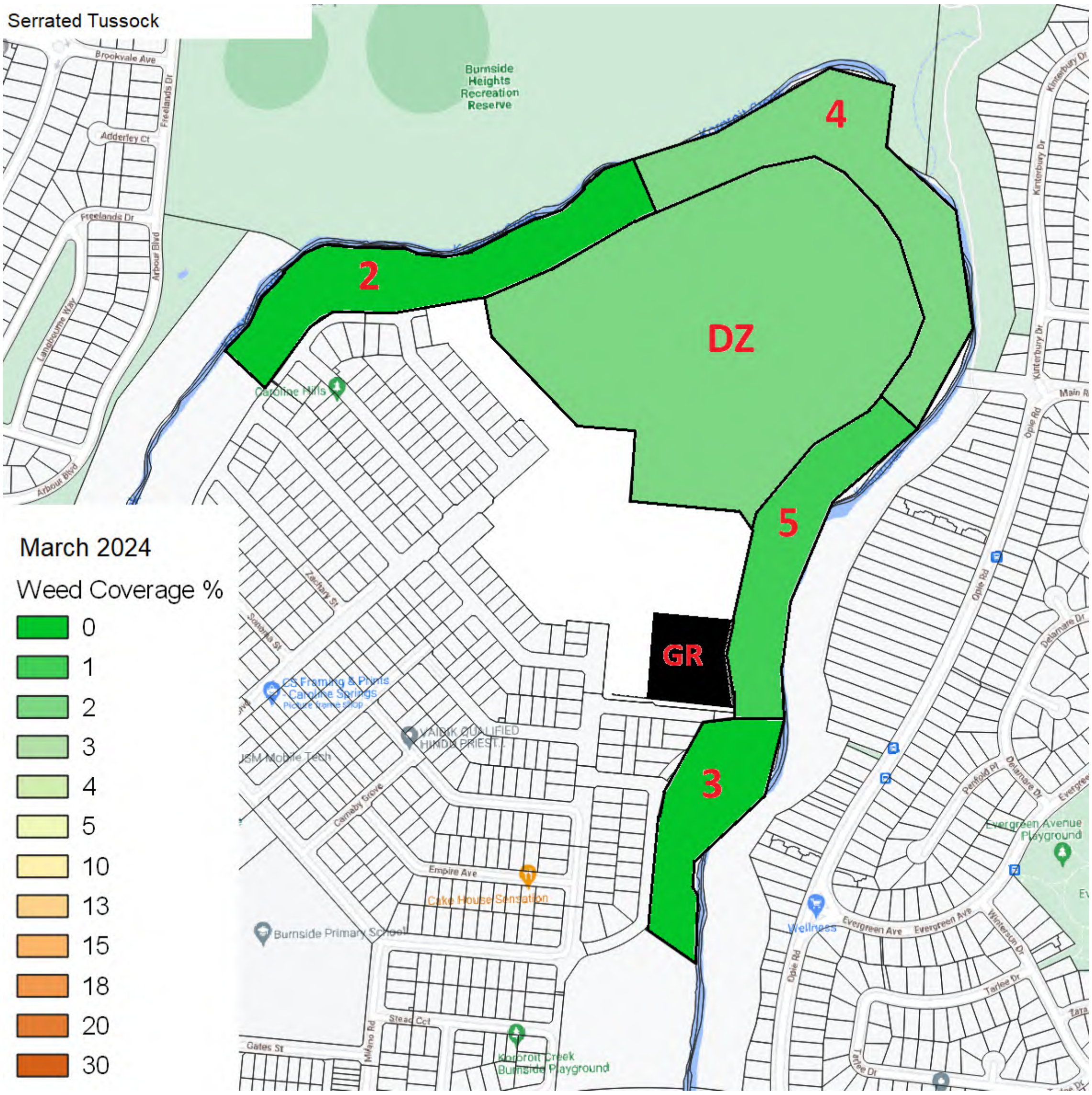
4.16 Serrated Tussock - Nassella trichotoma

Regionally Controlled - *Weed of National Significance* **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ
March 2024	**0%**	**2%**	**1%**	**0%**	**2%**
December 2023	0%	4%	2%	1%	2%
September 2023	0%	4%	2%	1%	2%
June 2023	0%	3%	3%	2%	3%
March 2023	0%	3%	3%	1%	3%
September 2022	0%	1%	1%	1%	3%
June 2022	2%	5%	2%	2%	10%
March 2022	2%	10%	5%	5%	10%
December 2021	5%	10%	5%	5%	15%
October 2021	10%	15%	5%	10%	30%
August 2021	5%	15%	5%	10%	13%
Apr 2021	5%	5%	5%	5%	10%
Dec 2020	2%	2%	2%	2%	2%
Oct 2020	5%	5%	5%	2%	5%
June 2020	5%	5%	5%	2%	5%

Serrated tussock is a long-lived perennial grass growing up to 60cm in height with a base of 25cm in diameter. Plant size varies with soil fertility and location. In infertile conditions plants may only reach a height of 15cm. Serrated tussock is shallow rooted with an extensive network of fibrous roots occurring predominantly in the top 20cm of soil. The roots are dense, wiry, and fibrous making serrated tussock very difficult to pull out, even when small. Flowering stems emerge from the base of the plant. They are multi-branched and up to 35cm long. The purple colour of the small seeds produces an overall purplish haze to the serrated tussock seed head. Once the seeds have formed, the entire seed head will 'droop' over the tussock towards the ground. Flowering takes place as early as late winter (August) and will continue throughout the spring (September – November). Autumn flowering has been known to occur. Seeds take 8 – 10 weeks to mature, normally occurring throughout the spring and summer months. Once seeds are ripe, the whole flowing stem detaches from the base of the plant and is dispersed by the wind. Seed is dormant and will not germinate for about 6 months.



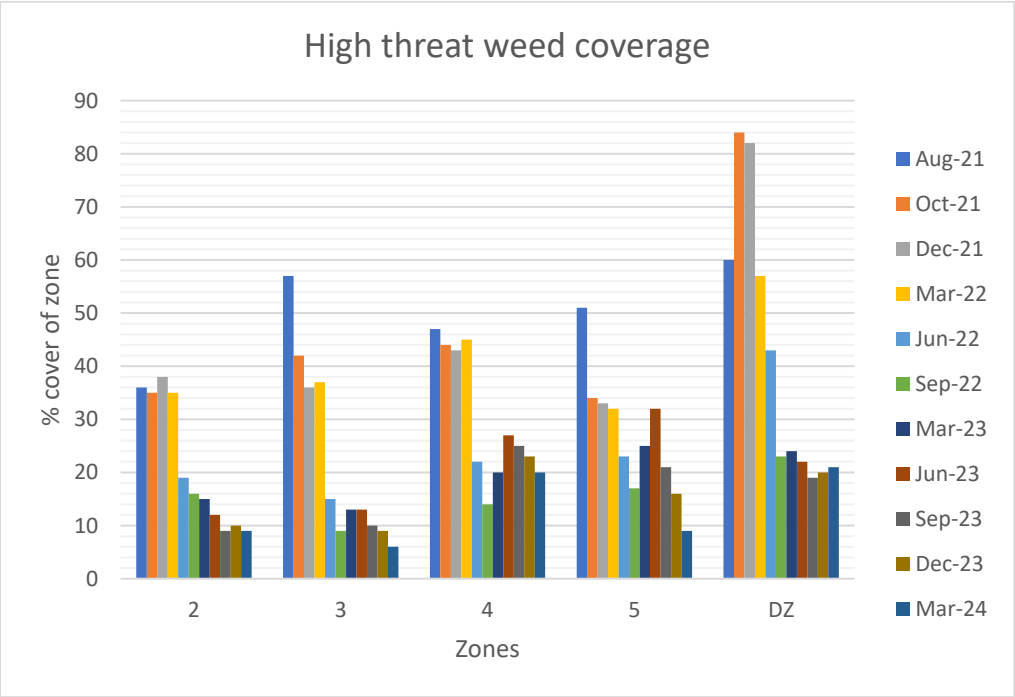
Serrated Tussock
Burnside Heights Recreation Reserve
2
4
DZ
5
GR
3
March 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

6.0 Summary

6.1 Overview

The below table displays the total percentage coverage in each zone of high-threat weeds. Since the previous report, there has been the slightest decrease in the overall coverage of high-threat weeds across all zones. During this visit, it was noted that *Phalaris aquatica* (Toowoomba Canary Grass) is still the most dominant species throughout most zones.

Approximately 70% of the development zone is now under construction and 50% of Zone 3 and 75% of Zone 2 have also been developed.



6.2 Zone 2

This area has been landscaped, resulting in a 75% reduction in size. Measures to reduce the dominance of the highly invasive large grass Phalaris aquatica are ongoing, promoting the natural regeneration of vegetation. Gradual removal of this species is being prioritized in areas of higher vegetation value to support the site's rejuvenation without posing erosion risks. Additionally, all woody weeds have been successfully eliminated, with only a limited number of small Rosa rubiginosa remaining on the site.

6.3 Zone 4

The highly invasive large grass species, Phalaris aquatica, has exhibited consistent presence within this area. However, any future removal of this species necessitates a gradual and meticulous approach, commencing from areas holding higher vegetation value and extending outwards. This method will facilitate the natural regeneration of newly opened areas without unduly escalating the possibility of infiltration by other unfavourable species, such as one of the Nasella species observed on site.

Moreover, all woody weeds have been effectively managed, with a limited number of specimens detected across the site. Additionally, a small patch of Century Plant (Agave americana) is undergoing controlled mitigation processes.

6.4 Zone 5

The population of the highly invasive large grass species, Phalaris aquatica, has exhibited a significant reduction because of pre-seeding biomass removal. It is advisable to proceed with the gradual and cautious removal of this species. The recommended approach entails commencing the removal process in areas with heightened vegetation value and progressively expanding outward. This methodology aims to facilitate the natural regeneration of newly opened areas, thereby minimizing the susceptibility to invasion by other unfavourable species. Notably, it is imperative to forestall the encroachment of other species, such as Nasella sp., which can wield adverse effects on the ecosystem.

Conversely, a positive development emerges from the successful eradication of all woody weeds throughout the site. The absence of identified specimens during the survey attests to the efficacy of the control measures. This accomplishment is particularly heartening, given the potential deleterious impact of woody weeds on the environment and indigenous species.

6.5 Zone 3

The highly invasive large grass Phalaris aquatica is becoming less dominant. The gradual removal of this species has allowed more native vegetation to emerge, unfortunately as well as various other less invasive weed species, like Ribwort Plantain and Bristly Oxtongue. A small isolated patch of Bridal Creeper was noted amongst the Bursaria’s. Landscape works has been completed along the roadside and creek side of this zone, reducing the area by about 50%.

6.7 Development zone

This area has undergone significant changes, with the emergence of small patches of Phalaris aquatica replacing the previously dominant Serrated Tussock. Additionally, the favorable weather has led to the growth of Artichoke Thistle in various patches. Our ongoing weed management efforts, along with the reduction of the Development Zone, will effectively minimize these occurrences. The area's development is impacting weed vegetation due to vehicle and plant movement, creating bare earth causing small patches of weed growth.

7.0 Conclusion

The presence of herbaceous high-threat weeds, such as Spear Thistle, Fennel, Cape weed, Paterson's Curse, and Horehound, is very low or nonexistent. However, Phalaris aquatica still dominates various zones, although it is slowly declining. The Phalaris aquatica plants along the creek line have been cut and treated during the last several visits. In areas where the Phalaris has been removed, it is being replaced by less invasive weed growth. Instead of using widespread herbicide treatment, future plans involve continuing slashing regimes, interspersed with selective treatments for individuals or small stands near higher vegetation values. The slight number of Artichoke Thistles (Cynara cardunculus) in the Development zone has increased. Further intensive control is required to prevent them from spreading to other zones.

Weed Survey Report

Modeina Estate - Phase 2 -

June 2024

Submitted by Adam Gallagher

Australian Ecosystems Pty Ltd

Phone: 0429 453 396

Email: adamg@australianecosystems.com.au

Contents

1.0 Introduction

Australian Ecosystems (AE) has prepared this report for Dennis Family Corporation (Project Management) Pty Ltd. This report details the results of weed surveys conducted in June 2024 within the area described as 'Stage 2 Modeina'. This report should be read in conjunction with, 'Modeina Weed Management Strategy' that Greening Australia prepared in 2017.

2.0 Weeds Surveyed

This survey has captured these weed species listed below:

- African Boxthorn *(Lycium ferocissimum)*
- Artichoke Thistle (*Cynara cardunculus)*
- Spear Thistle *(Cirsium vulgare)*
- Bridal Creeper *(Asparagus asparagodies)*
- Cape weed (*Arctotheca calendula)*
- Century Plant *(Agave Americana)*
- Fennel *(Foeniculum vulgare)*
- Galenia *(Galenia pubescens)*
- Horehound *(Marrubim vulgare)*
- Paterson's Curse *(Echium plantagineum)*
- Prickly Pear *(Opuntia spp.)*
- Sweet Briar *(Rosa rubiginosa)*
- Chilean Needle Grass *Nassella neesiana)*
- Toowoomba canary grass *(Phalaris aquatica)*
- Serrated Tussock *(Nassella trichotoma)*

Determined by:

The weeds detailed within this report have been taken from the Modeina Weed Management Strategy that Greening Australia prepared in 2017. Only species that are widespread and/or have a high level of risk have been chosen to be controlled within these areas.

3.0 Survey Methodology

The above-mentioned species were surveyed using the Random Quadrant Sampling Method. Within each zone, four quadrants 5-meter X 5-meter were used to measure the current number of weed species present and then converted to a percentage cover. The results from these quadrants were then extrapolated to obtain a percentage cover across each of the zones. The results of these surveys are displayed over the following pages of the report.

3.1 Woody weeds

For this survey woody weeds are classified as African Boxthorn *(Lycium ferocissimum)*, Century Plant *(Agave Americana),* Fennel *(Foeniculum vulgare),* Prickly Pear *(Opuntia spp.)* and Sweet Briar *(Rosa rubiginosa)*.

As a result of the extremely low abundance of all species in each zone, individual counts were undertaken, with each individual being assigned a percentage cover value of 1% as the observed species were primarily in their juvenile stages. Prickly Pear (Opuntia spp.) has been eliminated through out all zones and no new growth sited. Similarly, in Zone 2, two patches of the Century Plant (Agave Americana) remain. Although treated there is some regrowth in each patch.

3.2 Herbs and Grass Weeds

Efforts are clearly being made to minimize or control the presence of herb and grass weeds in all areas. These weeds include Artichoke Thistle (Cynara cardunculus), Scotch Thistle (Onopordum acanthium), Spear Thistle (Cirsium vulgare), Bridal Creeper (Asparagus asparagoides), Horehound (Marrubium vulgare), Paterson's Curse (Echium plantagineum), Chilean Needle Grass (Nassella neesiana), Toowoomba canary grass (Phalaris aquatica), and Serrated Tussock (Nassella trichotoma). Significant progress has been made in reducing the presence of Toowoomba canary grass (Phalaris aquatica) in several areas, and further reductions are expected during future maintenance visits. There has been a slight decrease of Artichoke Thistle (Cynara cardunculus) in the Development Zone, and I expect this to decline further in the following months. The Grass reserve has had an increase artichoke thistle and various common weeds due to the recent fence installation which has left bare earth and possibly disturbed the seed bank.

3.3 Changes

Construction work is ongoing within the development zone, which has resulted in a reduction of approximately 70% of the area surveyed. Completed works in Zone 3, has resulted in a 50% reduction of the area, and in Zone 2, reducing the area by 75%. Construction works in Zone 5 have begun reducing the area approximately by 70%. These construction works do not affect the survey results of this or any previous survey.

4.0 Details of Surveyed Weeds

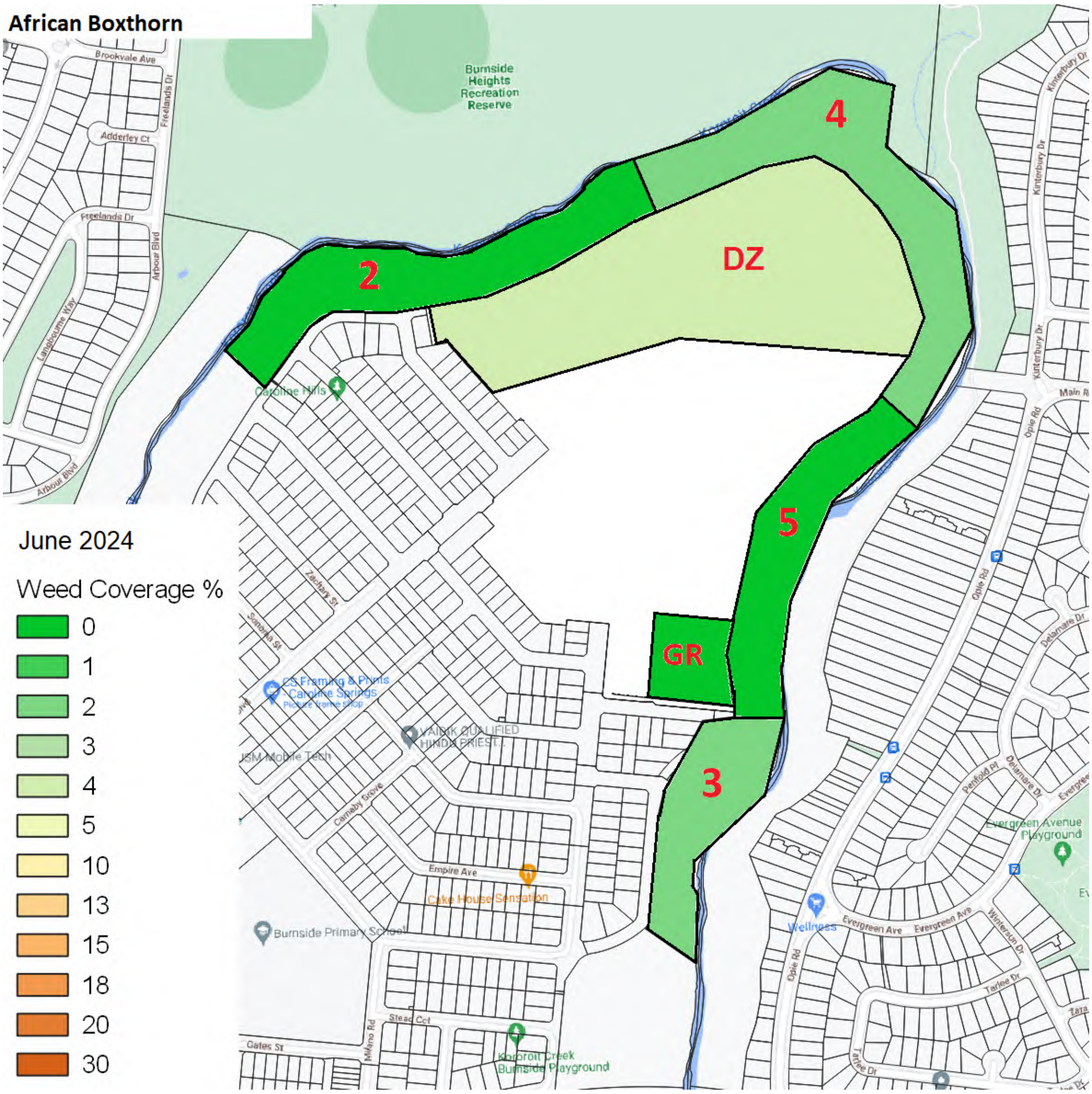
4.1 African Boxthorn - Lycium ferocissimum

Regionally Controlled & Weed of National Significance **Target coverage <1%**

Current coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**2%**	**0%**	**2%**	**4%**	**0%**
March 2024	2%	0%	0%	0%	0%	NA
December 2023	2%	0%	0%	0%	0%	NA
September 2023	0%	2%	0%	0%	0%	NA
June 2023	0%	1%	0%	2%	0%	0%
March 2023	0%	0%	0%	2%	2%	NA
September 2022	0%	0%	0%	1%	1%	NA
June 2022	0%	0%	0%	1%	1%	0%
March 2022	0%	1%	0%	0%	1%	NA
December 2021	0%	0%	0%	0%	1%	NA
October 2021	0%	0%	0%	0%	1%	NA
August 2021	1%	1%	1%	1%	2%	NA
April 2021	1%	1%	1%	1%	1%	NA
Dec 2020	0%	1%	1%	0%	1%	NA
Oct 2020	0%	1%	1%	0%	1%	NA
June 2020	0%	1%	1%	0%	1%	0%

African boxthorn is a rounded, woody, densely branched and very thorny large shrub up to 5 metres high. African boxthorn reproduces exclusively by seed, which is commonly eaten by birds, seed is viable when excreted. These plants are often found near places where birds have perched such as trees, poles, and powerlines. It was widely planted as a hedge plant before its weedy potential was realised. Spread also occurs from contaminated produce and materials. African boxthorn is a fast-growing invasive species that, if untreated, spreads quickly. Seeds may germinate year-round and early root growth is rapid, ensuring young plants are competitive. Plants take at least two years to flower, producing flowers and fruit mostly in summer. Some flowering and fruit production occurs at other times of year. Sometimes deciduous in winter, with new leaves and active growth in spring. Broken roots and cut stumps can sprout regrowth.


African Boxthorn
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
2
4
DZ
5
GR
3
Burnside Heights Recreation Reserve
Caroline Hills
Burnside Primary School
Empire Ave
Cake House Sensation
Kororoit Creek Burnside Playground
Evergreen Avenue Playground
Evergreen Ave
Opie Rd
Kinterbury Dr
Delamare Dr
Main Rd
Brookvale Ave
Adderley Ct
Freelands Dr
Arbour Blvd
Lansdowne Way
Gates St
Stead Cct
Wellness

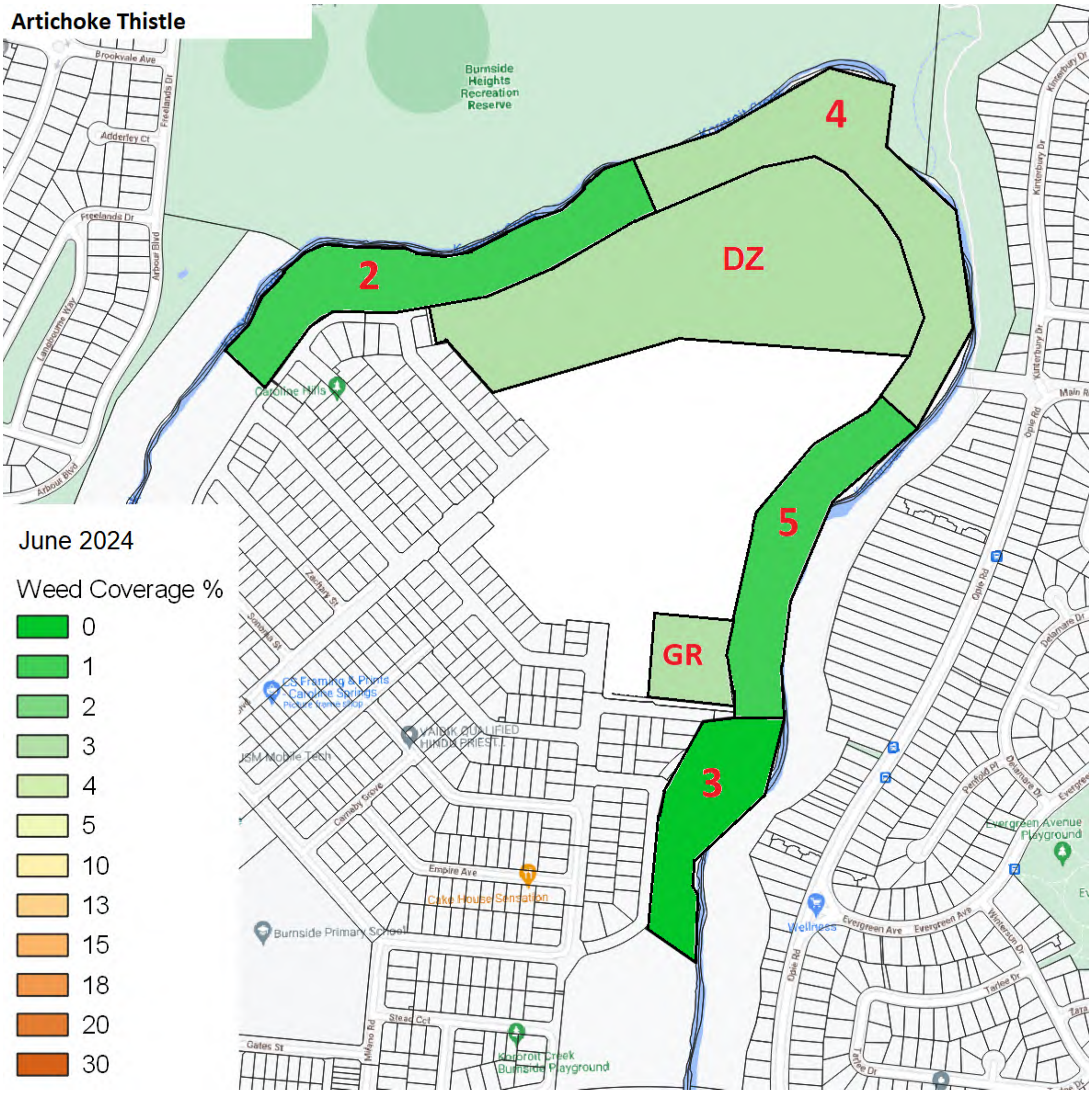
4.2 Artichoke Thistle - Cynara cardunculus

Regionally Controlled **Target coverage < 5%**

Current coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**1%**	**3%**	**1%**	**0%**	**3%**	**3%**
March 2024	0%	1%	1%	1%	5%	NA
December 2023	0%	1%	2%	2%	4%	NA
September 2023	1%	1%	2%	3%	3%	NA
June 2023	2%	1%	2%	2%	4%	0%
March 2023	3%	1%	0%	3%	4%	NA
September 2022	1%	0%	0%	1%	4%	NA
June 2022	1%	0%	0%	1%	10%	0%
March 2022	2%	0%	0%	2%	2%	NA
December 2021	0%	0%	0%	0%	5%	NA
October 2021	0%	0%	0%	0%	10%	NA
August 2021	5%	2%	15%	15%	10%	NA
Apr 2021	15%	2%	2%	2%	5%	NA
Dec 2020	5%	2%	5%	2%	5%	NA
Oct 2020	5%	5%	2%	2%	10%	NA
June 2020	2%	10%	5%	5%	10%	0%

A perennial or biennial spiny thistle with annual tops and a cluster of large bright purple flowers that are 5-8 cm in diameter during summer. The mature plant is erect, with stems 1- 2 m tall arising from a bushy rosette up to 2 m wide and tall. The stem is strongly ribbed and covered with downy grey hairs and usually single at the base and branched towards the top. The large, grey green leaves are deeply lobed and spiny with woolly hairs underneath.


Artichoke Thistle
Burnside Heights Recreation Reserve
4
DZ
2
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

4.4 Spear Thistle - Cirsium vulgare

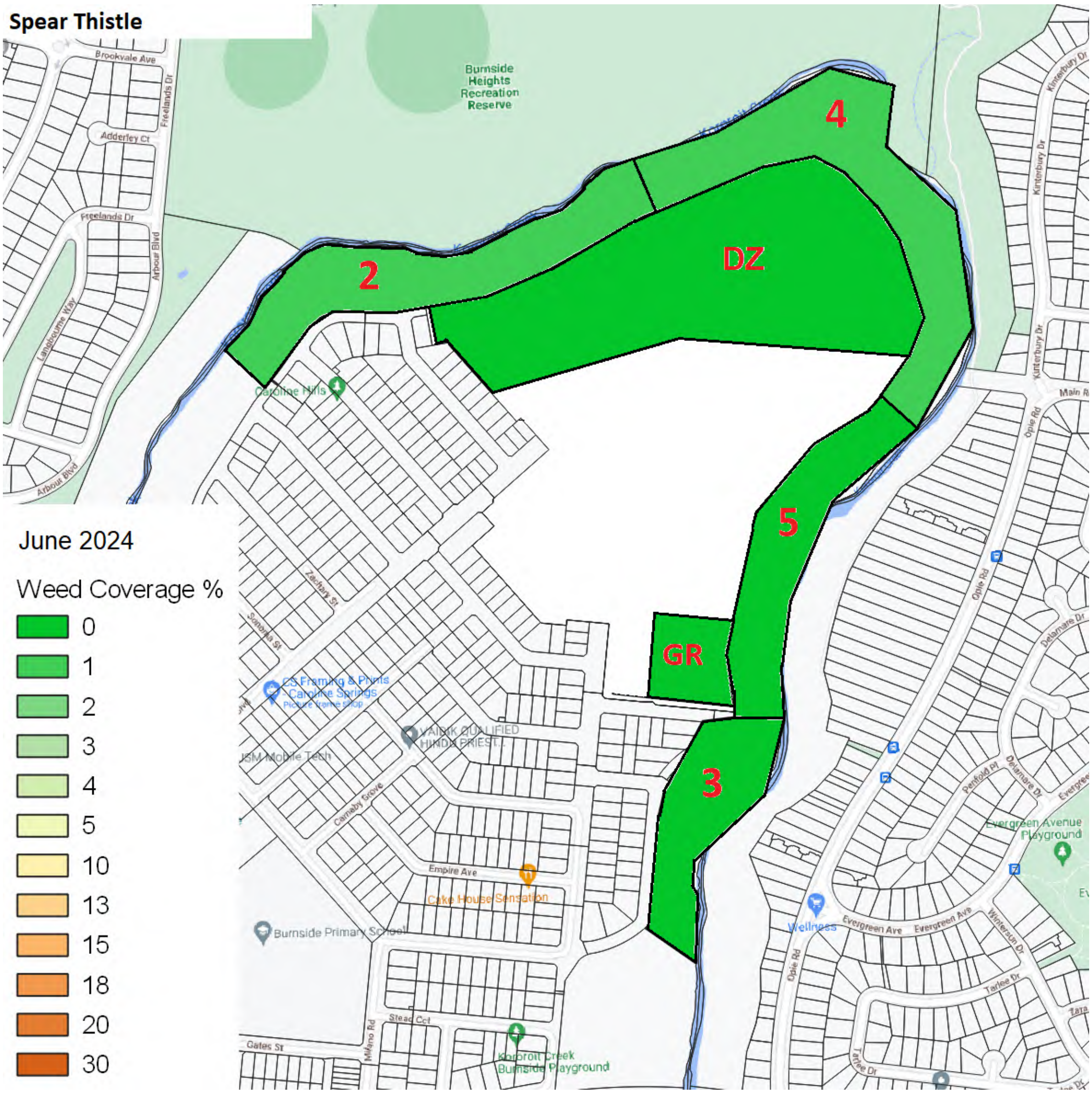
Regionally Controlled Weeds ***Target coverage <5%***

Current coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**1%**	**1%**	**0%**	**0%**	**0%**	**0%**
March 2024	0%	0%	0%	0%	0%	NA
December 2023	0%	0%	0%	0%	0%	NA
September 2023	0%	0%	0%	0%	0%	NA
June 2023	0%	0%	0%	0%	0%	0%
March 2023	0%	0%	0%	0%	0%	NA
September 2022	0%	0%	0%	0%	0%	NA
June 2022	0%	0%	0%	0%	0%	0%
March 2022	0%	0%	0%	0%	0%	NA
December 2021	0%	0%	0%	0%	0%	NA
October 2021	0%	0%	0%	0%	0%	NA
August 2021	0%	0%	0%	0%	0%	NA
Apr 2021	0%	0%	0%	0%	0%	NA
Dec 2020	1%	0%	0%	0%	1%	NA
Oct 2020	1%	0%	0%	0%	1%	NA
June 2020	1%	0%	0%	0%	1%	0%

An annual or short-term perennial herb with erect growth to 1.5 m tall. Stems have spiny wings and are cobwebby. Upper leaf surface is dark green and rough while the lower surface is white with short, matted hairs.

A common species of wet or summer-moist land, including swamps, depressions, drains, wasteland, pastures, and cultivated soils. Prefers open, non-shaded environments, heavy textured soils, and good fertility.



Spear Thistle
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

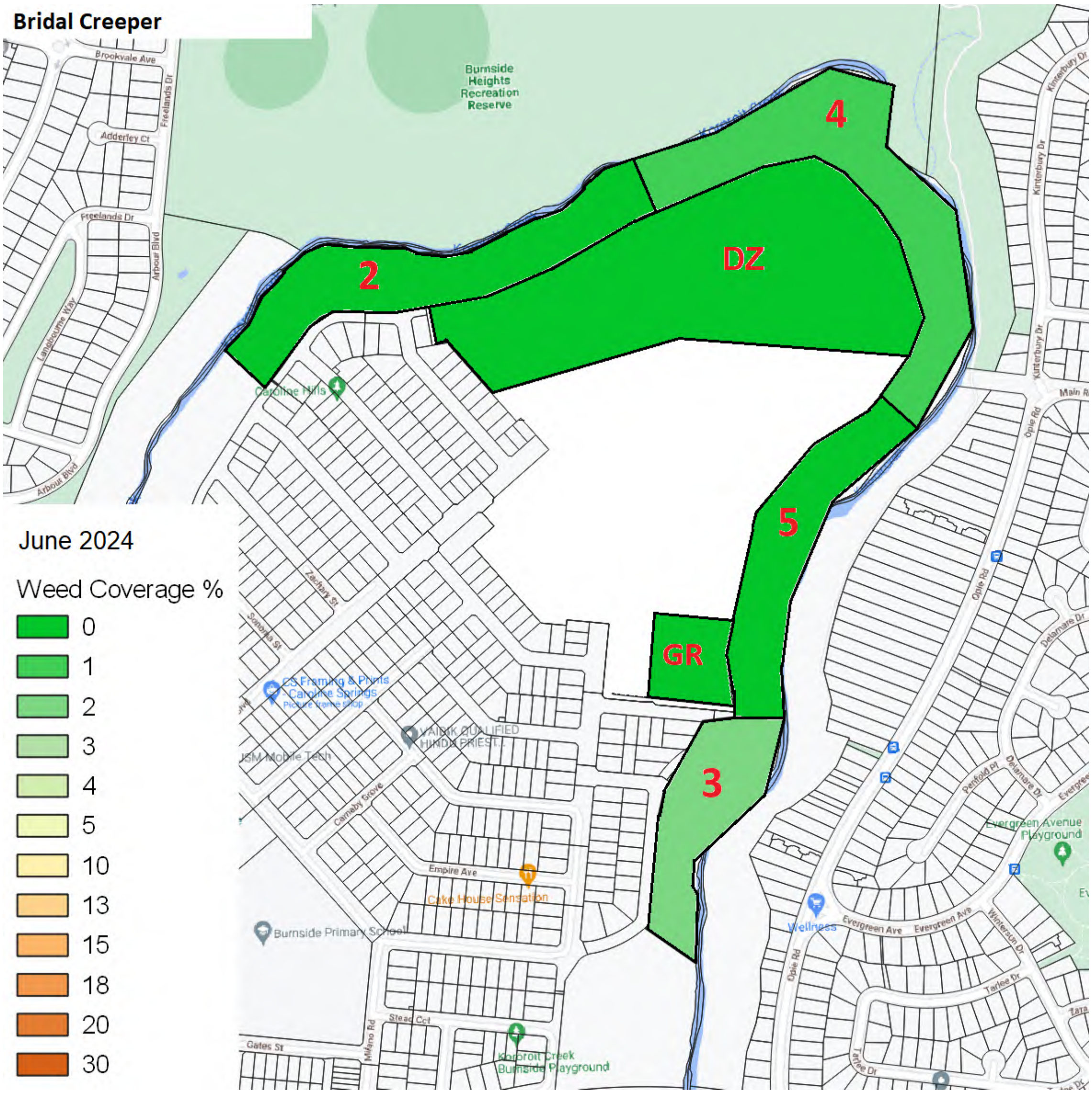
4.5 Bridal Creeper - Asparagus asparagodies

Regionally Controlled - Weed of National Significance **Target coverage < 1%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**1%**	**0%**	**2%**	**0%**	**0%**
March 2024	0%	1%	0%	1%	0%	NA
December 2023	1%	1%	0%	0%	0%	NA
September 2023	1%	1%	0%	0%	0%	NA
June 2023	1%	1%	0%	0%	0%	0%
March 2023	1%	1%	0%	0%	0%	NA
September 2022	1%	1%	0%	0%	0%	NA
June 2022	1%	1%	0%	0%	0%	0%
March 2022	2%	1%	0%	0%	0%	NA
December 2021	2%	2%	2%	0%	0%	NA
October 2021	3%	3%	2%	0%	0%	NA
August 2021	5%	4%	3%	0%	0%	NA
Apr 2021	1%	1%	1%	0%	0%	NA
Dec 2020	0%	1%	1%	0%	0%	NA
Oct 2020	0%	0%	1%	0%	0%	NA
June 2020	0%	0%	1%	0%	0%	0%

It is regarded as one of the worst weeds in Australia because of its invasiveness, potential for spread, and economic and environmental impacts. Bridal creeper entered the country as a garden plant and is now a major weed of bushland in southern Australia, where its climbing stems and foliage smother native plants. It forms a thick mat of underground tubers which impedes the root growth of other plants and often prevents seedling establishment. Rare native plants, such as the rice flower *Pimelea spinescens*, are threatened with extinction by Bridal Creeper.


Bridal Creeper
Burnside Heights Recreation Reserve
4
DZ
2
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
Brookvale Ave
Adderley Ct
Freelands Dr
Arbour Blvd
Caroline Hills
Burnside Primary School
Empire Ave
Cake House Sensation
Gates St
Evergreen Ave
Evergreen Avenue Playground
Opie Rd
Kinterbury Dr
Kororoit Creek Burnside Playground

4.6 Cape weed - Arctotheca calendula

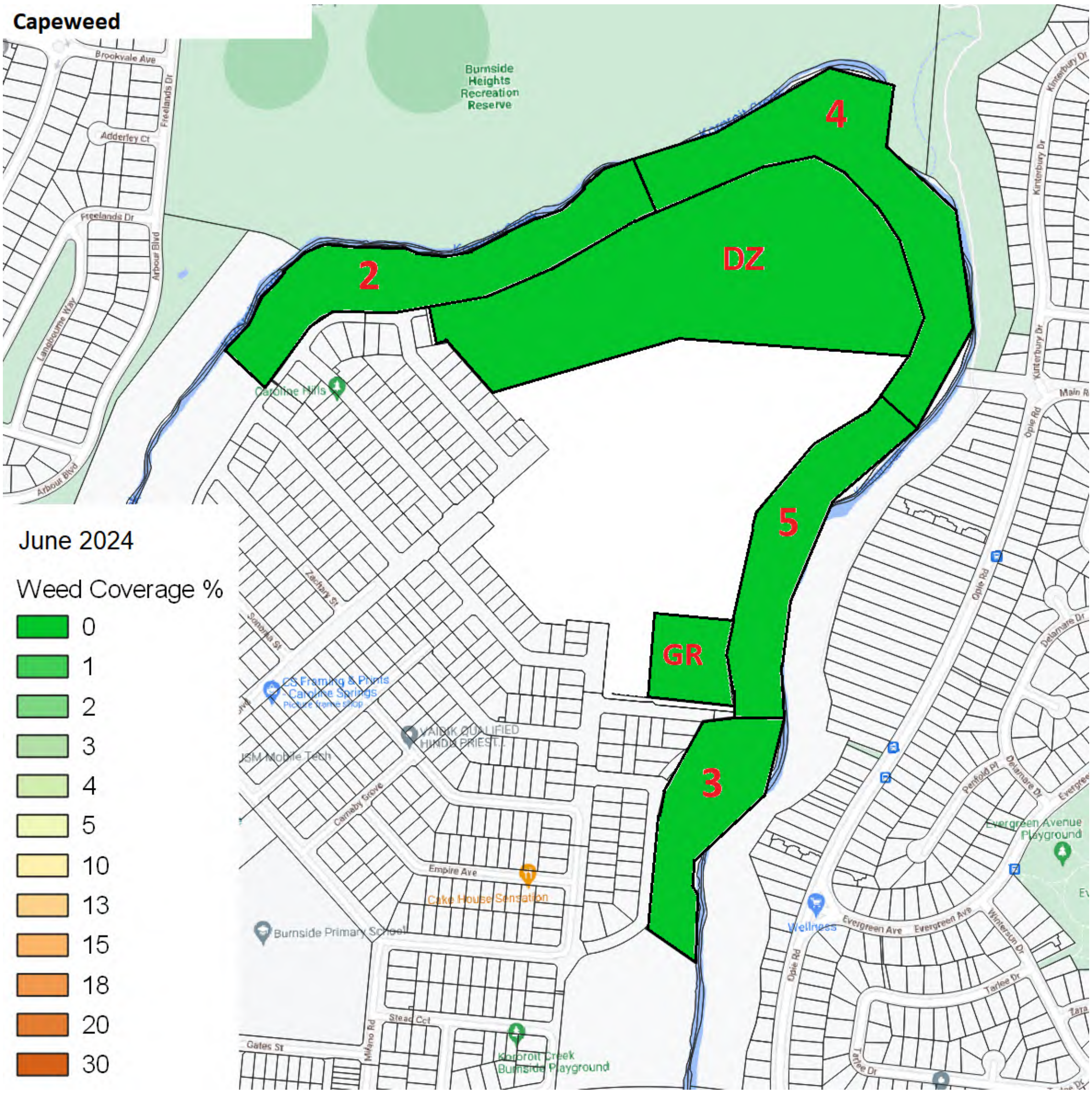
Not declared or considered noxious **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
March 2024	0%	0%	0%	0%	0%	NA
December 2023	0%	0%	0%	0%	0%	NA
September 2023	0%	0%	0%	0%	0%	NA
June 2023	0%	0%	0%	0%	0%	0%
March 2023	0%	0%	0%	0%	0%	NA
September 2022	0%	0%	0%	0%	0%	NA
June 2022	0%	0%	0%	0%	0%	0%
March 2022	0%	0%	0%	2%	2%	NA
December 2021	0%	0%	0%	0%	0%	NA
October 2021	0%	0%	0%	0%	0%	NA
August 2021	0%	0%	0%	0%	0%	NA
Apr 2021	0%	0%	0%	0%	0%	NA
Dec 2020	0%	0%	0%	0%	0%	NA
Oct 2020	0%	1%	1%	1%	0%	NA
June 2020	2%	2%	0%	2%	0%	0%

This plant is widespread and common weed in pastures, lawns, cultivation, and waste areas across Victoria. Typically, a plant of fresh-water habitats but may occur on the fringes of saline swamps and flats during wetter periods.

It is stemless or shortly stemmed, herb, 80 cm wide and 30 cm high, with a taproot and a basal rosette of leaves. Leaves are 5-25 cm long and 2-6 cm wide.



Capeweed
Burnside Heights Recreation Reserve
2
4
DZ
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

4.7 Century Plant - Agave americana

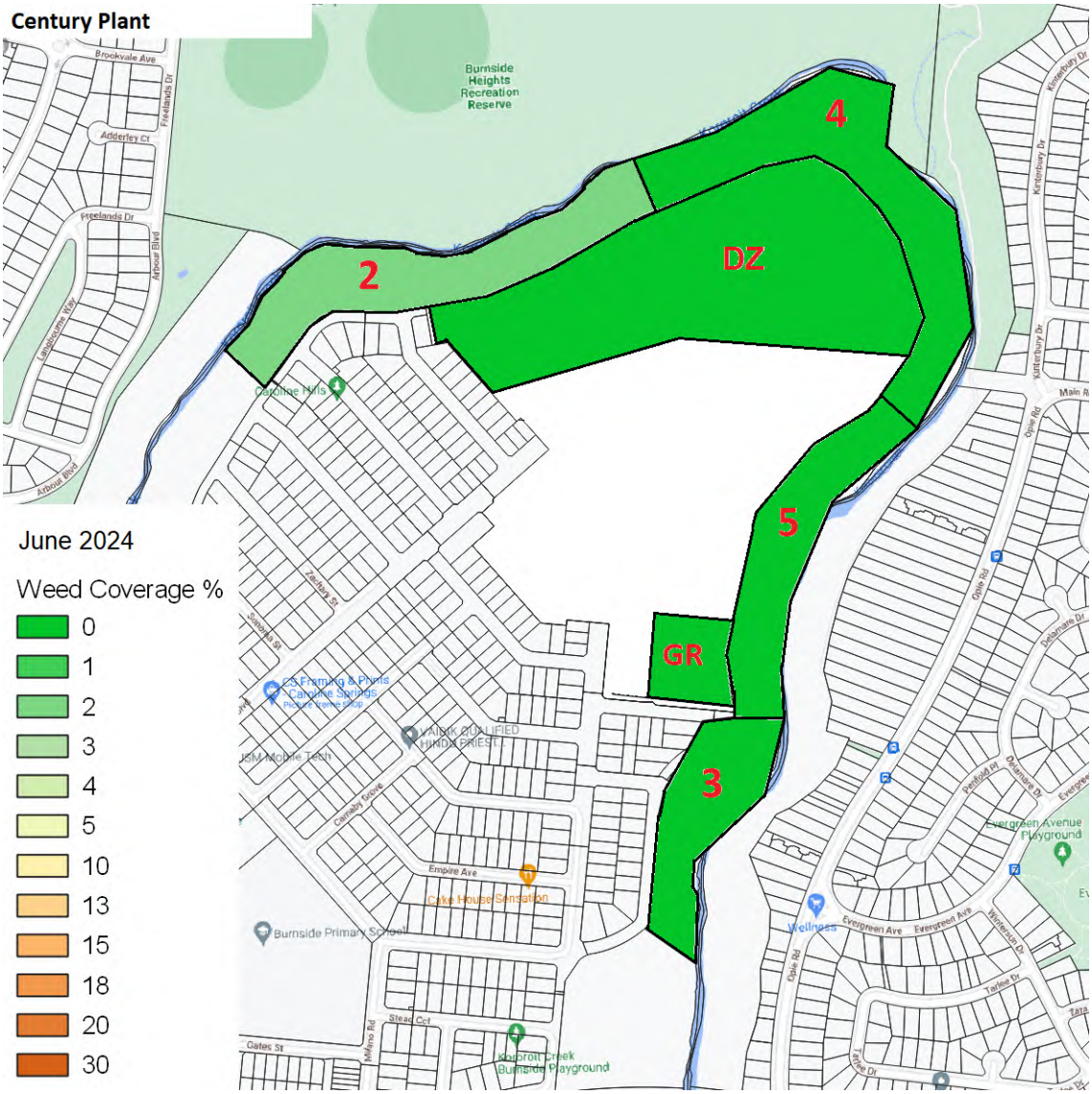
Not declared or considered noxious **Target coverage < 1%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**2%**	**0%**	**0%**	**0%**	**0%**	**0%**
March 2024	0%	2%	0%	0%	0%	NA
December 2023	0%	2%	0%	0%	0%	NA
September 2023	0%	2%	0%	0%	0%	NA
June 2023	0%	2%	0%	0%	0%	0%
March 2023	0%	2%	0%	0%	0%	NA
September 2022	0%	1%	0%	0%	0%	NA
June 2022	1%	0%	0%	0%	0%	0%
March 2022	0%	0%	0%	0%	0%	NA
December 2021	0%	0%	0%	0%	0%	NA
October 2021	0%	0%	0%	0%	0%	NA
August 2021	0%	0%	0%	0%	0%	NA
Apr 2021	1%	0%	0%	0%	0%	NA
Dec 2020	1%	0%	0%	0%	0%	NA
Oct 2020	1%	0%	0%	0%	0%	NA
June 2020	1%	0%	0%	0%	0%	0%

A very large and long-lived rosette-forming plant, growing 1-2 m high and 2-4 m across.

Older individuals may sometimes develop a short woody stem at the base of the plant and commonly produces numerous suckers which form a large clump or colony. When fully mature this plant will develops a massive flower cluster on a robust flowering stem 6-12 m tall.


Century Plant
Burnside Heights Recreation Reserve
4
DZ
2
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
Burnside Primary School
Cake House Sensation
Evergreen Avenue Playground
Burnside Playground

4.8 Fennel - Foeniculum vulgare

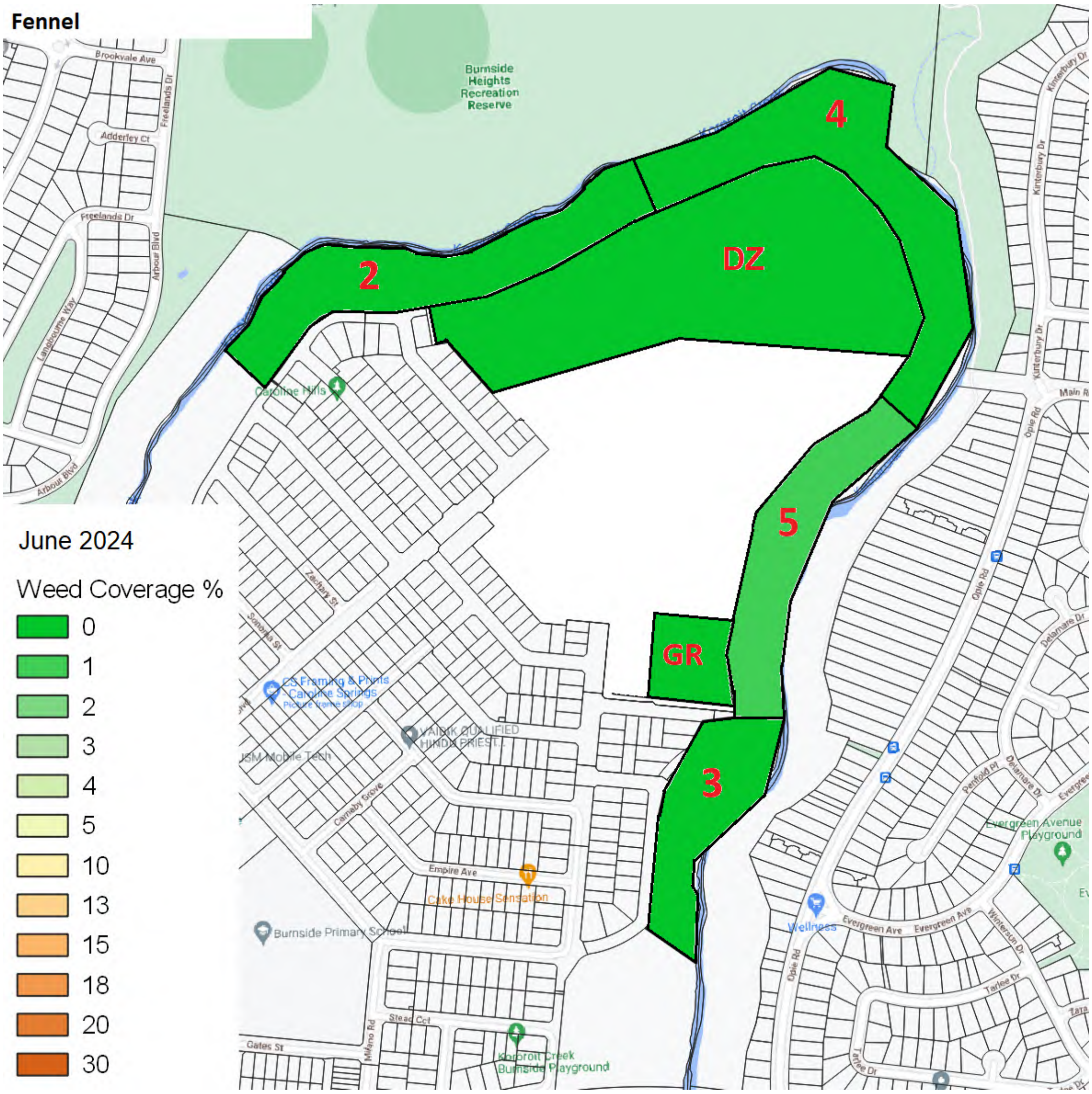
Restricted Weeds **noxious** **Target coverage < 1%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**0%**	**1%**	**0%**	**0%**	**0%**
March 2024	0%	0%	0%	0%	0%	NA
December 2023	0%	0%	0%	0%	0%	NA
September 2023	0%	0%	0%	0%	0%	NA
June 2023	0%	0%	0%	0%	0%	0%
March 2023	0%	0%	0%	0%	0%	NA
September 2022	0%	0%	0%	0%	0%	NA
June 2022	0%	0%	0%	0%	0%	0%
March 2022	0%	0%	0%	0%	0%	NA
December 2021	0%	0%	0%	0%	0%	NA
October 2021	0%	0%	0%	0%	0%	NA
August 2021	0%	0%	0%	0%	0%	NA
Apr 2021	0%	0%	0%	0%	0%	NA
Dec 2020	1%	0%	0%	1%	0%	NA
Oct 2020	0%	0%	0%	0%	0%	NA
June 2020	0%	0%	0%	0%	0%	0%

An erect multi-stemmed perennial herb commonly 1.5 to 2.0 metres high. It is found along waterways, drainage lines and in seasonally moist locations within grasslands and woodlands. Dense infestations may restrict access to waterways. A soft, herbaceous plant the high growth of the plant may be a nuisance to people.

Fennel



Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

4.9 Galenia - Galenia pubescens

Not declared or considered noxious **Target coverage < 5%**

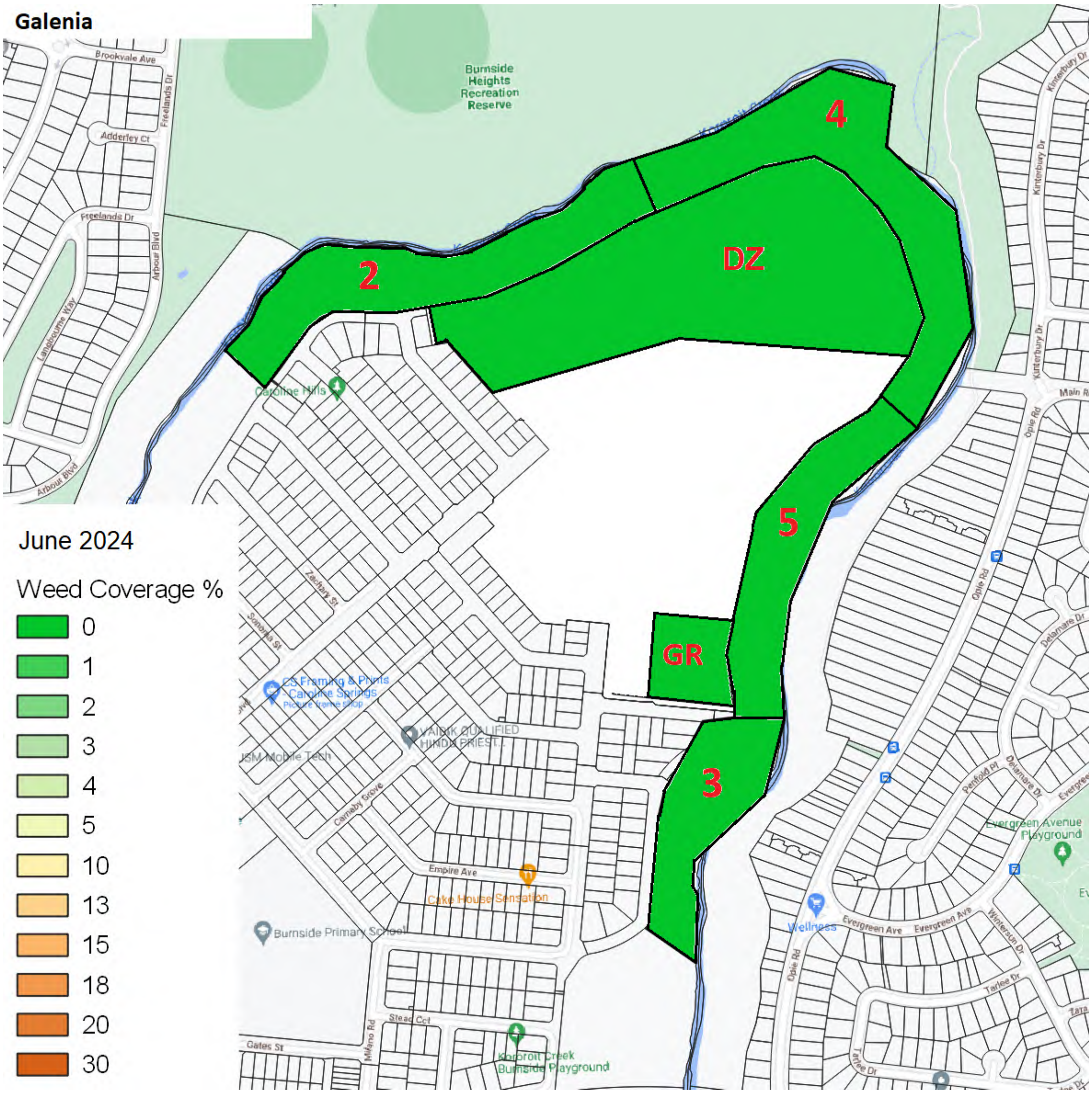
Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
March 2024	0%	1%	1%	0%	1%	NA
December 2023	0%	1%	1%	0%	1%	NA
September 2023	0%	1%	1%	0%	1%	NA
June 2023	0%	1%	1%	0%	1%	0%
March 2023	1%	0%	1%	0%	1%	NA
September 2022	1%	0%	1%	0%	1%	NA
June 2022	1%	0%	1%	0%	2%	0%
March 2022	2%	0%	1%	1%	4%	NA
December 2021	1%	1%	1%	1%	5%	NA
October 2021	1%	1%	1%	1%	10%	NA
August 2021	1%	1%	1%	1%	0%	NA
Apr 2021	1%	1%	1%	1%	0%	NA
Dec 2020	1%	1%	0%	1%	0%	NA
Oct 2020	0%	0%	0%	1%	0%	NA
June 2020	1%	0%	1%	0%	0%	0%

This perennial creeping, herbaceous plant growing to about 60 cm high and 1–2 m wide.

It is deep rooted and flowers from late spring to early autumn. Galenia reproduces by seed. Most dispersal of seed occurs by wind, water, birds and livestock. Movement of contaminated soil by vehicles and equipment can also contribute to its spread.

Drought and salt tolerant, galenia grows over and smothers existing vegetation by forming a thick dense mat. It invades coastal dunes, pastures, disturbed areas, lawns, roadsides and rocky outcrop vegetation. Galenia is known to produce nitrates that can be toxic to stock.


Galenia
Burnside Heights Recreation Reserve
4
DZ
2
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

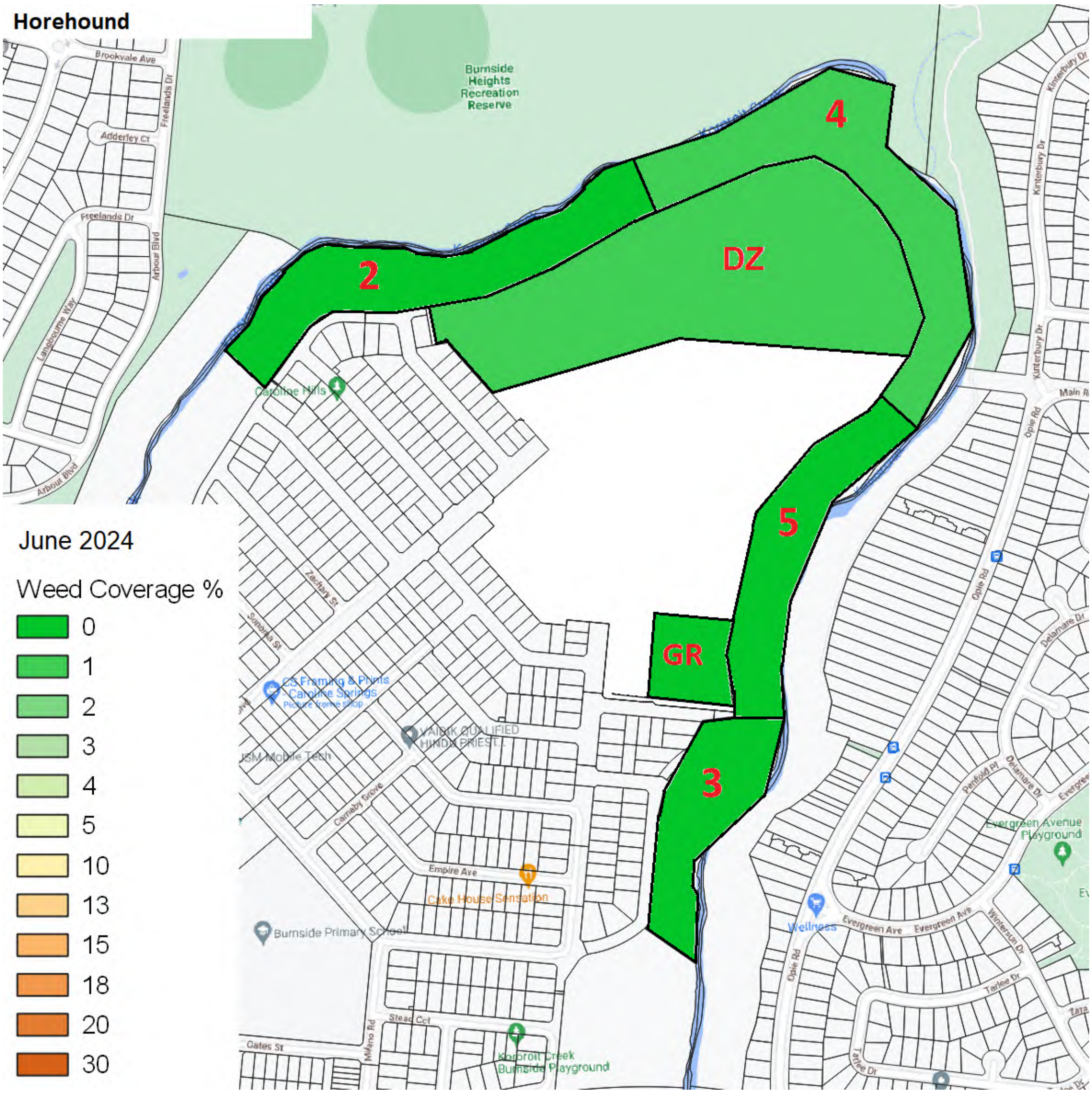
4.10 Horehound - Marrubim vulgare

Not declared or considered noxious **Target coverage <5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**1%**	**0%**	**0%**	**1%**	**0%**
March 2024	0%	0%	0%	0%	0%	NA
December 2023	0%	0%	0%	0%	0%	NA
September 2023	0%	0%	0%	0%	0%	NA
June 2023	0%	0%	0%	0%	0%	0%
March 2023	1%	0%	0%	0%	0%	NA
September 2022	1%	0%	0%	0%	0%	NA
June 2022	1%	0%	0%	0%	0%	0%
March 2022	0%	1%	1%	0%	0%	NA
December 2021	0%	0%	0%	0%	0%	NA
October 2021	0%	1%	0%	4%	3%	NA
August 2021	0%	1%	0%	1%	0%	NA
Apr 2021	0%	1%	0%	1%	0%	NA
Dec 2020	0%	1%	1%	1%	0%	NA
Oct 2020	1%	0%	1%	0%	0%	NA
June 2020	0%	1%	0%	1%	0%	0%

A bushy perennial plant, 30 to 80 cm high, sharply aromatic when crushed, covered with dense whitish hairs. Horehound thrives on poor soil and in waste places. It invades poor pastures which provide little competition. Horehound contains a bitter alkaloid which makes it unpalatable for grazing livestock. As well as being an agricultural weed of pastures horehound has become an important environmental weed because of its ability to invade disturbed native vegetation.


Horehound
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

4.11 Paterson's Curse - Echium plantagineum

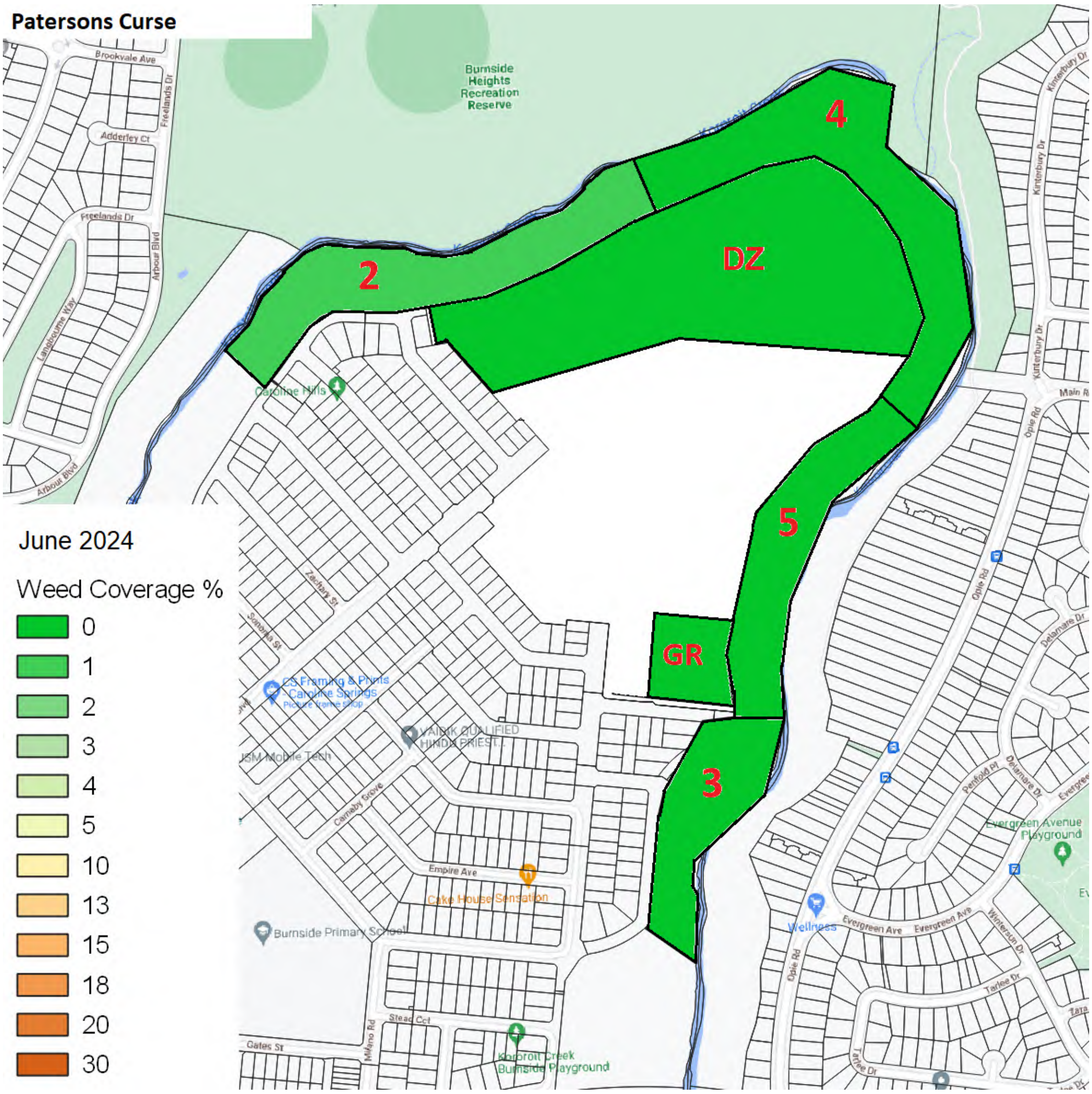
Regionally controlled **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**1%**	**0%**	**0%**	**0%**	**0%**	**0%**
March 2024	0%	0%	0%	0%	0%	NA
December 2023	0%	0%	0%	0%	0%	NA
September 2023	0%	0%	0%	0%	0%	NA
June 2023	0%	0%	0%	0%	0%	0%
March 2023	0%	0%	0%	0%	0%	NA
September 2022	0%	0%	0%	0%	0%	NA
June 2022	0%	0%	0%	0%	0%	0%
March 2022	2%	0%	0%	2%	2%	NA
December 2021	0%	0%	0%	0%	0%	NA
October 2021	0%	0%	0%	0%	10%	NA
August 2021	0%	0%	0%	2%	10%	NA
Apr 2021	0%	0%	0%	0%	0%	NA
Dec 2020	1%	1%	1%	1%	2%	NA
Oct 2020	2%	1%	1%	2%	2%	NA
June 2020	2%	2%	5%	5%	5%	0%

Paterson's curse is an annual, occasionally biennial, herb that grows as a rosette in autumn and winter and produces flowering stalks in spring and early summer. The rosette usually grows parallel to the ground; however, the leaves may be erect in dense vegetation.

Plants begin to produce flowering stalks in late winter, commence flowering in early spring and die in summer. The flowers are usually purple but may be blue or pink. The first mature seeds are produced four to six weeks after flowering commences.


Patersons Curse
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
2
4
DZ
5
GR
3
Burnside Heights Recreation Reserve

4.12 Prickly Pear - Opuntia spp.

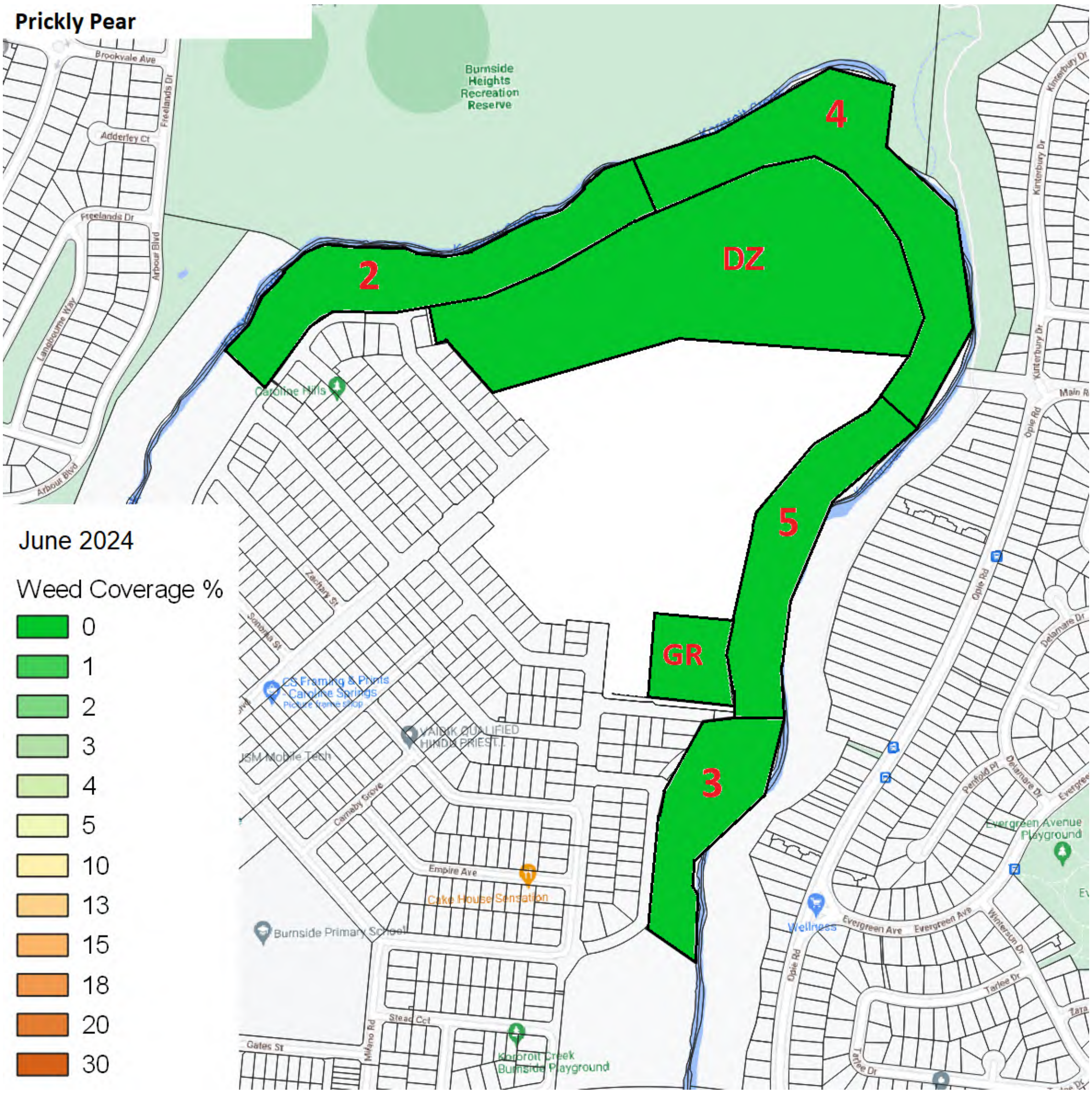
Regionally controlled **Target coverage <5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
March 2024	0%	0%	0%	0%	0%	NA
December 2023	0%	0%	0%	2%	0%	NA
September 2023	0%	0%	0%	2%	0%	NA
June 2023	0%	1%	0%	2%	0%	0%
March 2023	0%	0%	0%	2%	0%	NA
September 2022	0%	0%	0%	1%	0%	NA
June 2022	0%	0%	0%	1%	0%	0%
March 2022	0%	0%	0%	0%	0%	NA
December 2021	0%	0%	0%	0%	0%	NA
October 2021	0%	0%	0%	1%	0%	NA
August 2021	0%	1%	0%	1%	0%	NA
Apr 2021	0%	1%	0%	1%	0%	NA
Dec 2020	0%	1%	0%	1%	0%	NA
Oct 2020	0%	1%	0%	1%	0%	NA
June 2020	0%	1%	0%	0%	0%	0%

Prickly pear is an erect succulent shrub which can grow to a height of 5 m. The stems of prickly pear are commonly grey green to light green. The plant usually has one main woody stem with dense prickles, which gives way to several side branches made up of fleshy segments. The segments are approximately 45 cm long, 15 cm wide and 1-2 cm thick, with the upper segments appearing to droop.

Each plant segment has areoles, which are growing points where new segments, flowers or roots can be produced. Each areole has short tuffs of finely barbed bristles and sometimes one to five sharp, 5 cm long spines. Spines are more common on segments that are older and lower on the plant.


Prickly Pear
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
2
4
DZ
5
GR
3
Burnside Heights Recreation Reserve
Caroline Hills
Burnside Primary School
Empire Ave
Cake House Sensation
Evergreen Avenue Playground
Evergreen Ave
Opie Rd
Kirterbury Dr
Freelands Dr
Arbour Blvd
Brookvale Ave
Adderley Ct
Lansdowne Way
Gates St
Stead Cct
Wellness

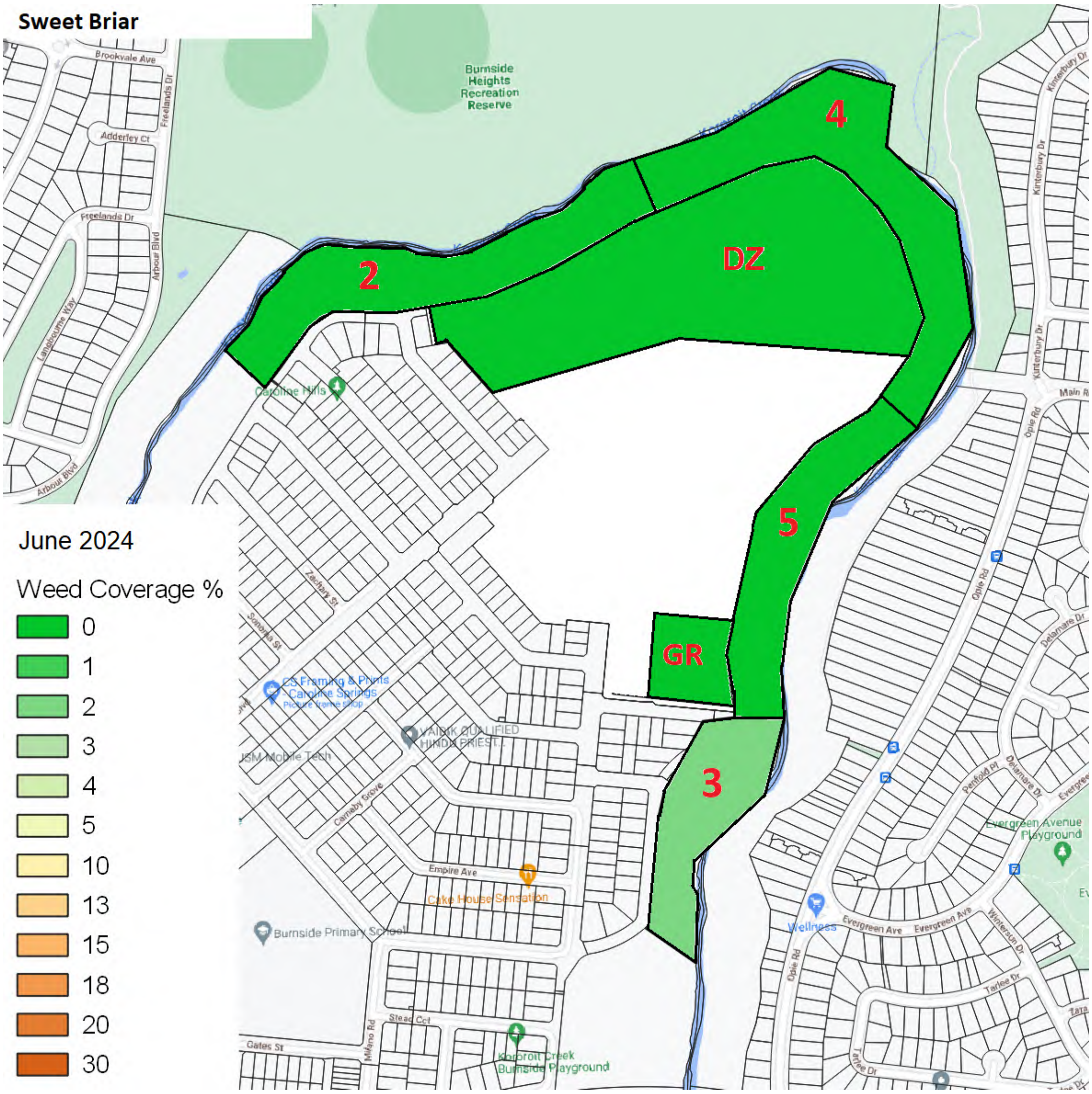
4.13 Sweet Briar - Rosa rubiginosa

Regionally Controlled **Target coverage <1%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**0%**	**0%**	**2%**	**0%**	**0%**
March 2024	2%	2%	0%	0%	0%	NA
December 2023	2%	2%	0%	0%	0%	NA
September 2023	2%	2%	0%	0%	0%	NA
June 2023	2%	1%	0%	0%	0%	0%
March 2023	2%	2%	0%	0%	0%	NA
September 2022	0%	0%	0%	0%	0%	NA
June 2022	0%	0%	0%	0%	0%	0%
March 2022	0%	2%	0%	0%	1%	NA
December 2021	0%	0%	0%	0%	1%	NA
October 2021	1%	1%	1%	1%	1%	NA
August 2021	1%	1%	1%	1%	1%	NA
Apr 2021	1%	1%	1%	1%	1%	NA
Dec 2020	1%	1%	0%	0%	0%	NA
Oct 2020	1%	1%	0%	0%	0%	NA
June 2020	1%	1%	1%	0%	0%	0%

Sweet briar is a perennial woody shrub up to 3m tall. The stem is usually many (and can be up to several hundred) stems arising from the rootstock; erect or scrambling, up to 3 metres high, green and smooth to brown and somewhat roughened, woody, branched, spreading and sometimes trailing, heavily covered with down-curved prickles up to 1.5 cm long.


Sweet Briar
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

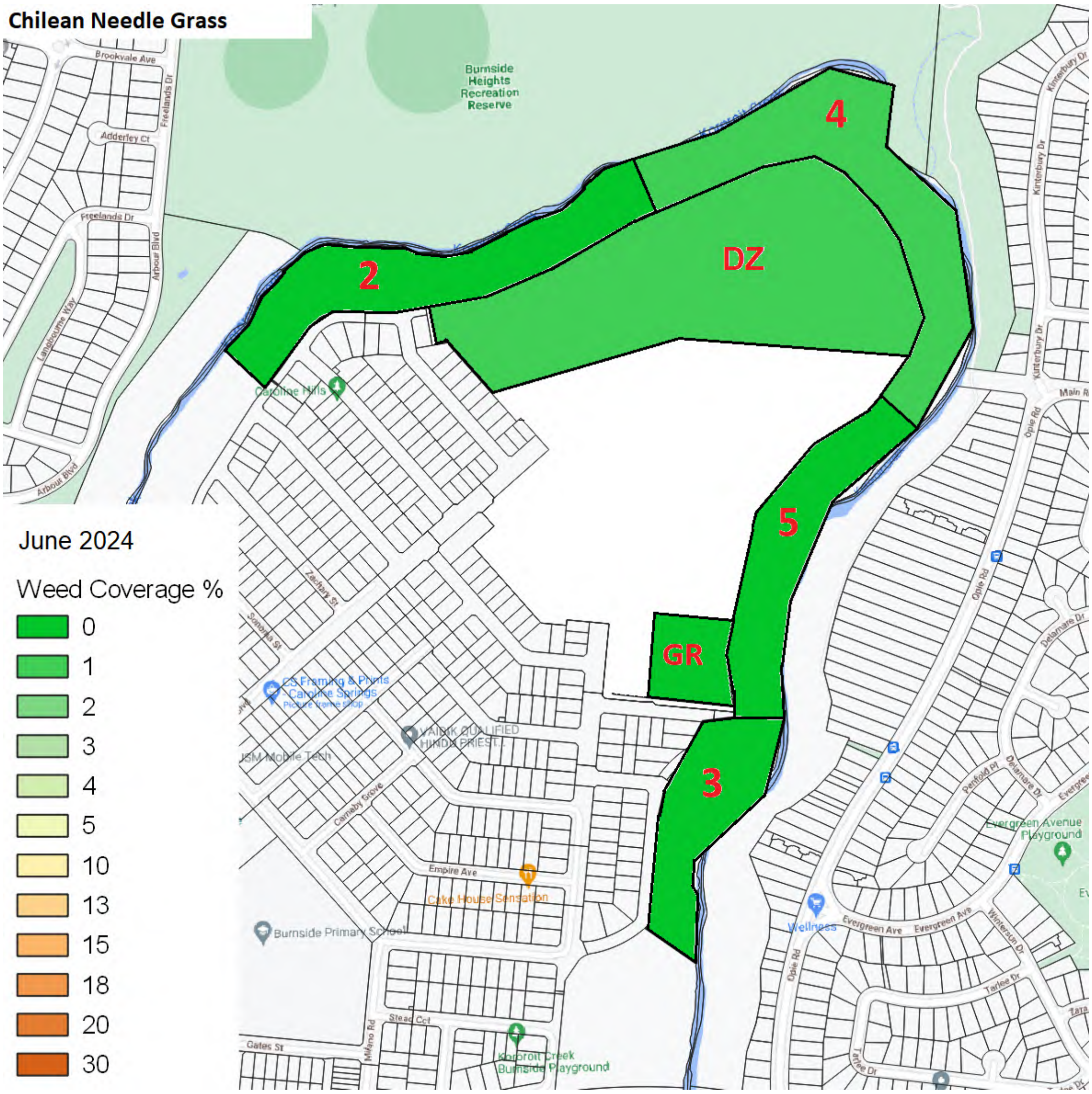
4. 14 Chilean Needle Grass - Nassella neesiana

Regional restricted **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**0%**	**1%**	**0%**	**0%**	**1%**	**0%**
March 2024	1%	1%	1%	0%	3%	NA
December 2023	1%	2%	1%	0%	3%	NA
September 2023	1%	2%	1%	0%	3%	NA
June 2023	2%	1%	1%	0%	4%	0%
March 2023	2%	1%	1%	0%	4%	NA
September 2022	2%	1%	0%	0%	4%	NA
June 2022	2%	1%	0%	0%	5%	0%
March 2022	5%	10%	5%	5%	15%	NA
December 201	5%	5%	5%	5%	20%	NA
October 2021	5%	3%	5%	5%	15%	NA
August 2021	5%	3%	5%	5%	15%	NA
Apr 2021	2%	2%	5%	5%	2%	NA
Dec 2020	0%	0%	2%	2%	2%	NA
Oct 2020	0%	0%	2%	5%	2%	NA
June 2020	0%	0%	2%	1%	2%	0%

Chilean needle grass is a tussocky perennial in the Spear grass group of grasses growing to about 1 m high. It leaves are hairless and are normally grow to 30 cm long and 5 mm wide. With the flowering head being to 40 cm long.



Chilean Needle Grass
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
2
4
DZ
5
GR
3
Burnside Heights Recreation Reserve

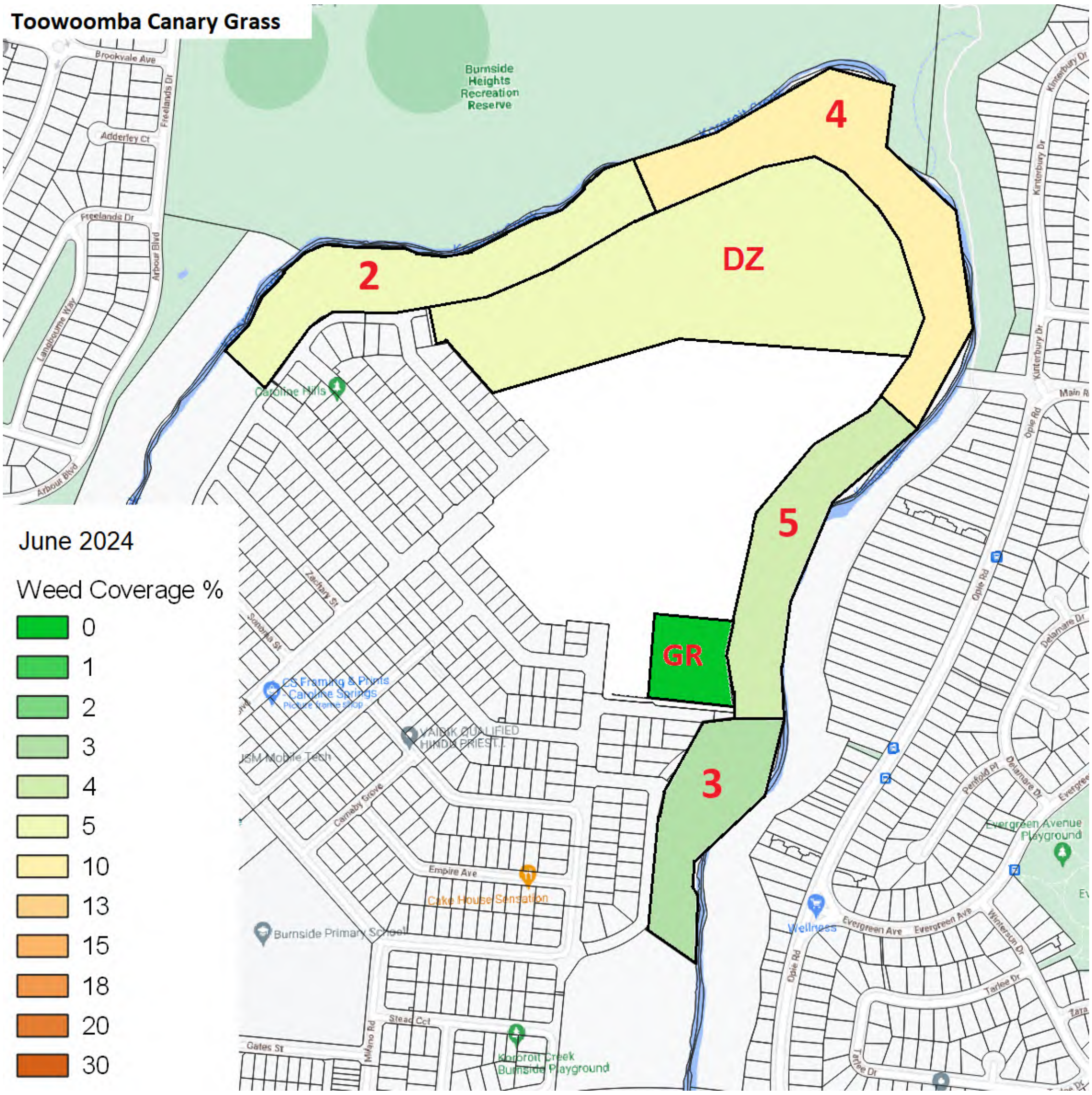
4.15 Toowoomba canary grass - Phalaris aqatica

Not declared and considered noxious **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**5%**	**10%**	**4%**	**3%**	**5%**	**0%**
March 2024	4%	10%	5%	4%	10%	NA
December 2023	4%	10%	10%	4%	10%	NA
September 2023	4%	10%	15%	4%	10%	NA
June 2023	5%	15%	25%	5%	10%	0%
March 2023	5%	10%	20%	5%	10%	NA
September 2022	10%	10%	15%	5%	10%	NA
June 2022	10%	15%	20%	10%	15%	0%
March 2022	20%	20%	20%	20%	20%	NA
December 2021	25%	25%	20%	25%	30%	NA
October 2021	15%	20%	20%	20%	4%	NA
August 2021	13%	18%	20%	20%	4%	NA
Apr 2021	5%	5%	5%	5%	2%	NA
Dec 2020	2%	2%	2%	2%	0%	NA
Oct 2020	5%	5%	5%	5%	0%	NA
June 2020	2%	2%	2%	2%	0%	0%

Widely used as a pasture species where annual rainfall exceeds 450 mm. It prefers fertile, seasonally moist sites. Commonly spreads from pastures, road verges and drainage ditches to adjacent indigenous vegetation. Toowoomba canary grass invades dry coastal vegetation, heathland and heathy woodland, lowland grassland and grassy woodland, dry sclerophyll forest and woodland, damp sclerophyll forest, riparian vegetation, and freshwater wetlands.


Toowoomba Canary Grass
Burnside Heights Recreation Reserve
4
2
DZ
5
GR
3
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30

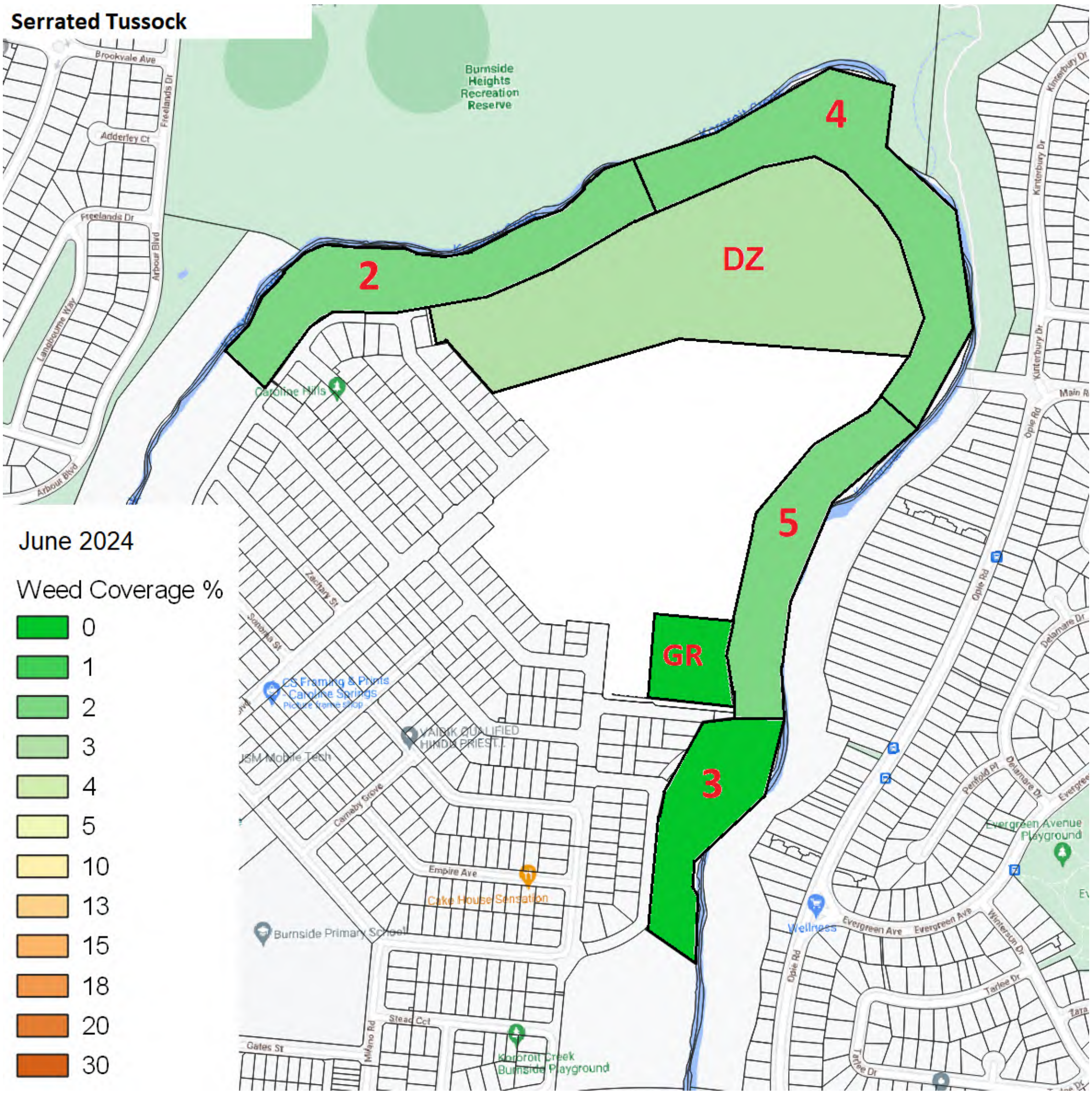
4.16 Serrated Tussock - Nassella trichotoma

Regionally Controlled - *Weed of National Significance* **Target coverage < 5%**

Current Coverage

Mgt Zone	2	4	5	3	DZ	GR
June 2024	**2%**	**2%**	**2%**	**0%**	**3%**	**0%**
March 2024	0%	2%	1%	0%	2%	NA
December 2023	0%	4%	2%	1%	2%	NA
September 2023	0%	4%	2%	1%	2%	NA
June 2023	0%	3%	3%	2%	3%	0%
March 2023	0%	3%	3%	1%	3%	NA
September 2022	0%	1%	1%	1%	3%	NA
June 2022	2%	5%	2%	2%	10%	0%
March 2022	2%	10%	5%	5%	10%	NA
December 2021	5%	10%	5%	5%	15%	NA
October 2021	10%	15%	5%	10%	30%	NA
August 2021	5%	15%	5%	10%	13%	NA
Apr 2021	5%	5%	5%	5%	10%	NA
Dec 2020	2%	2%	2%	2%	2%	NA
Oct 2020	5%	5%	5%	2%	5%	NA
June 2020	5%	5%	5%	2%	5%	0%

Serrated tussock is a long-lived perennial grass growing up to 60cm in height with a base of 25cm in diameter. Plant size varies with soil fertility and location. In infertile conditions plants may only reach a height of 15cm. Serrated tussock is shallow rooted with an extensive network of fibrous roots occurring predominantly in the top 20cm of soil. The roots are dense, wiry, and fibrous making serrated tussock very difficult to pull out, even when small. Flowering stems emerge from the base of the plant. They are multi-branched and up to 35cm long. The purple colour of the small seeds produces an overall purplish haze to the serrated tussock seed head. Once the seeds have formed, the entire seed head will 'droop' over the tussock towards the ground. Flowering takes place as early as late winter (August) and will continue throughout the spring (September – November). Autumn flowering has been known to occur. Seeds take 8 – 10 weeks to mature, normally occurring throughout the spring and summer months. Once seeds are ripe, the whole flowing stem detaches from the base of the plant and is dispersed by the wind. Seed is dormant and will not germinate for about 6 months.

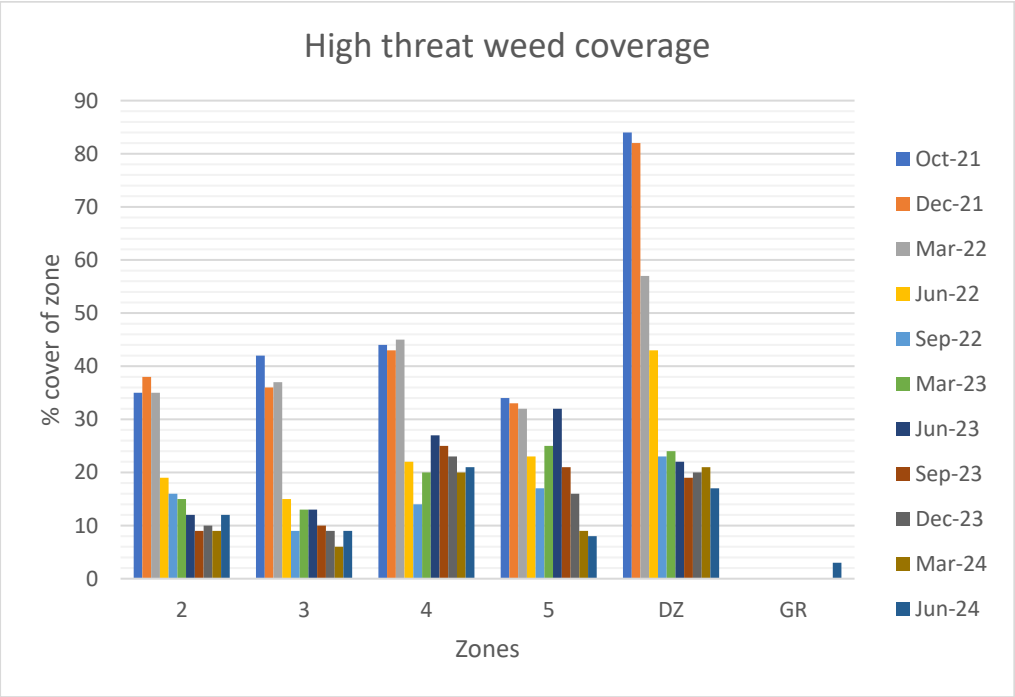

Serrated Tussock
June 2024
Weed Coverage %
0
1
2
3
4
5
10
13
15
18
20
30
2
4
DZ
5
GR
3
Burnside Heights Recreation Reserve

6.0 Summary

6.1 Overview

The below table displays the total percentage coverage in each zone of high-threat weeds. Since the previous report, there has been the slightest decrease in the overall coverage of high-threat weeds across all zones. During this visit, it was noted that *Phalaris aquatica* (Toowoomba Canary Grass) is still the most dominant species throughout most zones.

Approximately 70% of the development zone is now under construction and 50% of Zone 3 and 75% of Zone 2 have also been developed.



6.2 Zone 2

This area has been landscaped, resulting in a 75% reduction in size. Measures to reduce the dominance of the highly invasive large grass Phalaris aquatica are ongoing, promoting the natural regeneration of vegetation. Gradual removal of this species is being prioritised in areas of higher vegetation value to support the site's rejuvenation without posing erosion risks. Additionally, all woody weeds have been successfully controlled, with only a limited number of Century Plant *(Agave Americana)* remaining on the site.

6.3 Zone 4

The highly invasive large grass species, Phalaris aquatica, has exhibited consistent presence within this area. However, any future removal of this species necessitates a gradual and meticulous approach, commencing from areas holding higher vegetation value and extending outwards. This method will facilitate the natural regeneration of newly opened areas without unduly escalating the possibility of infiltration by other unfavourable species, such as one of the Nasella species observed on site.

Moreover, the majority of woody weeds have been effectively managed, with a limited number of specimens detected across the site. There are a couple of juvenile Boxthorns on site and some smallish sized Bridal Creeper starting to take hold along the creek line. There also is some scattered Desert Ash saplings along the creek line.

6.4 Zone 5

The population of the highly invasive large grass species, Phalaris aquatica, has exhibited a significant reduction because of pre-seeding biomass removal and the reduction in area due to construction.

Conversely, a positive development emerges from the successful control of all woody weeds throughout the site except for a small fennel cluster forming in the creek line. The absence of identified specimens during the survey attests to the efficacy of the control measures. This accomplishment is particularly heartening, given the potential deleterious impact of woody weeds on the environment and indigenous species. Other species identified along the creekline are Desert Ash and Spiny Rush.

6.5 Zone 3

The highly invasive large grass Phalaris aquatica is becoming less dominant. The gradual removal of this species has allowed more native vegetation to emerge, unfortunately as well as various other less invasive weed species, like Ribwort Plantain and Bristly Oxtongue. A small isolated patch of Bridal Creeper was noted amongst the Bursaria's. Landscape works has been completed along the roadside and creek side of this zone, reducing the area by about 50%.

6.7 Development zone

This area has undergone significant changes, with the emergence of small patches of Phalaris aquatica replacing the previously dominant Serrated Tussock. Additionally, the favorable weather has led to the growth of Artichoke Thistle in various patches. Our ongoing weed management efforts, along with the reduction of the Development Zone, will effectively minimize these occurrences. The area's development is impacting weed vegetation due to vehicle and plant movement, creating bare earth causing small patches of weed growth. A small cluster of Boxthorn is emerging and will need to treated in the next few months.

6.8 Grass Reserve

This area which a few years back had an ecological burn has boomed with various native grasses. But has become scattered with Artichoke thistle. The thistle will need to be treated prior to setting seed. There is also various common weeds emerging around the rabbit proof fencing that had been installed. The installation of the fence has produced a 500mm strip around the perimeter of bare soil

promoting weed growth. This will need to be addressed regularly, as not to let the seed bank to increase.

7.0 Conclusion

The presence of herbaceous high-threat weeds, such as Spear Thistle, Fennel, Cape weed, Paterson's Curse, and Horehound, is very low or nonexistent. However, Phalaris aquatica still dominates various zones, although it is slowly declining. The Phalaris aquatica plants along the creek line have been cut and treated during the last several visits. In areas where the Phalaris has been removed, it is being replaced by less invasive weed growth. Instead of using widespread herbicide treatment, future plans involve continuing slashing regimes, interspersed with selective treatments for individuals or small stands near higher vegetation values. The number of Artichoke Thistles (Cynara cardunculus) in the Development zone and around the rest of the sites will need to be treated before seed set. Further intensive control is required to prevent them from spreading to other zones.

With the continuing development in all the zones, the weed load is more prevalent in the creek zones and should be the main focus moving forward for the next few months.

Appendix 7: Cressy offset site, Year 5 (2024) annual report

BushBlocks

Annual Management Report

(EPBC 2011/6063)

Central Eastern Grassland

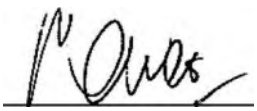
Long Paddock Offset Site

6165 Hamilton Highway, Cressy

Year 5: February 2023 - February 2024

Contents

Landowner Reporting Form

Landowner of offset site	Deep Lead Property Pty Ltd
Location and address of offset site	6165 Hamilton Highway, Cressy, Vic
Offset site number (if applicable)	C2017_2(A)
Offset plan reference number	EPBC 2011/6063
Responsible Authority	Trust for Nature, DCCEEW (formerly DoEE), Dennis Family Corporation
Report #	Year 5
Signature	Paul Guest – Director- Deep Lead Property ltd 
Date	13/06/2024

1. INTRODUCTION

This document addresses the requirements for Offset management/landowner reporting for offsets located at 6151 Hamilton Highway, Cressy. The broader 75ha site is the location of Offset areas for 5 separate Offset Agreements.

This report presents information relating to offset management for **Year 5** of a 10-year management plan for the relevant Offset Area - **Offset Management Zone 5 (OMZ-05)** named the **Central Eastern Grassland.** The following page presents a map of the site, highlighting the relevant offset areas to this reporting.

The offset was created as part of infrastructure works undertaken by **Dennis Family Corporation**, which resulted in impacts to matters of National Environmental Significance under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) in relation to **EPBC referral 2011/6063,** including;

- Natural Temperate Grassland of the Victorian Volcanic Plains (NTGVVP) ecological community
- Spiney Rice-flower (SRF) *Pimelea spinescens* subs*. spinescens*

The date of legal execution for the Offset Agreement and commencement of the Offset Management Plan (OMP) (Brett Lane and Associates, 2018) for this area is **17th April 2019.**

Reporting requirements for this offset area include an **annual management report**, (this document), to be completed by **February** each year, and to contain details of management actions, including.

- Details of management actions, including on groundwork, undertaken within the reporting period
- Results of monitoring activities, including fence condition, weeds, pest animals, and ground cover/biomass accumulation/cover of open ground
- Site photographs including from 5 defined monitoring points
- Details of compliance and non-compliance with the schedule of management actions

Table 1. Offset Areas located at the property of 6165 Hamilton Hwy, Cressy

Tier	Zone Name	Offset Management Zone	Size	Date of Legal Execution
Tier 1	Northwest Grassland (NWG)	0MZ-01	5 ha	4th October 2018
Tier 2A	Central East Grassland (CEG)	0MZ -05	29.1 ha	17th April 2019
Tier 2B	Seasonal Herbaceous Wetland Two (SHW2)	0MZ -04	11.86 ha	17th April 2019
Tier 2C	Seasonal Herbaceous Wetland One (SHW1)	0MZ -03	2.52 ha	17th April 2019
Tier 3	Southwest Grassland (SWG)	0MZ -02	16 ha	26th Sept 2020
	Far East Grassland (FEG)	0MZ -06		

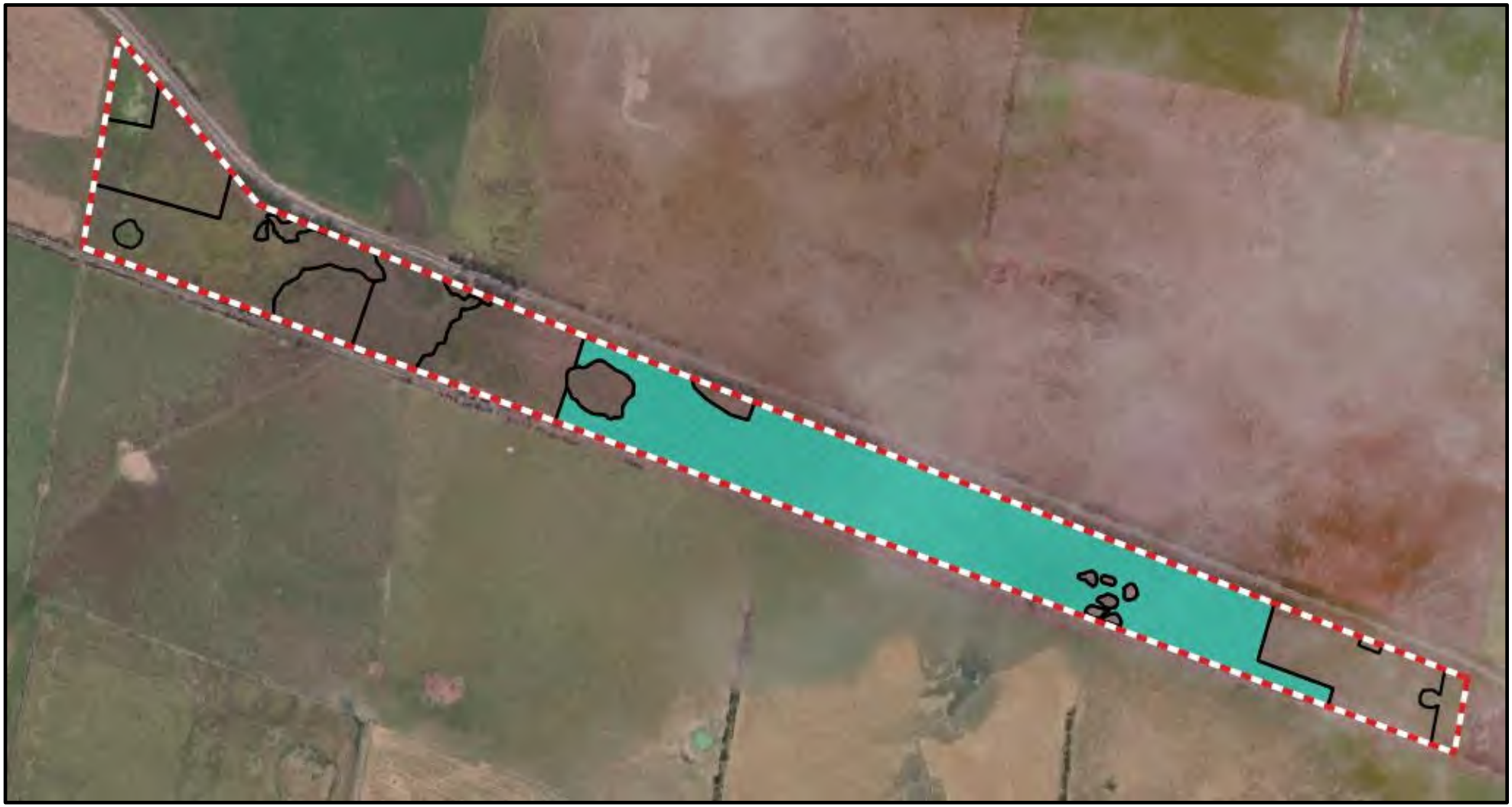


Figure 1. Management areas pursuant to Offset Agreement [EPBC 2011/6063]. Central Eastern Grassland (OMZ-05)

2. Completed Works

2.1 Record keeping

- The site logbook in an online record of times and dates that landowners/land managers, contractors, consultants, or other relevant parties have visited the site for the purposes of management or monitoring actions
- The logbook is maintained by the land manager through regular correspondence with contractors to record important information relating to site management or monitoring.
- Typical entries include date, name of personnel on site, activities being completed, general observations of flora or fauna, weather, presence of standing water, comment on biomass etc.
- Evidence of each site visits is usually in the form of photos, GPS tracklogs/waypoints, site notes and daily works records
- A summary of Property Logbook for Year 5 is provided in Appendix 2, and links to all site information collected during site visits will be provided on request.

2.1.1 Quarterly Site visits

The offset area is required to be visited at least quarterly by the landowner. The following activities are undertaken at each quarterly visit;

- walk of boundary fencing to assess any signs of damage or unauthorised entry of people or stock
- general observations. This includes locations and notes as appropriate in relation to;
    - woody or herbaceous weed infestations- species and location
    - estimates of percentage cover of inter-tussock space
    - signs of pest animals, or other tracks scats, or signs of predation
    - signs of erosion, pugging, damage to vegetation
- Detailed observations from quarterly site visits are available on request

2.2 Fence Condition

2.2.1 Offset demarcation

- The numerous Management Zones within the site are not individually fenced. The intersections of the OMZs with boundary fencing have been marked with short (approx. 30 cm high) star pickets for identification.
- Yellow safety caps identify the boundaries visually; tags are also attached to indicate the offset area.

2.2.2 Additional Internal Fencing

- Internal fencing was installed in 2022 to create smaller paddocks/cells for rotational grazing in line with the OMP and other offset agreements within the property
- The property has been sectioned into 4 large grazing cells, and a smaller domestic zone.
    - **Cell 1**- Domestic Zone (non-covenanted area)
    - **Cell 2**– Features generally higher biomass, higher weed-cover.
    - **Cell 3**- Includes small portion of OMZ-05 (higher quality), and seasonal herbaceous wetland areas with stricter grazing restrictions.
    - **Cell 4**- Includes portion of OMZ-05, includes larger, high quality grassland area, moderate biomass, lower weed-cover.
    - **Cell 5**- Includes portion of OMZ-05, features generally higher biomass, higher weed-cover.

2.3 Weed Monitoring and Control

2.3.1 Site Walkover – Spring 2023

- Weed monitoring is conducted annually in Spring and involves inspection of the entire offset area for woody weeds, by foot.
- All infestations or individual woody weeds are identified to species level and mapped with a GPS. Locations of woody weeds are then supplied to the weed management contractor/landholder for treatment.
- Subsequent monitoring revisits previously mapped infestations to evaluate the success of weed control, as well as inspecting the entire offset site for new infestations.
- During the survey, information on herbaceous weed species is also recorded, including the mapping of species and areas suitable for targeted treatment.

Results

Assessment was conducted over the dates of the 16th and 17th of November 2023 by land manager Emma Wilkin, on behalf of the landowner. Refer to Tables 2, Table 3 and Table 4 for assessment results, including current percentage cover for each weed species listed in the OMP.

Collected data are provided to site contractors and incorporated into an annual works plan for Year 6.
Annual works plans for the property include consideration and planning for works with each of the five separate offset agreements, and are completed in collaboration with TfN at the end of each calendar year.

Table 2. Woody weeds species – targets and control

Scientific Name	Common Name	Threat level	Baseline cover (Year 0)	Interim target (Year 4)	Current cover (Year 5)	Target (Year 10)	Treatment in Year 5	Timing/Method of Treatment
Eucalyptus spathulata	Swamp Mallet	High	1%	<1%	<1%	<1%	No	No plants identified for treatment
Lycium ferocissimum	African Boxthorn	High	<1%	<1%	<1%	<1%	Yes	Foliar spot/spray of regrowth

Table 3. Herbaceous weeds species – targets and control

Scientific Name	Common Name	Threat level	Baseline cover (Year 0)	Interim target (Year 4)	Current cover (Year 5)	Target (Year 10)	Treatment in Year 5	Timing (Method) of Treatment
Dactylus glomerata	Cocksfoot	High	2%	1%	1%	5% combined cover or less	Yes	Grazing (refer Section 5.2.1)
Holchus lanatus	Yorkshire Fog	High	1%	1%	10%		Yes	Spot spray (Spring)/Grazing
Phalaris aquatica	Toowoomba Canary-grass	High	3%	2%	10%		Yes	Spot spray (Spring)/Grazing
Phalarus arundinacea	Reed Canary-grass	High	1%	1%	<1%		Yes	Spot spray (Spring)/Grazing
Circium vulgar	Spear Thistle	High	1%	1%	1%		Yes	Spot Spray (Spring) Refer Logbook summary and DWR
Romulea rosea	Onion grass	Low	3%	2%	3%	Combined cover does not increase above (16%) Aim for 8%	Yes	Grazing
Annual grasses *(Vulpia, Briza, Bromus, Aira, Lagurus ovatus)*	Fescue, Quaking-grass, Brome, Hair-grass, Hare's-tail grass	Low	10%	7%	10%		Yes	Grazing
Broadleaf *(Hypo rad, Leon tarax, Lactuca serriola)*	Flatweed, Hairy Hawkbit, Prickly Lettuce	Low	3%	2%	5%		Yes	Spot spray (Spring)/Grazing

Table 4. New and emerging weed species – targets and control

Scientific Name	Common Name	Threat level	Baseline cover (Year 0)	Interim target (Year 4)	Current cover (Year 5)	Target (Year 10)	Treatment in Year 5	Timing/Method of Treatment
Rosa rubiginosa	Sweet Briar	High	na	na	<1%	<1%	Yes	Cut/paint – occurs on fence line, northern boundary Hamilton Highway
Conyza sumatrensis	Fleabane	High	na	na	<1%	<1%	Yes	Hand-pulled on observation

2.4 Pest Animals

- There were no recorded sightings of pest animals within the Offset Area in Year 4 management period.
- Individual hares are sometimes sighted in the area but are not found to be creating disturbance on site. There were no signs of active or inactive rabbit warrens, or areas that could be seen as intensely browsed by rabbits or hares. There are also no areas of rubbish, or surface harbour within the site.
- No foxes have been observed within the property boundary. Foxes continue to be observed within the neighbouring area, and occasionally as roadkill on the Hamilton Highway within 10k of the property.
- There has been no evidence of any other pest animal species occurring on site.

2.5 Biomass Management

2.5.1 Grazing

- Site is checked regularly at times where stock is present on site. Notes are taken regarding general site condition, grazing progress, signs of trampling, selective or overgrazing, pugging etc.
- Photos are also used as documentation of site condition during time of grazing, though the key measure of grazing success is through of review of biomass monitoring results from across the extent of the offset property each year.

Table 5. Grazing Rotations – OMZ-05, Year 5

Cell	Rotation	Grazing period	Weeks	Number of sheep
C3	1	10/4/2023 - 30/4/2023	3	400
C4	1	6/2/2023 - 12/3/2023	5	400
	2	10/7/2023 - 6/8/2023	4	200
	3*	4/9/2023 - 1/10/2023	4	200
C5	1	5/6/2023 - 9/7/2023	5	200
	2*	7/8/2023 – 3/9/2023	4	200
	3*	2/10/2023 – 22/10/2023	3	200

*Indicates grazing through exclusion period and adaptive management for biomass control

2.5.2 Ecological Burning

- No ecological burning was conducted in the Year 5 management period

2.6 Biomass Monitoring

2.6.1 Annual Biomass monitoring – Spring 2023

- This methodology is additional to that outlined in the OMP. This survey utilises over 100 (2x2 meter) quadrats that are placed at 50m intervals along entire length the 75ha property. A total of 47 biomass monitoring quadrats are located within or on the boundaries of the Offset Area (OMZ-05) .
- The objective is to gain a clear picture of how the wider offset site is changing and if management goals are fulfilling their objectives. These results are used to inform the proposed grazing strategy for the property.
- There are two systems in place to measure biomass at each quadrat, the use of both giving more depth to the data collected.

Indicator species (Lunt 2003)

The presence of these species is used to determine that native and exotic grasses have not out-competed native herbs. The three species chosen species all occur within the offset sites, these are

- Lemon Beauty-head *Calocephalus citreus,*
- Common Everlasting *Chrysocephalum apiculatum,* and
- Scaly Buttons *Leptorynchos squamatus,*

Inter-tussock space

- The percentage of bare ground present is separated into five categories: 0%, 1-20%, 20-40%, 40-60%, 60-80%, and 80-100%.
- The objective range that must be maintained across the grassland over time is 20-40% bare ground with closer to 40% being the desirable goal. If the amount of bare ground reaches 50% pulse grazing should halt.
- This measurement of bare ground provides a clearer assessment of what areas should be targeted for biomass reduction and when mapped can show areas where controlled burns are a higher priority.

Results

- **Biomass is considered acceptable if indicator species are present, and/or percentage or bare ground is at least 20-40%**
- Assessment was conducted over the dates of the 16th and 17th of November 2023 by Emma Wilkin
- Results demonstrate a decrease in biomass compared to the previous reporting period.
- Offset Area (OMZ-05) results show a higher biomass percentage than that of the broader offset site, with approximately 25% acceptable (see fig.2), compared to 35% (see fig.1).
- Note that the increase in biomass in 2022 prompted adjustment to the grazing strategy, including additional grazing into the exclusion period as adaptive management.

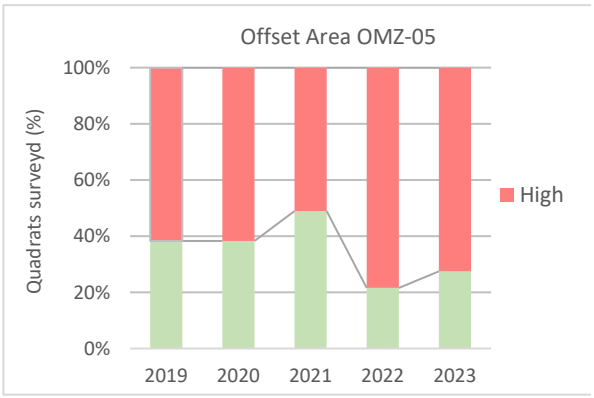


Figure 1 Biomass monitoring results for OMZ-05 across monitoring years

Figure 2: Biomass monitoring results for the entire offset Property across monitoring years

2.7 Photo points

- Photo points are located at the boundaries and at the junction of offset management areas
- Photo point monitoring is conducted in Spring each year
- Results of Year 5 Photo points monitoring are provided in Appendix 4

2.8 Site Quality Audit

- Site quality auditing is by a suitably qualified ecologist is required in late spring – early summer of Years 1, 4, 7 and 10. The site quality audits for Years 1 and 4 did not occur.
- Ecocentric Environmental Consulting completed the site Audit in Year 5, results provided in separate monitoring report.

2.9 Annual Works Plan

A detailed annual works plan for the entire site will be provided to Trust for Nature in January of each year, in response to review of results of all management and monitoring actions.

A summary of Annual Works relating to the Offsets Area for Year 6 is as follows:

- Review effectiveness of adaptive management – grazing
- Weed control to focus on Phalaris and threat
- Consider ecological burn to reduce biomass associated with kangaroo grass.

Appendix 1. Summary of required management actions – Year 5

Management Actions Years 2-9	Timing	Target to be achieved	Actions completed	Month completed	Comments
Landowner to Liaise with TfN and develop annual works plan	Within 3 months of (Feb) each year	Annual Works Plan is prepared	**Y-**	Feb	Annual works plan discussed with TfN (Karen Tymmes) on 1st Feb 2023. Agreed approach moving forward is for an Annual Work Plans for the broader 75 Ha site to be provided at the beginning of each calendar Year (Jan)
Monitor weeds and implement control if required: - Ecological grazing to reduce biomass of introduced species and prevent seed set - Herbicide and/or flame weeding use as required	March to May or September to November As required as per optimal time for each species (herbicide and/or flame weeding	See section 3.4.2, Table 5.	Y	General observations recorded throughout Year Weed monitoring conducted in Spring	Monitoring conducted and information provided to nominated contractor or completed by the landowners/managers
Map rabbit warrens using a GPS until and implement control Monitor fox populations and implement control if required	Autumn (or at commencement)	Pest animals controlled	Y	Ongoing	Site visits and monitoring found no signs of established pest animals – pest animal controlled deemed unnecessary
Biomass reduction through ecological burning or ecological grazing if required	February – May (Burning) End of January to end of September (grazing)	Grassy Biomass layer reduced Inter-tussock spaces maintained to optimise ecological function	Y	Ongoing	Additional fences installed to allow for rotational grazing as per management plan, and to address problem areas of the site
Weed and Biomass monitoring	September to November	Results will inform management approaches and techniques	Y	Nov 2021	Spring monitoring detected higher levels of biomass in previous years
Site quality audit (Qualified ecologist engaged by the land owner)	Late Spring to early Summer Years 1, 4, 7, 10	Results will inform management approaches and techniques	Y	Spring 2023	Audit conducted in Year 5 Ecologist has been engaged to complete audit in Spring 2025 (Year 7)
Monitoring to determine fencing integrity and timeliness of management actions	Boundary fencing formally inspected every three months each management action monitored	Boundary fencing effective and management actions undertaken on time	Y	Fencing monitored at quarterly site inspections	Fences adequate, Rock wall stabilised through additional wire fencing (Feb 2022) Grazing checks completed regularly when sheep are on site, and include check of fence condition
Report to be prepared documenting management actions undertaken and monitoring results	No later than three months after the anniversary of commencement (ie July)	Report delivered to DFC, TfN and DoEE no later than three months after the anniversary of commencement	N	October	Agreed submission date to TfN is Feb each year. Report not submitted by due date
(TfN) -Monitoring of the offset site to determine whether the prescribed management actions are resulting in the desired outcomes outlined in this plan	Three times over the life of the (OMP)	Feedback delivered to Landowner and DFC	Y	Ongoing	

Appendix 2. Property Log Book

Please refer next page

Property Management

Emma Wilkin

1 Feb 2023 - 1 Feb 2024

Start ↑	Title	Company	Zone	Actions completed, observation	Proof of visit (sent to PM
06/02/2023	Weed Control	Bush Blocks	OMZ-05, OMZ-06	Now covered all thistles within Cell 5 plus around dam. Cut/ paint boxthorn - tracks saved	Daily Works Record (DWR)
28/02/2023	Grazing check	Bush Blocks	All	See notes	Photos
27/03/2023	Grazing Check	Bush Blocks	C1, C2	See notes	
13/04/2023	Grazing check	Bush Blocks	All Cells	See notes	
28/04/2023	Ecological Burn	Bush Blocks	OMZ-01, OMZ-02	See notes	
01/05/2023	Grazing - Sheep Off (400)	Patrick Smith Transport			
14/05/2023	Ecological Burn	Bush Blocks	OMZ-01, OMZ-02		Photos
05/06/2023	Grazing - Sheep on (200)	Paul Bath	C5	200 sheep on	
03/07/2023	Quarterly Site Visit	Bush Blocks	OMZ-01, OMZ-02	Checked unallocated area for SRF none found - vegetation height approx 10-15cm, high cover annualsChecked burnt areas in Cell 1 and 2	Photos GPS tracklog Site Notes
13/07/2023	Weed Control	Bush Blocks	OMZ-02	Phalaris/flatweed/thistles OMZ	
14/07/2023	Weed Control	Bush Blocks		See DWR	
16/07/2023	Site Check	Bush Blocks	All	See notes	
19/07/2023	Grazing check	Bush Blocks		See notes	
26/07/2023	Weed control - Phalaris	Bush Blocks	OMZ-01	Spot-Spraying (backpack)	

☐	02/08/2023	**Weed Control**	Tree Management Services	OMZ-01, OMZ-02	Spot-Spray (hose) in areas of dense Phalaris within western end of property (excl. DZ)	Daily Works Record (DWR) GPS tracklog
☐	02/08/2023	**Weed Control**	Bush Blocks	OMZ-02, OMZ-03, OMZ-04	Spot Spraying (backpack) in higher quality areas - Phalaris, Fog grass, Thistles, dense patches of flat weed	Daily Works Record (DWR) GPS tracklog
☐	24/08/2023	**Site Visit / Grazing Check**	Bush Blocks	All	Checked each paddock - Biomass Cell 1/DZ - approx 20-30 cm high, mostly Phalaris and Bromus Cell 2 - big improvement on this time last year, burns have been effective to reduce biomass/thatch layer in some places, Phalaris treatment successful, effective die-off of target species with negligible off-target damage. Application was sensitive enough to avoid indig vegetation - refer photos Cell 3 - Wetland - biomass high, particularly with last years kangaroo grass, and patches of Phalaris, Pimelea spin actively growing without recent grazing pressure, up to 10cm high and flowering. Native herbs common, no surface water observed despite recent rainfall. Cell 4- biomass high, last years kangaroo grass and thatch layer - move sheep in once cell 5 has been further grazed Cell 5 - high cover onion grass, phalaris patch has been heavily grazed, native herbs persisting overall - very few thistles, spot spraying for thistles, to continue in all paddocks in the lead up to spring, grazing exemption will be required to manage biomass in all paddocks. Suggest planned burn in wetland paddock in Spring -	Photos GPS tracklog Site Notes
☐	28/08/2023	**Weed Control**	Bush Blocks	OMZ-01, OMZ-02		Daily Works Record (DWR)
☐	08/10/2023	**Ecological Burn**	Bush Blocks		Start slashing area within Cell 2 - wetland paddock to prepare for burn Check grazing Phalaris- early Spring Cocksfoot - early Spring Thistles - Sept - Dec, prevent flowering Boxthorn - Sept - Nov	
☐	29/10/2023	**Site Visit**			Considered small burn in far west paddock to add to existing burn... Too dry and too windy.	
☐	02/11/2023	**SLL 1/6**	Ecoaerial	OMZ 1, OMZ 2. OMZ 6		

☐	08/11/2023	**Cressy Monitoring Quadrats & Hab Hectare Assessment**	Ecocentric	OMZ-01, 02, 05, 06		
☐	15/11/2023	**Cressy SLL 2/6**	Ecoaerial	OMZ 1, OMZ 2. OMZ 6		
☐	16/11/2023	**Cressy Biomass quadrats, Site Walk, Photopoints**	Bush Blocks	All	Photo points on Caitlins phone|Biomass quadrats - Qfield Site walk - GPS (EW)	
☐	17/11/2023	**Weed Control**	Bush Blocks		Thistle Control - See DWR	
☐	20/11/2023	**Cressy SMEC audit**	SMEC, Bush Blocks	OMZ-02. OMZ-06		
☐	23/11/2023	**Cressy SLL 3/6**	Ecoaerial	OMZ 1, OMZ 2. OMZ 6		
☐	05/12/2023	**Cressy GSM 1/4**	Ecoaerial	OMZ 1, OMZ 2. OMZ 6		
☐	06/12/2023	**Cressy SLL 4/6**	Ecoaerial	OMZ 1, OMZ 2. OMZ 6		
☐	13/12/2023	**Cressy GSM 2/4**	Ecoaerial	OMZ 1, OMZ 2. OMZ 6		
☐	13/12/2023	**Cressy SLL 5/6**	Ecoaerial	OMZ 1, OMZ 2. OMZ 6		
☐	28/12/2023	**Cressy SLL 6/6**	Ecoaerial	OMZ 1, OMZ 2. OMZ 6		
☐	02/01/2024	**Cressy GSM 3/4**	EcoAerial	OMZ 1, OMZ 2. OMZ 6	no GSM	
☐	05/01/2024	**Cressy Site Visit**	Bush Blocks, Seed 2 Leaves	OMZ 1, 2, 6	site visit to check wallaby grass and kangaroo grass seed for collectingwallaby grass gone, kangaroo grass still developing - too earlyburnt areas showing high cover of weeds - milk thistle, Wilsons barley, prickly lettuce, Phalaris seem slow growing, leggy. areas that weren't treated and Phalaris has remain have gone to seed. Rye grass in dense patches dried and fallen over. Convolv, Eringium, LemonBH, and Everlastings in full bloom, in nice areas.	
☐	11/01/2024	**Weed Control**	Bush Blocks	OMZ-01, 02, 05, 06	weed control in far west and far east - See DWR	
☐	12/01/2024	**Weed Control**	Bush Blocks	OMZ-01, 02, 05, 06	weed control in far west and far east - See DWR	
☐	16/01/2024	**Cressy GSM 4/4**	EcoAerial Consulting	OMZ 1, OMZ 2. OMZ 6		
☐	16/01/2024	**Weed Control**	Bush Blocks	OMZ-01, 02, 05, 06	weed control in far west and far east	
38						

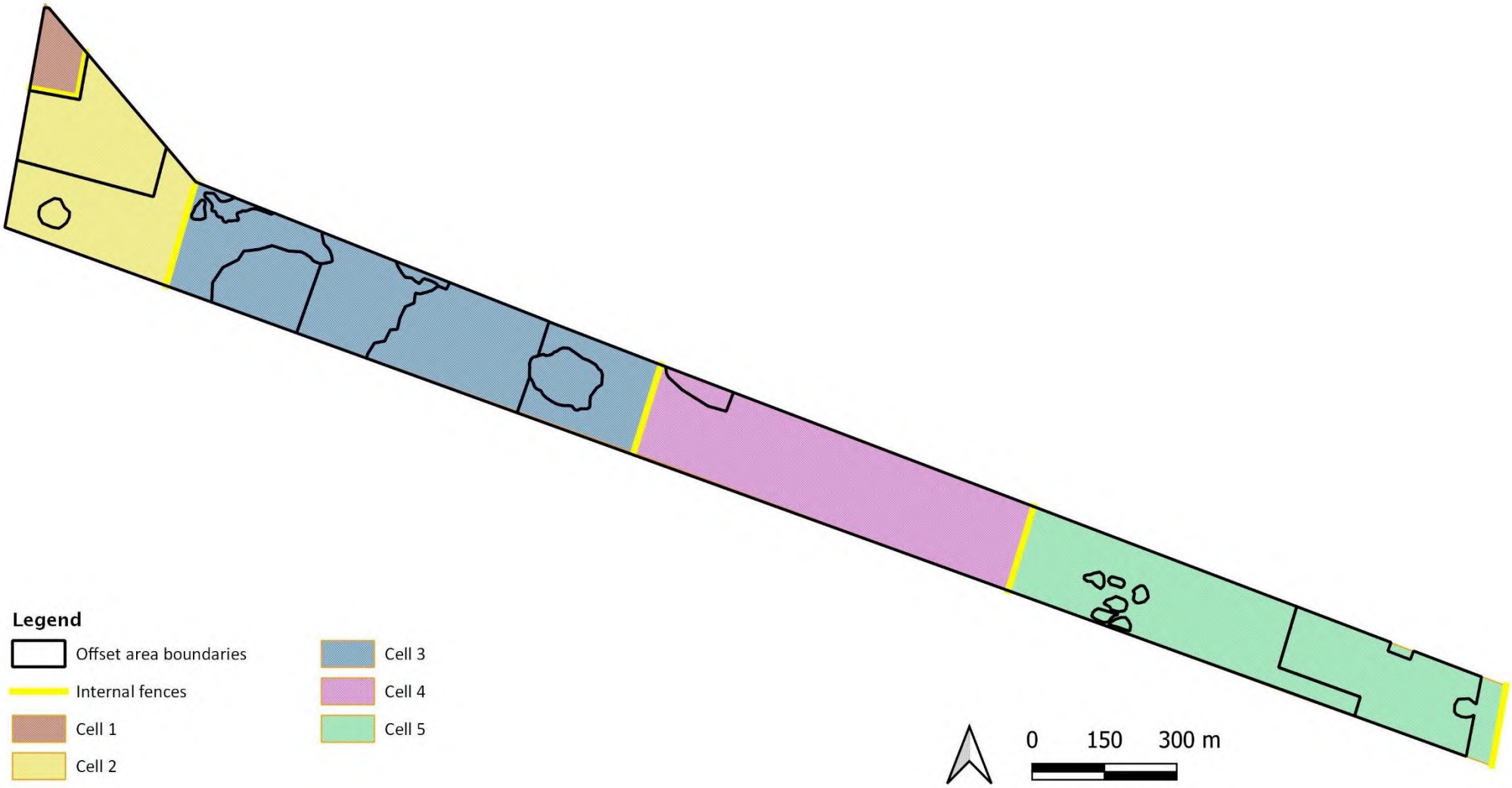
Appendix 3. Maps

Map 1- New Grazing Paddocks

Map 2- Biomass Monitoring 2023

Map 3- Photo point Monitoring Locations

Map 1 - New Grazing Cells



Biomass Monitoring Spring 2023

Long Paddock Offset Site
6165 Hamilton Hwy, Cressy

Legend

Biomass 2023

- high biomass
- acceptable biomass

Offset Management Zones

EPBC 2011/6063

Details

Date: 18 May 2024
Version: 1
Created by: Emma Wilkin

Data Source:
Aerial Photography from Esri Satellite

BushBlocks

0 175 350 m

(page size A4)

Photopoint Monitoring

Long Paddock Offset Site
6165 Hamilton Hwy, Cressy

Legend

- Property Boundary
- Offset Management Areas
- A Offset_edge
- OMZ-05

Details

Date: 30 August 2022
Version: 1
Created by: Emma Wilkin

Data Source:
Aerial Photography from Esri Satellite

BushBlocks

0 150 300 m

Appendix 4. Photo Points - Spring 2023


OE1 – W


OE2 – E


OE3–S


OE3 – W


OE4–E


OE19 – E


OE20 – W


OE21 – E


OE22 – W

Appendix 8: Karabeal offset site, Year 7 (2024) annual report

BB-3005/LA01
SITES 1-12
YR 7.

Compliance with the Obligations of the Landowner (as contained in the Landowner Agreement)

Management of the site

In relation to the Site, the Landowner covenants and agrees:

5.4 to complete the Management Actions for the purpose of achieving the Management Commitments, to the standards required by the Site Management Plan and to the satisfaction of the Secretary, regardless of whether all Native Vegetation Credits have been sold to other people. Where the Landowner has completed the Management Actions specified in the Site Management Plan to the satisfaction of the Secretary, but a Management Commitment is not achieved for reasons out of the control of the Landowner, the Secretary will not withhold any payment to the Landowner;

5.5 to allow the Secretary and the Secretary's officers, employees, agents, contractors, invitees and licensees access to, and entry onto the Site in accordance with this Agreement or the Conservation Forests and Land Act 1987; and

5.6 to undertake the works required to implement the Site Management Plan in compliance with all relevant laws, regulations and statutes, including subordinate instruments and authorisation.

Protection of Native Vegetation

5.7 The Landowner must:

5.7.1 not cause or consent to the removal, destruction, lopping or any other interference with any Native Vegetation on the Site;

5.7.2 take all reasonable steps to ensure that no Native Vegetation on the Site is removed, destroyed, lopped or otherwise interfered with; and

5.7.3 subject to clause 6.4, not apply for, or consent to an application for, a permit under the Planning and Environment Act 1987 (Vic) to remove, destroy or lop Native Vegetation on the Site.

Protection of other habitat

5.8 Subject to clauses 2.13 and 6.4, the Landowner must:

5.8.1 not cause or consent to the removal or interference with any rocks or fallen vegetation on the Site; and

5.8.2 take all reasonable steps to ensure that no rock or fallen vegetation on the Site is removed or interfered with.

Exclusion of livestock

5.9 Subject to clauses 2.13 and 6.4, and except as provided for in any Management Notice under clause 7, the Landowner must:

5.9.1 not cause or consent to the introduction of any livestock on the Site; and

5.9.2 take all reasonable steps to ensure that no livestock enter or remain on the Site.

Introduction of animals other than livestock

5.10 Subject to clauses 2.13, 5.11 and 6.4, the Landowner must:

5.10.1 not bring, or consent to the bringing of, any Domestic Animal onto the Site; and

Emailed to nativevegman 8/7/24.

5.18.3 take all reasonable steps to ensure that fertiliser is not applied to any part of the Site.

Buildings and structures

5.19 Subject to clauses 2.13, 6.4 and 5.20, the Landowner must:

5.19.1 not erect or place any building or structure on the Site; and

5.19.2 take all reasonable steps to ensure that no building or structure is placed on the Site by any other person.

5.20 The Landowner may erect temporary structures on the Site as part of any grazing of livestock authorised under the Site Management Plan, consent under clause 6.4 or Management Notice under clause 7.

Alterations to the natural state of water bodies

5.21 Subject to clauses 2.13 and 6.4, the Landowner must not cause or consent to, and must take all reasonable steps to avoid any occurrence of, any act which alters the natural state of, or the flow, supply, quantity or quality of, any body of water on to or from the Site.

Rubbish and other materials

5.22 The Landowner must not cause or consent to, and must take all reasonable steps to avoid, the dumping of any rubbish or the storage of any materials on the Site.

Further restrictions on using the land

5.23 Subject to clause 6.4, the Landowner must not cause or consent to any of the following, and must take all reasonable steps to ensure that the following do not occur on the Site:

5.23.1 the removal, introduction or disturbance of any soil, rocks or other minerals or the construction of dams or modification of existing dams;

5.23.2 subdivision;

5.23.3 the operation of any trade, industry or business;

5.23.4 the recreational use of trail bikes or four wheel drive vehicles;

5.23.5 the carrying out of any works on the Site other than those required by this Agreement or by law; and

5.23.6 the carrying out of any other activities not consistent with the purposes of this Agreement.

Extractive industry and utility installations

5.24 The Landowner must not permit, unless required by law:

5.24.1 the issue of any licence or approval for exploration, mining, extraction or production of gas, petroleum, minerals or other substances on the Site; or

5.24.2 the installation of any transmission lines or other services or works on the Site.

5.25 The Landowner must bring this Agreement to the attention of any person who notifies the Landowner that they have applied for or will be applying for a licence, approval or proposal to take an action of the kind described in clauses 5.24.1 and 5.24.2, and to any other person or body whose approval is required to take that action.

5.26 The landowner must notify the Secretary of any notification of an application for a licence, approval or proposal to take an action of the kind described in clauses 5.24.1 and 5.24.2.

Department of Environment Land, Water & Planning Annual Report Form

Enter management year here: Year 7

Management Agreement: BB - 3005 LA0 1

Enter Landowner name(s) here:
M.G. Pastoral Co. Pty. Ltd.

Site Code: Karabeal, Sites 1 & 2.

Site-Zone	Standard to be achieved	Management action description	Timing	Action Completed	Description of Actions and observed outcomes
All Sites	Maintain boundary fences to stockproof condition.	Regular visual inspections throughout the year of the boundary fences to maintain good stockproof condition	Ongoing	Yes	Contractor and Land Owner regularly inspected the boundary fences. Minor repairs continue to be undertaken as required on some older sections of the boundary fences. It is unknown to the Land Owner if our neighbours have grazed the roadway this year, as has previously been done. In any event there was no visual evidence of any livestock entering the offset sites throughout Yr. 7.
All Sites	Erect a stockproof fence around the 'non-BB offset' site approx. 50 m's from the top of the creek bank for approx. 750 m's as depicted on the approved BB site plan	A fence consisting of star pickets, 5 x plain wires and 'ring lock' sheep meshing, approx. 750 m's in length is to be constructed in accordance with the dimensions and bearings depicted on the approved BB site plan – site 1.	Year 1 & 2	Yes	GPS'd (surveyed) and pegged was completed in year. 1. Fence was erected in totality in year 2. Nth./Sth. section running up to McIntyre's Crossing Rd. was dismantled and re-built on GPS marks in Feb. '22.
Sites 1 & 2	Woody weeds to be eliminated.	Cut & paint adult plants and spot spray seedlings with approved herbicides and monitor for new emerging weeds.	Ongoing, Autumn & Spring	Yes, but ongoing	The eradicatrion of African Boxthorn continues across both sites, as detected. As per the advice from Nature Advisory, approx. 240 River Red-gum seedlings were selectively thinned form the areas of mass recruitment. The stumps of same were treated with Glyphosate. Whilst this number may seem significant, the mass recruitment is vast and more trees may need to be removed oner coming years. The removal of the non-indigenous, 4-5 Giant Honey Myrtle 2-3 Blue Gums and Large fruited Yellow gums are scheduled for removal in Yr. 7
Sites 1 & 2	Control of herbaceous weeds to a lesser level than when the BB agreement was executed.	Monitor and control new and emerging herbaceous weeds in both sites and treat weeds before the plant has flowered and set seed.	Autum & Spring (early Summer).	Yes, but requires ongoing attention and action	Phalaris continues to be a focus of the management initiatives for herbaceous weed control with specific targets being in and around the River Red gum coppice in area 1M, Plains Grassy Woodland. Other targeted herbaceous weeds controlled were Scotch Thistle, Stink Wort and Whip Thistle

Site-Zone	Standard to be achieved	Management action description	Timing	Action Completed	Description of Actions and observed outcomes
Sites 1 & 2	Pest animals (rabbits & foxes) to be monitored and controlled	Regular visual inspections across the entirety of the sites for evidence of pest animal presence; control and eradication where required.	Ongoing	Yes	Contractor and Land Owner regularly visually inspected both sites throughout the year. No evidence of rabbit or fox infestation were obvious; no noticeable traces of faeces or harbours were found. Although indigenous and not a pest, there continues to be a mob of grey kangaroos resident on the property (both sites); definite traces of faeces throughout the entirety of the sites. On one visit the mob evident was circ. 15-20, adults and joeys. Please see attached notification of 1080 Pest Animal Baiting for Foxes undertaken by the local Land Care group, in and around our general vicinity.
Sites 1 & 2	Biomass management for high rainfall plains grassland.	All areas except 1M, to be burnt in a mosaic pattern, with one third to one firth of the site to be burnt annually, in accordance with BB info. sheet # 14.	Autumn	Yes.	A biomass burn was undertaken on quadrant 3 as per the attached BB Zone plan, encompassing areas 2H, 2I, & 2J. Initially starting in the northern section of Q. 3 with a very gentle breeze, the winds dramatically intensified and shifted to come from the north. The controlled fire 'esaped' the containment lines and proceeded to jump the fence into our neighbour's property. The CFA were called to assist in the control of the fire.
Sites 1 & 2	General	Noticeable soil disturbance, in various sections of the overall property.	Ongoing	TBC	There is continuing disturbance of the top soil in sections of both sites by a ground based rodent, believed to be either the native bush rat – *Rattus fuscipes* odr swamp rat – *Rattus lutrelous*. It would appear that whichever rodent is present it appears to be eating the corms/bulbs of onion grass which is present and of benefit in the control of this. Should the soil disturbance be deemed to be an issue then positive identification and control of measures of same may be required. Investigations of suitable 'trail cams' has begun and may be installed this coming year.
Sites 1 & 2	General	Following discussion with the Dept. in June '22, the LO engaged Nature Advisory to undertake a field inspection & provide a 'review/status' repoirt of both sites. The report (finally received in March '23) was quite extensive and provided direction and advice for future actions.	Ongoing	TBC	The advice and suggested actions are being considered and actioned in conjunction to the OMP for the sites and continue to be 'works in progress'. The NA report was appended to the Ann. report of Yr. 6

Site-Zone	Management Action	Management action description	Timing	Completed (Yes/No)	Include or attach supporting evidence of actions completed / comments / observations
Annual reporting					
All	Annual report is signed, dated and submitted by the landowner at least 1 month before the anniversary date of the agreement The annual report is a useful opportunity to make comprehensive comments and observations, giving a picture of the current condition of the site(s), issues identified, works undertaken and actions still required. You are encouraged to create a separate report to include in your annual reporting each year that captures this detailed information. The benefits of monitoring your vegetation condition and identifying issues and management undertaken, is that it aids you to gauge the success of management on the condition of native vegetation over time. The Department is also able to use this information to assist with the assessment of your compliance with the agreement and provides us with useful information and data for future management advice. Obligations of the landowner (compliance with section 6 of the Landowner Agreement) have been met, and I have read, signed, dated and submitted the obligations form with the annual report.	Prepare and submit an annual report providing evidence of works carried out. Where the actions were not carried out provided evidence as to the reason why. Include supporting evidence by: - detailed written observations & additional report - photo point monitoring - map of zones & photo points - photographs of works undertaken - receipts/invoices for materials & works carried out, including by contractors - log books of works carried out - obligations of the landowner form - payment method is correct - Receipts of seeds / seedlings ordered or purchased including a table/list of the species, numbers of each species (can estimate if using seeds), provenance - Site log - table/list of numbers of species planted/recruiting or germinated, including: numbers of each species by life form that are present/survived and/or were replaced for that year	Submit at least 1 month prior to agreement anniversary date		✓ obligations of the landowner form where applicable: payment method is correct ✓ detailed written observations & additional report photo point monitoring map of zones & photo points ✓ photographs of works undertaken ✓ receipts/invoices for works carried out, including by contractors log books of works carried out Receipts seeds/seedlings, provenance, table of species list & numbers Site log / table of plantings/germination & survival numbers by life form

I hereby declare that the supplied information is accurate and complies with reporting requirements under General Conditions under the Second Schedule of the DELWP Management Agreement.

Signed: .....

Date: 8 / 7 / 24

G. R. Hewitt trading as

Small Farm Contracting Pty Ltd

A.B.N.: 30 608 262 942

POSTAL ADDRESS:
P.O. BOX 61, LEOPOLD 3224

TRADING ADDRESS:
30 Como Road, LEOPOLD 3224

Ph: (03) 5250 1693
Mob: 0417 044 464
Fax: (03) 5250 2743

Online:
www.smallfarmcontracting.com.au
Email: grahamrhewitt@gmail.com

Tax Invoice

Bill To:

MG Pastoral Co.Pty Ltd DFC#041
Level 4,
863 High Street
Armadale Vic 3143

Invoice #: 00002883
Date: 2/07/2023

Page: 1

COMMERCIAL OPERATORS REGISTERED LICENCE NO. 126

DATE	DESCRIPTION	AMOUNT	CODE
3/07/2023	Date of completion of Red Gum control at 'Karabeal' Small Farm Contracting team tackled, as directed, the Red Gum Coppice at Karabeal cutting pasting and stacking . Approximately 240 young Red Gum trees were cut in order to thin out the site to allow remaining trees to grow to maximum height. The stumps were pasted with Glysophate chemical. The cut trees were stacked in piles to burn in Winter 2024 Photos taken of work. Always committed to best practice and positive outcomes, the Small Farm Contracting team values the opportunities to contribute to property management at 'Karabeal'. Kind regards, Graham Hewitt Manager	$4,971.00	GST

Payment by Cheque to Postal Address or Electronic Funds Transfer (EFT)
*****PLEASE NOTE: NEW BANK DETAILS BELOW*****

EFT DETAILS:
Account Name: Small Farm Contracting
Bank: Bendigo Bank
BSB: 633-108
ACCOUNT NUMBER 1559 - 95590

GST:	$451.91
Total Inc GST:	$4,971.00
Amount Applied:	$0.00
Balance Due:	$4,971.00

G. R. Hewitt trading as

Small Farm Contracting Pty Ltd

A.B.N.: 30 608 262 942

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P.O. BOX 61, LEOPOLD 3224

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Online:
www.smallfarmcontracting.com.au
Email: grahamrhewitt@gmail.com

Tax Invoice

Bill To:

MG Pastoral Co.Pty Ltd DFC#041
Level 4,
863 High Street
Armadale Vic 3143

Invoice #: 00002914
Date: 23/11/2023

Page: 1

COMMERCIAL OPERATORS REGISTERED LICENCE NO. 126

DATE	DESCRIPTION	AMOUNT	CODE
22/11/2023	MG Pastoral co. Pty Ltd DFC #041 Completion date of highly intensive weed spraying programme at 'Karabeal' services supplied by a large Small Farm Contracting team. Program implementation: Work commenced with Spot Spraying with spray equipped Ranger Utes and 4 x Polaris Spray Rigs. Areas and weeds targeted: Phalaris around the red Gum Coppice area; Phalaris and Scotch Thistles in southern area of Site 5, western end of Site 4 and eastern end of Site 3; both sides of the Creek area, small triangular northern paddock; Site 4, Site 3 and left of the creek; Site 2; thinning out of another area of Red gum Coppice close to the creek. Will monitor the bed-straw infestation amongst the treed areas and will treat in July, 2024. Chemical Application: The weedicide chemicals applied were MCPA 750, Glysophate, Devour 1020, Redye and Metsulfuron to treat all varieties of the weeds on the property. 10 960 litres of chemical were applied to the property. Always committed to best practice and optimal outcomes, Small Farm Contracting was committed to your important project of crucial weed elimination and valued the opportunity to contribute to Karabeal's management.	$45,709.40	GST

Payment by Cheque to Postal Address or Electronic Funds Transfer (EFT)
*****PLEASE NOTE: NEW BANK DETAILS BELOW*****

EFT DETAILS:
Account Name: Small Farm Contracting
Bank: Bendigo Bank
BSB: 633-108
ACCOUNT NUMBER 1559 - 95590

GST:	$4,155.40
Total Inc GST:	$45,709.40
Amount Applied:	$0.00
Balance Due:	$45,709.40

G. R. Hewitt trading as

Small Farm Contracting Pty Ltd

A.B.N.: 30 608 262 942

POSTAL ADDRESS:
P.O. BOX 61, LEOPOLD 3224

TRADING ADDRESS:
30 Como Road, LEOPOLD 3224

Ph: (03) 5250 1693
Mob: 0417 044 464
Fax: (03) 5250 2743

Online:
www.smallfarmcontracting.com.au
Email: grahamrhewitt@gmail.com

Tax Invoice

Bill To:

MG Pastoral Co.Pty Ltd DFC#041
Level 4,
863 High Street
Armadale Vic 3143

Invoice #: 00002919
Date: 6/01/2024

COMMERCIAL OPERATORS REGISTERED LICENCE NO. 126

DATE	DESCRIPTION	AMOUNT	CODE
5/01/2024	MG Pastoral Co.Pty Ltd DFC#041 Completion date of intensive weed-spraying program of thick areas all over the property at KARABEAL, services supplied by the Small Farm Contracting team. Work involved: Spot Spraying of invasive weeds over the entire property: Scotch Thistles,Stink Wort and Whip Thistle. * The timing was planned to avoid seeding of these weeds. Equipment used: 2x Landboss Spray Rigs. Chemical applied: MCPA 75, Wetter and Redye. 2200 litres. Always committed to best practice and optimal outcomes, Small Farm Contracting values the opportunities to contribute to your crucial projects of weed elimination and property management. Kind regards, Graham Hewitt Manager	$8,525.00	GST

Payment by Cheque to Postal Address or Electronic Funds Transfer (EFT)
*****PLEASE NOTE: NEW BANK DETAILS BELOW*****

EFT DETAILS:
Account Name: Small Farm Contracting
Bank: Bendigo Bank
BSB: 633-108
ACCOUNT NUMBER 1559 - 95590

GST:	$775.00
Total Inc GST:	$8,525.00
Amount Applied:	$0.00
Balance Due:	$8,525.00

Small Farm Contracting

One of the best investments you can make in your property

'KARABEAL' Bush Broker Block

REPORT November, 2023.

Project:

Chemical control of weeds at 'Karabeal', Dunkeld, Victoria.

Weeds targeted: Phalaris, Scotch Thistles and Stink Wort.

Overview:

After inspection the height of all pastures on the entire 5 sites averaged between 60 and 75 cms tall. Spotting of thistles time-consuming and difficult. Phalaris weeds easier to spot.

Bed-straw was found under the Red Gum Coppice along the creek and under Sugar Gum trees in Site 2.

Method of Chemical Application:

Spot Spraying work undertaken with spray equipped Ranger Utes and 4 x Polaris Spray Rigs.

Program Implementation:

Site 4 was the most densely infested site for Phalaris especially on the western end and around the dam area.

Site 3 still had dense areas of Phalaris on the western end again;

Site 2 had dense areas of Phalaris on the south- western end

Site 1 & 5 had low infestations of Phalaris

There were Scotch Thistles on all sites.

Areas and weeds targeted: Phalaris around the red Gum Coppice area; Phalaris and Scotch Thistles in southern area of Site 5, western end of Site 4 and eastern end of Site 3; both sides of the Creek area, small triangular northern paddock; Site 4, Site 3 and left of the creek; Site 2; paddock and around dam sites. thinning out of another area of Red gum Coppice close to the creek.

Future Control Required:

1. Control of Bed-Straw required to be carried out in July 2024. Areas are dense and seed is transported by birds.

2. In the area of the corner of Sites 2,3,4 & 5 here is regeneration of emerging Red Gum trees.
3. On the eastern side of Sites 1,2 &3ther is an infestation of Stink Wort having randomly spread from an infestation close to the creek. The area has been treated for these but will need to be monitored for new growth.
4. With the impending potential for spread of Bed -Straw weeds, SFC recommends the removal of the Sugar Gum plantation. Small Farm Contracting are able to remove the Sugar Gums at any time.
5. To encourage the regeneration of the new Red Gums in corner of Sites 2,3,4 &5, SFC recommends the construction of a 200 metre-perimeter fence to protect the area from kangaroos and grazing animals.
6. In Sites 3&4 SFC recommends control-grazing due to the density of the pasture and to be manageable for weed control and assist in fire control.

Kind regards,

Graham Hewitt

Manager

Small Farm Contracting

www.smallfarmcontracting.com.au

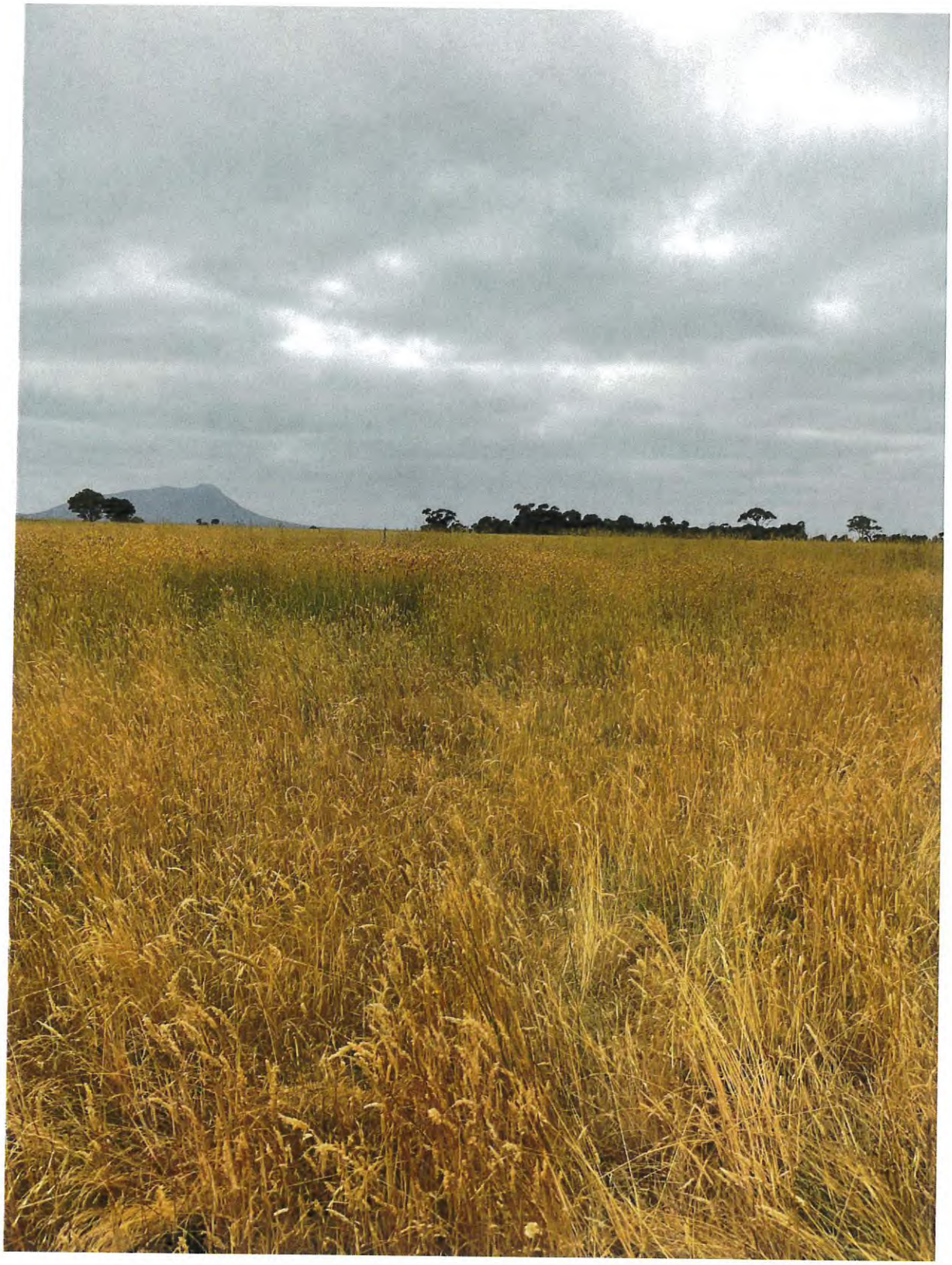
Mobile: 0417044464

Small Farm Contracting Pty. Ltd. ABN: 30608262942

Allianz Workcover Employer Number: 14921913

RACV Public Liability Insurance Policy Number: ET 3062668

Commercial Chemical Licence Number: A126



EXTENT OF PHALARIS INFESTATION QUADRANT 2/3

PHALARIS SPOT SPRAYING
213.

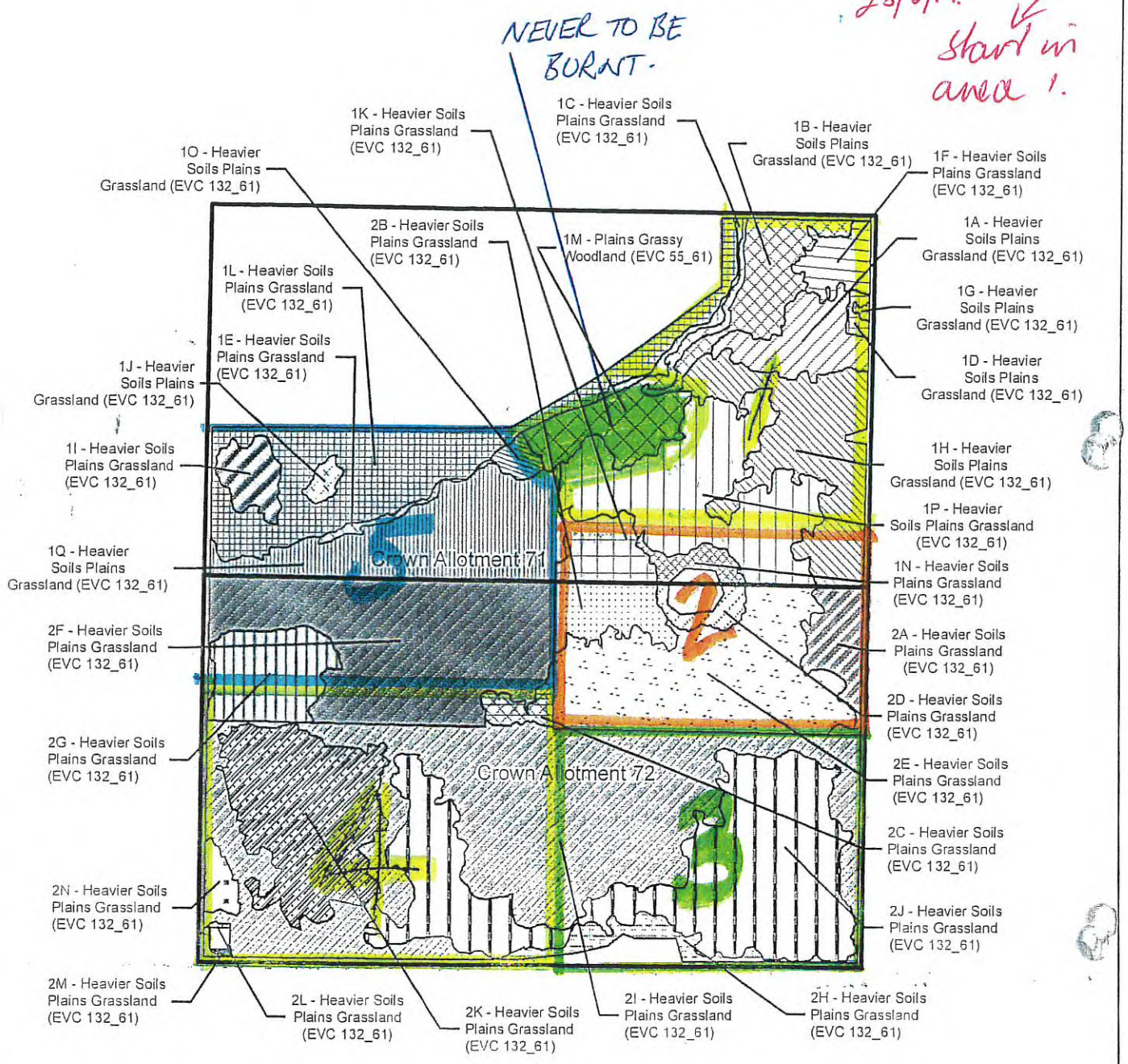
BIOMASS BURN QUADRANT 3,

'ESCAPED' BIOMASS BURN
QUADRANT 3-4
NEIGHBOURS TO STH.
(FIRE TANKER WHEEL MARKS)

BushBroker Zone plan
BB-3005 Sites 01, 02

to Graham Hewitt 27/6/19

Programmed burn 28/6/19. Start in area 1.



Legend

1A 1G 1M 2B 2H
1B 1H 1N 2C 2I
1C 1I 1O 2D 2J
1D 1J 1P 2E 2K
1E 1K 1Q 2F 2L
1F 1L 2A 2G 2M
2N

0 50 100 200 300
Metres

BL&A

Prepared by Brett Lane and Associates Pty Ltd

Date: 8/02/2017

N

Neighbour Notification of Vertebrate Pest Control using 1080 Pest Animal Bait Products

Part A
To:
Neighbour
(*all adjoining neighbours — meaning all neighbours/occupiers of land that borders, connects with or directly faces, land on which poison baits are to be used, whether or not there is a road, a public utility or public land less than 100 metres wide between those lands and the lands on which baits are to be laid. Notification is not required where the distance between the location where the bait is to be laid and the adjoining property is more than 2 kilometres).

Date of notification
01/04/2023

Part B
I, Panyyabyr and Mirranatwa Landcare Groups
will be undertaking a **1080** pest animal poisoning program

at: Mirranatwa, Victoria Valley, Victoria Point, Karabeal, Moutajup, Croxton, Dunkeld (south) and Glenthompson areas (see attached map)

to control **foxes**

The poison to be used is **compound 1080 (sodium fluoroacetate)** which is contained within an approved bait type for the pest species.

Poisoning will occur:

- **Winter pulse: 29-05-2023 to 31-07-2023**
- **Spring pulse: 25-09-2023 to 27-11-2023**

after which time participating landholders will collect and dispose of untaken and unused baits or 1080 capsules in accordance with *the Directions for the Use of 1080 and PAPP Pest Animal Bait Products in Victoria.*

The use of the 1080 pest animal bait product will comply with the product label and the *Directions for the Use of 1080 and PAPP Pest Animal Bait Products in Victoria*. When used in accordance with the product label and the *Directions for the Use of 1080 and PAPP Pest Animal Bait Products in Victoria* the chances of non-target animal impacts are reduced but there is still some associated risk. By being aware of the dangers you are able to help manage the risk.

Contact Phone Number of Bait User - Lisa McIntyre 0428 749 235
On behalf of Panyyabyr and Mirranatwa Landcare Groups

To minimise the risk of poisoning to your animals you are advised:

1. Confine, muzzle and / or restrain your domestic animals, particularly dogs and cats, to prevent them from accessing 1080 and/or PAPP pest animal poison baits or carcasses.

2. Domestic animals, particularly dogs and cats, are susceptible to primary poisoning from ingesting 1080 and/or PAPP pest animal bait products and secondary poisoning from ingesting contaminated carcasses. It is unusual for domestic animals to scavenge on fox carcasses.

3. Closely monitor the health and behaviour of your companion animals or livestock. If you notice any unusual or uncharacteristic behaviour contact your local veterinarian immediately.

4. There is a delay in the poison action of 1080 and/or PAPP and animals that have ingested 1080 and/or PAPP pest animal bait products may die on your property.

5. Collect and destroy any poisoned carcasses you find by burning (in accordance with local regulations) or burying to a depth of at least 50 cm for rabbits and at least 1 metre for foxes, wild dogs and feral pigs.

6. Always dispose of carcasses away from natural features such as waterways.

Danger to humans:

Compound 1080 (sodium fluoroacetate) is a restricted schedule 7 poison and there is no known antidote.

Compound PAPP (4- aminopropiophenone) is a restricted schedule 7 poison and if immediate treatment is obtained an antidote may be available.

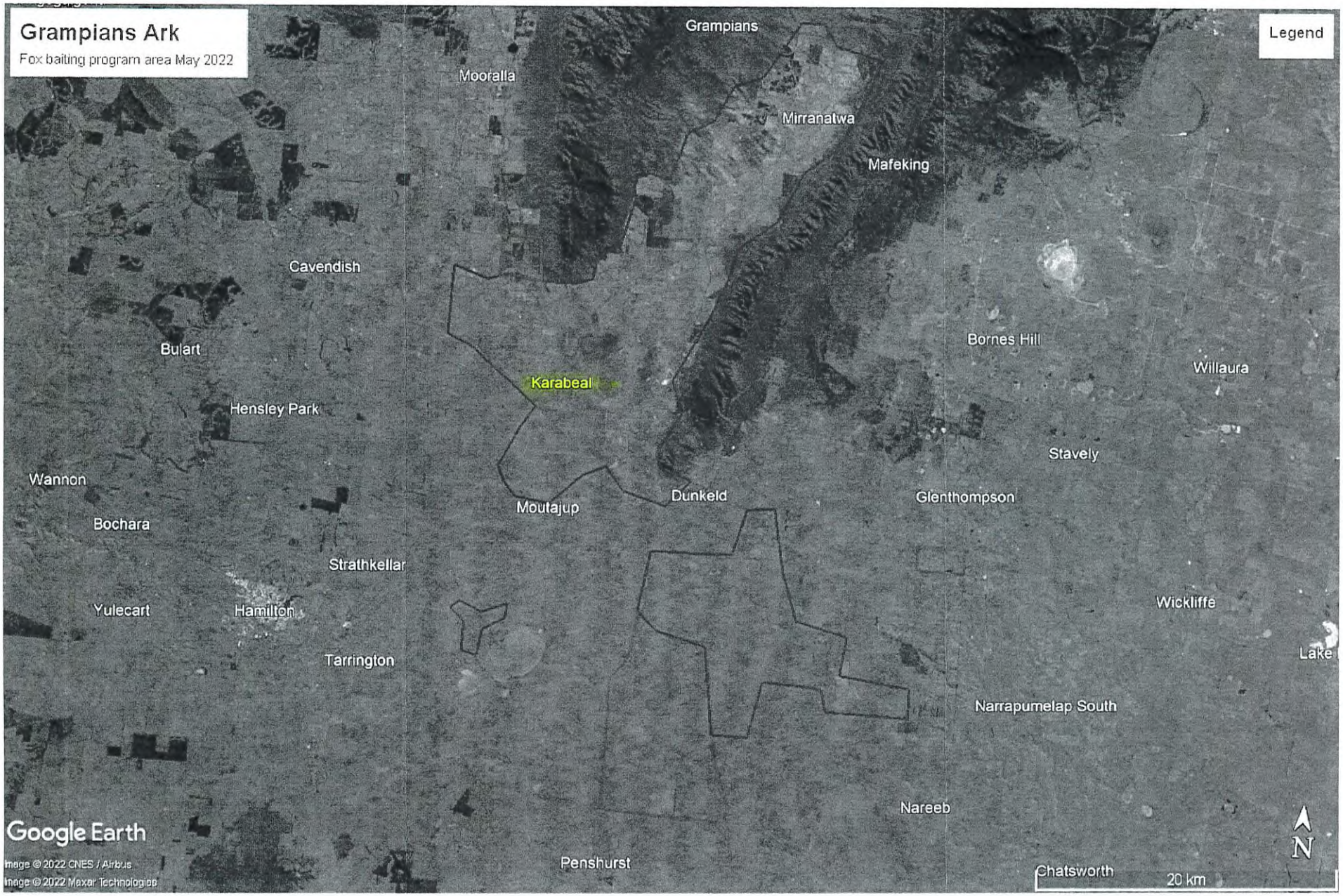
If you are handling poison bait and/or carcasses always use protective rubber gloves and wash hands and gloves thoroughly after contact.

When used in accordance with the product label and *Directions for the Use of 1080 and PAPP Pest Animal Bait Products in Victoria*, there is little risk of humans being poisoned by 1080 or PAPP pest animal bait products.

Although the 1080 and PAPP used in 1080 and PAPP pest animal bait products is substantially diluted, 1080 and PAPP pest animal baits and poisoned carcasses must be treated with care.

If poisoning occurs immediately contact a doctor or the Poisons Information Centre on 13 11 26.

Further information on the use and handling of 1080 and PAPP is available from 1080 and PAPP pest animal bait manufacturers.


Grampians Ark
Fox baiting program area May 2022
Legend
Grampians
Mooralla
Mirranatwa
Mafeking
Cavendish
Bulart
Bornes Hill
Willaura
Karabeal
Hensley Park
Stavely
Wannon
Dunkeld
Glenthompson
Moutajup
Bochara
Strathkellar
Wickliffe
Yulecart
Hamilton
Lake
Tarrington
Narrapumelap South
Nareeb
Penshurst
Chatsworth
20 km
N
Google Earth
Image © 2022 CNES / Airbus
Image © 2022 Maxar Technologies

Appendix 9: Campbelltown offset site, Year 7 (2024) annual report

Department of Environment Land, Water & Planning Annual Report Form

Enter management year here: Year 7

Management Agreement: BB - 3004 LA0 1

Enter Landowner name(s) here:
M.G. Pastoral Co. Pty. Ltd.

Site Code: Campbelltown Sites : 01, 02, 03 & 04.

Site-Zone	Standard to be achieved	Management action description	Timing	Action Completed	Description of Actions and observed outcomes
All Sites	**Maintain boundary fences to stockproof condition, and erect fencing to all sites to DEWLP fencing standards**	Repair and maintain the boundary perimeter fence of the property to stock proof standard and erect new fencing around each site to DELWP (stock/vermin proof) standards	Boundary; within 3 months of agreement commenc'mt Sites : within 12 months	**Yes**	Boundary fences were repaired and maintained as required within the first 12months, noting there were no grazing animals (very minimal strays) on the property during this period. Each respective offset site polygon was GPS'd and mapped. The polygons were subsequently pegged (with buffer margins) and fences progressively erected in Dec. '17 and Jan'18. All site fences have been constructed to DELWP stockproof standards or DELWP vermin proof standards.
All Sites	Elimination of all woody weeds in the credit sites	Elimination of Hawthorn Sweet briar and all other woody weeds by the end of year 2. Eliminate all other woody weeds	Autumn & Spring Ongoing	**Yes**	Hawthorn bush, *Crataegus monogyna,* were mostly eliminated in the Spring of Yr. 1 and remnants in Yr.2. Sweet Briar Rose, *Rosa rubiginosa,* were mostly eliminated in both Spring & Autumn of Yr. 1 and remnants in Yr. 2. Cutting and painting with suitable herbicide (neat Glyphosate) within 20 seconds, was the method undertaken.
All Sites	Monitor, treat and eliminate emerging woody weeds	Visual detection of all emerging woody weeds throughout the respective management years. Treat emerging plants as detected and continue to monitor.	Ongoing	Yes, but ongoing	Continue to monitor and treat emerging woody weeds - Hawthorn, Sweet Briar and others. This action is routinely undertaken. Minimal re-emergence of woody weeds; this action appears be under control. Visual inspections continued in July, Nov '23 & Jan '24. Cutting and painting with suitable herbicide (neat Glyphosate) within 20 seconds, was the method undertaken
All Sites	Control of herbaceous Weeds	Ensure weed cover does not increase beyond the levels at the commencement of the agreement, and treat weeds as directed within the OMP.	Spring	Yes, but ongoing	Spot spraying using selective herbicides at recommended rates, was undertaken on Phalaris, *Phalris spp,* various Thistles, *Chrisium spp.,* St. John's Wort, *Hypericum perforatum,* & Dock Weed, *Rumex* spp.in Jan '24. Although not undertaken in Spring as per the OMP the milder conditions in Jan. allowed for good control kill rates. This action continues to be **WIP.** This will be a focus of the specialist NV contractor (now secured).

Site-Zone	Standard to be achieved	Management action description	Timing	Action Completed	Description of Actions and observed outcomes
All Sites	Monitoring and control of new and emerging herbaceous weeds	New and emerging herbaceous weeds are to be monitored and controlled throughout the respective year of the OMP.	Ongoing	Yes, but ongoing	Continue to monitor and control as required herbaceous weeds, utilising actions and herbicides (incl. recommended rates) suitable to each spp. throughout the year.This action continues to be **WIP**. This will be a focus of the specialist NV contractor (now secured).
All Sites	Pest animal control	Monitor and control pest animals incl. foxes and rabbits within the respective sites.	Ongoing	Yes, but ongoing	Perimeter fence around each site was visually inspected by both Contractor(s) and LO on each visit to the property. There has been no evidence of rabbit burrows re-opening, and no new burrows apparent. There has been no evidence of fox infestation and no identifiable evidence of either rabbit or fax faeces.
Site 2	Overabundant Macropods in site 2	In response to DELWP's observation in July '22, monitor and observe the overabundance of Macropods, by installing grazing prevention enclosures, and if deemed problematic seek permission to undertake a controlled cull.	Ongoing	Yes, but ongoing	Pasture enclosures were installed on 29/7/'22, consisting of 1200x1200x600 galvanised steel mesh. Direction for DELWP was to inspect after 12 months and make assessment of relative pasture growth both inside and outside of the enclosure This will determine if the macropods are putting too much grazing pressure on the **NV** offset sites and whether a cull program needs to be approved and acted upon. Monitoring continues. An been seen from the attached photographic evidence, it does appear that there is grazing effect by Macropods. It is yet to be decided if a 'controlled cull' is required and beneficial; this will be determined by the specialist NV contractor (now secured).
Sites 2A, 3A,4A &4B	Ecological Biomass Burning	Ecological mosaic burning of biomass on a regular but rotating program, with less than 50%of each site burnt per day and less than 80% of each site burnt each year.	Ongoing	Yes, but ongoing	Site 3 was 'cold' burnt in May '22, with a relatively good burn achieved in accordance with percentage parameters of <50% burnt in each day and <80% burnt each year. Unfortunately, Site 4 was not burnt as scheduled, for '23 due to seasonal conditions being unfavourable. A biomass burn of Site 4 was registered with the CFA to occur in April of '24; it was successfully burnt on April 23rd. (further comments and photos will be forwarded in Yr. 8 Ann. Report).

Department of Environment Land, Water & Planning Annual Report Form

Enter management year here: Year 7

Management Agreement: BB - 3004 LA0 1

Enter Landowner name(s) here:
M.G. Pastoral Co. Pty. Ltd.

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Site-Zone	Management Action	Management action description	Timing	Completed (Yes/No)	Include or attach supporting evidence of actions completed / comments / observations
	Annual reporting				
All	Annual report is signed, dated and submitted by the landowner at least 1 month before the anniversary date of the agreement The annual report is a useful opportunity to make comprehensive comments and observations, giving a picture of the current condition of the site(s), issues identified, works undertaken and actions still required. You are encouraged to create a separate report to include in your annual reporting each year that captures this detailed information. The benefits of monitoring your vegetation condition and identifying issues and management undertaken, is that it aids you to gauge the success of management on the condition of native vegetation over time. The Department is also able to use this information to assist with the assessment of your compliance with the agreement and provides us with useful information and data for future management advice. Obligations of the landowner (compliance with section 6 of the Landowner Agreement) have been met, and I have read, signed, dated and submitted the obligations form with the annual report.	Prepare and submit an annual report providing evidence of works carried out. Where the actions were not carried out provided evidence as to the reason why. Include supporting evidence by: - detailed written observations & additional report - photo point monitoring - map of zones & photo points - photographs of works undertaken - receipts/invoices for materials & works carried out, including by contractors - log books of works carried out - obligations of the landowner form - payment method is correct - Receipts of seeds / seedlings ordered or purchased including a table/list of the species, numbers of each species (can estimate if using seeds), provenance - Site log - table/list of numbers of species planted/recruiting or germinated, including: numbers of each species by life form that are present/survived and/or were replaced for that year	Submit at least 1 month prior to agreement anniversary date		obligations of the landowner form where applicable: payment method is correct detailed written observations & additional report photo point monitoring map of zones & photo points photographs of works undertaken receipts/invoices for works carried out, including by contractors log books of works carried out Receipts seeds/seedlings, provenance, table of species list & numbers Site log / table of plantings/germination & survival numbers by life form

I hereby declare that the supplied information is accurate and complies with reporting requirements under General Conditions under the Second Schedule of the DELWP Management Agreement.

Signed: .....

Date: 12/06/2024

G. R. Hewitt trading as

Small Farm Contracting Pty Ltd

A.B.N.: 30 608 262 942

POSTAL ADDRESS:
P.O. BOX 61, LEOPOLD 3224

TRADING ADDRESS:
30 Como Road, LEOPOLD 3224

Ph: (03) 5250 1693
Mob: 0417 044 464
Fax: (03) 5250 2743

Online:
www.smallfarmcontracting.com.au
Email: grahamrhewitt@gmail.com

Tax Invoice

Bill To:

MG Pastoral Co.Pty Ltd DFC#041
Level 4,
863 High Street
Armadale Vic 3143

Invoice #: 00002912
Date: 22/11/2023

COMMERCIAL OPERATORS REGISTERED LICENCE NO. 126

DATE	DESCRIPTION	AMOUNT	CODE
9/11/2023	MG Pastoral Co.Pty Ltd DFC#041 Completion date of Weed control programme on the Bush Broker sites at Campbelltown services supplied by the Small Farm Contracting team. Work involved intense emu bob Spot spraying for St. John's Wort and cut and pasting of Sweet Briar Rose and Hawthorn Bushes. Chemical applied: Glysophate, Devour 1020 and Redye. Always committed to best practice and optimal outcomes, Small Farm Contracting was committed to the important project of weed elimination and values the opportunities to contribute to your property management at Campbelltown. Kind regards, Graham Hewitt Manager	$13,849.00	GST

Payment by Cheque to Postal Address or Electronic Funds Transfer (EFT)
*****PLEASE NOTE: NEW BANK DETAILS BELOW*****

EFT DETAILS:
Account Name: Small Farm Contracting
Bank: Bendigo Bank
BSB: 633-108
ACCOUNT NUMBER 1559 - 95590

GST:	$1,259.00
Total Inc GST:	$13,849.00
Amount Applied:	$0.00
Balance Due:	$13,849.00

G. R. Hewitt trading as

Small Farm Contracting Pty Ltd

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Online:
www.smallfarmcontracting.com.au
Email: grahamrhewitt@gmail.com

Tax Invoice

Bill To:

MG Pastoral Co.Pty Ltd DFC#041
Level 4,
863 High Street
Armadale Vic 3143

Invoice #: 00002920
Date: 6/01/2024

COMMERCIAL OPERATORS REGISTERED LICENCE NO. 126

DATE	DESCRIPTION	AMOUNT	CODE
18/12/2023	MG Pastoral Co.Pty Ltd DFC#041 Completion date of a very intensive spot spraying weed control programme with backpacks only on CAMPBELLTOWN property. Work involved:Spot Spraying of: a. Small Sweet Briar Rose seedlings b. Small Hawthorn Bush seedlings c. Small Scotch Thistles d. Small Phalaris Grass seedlings e. Small St. John's Wort seedlings Bush Broker sites 2,3 & 4 carefully checked and found all clear. Always committed to best practice and optimal outcomes, Small Farm Contracting values the opportunities to contribute to the crucial projects of weed elimination and property management at Campbelltown. Kind regards, Graham Hewitt Manager	$3,214.64	GST

Payment by Cheque to Postal Address or Electronic Funds Transfer (EFT)
*****PLEASE NOTE: NEW BANK DETAILS BELOW*****

EFT DETAILS:
Account Name: Small Farm Contracting
Bank: Bendigo Bank
BSB: 633-108
ACCOUNT NUMBER 1559 - 95590

GST:	$292.24
Total Inc GST:	$3,214.64
Amount Applied:	$0.00
Balance Due:	$3,214.64

G. R. Hewitt trading as

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MG Pastoral Co.Pty Ltd DFC#041
Level 4,
863 High Street
Armadale Vic 3143

Invoice #: 00002884
Date: 16/07/2023

COMMERCIAL OPERATORS REGISTERED LICENCE NO. 126

DATE	DESCRIPTION	AMOUNT	CODE
5/07/2023	Completion date of inspection of 'Campbelltown ;property, services supplied by the Small Farm Contracting team. Work involved searching for regrowth of Sweet Briar Rose and Hawthorn bushes.None visible so cutting and pasting required. Additionally intense searching for Onion Grass and found to be dying back on all instances. All sites very wet--too wet for other weeds to grow at this time. The site will need to be re-visited in November to control St John's Wort -not visible at present. Always committed to best practice and positive outcomes, the Small Farm Contracting team values the opportunities to contribute to your Bush Broker property at Campbelltown. Kind regards, Graham Hewitt Manager	$2,640.00	GST

Payment by Cheque to Postal Address or Electronic Funds Transfer (EFT)
*****PLEASE NOTE: NEW BANK DETAILS BELOW*****

EFT DETAILS:
Account Name: Small Farm Contracting
Bank: Bendigo Bank
BSB: 633-108
ACCOUNT NUMBER 1559 - 95590

GST:	$240.00
Total Inc GST:	$2,640.00
Amount Applied:	$0.00
Balance Due:	$2,640.00

Site-Zone	Management Action	Management action description	Timing	Completed (Yes/No)	Include or attach supporting evidence of actions completed / comments / observations
	Annual reporting				
All	Annual report is signed, dated and submitted by the landowner at least 1 month before the anniversary date of the agreement The annual report is a useful opportunity to make comprehensive comments and observations, giving a picture of the current condition of the site(s), issues identified, works undertaken and actions still required. You are encouraged to create a separate report to include in your annual reporting each year that captures this detailed information. The benefits of monitoring your vegetation condition and identifying issues and management undertaken, is that it aids you to gauge the success of management on the condition of native vegetation over time. The Department is also able to use this information to assist with the assessment of your compliance with the agreement and provides us with useful information and data for future management advice. Obligations of the landowner (compliance with section 6 of the Landowner Agreement) have been met, and I have read, signed, dated and submitted the obligations form with the annual report.	Prepare and submit an annual report providing evidence of works carried out. Where the actions were not carried out provided evidence as to the reason why. Include supporting evidence by: - detailed written observations & additional report - photo point monitoring - map of zones & photo points - photographs of works undertaken - receipts/invoices for materials & works carried out, including by contractors - log books of works carried out - obligations of the landowner form - payment method is correct - Receipts of seeds / seedlings ordered or purchased including a table/list of the species, numbers of each species (can estimate if using seeds), provenance - Site log - table/list of numbers of species planted/recruiting or germinated, including: numbers of each species by life form that are present/survived and/or were replaced for that year	Submit at least 1 month prior to agreement anniversary date		obligations of the landowner form where applicable: payment method is correct detailed written observations & additional report photo point monitoring map of zones & photo points photographs of works undertaken receipts/invoices for works carried out, including by contractors log books of works carried out Receipts seeds/seedlings, provenance, table of species list & numbers Site log / table of plantings/germination & survival numbers by life form

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Invoice #: 00002912
Date: 22/11/2023

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Payment by Cheque to Postal Address or Electronic Funds Transfer (EFT)
*****PLEASE NOTE: NEW BANK DETAILS BELOW*****

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Account Name: Small Farm Contracting
Bank: Bendigo Bank
BSB: 633-108
ACCOUNT NUMBER 1559 - 95590

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Invoice #: 00002920
Date: 6/01/2024

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Amount Applied:	$0.00
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