Prepared for Department of Transport ABN: 69981208782



Mernda Rail Extension Project

Matted Flax-lily Annual Summary Report, April 2020 -

09-Jul-2021



Delivering a better world

Mernda Rail Extension Project

Matted Flax-lily Annual Summary Report, April 2020 - April 2021

Client: Department of Transport

ABN: 69981208782

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Quality Information

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Date 09-Jul-2021

Prepared by Dan Lim, Jasmine Bettiol

Reviewed by Dan Haysom

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Rev	Revision Date	Details	Authorised			
			Name/Position	Signature		
1	28-June-2021	Draft	Dan Haysom Principal Environmental Planner	\bigcirc		
2	09-Jul-2021	Final	Dan Haysom Principal Environmental Planner	\bigcirc		

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Executive Summary

This report documents the results of monitoring the implementation of management actions and condition of the translocated Matted Flax-lily (MFL) populations for the reporting period 4 April 2020 to 3 April 2021.

During the reporting period, six monitoring events were conducted in April 2020, May 2020, June 2020, July 2020, November 2020 and January 2021. Monitoring activities included growth and condition quadrat monitoring, population counts at each recipient site, photo point monitoring, and general site assessments noting threats, management issues, corrective actions, and a nursery audit.

Total survivorship across both recipient sites was 495 (out of a total of 500 translocated plants), representing a 99% survivorship. This meets to the performance management benchmark set for the end of the second year after translocation was > 85% survivorship (minimum 412 plants).

Monitoring results and plant survivorship suggests that both populations are healthy and well managed.

AECOM was initially engaged by the Level Crossing Removal Project (LXRP) to conduct monitoring and prepare an Annual Summary Report detailing the translocation, nursery, and monitoring operations of Matted Flax-lily (MFL) *Dianella amoena* as part of the Mernda Rail Extension Project (the Project). Since October 2020, the Project has formally transferred from LXRP to the Department of Transport (DoT).

The MFL were translocated to two recipient sites, Quarry Hills Park (QHP) and Plenty Gorge Parklands (PGP), as a condition of approval no. 2016/7674 under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for the Mernda Rail Extension Project. This Annual Summary Report is a requirement of the Matted Flax-lily Translocation Plan required as part of approval no. 2016/7674 (AECOM-GHD 2020a – Revision 9).

1.1 Purpose and scope of this report

The report documents the results of the implementation of management and monitoring actions undertaken in relation to the translocated MFL, and the condition of those populations for the period of 4 April 2020 to 3 April 2021. The scope of the report includes:

- Information on conditions at both the recipient sites and the nursery
- Discussion of the survivorship and growth of the plants
- An assessment of the status of the translocation program relative to the established performance benchmarks
- Discussion of occurring or potential threats or management issues and any maintenance or corrective actions taken or proposed
- Rainfall and watering data
- Monitoring forms for each monitoring event
- Quarterly/biannual or yearly photos taken from each established photo point.

1.2 Assumptions and limitations

The following assumptions and limitations apply to the operations outlined in this report:

- It is assumed from conversations with ABZECO (nursery managers) that 250 individuals were translocated into each recipient site in July/August 2019.
- The locations of MFL provided in Appendix A have accuracies of sub-1m (Quarry Hills Park) and <5m (Plenty Gorge Parklands) respectively. Quarry Hills Park required the use of a sub-1m DGPS unit due to the random nature of planting and to allow the monitoring team to re-locate any MFL that had potentially been missed. The <5m accuracy at Plenty Gorge Parklands was suitable as they are planted in clear clusters, making them easy to re-locate.

1.3 Site background

This section provides a brief summary of salvage, nursery and translocation operations to date. More information is provided in the Salvage, Translocation and Monitoring Report (AECOM-GHD JV 2020b) in Appendix C (MFL 2020 Nursery Audit):

- MFLs were salvaged from within the construction footprint of the Mernda Rail Extension Project with the majority of the salvage occurring between 4 and 6 April 2017, with further salvage required on 18 April 2017. The total number of salvaged plants was 121.
- During nursery operations, excess salvaged MFL material of mixed progeny was potted and cloned, resulting in a total number of 125 individual MFL (ABZECO 2020). Each plant was cloned six times, resulting in 750 plants (AECOM-GHD JV 2019). Nursery audits have been

conducted by qualified botanists in May 2017, October 2018, April 2019 and April 2020. Further details of the 2020 audit are provided in Section 2.1 and Appendix C

• Translocation to the two recipient sites, QHP and PGP, was carried out on 23 July 2019 and 30 July 2019 respectively. 250 MFL were translocated at each recipient site (500 pots in total).

1.4 Method

Monitoring activities followed the method set out in Section 7.4 of the Translocation Plan (AECOM-GHD JV 2020a - Revision 9). City of Whittlesea (Sophie Barker pers. comm., 2020/2021) provided information regarding management actions undertaken for both recipient sites for the reporting period.

Monitoring schedule

During the reporting period, 4 April 2020 to 3 April 2021, six monitoring events were conducted as per the modified monitoring timeline set out in the Translocation Plan (AECOM-GHD JV, 2020a - Revision 9), and these are listed below. Raw monitoring sheets are provided in Appendix B.

- 08 April 2020
- 6 May 2020
- 10 June 2020
- 8 July 2020
- 5 November 2020
- 14 January 2021

Monitoring methodology

Monitoring activities followed the method set out in Section 7.4 of the Translocation Plan (AECOM-GHD JV 2020a – Revision 9). Additional notes around methodology used for the growth and condition monitoring quadrats and total population counts are provided below.

Annual growth and condition monitoring quadrats

For the growth and condition monitoring quadrats, the following parameters were used, and modifications made to the original monitoring sheet provided in the Translocation Plan (AECOM-GHD JV 2020a – Revision 9). These are noted for consistency between future annual monitoring events:

- All measurements were taken in mm
- 'No. shoots' was removed and replaced by 'No. leaves/shoots' with a range where: 1 = 0 <5 shoots; 2 = 5 10 shoots; 3 = >10 shoots
- 'Buds' were removed as it was felt that it overlapped with 'Flowering (1 3)'

All other parameters remain the same.

Total population count

Several measures were taken to improve the chances of re-locating MFL at each site including:

- Placing wooden stakes next to MFL that did not have one
- Using marker spray paint to mark the induvial stake of each MFL to indicate which MFL had been counted
- The use of a DGPS with sub 1 m accuracy at Quarry Hills Park to mark the locations of each MFL
- Carrying paper maps with MFL locations marked in the field.

The DGPS was required at Quarry Hills Park due to the random nature of planting and allowed for individual plants to be found if they had been missed. During the total population count, each plant was marked as either 'Alive', 'Stressed', or 'Dead'.

2.0 Results

2.1 Summary

Monitoring of the translocated MFL identified a survival rate of 99% (495 of 500) across both sites indicating that the plants are healthy and well managed. No replacement planting is required.

This section summarises the results of the monitoring during the reporting period. Raw field data sheets are provided in Appendix B.

2.2 Nursery conditions

During the reporting period one nursery audit was undertaken by qualified AECOM botanists at the ABZECO nursery in Research, Victoria.

The audit, undertaken on the 7 April 2020, found that all criteria within the translocation plan were being met and that the MFL were observed to be in a healthy condition and well managed. Specifically, the audit identified that:

- 250 pots of live, healthy MFL representing the required number of clones were observed.
- Individuals were clearly labelled and potted in appropriate pots and potting medium, and
- No diseased individuals were observed.

The full audit report for 2020 is provided in Appendix C.

2.3 Site conditions potential threats and management issues

2.3.1 Quarry Hills Park

The translocation area totals 0.42 ha and is fenced by a chain wire mesh exclusion fence with horizontal skirt at base to exclude kangaroos, hares, and rabbits. Monitoring has re-located 246 individuals planted in a rough, unevenly spaced, grid-like pattern; however, it is assumed 250 individuals in total were planted (Section 1.2). Locations of monitoring quadrats and photo monitoring points are provided in Figure 1 Appendix A.

The site is in good condition and is well managed, with relatively minor management issues identified during the course of the monitoring including:

- The eastern end appears to be drier than the remainder of the site and it is here where the majority of the 'Stressed' individuals are, although none have so far died.
- Sweet Vernal-grass *Anthoxanthum odoratum*, Yorkshire Fog *Holcus lanatus* and Toowoomba Canary-grass *Phalaris aquatica* have at times been smothering MFL. Spraying and brush cutting activities have appeared to have targeted these species when they have become problematic.
- A small number of Sweet Briar seedlings were identified on site for control and have since been managed.

A summary of management actions required by the Translocation Plan (Rev 9), excluding watering, have been included in Table 1. Management actions, such as weed control is undertaken by a contractor engaged by City of Whittlesea.

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Date	Management action	Notes
April 2020 – June 2020	Weed control – Brush cutting, spot- spraying, hand weeding	Control of grassy, herbaceous and woody weeds within the site, with a focus on reducing their density and biomass to give the planting the best chance of success.

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Date	Management action	Notes
July 2020 – December 2020	Weed control – Brush cutting, spot- spraying, hand weeding	Targeted weed control of perennial grasses, herbaceous weeds and woody weeds. Biomass reduction through hand weeding to minimise competition around each MFL within 30cm of each plant, brush cutting and spraying further than 30cm.
February 2021	Weed control – Brush cutting, Knapsack spraying, hand weeding	Weed control undertaken at Quarry Hills Park
March 2021	Weed control – Hand weeding	Weed control undertaken at Quarry Hills Park

The key issues impacting the Quarry Hills Park recipient site, identified above, are dryness impacting a small number of plants in the eastern portion of the site, and grassy and shrubby weeds smothering MFL. Management has generally been well targeted to address these issues and resulted in a high survivorship at the site (Section 2.4).

2.3.2 Plenty Gorge Parklands

The translocation area totals 0.42 ha and is fenced by a chain wire mesh exclusion fence with horizontal skirt at base to exclude kangaroos, hares and rabbits. Monitoring has re-located 249 individuals planted in 43 clusters consisting of between four and seven plants; however, it is assumed 250 individuals in total were planted (Section 1.2).

The site is in good condition and is well managed with relatively minor management issues. The main change to the site is the removal of the green shade cloth as it continues to rip and was deemed not effective in excluding weeds seeds.

A summary of management actions (excluding watering) undertaken during the monitoring period have been included in Table 2.

Date	Management action	Note
March 2020 – June 30 2020	Weed control – Brush cutting, spot-spraying, hand weeding	Control of invasive grass and herbaceous weeds with a focus on controlling Chilean Needle Grass <i>Nassella neesiana</i> and preventing seed drop.
July 2020 – December 2020	Weed control – Brush cutting, spot-spraying, hand weeding	Weed control around MFL, including hand weeding, brush cutting and selective spot- spraying (not within 30cm of each MFL plant). General weed control across the entire site in preparation for supplementary direct seeding.
January 2021- March 2021	Weed control – Brush cutting, knapsack spraying, hand weeding Green shade cloth removal Installation of 500 locally indigenous tubestock	Fortnightly maintenance undertaken including hand weeding around MFL, brush cutting red gum regeneration and other exotic growth, knapsack spot-spraying of broadleaf weeds and exotic grasses with selective herbicides.

Table 2	Management actions undertaken at Plenty Gorge Parklands

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Date	Management action	Note
		Ripped green shade cloth along boundary fence has been removed as it was deemed not effective in excluding weeds seeds.
		Installation of 500 locally indigenous tubestock as per Translocation Management Plan Rev. 9.

The key issue impacting the Plenty Gorge Parklands recipient site, identified above, are grassy and broadleaf weeds. Management has generally been well targeted to address these issues and has resulted in a high survivorship at the site (Section 2.4).

2.4 Survivorship and growth of plants

2.4.1 Total population count

Total population counts were undertaken six times during the reporting period in May 2020, June 2020, July 2020, November 2020 and January 2021. Individual plants were recorded as either 'Alive, 'Stressed' or 'Dead'. In each monitoring event:

- At Quarry Hills Park, 246 plants were re-located and alive, 4 plants were not re-located and considered dead, and between 0 and 5 plants were stressed during each monitoring event.
- At Plenty Gorge Parklands, 249 plants were re-located and alive, 1 plant was not re-located and considered dead, and between 0 and 1 plants were stressed during each monitoring event.

Population			Monitori	ing Event					
health (%)	April 2020	May 2020	June 2020 July 2020		November 2020	January 2021			
Quarry Hills	Quarry Hills Park								
Alive	98.4% (<i>n</i> = 246)	98.4% (<i>n</i> = 246)	98.4% (<i>n</i> = 246)	98.4% (<i>n</i> = 246)	98.4% (<i>n</i> = 246)	98.4% (<i>n</i> = 246)			
Alive, but stressed	0.81% (<i>n</i> = 2)	1.63% (<i>n</i> = 4)	0.41% (<i>n</i> = 1)	0.00% (<i>n</i> = 0)	1.63% (<i>n</i> = 4)	2.03% (<i>n</i> = 5)			
Dead	1.6% (<i>n</i> = 4)	1.6% (<i>n</i> = 4)	1.6% (<i>n</i> = 4)	1.6% (<i>n</i> = 4)	1.6% (<i>n</i> = 4)	1.6% (<i>n</i> = 4)			
Plenty Gorge	Parklands								
Alive	99.6 (<i>n</i> = 249)	99.6 (<i>n</i> = 249)	99.6 (<i>n</i> = 99.6 (<i>n</i> = 249) 249)		99.6 (<i>n</i> = 249)	99.6 (<i>n</i> = 249)			
Alive, but stressed	0.00 (<i>n</i> = 0)	0.00 (<i>n</i> = 0)	0.40 (<i>n</i> = 1)	0.00 (<i>n</i> = 0)	0.00 (<i>n</i> = 0)	0.40 (<i>n</i> = 1)			
Dead	0.4 (<i>n</i> = 1)	= 1) 0.4 (<i>n</i> = 1) 0.4 (<i>n</i> = 1)		0.4 (<i>n</i> = 1)	0.4 (<i>n</i> = 1)	0.4 (<i>n</i> = 1)			

Table 3 Summary of total population count data at both sites.

2.4.2 Annual growth and condition monitoring

Annual quadrat monitoring for growth and condition was undertaken once during the reporting period in January 2021, as per the requirements of Section 7.4 of the Translocation Plan (AECOM-GHD JV 2020a – Revision 9).

A summary of average annual growth and condition data for the quadrats at each site is provided in Table 4 and raw data is provided in Appendix B.

The next annual quadrat monitoring event is due to occur in January 2022.

 Table 4
 Summary of average annual growth and condition monitoring at both sites.

Quadrat no.	Cover abundance (%)	Plant basal diameter (mm)	Max Leaf Length (mm) - height	No. leaves/shoots	Flowering?	Height (mm)	Number of flowers per plant	Number of fruits per plant	Herbivory	Water Stress	Weed encroachment / competition
				G	Quarry Hills Pa	rk					
Year 1 (2019	9-2020)										
Quadrat 1	20	810	392	10+	Yes	650	5-10	5-10	No	Yes	No
Quadrat 2	14	670	393	10+	Yes	607	10+	10+	No	Yes	No
Quadrat 3	15	700	383	10+	Yes	708	10+	5-10	No	No	No
Quadrat 4	2	410	290	0 - <5	Yes	583	0 - <5	0 - <5	No	Yes	No
Year 2 (2020	0-2021)										
Quadrat 1	23	973	507	10+	No	1013	5-10	5-10	No	No	No
Quadrat 2	17	797	353	10+	No	690	10+	10+	No	No	No
Quadrat 3	20	1085	498	10+	No	693	5-10	10+	No	No	Yes
Quadrat 4	2	585	240	5-10	No	690	5-10	0 - <5	No	Yes	No
				Pler	nty Gorge Parl	kland					
Year 1 (2019	9-2020)										
Quadrat 1	19	739	370	10+	Yes	476	10+	10+	No	No	No
Quadrat 2	17	803	358.4	10+	Yes	627	10+	5-10	No	Yes	No
Quadrat 3	12	484	331	10+	Yes	606	5-10	5-10	No	Yes	No
Quadrat 4	12	510	321	5-10	Yes	586	5-10	0 - <5	No	Yes	No
Year 2 (202	0-2021)										
Quadrat 1	28	958	512	10+	No	873	10+	5-10	No	No	No
Quadrat 2	29	1206	590	10+	No	922	10+	5-10	No	No	No

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Quadrat no.	Cover abundance (%)	Plant basal diameter (mm)	Max Leaf Length (mm) - height	No. leaves/shoots	Flowering?	Height (mm)	Number of flowers per plant	Number of fruits per plant	Herbivory	Water Stress	Weed encroachment / competition
				C	uarry Hills Pa	rk					
Quadrat 3	18	1073	468	10+	No	867	10+	5-10	No	No	No
Quadrat 4	18	933	468	10+	No	942	0 - <5	0 - <5	No	No	No

2.5 Assessment against performance benchmarks

Across both sites, 99% (or 495 of 500) of translocated MFLs are surviving, with:

- 246 at Quarry Hills Park; and
- 249 at Plenty Gorge Parklands.

These survival rates meet a performance standard of 85% (or 412 of 500), as defined in Section 7.2 of the Translocation Plan (AECOM-GHD JV 2020a – Revision 9).

Therefore, no replanting is required, and the project will continue to monitor the survivorship of MFL at both sites against the benchmark criteria.

2.6 Rainfall and watering data

Suggested watering frequency from the Translocation Plan (AECOM-GHD JV 2020a – Revision 9) was based around the time between 'significant rainfall events', i.e. where \geq 20 mm of rainfall was received within a 24-hour period. Rainfall data was collected from Yan Yean weather station, located approximately 4.5km from the recipient sites. Dates where rainfall was \geq 20 mm include:

- 30th April 2020
- 24th October 2020
- 23rd November 2020
- 26th January 2021
- 30th January 2021

Table 5 summarises the watering requirements for the translocated MFL outlined in Section 5.1 of the Translocation Plan (AECOM-GHD JV 2020a – Revision 9), dates of watering events carried out for each site, and any additional notes.

Table 5	Watering log fo	r Quarry Hills	Park and Plenty	Gorge Parklands
1 4 510 0	matering log io		i and and i formy	oorgo i amaanao

Watering Date	Months after translocation / period between significant rainfall events that will trigger watering	Actual watering frequency	Notes		
April 2020	9-21 / 1-2 months	N/A	No watering occurred during this		
May 2020	9-21 / 1-2 months		necessary due to adequate		
June 2020	9-21 / 1-2 months		rainfall.		
July 2020	9-21 / 1-2 months				
August 2020	9-21 / 1-2 months				
September 2020	9-21 / 1-2 months				
October 2020	9-21 / 1-2 months				
November 2020	9-21 / 1-2 months				
31 December 2020	9-21 / 1-2 months	1 week			
11 January 2021	9-21 / 1-2 months	1 week			
20 January 2021	9-21 / 1-2 months	1 week			
25 January 2021	9-21 / 1-2 months	1 weeks			
9 February 2021	9-21 / 1-2 months	2 weeks			
16 February 2021	9-21 / 1-2 months	1 week			

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Watering Date	Months after translocation / period between significant rainfall events that will trigger watering	Actual watering frequency	Notes
5 March 2021	9-21 / 1-2 months	2 weeks	
18 March 2021	9-21 / 1-2 months	2 weeks	

2.7 Quarterly photo monitoring

During the reporting period, quarterly monitoring photos at both sites were taken in May 2020, July 2020 and January 2021. These photos are provided in Plates 1 to 27, and locations of the photo monitoring points are provided in Appendix A.



Plate 1 Quarry Hills Park Photo Monitoring Point 1 - May 2020



Plate 3 Quarry Hills Park Photo Monitoring Point 1 – January 2021



Plate 2 Quarry Hills Park Photo Monitoring Point 1 - July 2020



Plate 4 Quarry Hills Park Photo Monitoring Point 2 - May 2020



Plate 5 Quarry Hills Park Photo Monitoring Point 2 – July 2020



Plate 7 Quarry Hills Park Photo Monitoring Point 3 – May 2020



Plate 6 Quarry Hills Park Photo Monitoring Point 2 – January 2021



Plate 8 Quarry Hills Park Photo Monitoring Point 3 – July 2020



Plate 9 Quarry Hills Park Photo Monitoring Point 3 - January 2021



Plate 11 Quarry Hills Park Photo Monitoring Point 4 – July 2020



Plate 10 Quarry Hills Park Photo Monitoring Point 4 – May 2020



Plate 12 Quarry Hills Park Photo Monitoring Point Monitoring Point 4 - January 2021



Plate 13 Plenty Gorge Parklands Photo Monitoring Point 1 – May 2020



Plate 15 Plenty Gorge Parklands Photo Monitoring Point 1 – January 2021



Plate 14 Plenty Gorge Parklands Photo Monitoring Point 1 – July 2020



Plate 16 Plenty Gorge Parklands Photo Monitoring Point 2 – May 2020



Plate 17 Plenty Gorge Parklands Photo Monitoring Point 2 – July 2020



Plate 19 Plenty Gorge Parklands Photo Monitoring Point 3 – May 2020



Plate 18 Plenty Gorge Parklands Photo Monitoring Point 2 – January 2021



Plate 20 Plenty Gorge Parklands Photo Monitoring Point 3 – July 2020



Plate 21 Plenty Gorge Parklands Photo Monitoring Point 3 – January 2021



Plate 23 Plenty Gorge Parklands Photo Monitoring Point 4 – July 2020



Plate 22 Plenty Gorge Parklands Photo Monitoring Point 4 – May 2020



Plate 24 Plenty Gorge Parklands Photo Monitoring Point 4 – January 2021



Plate 25 Plenty Gorge Parklands Photo Monitoring Point 5 - May 2020



Plate 27 Plenty Gorge Parklands Photo Monitoring Point 5 – January 2021



Plate 26 Plenty Gorge Parklands Photo Monitoring Point 5 – July 2020

3.0 Conclusion

The survival rates of translocated MFLs at 99% (or 495 of 500) meet the performance standard of 85% (or 412 of 500), as defined in Section 7.2 of the Translocation Plan (AECOM-GHD JV 2020a – Revision 9). Therefore, no additional replanting is required.

4.0 Next steps

Monitoring continues as per the schedule in Sections 6.1.3 and 6.2.3 of the Translocation Plan (AECOM-GHD JV 2020a – Revision 9).

The next Annual Monitoring Report will document results for monitoring events undertaken between 4 April 2021 and 3 April 2022.

5.0 References

AECOM-GHD JV. 2019. Matted Flax Lily Nursery Audit. Memo prepared for the Level Crossing Removal Project, April 2020.

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Bureau of Meteorology 2021. Yan Yean Weather Station – Daily Rainfall. Australian Government Bureau of Meteorology. Accessed 24/05/2021. <u>http://www.bom.gov.au/climate/data/stations/</u>.

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Appendix A

Figures



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- Legend
- MFL
- Monitoring Quadrat
- Photo Monitoring Points
- Recipient Site

Quarry Hills Park Recipient Site

Figure 1



Paper Size A3

Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55

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Legend

- Monitoring Quadrat
- Matted Flax-lily Cluster
- Photo Monitoring Points
- CRECIPIENT Site

Plenty Gorge Parklands Recipient Site

Figure 2





JOINT VENTURE

0 5 10 20 Metres



Paper Size A3

Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55

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Appendix **B**

Raw field data sheets

Appendix B Raw field data sheets

stop a sound in spray para

Date:	8/4/7002	1			
	10 110000				
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
001-001	2		028-002		1
001-002	1		029-002	1	
002-001			030-001	1	
002-002			030-002	1	
002-002	L		031-001	K	
003-001	5		031-007		
003-002			032-001		
004-001			032-001		
004-002			032-002		
005-001			033-001		
000-002			033-002	1	C
000-001	L		034-001	L	~
006-002	L		034-002		
007-001	L		035-001		
007-002	L		035-002	L	
008-001	1		036-001	L	
008-002	L		036-002	L	
009-001	L		037-001	L	
009-002	L		037-002	L	
010-002	L		038-001	L	<u> </u>
010-003		Update Mon formy sheet	038-002	L	
011-001	+ L		039-001		
011-002	L	Strussed.	039-002		
012-001			040-001	L	
012-002	L		040-002		
013-001	L		041-001	L	
013-002	1		041-002	L	1
014-001	L		042-001	L	
014-002			042-002	16	
014-002	L		043-001	L	
015-001			043-002		
015-002			044-001	1	
016-001	1.10		044-002	L	
016-002	T		045-001	1.	
017-001	L		045-002	L	
017-002	L		046-001	L	
018-001	L		046-002	L	
018-002	L		047-001	L	
019-001	1		047-002		
019-002	1		048-001	1	
020-001			048-002	T T	
020-002	1		049-001	1	
021-001			049-002		
021-007	1		050-001		
021-002			050-001	L	
022-001			050-002		
022-002			051-001		
023-001	+		051-002	1	
023-002			052-001		
024-001			052-002		
024-002			053-001		
025-001	14		053-002	- L	
025-002	L		054-001		
026-001	a		054-002	L	
026-002	L		055-001	L	
027-001			055-002	L	
027-002			056-001	L	
1028-001	1		1056-002		





Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes	
057-001	1		087-001			
057-002	1		087-002	L		
058-001	L		088-001	1		
058-002	L		088-002	L		
059-001	L		089-002	TL		- 089 - 01
059-002	1		090-001	L		ad
060-001	L		090-002	1		
060-002	1		091-001	1		
061-001			091-002	L		
061-002	L		092-001	L		1
062-001	1		092-002	1		
062-002	ĩ		093-001			
063-001			000 001	1		
063-002			002-002	1		
064-001	1		194-007			
064-002			004-002			
065-001			105-001			
065-002			196_002	1		
066-001	1 T		196-001	<u> </u>		
066-002		^	197_002			
067-001			107-001			
067-007	X		097-002 008_001			
068-001			108 002	L		
000-001	L.		000 001			
060-002	1 T		000 002			
000-001			100 001			
003-002			100-001			P
070-001			100-002		Docal for humaning ?	1 que no
070-002	L		101-001	L Shine	Check for burrowing- Burrow care	1 same
071-002			102-002	1		
072-002	Ĩ		102-001			
073-001	L		102-002			
073-003	- F		103-001	L		
074-001	1		104-002			
074-002			104-002			
075-001			105-002			
075-002	1		105-001			
076-002			106-002			
076-002			106-002	1		
077-001			107 001			
077-002	L		107-001			
078-001			107-002			
078-002			108-007			
070-002			100-002			
079-002			109-001			
080-001	I		110-002			
080-002	1		110-001			
081-001	1		111_001			
001-001			111-001			
082-001	1		112_001			
082-002		,	112-001			
083-001			112-003			
083-002	1		113,002			
084-001	1		114.001			
084-002			114-001	L .		
085-001	1	.	115-002			
085-002		,	115-001			
086-001	-		116-002			
086-002	1		116-001			
				D La		

Add date held

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Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
117-001	1		1		
117-002	C				
118-001	L				
119-001	L				
119-002	1		1		
120-001	L				
120-002	L				
121-001	L		1		
122-001	L				
122-002	L				
123-001	L				
123-002	L				
124-001	L				
124-002	L				
125-001					
125-002			1		

Plenty Gorge Parklands: Population Total Count Date: 8/4/2020

Cluster ID Pla	Int ID	Live/Dead	Notes	Cluster ID	Plant ID	Live/Dead	Notes]
1 00	02-003			(12	040-004	L		1
1 00	01-003	L		12	019-004	L		1
1 00	01-004	L		12	045-003	F		1
1 00)2-004	L		13	025-003			
1 00)3-004	-		13	026-004	L		
1 03	33-004	L		.13	033-003	2		
2 00	04-003	L		13	037-003	L		
2 00	04-004			13	042-003	L		1
2 00	05-004			13	071-003	L		1
2 00	06-003	-		14	003-003	L		1
2 00	00-004	L.		14	040-003	L		4
2 02	20-003			14	041-003	L		4
3 00	7-003			14	044-003			1
3 00	01-004	<u> </u>		14	055-003	L		
3 00	0000	1		14	055-004	L		1
3 00	0.004			10	005-003			1
3 00	003			15	024-003			1
4 01	0.001	1		10	028-004			1
4 01	10-001	L		10	029-003	L		
4 01	11-003	t		10	029-004	L		ł
4 01	11-003			10	023-004	L		1
4 01	12-004	1		10	040.002			4
4 04	13-004	T.		10	049-003			1
5 01	12-003	1		16	050-003			
5 01	13-004	1		17	046-003			1
5 01	14-003	1_		17	050-004	I		1
5 06	33-003	1		17	060-004	1		1
5 07	73-004	1		17	064-003	1		1
5 08	30-003	1		17	070-004	1		1
6 01	16-004	Ĩ		17	101-003	1		1
6 01	17-003	L		18	046-004	T	· · · · · · · · · · · · · · · · · · ·	1
6 01	17-004	L		18	051-003	1		1
6 01	18-003	L		18	052-004			1
6 01	18-004	Ĺ		18	054-003			
6 04	18-003			18	058-003	L		1
7 01	19-003	L		18	058-004			1
7 02	20-003	L		19	081-003			1
7 02	20-004	L		19	081-004	L		
7 02	21-003	L		19	083-004	L		1
7 02	21-004	T.		19	087-004	L		1
7 04	41-004	Ŭ		19	093-003	L		1
8 01	13-003	L		19	102-003	L		1
8 01	15-004	L		20	005-003		- A Change to 0/5-003-	alok orde
8 02	22-003	4		20	057-003	L	3	
8 02	22-004	L		20	057-004	1		1
8 02	23-003	L		20	065-004	L		ans only
8 02	23-004	L		20	066-003	L	· · · · · · · · · · · · · · · · · · ·	1
9 01	15-003	L		20	066-004	L		1
9 02	24-004	L		21	028-003	L		1
9 02	27-003			21	031-003	L		1
9 02	27-004			21	032-003	L		1
9 04	44-004			21	035-004	L		1
10101	12-004	L	Cockatoos - Looks fine	21	037-004	L		1
10 01	14-004	L		21	038-003	1		1
10 04	43-003	L		22	053-003	C		1
10 05	59-004	L		22	056-003			1
10 09	96-004	2		22	062-003	L		1
11 04	47-003	L		22	062-004	L		1
11 04	49-004	L		22	104-004	t		1
11 05	52-003	L		23	059-003			1
11 05	53-004	L		23	060-004			1
11 10	03-003	L		23	061-004			1
11 11	14-004	L		23	063-004			1
/ 12 01	16-003	L		23	064-004	1		1
12 04	42-004	L		23	073-002			1
12 04	45-004	L		24	086-004	L		1
12 04	48-004	L		24	084-003	E.		1
1 V								

check w/ Cow about plantings - new spitershinds.

	Cluster ID Plant ID	Live/Dead	Notes	Cluster ID	Plant ID	Live/Dead	Notes	
	24 104-003	L		36	015-003	L	Vodate to 115-005 & up	late order
ind te	24 084-004	L		36	085-003	L	1 1	
Jed	24 101-004			37	108-003	L		
0100-	24 102-004	L		37	109-003	1		
	25 076-001	1		37	109-004			
	25 079-004	1	5	37	110-004	L		
	25 085-004	L		37	113-004	LL I		
	25 089-004	L		37	114-003	L		
	26 088-003	1		38	067-003			
	26 088-004	1		38	069-003	1 T		
	26 099-004			38	072-003	L		
	26 100-003	f.		38	077-004	L		
	26 110-003	L		38	080-004	L		
	26 111-003	L		38	103-004	L		
	27 093-004	L		39	067-004	1		
	27 094-004	L		39	068-003	L	·	
	27 095-003	L		39	068-004	L		
	27 095-004	L		39	074-003	L		
	27 106-003	L		39	078-003	L		
	27 106-004	L		40	034-003	L		
	28 016-004	L.		40	034-004	L		
	28 117-003	L.		40	035-003	L		
	28 117-004	L		40	036-004	L		
	28 118-003	L		40	038-004	T.		
	28 122-004	L		41	030-003	Ĺ		
	28 123-004	L.		41	030-004	L		
	29 121-004	L		41	036-003			
	29 123-003	L		41	039-003			
	29 124-003	L		41	054-004		· · · · · · · · · · · · · · · · · · ·	
	29 124-004	L		41	056-004	L		
	29 125-003	L		42	069-004	L		
	29 125-004	L		42	070-003			
	30 108-004	L		42	074-004	L		
	30 119-004	L		42	075-003	L		
	30 120-003	L		42	075-004	L		
	30 120-004	L		42	078-004	L		
	30 121-003	L		43	032-004	1		
	30 122-003	L		43	039-004	L		
	31 107-003	1L		43	047-004	L		
	31 107-004	L		43	071-004	L		
	31 111-004	L		43	076-004	1		
	31 112-002	L		43	079-003	L		
	31 113-003	L						
	31 119-003	L		ļ				
	32 072-004	L		ļ				
	32 097-004	L						
	32 105-003	L		<u> </u>				
	32 105-004	L						
	33 098-003	L						
	33 098-004							
	33 099-003							
	33 100-004							/
	33 116-003							
	33 118-004	L.						/
	34 089-003	L				+		1
	34 091-004	L L						
	34 092-003	L				-		
	34 092-004	L						
	34 094-003							
	34 090-003			-				
	30 000-003					-		
	30 087-003		-					
	30 090-003	L				-		
	35 090-004							
	35 091-003							
	30 097-003	1				-		
	30 082-003	1				-		
	30 082-004					-		
	36 115 004	L						

Quarry Hi	lls Park: Po	pulation Total Count			
Date:	6/5/2020				
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
001-001	L		029-002		
001-002	L		030-001	L	
002-001			030-002		
002-002	L		031-001	1	
003-001	L		031-002		
003-002	3		032-001	L	
004-001	1		032-002	1	
004-002	Ĕ		033-001	1	
005-001	L		033-002		
005-002	1	Claused	034-001	1	
006-001	L	5 4 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8	034-002	I I	
006-002	L		035-001	1	
007-001			035-002		
007-002	- F		036-001	1	1
008-001	1		036-002		
008-002			037-001	1	
009-001			037-002		
009-002			038-001		
010-002	00		038-002		
010-003			039-001		
011-001			039-002		
011-002			040-001	1 I	
012-001	L		040-002		
012-002			041-001		
013-001			041-002	L C	
013-002	L L		042-001	1	
014-001			042-007	1	
014-002			042-002		
015-002			043-002		
015-007	1		044-002		
016-002			044-007		
016-007			045-001		
017-002			045 002		
017-007			046 001	1	
017-002			040-001	L	
018-001	L		040-002		
010-002	L		047-001	- Ber	
019-001			047-002		
019-002	L		040-001		
020-001			040-002	L	
020-002	L		049-001	L	
021-001			049-002	L_	
021-002	L		050-001		
022-001	L		050-002	16	
022-002	L		051-001	1	
023-001	L		051-002	L	
023-002	L		052-001		
024-001			052-002	L	
024-002			053-001	L	
025-001	L.		053-002	L	
025-002			054-001	L	
026-001			054-002	L .	
026-002			055-001		
027-001	L		055-002		
027-002	L		056-001		
028-001	L		056-002	L	
028-002	L		057-001		
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
057-002	L		087-002	L	
058-001	6		088-001		

058-002	L		088-002	L	
059-001	Ū		089-001	L/	
059-002	Ĺ		089-002	L	
060-001	1		090-001		
060-002	1		090-002		
061-001	Ē		091-001	L	
061-002			091-002	L	
062-001	Ľ		092-001	L	
062-002	1.		092-002	1	
063-001			093-001	L	
063.002			093-002	1.	
064-001			094-001	1	
064-002			094-002	i	
065_001		Charrent	095-001	T	
065_002	1	(have a	095-002		1
066-001	1	PLANER!	096-001		
066_002			096-002		
067_004	1		097_001	1	
067.000	L.		097-007	1	
069 004			007-002		
100-000			000-001		
060.004			1000-002		
069-001			000 000		
009-002			100 004		sound. Ant nest
070-001		WIS THOUGH	100-001		
070-002			100-002	L.	Chook for humaning
071-001			101-001	t t	
070.002	L		101-002		
072-002	L	looks like it was shad on while	1102-001	L	
073-001		2.00016	102-002	L	
0/3-003	L		103-001	L	
074-001			103-002	L	
074-002	L		1104-001	L	
075-001	L		104-002	L	
075-002	L		105-001	L	
076-002	L		105-002	L	
076-003	L		106-001	L	
077-001	L		106-002	L	
077-002	L		107-001	L	
078-001	L		107-002	L	· · · · · · · · · · · · · · · · · · ·
078-002	L		108-001	L	
079-001			108-002	L	
079-002	L		109-001	L	
080-001	L		109-002		
080-002	L		110-001	L	
081-001	L		110-002	L	
081-002	L		111-001	L	
082-001	L		111-002	L	
082-002	L		112-001	L	
083-001	L		112-003	L	
083-002	L		113-001	L	
084-001	L		113-002	L	
084-002	L		114-001	L	
085-001	L		114-002	L	
085-002			115-001	L	
000 001				-	
1086-001	L		115-002		
086-001			115-002		
086-001 086-002 087-001			115-002 116-001 116-002		
086-001 086-002 087-001 Quarry Hi	L L L Is Park: Po	pulation Total Count	115-002 116-001 116-002		
086-001 086-002 087-001 Quarry Hi Date:	L L L Ils Park: Po	pulation Total Count	115-002 116-001 116-002		
086-001 086-002 087-001 Quarry Hi Date:	L L Ils Park: Po	pulation Total Count Notes	115-002 116-001 116-002	L L Live/Dead	Notes
086-001 086-002 087-001 Quarry Hi Date: Plant ID	L L Ils Park: Po Live/Dead	pulation Total Count Notes	115-002 116-001 116-002 Plant ID	L L Live/Dead	Notes
086-001 086-002 087-001 Quarry Hi Date: Plant ID 117-001	L L Ils Park: Po Live/Dead	pulation Total Count Notes	115-002 116-001 116-002 Plant ID	L L Live/Dead	Notes
086-001 086-002 087-001 Quarry Hi Date: Plant ID 117-001 117-002	L L Ils Park: Po Live/Dead	pulation Total Count Notes	115-002 116-001 116-002 Plant ID	Live/Dead	Notes
086-001 086-002 087-001 Quarry Hi Date: Plant ID 117-001 117-002 118-001	L L Ils Park: Po Live/Dead	pulation Total Count Notes	115-002 116-001 116-002 Plant ID	Live/Dead	Notes

.

119-002	L		
120-001	L		
120-002	L		
121-001	L		
122-001	L		
122-002	L		
123-001	L		
123-002	1.		
124-001	L		
124-002	L		
125-001	L		
125-002	Ŀ		

Plenty Gorge Parklands: Population Total Count

Cluster ID	Plant ID	Live/Dead	Notes	Cluster ID	Plant ID	Live/Dead	Notes
1	001-003	L		12	040-004	L	
1	001-004	L .		12	042-004	L	
1	002-003	L		12	045-003	L	
1	002-004	L		12	045-004	L	
1	003-004	L		12	048-004	L	
1	033-004	L		13	025-003	L	
2	004-003	L		13	026-004	L	
2	004-004	L		13	033-003	L	
2	005-004	L		13	037-003	L	
2	006-003	1		13	042-003	L	
2	006-004			13	071-003	1	
2	026-003	L		14	003-003	E	
3	007-003	L		14	040-003	L	
3	007-004	L		14	041-003	L	
3	008-003	L		14	044-003	L	
3	008-004	L		14	055-003	L	
3	009-003	L		14	055-004	L	
3	009-004			15	005-003	L	
4	010-001	L		15	024-003	L	
4	010-004	L		15	028-004	L	
4	011-003	L		15	029-003	L	
4	011-004	L		15	029-004		
4	012-004	L		16	025-004	L	
4	043-004	L		16	031-004	6	
5	012-003	L		16	049-003	L	
5	013-004	L		16	051-004	L	
5	014-003	L		16	050-003	E.	
5	063-003	L		17	070-004		
5	073-004	L		17	060-003	L	
5	080-003	L		17	064-003	L	
6	016-004	1		17	046-003	L	
6	017-003			17	050-004		
6	017-004			17	101-003	1	
6	018-003	140		18	046-004	T	
6	018-004	1		18	051-003	1	
6	048-003			18	052-004		
7	019-003	l		18	054-003	L	
7	020-003	ī		18	058-003	L	
7	020-004	1		18	058-004	1 c	
7	021-003			19	081-003		
7	021-004			19	081-004	1	
7	041-004			19	083-004	L	
8	013-003	Y		19	087-004	1	
8	015-004			19	093-003	Ĩ	
8	022-003	I.		19	102-003	Ĩ.	
8	022-004	1		20	057-003	1	
8	023-003			20	057-004		
8	023-004			20	065-003	ĩ	
0	015-003	L		20	065-004	L	
0	024-004	L		20	066-003	1	
Q	027-003	1		20	066-004	L I	
0	027-004			21	028-003		
0	044-004	-		21	031-003	I	
10	059-004	1.	Cockatoos	21	032-003	L	
10	112-004	L	0001/21000	21	035-004	1	
10	061-003	1		21	037-004	L	
10	096-004			21	038-003		
10	043-003	Ĭ		20	053-003	1	
10	014-004			22	056-003	1	
11	047-003			22	062-003	1	
11	040_004			22	062-003		
11	052-003			22	104-004	-	
44	053_004			22	050_004	L	
44	102-002			20	060-003		
11	114 004			20	061-004	L	
40	016 002			23	062 004	-	
12	010-003			23	064 004	1	
12	019-004	L L		23	004-004		

Cluster ID Plant ID	Live/Dead	Notes	Cluster ID Plant ID	Live/Dead	Notes
23 073-002	L		35 097-003	L	
		000 000			
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24 084-003 L	 36	082-003	L		
24 084-004	36	082-004	E.		
04 096 004	26	002 002	<u> </u>		
24 080-004	30	003-003	L		
24 101-004	36	085-003	L		
24 102-004	36	115-003			
24 102-004	 00	445 004			
24 104-003	30	115-004	L L		
25076-001	37	108-003	1		
05 070 004 1	 27	100.002			
25 079-004 L	31	109-003	L		
25 085-004	37	109-004	L		
25 000 004	27	110.004	1		
25 069-004 1	 57	110-004	L		
26 088-003 L	37	113-004	L		
26 088 004	37	114-003	1		
20 000-004 L	 57	114-000	L		
26 099-004	 	067-003			
26 100-003	38	069-003	1		
20 100-000 [00	000 000	L L		
26 110-003		072-003	L		
26 111-003	 38	077-004	1		
07/000 004	 20	000 004			
27 093-004	30	000-004	L		
27 094-004	38	103-004	L		
27/005/002	20	067.004			
21 095-003 L	 - 39	001-004	- La		
27 095-004	39	068-003	1		
27 106 002 1	 20	068-004	1		
2/100-003		000-004			
27 106-004	39	074-003	1		
28 016-004	30	078-003			
20010-004	 	070-000	-		
28 117-003 L	40	034-003	6		
28 117-004	40	034-004	T		
20117-007	 40	005 000			
28 118-003	40	035-003	L		
28 122-004	40	036-004	L		
00 100 004	 40	020 004			
28 123-004	40	030-004	L		
29 121-004	41	030-003			
20 122 002	 11	020 004			
29 123-003	.41	030-004	L		
29 124-003	41	036-003			
20 124 004	41	030.003			
23 124-004	 ्म।	000-000	L		
29 125-003	 41	054-004	L		
20 125-004	41	056-004	1		
29 123-004	 11	000-004	L		
30 108-004	42	069-004			
30 119-004	42	070-003	1		
00 110-004	 10	074 004			
30 120-003	42	074-004	L		
30 120-004	42	075-003			
	 40	075 004	1		
30 121-003	 42	075-004		\	
30 122-003	42	078-004	L	/	
21 107 002	12	022 004	1		
31 107-003	43	032-004			
31107-004	43	039-004	L	V	
31 111 004 1	/3	047-004	1		
01111-004 L	 40	071-004			
31 112-002 L	43	071-004	Ĺ		
31 113-003	43	076-004	1		
04 440 000	40	070 000	L		
31119-003	43	079-003			
32 072-004					
22/07/04					
32 U97-004 L					
32 105-003					
32 105 004					
32103-004	 				
33 098-003 /	 				
33 098-004					
33 099-003					
33 100-004					
33 116-003	 				
33 118-004	-				
34 080 003					
341005-003					
34 091-004 L					
34 002-003					
04 002-000 C	 				
34 092-004 L					
34 094-003					
04 000 000					
34 096-003 L					
35 086-003					
00 000 000	 				
35 087-003					
35 090-003 1					
25 000 004					
35 090-004					
35 091-003					



	Quarry Hills Park: Population Total Count	
100	Date: 10/6/2020	
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1	Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
50	001-001		Black loor type	029-002		
500	001-002	4		030-001	L'and	
0	002-001			030-002	and the second	
575	002-002	- 1999年	black loge tops	031-001	L	1
5-3 2	003-001	CHE ST		031-002	L'	
015	003-002	L	black leaf thos	032-001		
858	004-001	4		032-002	L	0
3.20.	004-002	L		033-001	L	
	005-001	後等上的区域		033-002	A Charles	
$\sim 10^{-1}$	005-002	A CONTRACTOR	New shoots emery	034-001	L. L.	
	006-001		(dy not of site) 0.	034-002	Lin	17 17 L
	006-002	Contraction of the		035-001	L	
	007-001	1 L	Black leap tips.	035-002	L	
	007-002	网络 医白色		036-001		
Sec.	008-001	1001 2 181		036-002	·	
이 아이 아이	008-002			037-001	L	
	009-001	1.		037-002	L	A
11 • 1	009-002		Black loop has	038-001	L	
S 8 2 1	010-002	E.	parts with the	038-002	1	
2	010-003	41.2.3		039-001	T.	Shallor
18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	011-001		100 - 4 10 DE W	039-002	T T	sroggerg
1. a.e. 1. 1	011-002	F		040-001	T.	
1 2 F	012-001	1		040-002		
	012-007	T	A characteria	041-001	- 1-	
	012-002	1	STREED	041-002	1	· · · ·
1 - 18 - A	013-007			042-001	T T	
	013-002	1		042-007		
I an i	014-001	-		042-002	1-1-	
	014-002			043-001	T	
	015-001	<u> </u>		043-002	<u> </u>	
	015-002			044-001		
	016-001			044-002		
3 5	016-002	L		045-001	1h	
	017-001	h		045-002		
1.1	017-002	<u> </u>		046-001	14	
	018-001	- F		046-002		
	018-002	L		047-001	-F	•
	019-001			047-002	L	
	019-002			048-001		
	020-001			048-002	· L	
	020-002	4		049-001		
	021-001	L		049-002	F	
	021-002	L		050-001	L_	
	022-001	L		050-002		
	022-002	.6		051-001	L	
	023-001	L		051-002	L	
	023-002	L		052-001	L	
	024-001			052-002	-	
	024-002	5		053-001		
	025-001	L .		053-002	L	
	025-002			054-001		
	026-001	L	· · · · · · · · · · · · · · · · · · ·	054-002	L	
	026-002	-		055-001		
	027-001	Ļ		055-002	L	
	027-002	-		056-001	L	
	028-001	L		056-002	L	
	1028-002	Δ.		1057-001		

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Plant ID Live/Dead Notes Plant ID Live/Dead Notes 057/002						
087002 087002 087002 087002 087002 088001 088002 088002 088002 088002 088002 088002 088002 088002 088002 088002 088002 088002 088002 088002 088002 088002 088002 086001 088002 088002 088002 088002 088002 086001 086001 086002 086002 086002 086002 086002 0861001 086002 086001 086001 086001 086001 086001 086001 086002 086002 086002 086002 086002 086002 086002 086002 086002 086002 086002 086001 086001 086001 086001 086001<	Plant ID	l ive/Dead	Notes	Plant ID	Live/Dead	Notes
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	057-002	Liverbedd	notes	087-002		
000000000000000000000000000000000000	058-001			088-001		
00001 L 00001 L 00001 L 000001 L 000001 L 000001 L 00001 L 000001 L 00001 L 0000000 L 00001 L 000000 L 00001 L 000000 L 00001 L 000000 L 00001 L 0000000 L 0000000 L 0000000 L 0000000 L 0000000 L	058-002			088-002	1	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	059-001	1		089-001	E	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	059-002			089-002	10	
	060-002	E		090-001	1	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	060-002	1		090-002	E	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	061-001	1		091-001	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	061-002	E		091-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	062-001			092-001	4	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	062-002	Ē	Black Loar Kos	092-002	4	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	063-001	L	surger and the	093-001	6	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	063-002			093-002	L	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	064-001	1	0	094-001	L	
065-001 L 095-002 L 065-002 L 095-002 L 066-001 L 096-001 L 066-002 L 097-001 L 067-001 L 097-002 L 067-002 L 097-002 L 068-002 L 097-002 L 068-002 L 098-002 L 068-001 L 098-002 L 068-002 L 098-002 L 069-002 L Some betalway L 070-001 L 100-001 L Check for burrowing 071-001 L 102-002 L 0 0 073-003 L 102-002 L 0 0 0 075-001 L 102-002 L 0 0 0 0 075-001 L 104-002 L 0 0 0 0 0 0 0	064-002			094-002	L	
065-002 L 095-002 L $066-001$ L 096-001 L $067-001$ L 097-001 L $067-002$ L 097-001 L $067-002$ L 098-001 L $068-001$ L 098-001 L $068-002$ L 098-001 L $068-001$ L 098-001 L $068-002$ L 098-001 L $070-001$ L 0099-002 L Some herborog. $070-001$ L 000-002 L Some herborog. $070-001$ L 010-002 L One herborog. $077-002$ L Some herborog. 102-001 L $072-002$ L 102-001 L 102-001 $073-001$ L 103-002 L 107-002 $077-001$ L 106-001 L 107-001 $077-002$ L 107-001 L <td>065-001</td> <td>L</td> <td></td> <td>095-001</td> <td>6</td> <td></td>	065-001	L		095-001	6	
066-001 L 006-002 L 066-002 L 006-002 L 067-001 L 007-001 L 068-002 L 008-001 L 068-001 L 008-001 L 068-001 L 008-001 L 068-002 L 009-001 L 068-001 L 009-001 L 068-002 L 009-001 L 068-001 L 009-001 L 070-002 L Havering 100-001 071-002 L 101-001 L 071-002 L 101-002 L 073-003 L 102-002 L 073-003 L 102-002 L 074-002 L 103-002 L 075-002 L 105-002 L 076-002 L 106-001 L 076-002 L 106-001 L 077-002 L 107-001 L 078-002 L <td>065-002</td> <td>4</td> <td></td> <td>095-002</td> <td>L</td> <td></td>	065-002	4		095-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	066-001	2_		096-001	L	N
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	066-002	L		096-002	L	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	067-001	L		097-001	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	067-002	L		097-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	068-001	L		098-001		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	068-002	L		098-002		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	069-001	L		099-001	L	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	069-002			099-002	L	Some herbivory.
070-002 L Havery 100-002 L 071-002 L 101-001 L Check for burrowing 072-002 L Small 102-001 L 073-003 L 102-001 L 102-002 073-003 L 103-001 L 103-001 074-001 L 103-002 L 104-002 075-001 L 104-001 L 105-001 075-002 L 105-001 L 106-001 076-003 L 106-001 L 107-002 076-003 L 106-001 L 107-002 077-001 L 106-001 L 107-002 078-002 L 107-002 L 107-002 078-002 L 109-001 L 109-002 079-002 L 109-001 L 109-002 080-002 L 110-001 L 108-002 081-002 L 111-001 L 108-002 083-002 L 111-001	070-001			100-001	L	0
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	070-002		Havering	100-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	071-001		9	101-001	L	Check for burrowing
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	071-002			101-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	072-002		small, herbivory	102-001		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	073-001	L		102-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	073-003	L	1	103-001		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	074-001	L		103-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	074-002	L		104-001	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	075-001	L		104-002	L	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	075-002	L		105-001		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	076-002	- F		105-002		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	076-003	4		106-001	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	077-001	L	-	106-002		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	077-002	L		107-001		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	078-001	P		107-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	078-002			108-001	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0/9-001	F		108-002	4	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	079-002	L		109-001	-	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	080-001	her		109-002	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	080-002	<u> </u>		110-001	L	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	081-001	5		110-002		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	081-002			111-001		t.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	082-001			111-002		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	082-002	L		112-001	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	083-001	L		112-003		seeds forming
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	083-002	L		113-001	L	Planeing
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	084-001	L		113-002		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	084-002	- 6-		114-001	L	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	085-001			114-002	L	
086-001 L Flaven + seo ding 115-002 L 086-002 L Flower 116-001 L 087-001 L 116-002 L	085-002	T		115-001	6	
086-002 L Nowen 116-001 L 087-001 L	086-001	E	Flazen + seodian	115-002	E	
087-001	086-002	1	(De Denn	116-001		
	087-001	L		116-002		

089-001?

Quarry H	ills Park: Po	pulation Total Count			
Date:	10/6/20	Ze			
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
117-001	L	A.			
117-002	L				
118-001	L				
119-001	L,				
119-002	L				
120-001					
120-002					
121-001					
122-001	L				
122-002					
123-001	L				
123-002		•			
124-001					
124-002	5				
125-001	4				
125-002					

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Plenty Gorge Parklands: Population Total Count

Cluster ID Plant I	D Live/Dead	Notes	Cluster ID Plant ID	Live/Dead	Notes
1 001-00	3		12 040-004	1	
1 001-00	4		12 042-004	E	Chickore
1 002-00	3		12 045-003	1	
1 002-00	4 1	Contract	12 045-004		- Hersering
1 003-00	4	FLALDER	12 048-004		
1 033-00		He less + Condian	13 025-003	12	
2 004-00	2 2	Thomas Section	13 026-003	T	
2 004-00		Howering	13 033-003		
2 004-00	4	110.000	12 027 002		L'auser.
2 000-00	4	Howering	13 037-003		+ However
2 000-00		de la	13 042-003		
2 000-00	4	Havering	13 07 1-003		
2 020-00		0	14 040 002)
3 007-00		noverng	14 040-003		
3 007-00	4 6	Palering	14 041-003		- Cluster.
3 000-00	3	d.	14 044-003		Figuering
3 008-00		Howering	14 055-003	T-F-)
3 009-00	3	Howking	14 055-004	- <u>-</u> [/	
3 009-00	4	2	15 005-003	5	
4 010-00			15 024-003		
4 010-00	4		15 028-004		encroached by Holcus
4 011-00	3		15 029-003		
4 011-00	4		15 029-004	L	
4 012-00	4		16 025-004	4	
4 043-00	4		16 031-004	C	
5 012-00	3		16 049-003		
5 013-00	4	Abweiring	16 051-004	L	
5 014-00	3		16 050-003		
5 063-00	3	Aquering	17 070-004		
5 073-00	4		17 060-003		
5 080-00	3 4	Aowering	17 064-003		Cluster
6 016-00	4		17 046-003	L	Roweng
6 017-00	3	Aavery	17 050-004	L	
6 017-00	4	flavering	17 101-003		5
6 018-00	3		18 046-004		
6 018-00	4		18 051-003	L	
6 048-00	3 🖵	Apwering	18 052-004	1	Chister
7 019-00	3 L		18 054-003		stowering
7 020-00	3		18 058-003	L	
7 020-00	4	lor 2 abuter	18 058-004		
7 021-00	3		19 081-003		
7 021-00	4		19 081-004	L	
7 041-00	4		19 083-004	E	
8 013-00	3	5	19 087-004	4	
8 015-00	4	P DC ac clust on hoters	19 093-003	L	
8 022-00	3	CAR DALL & ON ILIBOR	19 102-003	V	
8 022-00	4 L		20 057-003		
8 023-00	3 .		20 057-004		
8 023-00	4	-	20 065-003		
9 015-00	3 <u>L</u>	1	20 065-004	L	
9 024-00	4 6	Cluster.	20 066-003	L	
9 027-00	3 L	Flowering	20 066-004	L	
9 027-00	4	(marine is	21 028-003		Encropached by Holding
9 044-00	4		21 031-003		
10 059-00	4	Cockatoos	21 032-003	L	(lase)
10 112-00	4		21 035-004	L	ADUEN
10 061-00	3 1-		21 037-004	L	
10 096-00	4		21 038-003		
10 043-00	3		22 053-003	-	0
10 014-00	4		22 056-003	T	- austr
11 047-00	3 1	0	22 062-003		Rougen
11 049-00	4	1	22 062-004	L	(- werg
11 052-00	3 1	CLANKE	22 104-004	L	/
11 053-00	4	Ela, par	23 059-003		
11 103-00	3 1	hours	23 060-004	Ĩ.	1 Classic
11 114-00	4	V	23 061-004	t L	T the area
12 016-00	3 0		23 063-004	E	
12 010-00	4		23 064-004	1	-
12010-00			201004-004		

Cluster ID F	Plant ID	Live/Dead	Notes	Cluster ID	Plant ID	Live/Dead	Notes
23 0	73-002			35	097-003	F	
24 0	084-003	6	2	36	082-003		
24 0	084-004	T		36	082-004	L	
24 0	186-004		Charle/	36	083-003	L	- Charster
24 1	01-004	K	1 G Pin	36	085-003	L	Cloven
241	02-004		(CLOUCKEY)	36	115-003	5	Fund
24	102-004		/	36	115-004	1	
24	104-003			27	108-003	T	2
250	076-001			37	100-003		
25 0	079-004	L		37	109-003		
25 0	085-004	L		37	109-004	C	
25 0	089-004	L		37	110-004	1	
26 0	088-003		8	37	113-004		
26 0	088-004	L	ř.	37	114-003	L	
26 0	99-004	6	CI der	38	067-003		
261	100-003	T	Classic	38	069-003		
26	110 003		Heading	38	072-003	1	
20	110-003	- h		30	072-003		
261	111-003	4		30	077-004		
27 0	093-004			38	080-004	L	
27 0	094-004	C	l	38	103-004	L	
27 0	095-003	6 ((Loster	39	067-004		
27 (095-004	C	FLOREN	39	068-003	L	
27	106-003	- L	1 minut	39	068-004	L	
07	106-004			30	074-003	I	
21	100-004	, 3			079 000	-	
28 0	110-004		/	39	010-003		
28	117-003	- C		40	034-003	5	•
28 ′	117-004		Ch ster	40	034-004	t	
28	118-003	L	Flowerna	40	035-003	L	
28	122-004	L	9	40	036-004	L	
28	123-004		1	40	038-004		
20	121_004	T -		41	030-003		
20	122 004			41	030-004	1	A
29	123-003		C i ch	41	030-004	T	(Jose
29	124-003	L F	Chister	41	036-003	5	F Howy
29	124-004	4	Monterry	41	039-003	-	λ
29	125-003	5	J	41	054-004	C	
29	125-004	C.		41	056-004	C	0
30	108-004			42	069-004	L -	
30	110-004			42	070-003	1	/
20	120.002			12	074-004	T T	Clicks
30	120-003			42	074-004		han the second s
30	120-004	F		42	075-003	L	provening
30	121-003	L		42	075-004		
30	122-003	5		42	078-004	L	
31	107-003	L	D	43	032-004	5	
31	107-004	l.	Char.	43	039-004	L	Cluster
31	111-004	LI	da.en	43	047-004	L	+ Howering
31	112-002		+)	43	071-004	E	
21	113 002	Y	1	1 12	076-004	T	
31	110-000	1 Y		43	070 002		/
31	119-003	+ Y		43	019-003	- ·	
32	072-004	L					
32	097-004		Chster.				
32	105-003		Aoweng				
32	105-004						
33	098-003		5				
22	098-004		1) Chiefa-				
	000-00-	T					
	400 004		(rowey	1			
33	100-004		1				
33	116-003	1 <u> </u>	/				
33	118-004	L	1				
34	089-003						
34	091-004		Cluster				
34	092-003	T	E Classer				
24	002-004	1 1	processing	1			
34	004 000	1	*	1		-	
34	094-003						
34	096-003	6					
35	086-003	6					
35	087-003	L	/ Wister				
35	090-003	000	BL Elever				
35	090-004	P-T-					
25	001_002			1			
30	091-000			1			

Quarry H	ills Park: Po	pulation Total Count			
Date:	8 7 2020				
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
001-001	L		029-002	L	
001-002	L		030-001	L	
002-001	L		030-002	A L	
002-002	L		031-001	L	
003-001	L		031-002	L	
003-002	L		032-001	L	
004-001	L		032-002	L	
004-002	L		033-001		
005-001	1		033-002	L	
005-002	L		034-001	L	
006-001	L		034-002	L	
006-002			035-001	L	
007-001	L		035-002	L	
007-002	L		036-001	L	
008-001	L		036-002	L	
008-002	1		037-001	L	
009-001			037-002	1	
009-002	1		038-001	L	
010-002			038-002	L	
010-003			039-001	4. 1	
011-001	1		039-002	L	
011-002			040-001	1	
012-001			040-002	1	
012-002	1		041-001	1	
012-002			041-002	1	
013-002			042-001		
013-002			042-002		
014-002			043-001		
015-001			043-002	1	
015-001			044-001		
016 001			044-002		
016 002			045-001		
017 001			045-002		
017-001			046-001		
017-002			046-002		
010-001			047-001		
010-002			047-001		
019-001			047-002	1-1	
019-002	L-L		048.002		
020-001	L		040-002		
020-002	L		049-001	<u> </u>	
021-001	L		049-002	<u> </u>	
021-002	L_		050-001		
022-001			050-002	L .	
022-002			051-001	L	
023-001			051-002		
023-002	L		052-001	L	
024-001	<u> </u>		052-002		
024-002	L_		053-001		
025-001	L	1	053-002		
025-002	L	/	054-001	L	
026-001	L		054-002	L	
026-002			055-001	L_	
027-001			055-002		
027-002	L		056-001	L	
028-001	L		056-002		
028-002	k		057-001		

Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
057-002	L		087-002	L	
058-001	L		088-001	L	
058-002	L		088-002	L	
059-001	L		089-001	L	
059-002	L		089-002	L	
060-001	L		090-001	1	
060-002	L		090-002	L	
061-001	1		091-001	L	
061-002	1		091-002		
062-001	L		092-001	L	
062-002	1		092-002	1.	
063-001	T.		093-001	L	
063-002	1		093-002	1	
064-001	1		094-001	1	
064-002	1		004-001	1	
065-001			004-002		
065-002	L		095-001		
066-001	1		095-002	L	
066-002			090-001		
067 001			090-002	L	
067.002			097-001	L	
062 001	L		097-002		
000-001			000 000	L	
060-002			098-002	2	
069-001	L		099-001	L	
069-002	L		099-002		
070-001	L		100-001	Neg L	
070-002	L		100-002	L	
071-001			101-001		Check for burrowing
071-002	L		101-002	L	
072-002	L		102-001	L	
073-001	L		102-002	L	
073-003	L		103-001	L	
074-001	12		103-002	L	
074-002	L		104-001		
075-001	L		104-002	L	
075-002	L		105-001	L	
076-002	L		105-002	L	
076-003	L		106-001	L	
077-001	L		106-002	L	
077-002	L		107-001	L	
078-001	L		107-002	L	
078-002	L		108-001	L	
079-001			108-002	L	
079-002	L		109-001	L	
080-001	L		109-002	L	
080-002	L		110-001	L	
081-001	L		110-002	L	¢
081-002	L		111-001	L	
082-001	L		111-002	L	
082-002	L		112-001	L	
083-001	L		112-003	L	
083-002	L		113-001	L	
084-001	L		113-002	L	
084-002	L		114-001	L	
085-001	L		114-002		
085-002	L		115-001	L	
086-001	L		115-002	L	
086-002	L		116-001	Ŀ	
087-001	L		116-002	L	

Quarry H	ills Park: Po	pulation Total Count			
Date:					
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
117-001	L				
117-002	L				
118-001	L				
119-001	L				
119-002	L				
120-001	L				
120-002	L				
121-001	L				
122-001	L				
122-002	L				
123-001	6				
123-002	L				
124-001	12				
124-002	L				
125-001	L				
125-002	l				

Plenty Gorge Parklands: Population Total Count

Cluster ID	Plant ID	Live/Dead	Notes	Cluster ID Pl	lant ID	Live/Dead	Notes
1	001-003	L		12 04	40-004	Ľ	
1	001-004	V		12 04	42-004	1	
1	002-003			12 04	45-003	C	
1	002-004	L		12 04	45-004		
1	003-004	L		12 04	48-004	5	
1	033-004			13 02	25-003	L	3
2	004-003	L		13 02	26-004	1	partiales
2	004-004	L		13 03	33-003	5	Subnerved
2	005-004			13 03	37-003	61	
2	006-003			13 04	42-003	6	
2	006-004	L		13 07	71-003	L	1.5
2	026-003	L		14 00	03-003	5	
3	007-003			14 04	40-003	L	
3	007-004			14 04	41-003		
3	008-003	C		14 04	44-003		
3	008-004	L		14 05	55-003		
3	009-003	line:		14 05	55-004		
3	009-004	C		15 00	05-003	L	
4	010-001	L		15 02	24-003	6	
4	010-004	L		15 02	28-004	U	- Holcus smoother
4	011-003	L		15 02	29-003	1	
4	011-004	L		15 02	29-004		
4	012-004	L		16 02	25-004	L	
4	043-004	L		16 03	31-004	L	
5	012-003	L		16 04	49-003	C	
5	013-004	L		16 05	50-003	L	
5	014-003	C		16 05	51-004	1	
5	063-003	Č		17 04	46-003	T	
5	073-004	1		17 05	50-004	7	
5	080-003	1		17 06	30-003		
6	016-004	T		17 06	34-003	1	
6	017-003			17 07	70-004	E	
6	017-003	~		17 10	10-004	7	
0	017-004			19 0/	46.004		
0	010-003	1		19 04	F1 002		
6	010-004	-		10 00	51-003	Con 1	
6	048-003	K		18 05	52-004	-	
	019-003	Ļ		18 05	54-003	2	
/	020-003	F		18 08	58-003	<u> </u>	
7	020-004	L		18 05	58-004	e	
/	021-003	F		19 08	81-003		
7	021-004	L		19 08	31-004	L	
7	041-004	The second secon		19 08	83-004	L	
8	013-003	L)	19 08	87-004	-	
8	015-004	L	Holces growing	19 09	93-003	4	
8	022-003	L	F wither U	19 10	02-003	-	
8	022-004	5	1 Blackered leut	20 05	57-003	C.	
8	023-003	L) drebach	20 05	57-004	0	
8	023-004			20 06	65-003	0	
9	015-003	L		20 06	65-004	U	
9	024-004	4		20 06	66-003	1	
9	027-003	k		20 06	66-004	L	
9	027-004	L		21 02	28-003	C	
9	044-004	L		21 03	31-003	U	Plant parkally
10	014-004			21 03	32-003	L	Supperied
10	043-003	5		21 03	35-004		Scroothered by
10	059-004		Cockatoos	21 03	37-004	L	1 Molws
10	061-003	L		21 03	38-003	L	2 (C C C C C C C C C C C C C C C C C C
10	096-004			22 05	53-003	L	
10	112-004			22 05	56-003	L	
11	047-003			22 06	62-003	Level 1	
11	049-004			22 06	62-004		
11	052-003	Ī		22 10	04-004	Ĩ	
11	053-004	Ū		23 05	59-003	T	
11	103-003	L		23.06	60-004	Ċ	
11	114_004	1		23 04	61-004		
12	016-003	I		23 04	63-004		
12	010-003			23 00	64-004	1	
14	U-00-			20100	UUT		

Cluster ID	Plant ID	Live/Dead	Notes	Cluster ID	Plant ID	Live/Dead	Notes
23	073-002			35	097-003	-	
24	084-003	E		36	082-003	0	b
24	084-004	5		36	082-004		
24	086-004			36	083-003	e d	Flowering
24	101-004	L		36	085-003		
24	102-004	L		36	115-003	L	
24	104-003			36	115-004		
25	076-001			37	108-003	L	
25	079-004			37	109-003	C	
25	085-004			37	109-004	L	
25	089-004	La la		37	110-004	L	
26	088-003			37	113-004	C	
26	088-004			37	114-003	6	
26	099-004	U		38	067-003	0	
26	100-003	C		38	069-003	La	Smotherd By
26	110-003			38	072-003		HOLTUS
26	111-003	L		38	077-004		
27	093-004	<u> </u>		38	080-004		
27	094-004	6		38	103-004	5	
27	095-003	L.		39	067-004	L	
27	095-004	C		39	068-003	4	
27	106-003	L		39	068-004	L	
27	106-004	L		39	074-003	L	
28	016-004	L		39	078-003		
28	117-003			40	034-003	L	
28	117-004	L		40	034-004		
28	118-003			40	035-003		
28	122-004			40	036-004	L	
28	123-004			40	038-004		
29	121-004			41	030-003		
29	123-003	U		41	030-004		
29	124-003	L		41	036-003	L	
29	124-004			41	039-003	L	
29	125-003			41	054-004	L	
29	125-004			41	056-004		
30	108-004	1 C		42	069-004	The second se	
30	119-004	100		42	070-003		1 Friting
30	120-003	L		42	074-004	6	0
30	120-004	1		42	075-003	L	
30	121-003			42	075-004		
30	122-003	C		42	078-004	U	
31	107-003	1/7		43	032-004	C	
31	107-004	C	Slight shoppy	43	039-004	6	
31	111-004	C		43	047-004	6	
31	112-002	1	However	43	071-004		
31	113-003		1 turned	43	076-004		
31	119-003	D		43	079-003	L.	
32	072-004	1	1				
32	097-004	T	Flowlara.				
32	105-003	L	1				
32	105-004	L	p				
33	098-003	1					
33	098-004	ΤČ				-	
33	099-003	L					
33	100-004	1 -					
33	116-003	T					
33	118-004	· L					
34	089-003	11-					
34	091-004	T					
34	092-003	1					
34	092-004						
34	094-003	T					
34	096-003						
25	086-003	1-					
25	087-003	Ē					
25	090-003	L		1			
35	000-004	t				1	
25	091-003	E.					
	1001 000				de la		

Quarry Hi	lls Park: Pop	oulation Total Count			
Date:	5/11/2020	>			
					Neter
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
001-001			029-002		
001-002			030-001	L	
002-001	L		030-002	1	
002-002	L.		031-001		
003-001	L		031-002	6	
003-002			032-001	L	
004-001	L		032-002	1	
004-002	L		033-001	L	
005-001	L		033-002		
005-002			034-001	L	
006-001	L.		034-002		
006-002	L		035-001		
007-001	L-		035-002		
007-002			036-001	L	
008-001	L		036-002		
008-002	6		037-001	L'	
009-001	L		037-002		
009-002	L		038-001		
010-002		ei	038-002	L	
010-003	L		039-001	L	X
011-001	L		039-002		
011-002	4		040-001	L	
012-001			040-002	L	
012-002			041-001	۲.,	
013-001			041-002	L	
013-002	1		042-001		
014-001	1		042-002	L	
014-002	1		043-001	L	
015-001	Ē		043-002	1	
015-002	1		044-001	L	
016-002	1		044-002	L	
016-002			045-001	L	
017-001			045-002	L	
017-002	1		046-001	L	
018-001	I.		046-002		
018-002			047-001	L	
019-001			047-002		
019-002			048-001		
020-001	1L		048-002	L	
020-007	i		049-001	L	
021-001			049-002	L	
021-007			050-001	L	
021-002	1		050-002	L.	
022-001			051-001	6	
022-002			051-002		
023-001			052-001	L	
023-002			052-002	T	
024-001	T		053-001	L	
024-002			053-002	1-	
025-001			054-002		
025-002			054-001	1	
026-001	L		055-001	1	
026-002	+	Caril Chad La		1	
027-001		can't tind to	055-002		
027-002	-		050-001		
028-001	1-1-		050-002	1	-
028-002			1007-001		

Plant ID	Live/Dead	Notos	Disstip	II has /Dec. 1	
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
157-002 158 001	1		087-002	-	
100-001			088-001		
150-00Z			088-002		
50 002			089-001		
009-002			089-002		
00-001	Ť	Smotheren - may bel	090-001		
60-002	-		090-002	L	
61-001	<u> </u>		091-001	L	
61-002	4		091-002	L	
62-001	L		092-001	L	
62-002		×	092-002	L	
63-001			093-001	L	
63-002	F		093-002	L	
64-001		4	094-001	L	
64-002	L		094-002	L	
65-001			095-001		
65-002	L		095-002	6	
66-001	L		096-001	E.	
66-002	6		096-002	L.,	
67-001			097-001	L	
67-002			097-002		
68-001	L		098-001		
68-002	L		098-002	L	
69-001	L		099-001		
69-002	L		099-002	L	
70-001			100-001		
70-002	L		100-002		
71-001	V		101-001	L	Check for burrowing
71-002	L		101-002	4	check for barrowing
72-002			102-001		
73-001			102-002		
73-003			103-001	1	
74-001	L		103-002		
74-002			104-001	1	
75-001	1		104-002		
75-002			105 001		
76-002			105-001	- b-	
76-002	1		106 001	L	
77 001	1		100-001		/
77.002			106-002		
72 001	1		107-001		
70-001			107-002		
70-002	F		108-001	<u> </u>	
79-001	<u> </u>		108-002		Smotherial-potentially
19-002	<u>Car</u>		109-001	<u> </u>	
00-001	4		109-002		
00-002			110-001	L	
81-001	Ļ		110-002		
31-002			111-001		smothereolsmugaling
82-001	L		111-002	L_	
82-002			112-001		
83-001			112-003	L	
83-002	L		113-001	L	
84-001			113-002	LY	
84-002			114-001	L	
85-001	L		114-002	L	
85-002			115-001	L	
86-001	L		115-002	I.	

086-002	1 E		116-001	4	
087-001	L		116-002	L	
Quarry Hi	lls Park: Po	pulation Total Count			
Date:					
Plant ID	Live/Dead	Notes	Plant ID	Live/Dead	Notes
117-001		smotherpol			
117-002	L,				
118-001					
119-001	L				
119-002	34				
120-001	L				
120-002	L		~		
121-001	6				
122-001					
122-002	L				
123-001	L				
123-002					
124-001	L				
124-002	L				
125-001	4				
125-002	L				

Plenty Gorge Parklands: Population Total Count

Cluster ID	Plant ID	Live/Dead	Notes	Cluster ID	Plant ID	Live/Dead	Notes
1	001-003			12	040-004		
1	001-000	- F		12	042-004		
	001-004	T		12	045 003	1	
	002-003	1		12	045-003	T	
	002-004	L.		12	045-004	1 T	
	003-004	L L		12	048-004		
1	033-004			13	025-003	1	
2	004-003			13	026-004	L.	
2	004-004	1		13	033-003	1	
2	005-004	L		13	037-003	L	
2	006-003			13	042-003		
2	006-004			13	071-003		
2	026-003			14	003-003	L	
3	007-003	T		14	040-003	1	
3	007-004			14	041-003		
3	008-003			14	044-003	1	
3	008-004			14	055-003	L.	
2	000-003			14	055-003		
	009-003			14	005-004		
3	009-004			15	005-003	4	
4	010-001			15	024-003	L	
4	010-004			15	028-004		
4	011-003	-		15	029-003	L	
4	011-004	L		15	029-004		
4	012-004			16	025-004	E	
4	043-004	L		16	031-004		
5	012-003	L		16	049-003		·
5	013-004	I		16	051-004		
5	014-003	1		16	050-003		
5	063-003			17	070-004	- 1	
5	073-004	T		17	060-003		
5	010-004			17	064 003		
5	046.004			17	004-003		
0	016-004	4		17	046-003	, C	
6	017-003			17	050-004	<u> </u>	
6	017-004			17	101-003	4	
6	018-003			18	046-004	L	
6	018-004	-		18	051-003		
6	048-003			18	052-004		
7	019-003	L		18	054-003	L	
7	020-003			18	058-003	L	
7	020-004	L		18	058-004		
7	021-003	1-		19	081-003		
7	021-004			19	081-004	I.	
7	041-004	Ē		19	083-004	- Alexandre	-
8	013-003			10	087-004	T	
0	015-003			10	007-004	1	
0	010-004			19	102.003	- T	
8	022-003	<u> </u>		19	102-003	- C	
8	022-004	<u> </u>		20	057-003		
8	023-003	<u> </u>	anallinethur	20	057-004	L	
8	023-004	-	· · · · · · · · · · · · · · · · · · ·	20	065-003	L	
9	015-003	L .		20	065-004	L	
9	024-004			20	066-003	L	
9	027-003	L		20	066-004	L L	
9	027-004	L		21	028-003	L	
9	044-004	L		21	031-003	L	
10	059-004		Cockatoos	21	032-003	1	
10	112-004			21	035-004	I I	
10	061-003			21	037-004	L	
10	096-004	C		21	038-003	1.1	
10	043-003	E		21	053-003		
10	014 004	1		22	056 000		
10	047.000			22	000-003	1	
11	047-003	1-1-		22	002-003		
11	049-004	L		22	062-004	4	
11	052-003	L		22	104-004	Y	
11	053-004	L		23	059-003	C C	
11	103-003			23	060-004	L	
11	114-004			23	061-004		
12	016-003			23	063-004		
12	019-004	1.		23	064-004		

Cluster ID	Plant ID	Live/Dead	Notes	Cluster ID	Plant ID	Live/Dead	Notes
23	073-002	L		35	097-003		
24	084-003	L		36	082-003	L	
24	084-004			36	082-004	L	
24	086-004	L		36	083-003	L	
24	101-004	E		36	085-003	L	
24	102-004	1		36	115-003	1	
24	104-003	1		36	115-004	L	
25	076-001	L		37	108-003	10	
25	079-004	1		37	109-003	L	
25	085-004			37	109-004	L	
25	089-004	L		37	110-004	L	
26	088-003	T-		37	113-004	1	
20	088-004	Ĩ		37	114-003		
20	000-004	6		38	067-003		
20	100 002	Ť		38	069-003		
20	110.003	T T		38	072-003		· · · · · · · · · · · · · · · · · · ·
20	110-003	Ť		38	072-003	1 Y	
20	111-003			20	000004	T	
21	093-004			30	102 004	-	
21	094-004			30	103-004		
27	095-003	C.		39	060.000	-	· · · · · · · · · · · · · · · · · · ·
27	095-004			39	068-003		
27	106-003	L		39	068-004		
27	106-004	L		39	074-003	L	
28	016-004	L		39	078-003		
28	117-003	L		40	034-003	1.11	
28	117-004	C		40	034-004	L	
28	118-003			40	035-003	L	
28	122-004			40	036-004		
28	123-004			40	038-004	L	
29	121-004			41	030-003	(
29	123-003	L		41	030-004	L	
29	124-003	E		41	036-003	1	
29	124-004	L		41	039-003		
29	125-003	U		41	054-004	L	
29	125-004	1.		41	056-004	1	
30	108-004	11		42	069-004	E	
30	119-004	Ĩ		42	070-003	I	
30	120-003	1		42	074-004	E	
30	120-000	1		42	075-003	L	
30	121-003	-		42	075-004	F .	
30	122-003	1		42	078-004	L	
21	107 002			42	032-004		
31	107-003	1		43	030-004	1	
31	1111-004	1		43	047 004	1	
31	111-004	- T		40	071 004	1 C	
31	112-002	1 T		43	076.004	14	
31	113-003	Y Y		43	070-004		
31	070.004			43	018-003	+ -	
32	072-004	5					
32	1097-004	++			·		
32	105-003	-					
32	105-004	6					
33	098-003	5					
33	098-004	L			-		
33	099-003						
33	100-004	L	· · · · · · · · · · · · · · · · · · ·				
33	116-003	-					
33	118-004						
34	089-003	L					
34	091-004	L					
34	092-003	L					
34	092-004	L					
34	094-003	L					
34	096-003						
35	086-003						
35	087-003	L					
35	090-003						
35	090-004			1			
26	091-003	TE		1			
					1		

Plenty Gorge Parklands: Population Total Count Date: 4/1/20

Cluster ID	Plant ID	1				It in Dead	Notes
1	001-002	Live/Dead	Notes	Cluster ID	Plant ID	Live/Deau	
1	001-003			12	040-004	+ k-	
1	002 002			12	042-004	1	
1	002-003	L		12	045-003	1 L	
1	002-004			12	045-004		
1	022.004			12	048-004	<u> </u>	
	003-004			13	025-003	<u> </u>	
2	004-003	1-		13	026-004	4	
2	004-004			13	033-003	4	
2	005-004	L		13	037-003	L	
	006-003	L		13	042-003		
2	006-004	L		13	071-003		
2	026-003			14	003-003	L	
	007-003	<u> </u>		14	040-003	L	11
	007-004			14	041-003	L	
	008-003			14	044-003	L	small
2	008-004	L		14	055-003	L	
	009-003	L		14	055-004		
	009-004			15	005-003		
4	010-001			15	024-003	L	
	010-004	L		15	028-004	L	
4	011-003			15	029-003	6	
4	011-004			15	029-004		
4	012-004			16	025-004	4	
4	043-004			16	031-004	L	
5	012-003	_ L_		16	049-003	<u> </u>	
5	013-004	4		16	051-004		
5	062.000	L		16	050-003	<u> </u>	
5	072 004	6		17	070-004		
	073-004	1-4		17	060-003		
	016 004			17	064-003		
6	017 002	+		17	046-003	<u> </u>	
6	017-003	<u> </u>		17	050-004	L	
6	018.003			10	046.004		
6	018-004			1.0	040-004		
6	048-003	1		18	052-004	L	
7	019-003	1	197	10	054-003		
7	020-003	Ĩ	1.1.1 ·····	18	058-003	7	
7	020-004	- Y		18	058-004		
7	021-003	T		19	081-003		
7	021-004	Ē		19	081-004		
7	041-004			19	083-004		
8	013-003	1-		19	087-004	T.	
8	015-004	L		19	093-003	L	
8	022-003	L		19	102-003	C	
8	022-004	L		20	057-003		
8	023-003	Ĺ.	Very Small, leaves	20	057-004	Ĩ	
8	023-004	- 1-)	- 20	065-003	L	
9	015-003	L	AND	20	065-004		
9	024-004	L		20	066-003	1 I	
9	027-003	L		20	066-004	C	
9	027-004	_ L	~	A 21	028-003	L	
9	044-004	_	small, leaves only	21	031-003		
10	059-004	4	J	21	032-003	C	
10	112-004	L	3	21	035-004		
10	061-003	6		21	037-004		
10	096-004	<u> </u>		21	038-003	6	
10	043-003	<u> </u>		22	053-003	Ĺ	
10	014-004			22	056-003		0.0.
11	047-003	- (.		22	062-003	Ĺ	
11	049-004	1		22	062-004	L	
11	052-003			22	104-004		
11	103 002	<u> </u>		23	059-003	L	
	114 004	1		23	060-004	L	
11	016-003	1		23	061-004	L	
12	019-004	1-		23	063-004	L	
12	010-004			23	064-004		
684.Ca				1922			

Cluster ID	Plant ID	I ivo/Deed	THE STREET				
23	073-002	Liverbead	Notes	IChuster IC	Diant ID	Live/Dead	Notes
24	084.002	- in		Cluster IL	Fiant ib	1	
24	084.000	L		35	097-003		
24	004-004			36	082-003		
24	086-004			36	082-004	1	
24	101-004			36	083-003	1-	
24	102-004			36	085-003	1	
24	104-003			36	115-003		
25	076 001			36	115-004		
25	070-001	L			100 003		
20	079-004			MAN 37	100-003		
25	085-004	L		37	109-003	<u> </u>	
25	089-004			37	109-004		
26	088-003	1		37	110-004	L	
26	088-004			37	113-004		
26	099-004	- <u>-</u>		37	114-003	1	
26	100 002			38	067-003	Ē	
	100-003			38	069-003		
20	110-003			39	072-003	Ī	
26	111-003		A State of the Astronomy and the Astronomy	20	077 004		
27	093-004	1		30	077-004	4	
27	094-004			38	080-004		
27	095-003	7		38	103-004	<u> </u>	hight in
27	095-004			39	067-004		MUTICA
27	106 000			39	068-003	L	1.
21	100-003	L.		39	068-004	L	Vi s
21	106-004	L.		30	074-003	L	11
28	016-004	C		30	078-003	1 -	11
28	117-003	l'		40	024 003		
28	117-004	Ī		40	034-003	- T	
28	118-003	}		40	034-004	U I	
28	122-004	<u> </u>		40	035-003	i i	
28	123-004	10		40	036-004	V	
20	121 004	- <u>\</u> -		40	038-004		
20	121-004			41	030-003	1-	
29	123-003	<u> </u>		41	030-004	L	
29	124-003			41	036-003	L	
29	124-004			41	039-003	L	SMAIL
29	125-003			41	054-004	5	
29	125-004			41	056-004		
30	108-004			42	069-004	1	
30	119-004	U U		42	070-003	7	
30	120-003			42	074-004	T	
30	120-004	Ū		42	075-003		
30	121-003	1		42	075.004		
30	122-003			42	079 004		
21	107.003	1		42	022.004		
	107-000			40	032-004	_ L_	
31	107-004			43	039-004	L	
31	111-004			43	047-004	L	5
31	112-002	-		43	071-004	6	
31	113-003	L		43	076-004	i	
31	119-003	6		43	079-003		
32	072-004	1-	14			-	
32	097-004	C			3.52 - 52 - 52 - 53		and the second
30	105-003						
	105-004	T					
32	008 002				-		
33	008 004						
33	090-004		the second s				
33	099-003						
33	100-004	5					
33	116-003	F					
33	118-004						
34	089-003	L			11.2		
34	091-004	L.					
34	092-003				1.000		
34	092-004	L					
34	094-003	I.					
24	096-003						
26	086-003	Ĩ					
35	007 002	-Y					
35	007-003	- <u>-</u>		-			
35	090-003		M				
35	090-004						
35	091-003						
						and the second se	

Plant ID	Live/Dead	Notes			
001-001		notes	Plant ID	Live/Dea	dNotes
001-002	to L		029-002		
002-001			030-001	1-1-	
002-002	h		030-002	i	
003-001			031-001		
003-002	L	<u>}</u>	031-002	1F-	
004-001			032-001	1-1-	
004-002	L		032-002		
005-001	L		033-001		
005-002			033-002		
06-001	L.		034-001	<u> </u>	
06-002	L		034-002	<u> </u>	
07-001	L		035-001	1-1-	1
07-002			035-002		
08-001			036.002	<u> </u>	
08-002	L		037-001		
09-001	L		037-002	1	
09-002			038-001	1	
10-002			038-002		
10-003	L		039-001	Ē	1) the strated
11-001	L		039-002		LUTTE STUDIE
11-002			040-001	1-	water stration
12-001 *	4		040-002 ·	Ī	
2-002	6		041-001	1	
3-001	L		041-002	E I	
3-002	_L		042-001	L	
4-001	4		042-002	1_	
4-002			043-001	L	
5-001	<u> </u>		043-002		
5-002			044-001		
6.000			044-002		
7 001			045-001	_ L	
7-001			045-002		
9 001			046-001		
8 002	- <u>V</u> -		046-002		Nater Strangt
2.001	1-1-		047-001		
2-002			047-002	L	
0.001			048-001	4	
0-002			048-002	L	
-001			049-001	5	
-002			049-002	<u>L</u>	
-001			050-001 •	L	
-002	ī —		050-002	L	
-001			051-001		
-002	1		051-002	L	0 C
-001			052-001		
-002	Ē 🕂		052-002		
001			053-001		
002 1			053-002		
001			054-001	L	
002			054-002	LT	
001	L		055-001		
002			155-002	V	
001			056-001	L.	
			100-002		

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	Flant ID	Live/Dead	Notes	— h	Diant ID	11 1			
	057-002		10105		Plant ID	Live/	Dead	Notes	
	058-001	E			007-002		<u> </u>		
1	058-002	L			00-001	++	-		
	059-001				00-002		-		
	059-002	1		0	09-001	+	·		
10	060-001	1.		0	09-002				
	060-002	1			90-001	1-7			
ł	061-001	C			01 001	1-1-			
H	061-002	L			1 002		-+		
L.	062-001			00	2-001	1	-	_	
L.	62-002				2-007				
LC LC	63-001	LT		00	3-001				
10	63-002				3-002				
0	64-001	L		00	1-001		-+-		
0	64-002	L		00	1-002		+		
0	5-001	L		0.00	5-001				
00	5-002	L		005	-002	<u> </u>			
06	6-001			0000	-001	- <u>1</u> '			
06	6-002			000	-002				
06	7-001			007	-001		-		
06	7-002			097	-002	1	+		
06	8-001	L		098-	-001	L			
068	3-002	r		098-	002	Ē			
069	9-001			099-	001	1	-		
069	-002	L		099-	002	L	+		
070	-001			100-0	001	L	1		
070	-002 L	-		100-0	002	L	-		
071	-001			101-0	001		-		
071-	002 (101-0	02	L	1		
072-	002 L	-		102-0	01	L	1		
073-	001	-		102-0	02	L	1		
073-0	003 L	•		103-0	01	5			
074-0	001 L			103-00	02	L			
074-0	102	-		104-00	01	L			8
075-0	01 L			104-00)2	レ			
075-0	02 L			105-00)1	レ			
076-0	02 L			105-00	2	L		-	
076-00	03 L			106-00	1 ($\overline{}$			
077-00	D1 L	•		106-00	2				
077-00	2 1			107-00	1	L			
078-00	111			107-002	2 1				
078-00	2			108-001	1 1				
079-00	TL			108-002	2 L	.			
079-00	2 L			109-001		_ 1	Wal	te/ c	Lierrod
080-00	ITL			109-002	L	- 1	- un		113 - V 1348
080-002				110-001		_			
081-001	TE			110-002	L	- 1			
081 002				111-001		.			
001-002	12			1111-002					
082-001	11			112-001	1	- 1			
082-002	1			112-003	TL				
083-001	1 ···	1	•	113-001					
083-002	1-1-			113-002					
084-001	1-5-			114-001	TT				· · · · ·
084-002 ·		1		114-002	- hř				
085-001		1		115 001	1		-		
	1	1		110-001	1 -				

086-002	i han				
087-001			116-001	L	
Quarry H	Ills Park' Po	Dulati E	116-002		
Date:	191111	pulation Total Count			
Plant ID	Live/Dead	Notes			
117-001		A IN A A A	Plant ID	Live/Dead	Notes
117-002	L	Juna lag in MEL.	schered an	diassamed a	leat
118-001	11-				(
119-001					
119-002	U				
120-001	5				
120-002	10				
121-001	1				
122-001	L		- 1		
122-002			the second s		
123-001	C				
123-002	L				
124-001	1-		ne harrendikender		
124-002	5		••••••••••••••••••••••••••••••••••••••		
125-001	5				
125-002			WARDON PARA	1.5.1	

Plenty Gorge Parklands: Quadrat Monitoring

Date: 14/1121 Surveyors:

1=0-5 2=>5-10 3=10+

Quadrat 1 (Cluster 1)

Quadrat		- it			Inf	lorescence/	infructesc	ence		Evidence	of	_	
Plant ID	Cover-abundance	Plant basal diameter (mm)	Max Leaf Length (mm) - height	ہ No. leaves/shoot (1 - 3)	Z Flowering? (Y/N)	C Height (mm)	M Flowering (1 - 3)	P Fruiting (1-3)	Z Herbivory (Y/N)	Z. Water Stress (Y/N)	Z Weed encroachment/competition (Y/N)		Other Comments
002-003	20	830	460	2	N	780	3	?	N	2	N		
001-004	25	710	440	2	N	930	3	1	N	N	N		
002-004	10	900	400	2	15	850	3	1	N	N	_ <u>N</u>		
001-003	25	4120	500	3	N	930	3	1	2	N	N		
003-004	45	1200	1040	2	N	810	2	1	N	\mathbb{N}	N		
033-004	45	1110	1 300								. <u>n</u>		

* dry ground - cracked * all finished fruiting [flovering

.

				and the second second								
	1				In	florescence	/infructes	cence		Evidence	of	
Plant ID	Cover-abundance	Plant basal diameter (mm)	Max Leaf Length (mm) - height	vo. leaves/shoot (1 - 3)	lowering? (Y/N)	eight (mm)	owering (1 - 3)	uiting (1-3)	srbivory (Y/N)	ater Stress (Y/N)	sed encroachment/competition (Y/N)	Other Comments
027-004	25	1320	650		<u> </u>	Ĩ	Ē	<u> </u>	Ť	Ň	Š	A REAL AND A REAL PROPERTY.
024-004	60	1360	64-0		- N	1010		1	N	2	2	
044-004	1	900	42.0	2	1 may	1160			N	N	て	one flower
015-003	35	1130	600		T AT	300	<u> </u>	1841	1 x	LN_	N	small, encroached by others
027-003	25	1320	640	- 2	17	1050		-3-	-N	P	N	<u>_</u>

O O Height (mm)

Quadrat 2 (Cluster 9)

Quadrat 3 (Cluster 37)

		- <u>i</u> /						0000	TI	Evidence of	f	4
	ø	ater (mm)	(mm) - height	(1 - 3)	In	florescence/	/infructesc	ence		Evidence of	nent/competition (Y/N)	Other Comments
Plant ID	Cover-abundanc	Plant basal diame	Max Leaf Length	No. leaves/shoot	Flowering? (Y/N)	Height (mm)	Flowering (1 - 3)	Fruiting (1-3)	Herbivory (Y/N)	Water Stress (Y/N	Weed encroachn	
109-004	50	1230	480	3	N	950	3	1	7	N	N	
113-004	10	900	410	3	N	608	2	1	N	L N	N_	
109-003	40	1140	500	3	N	\$40	3	2	N	N	N	
110-004	10	850	310	3	N	680	2	2	N	N	N	
108-003	35	1170	590	3	N	1030	3	3	N	N	N	
114-003	8	1150	520	3	N	900	2	1	N	IN		

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Quadrat 4 (Cluster 21)

State of the local division of the local div

Same.

					Infl	orescence/ir	fructescer	nce	Ev	idence of		
Plant ID	Cover-abundance	Plant basal diameter (mm)	Max Leaf Length (mm) - height	No. leaves/shoot (1 - 3)	lowering? (Y/N)	leight (mm)	lowering (1 - 3)	ruiting (1-3)	erbivory (Y/N)	<i>l</i> ater Stress (Y/N)	feed encroachment/competition (Y/N)	Other Comments
038-003	5	810	390	2	4)	1010	2	<u> </u>	<u> </u>	5	5	
031-003	40	1150	660	ž	N	970	3	2	N		N	
035-004	Ŧ	875	390	3	N	1040	2	• 1	1	T N		
032-003	10	790	440	3	N	990	2	i			15	
037-004	4	940	412	3	N	740	2	1	N	N	T D	
028-003	40	1030	520	3	Y	890	3	1	P		N	one flower

Conteight (mm)

icence/

			T	In	florescence	/infructesc	ence	T	Evidance		
Cover-abundance	Plant basal diameter (mm)	ム Max Leaf Length (mm) - height	No. leaves/shoot (1 - 3)	Z Flowering? (Y/N)	Height (mm)	L Flowering (1 - 3)	Fruiting (1-3)	⁷ Herbivory (Y/N)	Z Water Stress (Y/N)	Weed encroachment/competition (Y/N)	Other Comments

Charles Max Leaf Length (mm) - holet

059

1

F.

* All have fritshed flowering and seeding

					Inf	orescence	infructesc	елсе	1	Evidence	-	F
Plant ID	Cover-abundance	Plant basal diameter (mm)	Max Leaf Length (mm) - height	Vo. leaves/shoot (1 - 3)	lowering? (Y/N)	leight (mm)	lowering (1 - 3)	ruiting (1-3)	erbivory (Y/N)	(ater Stress (Y/N)	leed encroachment/competition (Y/N)	Other Comments
028-002	20	630	390	2	N	680	2 54	<u> </u>			S	
096-003	10	960	250	3	N	700	3 ATTA	22	14		5	
105-001	20	800	420	3	N	690	3 100	402	N	11	N	

* All finished firsing and seeding

					Inf	lorescence/i	nfructesce	ence	E	vidence of		
Plant ID	Cover-abundance	Plant basal diameter (mm)	Max Leaf Length (mm) - height	No. leaves/shoot (1 - 3)	⁻ lowering? (Y/N)	leight (mm)	·lowering (1 - 3)	ruiting (1-3)	lerbivory (Y/N)	Vater Stress (Y/N)	Veed encroachment/competition (Y/N	Other Comments
029-002	20	850	420	3		630	2	3	<u> </u>		1 2	
033-002	15	1170	430	3	N	600	T		K I		1-5-	
106-001	25	1050	570	3	Y	950	2	5				· · · · · · · · · · · · · · · · · · ·
095-002	20	1720	570	2	I N	1 390	7	2	1 INT		+-	

+ + Finnshed seeding and fruiting

C	U	a	d	ra	t	4
					•	_

					Infl	orescence/i	nfructesce	nce	E	vidence of		
Plant ID	Cover-abundance	Plant basal diameter (mm)	Max Leaf Length (mm) - height	No. leaves/shoot (1 - 3)	Flowering? (Y/N)	Height (mm)	Flowering (1 - 3)	Fruiting (1-3)	Herbivory (Y/N)	Water Stress (Y/N)	Weed encroachment/competition (Y/N)	Other Comments
039-001		340	290	2	N	640			13	Y	N	Jen water Strong
039-002	1	WA	INA	None	N	7.70	1 155	1	N	Y	2	no leaves, why work strains
057-001	3	630	190	2	2	660	3	1	N.	Y	N	New water Stones

* All have finished seeding (flowering

Appendix C

Nursery Audit

Appendix C Nursery Audit



21 April 2020

То	LEVEL CROSSING REMOVAL PROJECT
Copy to	James.david@levelcrossings.vic.gov.au Joseph.sevillano@levelcrossings.vic.gov.au
From	Helen Vickers
Site	Mernda Rail Extension
Subject	Matted Flax-lily Audit - 105 Gumtree Road, Research
Memo Number	







1. Introduction

The AECOM-GHD Joint Venture (JV) was engaged by the Level Crossing Removal Project (LXRP) to undertake regular audits of a population of Matted Flax-lily *Dianella amoena* salvaged from the construction footprint of the Mernda Rail Extension Project in April 2017. The plants subject to this audit are managed at ABZECO nursery as 'insurance stock' to ensure that plants translocated in July/August 2019 can be supplemented if necessary to achieve an overall survival rate of at least 85%. This 'insurance stock' is in the care of ABZECO consultants, who will manage and maintain the plants until the maintenance period is over (between two and 10 years) at which time any remaining plants will be provided to Parks Victoria and/or other local agencies for revegetation projects within the region. It should be noted that plants already translocated are subject to a separate audit and are not within the scope of this memo. The salvage, maintenance and final translocation of the Matted Flax-lily to their recipient sites are guided by the EPBC 2016/27674 Matted Flax-lily Translocation Plan (LXRA-MNDA-00-PA-RPT-004 Revision: 9) released on 9 March 2020 (updated from the EPBC 2016/7674 Matted Flax-lily Translocation Plan, Rev 8,September 2018).

1.1 Purpose

This memorandum provides a summary of the current status of the Matted Flax-lily 'insurance stock' as a result of the most recent audit. Specifically, the memorandum will detail:

- The current management and number of transplants available as 'insurance stock'
- Evidence of correct labelling and documentation maintained throughout the propagation and management period
- Evidence of the appropriate sized pot usage
- Evidence of the health, growth and survivorship of clones created from parent plants
- Evidence of weed and pest control
- Evidence of 'hardening' off if required for future translocations.

2. Results of April 2020 audit

On the 7th April 2020, a senior botanist, graduate ecologist and a representative from LXRP met with Jack Latti, the nursery manager of ABZECO consulting. The nursery is located at 105 Gumtree Road, Research.

The audit found that all criteria documented within the translocation plan were being met and the 'insurance stock' Matted Flax-lilies were observed to be in a healthy condition and well managed. Specifically;

- 250 pots of live, healthy Matted Flax-lily representing the required number of clones were observed,
- individuals were clearly labelled and potted in appropriate pots and potting medium, and
- no diseased individuals were observed.

Results are described in greater detail in Table 1 and supported by Plate 1 to Plate 4.



Table 1 Results of 2020 audit

Item	Details
 The required number of clones are available for translocation 6 clones to be created per salvaged plant where possible 4 clones per salvaged plant available for translocation 2 clones per salvaged plant maintained in nursery conditions 	250 pots containing clones of the original salvaged plants were observed at the nursery. These represented a minimum of 2 (more in some instances) clones per salvaged plant which are maintained at the nursery as 'insurance stock'. This observation was further supported by the spreadsheet detailed in ABZECO (2020) which tracked the translocation of plants to the recipient sites and the plants remaining at the nursery.
Labelling of clones with staked metal nursery tags in addition to labelling of pot with permanent marker in the format of 001 (patch number) – 001 (clone number)	The 'insurance stock' clones were clearly labelled with a metal tag and permanent marker on the outside of the pot. Labels represented the patch and clone number as required.
Clones to be in good health with minimal individuals showing signs of stress or having senesced, evidence of growth	Clones were observed to be in good health, having recently been cleared of thatch (last year's growth which had dried off and been left in place during summer as a form of mulch and to assist with water retention). Some individuals, as anticipated were larger in form than others which is attributed to genetic variation.
Evidence of disease	No evidence of disease was observed.
Pest control actively managed (e.g. thrips, rabbits, deer)	Rabbit proof fencing had been removed at the time of the audit. The nursery manger reported that they had not seen a rabbit within the vicinity of the nursery and that the boundary fence of the property was sufficient to keep out deer and rabbits. The presence of a dog which patrolled the nursery and surrounds is also likely to keep animal pests at bay. Some evidence of thrip attack on the flowering heads of some plants was observed. Due to the vegetative nature of the species, this was not considered to be a concern
Weed control actively managed (e.g. hand weeded during winter months or as needed)	No weeds were observed within the pots. The nursery manager confirmed that hand weeding occurred on a regular basis, especially during winter months.
Propagation material appropriate (e.g. sandy loam etc.)	The nursery manager identified that the potting material originally used for the clones had been changed from typical potting mix used for native vegetation to a sandy-loam mix which had resulted in less drying out of pots and better water retention.
Pot size appropriate (e.g. minimum of 14 cm diameter pot)	Pot sizes were observed to be within the recommended range.
Watering and fertilizer regime appropriate (e.g. reflective of climatic conditions where appropriate, fertilisation in advance of translocation)	The nursery manager confirmed that application of fertilizer occurs on an annual basis. At the time of the audit, plants had not been actively watered or fertilised in keeping with hardening-off of plants. Watering will continue to occur on an irregular basis, with the exception of hot dry spells that occur during summer where water is applied as necessary. As the nursery is located outdoors



	watering by hand is considered supplementary to rainfall.
Evidence of 'hardening off' of plants prior to translocation	Plants occur outdoors and are exposed to climatic conditions.
Additional observations (e.g. thatch kept/removed to assist with water retention etc.)	Thatch had been removed.



JOINT VENTURE

Memorandum



3. Next Steps

The 'insurance stock' Matted Flax-lilies should continue to be monitored on an annual basis as per the schedule in Table 2. An auditor's checklist is provided below in Table 3 to provide consistency and assist


Memorandum

with future audits. Results of the nursery audits should be included in the translocation program's annual report.

Table 2 Audit schedule

Year	Audit 1	Audit 2
Salvage	April 2017	
Year 1		
6 monthly audit	September 2017	April 2018
Year 2		
6 monthly audit	September 2018	April 2019
Year 3	April 2020	
Year 4	April 2021	
Year 5	April 2022	
Year 6	April 2023	
Year 7	April 2024	
Year 8	April 2025	
Year 9	April 2026	
Year 10	April 2027	

Table 3 Auditor's checklist

Item	Details
 The required number of clones are available for translocation 6 clones to be created per salvaged plant where possible 4 clones per salvaged plant available for translocation 2 clones per salvaged plant maintained in nursery conditions 	
Labelling of clones with staked metal nursery tags in addition to labelling of pot with permanent marker in the format of 0001 (patch number) – 001 (clone number)	
Clones to be in good health with minimal individuals showing signs of stress or having senesced, evidence of growth	
Evidence of disease	
Pest control actively managed (e.g. thrips, rabbits, deer)	
Weed control actively managed (e.g. hand weeded during winter months or as needed)	
Propagation material appropriate (e.g. sandy loam etc.)	
Pot size appropriate (e.g. minimum of 14 cm diameter pot)	
Watering and fertilizer regime appropriate (e.g. reflective of climatic conditions where appropriate, fertilisation in advance of translocation)	
Evidence of 'hardening off' of plants prior to translocation	
Additional observations (e.g. thatch kept/removed to assist with water retention etc.)	



Memorandum

4. References

AECOM-GHD Joint Venture. 2018. Mernda Rail Extension Project – EPBC 2016/7674 Matted Flax-lily Translocation Plan (LXRA-MNDA-00-PA-RPT-0004) Revision 8.

AECOM-GHD Joint Venture. 2020b. Mernda Rail Extension Project: EPBC 2016/7674 Matted Flax-lily Translocation Plan. Report prepared for the Level Crossing Removal Authority, Revision 9, March 2020.

Kind regards

Dr Helen Vickers Senior Ecologist AECOM-GHD Joint Venture