



Survey Area
Sampling Sites
 Quadrat
▲ Relevé
Vegetation Type
 Tuart Forest 2
 Planted Vegetation
 Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey
Figure H.15: Vegetation type mapping with quadrat and relevé locations



Author: C. Dyde	Date: 12-06-2020
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200612_VegMap_FigH

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50

 Metres

386000

386200

386400

6476200

6476000

6475800



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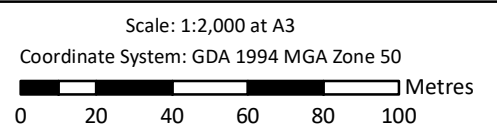
Figure H.16: Vegetation type mapping with quadrat and relevé locations

Author: C. Dyde

Date: 12-06-2020

Drawn: A. Sleep

Figure Ref: 8612-19-BIDR-1RevB_200612_VegMap_FigH

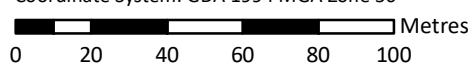




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Figure H.17: Vegetation type mapping with quadrat and relevé locations

Author: C. Dyde	Date: 18-05-2020	Scale: 1:2,000 at A3 Coordinate System: GDA 1994 MGA Zone 50 
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegMap_FigH	



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Appendix I: Flora Survey Site Data

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Site: MFQ-01

Type: 10 m x 10 m Quadrat

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 383540.23m E 6485399.35m N

Habitat: Embankment

Soil: Brown

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* mid open forest over *Acacia cochlearis* and *Acacia xanthina* tall open shrubland over *Xanthorrhoea preissii* and *Templetonia retusa* mid open shrubland over **Oxalis pes-caprae*, **Pelargonium capitatum* and **Gazania linearis* forbland over **Ehrharta calycina*, **Avena fatua* and **Ehrharta longiflora* open tussock grassland.

Veg. Condition: Degraded to Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia cochlearis</i>	3.0	3.0
<i>Acacia lasiocarpa</i> var. <i>lasiocarpa</i>	0.1	0.7
<i>Acacia xanthina</i>	0.1	1.3
<i>Acanthocarpus preissii</i>	1.0	0.5
* <i>Avena fatua</i>	5.0	0.5
<i>Banksia</i> sp.	0.0	
* <i>Briza maxima</i>	0.1	0.2
* <i>Bromus diandrus</i>	3.0	0.3
<i>Callitris preissii</i>	2.0	8.0
* <i>Cynodon dactylon</i>	1.0	0.2
<i>Desmocladius flexuosus</i>	1.0	0.2
* <i>Ehrharta calycina</i>	5.0	0.5

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Name	Cover (%)	Height (m)
* <i>Ehrharta longiflora</i>	5.0	0.3
* <i>Eragrostis curvula</i>	2.0	1.0
<i>Eucalyptus gomphocephala</i>	40.0	11.0
* <i>Euphorbia terracina</i>	0.1	0.2
* <i>Ferraria crispa</i>	0.1	0.3
* <i>Gazania linearis</i>	2.0	0.3
<i>Hakea trifurcata</i>	0.0	
<i>Hardenbergia comptoniana</i>	0.1	0.3
* <i>Melilotus indicus</i>	0.1	0.2
* <i>Moraea flaccida</i>	0.1	0.2
<i>Olearia axillaris</i>	0.1	1.8
* <i>Orobanche minor</i>	0.1	0.2
* <i>Oxalis pes-caprae</i>	4.0	0.3
* <i>Pelargonium capitatum</i>	3.0	0.4
* <i>Romulea rosea</i>	0.1	0.2
* <i>Sonchus oleraceus</i>	0.1	0.2
<i>Spyridium globulosum</i>	0.1	0.6
<i>Templetonia retusa</i>	1.0	1.6
* <i>Trifolium hirtum</i>	0.1	0.2
* <i>Vicia sativa</i>	0.1	0.2
<i>Xanthorrhoea preissii</i>	1.0	1.8

* denotes introduced (weed) species

Site: MFQ-02

Type: 10 m x 10 m Quadrat

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 383927.79m E 6484879.31m N

Habitat: Plain

Soil: Brown

Vegetation: *Allocasuarina fraseriana* and *Eucalyptus marginata* mid open forest over *Hakea trifurcata*, *Xanthorrhoea preissii* and *Jacksonia sternbergiana* mid open shrubland over *Hibbertia hypericoides* low open shrubland over *Ehrharta longiflora*, **Ehrharta calycina* and **Briza maxima* tussock grassland.

Veg. Condition: Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia alata</i>	0.1	0.4
<i>Acacia saligna</i>	0.2	1.3
<i>Allocasuarina fraseriana</i>	20.0	10.0
<i>Banksia menziesii</i>	0.1	
<i>Bossiaea eriocarpa</i>	0.1	0.3
<i>*Briza maxima</i>	1.0	0.3
<i>*Briza minor</i>	0.1	0.2
<i>*Bromus diandrus</i>	0.1	0.4
<i>Burchardia congesta</i>	0.1	0.4
<i>*Carpobrotus edulis</i>	0.5	0.1
<i>Clematis pubescens</i>	0.0	
<i>Daucus glochidiatus</i>	0.1	0.1
<i>Daviesia triflora</i>	0.1	
<i>Desmocladius flexuosus</i>	0.1	0.2
<i>Drosera erythrorhiza</i>	0.1	
<i>*Ehrharta calycina</i>	10.0	0.7
<i>*Ehrharta longiflora</i>	50.0	0.5
<i>Eucalyptus marginata</i>	20.0	10.0
<i>*Euphorbia terracina</i>	0.1	0.4
<i>*Gladiolus caryophyllaceus</i>	0.1	1.0
<i>Gompholobium tomentosum</i>	0.1	

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Name	Cover (%)	Height (m)
<i>Hakea trifurcata</i>	25.0	2.0
<i>Hardenbergia comptoniana</i>	0.1	0.8
<i>Hibbertia hypericoides</i>	5.0	0.4
<i>Jacksonia sternbergiana</i>	2.0	2.0
<i>Lagenophora huegelii</i>	0.1	
* <i>Lagurus ovatus</i>	0.1	
<i>Lepidosperma calcicola</i>	0.1	0.3
<i>Leucopogon propinquus</i>	0.1	0.5
* <i>Lysimachia arvensis</i>	0.1	0.2
<i>Macrozamia riedlei</i>	2.0	2.0
<i>Melaleuca</i> sp.	0.1	0.4
<i>Mesomelaena pseudostygia</i>	0.1	
<i>Opercularia vaginata</i>	0.1	0.2
* <i>Oxalis pes-caprae</i>	0.1	0.2
<i>Pimelea sulphurea</i>	0.1	0.4
<i>Podotheca gnaphalioides</i>	0.1	0.2
<i>Pterostylis recurva</i>	0.1	0.2
* <i>Romulea rosea</i>	0.1	0.1
<i>Scaevola canescens</i>	0.1	0.3
* <i>Sonchus oleraceus</i>	0.1	0.2
<i>Sowerbaea laxiflora</i>	0.1	0.4
<i>Stirlingia latifolia</i>	0.1	0.6
<i>Trachymene pilosa</i>	0.1	
* <i>Ursinia anthemoides</i>	0.1	0.2
<i>Xanthorrhoea preissii</i>	2.0	1.2

* denotes introduced (weed) species

Site: MFQ-03

Location: SE of train station

Type: 10 m x 10 m Quadrat

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384883.79m E 6480980.62m N

Habitat: Plain

Soil: Yellow

Vegetation: *Eucalyptus gomphocephala* and *Eucalyptus marginata* mid open forest over *Xanthorrhoea preissii*, *Acacia rostellifera* and *Jacksonia sternbergiana* mid open shrubland over **Ehrharta longiflora*, **Ehrharta calycina* and **Briza maxima* open tussock grassland over *Mesomelaena pseudostygia* and *Lepidosperma calcicola* low isolated clumps of sedges.

Veg. Condition: Good

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>*Acacia iteaphylla</i>	2.0	2.0
<i>Acacia rostellifera</i>	8.0	1.8
<i>Acacia saligna</i>	0.5	2.0
<i>Banksia sessilis</i>	0.2	1.6
<i>*Briza maxima</i>	2.0	0.3
<i>*Bromus diandrus</i>	1.0	0.4
<i>Caladenia latifolia</i>	0.0	0.4
<i>Clematis linearifolia</i>	0.0	0.5
<i>Corynotheca micrantha</i>	0.0	0.3
<i>*Cynodon dactylon</i>	1.0	0.2
<i>Daucus glochidiatus</i>	0.1	0.1
<i>*Ehrharta calycina</i>	2.0	0.8
<i>*Ehrharta longiflora</i>	10.0	0.6
<i>Eucalyptus gomphocephala</i>	20.0	14.0
<i>Eucalyptus marginata</i>	15.0	10.0

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Name	Cover (%)	Height (m)
* <i>Euphorbia terracina</i>	0.1	0.1
* <i>Gladiolus caryophyllaceus</i>	0.1	1.0
<i>Hakea lissocarpa</i>	1.0	1.8
<i>Hardenbergia comptoniana</i>	10.0	1.5
<i>Hibbertia cuneiformis</i>	1.0	1.4
* <i>Hypochaeris glabra</i>	0.1	0.1
*Iridaceae sp.	1.0	0.2
<i>Jacksonia sternbergiana</i>	2.0	1.5
* <i>Lagurus ovatus</i>	0.2	0.0
<i>Lechenaultia linarioides</i>	0.1	0.3
<i>Lepidosperma calcicola</i>	1.0	0.6
<i>Lomandra hermaphrodita</i>	0.5	0.3
* <i>Lupinus cosentinii</i>	0.1	0.3
* <i>Lysimachia arvensis</i>	0.1	0.1
<i>Mesomelaena pseudostygia</i>	1.0	0.5
<i>Microtis media</i>	0.1	0.2
* <i>Moraea flaccida</i>	0.1	0.6
* <i>Petrorhagia dubia</i>	0.1	0.2
* <i>Phoenix dactylifera</i>	0.1	0.4
<i>Pterostylis recurva</i>	0.1	0.3
* <i>Sonchus oleraceus</i>	1.0	0.3
* <i>Trifolium campestre</i>	1.0	0.1
* <i>Ursinia anthemoides</i>	0.0	0.3
<i>Xanthorrhoea preissii</i>	20.0	1.7

* denotes introduced (weed) species

Site: MFQ-04

Type: 10 m x 10 m Quadrat

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384834.94m E 6480050.62m N

Habitat: Plain

Soil: Yellow

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* mid woodland over *Eucalyptus marginata* and *Banksia attenuata* low woodland over *Xanthorrhoea preissii*, *Acacia rostellifera* and *Daviesia nudiflora* subsp. *nudiflora* mid shrubland over *Desmocladius flexuosus* and *Mesomelaena pseudostygia* low isolated clumps of sedges over **Ehrharta longiflora*, **Briza maxima* and **Ehrharta calycina* closed tussock grassland.

Veg. Condition: Degraded to Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	2.0	1.7
<i>Austrostipa flavescens</i>	0.2	0.7
<i>*Avena fatua</i>	0.1	0.8
<i>Banksia attenuata</i>	3.0	5.0
<i>*Briza maxima</i>	5.0	0.4
<i>*Bromus diandrus</i>	1.0	0.6
<i>Corynotheca micrantha</i>	0.2	0.4
<i>Daviesia nudiflora</i> subsp. <i>nudiflora</i>	1.0	1.1
<i>Desmocladius flexuosus</i>	2.0	0.4
<i>Dianella revoluta</i>	0.1	0.6
<i>*Ehrharta calycina</i>	3.0	1.0
<i>*Ehrharta longiflora</i>	80.0	0.6
<i>Eucalyptus gomphocephala</i>	10.0	15.0
<i>Eucalyptus marginata</i>	12.0	8.0
<i>*Euphorbia terracina</i>	0.1	0.3

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Name	Cover (%)	Height (m)
<i>*Gladiolus caryophyllaceus</i>	0.1	1.0
<i>Hakea lissocarpa</i>	1.0	1.2
<i>Hardenbergia comptoniana</i>	1.0	1.0
<i>Hibbertia cuneiformis</i>	0.0	1.4
<i>*Iridaceae sp.</i>	5.0	0.2
<i>Lepidosperma calcicola</i>	0.1	0.3
<i>Lomandra preissii</i>	0.1	0.8
<i>Melaleuca sp.</i>	0.1	0.9
<i>Mesomelaena pseudostygia</i>	1.0	0.5
<i>Microtis media</i>	0.1	0.2
<i>*Pelargonium capitatum</i>	0.1	0.3
<i>Petrophile macrostachya</i>	0.2	0.5
<i>*Sparaxis bulbifera</i>	0.0	0.4
<i>Tricoryne elatior</i>	0.1	0.4
<i>Xanthorrhoea preissii</i>	12.0	1.8

* denotes introduced (weed) species

Site: MFQ-05

Type: 10 m x 10 m Quadrat

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 385194.61m E 6478081.85m N

Habitat: Hillslope

Soil: Yellow

Rock Type: Limestone

Vegetation: *Eucalyptus marginata* and *Eucalyptus gomphocephala* mid open forest over *Corymbia calophylla* low isolated clumps of trees over *Allocasuarina humilis*, *Xanthorrhoea preissii* and *Acacia pulchella* mid open shrubland over *Desmocladius flexuosus*, *Mesomelaena pseudostygia* and *Lepidosperma calcicola* low sparse sedgeland over *Corynotheca micrantha* isolated clumps of forbs over **Ehrharta calycina* mid open grassland.

Veg. Condition: Good

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
* <i>Acacia iteaphylla</i>	0.1	0.1
<i>Acacia pulchella</i>	1.0	1.3
<i>Allocasuarina humilis</i>	8.0	1.3
* <i>Avena fatua</i>	0.1	0.6
<i>Billardiera heterophylla</i>	0.5	0.9
* <i>Briza maxima</i>	0.1	0.3
<i>Burchardia congesta</i>	0.1	0.6
<i>Caesia micrantha</i>	0.1	0.4
<i>Caladenia flava</i>	0.1	0.1
<i>Conostephium pendulum</i>	0.5	0.2
<i>Conostylis aculeata</i> subsp. <i>cygnorum</i>	0.0	0.3
<i>Corymbia calophylla</i>	2.0	6.0
<i>Daviesia divaricata</i>	0.1	0.5
<i>Daviesia nudiflora</i> subsp. <i>nudiflora</i>	0.1	0.7
<i>Desmocladius flexuosus</i>	6.0	0.3

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Name	Cover (%)	Height (m)
* <i>Ehrharta calycina</i>	8.0	0.8
* <i>Ehrharta longiflora</i>	0.1	0.3
<i>Eucalyptus gomphocephala</i>	8.0	14.0
<i>Eucalyptus marginata</i>	25.0	10.0
* <i>Gladiolus caryophyllaceus</i>	0.1	0.8
<i>Gompholobium tomentosum</i>	0.1	0.4
<i>Hakea lissocarpha</i>	0.2	0.5
<i>Hardenbergia comptoniana</i>	0.1	2.0
<i>Hovea trisperma</i>	0.1	0.3
* <i>Hypochaeris glabra</i>	0.1	0.1
<i>Lepidosperma calcicola</i>	2.0	0.5
<i>Lepidosperma leptostachyum</i>	0.1	0.7
<i>Leucopogon propinquus</i>	1.0	1.0
<i>Lomandra hermaphrodita</i>	0.1	0.3
<i>Lomandra preissii</i>	0.1	0.7
<i>Mesomelaena pseudostygia</i>	5.0	0.4
<i>Microtis media</i>	0.1	0.3
* <i>Moraea flaccida</i>	0.1	0.7
* <i>Oxalis pes-caprae</i>	1.0	0.2
<i>Poranthera microphylla</i>	0.1	0.1
* <i>Romulea rosea</i>	0.1	0.2
<i>Scaevola canescens</i>	0.1	0.2
* <i>Sonchus oleraceus</i>	0.1	0.2
<i>Thelymitra sp.</i>	0.1	0.6
<i>Thysanotus manglesianus</i>	0.1	0.4
<i>Tricoryne elatior</i>	2.0	0.3
* <i>Trifolium campestre</i>	0.1	0.1
* <i>Ursinia anthemoides</i>	0.1	0.2
<i>Xanthorrhoea preissii</i>	7.0	1.6

* denotes introduced (weed) species

Site: MFQ-06

Type: 10 m x 10 m Quadrat

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 383042.34m E 6485993.13m N

Habitat: Rise/slope

Soil: Yellow

Vegetation: *Allocasuarina fraseriana* and *Banksia attenuata* low open woodland over *Banksia sessilis* and *Jacksonia sternbergiana* tall open shrubland over *Xanthorrhoea preissii* and *Olearia axillaris* sparse mid shrubland over *Hibbertia hypericoides*, *Synaphea spinulosa* and *Tricoryne elatior* low shrubland over *Mesomelaena pseudostygia*, *Conostylis aculeata* subsp. *aculeata* and *Alexgeorgea nitens* sparse sedgeland over **Ehrharta calycina* and **Avena fatua* sparse tussock grassland.

Veg. Condition: Good

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia pulchella</i>	0.2	1.2
<i>Alexgeorgea nitens</i>	1.0	0.1
<i>Allocasuarina fraseriana</i>	5.0	6.0
<i>Austrostipa flavescens</i>	0.2	0.7
<i>*Avena fatua</i>	1.0	1.1
<i>Banksia attenuata</i>	3.0	4.0
<i>Banksia sessilis</i>	6.0	2.5
<i>*Briza maxima</i>	0.5	0.4
<i>*Bromus diandrus</i>	0.1	0.3
<i>Caladenia latifolia</i>	0.1	0.4
<i>Calothamnus quadrifidus</i>	0.2	0.5
<i>Conostylis aculeata</i> subsp. <i>aculeata</i>	1.0	0.3
<i>Corynotheca micrantha</i>	0.1	0.3
<i>Desmocladius flexuosus</i>	0.1	0.2
<i>Dianella revoluta</i>	0.1	0.5

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Name	Cover (%)	Height (m)
* <i>Ehrharta calycina</i>	2.0	1.2
* <i>Erodium botrys</i>	0.1	0.2
<i>Eryngium pinnatifidum</i> subsp. <i>pinnatifidum</i>	0.0	0.3
* <i>Euphorbia terracina</i>	0.1	0.2
* <i>Fumaria capreolata</i>	0.1	0.2
* <i>Gazania linearis</i>	0.1	0.2
* <i>Gladiolus caryophyllaceus</i>	0.1	0.8
<i>Gompholobium tomentosum</i>	0.1	0.5
<i>Hardenbergia comptoniana</i>	0.1	0.5
* <i>Heliophila pusilla</i>	0.1	0.2
<i>Hibbertia hypericoides</i>	3.0	0.6
* <i>Hypochaeris glabra</i>	0.1	0.1
<i>Jacksonia sternbergiana</i>	8.0	2.0
* <i>Lupinus cosentinii</i>	0.1	0.3
* <i>Lysimachia arvensis</i>	0.1	0.1
<i>Mesomelaena pseudostygia</i>	5.0	0.5
* <i>Moraea flaccida</i>	0.1	0.6
<i>Olearia axillaris</i>	1.0	1.2
* <i>Pelargonium capitatum</i>	0.1	0.4
<i>Phyllanthus calycinus</i>	0.2	0.6
* <i>Romulea rosea</i>	0.1	0.2
<i>Scaevola canescens</i>	0.1	0.1
<i>Scaevola repens</i>	0.2	0.2
* <i>Silene gallica</i>	0.1	0.3
<i>Synaphea spinulosa</i>	2.0	0.3
<i>Thysanotus manglesianus</i>	0.1	0.5
<i>Trachymene pilosa</i>	0.1	0.1
<i>Tricoryne elatior</i>	1.0	0.4
* <i>Urospermum picroides</i>	0.1	0.2
* <i>Ursinia anthemoides</i>	0.1	0.2
<i>Xanthorrhoea preissii</i>	3.0	1.6
<i>Xanthosia huegelii</i>	0.1	0.2

* denotes introduced (weed) species

Site: MFQ-07

Type: 10 m x 10 m Quadrat

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 383194.63m E 6485847.15m N

Habitat: Rise/slope

Soil: Yellow

Vegetation: *Eucalyptus marginata* mid woodland over *Allocasuarina fraseriana*, *Banksia menziesii* and *Banksia attenuata* low woodland over *Xanthorrhoea preissii* mid open shrubland over *Hibbertia hypericoides* low open shrubland over *Mesomelaena pseudostygia* and *Desmocladius flexuosus* sparse sedgeland over **Ehrharta calycina*, **Briza maxima* and **Avena fatua* tussock grassland.

Veg. Condition: Degraded to Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia lasiocarpa</i> var. <i>lasiocarpa</i>	0.5	1.0
<i>Acacia pulchella</i>	0.1	0.5
<i>Allocasuarina fraseriana</i>	10.0	5.0
<i>Austrostipa flavescens</i>	0.2	0.6
<i>*Avena fatua</i>	5.0	0.8
<i>Banksia attenuata</i>	2.0	3.5
<i>Banksia menziesii</i>	5.0	5.0
<i>*Briza maxima</i>	5.0	0.5
<i>*Bromus diandrus</i>	0.1	0.2
<i>Burchardia congesta</i>	0.1	0.6
<i>Conostephium pendulum</i>	0.2	0.4
<i>Conostylis aculeata</i> subsp. <i>aculeata</i>	0.2	0.3
<i>Desmocladius flexuosus</i>	2.0	0.4
<i>Dianella revoluta</i>	0.1	0.5
<i>*Ehrharta calycina</i>	20.0	0.9
<i>*Ehrharta longiflora</i>	5.0	0.5

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Name	Cover (%)	Height (m)
<i>Eucalyptus marginata</i>	25.0	14.0
* <i>Euphorbia terracina</i>	0.1	0.2
* <i>Gladiolus caryophyllaceus</i>	0.1	0.8
<i>Gompholobium tomentosum</i>	0.2	0.5
<i>Hakea lissocarpha</i>	1.0	0.7
<i>Hardenbergia comptoniana</i>	0.2	2.0
<i>Hibbertia hypericoides</i>	30.0	0.5
<i>Hovea trisperma</i>	0.1	0.4
* <i>Hypochaeris glabra</i>	0.1	0.1
<i>Lepidosperma calcicola</i>	0.1	0.3
<i>Leucopogon propinquus</i>	0.2	0.5
<i>Lomandra hermaphrodita</i>	0.1	0.2
<i>Mesomelaena pseudostygia</i>	4.0	0.5
* <i>Moraea flaccida</i>	0.1	0.7
<i>Opercularia vaginata</i>	0.1	0.2
* <i>Pelargonium capitatum</i>	0.1	0.1
<i>Petrophile brevifolia</i> subsp. <i>brevifolia</i>	0.5	0.3
<i>Pterostylis recurva</i>	0.1	0.3
<i>Rhagodia baccata</i> subsp. <i>baccata</i>	0.2	0.5
* <i>Romulea rosea</i>	0.1	0.2
<i>Scaevola canescens</i>	0.1	0.1
<i>Scaevola repens</i>	0.1	0.2
<i>Schoenus clandestinus</i>	0.2	0.1
* <i>Sonchus oleraceus</i>	0.1	0.2
* <i>Trifolium campestre</i>	0.2	0.2
* <i>Ursinia anthemoides</i>	0.1	0.2
* <i>Vicia sativa</i>	0.1	0.2
<i>Xanthorrhoea preissii</i>	4.0	1.2

* denotes introduced (weed) species

Site: MFQ-08

Type: 10 m x 10 m Quadrat

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 383417.09m E 6485583.29m N

Habitat: Plain

Soil: Brown

Vegetation: *Banksia attenuata* and *Allocasuarina fraseriana* low woodland over *Xanthorrhoea preissii*, *Allocasuarina humilis* and *Calothamnus quadrifidus* mid open shrubland over *Mesomelaena pseudostygia* and *Lepidosperma calcicola* sedgeland over **Briza maxima* and **Ehrharta calycina* tussock grassland.

Veg. Condition: Good

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Allocasuarina fraseriana</i>	10.0	6.0
<i>Allocasuarina humilis</i>	1.0	1.5
<i>Banksia attenuata</i>	20.0	7.0
<i>*Briza maxima</i>	30.0	0.3
<i>Burchardia congesta</i>	0.0	
<i>Caesia micrantha</i>	0.1	0.3
<i>Caladenia arenicola</i>	0.1	0.4
<i>Calothamnus quadrifidus</i>	1.0	1.5
<i>Conostylis aculeata</i> subsp. <i>cygnorum</i>	0.1	0.2
<i>Desmocladus flexuosus</i>	0.1	0.2
<i>Dianella revoluta</i>	0.1	0.6
<i>Drosera macrantha</i>	0.1	0.5
<i>*Ehrharta calycina</i>	20.0	1.0
<i>*Euphorbia terracina</i>	0.1	0.5
<i>*Gladiolus caryophyllaceus</i>	0.1	1.0
<i>Gompholobium tomentosum</i>	0.0	
<i>Hakea trifurcata</i>	0.0	
<i>Hardenbergia comptoniana</i>	0.1	0.3
<i>Hibbertia hypericoides</i>	0.1	0.8
<i>*Lagurus ovatus</i>	0.1	0.2
<i>Lepidosperma calcicola</i>	20.0	
<i>Lomandra hermaphrodita</i>	0.1	0.2
<i>*Lysimachia arvensis</i>	0.1	0.1

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Name	Cover (%)	Height (m)
<i>Mesomelaena pseudostygia</i>	39.0	0.4
<i>Microtis media</i>	0.0	
* <i>Monoculus monstrosus</i>	0.1	0.3
* <i>Pelargonium capitatum</i>	1.0	0.5
<i>Podotheca gnaphalioides</i>	0.1	0.2
* <i>Sonchus oleraceus</i>	0.1	0.2
<i>Sowerbaea laxiflora</i>	0.1	0.6
<i>Spyridium globulosum</i>	0.1	1.5
<i>Thysanotus manglesianus</i>	0.1	0.2
<i>Tricoryne elatior</i>	0.1	0.5
* <i>Ursinia anthemoides</i>	2.0	0.3
* <i>Vicia sativa</i>	0.1	0.1
<i>Xanthorrhoea preissii</i>	10.0	1.5

* denotes introduced (weed) species

Site: MFR-01

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 383539.49m E 6485409.92m N

Habitat: Embankment

Soil: Pale

Vegetation: *Eucalyptus gomphocephala* mid open forest over *Chamelaucium uncinatum* and *Banksia sessilis* mid shrubland over **Bromus diandrus* open tussock grassland.

Veg. Condition: Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Acacia saligna</i>	0.1	
<i>Austrostipa flavescens</i>	0.1	0.4
<i>Banksia sessilis</i>	1.0	2.0
<i>*Bromus diandrus</i>	20.0	0.3
<i>Chamelaucium uncinatum</i>	40.0	2.0
<i>Conostylis aculeata subsp. cygnorum</i>	0.1	0.2
<i>Dianella revoluta</i>	0.1	0.4
<i>Eucalyptus gomphocephala</i>	40.0	15.0
<i>*Gladiolus caryophyllaceus</i>	0.1	1.0
<i>Gompholobium tomentosum</i>	0.1	0.5
<i>Hakea lissocarpha</i>	0.1	
<i>Jacksonia sericea</i>		
<i>*Lagurus ovatus</i>	0.1	
<i>Lomandra suaveolens</i>	0.1	0.2
<i>*Lupinus cosentinii</i>	0.1	
<i>Mesomelaena pseudostygia</i>	0.1	0.2
<i>Microtis media</i>	0.1	
<i>Petrophile axillaris</i>	0.1	
<i>Spyridium globulosum</i>	0.1	2.0
<i>Tricoryne elatior</i>	0.1	0.4
<i>*Ursinia anthemoides</i>	2.0	0.2
<i>Xanthorrhoea preissii</i>	0.1	1.8

* denotes introduced (weed) species

Site: MFR-02

Location: Planted

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 383515.66m E 6485419.18m N

Habitat: Rise/slope

Soil: Yellow

Rock Type: Limestone

Vegetation: *Acacia saligna*, *Melaleuca systema* tall closed shrubland over **Euphorbia peplus* low isolated clumps of forbs.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia lasiocarpa</i> var. <i>lasiocarpa</i>	1.0	0.7
<i>Acacia rostellifera</i>	55.0	4.5
<i>Banksia sessilis</i>	2.0	1.4
* <i>Ehrharta longiflora</i>	0.1	0.3
* <i>Euphorbia peplus</i>	0.4	0.1
* <i>Hypochaeris glabra</i>	0.2	0.1
* <i>Lysimachia arvensis</i>	0.1	0.1
<i>Melaleuca</i> sp.	4.0	2.5
<i>Melaleuca systema</i>	35.0	2.8
* <i>Oxalis pes-caprae</i>	0.1	0.1
* <i>Senecio vulgaris</i>	0.1	0.1
* <i>Sonchus oleraceus</i>	0.1	0.2
<i>Templetonia retusa</i>	0.5	1.8

* denotes introduced (weed) species

Site: MFR-03

Location: Planted

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384021.13m E 6484774.34m N

Habitat: Risecrest

Soil: Yellow

Rock Type: Limestone

Vegetation: *Corymbia calophylla* low isolated clumps of trees over *Melaleuca systema*, *Acacia rostellifera* and *Allocasuarina lehmanniana* tall shrubland over *Hakea trifurcata*, *Acacia xanthina* and *Beaufortia aestiva* mid closed shrubland over *Scaevola crassifolia* low open shrubland over **Briza maxima* sparse tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia lasiocarpa</i> var. <i>lasiocarpa</i>	2.0	1.1
<i>Acacia littorea</i>	1.0	1.2
<i>Acacia rostellifera</i>	5.0	5.0
<i>Acacia saligna</i>	0.2	1.6
<i>Acacia xanthina</i>	6.0	1.6
* <i>Avena fatua</i>	0.5	0.6
<i>Banksia sessilis</i>	5.0	1.6
<i>Beaufortia aestiva</i>	5.0	1.5
* <i>Briza maxima</i>	5.0	0.3
<i>Allocasuarina lehmanniana</i>	2.0	3.0
<i>Corymbia calophylla</i>	2.0	4.0
* <i>Ehrharta calycina</i>	0.2	0.5
<i>Eremaea purpurea</i>	3.0	1.8
<i>Hakea trifurcata</i>	25.0	1.7
<i>Kunzea glabrescens</i>	1.0	2.7

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Name	Cover (%)	Height (m)
<i>Melaleuca systema</i>	35.0	2.5
<i>Mesomelaena pseudostygia</i>	0.2	0.5
<i>Scaevola crassifolia</i>	5.0	0.6
<i>Sonchus oleraceus</i>	0.5	0.3
<i>Spyridium globulosum</i>	3.0	1.7
<i>Templetonia retusa</i>	3.0	1.8
<i>Trachymene pilosa</i>	0.1	0.1

* denotes introduced (weed) species

Site: MFR-04

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384015.08m E 6484782.61m N

Habitat: Plain

Soil: Yellow

Vegetation: *Banksia attenuata* low open woodland over a sparse mid shrubland of *Xanthorrhoea preissii* and *Stirlingia latifolia* over *Hibbertia hypericoides* low open shrubland.

Veg. Condition: Good

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Acacia pulchella</i>	0.1	0.7
<i>Anigozanthos manglesii</i>	0.1	0.5
<i>Banksia attenuata</i>	10.0	6.0
* <i>Briza maxima</i>	0.1	0.2
<i>Burchardia congesta</i>	0.1	0.4
<i>Conostylis aculeata</i>	0.1	0.4
<i>Conostylis setigera</i> subsp. <i>setigera</i>	0.1	
<i>Daviesia nudiflora</i>	0.1	0.5
<i>Daviesia triflora</i>	0.1	0.4
<i>Drosera ?menziesii</i>	0.1	0.1
<i>Drosera macrantha</i>	0.1	0.3
* <i>Ehrharta calycina</i>	0.1	0.3
<i>Eremaea purpurea</i>	0.1	1.0
<i>Gompholobium tomentosum</i>	0.1	0.4
<i>Hakea trifurcata</i>	3.0	1.8
* <i>Heliophila pusilla</i>	0.1	0.1
<i>Hibbertia hypericoides</i>	30.0	0.7
<i>Isotropis cuneifolia</i>	0.1	0.3

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Name	Cover (%)	Height (m)
<i>Lomandra hermaphrodita</i>	0.1	0.3
<i>Mesomelaena pseudostygia</i>	0.1	0.3
<i>Petrophile linearis</i>	0.1	0.4
<i>Podolepis gracilis</i>	0.1	0.1
<i>Podotheca gnaphalioides</i>	0.2	0.1
<i>Scaevola canescens</i>	0.1	0.3
<i>Sowerbaea laxiflora</i>	0.1	0.3
<i>Stirlingia latifolia</i>	1.0	1.2
<i>Thysanotus manglesianus</i>	0.1	0.2
<i>Trachymene pilosa</i>	0.1	0.1
* <i>Ursinia anthemoides</i>	1.0	0.1
<i>Xanthorrhoea preissii</i>	2.0	1.2

* denotes introduced (weed) species

? denotes unconfirmed ID

Site: MFRAS-05

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384565.18m E 6483813.49m N

Habitat: Embankment

Soil: Brown

Rock Type: Limestone

Vegetation: *Xanthorrhoea preissii* and *Allocasuarina humilis* mid open shrubland with scattered shrubs of *Melaleuca systema* and *Calothamnus quadrifidus* over **Ehrharta calycina*, **Eragrostis curvula* and **Avena fatua* tussock grassland

Veg. Condition: Degraded

Fire Age: Very long unburnt

Notes: All planted vegetation (including *Xanthorrhoea preissii*)



Species List

Name	Cover (%)	Height (m)
<i>Acacia lasiocarpa</i> var. <i>lasiocarpa</i>	3.0	1.0
<i>Acacia saligna</i>	0.0	
<i>Allocasuarina humilis</i>	2.0	2.0
<i>*Avena fatua</i>	1.0	0.5
<i>Calothamnus quadrifidus</i>	0.1	1.2
<i>*Ehrharta calycina</i>	30.0	0.6
<i>*Eragrostis curvula</i>	5.0	1.0
<i>Melaleuca systema</i>	5.0	
<i>*Pelargonium capitatum</i>	1.0	
<i>Xanthorrhoea preissii</i>	5.0	1.6

* denotes introduced (weed) species

Site: MFR-06

Location: Top edge of excavated slope

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384570.5m E 6483634.59m N

Habitat: Plain

Soil: Yellow

Rock Type: Limestone

Vegetation: *Eucalyptus marginata* and *Banksia attenuata* low isolated clumps of trees to low woodland over *Acacia rostellifera*, *Hakea prostrata* and *Melaleuca nesophila* tall shrubland over *Xanthorrhoea preissii* mid sparse shrubland over *Avena fatua*, *Ehrharta longiflora* and *Briza maxima* sparse tussock grassland.

Veg. Condition: Degraded to Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	15.0	3.0
* <i>Avena fatua</i>	5.0	0.6
<i>Banksia attenuata</i>	5.0	4.0
* <i>Briza maxima</i>	5.0	0.3
<i>Ehrharta longiflora</i>	5.0	0.3
<i>Eucalyptus marginata</i>	4.0	6.0
* <i>Gladiolus caryophyllaceus</i>	0.1	0.6
<i>Hakea prostrata</i>	2.0	3.0
<i>Melaleuca nesophila</i>	4.0	3.5
* <i>Monoculus monstrosus</i>	0.1	0.4
<i>Xanthorrhoea preissii</i>	6.0	1.5

* denotes introduced (weed) species

Site: MFR-08

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384581.67m E 6483323.93m N

Soil: Yellow

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* mid woodland over *Banksia menziesii* low woodland over *Acacia rostelifera* and *Melaleuca huegelii* tall open shrubland over *Acacia cyclops* mid open shrubland over **Oxalis pes-caprae*, **Pelargonium capitatum* and *Sonchus oleraceus* forbland over **Avena fatua*, **Ehrharta calycina* and **Bromus diandrus* closed tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia cyclops</i>	5.0	1.9
<i>Acacia rostelifera</i>	6.0	6.0
* <i>Avena fatua</i>	70.0	1.0
<i>Banksia menziesii</i>	2.0	4.0
* <i>Bromus diandrus</i>	10.0	0.6
* <i>Ehrharta calycina</i>	20.0	0.8
<i>Eucalyptus gomphocephala</i>	15.0	15.0
* <i>Euphorbia terracina</i>	0.1	0.5
<i>Hardenbergia comptoniana</i>	2.0	5.0
<i>Melaleuca huegelii</i>	4.0	3.0
* <i>Oxalis pes-caprae</i>	10.0	0.2
* <i>Pelargonium capitatum</i>	4.0	0.5
* <i>Sonchus oleraceus</i>	1.0	1.0

* denotes introduced (weed) species

Site: MFR-10

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384626.87m E 6483063.84m N

Soil: Yellow

Vegetation: *Eucalyptus marginata*, *Banksia prionotes* and *Allocasuarina fraseriana* low open forest over *Melaleuca nesophila*, *Calothamnus quadrifidus* and *Hakea lissocarpha* tall open shrubland over *Grevillea preissii*, *Xanthorrhoea preissii* and *Acacia saligna* mid open shrubland over **Ehrharta longiflora*, **Avena fatua* and **Ehrharta calycina* mid closed tussock grassland.

Veg. Condition: Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia saligna</i>	1.0	1.5
<i>Allocasuarina fraseriana</i>	10.0	6.0
<i>*Avena fatua</i>	25.0	1.0
<i>Banksia prionotes</i>	20.0	5.0
<i>Calothamnus quadrifidus</i>	3.0	3.0
<i>*Ehrharta calycina</i>	1.0	1.0
<i>*Ehrharta longiflora</i>	50.0	0.5
<i>Eucalyptus marginata</i>	25.0	6.0
<i>*Fumaria capreolata</i>	1.0	0.4
<i>Grevillea preissii</i>	20.0	1.3
<i>Hakea lissocarpha</i>	2.0	2.5
<i>Hardenbergia comptoniana</i>	3.0	2.0
<i>*Lupinus cosentinii</i>	0.1	0.4
<i>Melaleuca nesophila</i>	15.0	5.0
<i>*Oxalis pes-caprae</i>	20.0	0.2
<i>*Pelargonium capitatum</i>	3.0	0.8
<i>*Sonchus oleraceus</i>	2.0	0.5

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Name	Cover (%)	Height (m)
<i>Xanthorrhoea preissii</i>	2.0	1.2

* denotes introduced (weed) species

Site: MFR-12

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384656.04m E 6482844.5m N

Soil: Yellow

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* and *Eucalyptus horistes* low woodland over *Acacia rostellifera* and *Allocasuarina campestris* tall closed shrubland over *Chamelaucium uncinatum* and *Calothamnus quadrifidus* mid open shrubland over *Hibbertia hypericoides* isolated clumps of low shrubs over **Ehrharta longiflora*, **Bromus diandrus* and **Avena fatua* mid closed tussock grassland over **Fumaria capreolata* and **Oxalis pes-caprae* low open forbland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	60.0	2.5
<i>Allocasuarina campestris</i>	15.0	3.0
<i>*Avena fatua</i>	5.0	1.2
<i>*Bromus diandrus</i>	20.0	0.5
<i>Calothamnus quadrifidus</i>	5.0	1.7
<i>Chamelaucium uncinatum</i>	10.0	2.0
<i>*Ehrharta longiflora</i>	50.0	0.5
<i>Eucalyptus gomphocephala</i>	10.0	7.0
<i>Eucalyptus horistes</i>	6.0	4.5
<i>*Fumaria capreolata</i>	10.0	0.5
<i>Hibbertia hypericoides</i>	1.0	0.7
<i>Jacksonia furcellata</i>	0.0	1.0
<i>*Lactuca serriola</i>	0.1	0.6
<i>*Oxalis pes-caprae</i>	5.0	0.3

* denotes introduced (weed) species

Site: MFR-14

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384688.22m E 6482596.99m N

Soil: Yellow

Vegetation: *Eucalyptus gomphocephala* mid open forest over *Eucalyptus todtiana* low isolated clumps of trees over *Adenanthos cygnorum*, *Melaleuca nesophila* and *Banksia sceptrum* tall shrubland over *Chamelaucium uncinatum*, *Acacia cyclops* and *Acacia saligna* mid shrubland over **Ehrharta longiflora*, **Briza maxima* and **Ehrharta calycina* tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia cyclops</i>	2.0	2.0
<i>*Acacia iteaphylla</i>	0.0	2.5
<i>*Acacia podalyriifolia</i>	0.0	1.5
<i>Acacia rostellifera</i>	2.0	3.0
<i>Acacia saligna</i>	1.0	1.6
<i>Adenanthos cygnorum</i>	4.0	2.5
<i>Banksia attenuata</i>	1.0	1.8
<i>Banksia sceptrum</i>	3.0	3.0
<i>Banksia sessilis</i>	0.0	1.6
<i>*Briza maxima</i>	1.0	0.4
<i>Chamelaucium uncinatum</i>	10.0	1.8
<i>Corymbia calophylla</i>	0.0	7.0
<i>Dianella revoluta</i>	0.4	0.8
<i>*Ehrharta calycina</i>	1.0	0.9
<i>*Ehrharta longiflora</i>	50.0	0.5
<i>Eucalyptus gomphocephala</i>	40.0	10.0
<i>Eucalyptus platypus</i>	0.0	5.0

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Name	Cover (%)	Height (m)
<i>Eucalyptus todtiana</i>	2.0	4.0
* <i>Euphorbia terracina</i>	0.1	0.2
* <i>Ferraria crispa</i>	2.0	0.2
<i>Hemiandra glabra</i>	0.0	1.0
<i>Jacksonia sternbergiana</i>	0.0	1.7
<i>Melaleuca huegelii</i>	0.0	3.0
<i>Melaleuca nesophila</i>	3.0	2.5
* <i>Sonchus oleraceus</i>	0.1	0.2

* denotes introduced (weed) species

Site: MFR-16

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384771.47m E 6481634.3m N

Habitat: Hillslope

Soil: Yellow

Vegetation: *Eucalyptus gomphocephala* mid closed forest over *Eucalyptus marginata* low open forest over *Agonis flexuosa* and *Acacia rostellifera* tall isolated clumps of shrubs over *Xanthorrhoea preissii*, *Chamelaucium uncinatum* and **Acacia iteaphylla* mid sparse shrubland over **Ehrharta calycina*, **Ehrharta longiflora* and **Briza maxima* closed tussock grassland.

Veg. Condition: Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>*Acacia iteaphylla</i>	1.0	1.3
<i>Acacia rostellifera</i>	5.0	3.0
<i>Agonis flexuosa</i>	6.0	5.0
<i>*Briza maxima</i>	2.0	0.4
<i>Caesia micrantha</i>	0.1	0.4
<i>Chamelaucium uncinatum</i>	1.0	1.4
<i>Dianella revoluta</i>	0.1	0.5
<i>*Ehrharta calycina</i>	85.0	1.0
<i>*Ehrharta longiflora</i>	2.0	0.5
<i>Eucalyptus gomphocephala</i>	75.0	15.0
<i>Eucalyptus marginata</i>	45.0	8.0
<i>Gompholobium tomentosum</i>	0.1	0.3
<i>Hardenbergia comptoniana</i>	0.2	2.0
<i>Jacksonia sternbergiana</i>	1.0	1.2
<i>Mesomelaena pseudostygia</i>	0.1	0.5
<i>*Moraea flaccida</i>	0.1	0.5

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Name	Cover (%)	Height (m)
<i>Pterostylis recurva</i>	0.1	0.2
* <i>Sonchus oleraceus</i>	0.1	0.1
<i>Xanthorrhoea preissii</i>	6.0	1.6

* denotes introduced (weed) species

Site: MFR-18

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384779.19m E 6481577.17m N

Habitat: Hillslope

Soil: Yellow

Vegetation: *Corymbia calophylla* and *Eucalyptus gomphocephala* mid closed forest over **Olea europaea*, *Ricinocarpos tuberculatus* and *Acacia rostellifera* tall shrubland over *Xanthorrhoea preissii* mid sparse shrubland over **Watsonia meriana* mid closed forbland over **Ehrharta calycina* open tussock grassland.

Veg. Condition: Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	3.0	2.5
<i>*Allium triquetrum</i>	0.1	0.3
<i>Corymbia calophylla</i>	80.0	15.0
<i>*Ehrharta calycina</i>	10.0	0.9
<i>Eucalyptus gomphocephala</i>	15.0	15.0
<i>*Euphorbia terracina</i>	0.5	0.5
<i>*Fumaria capreolata</i>	1.0	0.4
<i>Jacksonia sternbergiana</i>	0.5	2.0
<i>*Olea europaea</i>	5.0	5.0
<i>*Oxalis pes-caprae</i>	2.0	0.2
<i>*Phoenix dactylifera</i>	0.2	0.9
<i>Ricinocarpos tuberculatus</i>	4.0	3.0
<i>*Watsonia meriana</i>	85.0	1.0
<i>Xanthorrhoea preissii</i>	2.0	1.4

* denotes introduced (weed) species

Site: MFR-20

Location: Park **Type:** Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384918.2m E 6481380.65m N

Habitat: Plain

Soil: Grey

Vegetation: *Eucalyptus marginata*, *Eucalyptus gomphocephala* and *Corymbia calophylla* mid open forest over *Xanthorrhoea preissii* mid sparse shrubland over **Cynodon dactylon*, **Vulpia myuros* and **Ehrharta longiflora* low closed tussock grassland over **Arctotheca calendula*, **Erodium botrys* and **Medicago polymorpha* low sparse forbland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>*Arctotheca calendula</i>	10.0	0.1
<i>*Avena fatua</i>	1.0	0.6
<i>Corymbia calophylla</i>	5.0	10.0
<i>*Cynodon dactylon</i>	70.0	0.1
<i>*Ehrharta longiflora</i>	2.0	0.4
<i>*Erodium botrys</i>	5.0	0.2
<i>Eucalyptus gomphocephala</i>	12.0	11.0
<i>Eucalyptus marginata</i>	20.0	10.0
<i>Eucalyptus sideroxylon</i>	0.0	10.0
<i>*Hordeum leporinum</i>	0.2	0.2
<i>*Medicago polymorpha</i>	3.0	0.1
<i>*Oxalis pes-caprae</i>	2.0	0.1
<i>*Rostraria cristata</i>	1.0	0.1
<i>*Vulpia myuros</i>	2.0	0.2
<i>Xanthorrhoea preissii</i>	6.0	1.6

* denotes introduced (weed) species

Site: MFR-22

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384882.57m E 6481403.7m N

Habitat: Plain

Soil: Grey

Vegetation: *Eucalyptus gomphocephala* mid woodland over *Melaleuca cardiophylla*, *Calothamnus quadrifidus* and *Acacia rostellifera* tall shrubland over **Avena fatua*, **Ehrharta longiflora* and **Ehrharta calycina* closed tussock grassland over **Oxalis pes-caprae* and **Euphorbia terracina* sparse low forbland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	2.0	3.5
<i>Acacia saligna</i>	1.0	3.0
* <i>Avena fatua</i>	50.0	1.0
* <i>Briza maxima</i>	5.0	0.5
<i>Calothamnus quadrifidus</i>	5.0	2.5
<i>Daviesia divaricata</i>	1.5	1.1
* <i>Ehrharta calycina</i>	10.0	1.0
* <i>Ehrharta longiflora</i>	20.0	0.5
* <i>Eragrostis curvula</i>	2.0	1.0
<i>Eucalyptus gomphocephala</i>	20.0	12.0
* <i>Euphorbia terracina</i>	2.0	0.5
<i>Melaleuca cardiophylla</i>	30.0	3.2
* <i>Oxalis pes-caprae</i>	10.0	0.2

* denotes introduced (weed) species

Site: MFR-24

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384816.27m E 6480570.29m N, 50J 384820.74m E 6480627.33m N

Habitat: Plain

Soil: Yellow

Vegetation: *Eucalyptus gomphocephala* and *Eucalyptus marginata* mid open forest over *Eucalyptus platypus*, *Allocasuarina fraseriana* and *Banksia attenuata* low open woodland over *Melaleuca nesophila* tall shrubland over *Xanthorrhoea preissii* and *Hakea lissocarpa* mid sparse shrubland over **Ehrharta longiflora*, **Avena fatua* and **Ehrharta calycina* closed tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Allocasuarina fraseriana</i>	6.0	6.0
<i>*Avena fatua</i>	10.0	1.0
<i>Banksia attenuata</i>	3.0	5.0
<i>*Ehrharta calycina</i>	1.0	1.0
<i>*Ehrharta longiflora</i>	80.0	0.6
<i>Eucalyptus caesia</i>	0.0	3.0
<i>Eucalyptus gomphocephala</i>	25.0	14.0
<i>Eucalyptus marginata</i>	25.0	12.0
<i>Eucalyptus platypus</i>	15.0	5.0
<i>Eucalyptus rudis</i>	0.0	4.0
<i>Hakea lissocarpa</i>	1.0	1.3
<i>Melaleuca nesophila</i>	50.0	5.0
<i>Xanthorrhoea preissii</i>	3.0	1.5

* denotes introduced (weed) species

Site: MFR-26

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384872.7m E 6479754.03m N

Habitat: Plain

Soil: Yellow

Vegetation: *Eucalyptus gomphocephala* mid open forest over *Eucalyptus marginata*, *Banksia attenuata* and *Allocasuarina fraseriana* low open woodland over *Chamelaucium uncinatum* tall sparse shrubland over *Xanthorrhoea preissii*, *Grevillea preissii* and *Hibbertia cuneiformis* open mid shrubland over **Ehrharta longiflora*, **Ehrharta calycina* and **Avena fatua* closed tussock grassland over **Oxalis pes-caprae* and **Pelargonium capitatum* low open forbland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia saligna</i>	0.5	3.0
<i>Allocasuarina fraseriana</i>	4.0	6.0
<i>*Avena fatua</i>	2.0	1.0
<i>Banksia attenuata</i>	6.0	5.0
<i>*Bromus diandrus</i>	1.0	0.5
<i>Chamelaucium uncinatum</i>	6.0	2.5
<i>*Ehrharta calycina</i>	5.0	1.0
<i>*Ehrharta longiflora</i>	60.0	0.6
<i>*Eragrostis curvula</i>	2.0	1.0
<i>Eucalyptus gomphocephala</i>	35.0	15.0
<i>Eucalyptus marginata</i>	25.0	9.0
<i>Grevillea preissii</i>	2.0	1.2
<i>Hardenbergia comptoniana</i>	1.0	3.0
<i>Hibbertia cuneiformis</i>	1.0	1.6
<i>*Oxalis pes-caprae</i>	25.0	0.2

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Name	Cover (%)	Height (m)
<i>*Pelargonium capitatum</i>	1.0	0.5
<i>Xanthorrhoea preissii</i>	6.0	2.0

* denotes introduced (weed) species

Site: MFR-28

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384919.71m E 6479368.06m N

Habitat: Plain

Soil: Yellow

Vegetation: *Eucalyptus marginata* and *Allocasuarina fraseriana* low open forest over *Acacia rostellifera* tall sparse shrubland over **Oxalis pes-caprae* and **Pelargonium capitatum* open forbland over **Ehrharta calycina* and **Avena fatua* closed tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	1.0	1.5
<i>Allocasuarina fraseriana</i>	6.0	8.0
<i>*Avena fatua</i>	2.0	1.5
<i>*Ehrharta calycina</i>	75.0	1.0
<i>Eucalyptus marginata</i>	30.0	8.0
<i>*Lupinus angustifolius</i>	0.1	0.7
<i>*Oxalis pes-caprae</i>	15.0	0.2
<i>*Pelargonium capitatum</i>	10.0	0.6

* denotes introduced (weed) species

Site: MFR-30

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384970.97m E 6478763.36m N

Habitat: Plain

Soil: Yellow

Vegetation: *Eucalyptus gomphocephala* mid open forest over *Acacia rostellifera* and *Melaleuca cardiophylla* tall shrubland over **Fumaria capreolata* open forbland over **Bromus diandrus*, **Ehrharta longiflora* and **Avena fatua* closed tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	30.0	5.0
* <i>Avena fatua</i>	5.0	0.7
* <i>Briza maxima</i>	1.0	0.4
* <i>Bromus diandrus</i>	80.0	0.5
* <i>Ehrharta calycina</i>	2.0	1.0
* <i>Ehrharta longiflora</i>	10.0	0.5
<i>Eucalyptus gomphocephala</i>	50.0	15.0
* <i>Fumaria capreolata</i>	10.0	0.4
<i>Melaleuca cardiophylla</i>	3.0	3.0

* denotes introduced (weed) species

Site: MFR-32

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 385026.65m E 6478978.8m N

Habitat: Plain

Soil: Yellow

Vegetation: *Eucalyptus gomphocephala*, *Corymbia calophylla* and *Eucalyptus marginata* mid woodland over *Grevillea olivacea* and *Calothamnus quadrifidus* tall shrubland over **Ehrharta calycina* tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	0.0	3.5
<i>Acacia saligna</i>	0.2	1.5
<i>Allocasuarina humilis</i>	0.0	2.0
<i>Calothamnus quadrifidus</i>	8.0	2.5
<i>Corymbia calophylla</i>	6.0	10.0
* <i>Ehrharta calycina</i>	60.0	1.0
<i>Eucalyptus gomphocephala</i>	15.0	12.0
<i>Eucalyptus marginata</i>	4.0	11.0
<i>Eucalyptus platypus</i>	0.0	5.0
* <i>Gladiolus caryophyllaceus</i>	0.5	0.8
<i>Grevillea olivacea</i> P4	25.0	3.0
<i>Hibbertia hypericoides</i>	0.0	1.2
* <i>Leptospermum laevigatum</i>	0.0	1.5
<i>Melaleuca nesophila</i>	0.0	4.0
* <i>Ursinia anthemoides</i>	0.5	0.2
<i>Xanthorrhoea preissii</i>	0.0	1.2

* denotes introduced (weed) species

Site: MFR-34

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 384999.85m E 6479004.23m N

Soil: Yellow

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* low woodland over *Melaleuca cardiophylla*, *Grevillea olivacea* and **Leptospermum laevigatum* tall shrubland over **Pelargonium capitatum* low shrubland over **Bromus diandrus*, **Ehrharta longiflora* and **Avena fatua* tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
* <i>Acacia iteaphylla</i>	3.0	4.0
<i>Acacia saligna</i>	0.1	1.4
* <i>Avena fatua</i>	2.0	0.8
* <i>Briza maxima</i>	1.0	0.5
* <i>Bromus diandrus</i>	20.0	0.5
<i>Calothamnus quadrifidus</i>	1.0	1.5
* <i>Ehrharta longiflora</i>	10.0	0.5
<i>Eucalyptus gomphocephala</i>	27.0	7.0
* <i>Euphorbia terracina</i>	0.2	0.6
<i>Grevillea olivacea</i> P4	15.0	3.0
* <i>Leptospermum laevigatum</i>	3.0	3.0
<i>Melaleuca cardiophylla</i>	20.0	3.0
<i>Melaleuca nesophila</i>	2.0	3.0
* <i>Pelargonium capitatum</i>	20.0	0.7

* denotes introduced (weed) species

Site: MFR-36

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 385112.8m E 6478212.79m N

Habitat: Rise/slope

Soil: Yellow

Vegetation: *Eucalyptus camaldulensis* and *Eucalyptus gomphocephala* mid open forest over *Eucalyptus platypus* and *Corymbia calophylla* and *Banksia attenuata* low open forest over **Acacia iteaphylla*, *Grevillea olivacea* and *Chamelaucium uncinatum* tall shrubland over and *Xanthorrhoea preissii* mid open shrubland over *Desmocladius flexuosus* low open sedgeland over **Ehrharta calycina* closed tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
* <i>Acacia iteaphylla</i>	8.0	3.5
<i>Banksia attenuata</i>	18.0	3.5
* <i>Briza maxima</i>	0.1	0.4
* <i>Bromus diandrus</i>	0.1	0.5
<i>Chamelaucium uncinatum</i>	3.0	3.0
<i>Corymbia calophylla</i>	3.0	6.0
<i>Daviesia divaricata</i>	0.5	0.7
<i>Desmocladius flexuosus</i>	1.5	0.4
* <i>Ehrharta calycina</i>	85.0	0.8
<i>Eucalyptus camaldulensis</i>	30.0	10.0
<i>Eucalyptus gomphocephala</i>	5.0	14.0
<i>Eucalyptus platypus</i>	20.0	5.0
* <i>Euphorbia peplus</i>	0.1	0.1
* <i>Gladiolus caryophyllaceus</i>	0.1	0.8
<i>Grevillea olivacea</i> P4	5.0	2.0
<i>Mesomelaena pseudostygia</i>	0.5	0.4

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Name	Cover (%)	Height (m)
<i>Microtis media</i>	0.1	0.2
* <i>Sonchus oleraceus</i>	0.1	0.3
<i>Tricoryne elatior</i>	0.8	0.5
* <i>Trifolium campestre</i>	0.1	0.1
<i>Xanthorrhoea preissii</i>	1.5	1.6

* denotes introduced (weed) species

Site: MFR-38

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 386232.9m E 6475627.57m N

Habitat: Rise/slope

Soil: Yellow

Vegetation: *Eucalyptus gomphocephala* and *Eucalyptus leucoxylon* mid closed forest over *Corymbia calophylla* and *Eucalyptus erythrocorys* low open woodland over **Acacia iteaphylla* tall shrubland over *Melaleuca huegelii* mid open shrubland over **Oxalis pes-caprae* forbland over **Ehrharta calycina* and **Avena fatua* tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>*Acacia iteaphylla</i>	10.0	2.5
<i>*Avena fatua</i>	2.0	1.0
<i>Corymbia calophylla</i>	3.0	6.0
<i>*Ehrharta calycina</i>	50.0	0.8
<i>Eucalyptus erythrocorys</i>	2.0	3.5
<i>Eucalyptus gomphocephala</i>	45.0	13.0
<i>Eucalyptus leucoxylon</i>	30.0	10.0
<i>Melaleuca huegelii</i>	2.0	1.5
<i>*Oxalis pes-caprae</i>	10.0	0.2

* denotes introduced (weed) species

Site: MFR-40

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 386192.26m E 6475710.53m N

Habitat: Rise/slope

Soil: Yellow

Vegetation: *Eucalyptus sideroxylon* and **Casuarina equisetifolia* mid closed forest over *Corymbia calophylla* low open woodland over **Melaleuca armillaris*, *Melaleuca nesophila* and *Grevillea robusta* tall shrubland over **Oxalis pes-caprae* and **Fumaria capreolata* forbland over **Ehrharta longiflora*, **Avena fatua* and **Ehrharta calycina* closed tussock grassland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
* <i>Avena fatua</i>	5.0	1.0
* <i>Casuarina equisetifolia</i>	25.0	12.0
<i>Corymbia calophylla</i>	3.0	5.0
* <i>Ehrharta calycina</i>	2.0	1.0
* <i>Ehrharta longiflora</i>	80.0	0.6
<i>Eucalyptus sideroxylon</i>	50.0	12.0
* <i>Fumaria capreolata</i>	3.0	0.5
<i>Grevillea robusta</i>	4.0	8.0
* <i>Melaleuca armillaris</i>	20.0	3.0
<i>Melaleuca nesophila</i>	20.0	4.0
* <i>Oxalis pes-caprae</i>	15.0	0.2
* <i>Sonchus oleraceus</i>	0.2	0.3

* denotes introduced (weed) species

Site: MFR-42

Type: Relevé

Date(s): 2019-09-26 **Described by:** BL / AS

Waypoints: 50J 383466.53m E 6485519.28m N

Habitat: Swale

Soil: Yellow

Vegetation: *Eucalyptus marginata* mid woodland over *Allocasuarina fraseriana* low woodland over *Xanthorrhoea preissii* and *Banksia sessilis* mid open shrubland over **Ehrharta longiflora*, **Ehrharta calycina* and **Bromus diandrus* closed tussock grassland over **Fumaria capreolata* and **Carpobrotus edulis* low open forbland.

Veg. Condition: Completely Degraded

Fire Age: >10 years



Species List

Name	Cover (%)	Height (m)
<i>Allocasuarina fraseriana</i>	25.0	7.0
<i>Banksia sessilis</i>	1.0	1.2
<i>*Briza maxima</i>	0.2	0.4
<i>*Bromus diandrus</i>	1.0	0.6
<i>*Carpobrotus edulis</i>	2.0	0.2
<i>Desmocladius flexuosus</i>	0.1	0.2
<i>*Ehrharta calycina</i>	20.0	0.8
<i>*Ehrharta longiflora</i>	80.0	0.6
<i>Eucalyptus marginata</i>	20.0	14.0
<i>*Fumaria capreolata</i>	3.0	0.6
<i>*Gladiolus caryophyllaceus</i>	0.1	0.7
<i>Hakea lissocarpa</i>	0.2	0.7
<i>Hardenbergia comptoniana</i>	0.2	1.0
<i>Sowerbaea laxiflora</i>	0.1	0.3
<i>*Vicia sativa</i>	0.1	0.4
<i>Xanthorrhoea preissii</i>	6.0	1.2

* denotes introduced (weed) species

Site: MF5Q-01

Type: 10.0 m x 10.0 m Quadrat

Date(s): 2020-04-01 **Described by:** AS

Waypoints: 50J 385763.21m E 6477147.8m N

Habitat: Dune

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus marginata* and *Eucalyptus gomphocephala* open forest over *Banksia attenuata* tall shrubland over *Xanthorrhoea preissii* and **Osteospermum ecklonis* shrubland over *Corynotheca micrantha* and *Desmocladius flexuosus* low open shrubland over **Ehrharta calycina* tussock grassland

Veg. Condition: Good

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Acacia pulchella</i>	0.1	1.0
<i>*Aizoon pubescens</i>	0.1	0.1
<i>Alexgeorgea nitens</i>	0.0	0.2
<i>Banksia attenuata</i>	10.0	8.0
<i>Banksia menziesii</i>	0.0	6.0
<i>Banksia nivea</i>	0.0	0.2
<i>*Briza maxima</i>	0.5	0.4
<i>Burchardia congesta</i>	0.1	0.7
<i>Corynotheca micrantha</i>	2.0	0.8
<i>Daviesia nudiflora</i>	0.1	0.7
<i>Daviesia triflora</i>	0.0	0.5
<i>Desmocladius flexuosus</i>	1.0	0.2
<i>Dianella revoluta</i>	0.0	0.5
<i>*Ehrharta calycina</i>	30.0	1.2
<i>Eucalyptus gomphocephala</i>	2.0	18.0
<i>Eucalyptus marginata</i>	30.0	12.0
<i>*Gladiolus caryophyllaceus</i>	0.1	1.0
<i>Gompholobium tomentosum</i>	0.1	1.0
<i>Grevillea vestita</i>	0.0	1.5
<i>Hibbertia hypericoides</i>	2.0	1.0
<i>Hovea trisperma</i>	0.0	0.2
<i>Hypocalymma robustum</i>	0.1	0.5

Main Roads Western Australia

Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway

Biological Survey, September/October 2019 and March/April 2020

Name	Cover (%)	Height (m)
<i>Lomandra caespitosa</i>	0.1	0.1
<i>Mesomelaena pseudostygia</i>	30.0	0.4
<i>Microtis media</i>	0.1	0.1
* <i>Osteospermum ecklonis</i>	2.0	1.1
* <i>Romulea rosea</i>	0.1	0.1
<i>Scaevola canescens</i>	0.0	0.2
<i>Synaphea spinulosa</i>	0.0	0.3
<i>Thysanotus manglesianus</i>	0.1	0.2
<i>Tricoryne elatior</i>	0.1	0.5
<i>Xanthorrhoea preissii</i>	10.0	1.5

* denotes introduced (weed) species

Site: MF5Q-02

Type: 10.0 m x 10.0 m Quadrat

Date(s): 2020-04-02 **Described by:** AS

Waypoints: 50J 386021.47m E 6476633.74m N

Soil: Brown, Sand

Vegetation: *Eucalyptus gomphocephala* and *Eucalyptus marginata* closed forest over *Eucalyptus adesmophloia* low woodland over *Xanthorrhoea preissii* open shrubland over *Desmocladius flexuosus* low open shrubland over **Ehrharta calycina* tussock grassland

Veg. Condition: Degraded

Fire Age: No fire evident



Species List

Name	Cover (%)	Height (m)
<i>*Agave americana</i>	0.1	0.6
<i>Corymbia calophylla</i>	0.1	1.2
<i>Desmocladius flexuosus</i>	4.0	0.2
<i>*Ehrharta calycina</i>	40.0	1.0
<i>Eucalyptus adesmophloia</i>	20.0	6.0
<i>Eucalyptus gomphocephala</i>	40.0	15.0
<i>Eucalyptus marginata</i>	30.0	15.0
<i>Hardenbergia comptoniana</i>	0.1	0.2
<i>Hibbertia hypericoides</i>	0.1	0.6
<i>Lomandra hermaphrodita</i>	0.1	0.3
<i>*Olea europaea</i>	0.1	0.2
<i>*Pelargonium capitatum</i>	0.1	0.2
<i>Xanthorrhoea preissii</i>	5.0	1.8

* denotes introduced (weed) species

Site: MF5Q-03

Type: 10.0 m x 10.0 m Quadrat

Date(s): 2020-04-02 **Described by:** AS

Waypoints: 50J 385528.04m E 6477503.05m N

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* woodland over *Corymbia calophylla* (and *Eucalyptus marginata*) low open woodland over *Banksia menziesii*, *Xanthorrhoea preissii* and *Banksia attenuata* tall open scrub over *Daviesia nudiflora* and *Petrophile macrostachya* low open shrubland over **Ehrharta calycina* open tussock grassland

Veg. Condition: Good

Fire Age: No fire evident



Species List

Name	Cover (%)	Height (m)
<i>Allocasuarina fraseriana</i>	0.0	8.0
<i>Banksia attenuata</i>	10.0	8.0
<i>Banksia grandis</i>	0.0	8.0
<i>Banksia menziesii</i>	20.0	5.0
<i>Bossiaea eriocarpa</i>	0.1	0.2
<i>*Briza maxima</i>	0.1	0.2
<i>Burchardia congesta</i>	0.1	0.6
<i>Corymbia calophylla</i>	2.0	7.0
<i>Daviesia divaricata</i>	0.1	1.2
<i>Daviesia nudiflora</i>	1.0	0.6
<i>Desmodcladus flexuosus</i>	0.5	0.1
<i>*Ehrharta calycina</i>	20.0	0.6
<i>Eucalyptus gomphocephala</i>	10.0	20.0
<i>*Freesia alba x leichtlinii</i>	0.1	0.2
<i>*Fumaria capreolata</i>	0.1	0.1
<i>Hibbertia hypericoides</i>	0.1	1.0
<i>Hypocalymma angustifolium</i>	0.1	0.5
<i>*Lagurus ovatus</i>	0.1	0.3
<i>Lomandra hermaphrodita</i>	0.1	0.1
<i>Lomandra preissii</i>	0.1	0.1
<i>Mesomelaena pseudostygia</i>	30.0	0.5
<i>Petrophile linearis</i>	0.1	0.3

Main Roads Western Australia

Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway

Biological Survey, September/October 2019 and March/April 2020

Name	Cover (%)	Height (m)
<i>Petrophile macrostachya</i>	1.0	0.4
<i>Schoenus grandiflorus</i>	0.1	0.4
<i>Xanthorrhoea preissii</i>	10.0	2.8

* denotes introduced (weed) species

Site: MF5R-01

Location: Hepburn Ave North side

Type: Relevé

Date(s): 2020-03-26 **Described by:** AS

Waypoints: 50J 385010.29m E 6479173.24m N

Habitat: Swale

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* open forest over **Eragrostis curvula* closed tussock grassland

Veg. Condition: Completely Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	0.1	4.0
<i>Corymbia calophylla</i>	0.0	8.0
<i>*Eragrostis curvula</i>	80.0	0.5
<i>Eucalyptus gomphocephala</i>	30.0	28.0
<i>Eucalyptus sideroxylon</i>	0.1	12.0
<i>Jacksonia calcicola</i>	0.0	0.4
<i>Jacksonia sternbergiana</i>	0.0	1.0
<i>*Lagurus ovatus</i>	0.0	0.1

* denotes introduced (weed) species

Site: MF5R-02

Location: Kanungara Park

Type: Relevé

Date(s): 2020-03-26 **Described by:** AS

Waypoints: 50J 385054.17m E 6478927.3m N

Habitat: Drainage depression

Soil: Brown, Sand

Vegetation: *Eucalyptus marginata* and *Eucalyptus gomphocephala* open forest over *Corymbia calophylla* low woodland over *Agonis flexuosa* tall open shrubland over **Cenchrus clandestinus* and **Cynodon dactylon* closed tussock grassland

Veg. Condition: Completely Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Agonis flexuosa</i>	2.0	8.0
<i>*Cenchrus clandestinus</i>	50.0	0.1
<i>Corymbia calophylla</i>	10.0	8.0
<i>*Cynodon dactylon</i>	40.0	0.1
<i>Eucalyptus gomphocephala</i>	5.0	20.0
<i>Eucalyptus marginata</i>	30.0	18.0

* denotes introduced (weed) species

Site: MF5R-03

Type: Relevé

Date(s): 2020-03-26 **Described by:** AS

Waypoints: 50J 385045.34m E 6478976.89m N

Habitat: Swale

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* open forest over *Grevillea olivacea* and *Melaleuca viminea* tall open scrub over *Calothamnus quadrifidus* scattered shrubs over **Ehrharta calycina* open tussock grassland

Veg. Condition: Completely Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Acacia saligna</i>	0.1	1.5
<i>Allocasuarina lehmanniana</i>	0.1	2.0
<i>Calothamnus quadrifidus</i>	1.0	2.0
<i>Corymbia calophylla</i>	0.0	12.0
<i>*Ehrharta calycina</i>	20.0	0.5
<i>Eucalyptus gomphocephala</i>	30.0	18.0
<i>Eucalyptus marginata</i>	0.0	15.0
<i>Grevillea olivacea</i>	30.0	3.0
<i>Melaleuca viminea</i>	5.0	3.0
<i>*Pelargonium capitatum</i>	0.1	0.3
<i>Xanthorrhoea preissii</i>	0.1	1.5

* denotes introduced (weed) species

Site: MF5R-04

Type: Relevé

Date(s): 2020-03-26 **Described by:** AS

Waypoints: 50J 385147.15m E 6479036.89m N

Habitat: Swale

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus marginata* open forest over *Acacia rostellifera* tall shrubland over *Chamelaucium uncinatum* scattered shrubs over **Eragrostis curvula* tussock grassland

Veg. Condition: Completely Degraded

Fire Age: No fire evident



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	20.0	4.0
<i>Chamelaucium uncinatum</i>	1.0	2.0
<i>Desmocladius flexuosus</i>	0.1	0.1
* <i>Eragrostis curvula</i>	30.0	0.6
<i>Eucalyptus marginata</i>	30.0	19.0
<i>Gompholobium tomentosum</i>	0.1	0.4
<i>Jacksonia calcicola</i>	0.1	0.2

* denotes introduced (weed) species

Site: MF5R-05

Type: Relevé

Date(s): 2020-03-26 **Described by:** AS

Waypoints: 50J 385016.92m E 6478922.99m N

Habitat: Swale

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus marginata* open forest over *Xanthorrhoea preissii* scattered shrubs over **Ehrharta calycina* and **Eragrostis curvula* closed tussock grassland

Veg. Condition: Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Acacia saligna</i>	0.1	1.0
<i>Corymbia calophylla</i>	0.1	15.0
<i>*Ehrharta calycina</i>	40.0	1.0
<i>*Eragrostis curvula</i>	40.0	1.0
<i>Eucalyptus marginata</i>	40.0	18.0
<i>*Gladiolus caryophyllaceus</i>	0.1	1.0
<i>Gompholobium tomentosum</i>	0.1	0.5
<i>Hakea prostrata</i>	0.1	1.0
<i>*Pelargonium capitatum</i>	0.1	0.2
<i>Xanthorrhoea preissii</i>	1.0	1.5

* denotes introduced (weed) species

Site: MF5R-06

Type: Relevé

Date(s): 2020-04-01 **Described by:** AS

Waypoints: 50J 385221.17m E 6478030.95m N

Habitat: Plain

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Corymbia calophylla* and *Eucalyptus gomphocephala* open forest over *Banksia attenuata* tall open shrubland over *Xanthorrhoea preissii* scattered shrubs over **Ehrharta calycina* and **Cynodon dactylon* very open tussock grassland

Veg. Condition: Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Banksia attenuata</i>	2.0	6.0
<i>Corymbia calophylla</i>	20.0	18.0
<i>*Cynodon dactylon</i>	1.0	0.1
<i>Desmocladius flexuosus</i>	0.1	0.1
<i>*Ehrharta calycina</i>	3.0	0.5
<i>Eucalyptus gomphocephala</i>	15.0	20.0
<i>*Euphorbia terracina</i>	0.1	0.4
<i>Grevillea vestita</i>	1.0	1.0
<i>Hardenbergia comptoniana</i>	0.1	0.5
<i>*Pelargonium capitatum</i>	0.1	0.3
<i>Xanthorrhoea preissii</i>	1.0	1.5

* denotes introduced (weed) species

Site: MF5R-07

Type: Relevé

Date(s): 2020-04-01 **Described by:** AS

Waypoints: 50J 385242.69m E 6477985.62m N

Habitat: Embankment

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Corymbia calophylla* and *Eucalyptus gomphocephala* open woodland over *Eucalyptus erythrocorys* and *Eucalyptus conferruminata* low open woodland over **Acacia iteaphylla* tall shrubland over *Chamelaucium uncinatum* and **Polygala myrtifolia* shrubland over **Eragrostis curvula* and **Ehrharta calycina* tussock grassland

Veg. Condition: Completely Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>*Acacia iteaphylla</i>	20.0	4.0
<i>*Agave americana</i>	0.1	0.5
<i>Agonis flexuosa</i>	0.1	8.0
<i>*Aizoon pubescens</i>	0.0	0.1
<i>*Aloe vera</i>	0.1	0.5
<i>Chamelaucium uncinatum</i>	10.0	1.5
<i>Corymbia calophylla</i>	5.0	18.0
<i>*Ehrharta calycina</i>	20.0	0.6
<i>*Eragrostis curvula</i>	30.0	0.5
<i>Eucalyptus conferruminata</i>	1.0	8.0
<i>Eucalyptus erythrocorys</i>	1.0	8.0
<i>Eucalyptus gomphocephala</i>	1.0	20.0
<i>*Polygala myrtifolia</i>	2.0	1.2

* denotes introduced (weed) species

Site: MF5R-08

Type: Relevé

Date(s): 2020-04-01 **Described by:** AS

Waypoints: 50J 385364.94m E 6477774.6m N

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Corymbia calophylla* open forest over *Banksia menziesii* scattered tall shrubs over *Xanthorrhoea preissii* open heath over *Corynotheca micrantha* scattered low shrubs

Veg. Condition: Degraded

Fire Age: No fire evident



Species List

Name	Cover (%)	Height (m)
<i>Banksia menziesii</i>	1.0	4.0
<i>Corymbia calophylla</i>	40.0	18.0
<i>Corynotheca micrantha</i>	1.0	0.4
<i>Daviesia nudiflora</i>	0.0	0.6
<i>Desmocladius flexuosus</i>	0.0	0.2
<i>Eucalyptus marginata</i>	0.0	15.0
<i>Hakea lissocarpa</i>	0.0	0.5
<i>Hibbertia hypericoides</i>	0.1	0.4
<i>Mesomelaena pseudostygia</i>	0.1	0.3
<i>Xanthorrhoea preissii</i>	30.0	1.8

Site: MF5R-09

Type: Relevé

Date(s): 2020-04-01 **Described by:** AS

Waypoints: 50J 385406.32m E 6477722.74m N

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* and *Eucalyptus marginata* open forest over *Allocasuarina fraseriana*
tall open shrubland over *Xanthorrhoea preissii* open shrubland over **Cynodon dactylon* tussock grassland

Veg. Condition: Completely Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Allocasuarina fraseriana</i>	2.0	4.0
<i>*Cynodon dactylon</i>	40.0	0.1
<i>Eucalyptus gomphocephala</i>	35.0	25.0
<i>Eucalyptus marginata</i>	10.0	15.0
<i>Eucalyptus platypus</i>	0.1	8.0
<i>Xanthorrhoea preissii</i>	2.0	1.8

* denotes introduced (weed) species

Site: MF5R-10

Type: Relevé

Date(s): 2020-04-01 **Described by:** AS

Waypoints: 50J 385468.92m E 6477666.9m N

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus marginata* and *Eucalyptus gomphocephala* open forest over *Xanthorrhoea preissii* and *Grevillea vestita* open heath over **Ehrharta calycina* open tussock grassland

Veg. Condition: Degraded

Fire Age: No fire evident



Species List

Name	Cover (%)	Height (m)
<i>*Ehrharta calycina</i>	20.0	0.4
<i>Eucalyptus gomphocephala</i>	15.0	20.0
<i>Eucalyptus marginata</i>	40.0	15.0
<i>Grevillea vestita</i>	15.0	1.8
<i>Hardenbergia comptoniana</i>	0.1	0.3
<i>Hibbertia hypericoides</i>	0.0	0.6
<i>*Oxalis pes-caprae</i>	0.1	0.2
<i>Schoenus grandiflorus</i>	0.0	0.4
<i>Xanthorrhoea preissii</i>	35.0	2.0

* denotes introduced (weed) species

Site: MF5R-11

Type: Relevé

Date(s): 2020-04-01 **Described by:** AS

Waypoints: 50J 385548.03m E 6477527.7m N

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus marginata* and *Eucalyptus gomphocephala* open forest over *Banksia attenuata* and *Acacia rostellifera* tall shrubland over *Hakea lissocarpa*, *Xanthorrhoea preissii* and *Grevillea vestita* open shrubland over **Osteospermum ecklonis* low open shrubland over **Ehrharta calycina*, **Cenchrus clandestinus* and **Bromus diandrus* tussock grassland

Veg. Condition: Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	2.0	8.0
<i>Allocasuarina fraseriana</i>	0.0	6.0
<i>Allocasuarina humilis</i>	0.0	2.0
<i>Banksia attenuata</i>	10.0	8.0
<i>Banksia menziesii</i>	0.1	5.0
<i>*Bromus diandrus</i>	5.0	0.1
<i>*Cenchrus clandestinus</i>	15.0	0.1
<i>*Ehrharta calycina</i>	30.0	0.8
<i>Eucalyptus gomphocephala</i>	20.0	20.0
<i>Eucalyptus marginata</i>	30.0	10.0
<i>Grevillea vestita</i>	1.0	1.5
<i>Hakea lissocarpa</i>	3.0	1.8
<i>*Ipomoea cairica</i>	30.0	1.0
<i>Mesomelaena pseudostygia</i>	0.1	0.3
<i>*Osteospermum ecklonis</i>	2.0	0.5
<i>*Ricinus communis</i>	0.0	1.5
<i>Xanthorrhoea preissii</i>	1.0	1.5

* denotes introduced (weed) species

Site: MF5R-12

Type: Relevé

Date(s): 2020-04-01 **Described by:** AS

Waypoints: 50J 386148.6m E 6476239.12m N

Habitat: Embankment

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Corymbia calophylla* woodland over *Eucalyptus platypus* and *Eucalyptus conferruminata* low open woodland over **Acacia iteaphylla* scattered shrubs over **Pelargonium capitatum* scattered low shrubs over **Ehrharta calycina* tussock grassland

Veg. Condition: Completely Degraded

Fire Age: Very long unburnt



Species List

Name	Cover (%)	Height (m)
<i>*Acacia iteaphylla</i>	1.0	2.0
<i>Acacia saligna</i>	0.0	3.0
<i>Angophora costata</i>	0.0	10.0
<i>Corymbia calophylla</i>	20.0	12.0
<i>*Cotoneaster pannosus</i>	0.1	3.0
<i>*Ehrharta calycina</i>	30.0	0.4
<i>Eucalyptus conferruminata</i>	1.0	9.0
<i>Eucalyptus platypus</i>	30.0	8.0
<i>Grevillea crithmifolia</i>	0.0	0.5
<i>*Pelargonium capitatum</i>	1.0	0.4

* denotes introduced (weed) species

Site: MF5R-13

Type: Relevé

Date(s): 2020-04-02 **Described by:** AS

Waypoints: 50J 386087.09m E 6476415.92m N

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala* and *Eucalyptus marginata* open forest over *Xanthorrhoea preissii* open heath over **Ehrharta calycina* tussock grassland

Veg. Condition: Degraded

Fire Age: No fire evident



Species List

Name	Cover (%)	Height (m)
<i>Acacia pulchella</i>	0.0	1.2
<i>Banksia attenuata</i>	0.0	8.0
<i>Corymbia calophylla</i>	0.0	15.0
<i>Dianella revoluta</i>	0.0	0.5
<i>*Ehrharta calycina</i>	30.0	0.5
<i>Eremaea pauciflora</i>	0.0	0.4
<i>Eucalyptus gomphocephala</i>	30.0	22.0
<i>Eucalyptus marginata</i>	25.0	12.0
<i>*Gazania linearis</i>	0.0	0.2
<i>Gompholobium tomentosum</i>	0.0	0.5
<i>Hakea prostrata</i>	0.0	1.8
<i>Lepidosperma</i> sp.	0.1	0.2
<i>Lomandra hermaphrodita</i>	0.1	0.1
<i>*Olea europaea</i>	0.0	1.8
<i>Scaevola crassifolia</i>	0.0	0.2
<i>Xanthorrhoea preissii</i>	40.0	2.0

* denotes introduced (weed) species

Site: MF5R-14

Type: Relevé

Date(s): 2020-04-02 **Described by:** AS

Waypoints: 50J 386025.22m E 6476627.97m N

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Eucalyptus gomphocephala*, *Eucalyptus marginata* and *Corymbia calophylla* closed forest over *Xanthorrhoea preissii* shrubland over **Ehrharta calycina* closed tussock grassland

Veg. Condition: Degraded

Fire Age: No fire evident



Species List

Name	Cover (%)	Height (m)
<i>Acacia pulchella</i>	0.1	0.8
<i>*Agave americana</i>	0.0	1.0
<i>Caesia micrantha</i>	0.0	0.2
<i>Corymbia calophylla</i>	10.0	15.0
<i>Corynotheca micrantha</i>	0.0	0.4
<i>Desmocladius flexuosus</i>	0.1	0.1
<i>*Ehrharta calycina</i>	70.0	0.8
<i>Eucalyptus gomphocephala</i>	45.0	20.0
<i>Eucalyptus marginata</i>	20.0	15.0
<i>Hardenbergia comptoniana</i>	0.1	0.1
<i>Hibbertia hypericoides</i>	0.1	0.4
<i>Lomandra hermaphrodita</i>	0.0	0.2
<i>Lomandra nigricans</i>	0.0	0.3
<i>Mesomelaena pseudostygia</i>	0.0	0.3
<i>*Romulea rosea</i>	0.1	0.1
<i>Xanthorrhoea preissii</i>	15.0	1.8

* denotes introduced (weed) species

Site: MF5R-15

Type: Relevé

Date(s): 2020-04-02 **Described by:** AS

Waypoints: 50J 385859.8m E 6477011.47m N

Habitat: Embankment

Soil: Brown, Sand

Rock Type: Limestone

Vegetation: *Corymbia calophylla* and *Eucalyptus gomphocephala* open forest over **Acacia iteaphylla* and *Acacia rostellifera* tall shrubland over **Ehrharta calycina* open tussock grassland

Veg. Condition: Completely Degraded

Fire Age: No fire evident



Species List

Name	Cover (%)	Height (m)
* <i>Acacia iteaphylla</i>	25.0	3.0
<i>Acacia rostellifera</i>	2.0	4.0
<i>Agonis flexuosa</i>	0.0	6.0
* <i>Aizoon pubescens</i>	0.0	
<i>Banksia attenuata</i>	0.0	7.0
<i>Banksia prionotes</i>	0.0	3.0
<i>Banksia sessilis</i>	0.0	1.3
* <i>Briza maxima</i>	0.0	0.2
<i>Chamelaucium uncinatum</i>	0.0	3.0
* <i>Conyza bonariensis</i>	0.1	0.3
<i>Corymbia calophylla</i>	30.0	18.0
* <i>Ehrharta calycina</i>	20.0	0.7
<i>Eucalyptus gomphocephala</i>	15.0	15.0
<i>Eucalyptus platypus</i>	0.1	5.0
* <i>Gazania linearis</i>	0.0	0.2
* <i>Ipomoea cairica</i>	0.0	

* denotes introduced (weed) species

Site: MF5R-16

Type: Relevé

Date(s): 2020-04-02 **Described by:** AS

Waypoints: 50J 385868.37m E 6476936.76m N

Habitat: Embankment

Soil: Brown, Sand

Vegetation: *Jacksonia furcellata* tall open shrubland

Veg. Condition: Completely Degraded

Fire Age: No fire evident

Species List

Name	Cover (%)	Height (m)
<i>Acacia rostellifera</i>	0.0	3.0
<i>Adenanthos cygnorum</i>	0.0	2.0
<i>Banksia sessilis</i>	0.0	1.0
<i>Callitris preissii</i>	0.1	3.0
<i>Corymbia calophylla</i>	0.0	12.0
* <i>Eragrostis curvula</i>	0.0	0.7
<i>Eucalyptus petrensis</i>	0.0	3.0
<i>Grevillea preissii</i>	0.0	0.4
<i>Jacksonia calcicola</i>	0.1	0.2
<i>Jacksonia furcellata</i>	2.0	2.5
<i>Scaevola crassifolia</i>	0.0	0.2

* denotes introduced (weed) species

Appendix J: Vegetation Condition Mapping

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382800

383000

6486400

6486200

6486000



Survey Area

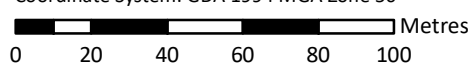
Vegetation Condition

- Good
- Degraded to Completely Degraded
- Completely Degraded - Planted
- Completely Degraded
- Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.1: Vegetation condition

Author: C. Dyde	Date: 18-05-2020	Scale: 1:2,000 at A3 Coordinate System: GDA 1994 MGA Zone 50 
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ	



383200

383400

383600

6485800

6485600

6485400

6485200



Survey Area

Vegetation Condition

- Good
- Good to Degraded
- Degraded
- Degraded to Completely Degraded
- Completely Degraded - Planted
- Completely Degraded
- Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.2: Vegetation condition

Author: C. Dyde	Date: 18-05-2020	Scale: 1:2,000 at A3
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ	Coordinate System: GDA 1994 MGA Zone 50



383800

384000

6485400

6485200

6485000

6484800



Survey Area

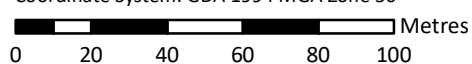
Vegetation Condition

- Good to Degraded
- Completely Degraded - Planted
- Completely Degraded
- Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.3: Vegetation condition

Author: C. Dyde	Date: 18-05-2020	Scale: 1:2,000 at A3 Coordinate System: GDA 1994 MGA Zone 50 
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ	

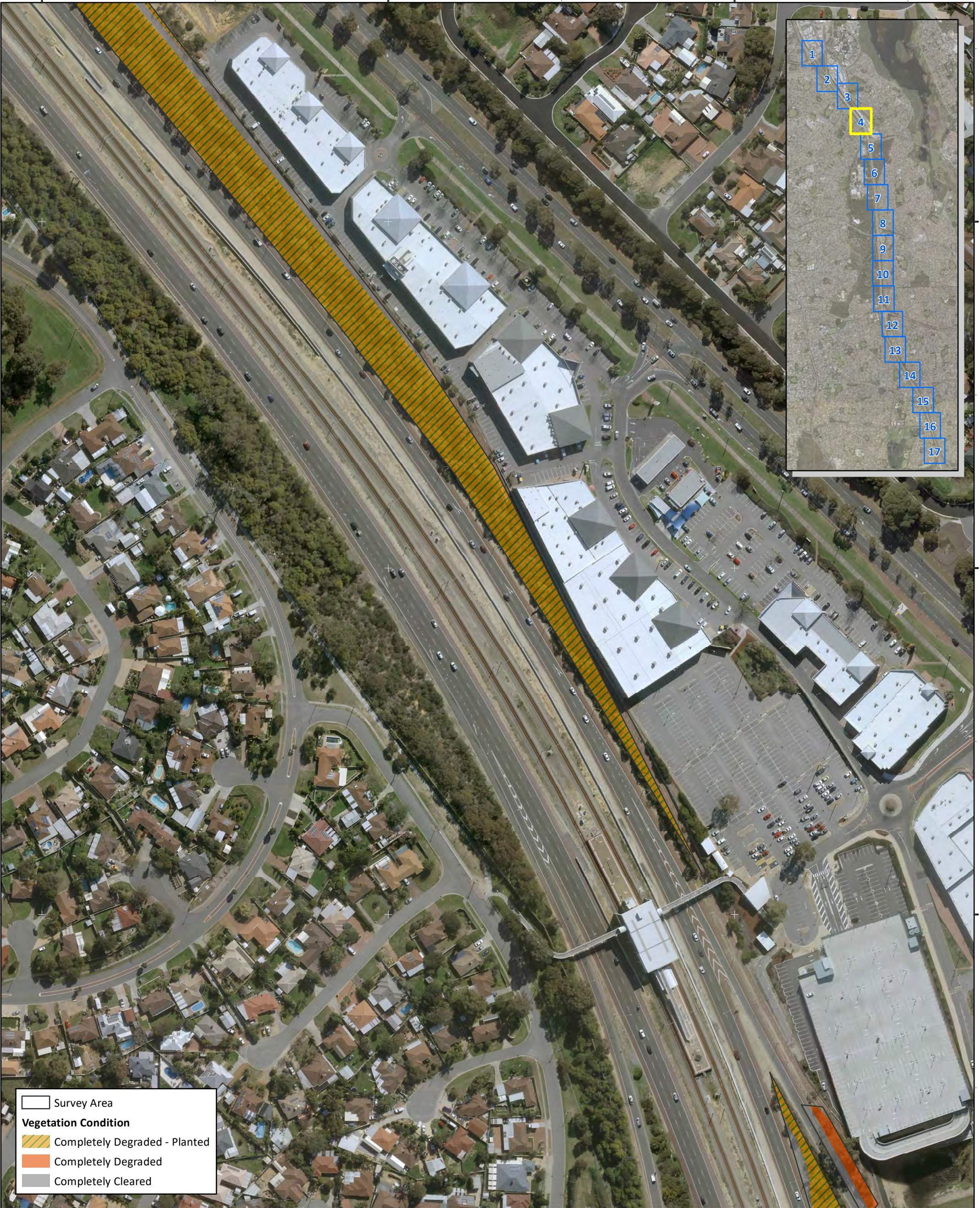


384000 384200 384400

6484600

6484400

6484200



Survey Area

Vegetation Condition

- Completely Degraded - Planted
- Completely Degraded
- Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.4: Vegetation condition

Author: C. Dyde	Date: 18-05-2020
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50

0 20 40 60 80 100 Metres

384400

384600

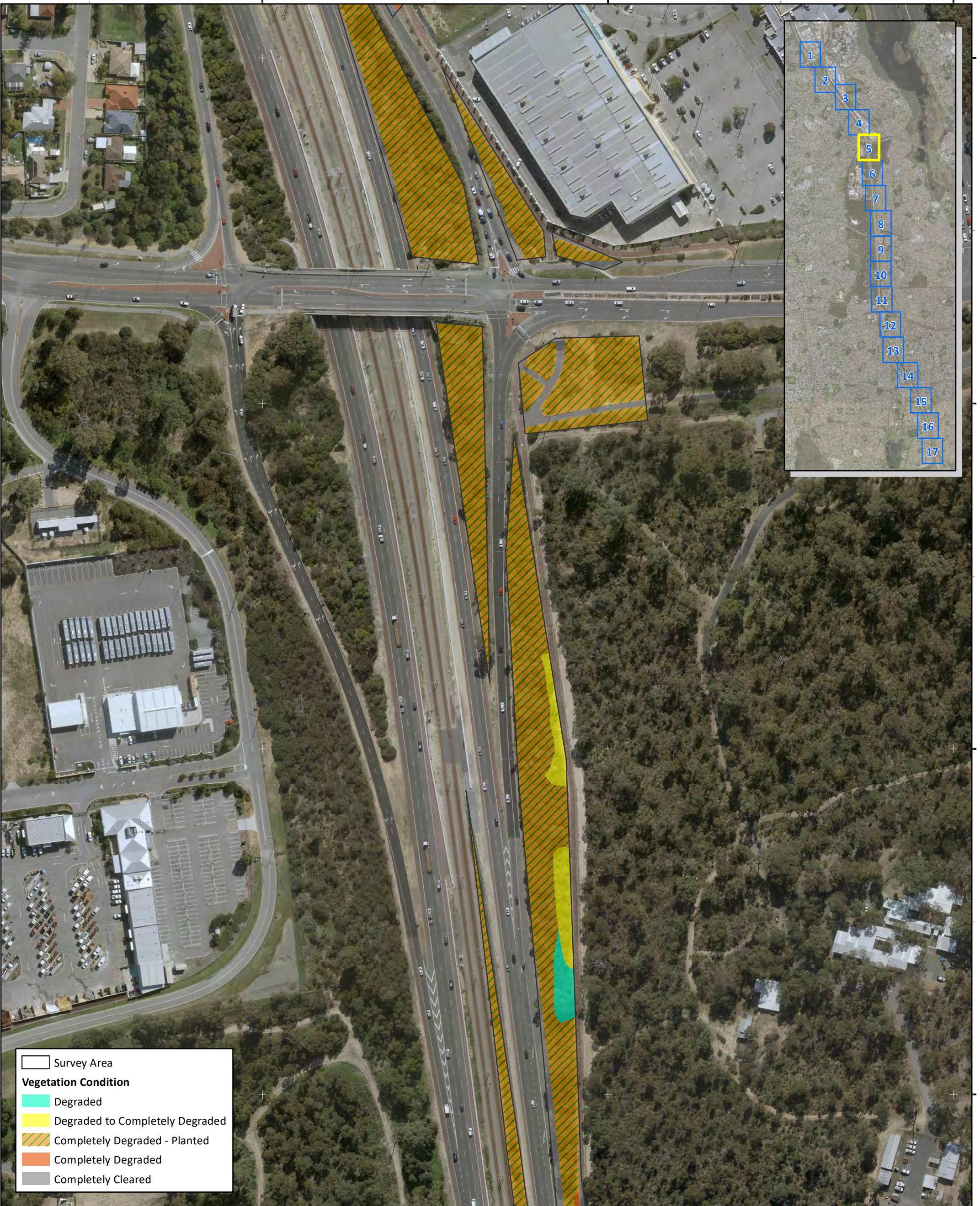
384800

64834000

64838000

64836000

64834000



Survey Area

Vegetation Condition

- Degraded
- Degraded to Completely Degraded
- Completely Degraded - Planted
- Completely Degraded
- Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.5: Vegetation condition

Author: C. Dyde	Date: 18-05-2020
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50

0 20 40 60 80 100 Metres

384400

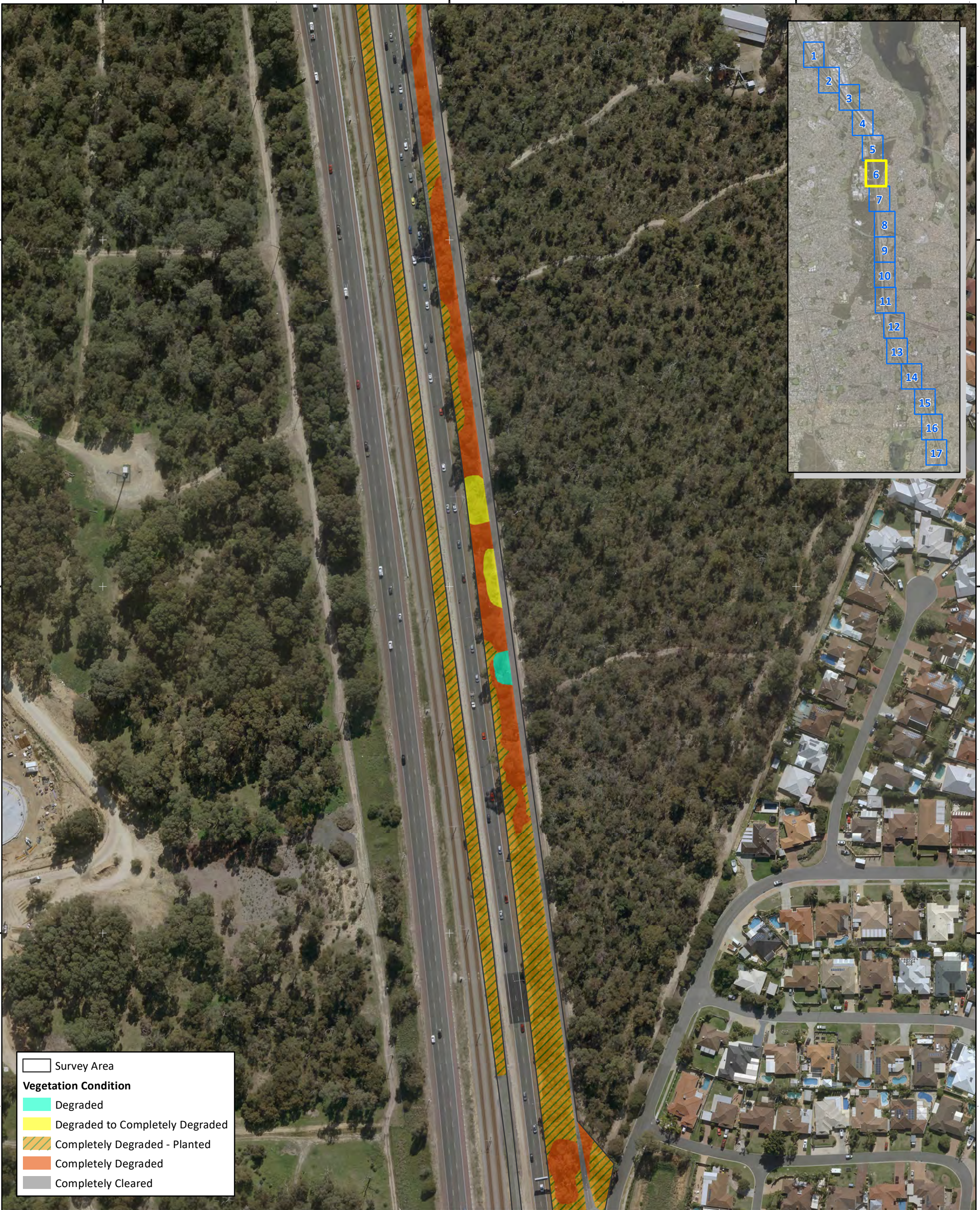
384600

384800

6483200

6483000

6482800



Survey Area

Vegetation Condition

- Degraded
- Degraded to Completely Degraded
- Completely Degraded - Planted
- Completely Degraded
- Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey

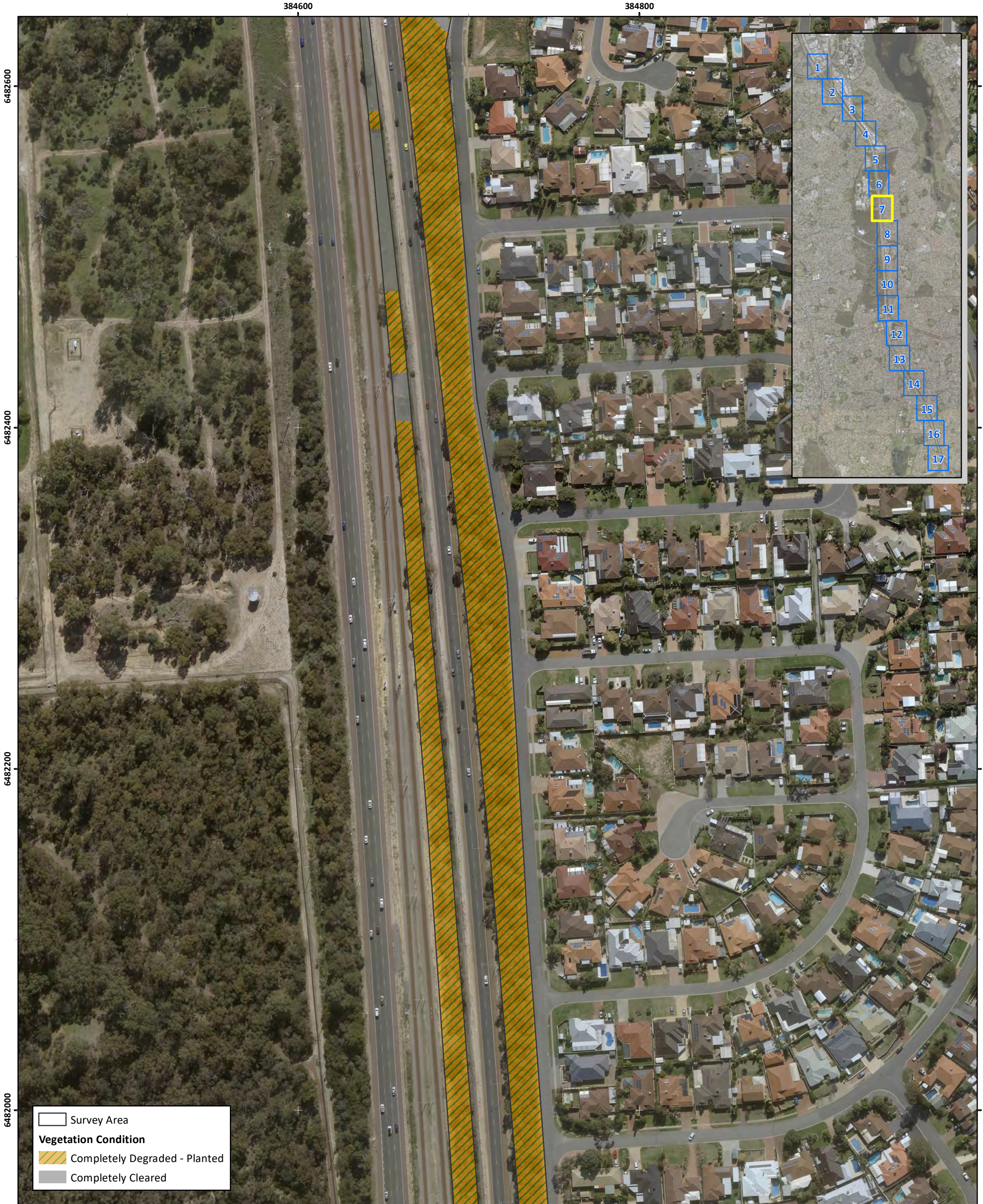


Figure J.6: Vegetation condition

Author: C. Dyde	Date: 18-05-2020
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50





Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.7: Vegetation condition

Author: C. Dyde	Date: 18-05-2020	Scale: 1:2,000 at A3 Coordinate System: GDA 1994 MGA Zone 50 	
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ		

384600

384800

385000

6481800

6481600

6481400




Survey Area
Vegetation Condition
 Degraded
 Degraded to Completely Degraded
 Completely Degraded - Planted
 Completely Degraded
 Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.8: Vegetation condition

Author: C. Dyde	Date: 18-05-2020	Scale: 1:2,000 at A3 Coordinate System: GDA 1994 MGA Zone 50 
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ	



384600

384800

385000

6481200

6481000

6480800

6480600



Survey Area

Vegetation Condition

- Good
- Degraded
- Degraded to Completely Degraded
- Completely Degraded - Planted
- Completely Degraded
- Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.9: Vegetation condition

Author: C. Dyde

Date: 18-05-2020

Drawn: A. Sleep

Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50



384600

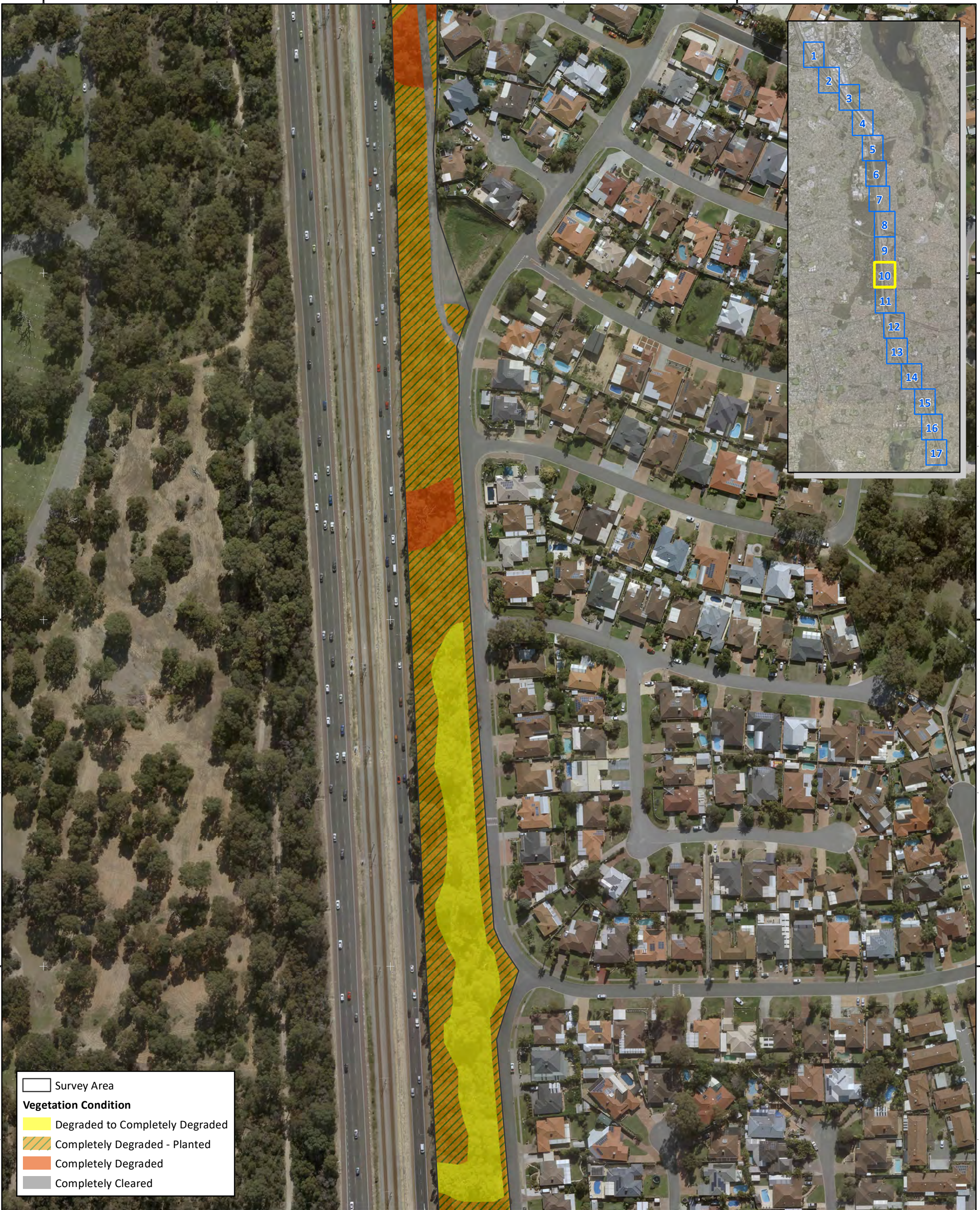
384800

385000

6480400

6480200

6480000



Survey Area
Vegetation Condition
 Degraded to Completely Degraded
 Completely Degraded - Planted
 Completely Degraded
 Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey

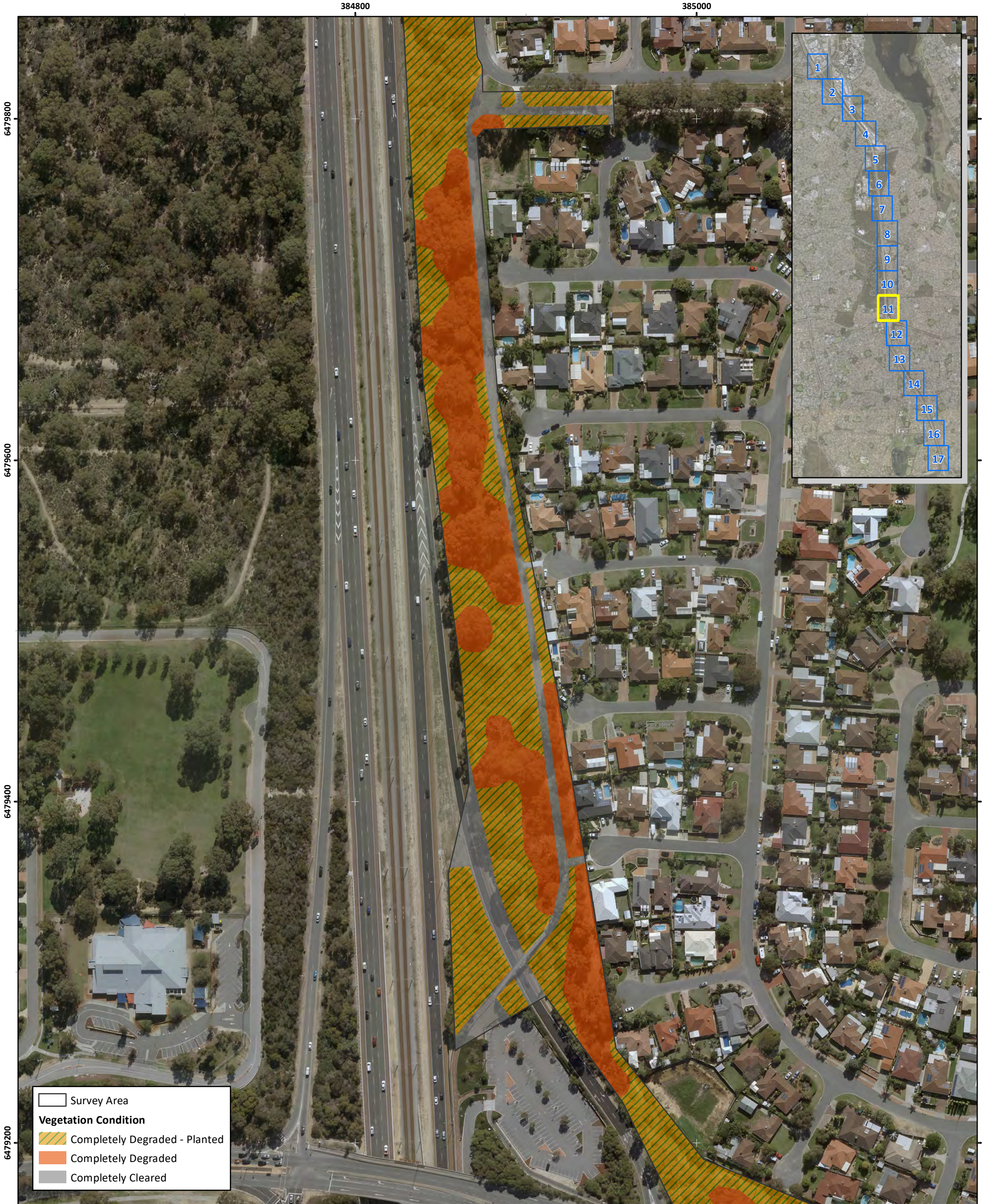


Figure J.10: Vegetation condition

Author: C. Dyde	Date: 18-05-2020
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50





Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.11: Vegetation condition

Author: C. Dyde

Date: 18-05-2020

Drawn: A. Sleep

Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50
 0 20 40 60 80 100 Metres



385000

385200

6479000

6478800

6478600



Survey Area
Vegetation Condition
 Completely Degraded - Planted
 Completely Degraded
 Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.12: Vegetation condition

Author: C. Dyde	Date: 18-05-2020
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50

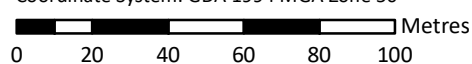
 Metres



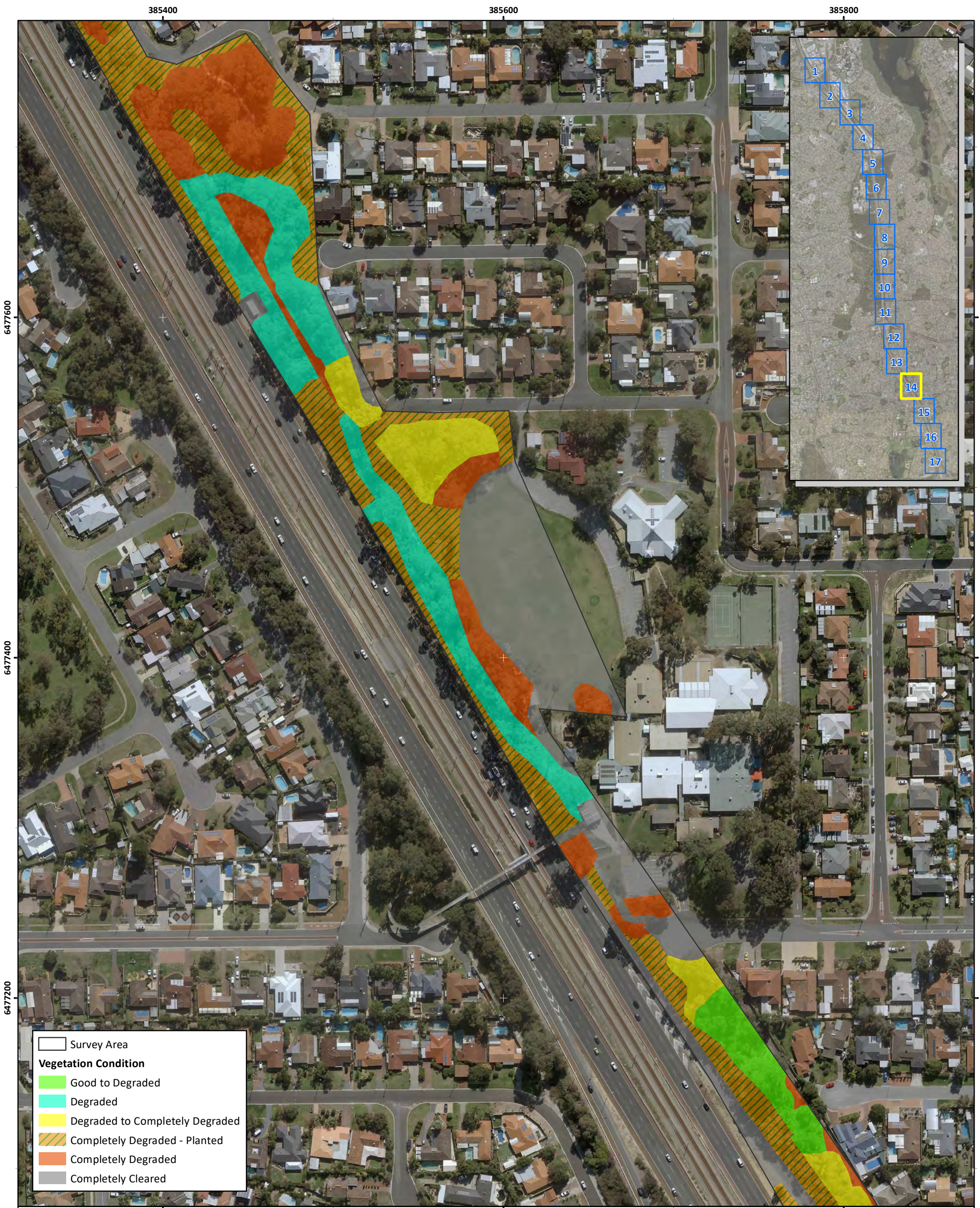
Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.13: Vegetation condition

Author: C. Dyde	Date: 18-05-2020	Scale: 1:2,000 at A3 Coordinate System: GDA 1994 MGA Zone 50 
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ	





6477600

6477400

6477200

385400

385600

385800

	Survey Area
Vegetation Condition	
	Good to Degraded
	Degraded
	Degraded to Completely Degraded
	Completely Degraded - Planted
	Completely Degraded
	Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.14: Vegetation condition

Author: C. Dyde	Date: 18-05-2020	Scale: 1:2,000 at A3 Coordinate System: GDA 1994 MGA Zone 50 	
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ		

385800

386000

386200

6477000

6476800

6476600

6476400



Survey Area

Vegetation Condition

- Degraded
- Degraded to Completely Degraded
- Completely Degraded - Planted
- Completely Degraded
- Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.15: Vegetation condition

Author: C. Dyde

Date: 09-07-2020

Drawn: A. Sleep

Figure Ref: 8612-19-BIDR-1RevC_200709_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50



386000

386200

386400

6476200

6476000

6475800



Survey Area
Vegetation Condition
 Completely Degraded - Planted
 Completely Degraded
 Completely Cleared

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.16: Vegetation condition

Author: C. Dyde	Date: 09-07-2020
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevC_200709_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50

 0 20 40 60 80 100 Metres



Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



Figure J.17: Vegetation condition

Author: C. Dyde	Date: 18-05-2020
Drawn: A. Sleep	Figure Ref: 8612-19-BIDR-1RevB_200518_VegCond_FigJ

Scale: 1:2,000 at A3
 Coordinate System: GDA 1994 MGA Zone 50

0 20 40 60 80 100 Metres

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Appendix K: Results of FCT Analysis

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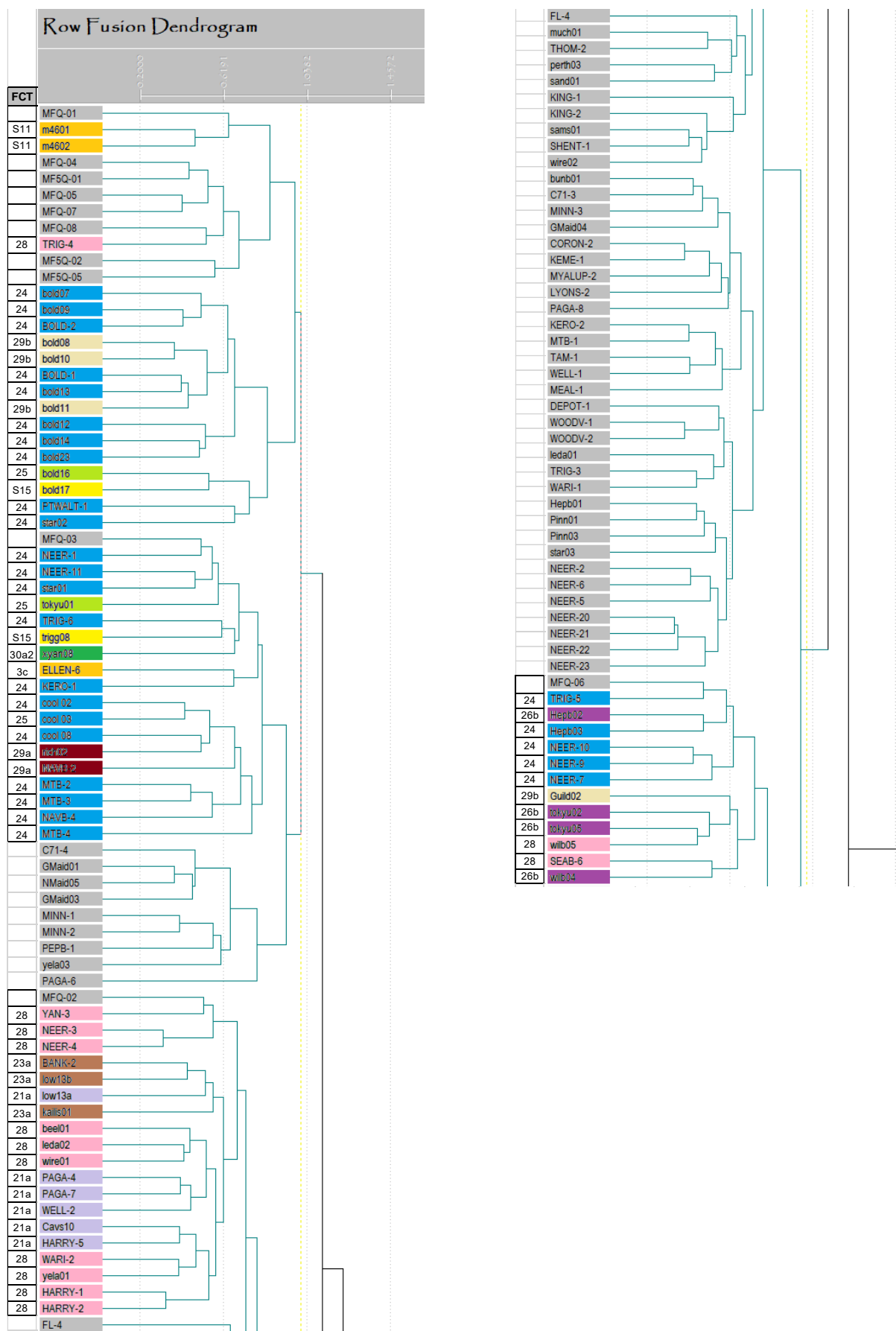


Figure K.1: Extract of dendrogram showing Astron quadrats within Swan Coastal Plain floristic dataset.

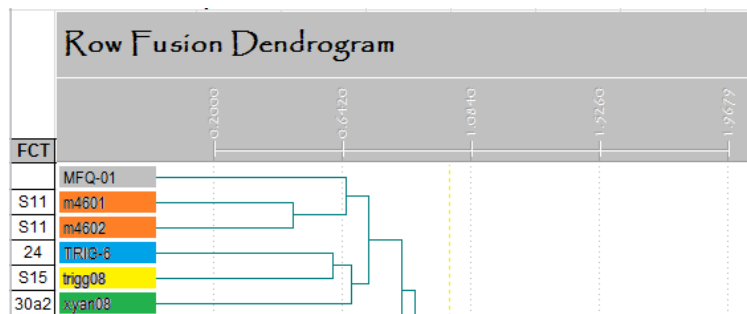


Figure K.2: Single insertion of Quadrat MFQ-01 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

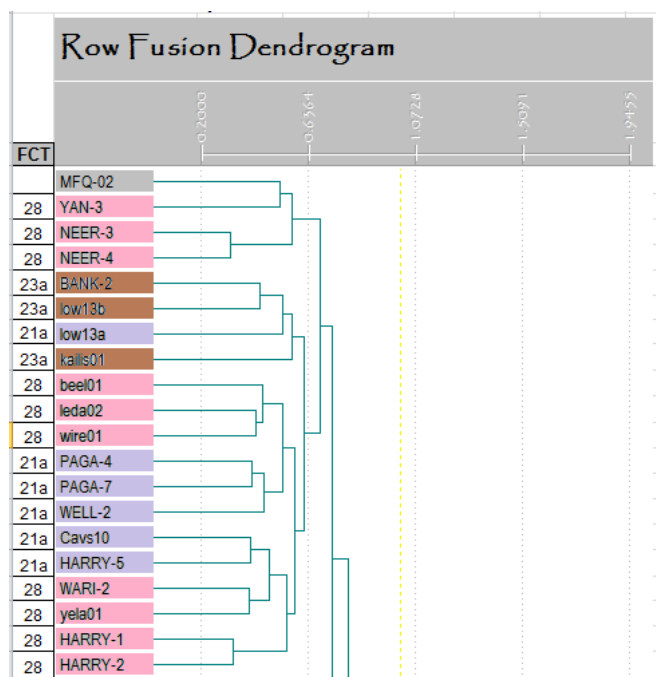


Figure K.3: Single insertion of Quadrat MFQ-02 in the Swan Coastal Plain floristic dataset (extract of dendrogram)

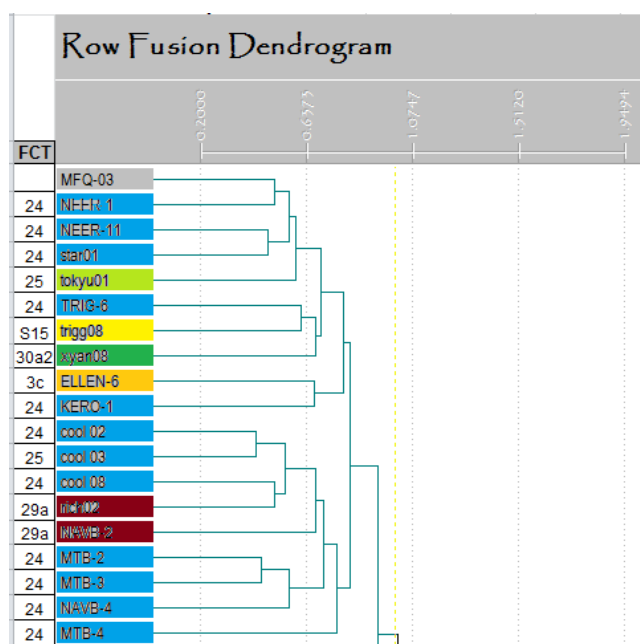


Figure K.4: Single insertion of Quadrat MFQ-03 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

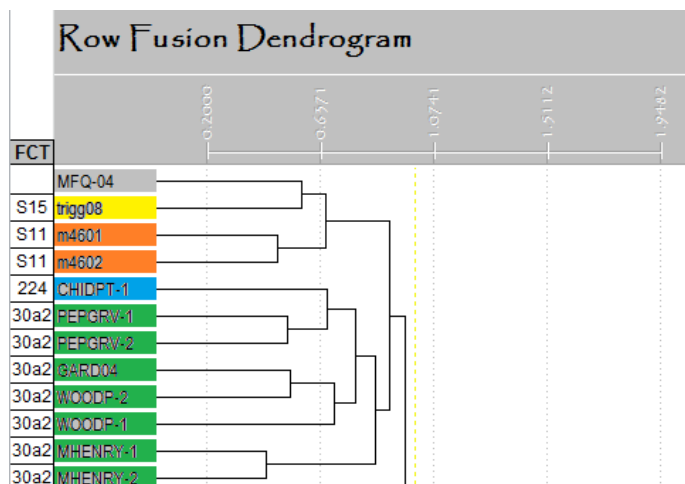


Figure K.5: Single insertion of Quadrat MFQ-04 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

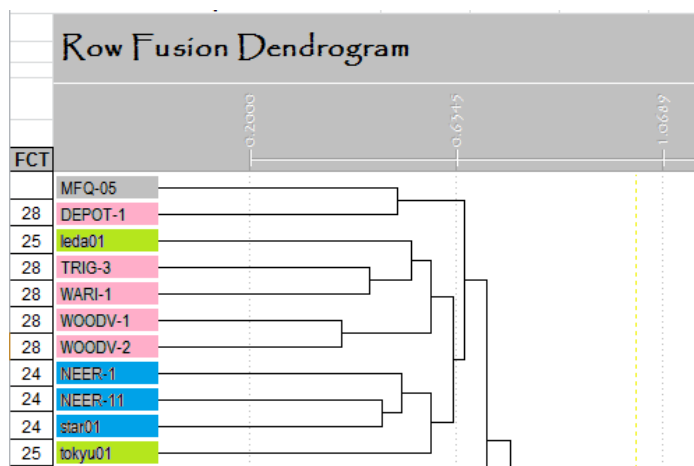


Figure K.6: Single insertion of Quadrat MFQ-05 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

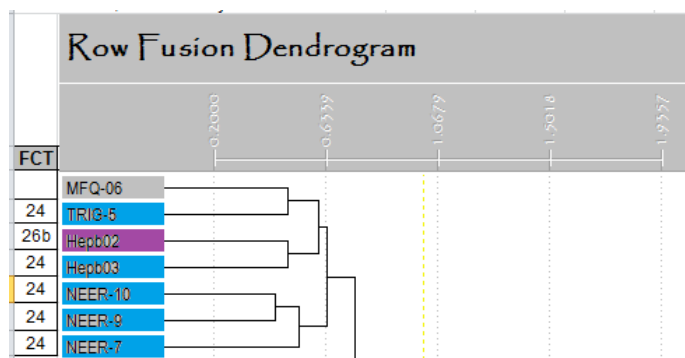


Figure K.7: Single insertion of Quadrat MFQ-06 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

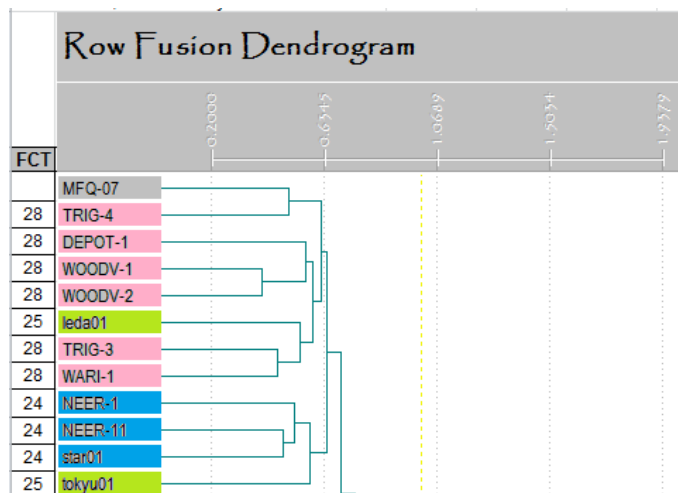


Figure K.8: Single insertion of Quadrat MFQ-07 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

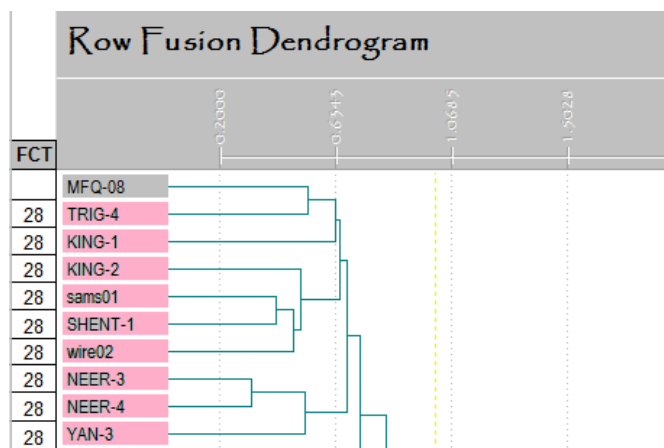


Figure K.9: Single insertion of Quadrat MFQ-08 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

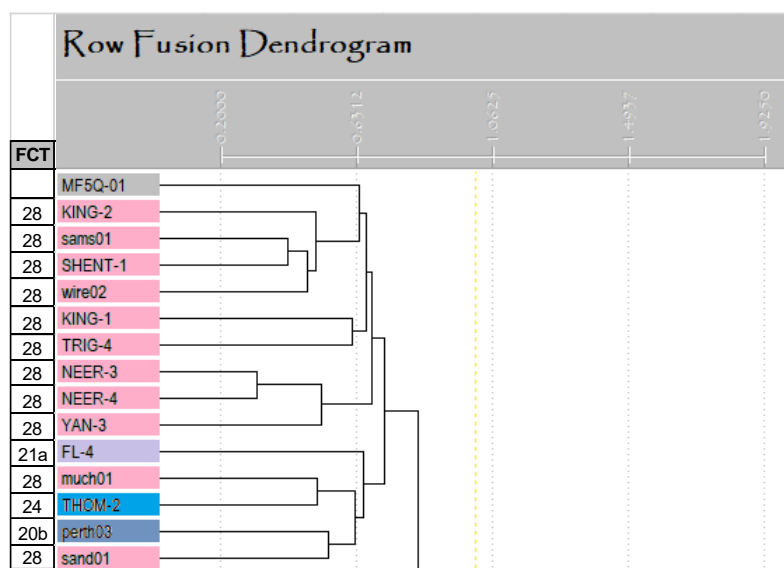


Figure K.10: Single insertion of Quadrat MF5Q-01 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

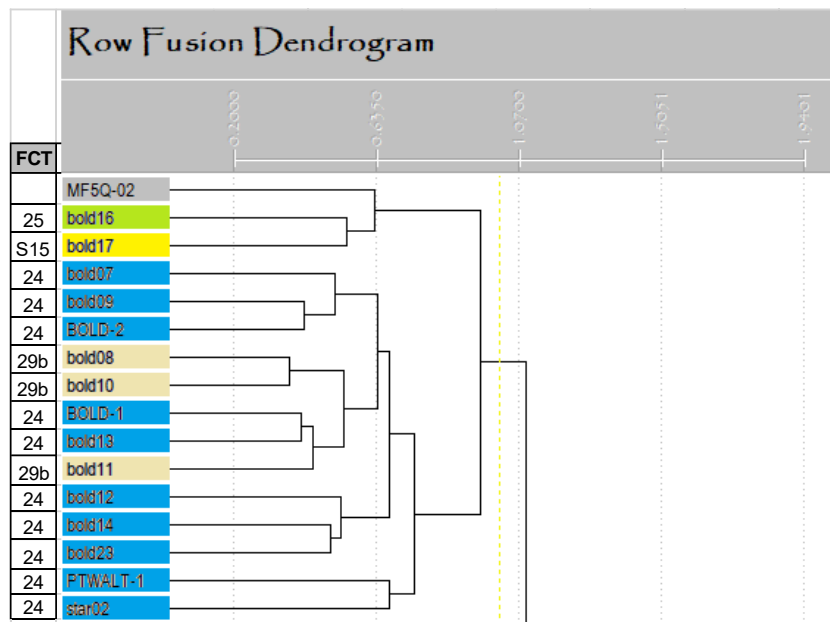


Figure K.11: Single insertion of Quadrat MF5Q-02 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

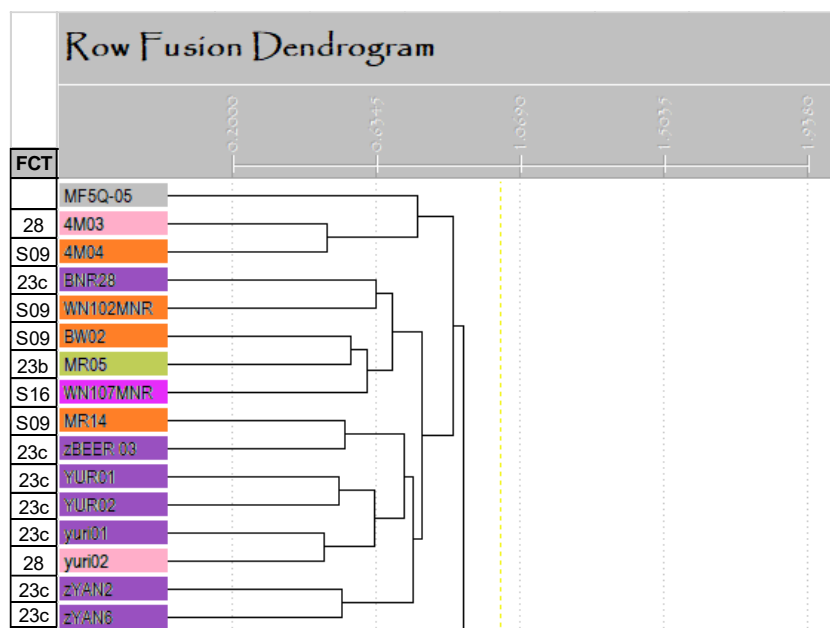


Figure K.12: Single insertion of Quadrat MF5Q-03 in the Swan Coastal Plain floristic dataset (extract of dendrogram).

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Appendix L: Significant Ecological Communities

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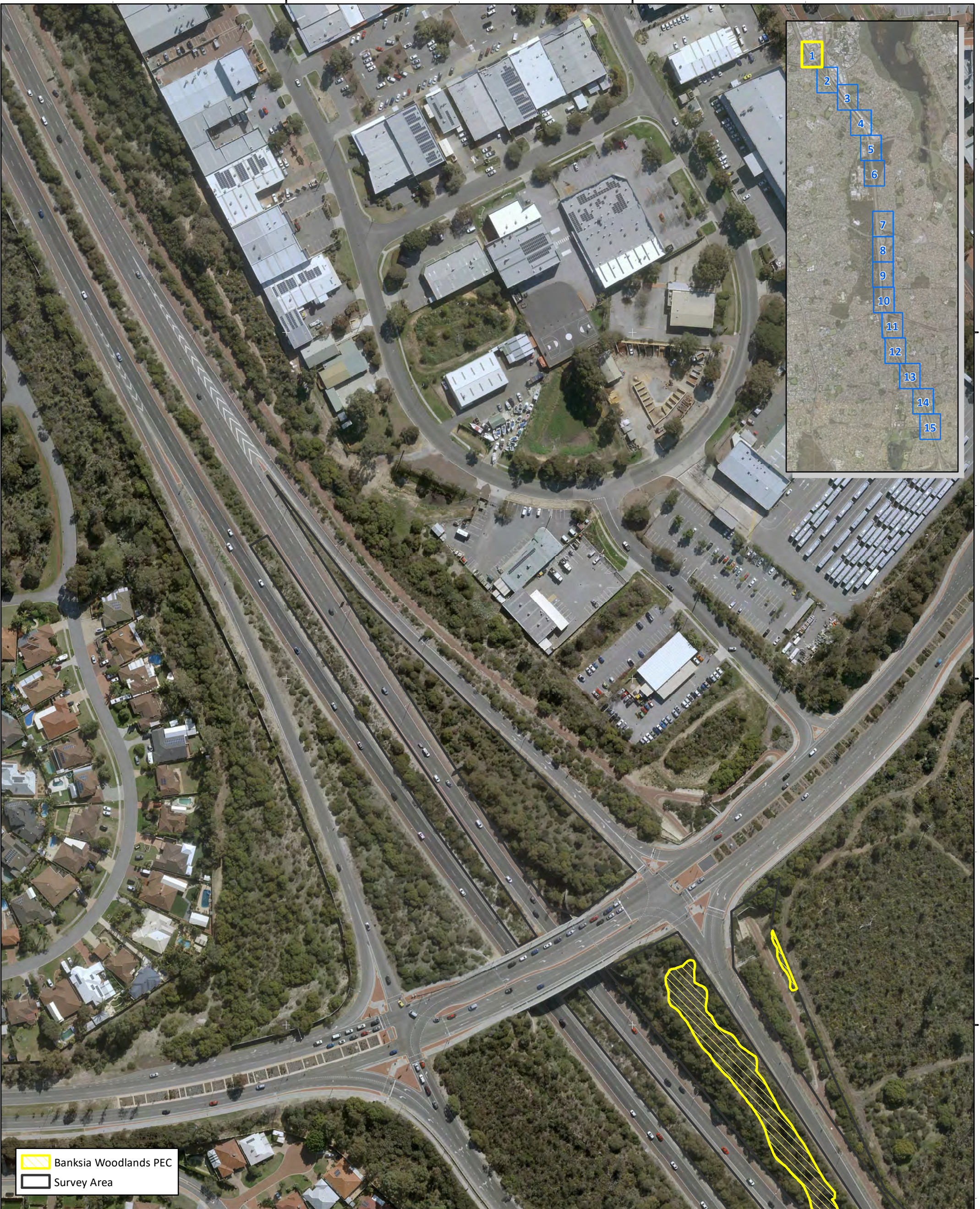
382800



383000

6486400

6486200

6486000



 Banksia Woodlands PEC
 Survey Area

Main Roads Western Australia
 Mitchell Freeway Widening Southbound and PSP Mitchell Freeway Gaps Hodges Drive to Reid Highway - Biological Survey



L.1.1: Priority Ecological Communities

Author: C. Dyde

Date: 11-05-2020

Drawn: A. Sleep

Figure Ref: 8612-19-BIDR-1RevB_200511_PEC_FigL1

