

**Legend**

- Impact assessment area
- Impact area

**PCT - Condition**

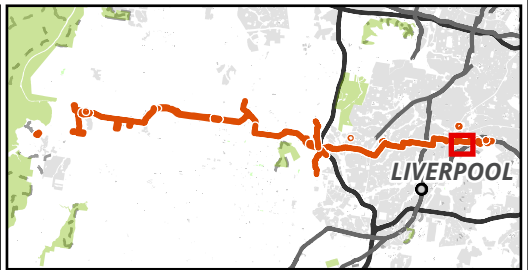
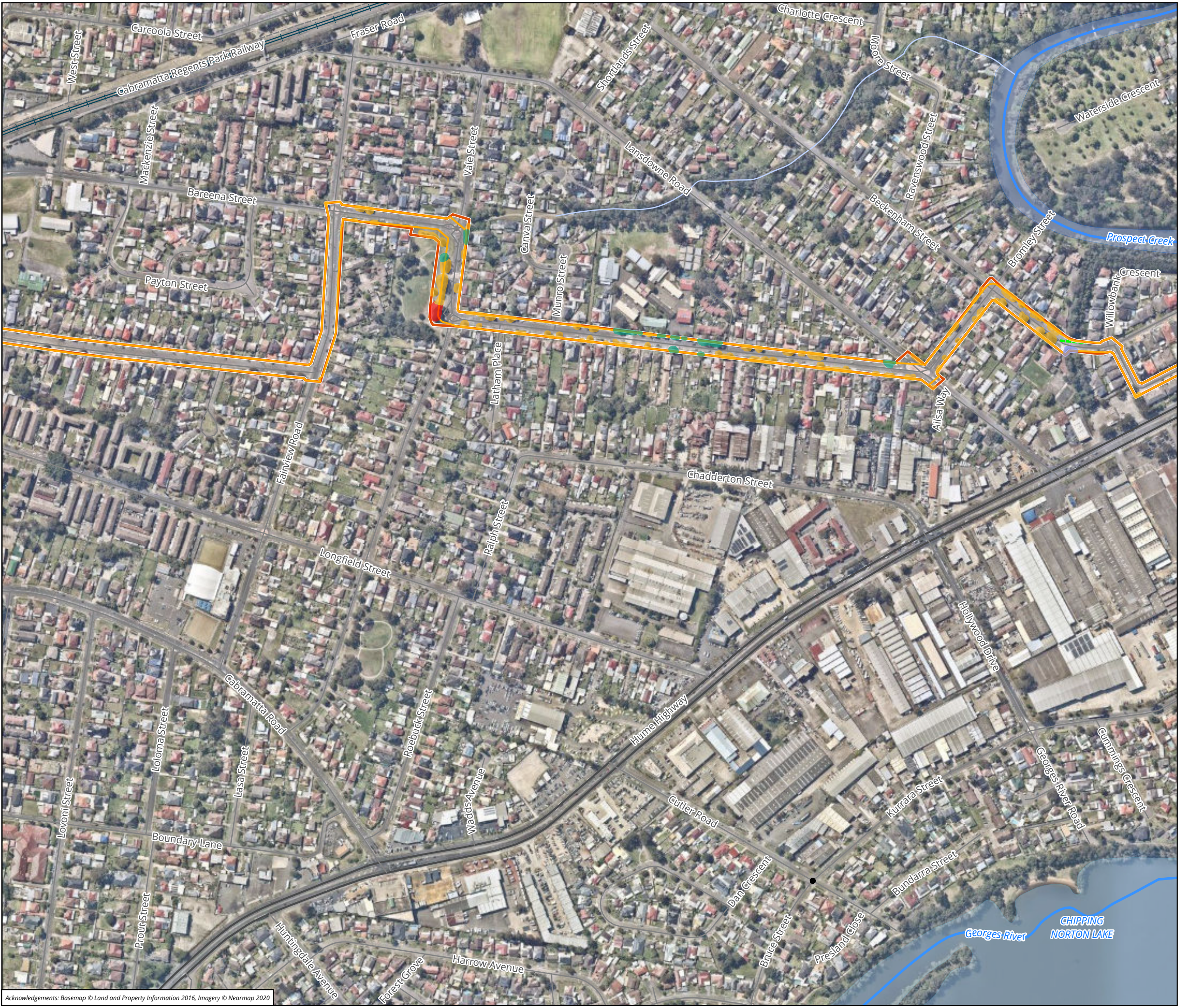
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned

**Figure 5.2 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200  
Metres  
Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56







**Legend**

- Impact assessment area
- Impact area
- Underbore

**PCT - Condition**

- Urban Native/Exotic
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned

**Figure 5.3 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200 Metres

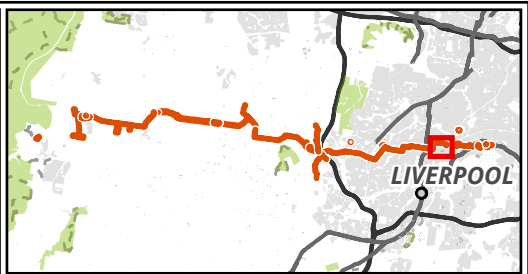
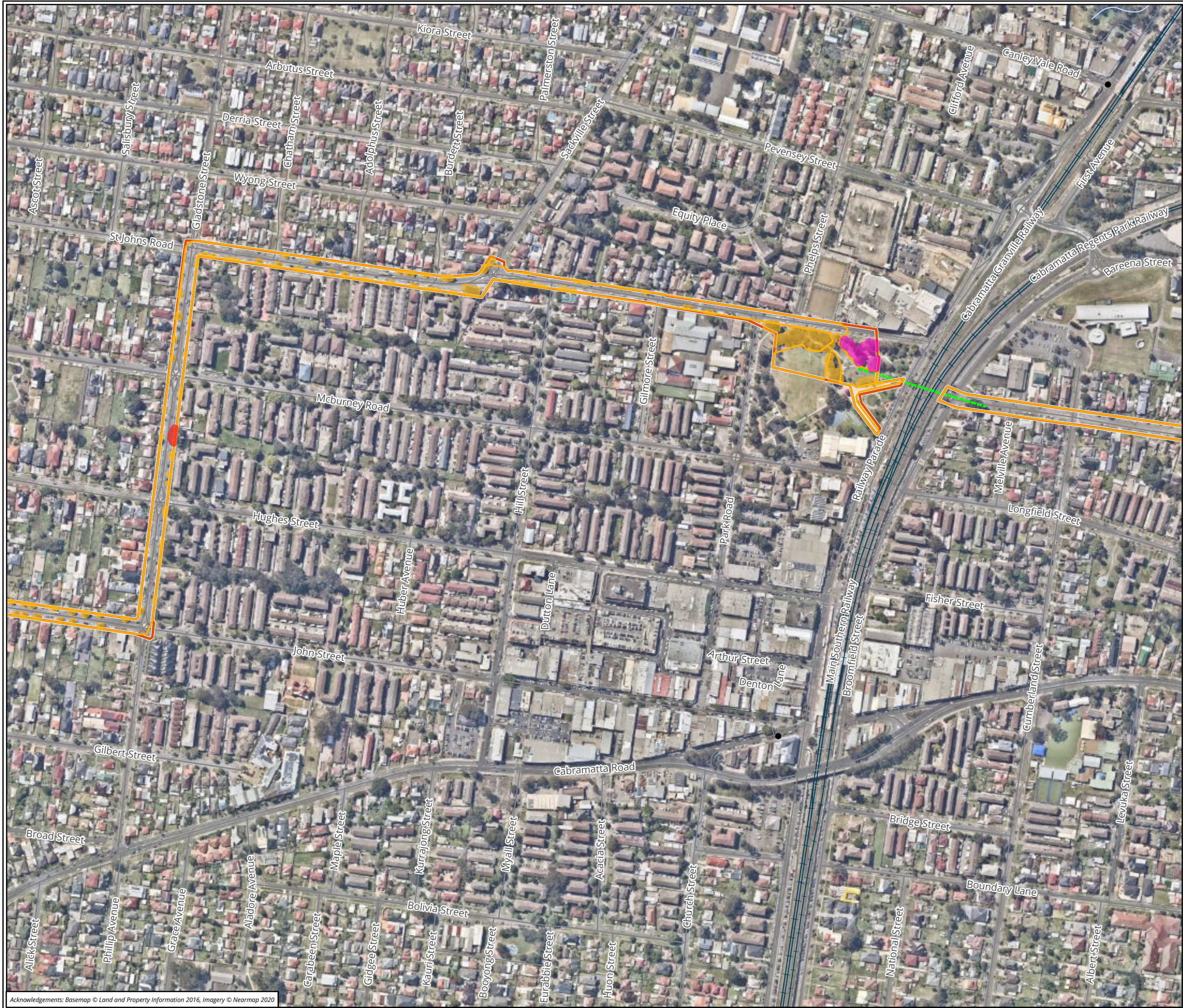
Scale: 1:5,000 @ A3  
Coordinate System: GDA 1994 MGA Zone 56

**biosis**

Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020

00





**Legend**

- Impact assessment area
- Impact area
- Underbore

**PCT - Condition**

- Urban Native/Exotic
- PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned

**Figure 5.4 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200 Metres

Scale: 1:5,000 @ A3  
Coordinate System: GDA 1994 MGA Zone 56

**biosis**

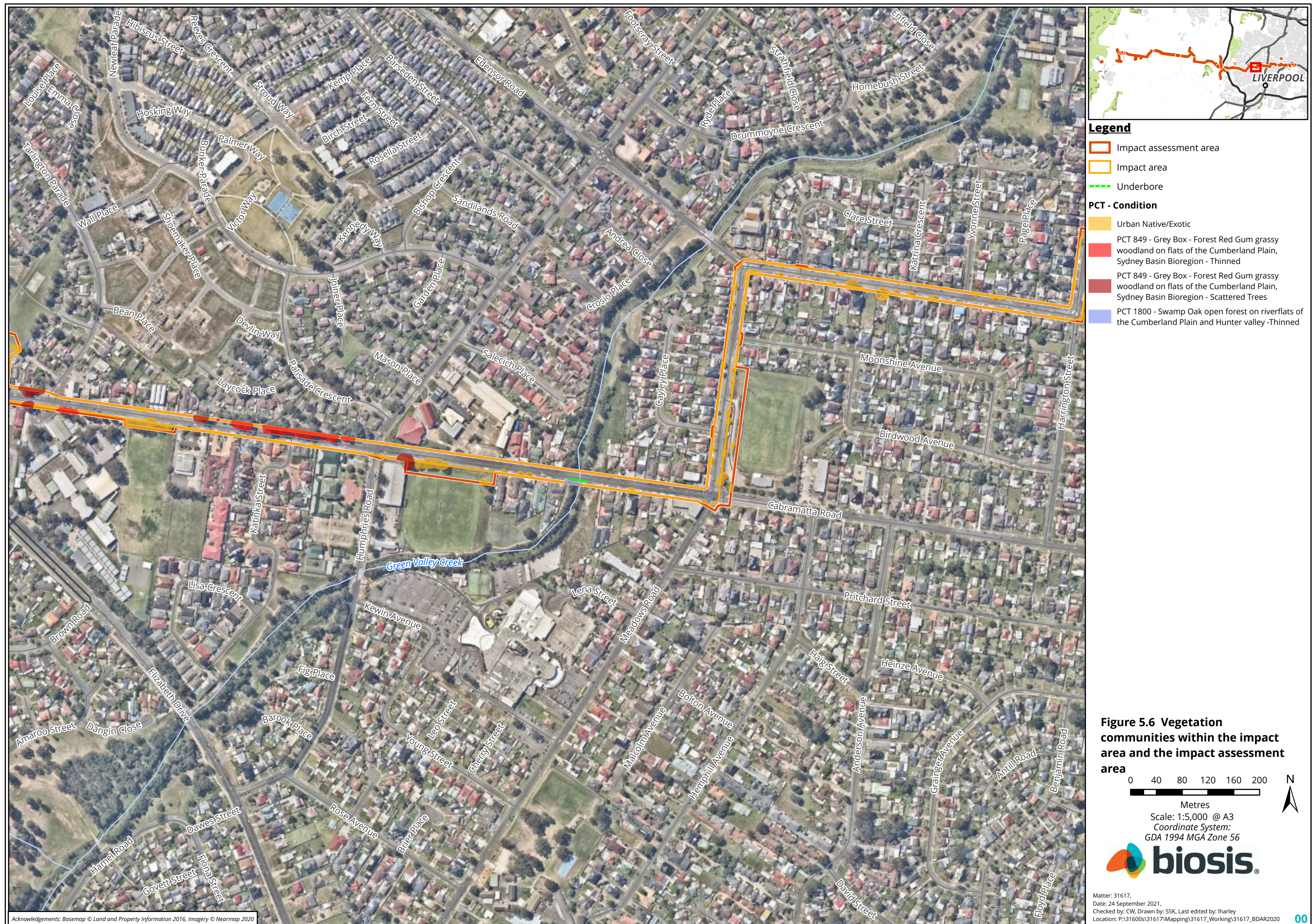
Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020

00

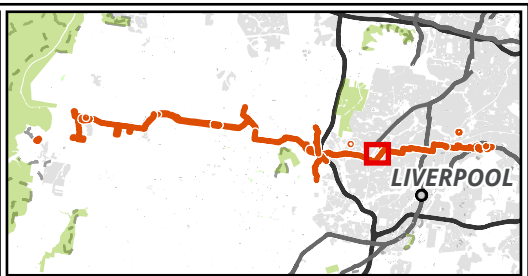












**Legend**

- Impact assessment area
- Impact area
- Underbore

**PCT - Condition**

- Urban Native/Exotic
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Intact
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned

**Figure 5.7 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200 Metres

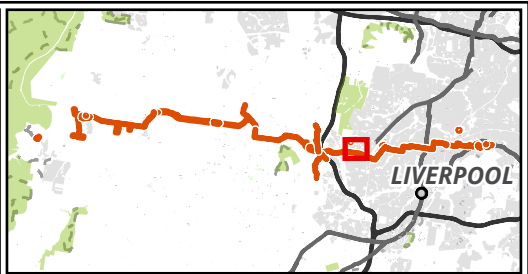
Scale: 1:5,000 @ A3  
Coordinate System: GDA 1994 MGA Zone 56

**biosis**

Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020

00





**Legend**

- Impact assessment area
- Impact area
- Underbore

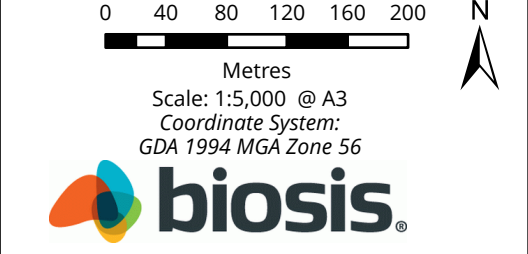
**Biocertification**

- Existing Certified

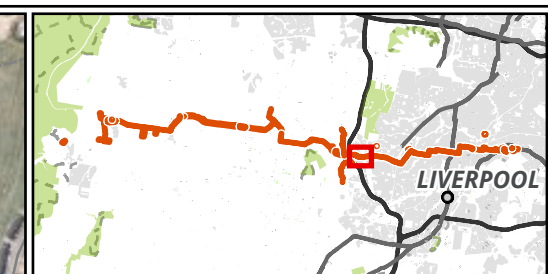
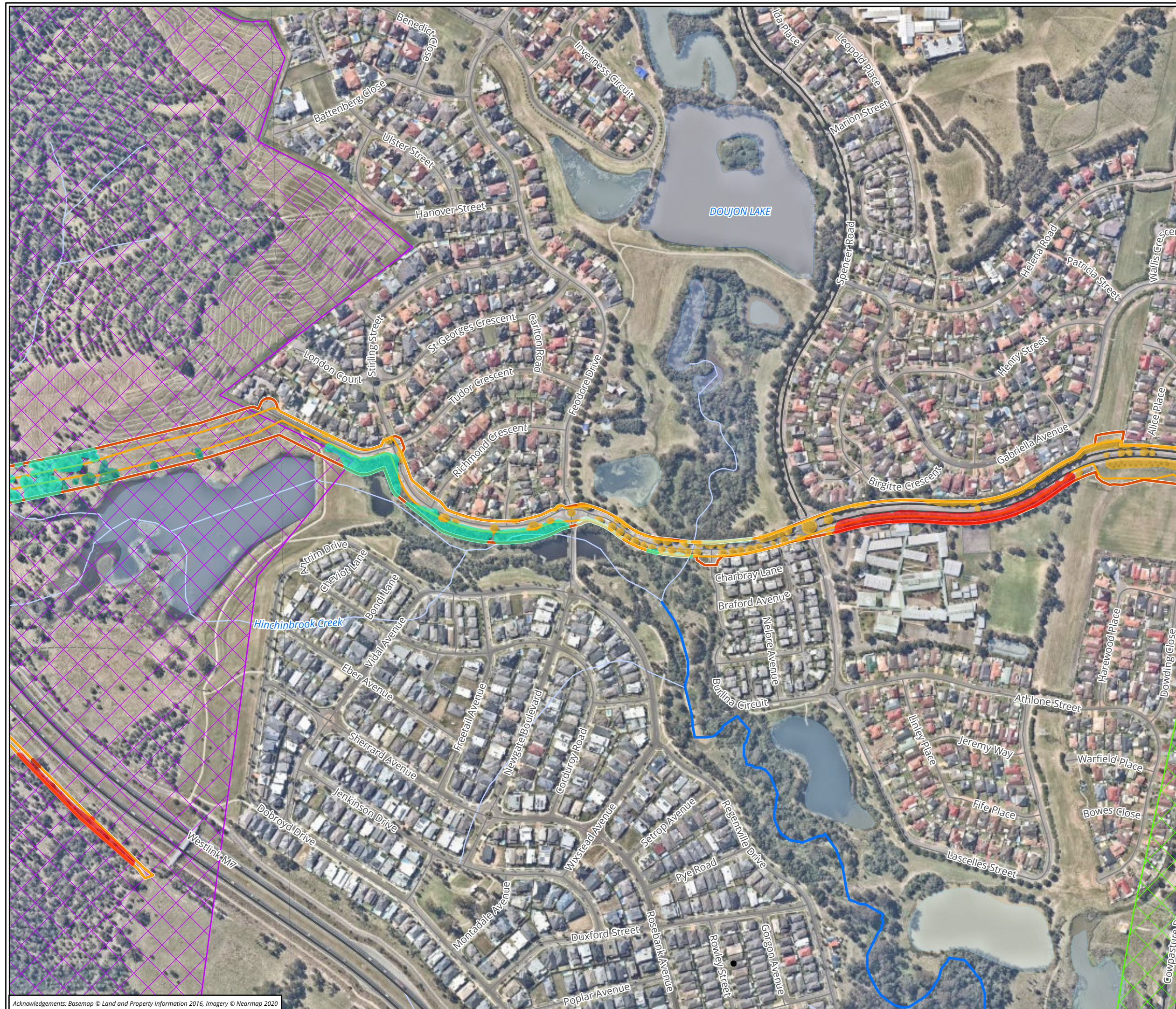
**PCT - Condition**

- Urban Native/Exotic
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Intact
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

**Figure 5.8 Vegetation communities within the impact area and the impact assessment area**







### Legend

Impact assessment area

Impact area

Underbore

### Biocertification

Existing Certified

Existing Non Certified

### PCT - Condition

Urban Native/Exotic

PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Intact

PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned

PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned

PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

**Figure 5.9 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200

Metres

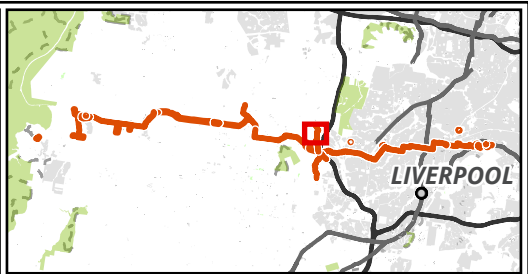
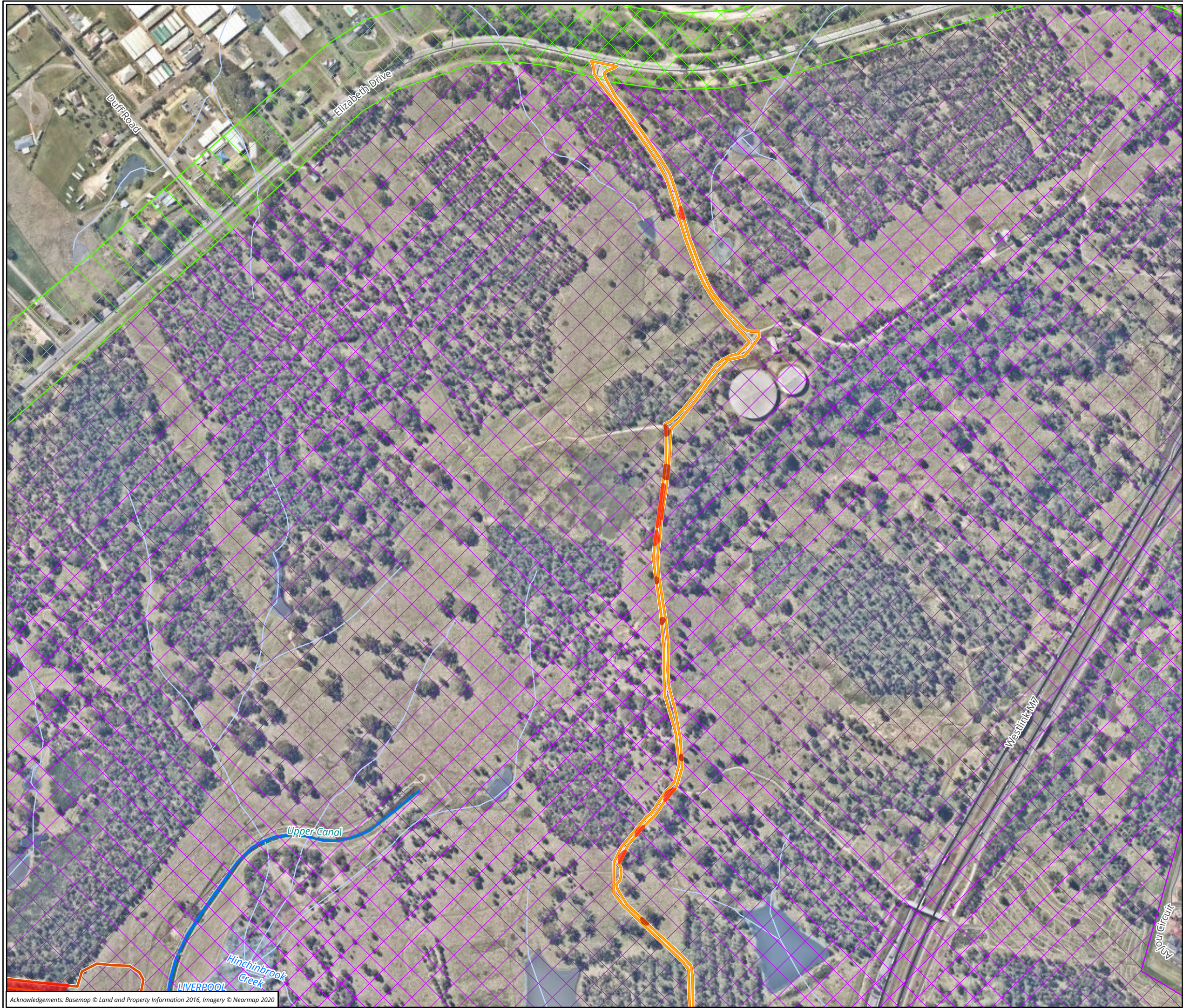
Scale: 1:5,000 @ A3

Coordinate System:  
GDA 1994 MGA Zone 56



Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020





**Legend**

- Impact assessment area
- Impact area
- Underbore

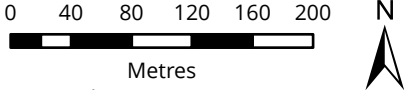
**Biocertification**

- Existing Certified
- Existing Non Certified

**PCT - Condition**

- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

**Figure 5.10 Vegetation communities within the impact area and the impact assessment area**

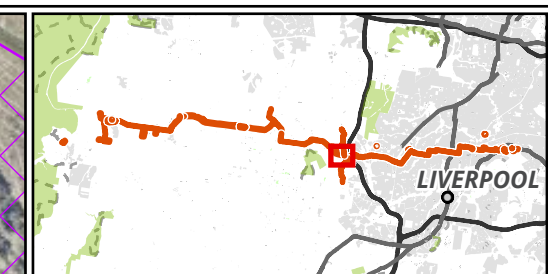
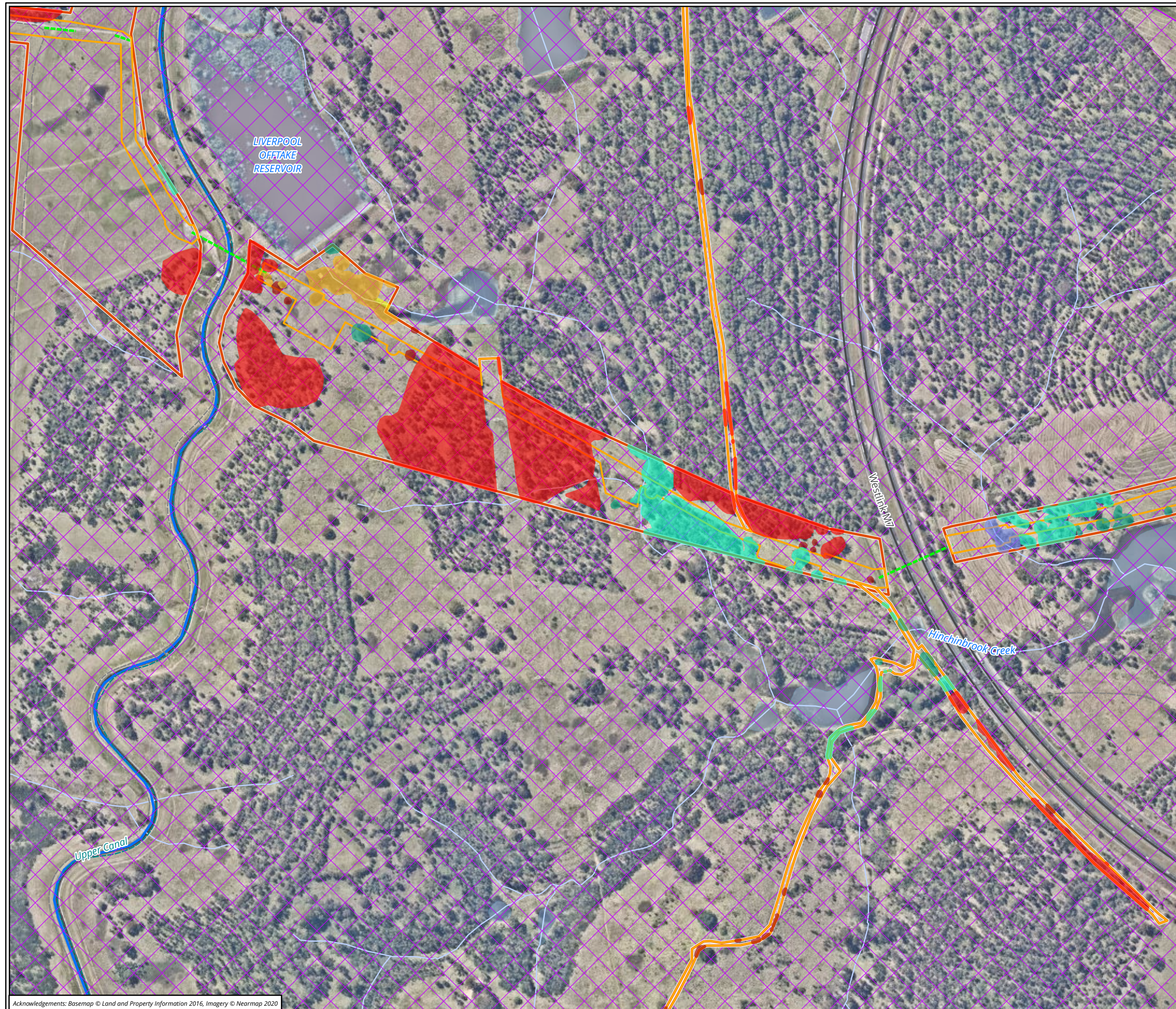


Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020





### Legend

- Impact assessment area
- Impact area
- Underbore

### Biocertification

- Existing Non Certified

### PCT - Condition

- Urban Native/Exotic
- PCT 781 - Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion - Thinned
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned

**Figure 5.11 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200

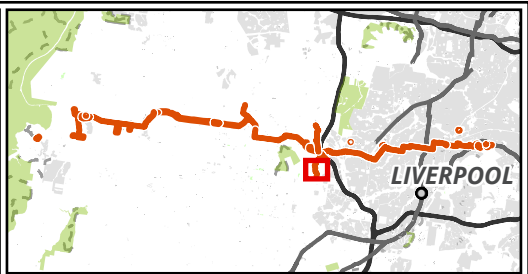
Metres

Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020





**Legend**

Impact assessment area

Impact area

**Biocertification**

Existing Certified

Existing Non Certified

**PCT - Condition**

PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned

PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

**Figure 5.12 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200

Metres

Scale: 1:5,000 @ A3

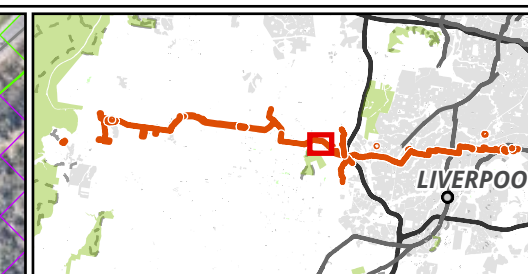
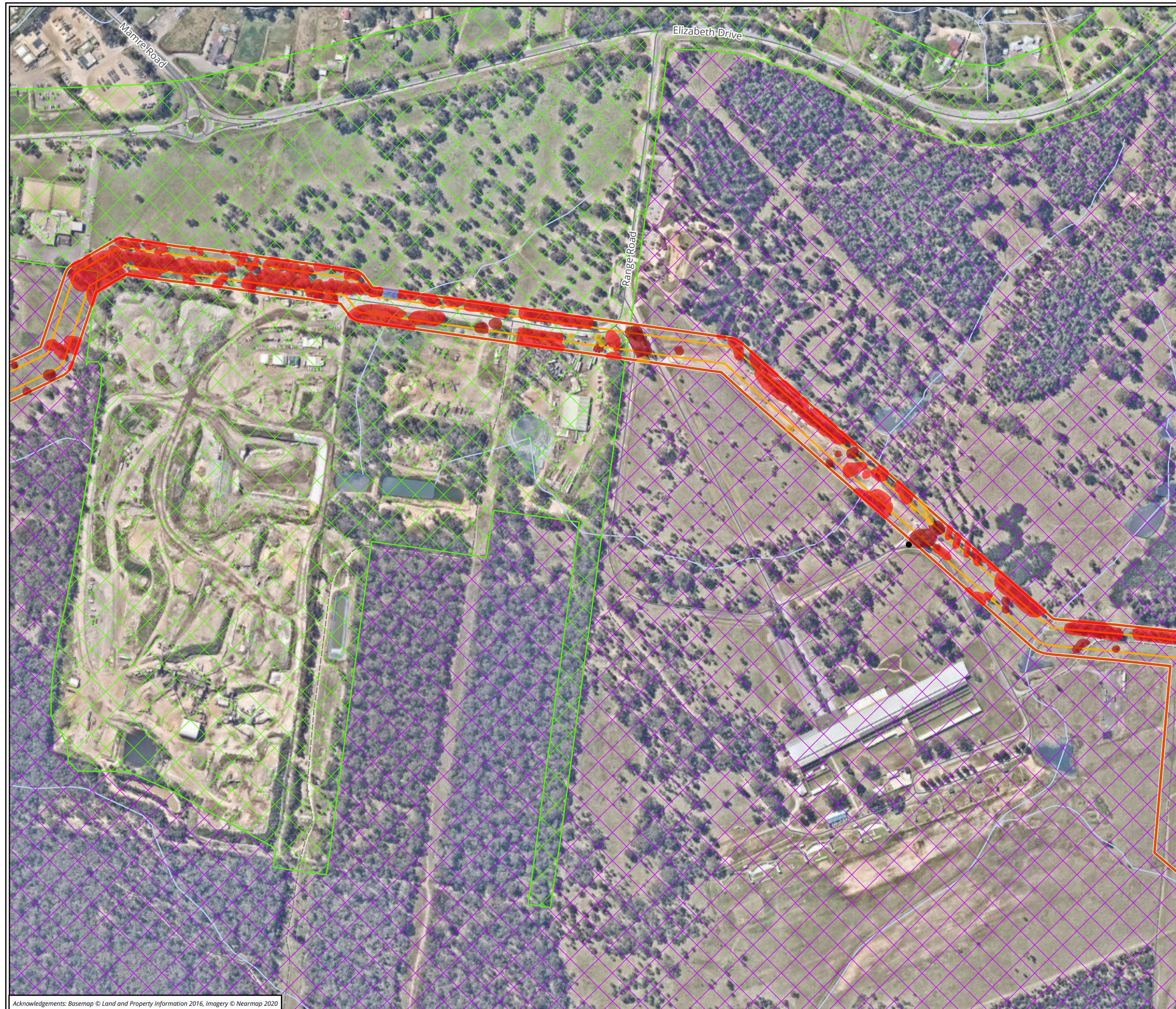
Coordinate System: GDA 1994 MGA Zone 56

**biosis**

Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020

00





#### Legend

- Impact assessment area
- Impact area
- Underbore

#### Biocertification

- Existing Certified
- Existing Non Certified

#### PCT - Condition

- Urban Native/Exotic
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned

**Figure 5.13 Vegetation communities within the impact area and the impact assessment area**

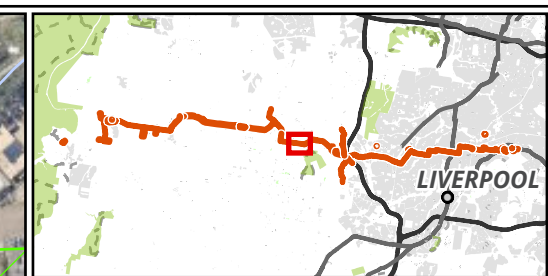
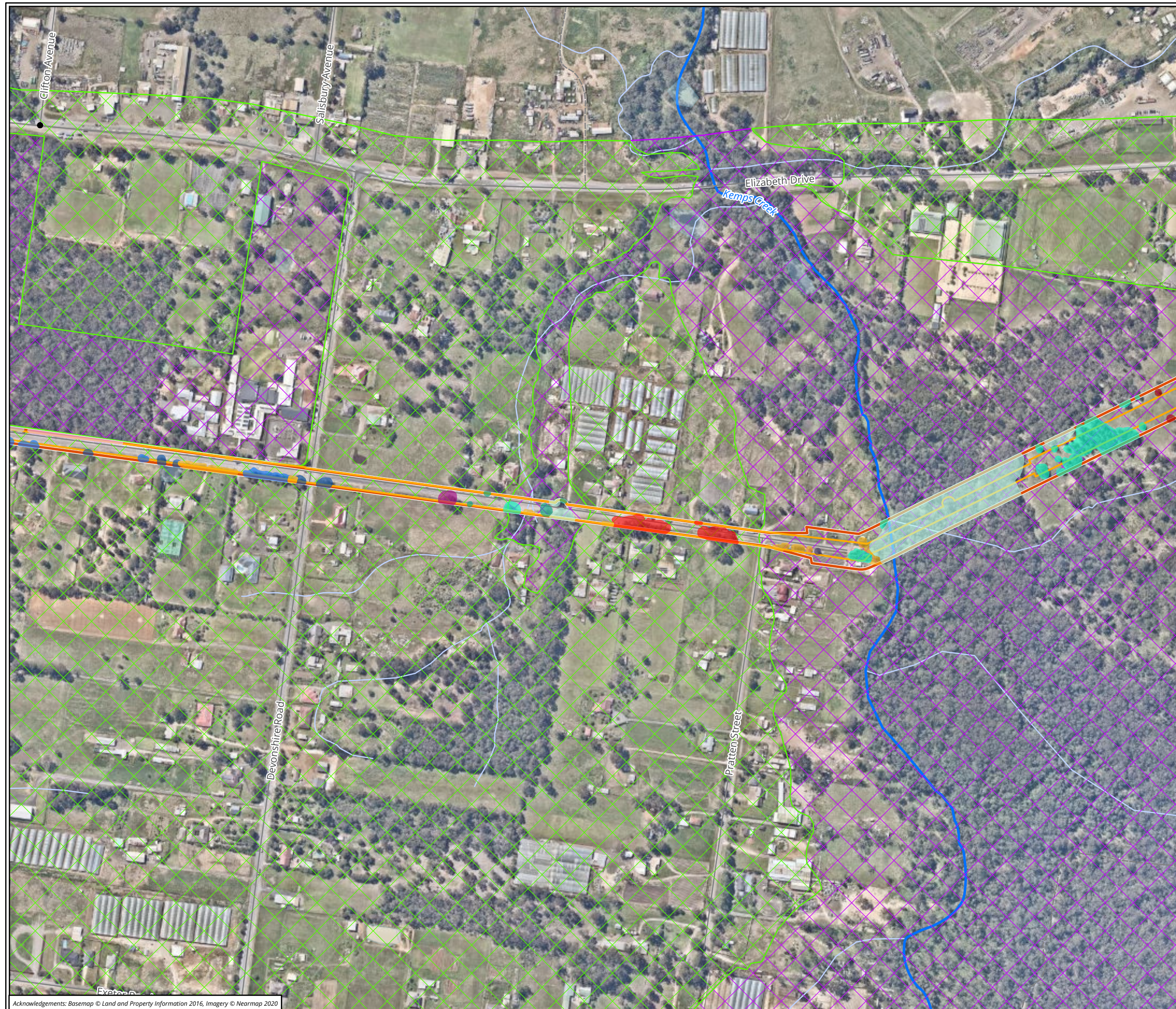
0 40 80 120 160 200  
Metres

Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020





#### Legend

- Impact assessment area
- Impact area

#### Biocertification

- Existing Certified
- Existing Non Certified

#### PCT - Condition

- Urban Native/Exotic
- PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 725 - Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion - Intact
- PCT 725 - Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 725 - Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Intact
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 883 - Hard-leaved Scribbly Gum - Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin Bioregion - Intact

**Figure 5.14 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200

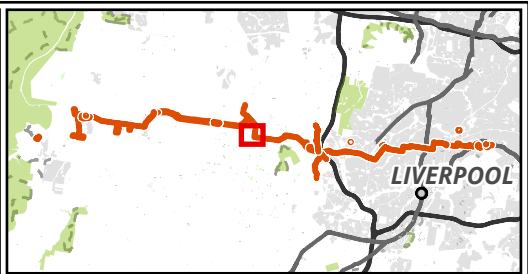
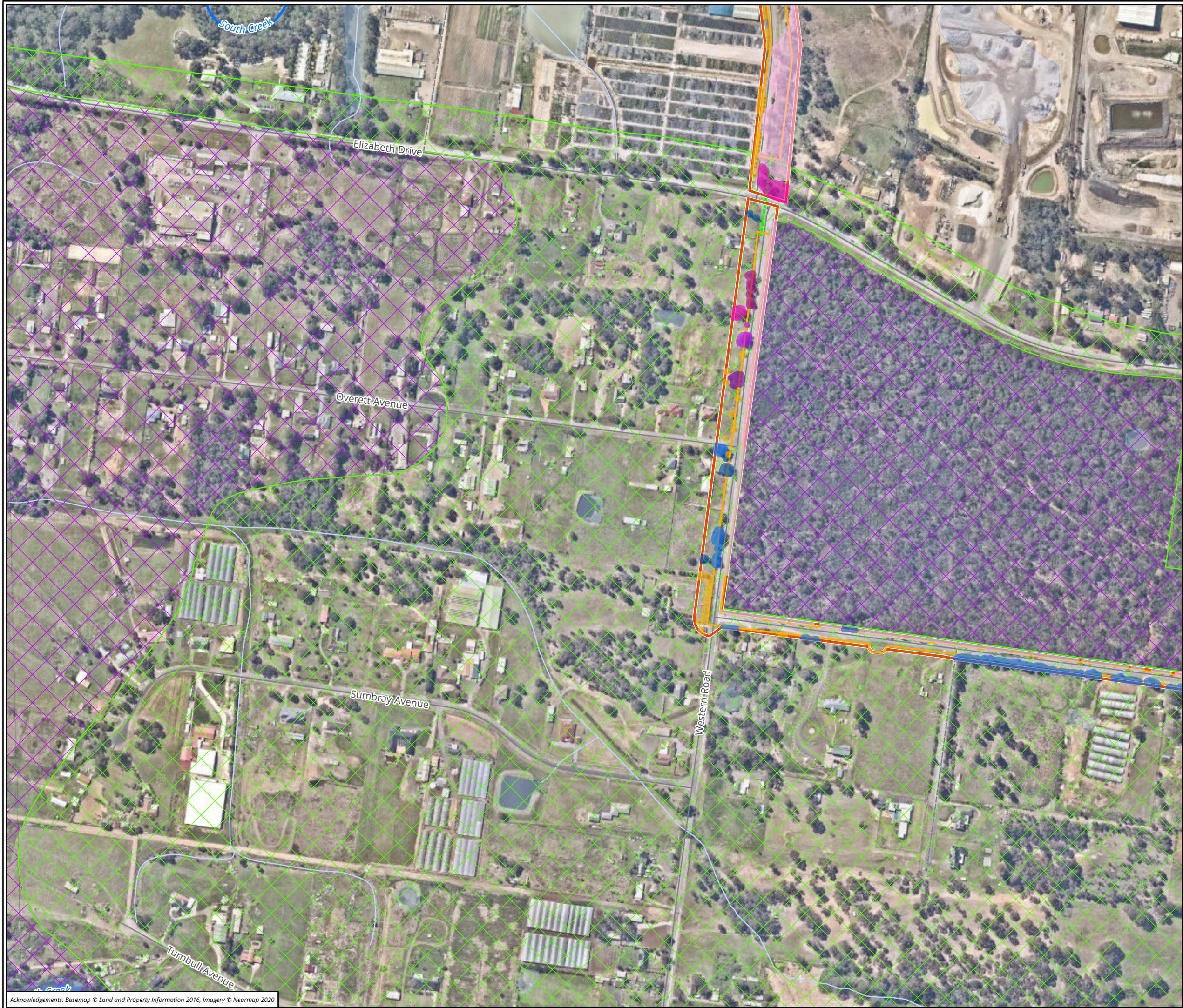
Metres

Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



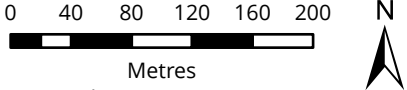
Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020





- Legend**
- Impact assessment area
  - Impact area
  - Underbore
- Biocertification**
- Existing Certified
  - Existing Non Certified
- PCT - Condition**
- Urban Native/Exotic
  - PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Intact
  - PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 725 - Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion - Intact
  - PCT 725 - Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 725 - Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 883 - Hard-leaved Scribbly Gum - Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin Bioregion - Intact
  - PCT 883 - Hard-leaved Scribbly Gum - Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 883 - Hard-leaved Scribbly Gum - Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

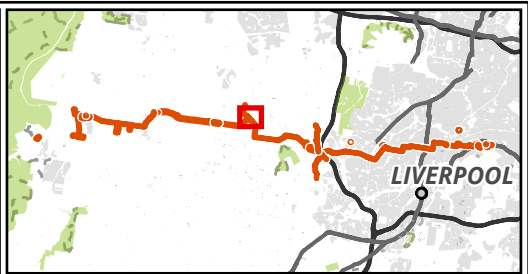
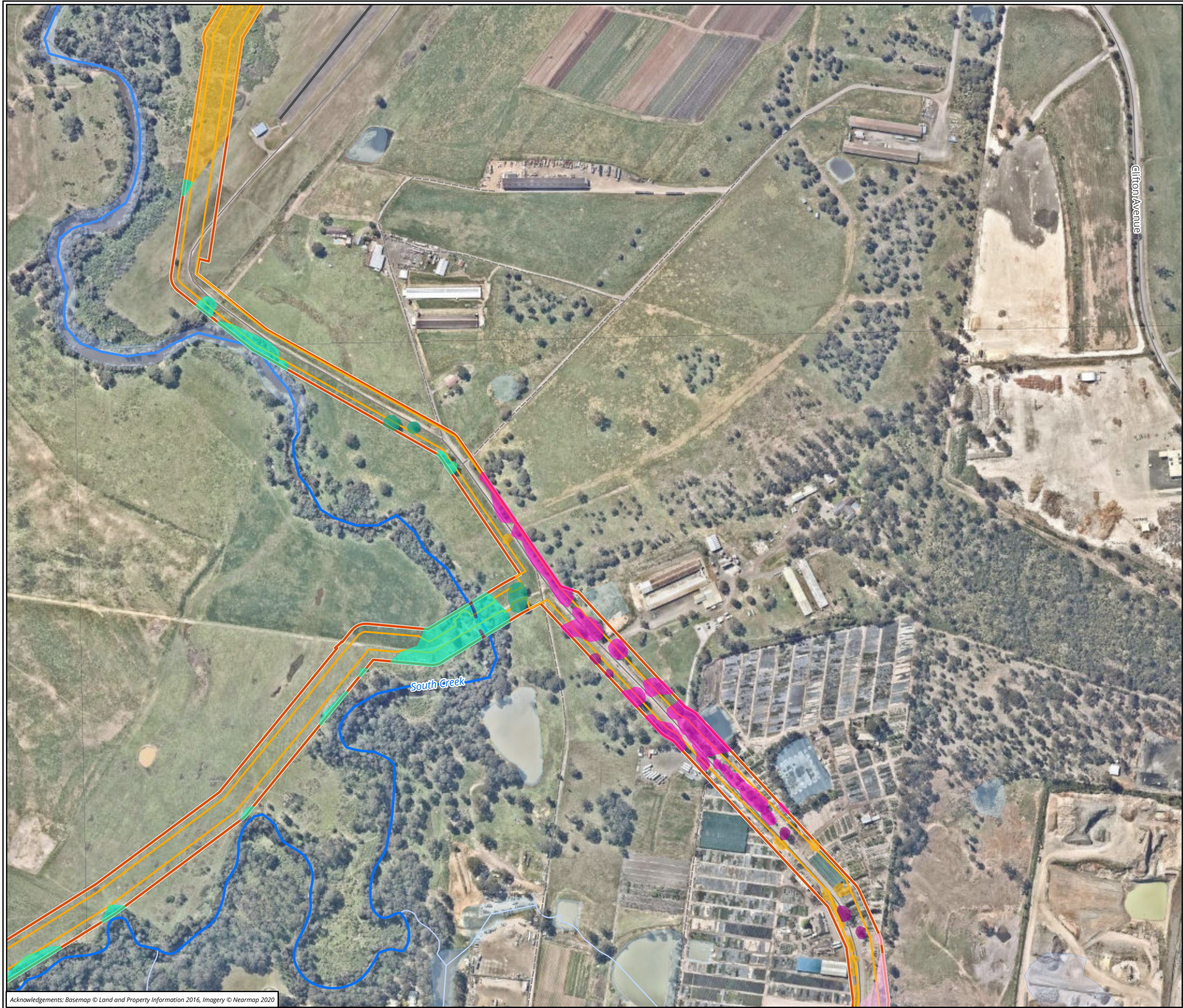
**Figure 5.15 Vegetation communities within the impact area and the impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56







- Legend**
- Impact assessment area
  - Impact area
- Biocertification**
- Existing Certified
- PCT - Condition**
- Urban Native/Exotic
  - PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Intact
  - PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned
  - PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley - Scattered Trees

**Figure 5.16 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200

Metres

Scale: 1:5,000 @ A3

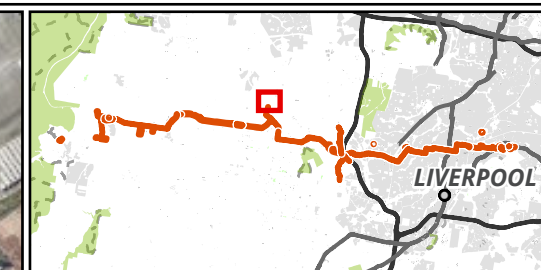
Coordinate System: GDA 1994 MGA Zone 56

**biosis**

Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020

00





- Legend**
- Impact assessment area
  - Impact area
- PCT - Condition**
- Urban Native/Exotic
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned
  - PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley - Scattered Trees

**Figure 5.17 Vegetation communities within the impact area and the impact assessment area**

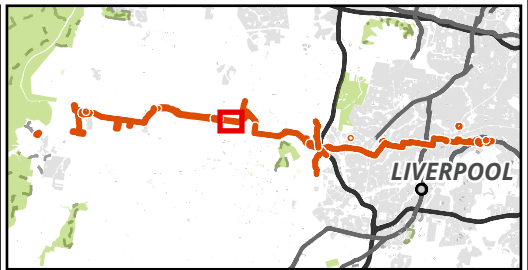
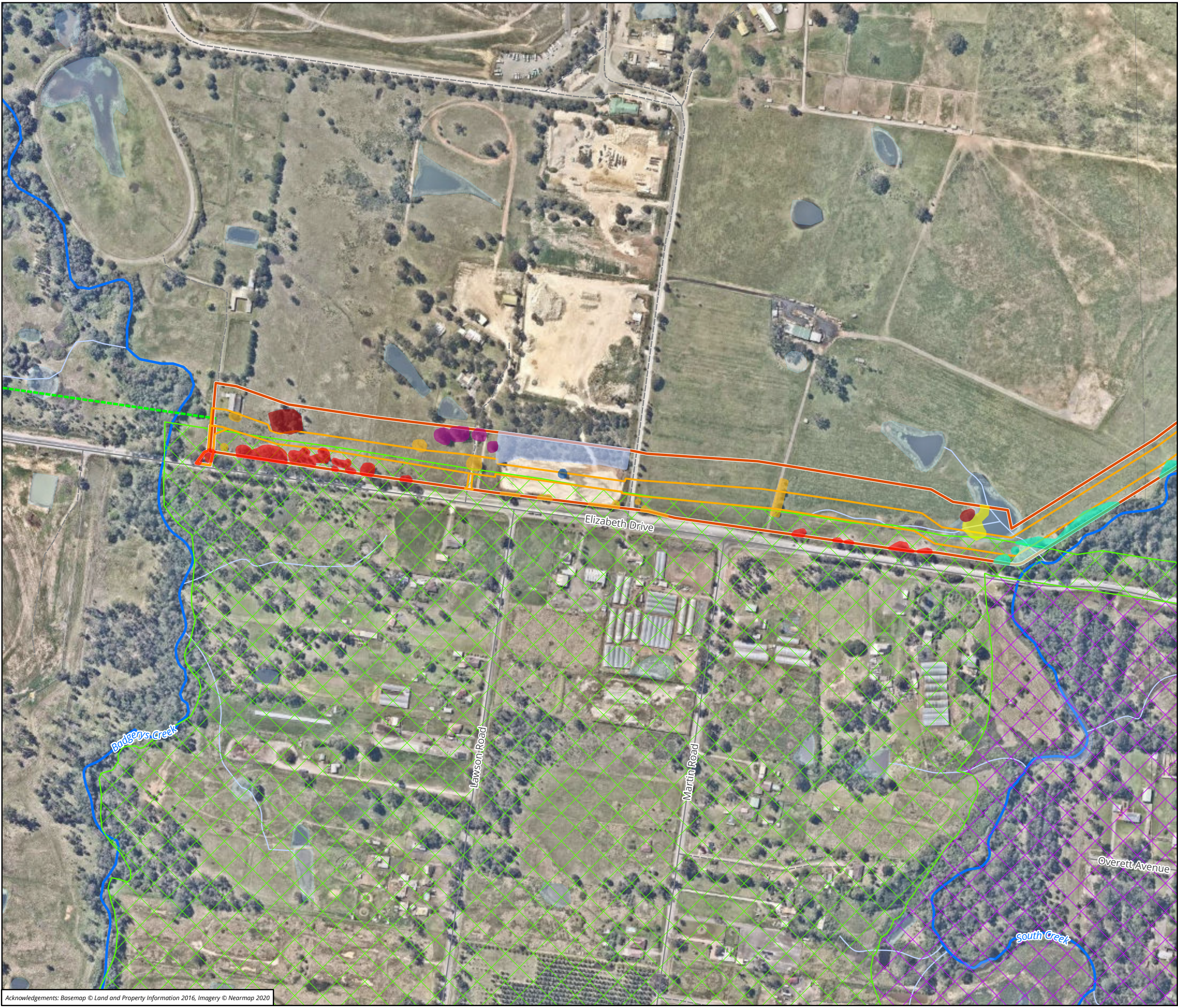


Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020





**Legend**

- Impact assessment area
- Impact area
- Underbore

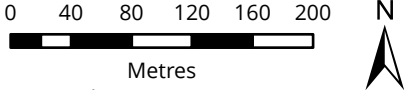
**Biocertification**

- Existing Certified
- Existing Non Certified

**PCT - Condition**

- Urban Native/Exotic
- PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 725 - Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion - Intact
- PCT 725 - Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 781 - Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion - Thinned
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Intact
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

**Figure 5.18 Vegetation communities within the impact area and the impact assessment area**

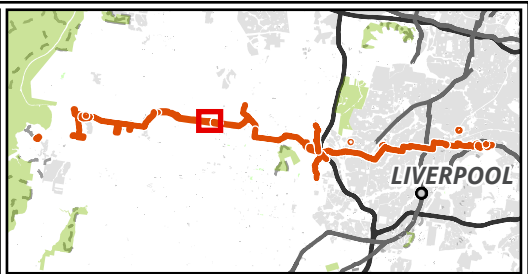


Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



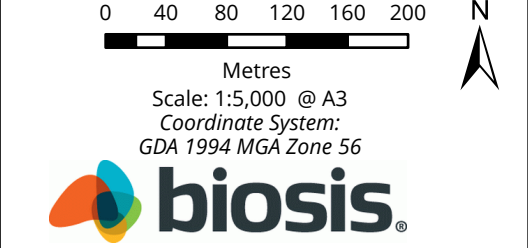
Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020



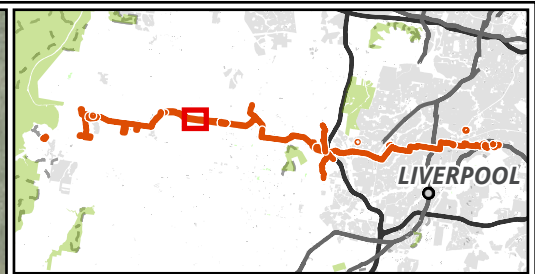
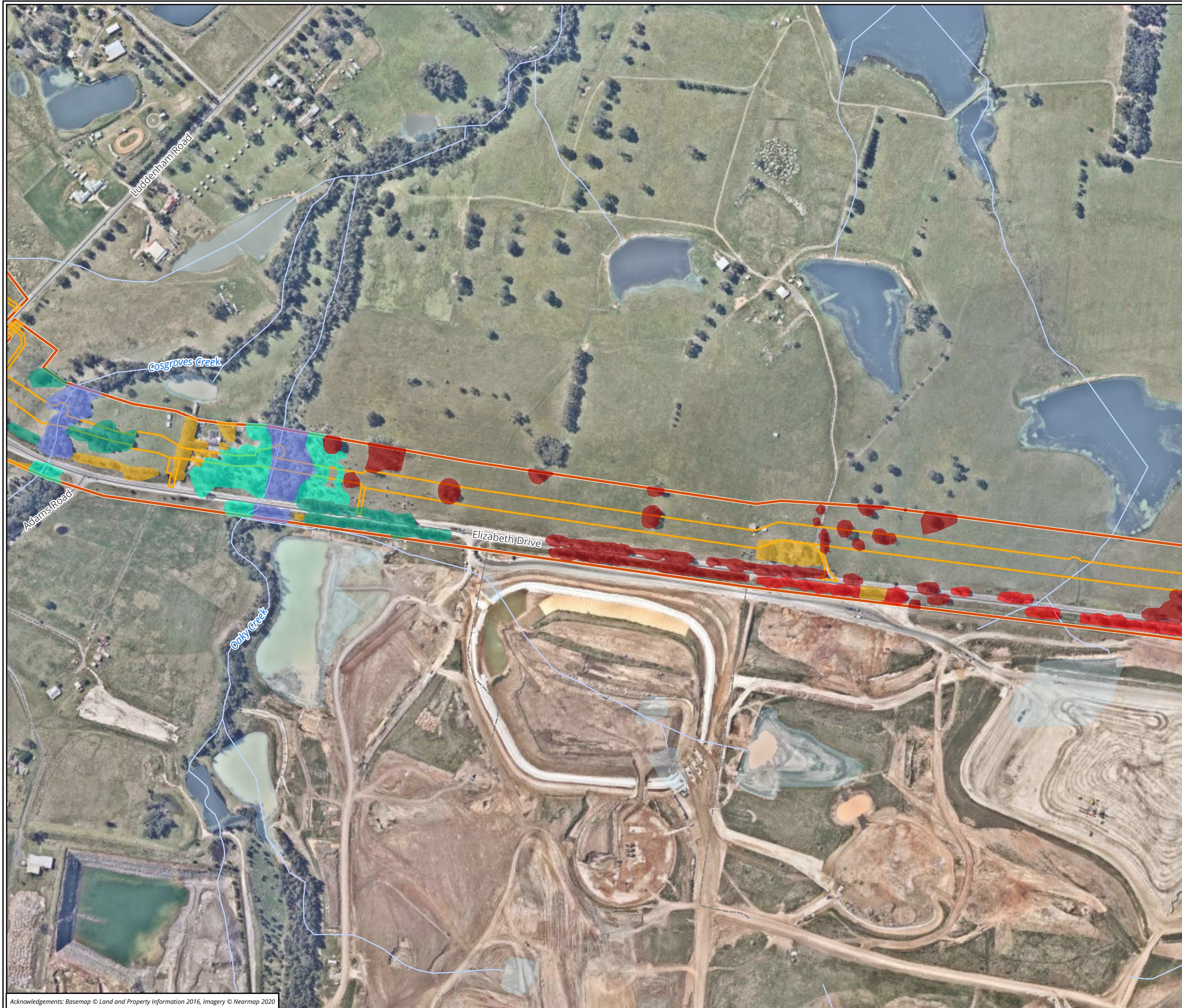


- Legend**
- Impact assessment area
  - Impact area
  - Underbore
- PCT - Condition**
- Urban Native/Exotic
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned

**Figure 5.19 Vegetation communities within the impact area and the impact assessment area**







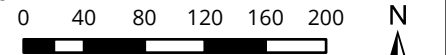
#### Legend

- Impact assessment area
- Impact area

#### PCT - Condition

- Urban Native/Exotic
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
- PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned

**Figure 5.20 Vegetation communities within the impact area and the impact assessment area**

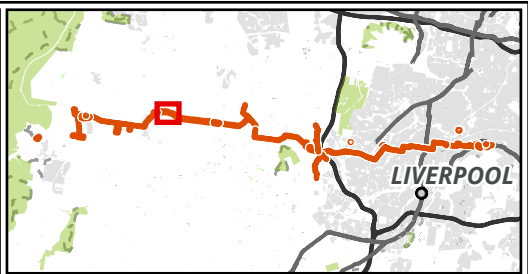


Metres  
Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



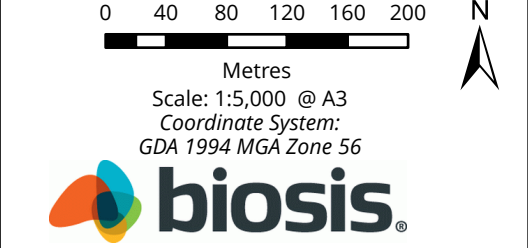
Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020



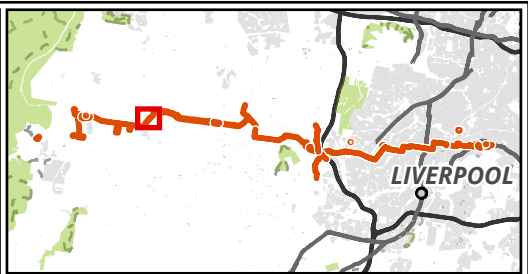


- Legend**
- Impact assessment area
  - Impact area
  - Underbore
- PCT - Condition**
- Urban Native/Exotic
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 1800 - Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley -Thinned

**Figure 5.21 Vegetation communities within the impact area and the impact assessment area**







**Legend**

- Impact assessment area
- Impact area
- Underbore

**PCT - Condition**

- Urban Native/Exotic
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
- PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

**Figure 5.22 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200

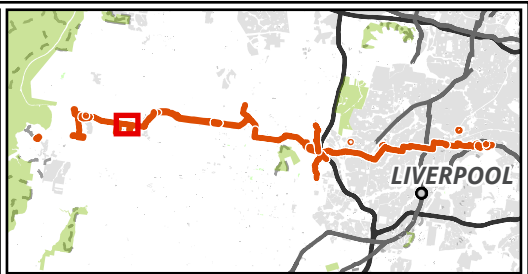
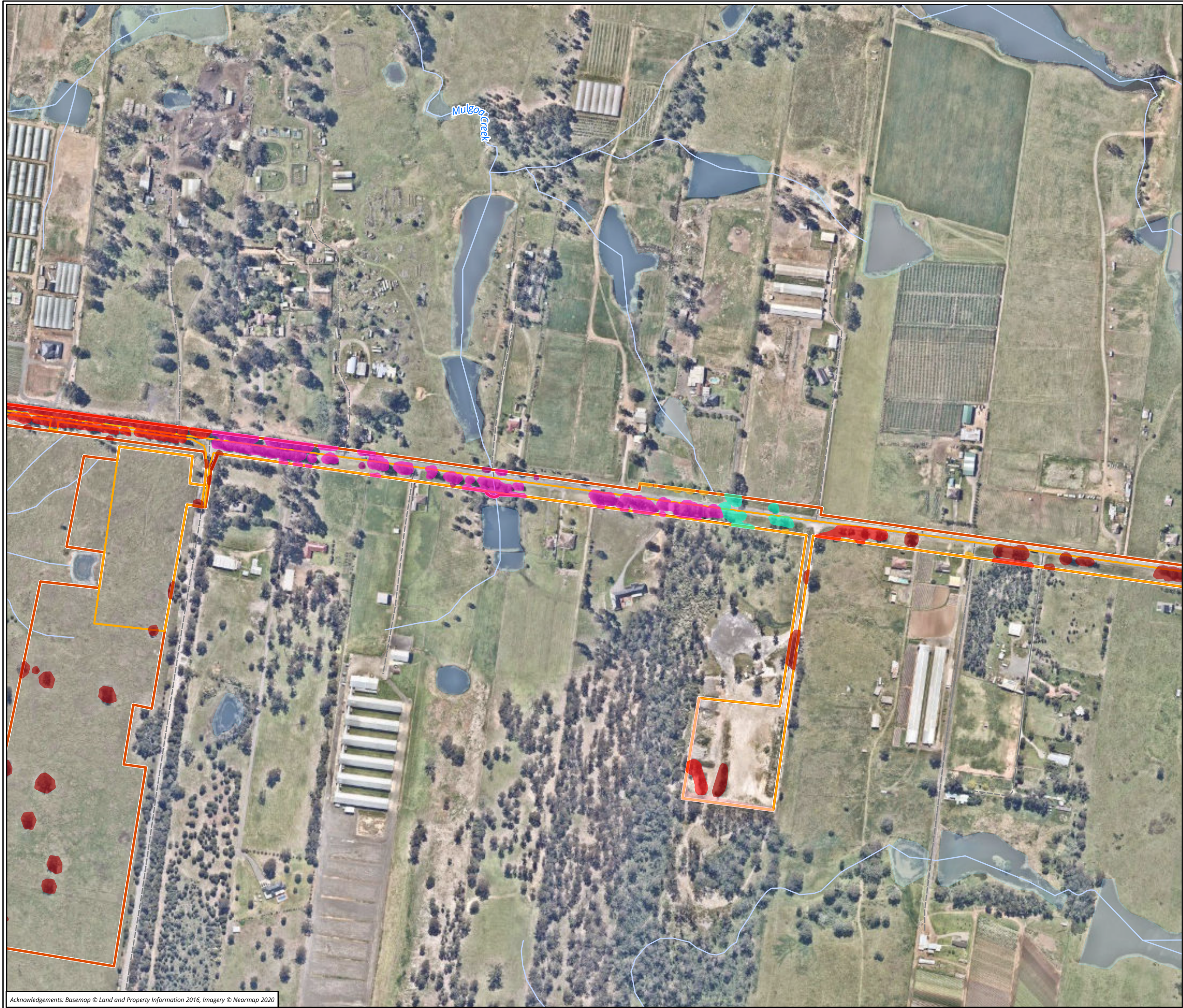
Metres

Scale: 1:5,000 @ A3

Coordinate System: GDA 1994 MGA Zone 56

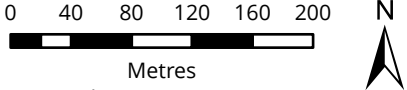
**biosis**





- Legend**
- Impact assessment area
  - Impact area
- PCT - Condition**
- Urban Native/Exotic
  - PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 724 - Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Intact
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

**Figure 5.23 Vegetation communities within the impact area and the impact assessment area**

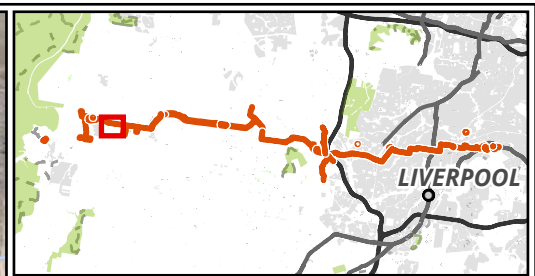
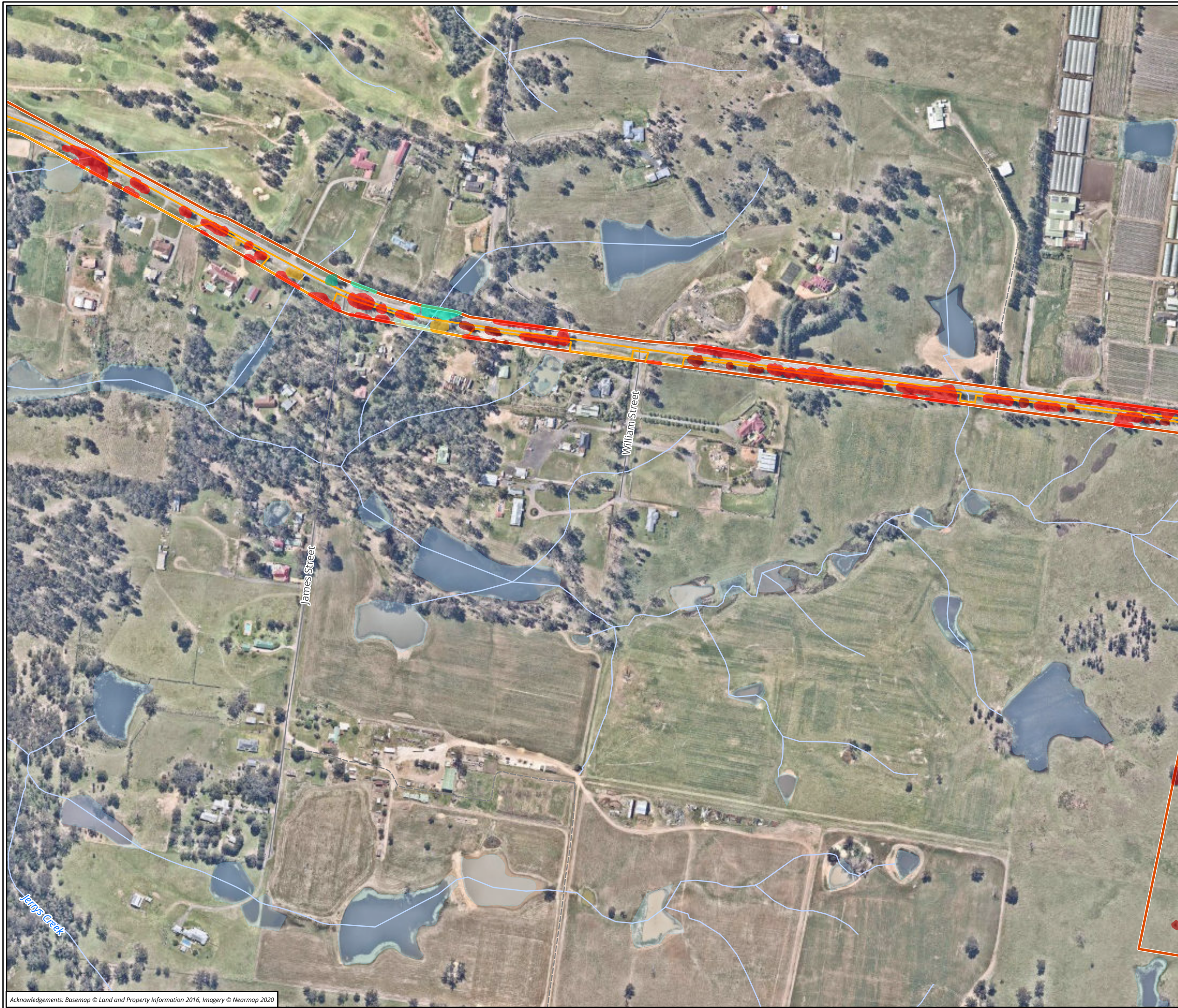


Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



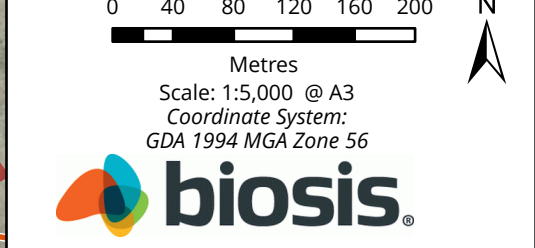
Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020



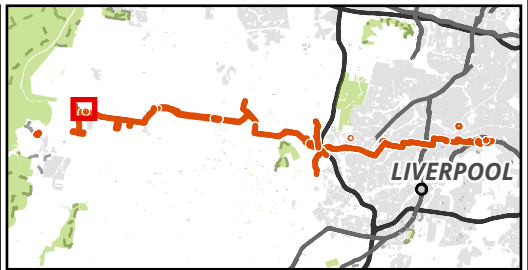


- Legend**
- Impact assessment area
  - Impact area
- PCT - Condition**
- Urban Native/Exotic
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Intact
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Intact
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees

**Figure 5.24 Vegetation communities within the impact area and the impact assessment area**

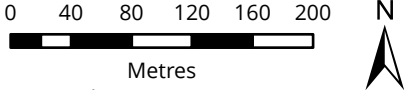






- Legend**
- Impact assessment area
  - Impact area
  - Underbore
- PCT - Condition**
- Urban Native/Exotic
  - PCT 781 - Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion - Thinned
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Intact
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 849 - Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 1105 - River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion - Thinned

**Figure 5.25 Vegetation communities within the impact area and the impact assessment area**

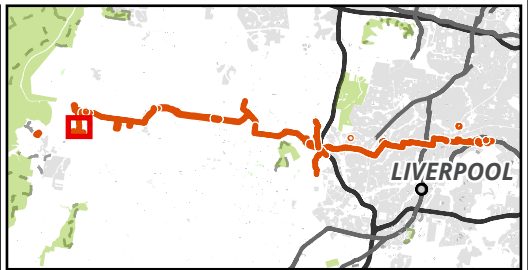


Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



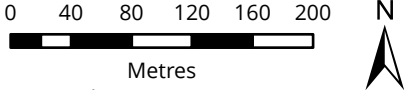
Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020





- Legend**
- Impact assessment area
  - Impact area
  - Underbore
- PCT - Condition**
- Urban Native/Exotic
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Thinned
  - PCT 835 - Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion - Scattered Trees
  - PCT 1105 - River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion - Thinned
  - PCT 1181 - Smooth-barked Apple - Red Bloodwood - Sydney Peppermint heathy open forest on slopes of dry sandstone gullies of western and southern Sydney, Sydney Basin Bioregion - Intact

**Figure 5.26 Vegetation communities within the impact area and the impact assessment area**

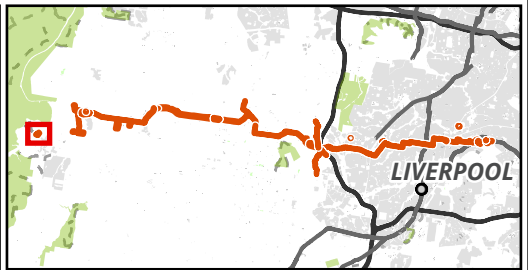
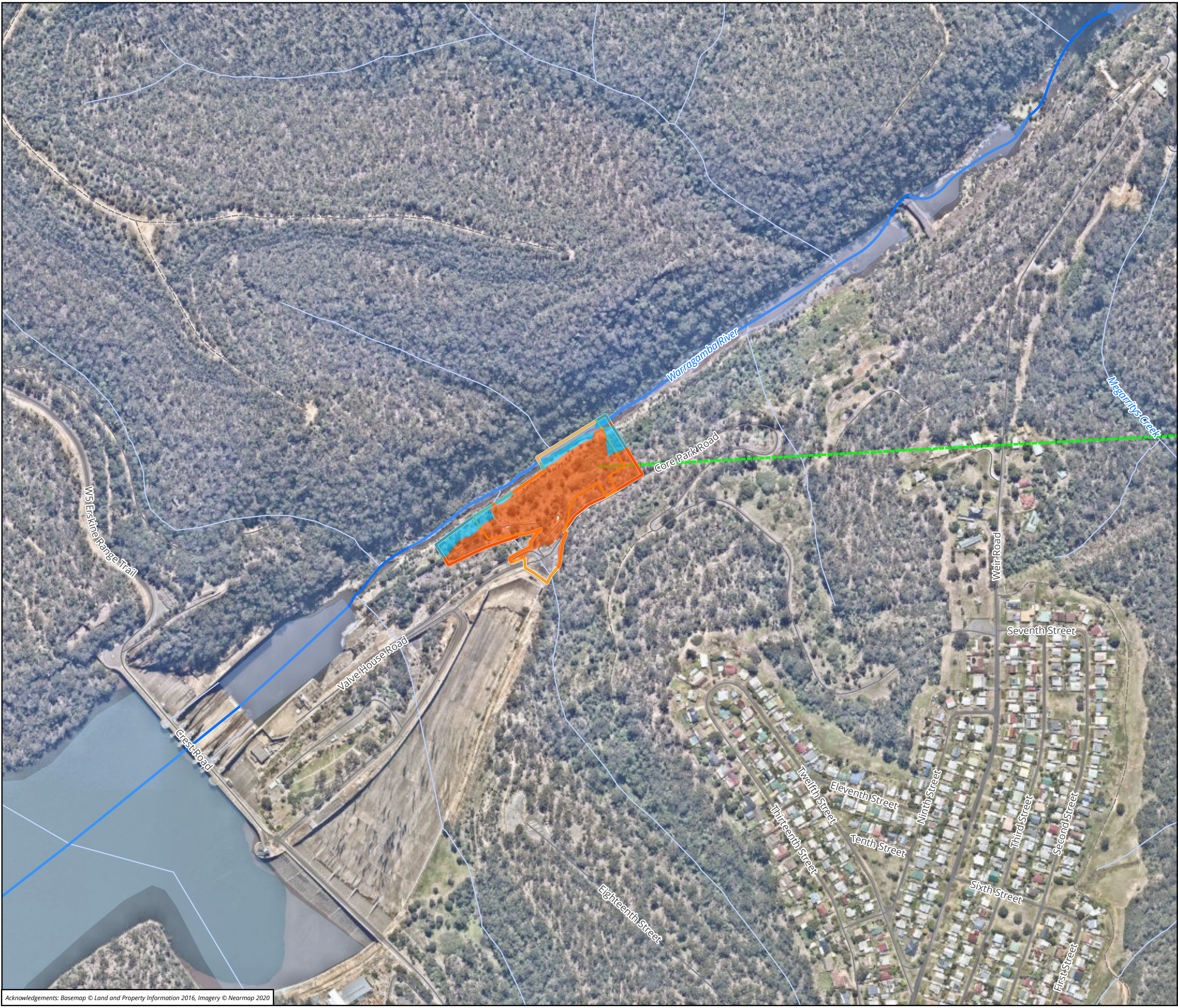


Scale: 1:5,000 @ A3  
Coordinate System:  
GDA 1994 MGA Zone 56



Matter: 31617,  
Date: 24 September 2021,  
Checked by: CW, Drawn by: SSK, Last edited by: Iharley  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020





**Legend**

- Impact assessment area
- Impact area
- Underbore

**PCT - Condition**

- PCT 1083 - Red Bloodwood - scribbly gum heathy woodland on sandstone plateaux of the Sydney Basin Bioregion - Thinned
- PCT 1105 - River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion - Thinned
- PCT 1181 - Smooth-barked Apple - Red Bloodwood - Sydney Peppermint heathy open forest on slopes of dry sandstone gullies of western and southern Sydney, Sydney Basin Bioregion - Intact

**Figure 5.27 Vegetation communities within the impact area and the impact assessment area**

0 40 80 120 160 200 Metres

Scale: 1:5,000 @ A3  
Coordinate System: GDA 1994 MGA Zone 56

biosis®



### 7.1.4 Threatened ecological communities

Vegetation within the impact area and impact assessment area, outside Existing Certified land, was found to represent six TECs listed under the NSW BC Act, and two TECs listed under the Commonwealth EPBC Act. TECs present within the impact area and impact assessment area are outlined in Table 19 and Table 20 below, and illustrated on Figure 6.

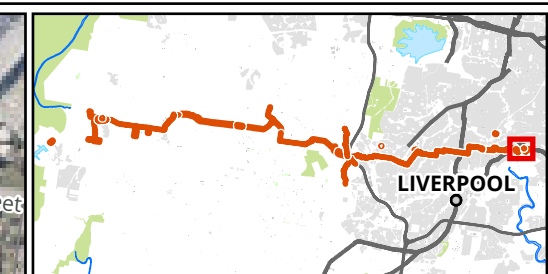
**Table 19 Summary of BC Act TECs within the impact area and impact assessment area**

BC Act TEC	Listing status	Impact area	Impact assessment area
<i>Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion</i>	Endangered	0.00 ha	0.52 ha
<i>Cumberland Plain Woodland in the Sydney Basin Bioregion</i>	Critically Endangered	4.37 ha	12.07 ha
<i>River-flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i>	Endangered	4.39 ha	7.09 ha
<i>Shale Gravel Transition Forest in the Sydney Basin Bioregion</i>	Endangered	1.54 ha	0.90 ha
<i>Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i>	Endangered	0.88 ha	1.19 ha
<i>Sydney Freshwater Wetlands in the Sydney Basin Bioregion</i>	Endangered	0.02 ha	0.08 ha

**Table 20 Summary of EPBC Act TECs within the impact area and impact assessment area**

EPBC Act TEC	Listing status	Impact area	Impact assessment area
<i>Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community</i>	Endangered	0.22 ha	0.72 ha
<i>Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion</i>	Critically Endangered	0.00 ha	0.52 ha
<i>Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest</i>	Critically Endangered	1.88 ha	5.53 ha





# Legend

- Impact assessment area
- Impact area

## Biocertification

- Existing Certified
- Existing Non Certified

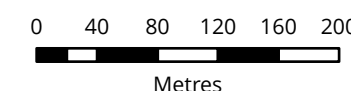
## BC Act TEC

- Cumberland Plain Woodland (CEEC)
- River-Flat Eucalypt Forest (EEC)
- Swamp Oak Floodplain Forest (EEC)

## EPBC Act TEC

- Cumberland Plain Shale
- Woodlands and Shale-Gravel Transition Forest (CEEC)

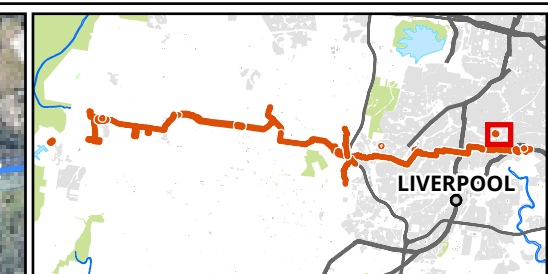
**Figure 6.1 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







- Legend**
- Impact assessment area
  - Impact area
- Biocertification**
- Existing Certified
  - Existing Non Certified
- BC Act TEC**
- Cumberland Plain Woodland (CEEC)

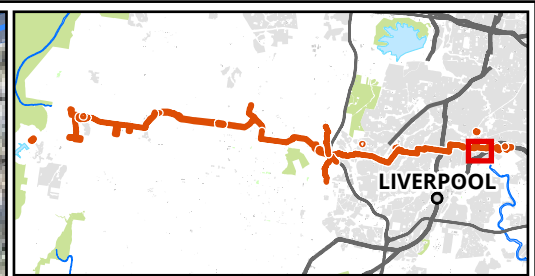
**Figure 6.2 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







**Legend**

- Impact assessment area
- Impact area

**Biocertification**

- Existing Certified
- Existing Non Certified

**BC Act TEC**

- River-Flat Eucalypt Forest (EEC)
- Swamp Oak Floodplain Forest (EEC)

**Figure 6.3 TECs within the impact area and impact assessment area**

0 40 80 120 160 200  
Metres

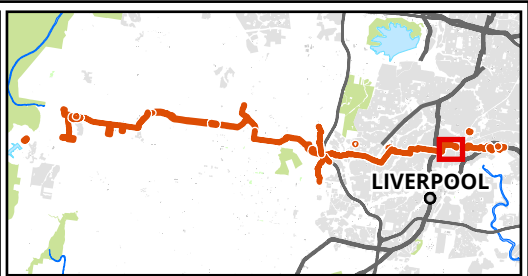
Scale: 1:5,000 @ A3  
Coordinate System:

**biosis**

Matter: 31617,  
Date: 24 September 2021,  
Prepared for: CW, Prepared by: LW, Last edited by: amackegard  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020\_LW

00



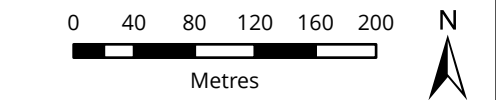


**Legend**

- Impact assessment area
- Impact area

**Biocertification**

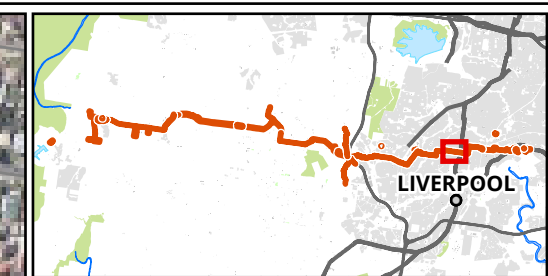
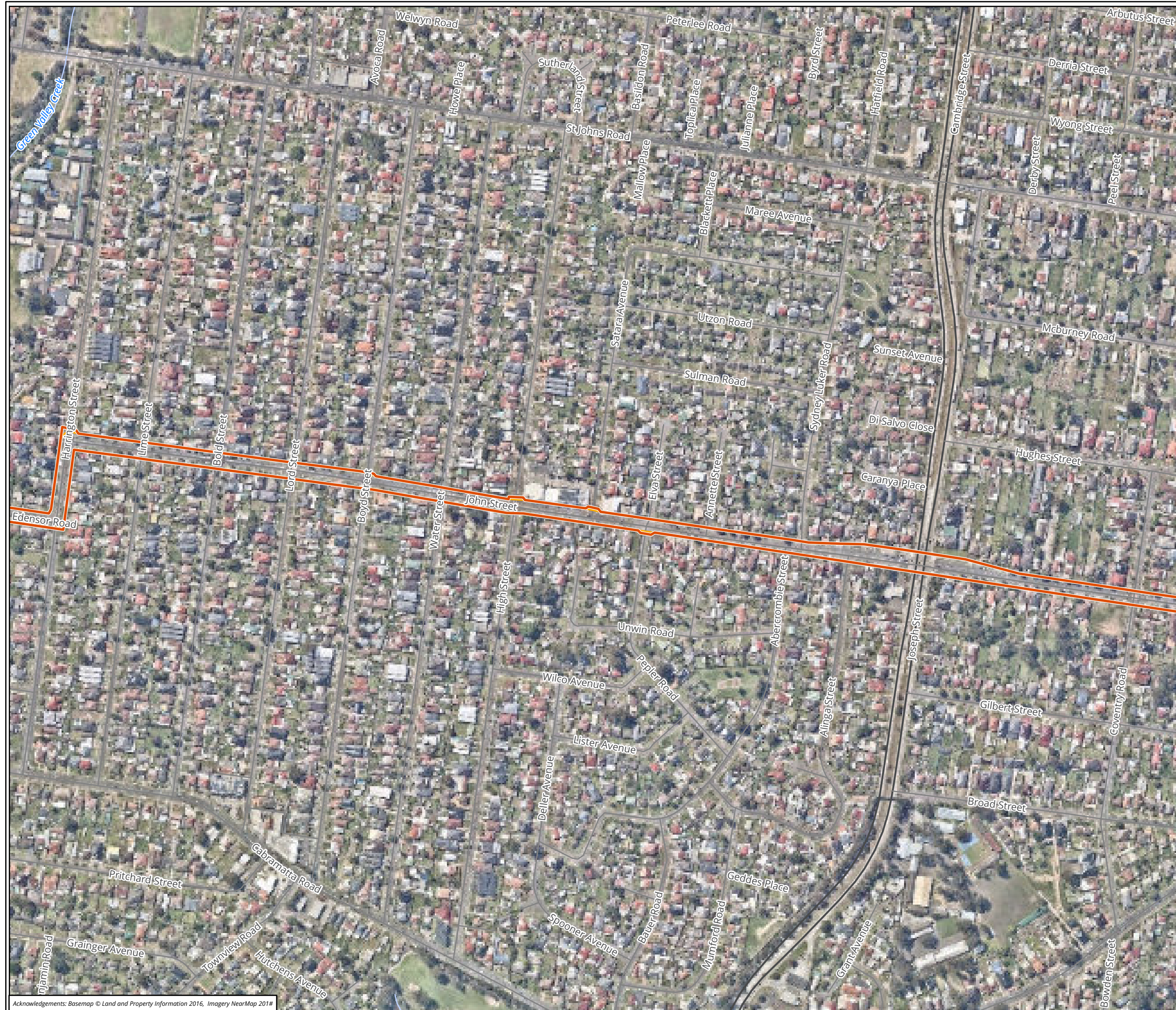
- Existing Certified
- Existing Non Certified



Scale: 1:5,000 @ A3  
Coordinate System:







**Legend**

- Impact assessment area
- Impact area

**Biocertification**

- Existing Certified
- Existing Non Certified

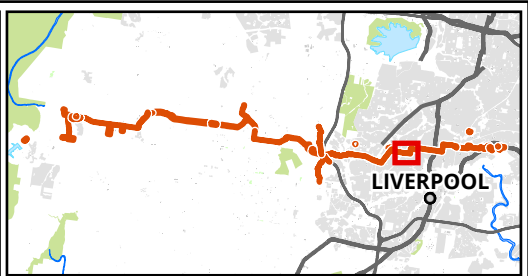
**Figure 6.5 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







**Legend**

- Impact assessment area
- Impact area

**Biocertification**

- Existing Certified
- Existing Non Certified

**BC Act TEC**

- Cumberland Plain Woodland (CEEC)

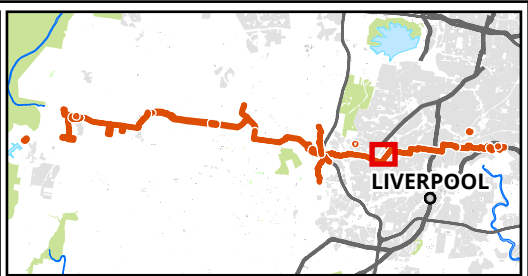
Figure 6.6 TECs within the impact area and impact assessment area



Scale: 1:5,000 @ A3  
Coordinate System:







**Legend**

- Impact assessment area
- Impact area

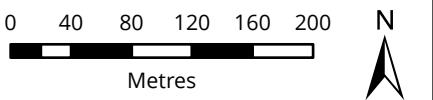
**Biocertification**

- Existing Certified
- Existing Non Certified

**BC Act TEC**

- Cumberland Plain Woodland (CEEC)
- River-Flat Eucalypt Forest (EEC)
- Swamp Oak Floodplain Forest (EEC)

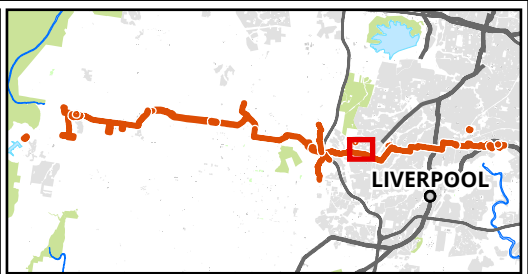
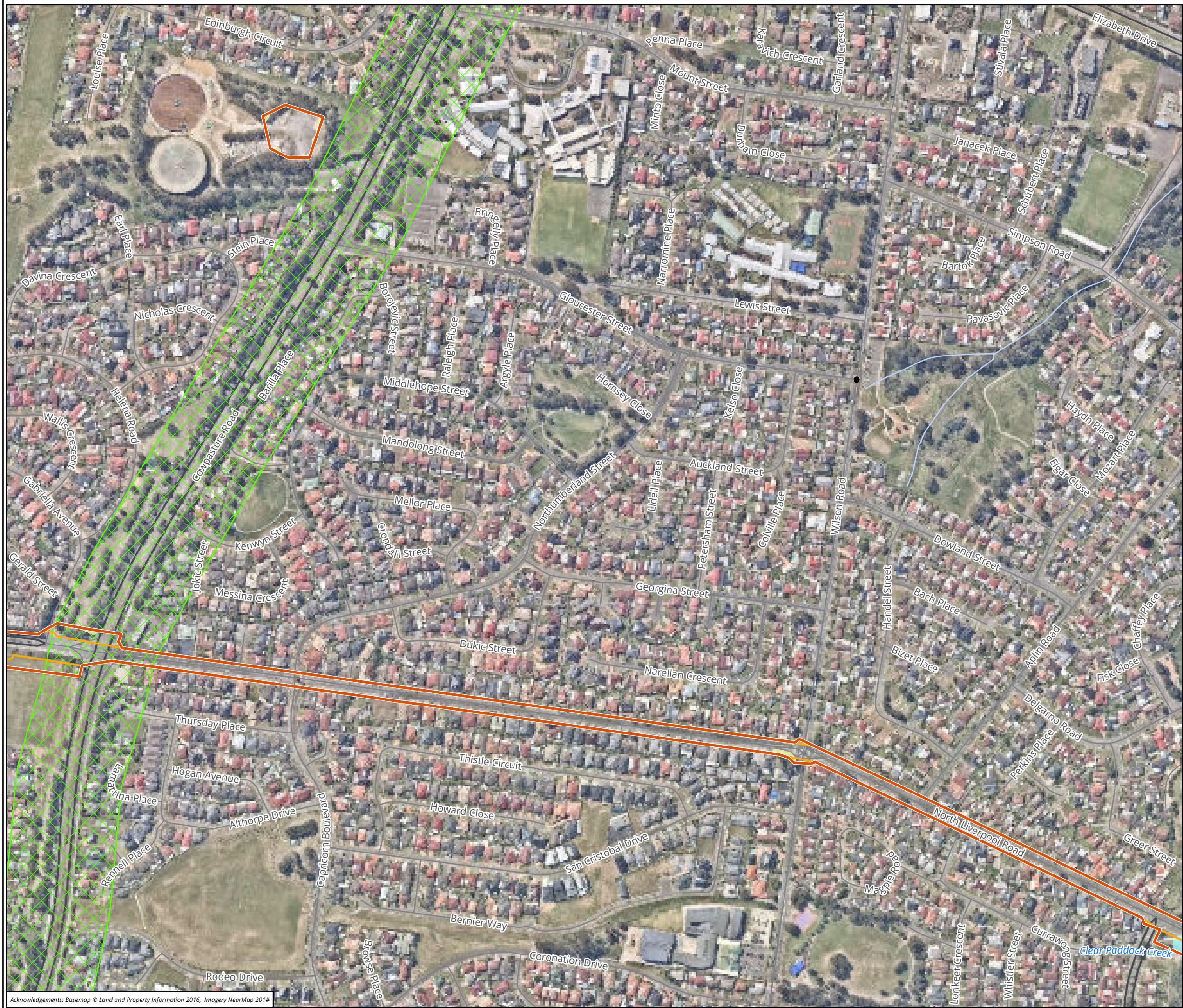
**Figure 6.7 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







**Legend**

- Impact assessment area
- Impact area

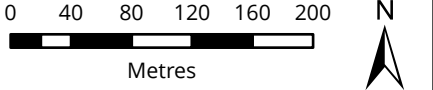
**Biocertification**

- Existing Certified
- Existing Non Certified

**BC Act TEC**

- Cumberland Plain Woodland (CEEC)
- River-Flat Eucalypt Forest (EEC)

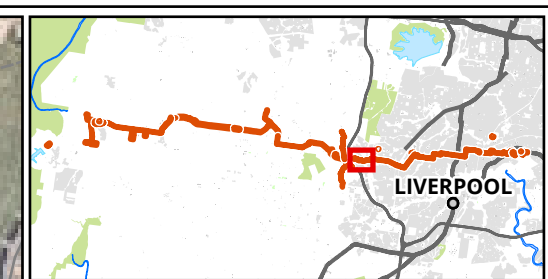
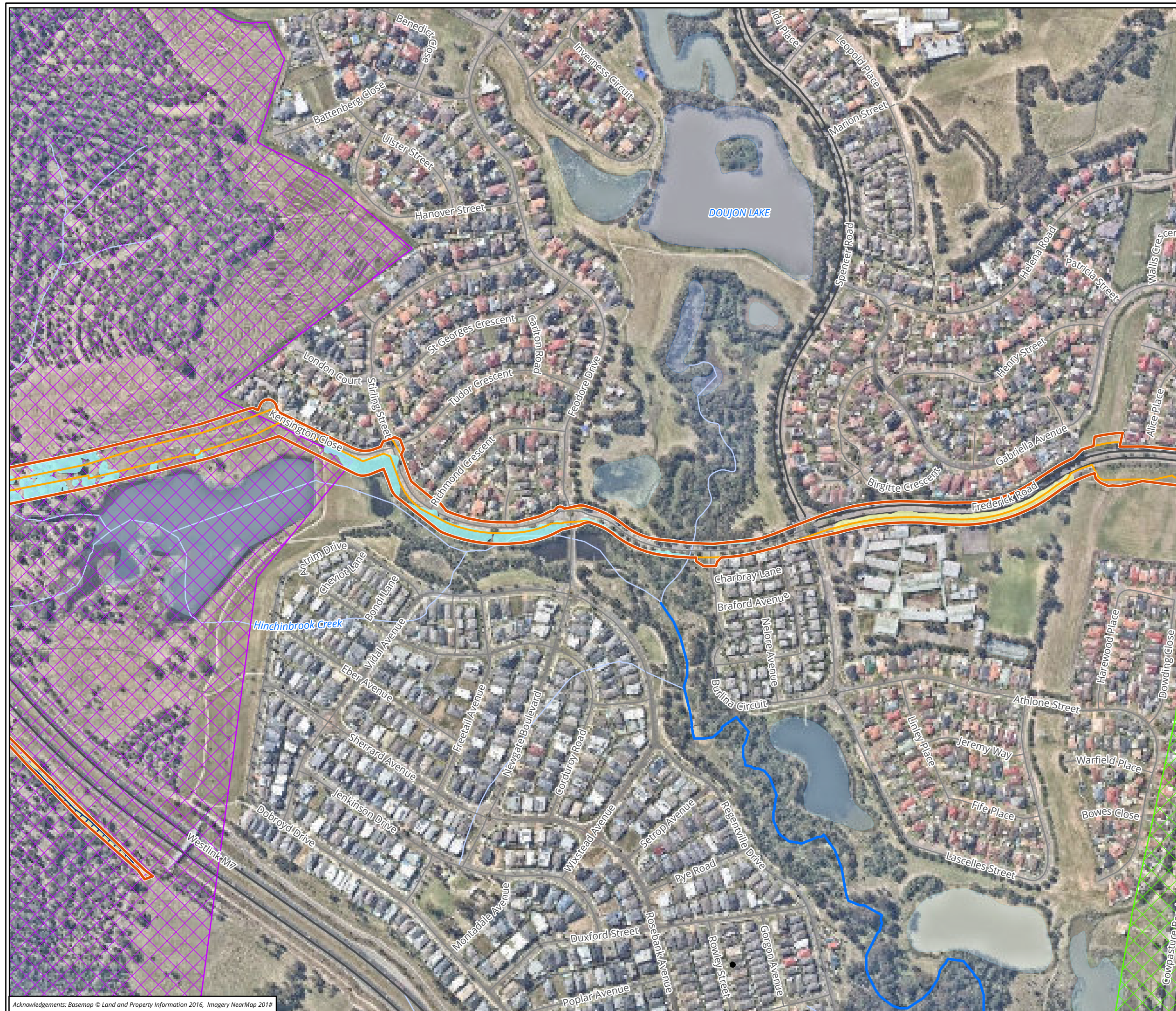
**Figure 6.8 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







#### Legend

- Impact assessment area
- Impact area
- Biocertification**
- Existing Certified
- Existing Non Certified
- BC Act TEC**
- Cumberland Plain Woodland (CEEC)
- River-Flat Eucalypt Forest (EEC)
- EPBC Act TEC**
- Cumberland Plain Shale
- Woodlands and Shale-Gravel Transition Forest (CEEC)

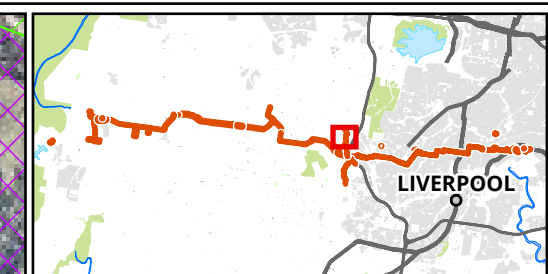
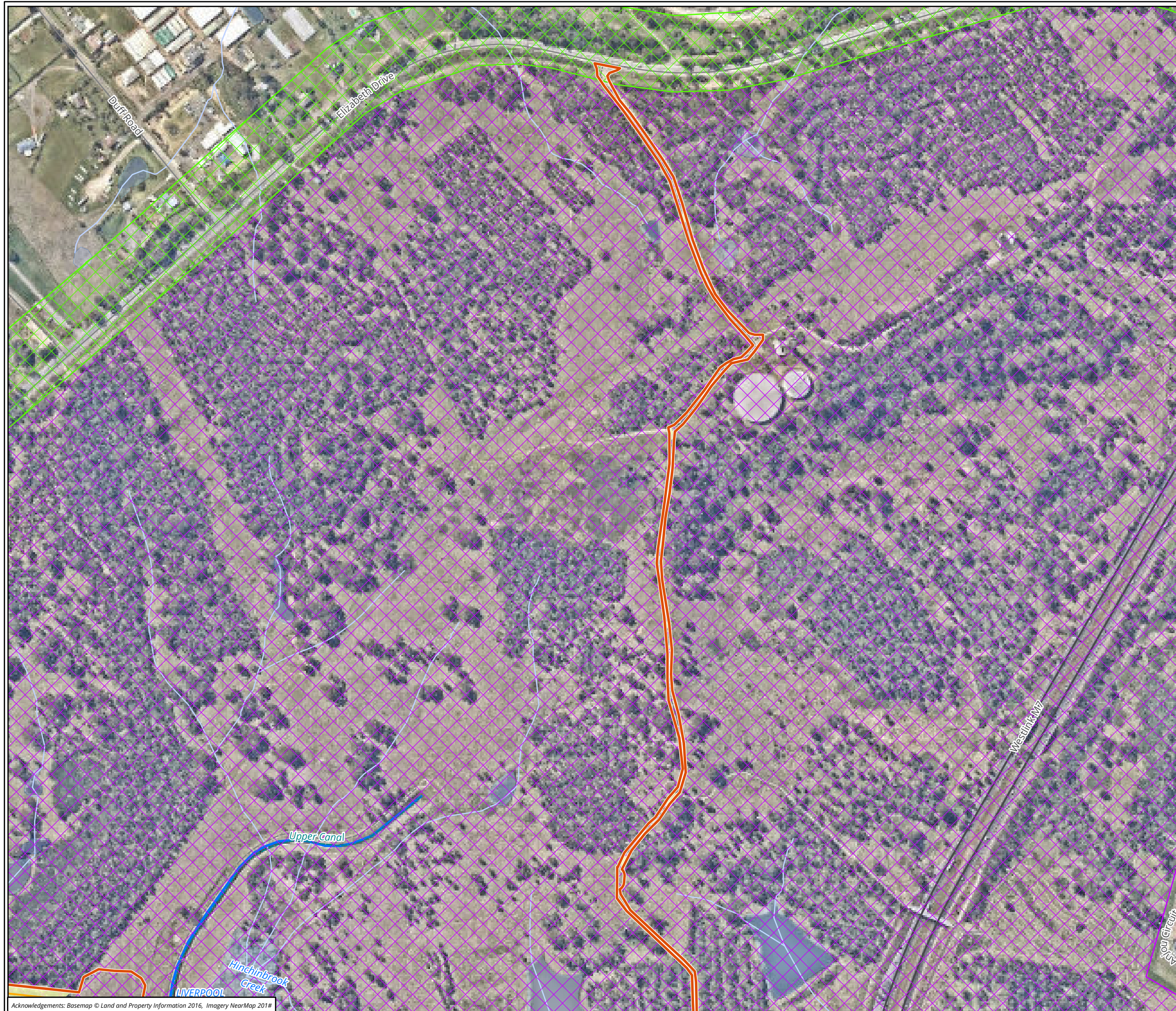
**Figure 6.9 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







#### Legend

Impact assessment area

Impact area

#### Biocertification

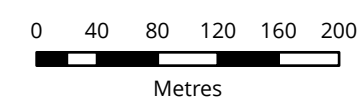
Existing Certified

Existing Non Certified

#### BC Act TEC

Cumberland Plain Woodland (CEEC)

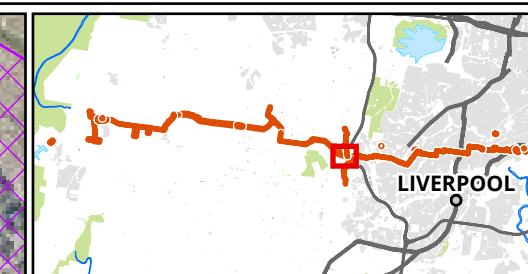
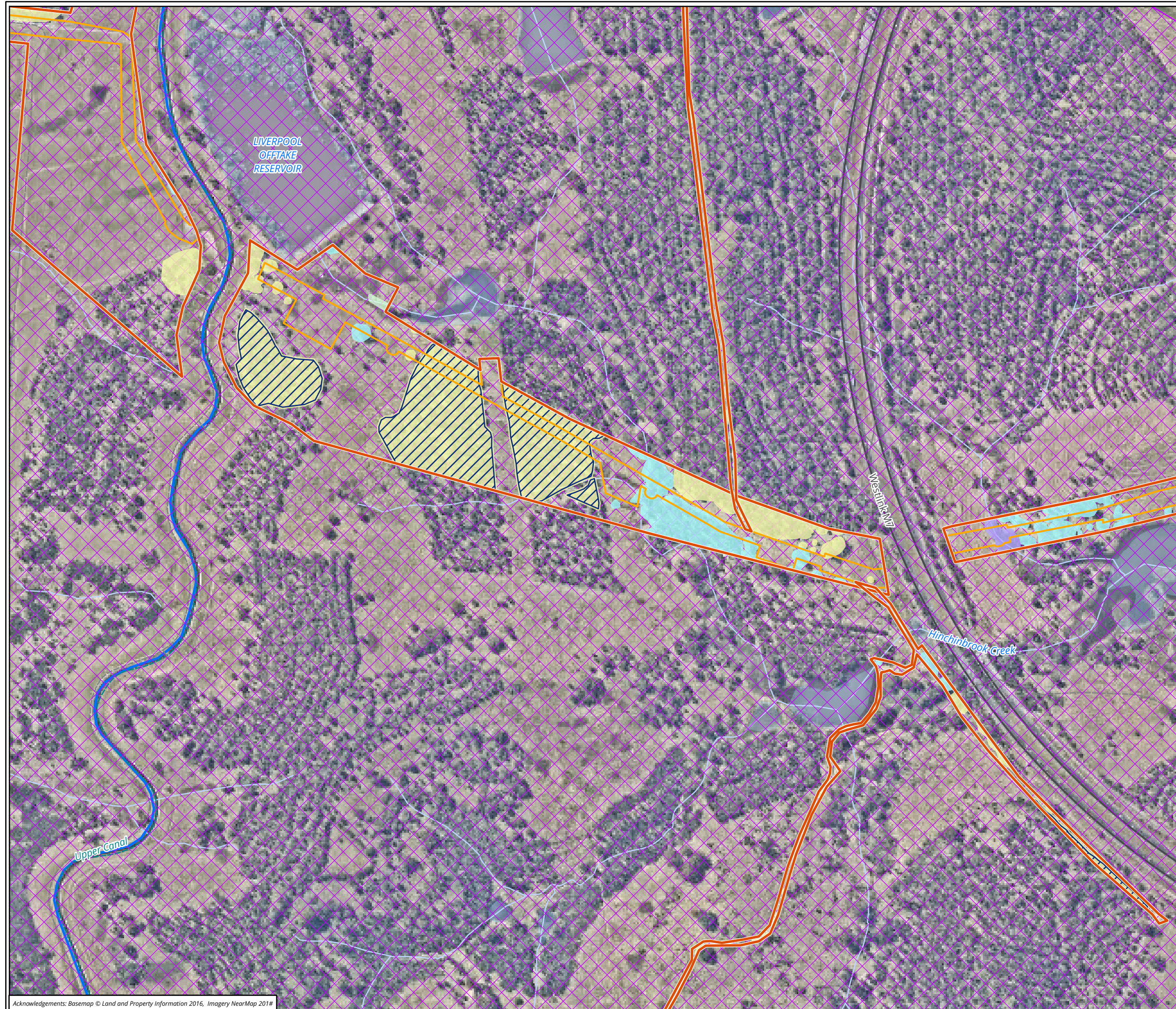
**Figure 6.10 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







#### Legend

- Impact assessment area
- Impact area

#### Biocertification

- Existing Certified
- Existing Non Certified

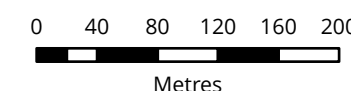
#### BC Act TEC

- Cumberland Plain Woodland (CEEC)
- Freshwater wetlands on coastal floodplains (EEC)
- River-Flat Eucalypt Forest (EEC)
- Swamp Oak Floodplain Forest (EEC)

#### EPBC Act TEC

- Cumberland Plain Shale
- Woodlands and Shale-Gravel Transition Forest (CEEC)

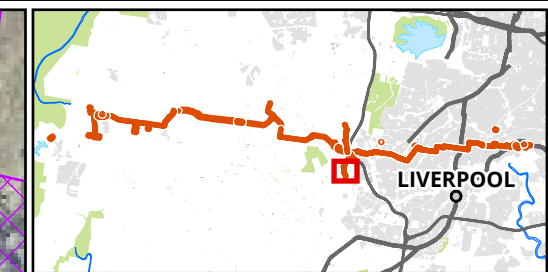
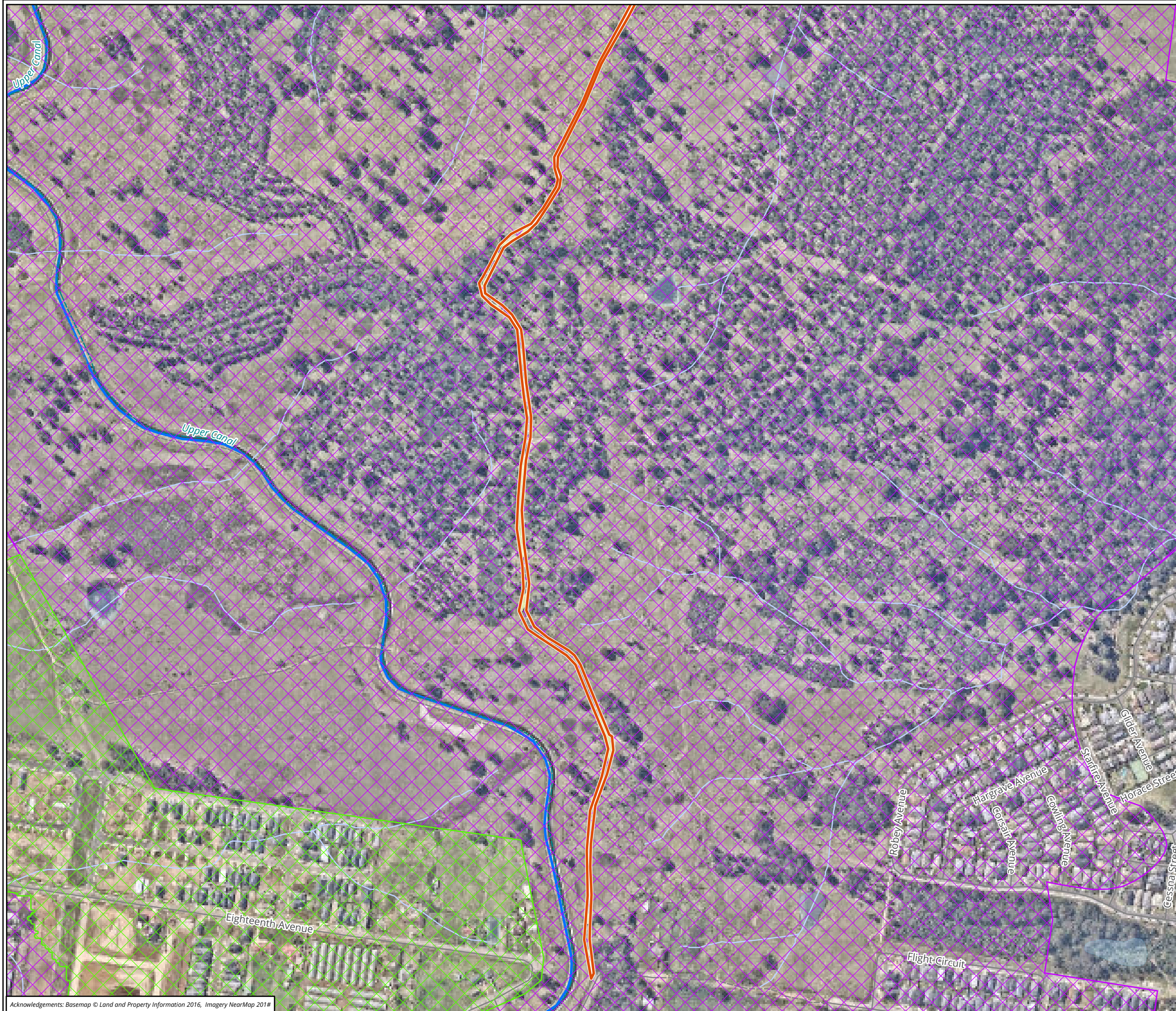
**Figure 6.11 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







**Legend**

Impact assessment area

Impact area

**Biocertification**

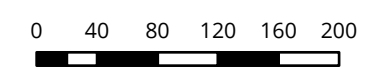
Existing Certified

Existing Non Certified

**BC Act TEC**

Cumberland Plain Woodland (CEEC)

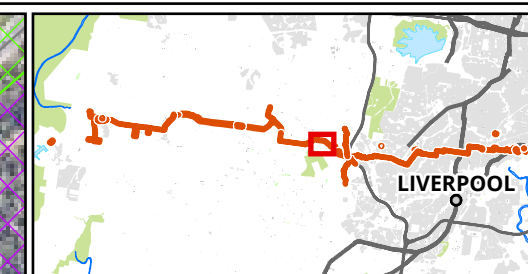
**Figure 6.12 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







#### Legend

Impact assessment area

Impact area

#### Biocertification

Existing Certified

Existing Non Certified

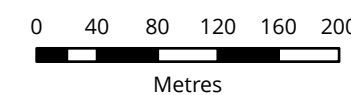
#### BC Act TEC

Cumberland Plain Woodland (CEEC)

#### EPBC Act TEC

Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (CEEC)

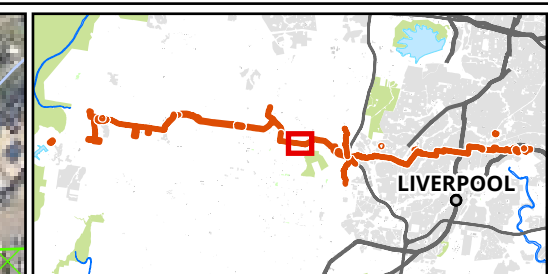
**Figure 6.13 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







#### Legend

Impact assessment area

Impact area

#### Biocertification

Existing Certified

Existing Non Certified

#### BC Act TEC

Castlereagh Scribbly Gum Woodland (VEC)

Cooks River/Castlereagh Ironbark Forest (EEC)

Cumberland Plain Woodland (CEEC)

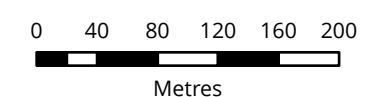
River-Flat Eucalypt Forest (EEC)

Shale Gravel Transition Forest (EEC)

#### EPBC Act TEC

Castlereagh Scribbly Gum and Agnes Banks Woodlands (EEC)

**Figure 6.14 TECs within the impact area and impact assessment area**

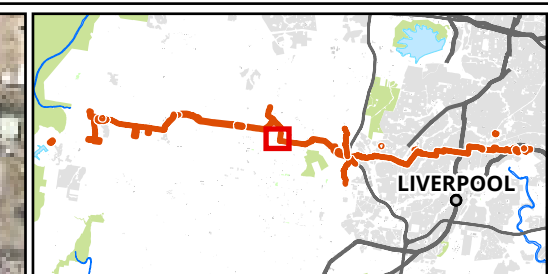


Scale: 1:5,000 @ A3  
Coordinate System:



Matter: 31617,  
Date: 24 September 2021,  
Prepared for: CW, Prepared by: LW, Last edited by: amackegard  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020\_LW





#### Legend

- Impact assessment area
- Impact area

#### Biocertification

- Existing Certified
- Existing Non Certified

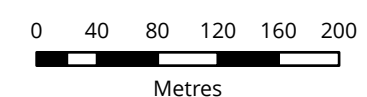
#### BC Act TEC

- Castlereagh Scribbly Gum Woodland (VEC)
- Cooks River/Castlereagh Ironbark Forest (EEC)
- Shale Gravel Transition Forest (EEC)

#### EPBC Act TEC

- Castlereagh Scribbly Gum and Agnes Banks Woodlands (EEC)
- Cooks River/Castlereagh Ironbark Forest (CEEC)

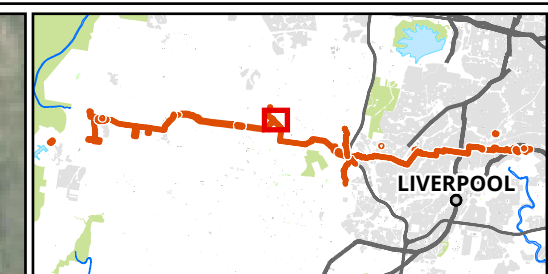
**Figure 6.15 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







### Legend

- Impact assessment area
- Impact area

### Biocertification

- Existing Certified
- Existing Non Certified

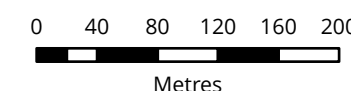
### BC Act TEC

- River-Flat Eucalypt Forest (EEC)
- Shale Gravel Transition Forest (EEC)
- Swamp Oak Floodplain Forest (EEC)

### EPBC Act TEC

- Coastal Swamp Oak Forest (EEC)
- Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (CEEC)

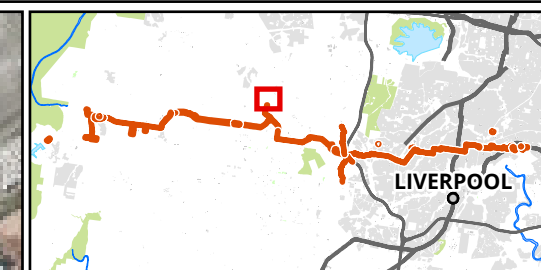
**Figure 6.16 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







- Legend**
- Impact assessment area
  - Impact area
- Biocertification**
- Existing Certified
  - Existing Non Certified
- BC Act TEC**
- Cumberland Plain Woodland (CEEC)
  - River-Flat Eucalypt Forest (EEC)
  - Swamp Oak Floodplain Forest (EEC)
- EPBC Act TEC**
- Coastal Swamp Oak Forest (EEC)

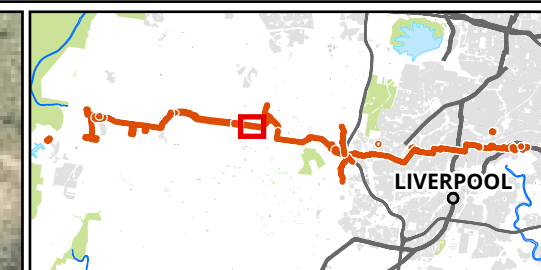
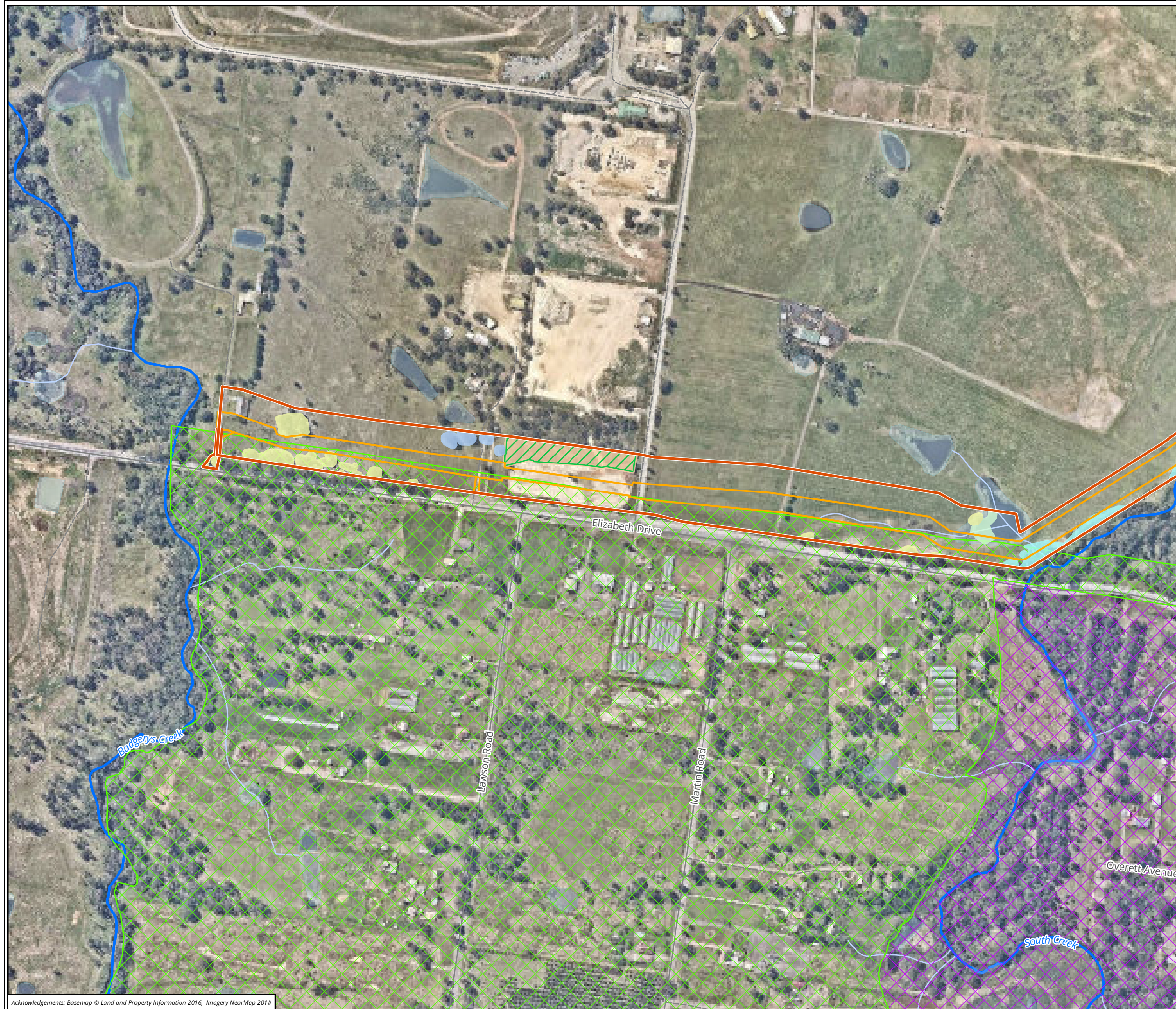
**Figure 6.17 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:

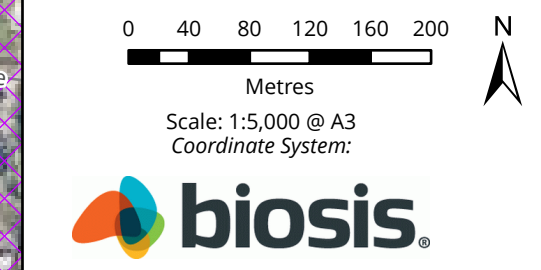




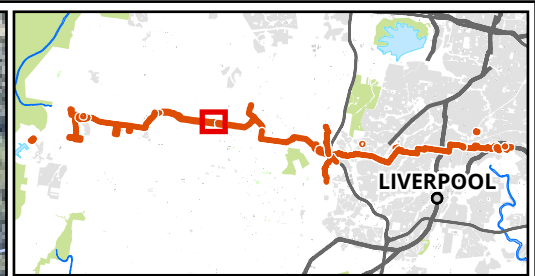


- Legend**
- Impact assessment area
  - Impact area
  - Biocertification**
  - Existing Certified
  - Existing Non Certified
  - BC Act TEC**
  - Cooks River/Castlereagh Ironbark Forest (EEC)
  - Cumberland Plain Woodland (CEEC)
  - Freshwater wetlands on coastal floodplains (EEC)
  - River-Flat Eucalypt Forest (EEC)
  - Shale Gravel Transition Forest (EEC)
  - EPBC Act TEC**
  - Cooks River/Castlereagh Ironbark Forest (CEEC)

**Figure 6.18 TECs within the impact area and impact assessment area**







**Legend**

Impact assessment area

Impact area

**Biocertification**

Existing Certified

Existing Non Certified

**BC Act TEC**

Cumberland Plain Woodland (CEEC)

River-Flat Eucalypt Forest (EEC)

Swamp Oak Floodplain Forest (EEC)

**Figure 6.19 TECs within the impact area and impact assessment area**

0 40 80 120 160 200

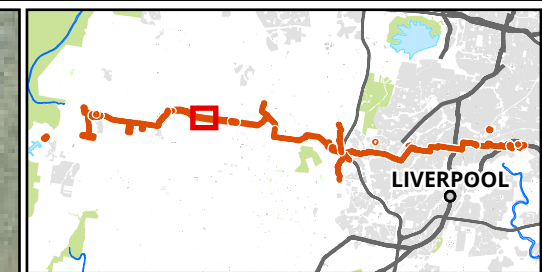
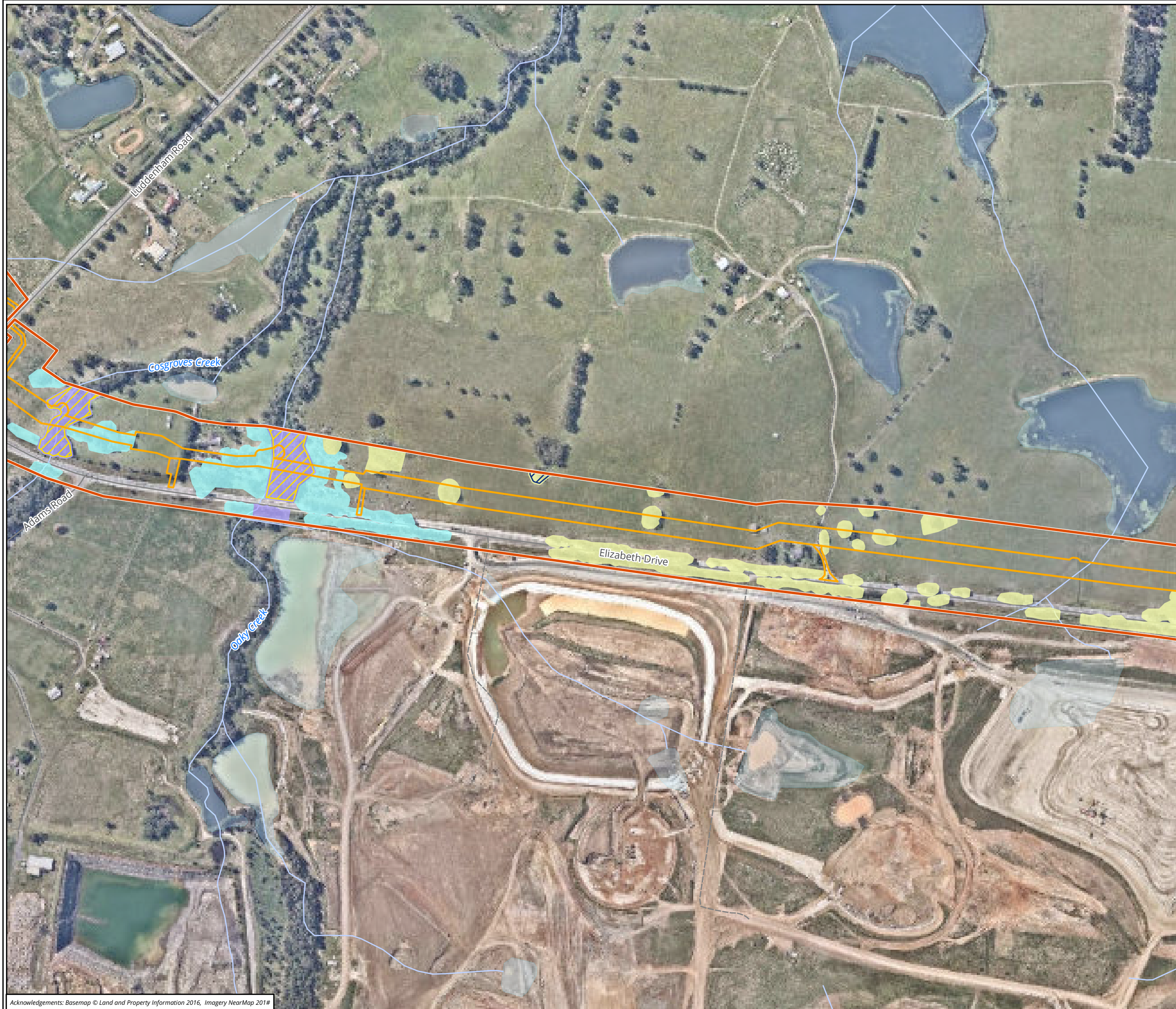
Metres

Scale: 1:5,000 @ A3  
Coordinate System:



Matter: 31617,  
Date: 24 September 2021,  
Prepared for: CW, Prepared by: LW, Last edited by: amackegard  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020\_LW





#### Legend

Impact assessment area

Impact area

#### Biocertification

Existing Certified

Existing Non Certified

#### BC Act TEC

Cumberland Plain Woodland (CEEC)

River-Flat Eucalypt Forest (EEC)

Swamp Oak Floodplain Forest (EEC)

#### EPBC Act TEC

Coastal Swamp Oak Forest (EEC)

Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (CEEC)

**Figure 6.20 TECs within the impact area and impact assessment area**

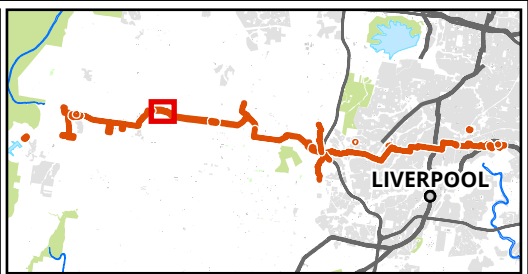
0 40 80 120 160 200

Metres

Scale: 1:5,000 @ A3  
Coordinate System:







- Legend**
- Impact assessment area
  - Impact area
- Biocertification**
- Existing Certified
  - Existing Non Certified
- BC Act TEC**
- Cumberland Plain Woodland (CEEC)
  - River-Flat Eucalypt Forest (EEC)
  - Swamp Oak Floodplain Forest (EEC)
- EPBC Act TEC**
- Coastal Swamp Oak Forest (EEC)

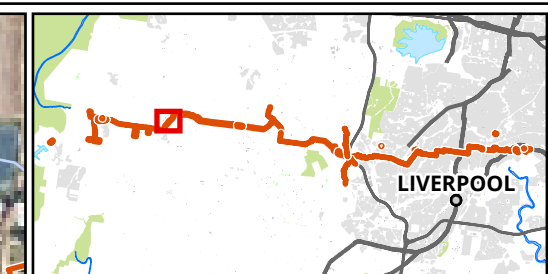
Figure 6.21 TECs within the impact area and impact assessment area



Scale: 1:5,000 @ A3  
Coordinate System:







**Legend**

- Impact assessment area
- Impact area

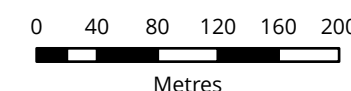
**Biocertification**

- Existing Certified
- Existing Non Certified

**BC Act TEC**

- Cumberland Plain Woodland (CEEC)

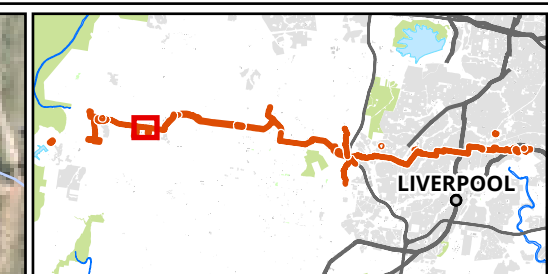
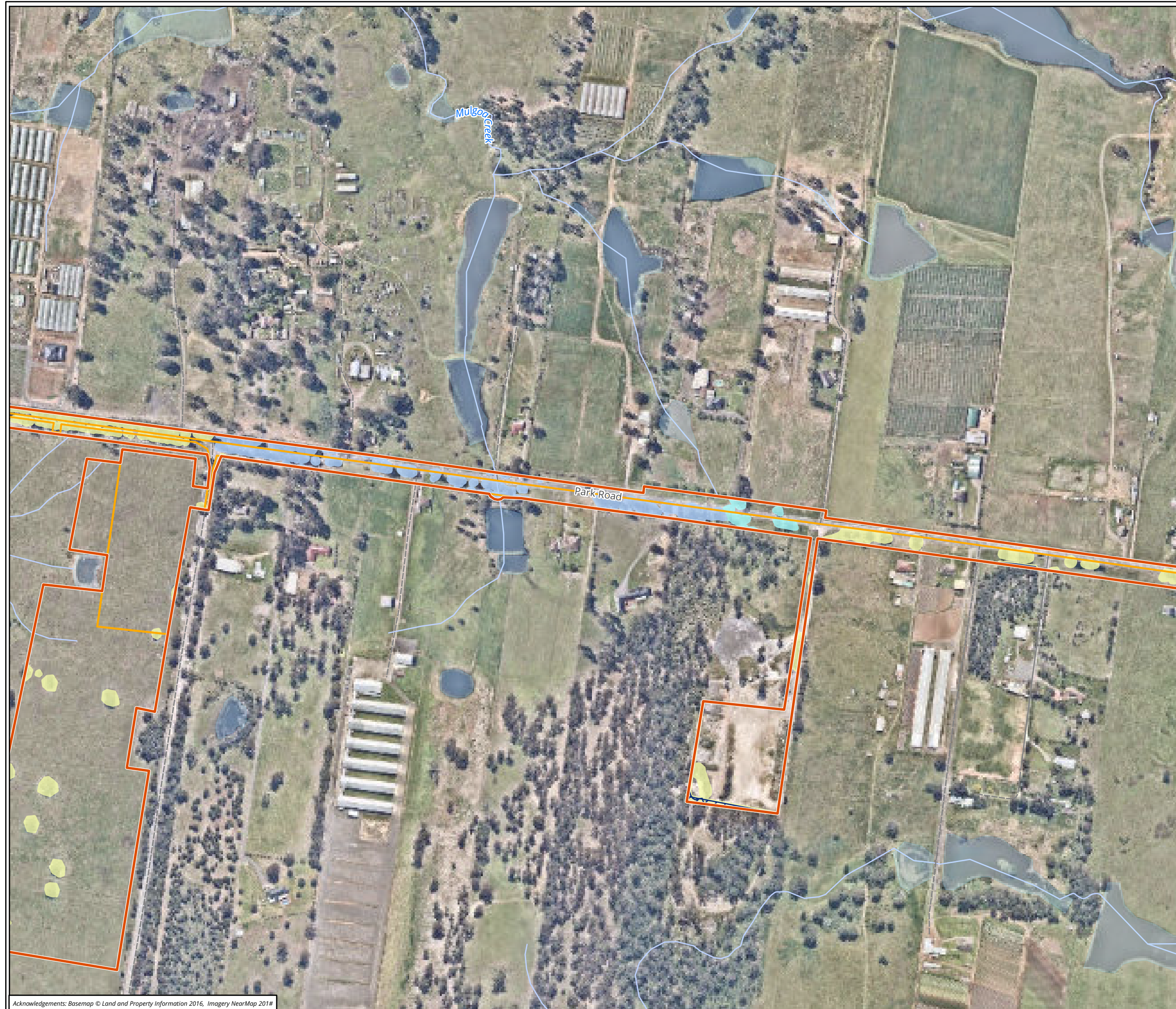
**Figure 6.22 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







#### Legend

Impact assessment area

Impact area

#### Biocertification

Existing Certified

Existing Non Certified

#### BC Act TEC

Cumberland Plain Woodland (CEE)

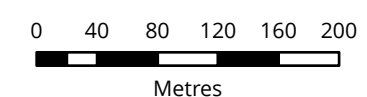
River-Flat Eucalypt Forest (EE)

Shale Gravel Transition Forest (EE)

#### EPBC Act TEC

Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (CEE)

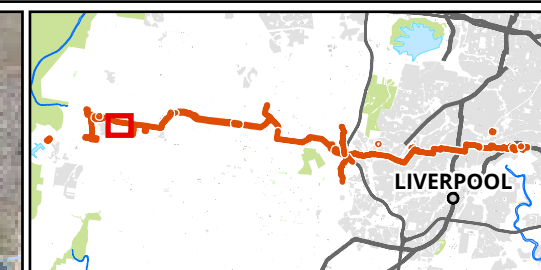
**Figure 6.23 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







- Legend**
- Impact assessment area
  - Impact area
- Biocertification**
- Existing Certified
  - Existing Non Certified
- BC Act TEC**
- Cumberland Plain Woodland (CEEC)
  - River-Flat Eucalypt Forest (EEC)
- EPBC Act TEC**
- Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (CEEC)

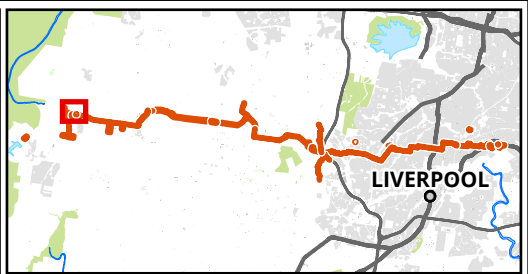
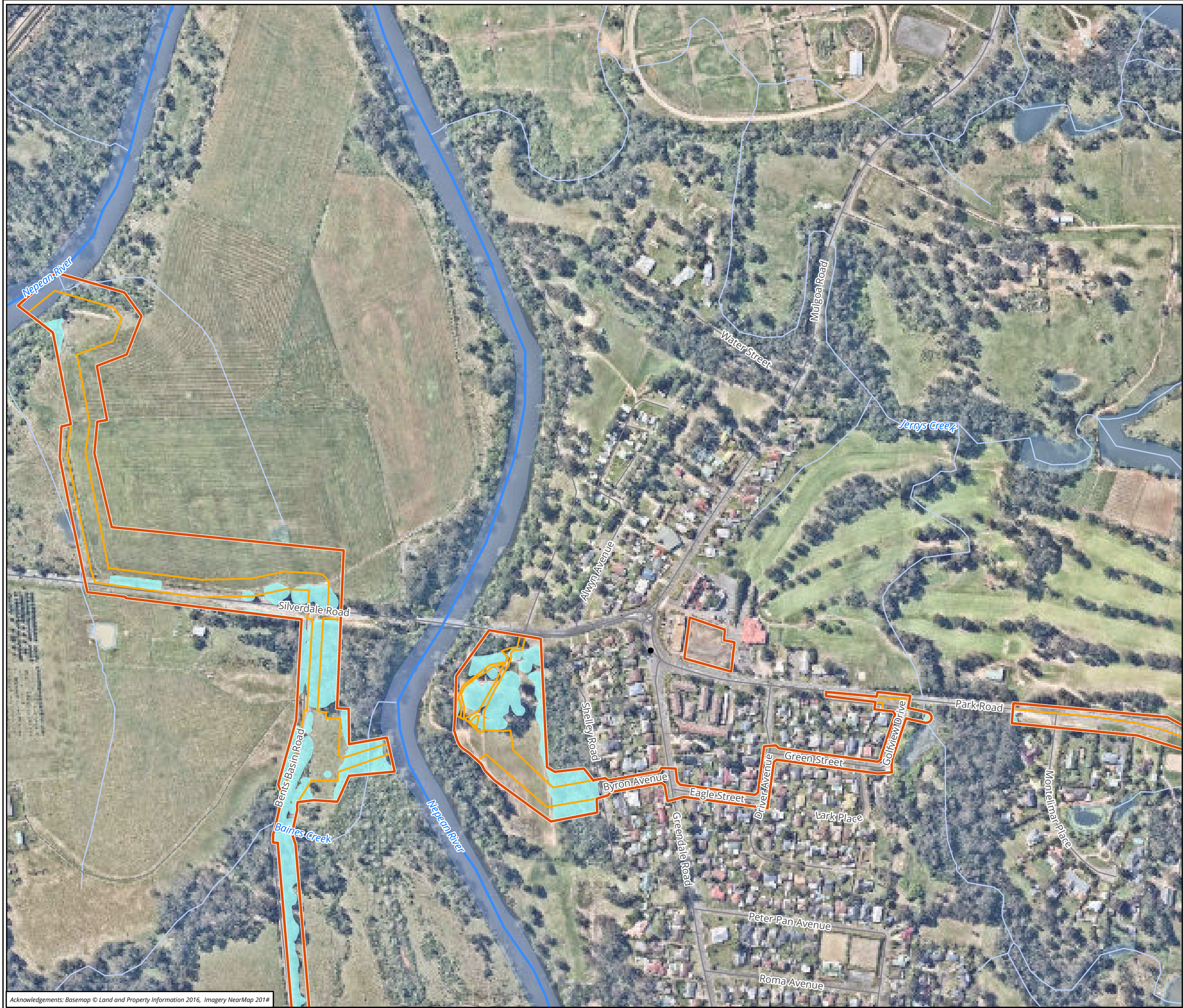
**Figure 6.24 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







- Legend**
- Impact assessment area
  - Impact area
- Biocertification**
- Existing Certified
  - Existing Non Certified
- BC Act TEC**
- Freshwater wetlands on coastal floodplains (EEC)
  - River-Flat Eucalypt Forest (EEC)

**Figure 6.25 TECs within the impact area and impact assessment area**

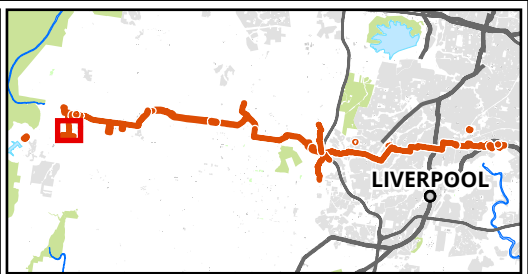
0 40 80 120 160 200  
Metres

Scale: 1:5,000 @ A3  
Coordinate System:

**biosis**

Matter: 31617,  
Date: 24 September 2021,  
Prepared for: CW, Prepared by: LW, Last edited by: amackegard  
Location: P:\31600s\31617\Mapping\31617\_Working\31617\_BDAR2020\_LW





- Legend**
- Impact assessment area
  - Impact area
- Biocertification**
- Existing Certified
  - Existing Non Certified
- BC Act TEC**
- River-Flat Eucalypt Forest (EEC)

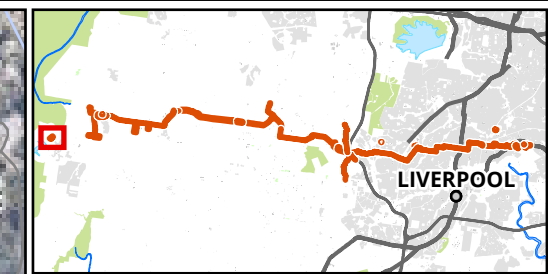
**Figure 6.26 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:







- Legend**
- Impact assessment area
  - Impact area
- Biocertification**
- Existing Certified
  - Existing Non Certified

**Figure 6.27 TECs within the impact area and impact assessment area**



Scale: 1:5,000 @ A3  
Coordinate System:





## 7.2 Vegetation integrity assessment

### 7.2.1 Vegetation zones and patch size

PCTs within the impact area and impact assessment area were assessed and stratified, based on broad condition state, into vegetation zones. This resulted in 16 vegetation zones identified within the impact area and/or the impact assessment area, where they occur outside areas of Existing Certified land only. Table 21 describes each of the vegetation zones that occur within both the impact area and impact assessment area, and Table 22 describes each vegetation zone that occurs within the impact assessment area only. The tables include the maximum patch size calculated for each vegetation zone. Patch size locations are shown on Figure 8.

As there will be no direct impacts to vegetation zones that occur only within the impact assessment area, these vegetation zones are only assessed for indirect impacts in subsequent sections of this report.

PCTs that occur within the impact area, but entirely on Existing Certified land, are not required to be assessed and therefore have not been assigned a vegetation zone.

**Table 21 Vegetation zones within the impact area**

Vegetation zone	Plant Community Type	Condition	Impact area (ha)	Impact assessment area (ha)	Max. patch size (impact area)
<b>724_Intact</b>	724: Broad-leaved Ironbark - Grey Box - <i>Melaleuca decora</i> grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion.	Intact	0.40 ha	0.29 ha	>100 ha
<b>724_Thinned</b>	724: Broad-leaved Ironbark - Grey Box - <i>Melaleuca decora</i> grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion.	Thinned	1.14 ha	0.63 ha	>100 ha
<b>724_Scattered trees</b>	724: Broad-leaved Ironbark - Grey Box - <i>Melaleuca decora</i> grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion.	Scattered trees	0.04 ha	0.11 ha	>100 ha
<b>725_Scattered trees</b>	725: Broad-leaved Ironbark - <i>Melaleuca decora</i> shrubby open forest on clay soils of the Cumberland Plain	Scattered trees	0.01 ha	0.00 ha	>100 ha
<b>781_Thinned</b>	781: Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion.	Thinned	0.02 ha	0.08 ha	>100 ha
<b>835_Intact</b>	835: Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion.	Intact	0.58 ha	1.05 ha	>100 ha



Vegetation zone	Plant Community Type	Condition	Impact area (ha)	Impact assessment area (ha)	Max. patch size (impact area)
<b>835_Thinned</b>	835: Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion.	Thinned	3.23 ha	5.22 ha	>100 ha
<b>835_Scattered trees</b>	835: Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion.	Scattered trees	0.75 ha	0.95 ha	>100 ha
<b>849_Intact</b>	849: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion.	Intact	0.93 ha	0.95 ha	>100 ha
<b>849_Thinned</b>	849: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion.	Thinned	2.68 ha	9.04 ha	>100 ha
<b>849_Scattered trees</b>	849: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion.	Scattered trees	1.22 ha	2.30 ha	>100 ha
<b>1083_Thinned</b>	1083: Red Bloodwood - scribbly gum heathy woodland on sandstone plateaux of the Sydney Basin Bioregion.	Thinned	1.38 ha	0.43 ha	>100 ha
<b>1105_Thinned</b>	1105: River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion.	Thinned	0.40 ha	0.46 ha	>100 ha
<b>1181_Intact</b>	1181: Smooth-barked Apple - Red Bloodwood - Sydney Peppermint heathy open forest on slopes of dry sandstone gullies of western and southern Sydney, Sydney Basin Bioregion.	Intact	0.07 ha	0.00 ha	>100 ha
<b>1800_Thinned</b>	1800: Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley.	Thinned	0.70 ha	1.16 ha	>100 ha
<b>1800_Scattered trees</b>	1800: Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley.	Scattered trees	0.22 ha	0.03 ha	>100 ha



**Table 22 Vegetation zones within the impact assessment area only**

Vegetation zone	Plant Community Type	Condition	Impact area (ha)	Impact assessment area (ha)	Max. patch size (impact area)
VZ1	725: Broad-leaved Ironbark - <i>Melaleuca decora</i> shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion.	Intact	0.00 ha	0.52 ha	>100 ha

The following PCTs and condition states were found to occur entirely on Existing Certified land and are therefore not considered further in this assessment:

- PCT 725 – Thinned
- PCT 735 – Scattered trees
- PCT 883 – Intact
- PCT 883 – Thinned
- PCT 883 – Scattered trees.

### 7.2.2 Vegetation integrity

Vegetation integrity was assessed using data obtained from undertaking BAM plots, as per the methodology outlined in Section 4.3.4 of the BAM (DPIE 2020a). Plot data was collected via:

- A 20 metre x 50 metre quadrat and 50 metre transect for assessment of site attributes and function.
- A 20 metre x 20 metre quadrat, nested within the larger quadrat for full floristic survey to determine composition and structure of the PCT.

The minimum number of BAM plots per vegetation zone was determined using Table 3 of the BAM (DPIE 2020a). A total of 21 BAM plots have been completed within the vegetation zones present impact area and impact assessment area, with details are provided in Table 23, and shown on Figure 7. A number of these 21 BAM pots included in the assessment are no longer located within the final impact area as a result of design refinements over the course of the project. These plots have been retained for use in the assessment they are still considered to be representative of the vegetation present within the impact area. Furthermore, an additional 9 BAM plots were completed over the course of the field investigation, that are no longer considered relevant to the BAM assessment due to their occurrence either well outside the impact area and/or impact assessment area (following design refinements), or due to their occurrence within the PCT and condition states listed above as entirely on Existing Certified land.

**Table 23 BAM plots completed within the impact area and/or impact assessment area**

BAM plot reference	Vegetation zone	BAM plot reference	Vegetation zone
USCWF_01	1083_Thinned	USCWF_22	849_Scattered trees
USCWF_03	849_Scattered trees	USCWF_23	724_Thinned
USCWF_04	835_Thinned	USCWF_27	724_Thinned
USCWF_05	835_Intact	USCWF_29	781_Thinned



BAM plot reference	Vegetation zone	BAM plot reference	Vegetation zone
USCWF_11	1105_Thinned	USCWF_31	835_Thinned
USCWF_13	849_Intact	USCWF_32	849_Thinned
USCWF_14	849_Thinned	USCWF_36	1181_Thinned
USCWF_17	724_Intact	USCWF_38	1800_Scattered trees
USCWF_18	835_Thinned	USCWF_42	724_Scattered trees
USCWF_19	1800_Thinned	USCWF_43	725_Scattered trees
USCWF_20	835_Scattered trees	-	-

An assessment of vegetation integrity was undertaken using standard benchmark data as outlined in Subsection 4.3.3 of the BAM. A list of flora species was compiled for each BAM plot and is included in Appendix 2. Records of all flora species will be submitted to EES for incorporation into the Atlas of NSW Wildlife.

### 7.2.3 Vegetation integrity score

Plot data were entered into the BAM calculator to determine vegetation integrity score. Plot data are presented in Appendix 2. Vegetation integrity scores for the vegetation zones are provided in Table 24.

**Table 24 Vegetation zone integrity scores**

Vegetation zone	Composition score	Structure score	Function score	Vegetation integrity (VI) score*	IBRA subregion
<b>724_Intact</b>	79.3	71.9	59.7	68.2	Cumberland
<b>724_Thinned</b>	37.9	62.2	36.2	44.0	Cumberland
<b>724_Scattered trees</b>	55.0	18.5	37.8	33.7	Cumberland
<b>725_Scattered trees</b>	20.3	34.1	8.9	18.3	Cumberland
<b>781_Thinned</b>	14.3	2.8	-	6.3	Cumberland
<b>835_Intact</b>	86.8	41.7	85.0	67.5	Cumberland
<b>835_Thinned</b>	74.5	68.5	82.8	75.0	Cumberland
<b>835_Scattered trees</b>	57.3	79.7	38.5	56.0	Cumberland
<b>849_Intact</b>	70.4	68.7	45.8	60.5	Cumberland
<b>849_Thinned</b>	38.8	48.1	29.1	37.9	Cumberland
<b>849_Scattered trees</b>	32.5	11.0	42.9	24.9	Cumberland
<b>1083_Thinned</b>	42.1	26.8	45.4	37.1	Wollemi
<b>1105_Thinned</b>	21.3	13.0	43.9	23.0	Cumberland / Wollemi
<b>1181_Intact</b>	62.8	17.6	34.3	33.6	Cumberland / Wollemi



Vegetation zone	Composition score	Structure score	Function score	Vegetation integrity (VI) score*	IBRA subregion
<b>1800_Thinned</b>	56.5	32.9	25.3	36.1	Cumberland
<b>1800_Scattered trees</b>	9.8	76.4	14.9	22.3	Cumberland

\*Benchmark (pristine) condition vegetation would receive a VI score of 100.

It should be noted that the two vegetation zones that occur in both the Cumberland IBRA subregion and Wollemi IBRA subregion (1105\_Thinned and 1181\_Intact), have been entered into the two separate BAM Calculators with identical data. This means that the resultant VI scores will also be identical as the PCT benchmarks are the same for both subregions.

As outlined in Section 9.2.1 of the BAM, an offset is required for impacts on native vegetation where the vegetation integrity score is:

- $\geq 15$  where the PCT is representative of an endangered or critically endangered ecological community.
- $\geq 17$  where the PCT is associated with threatened species habitat (as represented by ecosystem credits), or is representative of a vulnerable ecological community.
- $\geq 20$  where the PCT is not representative of a TEC or associated with threatened species habitat.

As such, ecosystem credit offsets are not required for vegetation zone 781\_Thinned due to its VI score of 6.3.