

Legend

- Impact assessment area
- Impact area
- Landscape assessment area 500m buffer

LIVENPÓOL

- IBRA Region/Sub-region

Biodiversity Values Map

Biodiversity Values

HydroLine stream order

- 2
- **—** 3
- 4-5
- **—** 6-9

Soil hazard

- High probability of occurrence
- Low probability of occurrence
- No known occurrence
- Disturbed Terrain

Mitchell landscapes

- Asp,Ashfield Plains
 - Cpl,Cumberland Plain
 - Gra,Georges River Alluvial Plain

Figure 3.1 Location map

320 480 640 800 160

Metres Scale: 1:20,000 @ A3 Coordinate System: PCS: GDA 1994 MGA Zone 56



Matter: 31617. Matter 3 September 2021, Prepared for: CW, Prepared by: LH, Last edited by: Iharley Location: P:\31600s\31617\Mapping\31617_Working\31617_BDAR2020

CANTERBURY-BANKSTOWN

CANTERBURY-BANKSTOWN LGA











Legend

- Impact assessment area
- Impact area
- Landscape assessment area 500m buffer

LIVERPOOL

- IBRA Region/Sub-region

Biodiversity Values Map

Biodiversity Values

Biocertification

- Existing Certified
- Existing Non Certified

HydroLine stream order

- 1
- 2
- **—** 3
- **—** 4-5
- **—** 6-9

Mitchell landscapes

Cpl,Cumberland Plain

Hac,Hawkesbury - Nepean Channels and Floodplains

Figure 3.4 Location map

160 320 480 640 800 0



Metres Scale: 1:20,000 @ A3 Coordinate System: PCS: GDA 1994 MGA Zone 56



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LIVERPOOL Legend Impact assessment area Impact area Landscape assessment area 500m buffer IBRA Region/Sub-region **Biodiversity Values Map** Biodiversity Values HydroLine stream order **—** 2 **—** 3 **—** 4-5 **—** 6-9 Mitchell landscapes Cpl,Cumberland Plain Hac,Hawkesbury - Nepean Channels and Floodplains

Figure 3.5 Location map





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7. Native vegetation

7.1 Native vegetation assessment

7.1.1 Vegetation description

The impact area supports 15 hectares of native vegetation with varying levels of disturbance, of which 13.77 hectares occurs outside Existing Certified land (refer to Section 3), and is therefore relevant to this assessment. A further 25.21 hectares of native vegetation occurs in the impact assessment areas, of which 23.23 hectares occurs outside Existing Certified land.

The impact area and impact assessment areas generally contain patchy native vegetation some of which are contiguous with large patches on adjacent properties and road reserves. The condition of native vegetation within the impact area and impact assessment area is correlated with historical and current land use and varies from low condition in urban areas and road reserves to the east of the alignment, moderate condition in pastoral lands and road reserves to the west of the alignment, and high condition in reserves at Lansdowne (BioBank site), Western Sydney Parklands (near Elizabeth Hills), Water NSW Special Area (Warragamba) in addition to private and vacant land at Kemps Creek, Wallacia and Warragamba. The impact area and impact assessment area have been subject to a land use history of pastoral and agricultural land use practices including pasture improvement and livestock grazing throughout, in addition to residential and industrial development to the east.

Parts of the impact area and impact assessment area mapped as exotic pasture (Figure 5) with no native over storey or mid storey cover, and a dominance of exotic species met the definition of cleared land, and were not mapped as native vegetation.

7.1.2 Native vegetation extent

Figure 5 provides a map of the native vegetation extent recorded within the impact area and impact assessment area, as assessed during field investigations undertaken between 2 April 2020 and 30 November 2020. The figure has mapped all areas of native vegetation (native ground cover and areas with native understorey and/or canopy). Areas not mapped as native vegetation on Figure 5 were found to be exotic vegetation (generally grasslands), and those areas which do not provide habitat for threatened species, are not included for further assessment in accordance with Section 4.1.2 of the BAM (DPIE 2020a). Non native vegetation which provides habitat for threatened species has been considered and where appropriate, assessed.

7.1.3 Plant community types

Table 8 provides a summary of the 10 PCTs assessed as present within the within the impact area and impact assessment area, and provides details on whether each PCT occurs on 'Non Biocertified' land, Existing Certified land or Existing Non-certified land. Those PCTs present only on Existing Certified land within the impact area are described in detail in the following section of this report, however an assessment of impacts is not required and as such, these PCTs not addressed further (refer Section 3 - Order to confer biodiversity certification on the State Environmental Planning Policy (Sydney Region Growth Centres) 2006).

Detailed descriptions of the 10 PCTs recorded within the impact area and impact assessment area are provided in Table 9 to Table 18, with PCTs recorded shown on Figure 5.



		Impact area				Impact assessment area		
РСТ	EPBC Act TEC	BC Act TEC	Non Biocert.	Existing Certified	Existing Non- Certified	Non Biocert.	Existing Certified	Existing Non- Certified
724: Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin Bioregion	Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (Critically Endangered Ecological Community [CEEC])	Shale Gravel Transition Forest in the Sydney Basin Bioregion (Endangered Ecological Community [EEC])	Yes	Yes	No	Yes	Yes	No
725: Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain	Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion (CEEC)	Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion (EEC)	Yes	Yes	No	Yes	Yes	No
781: Coastal freshwater lagoons of the Sydney Basin Bioregion and South East Corner Bioregion	-	Sydney Freshwater Wetlands in the Sydney Basin Bioregion (EEC)	Yes	No	No	Yes	No	Yes
835: Forest Red Gum - Rough- barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion	River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria (CEEC)*	<i>River-flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i> (EEC)	Yes	Yes	Yes	Yes	Yes	Yes
849: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion	Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (CEEC)	<i>Cumberland Plain Woodland in the</i> <i>Sydney Basin Bioregion</i> (CEEC)	Yes	Yes	Yes	Yes	Yes	Yes
883: Hard-leaved Scribbly Gum - Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin Bioregion	Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion (EEC)	Castlereagh Scribbly Gum Woodland in the Sydney Basin Bioregion (Vulnerable Ecological Community [VEC])	No	Yes	No	No	Yes	No

Table 8 Summary of PCTs within the impact area and impact assessment area



			Impact area			Impact assessment area		
РСТ	EPBC Act TEC	BC Act TEC	Non Biocert.	Existing Certified	Existing Non- Certified	Non Biocert.	Existing Certified	Existing Non- Certified
1083: Red Bloodwood - scribbly gum heathy woodland on sandstone plateaux of the Sydney Basin Bioregion	-	-	Yes	No	No	Yes	No	No
1105: River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion	-	-	Yes	No	No	Yes	No	No
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	-	-	Yes	No	No	No	No	No
1800: Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley	Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community (EEC)	Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (EEC)	Yes	No	Yes	Yes	Yes	Yes

* *River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria* was listed as a CEEC under the EPBC Act in December 2020, after the projects referral decision. As such the listing is not relevant to the current assessment. Refer to Section 9 for more information.



PCT 724: Broad-leaved Ironbark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the **Cumberland Plain, Sydney Basin Bioregion** Common name Castlereagh Shale – Gravel Transition Forest Dry Sclerophyll Forests (Shrub/grass sub-formation) **Vegetation formation Vegetation class** Cumberland Dry Sclerophyll Forests **Extent on Non** Impact area - 1.58 ha **Biocertified and Existing** Impact assessment area - 1.03 ha (Figure 5) Non-certified land **Extent on Existing** Impact area - 0.04 ha **Certified land** Impact assessment area – 0.21 ha Condition Patches of this community occurring in the impact area were recorded in a Scattered trees condition state in areas subject to recent clearing, grazing or roadside remnants, and thinned condition state in areas subject to historical clearing and grazing and in Intact condition state in areas which have been conserved. Scattered trees condition states contain a native canopy, absent mid-storey and low cover of native species within the understorey. Thinned condition states contain a native canopy and under-developed native mid-storey and understorey. Intact condition states retain full structural integrity with native species dominating all strata. Description Castlereagh Shale – Gravel Transition Forest typically occurs as a low to tall open Eucalypt forest with a mid-storey of White-feather Honey-myrtle Melaleuca decora and a mixed understorey of shrubs, grasses, sedges and forbs. Within the impact area, the Intact condition patches contain an upper stratum dominated by Red Ironbark Eucalyptus fibrosa with subdominants; Red Forest Gum E. tereticornis, Cabbage Gum E. amplifolia and Mugga Ironbark E. sideroxylon over a mid-storey of; White-feather Honey-myrtle, Black She-Oak Allocasuarina littoralis and Black Wattle Acacia decurrens. The understorey consists of; Native Blackthorn Bursaria spinosa, White Dogwood Ozothamnus diosmifolius, Tick Bush Kunzea ambigua, Weeping Grass Microlaena stipoides, Common Couch Cynodon dactylon, Berry Saltbush Einadia hastata, Native Wandering Jew Commelina cyanea, Paspalidium distans, Bordered Panic Entolasia marginata, Two-colour Panic Panicum simile, Forest Nightshade Solanum prinophyllum, Rock Fern Cheilanthes sieberi, Whiteroot Lobelia purpurascens, Variable Glycine Glycine tabacina, Common Fringe-sedge Fimbristylis dichotoma and Golden Weather-grass Hypoxis hygrometrica var. villosisepala. Exotic species recorded within this community included; Slender Pigeon Grass Setaria gracilis, Inkweed Phytolacca octandra, Black-berry Nightshade Solanum nigrum, Bridal Creeper Asparagus asparagoides, Crab Grass Digitaria sanguinalis, African Lovegrass Eragrostis curvula, African Daisy Senecio pterophorus, Burr Marigold Bidens tripartita and Fireweed Senecio madagascariensis. Survey effort Five BAM plots/transects (two Intact, two Thinned and one Scattered trees) (Figure 7) were collected over the course of the field assessment. **Justification of PCT** Castlereagh Shale-Gravel Transition Forest within the impact area and impact assessment area meets the PCT description (DPIE 2021a) via the following: Soil - occurs on the Blacktown soil landscape close to intergrades with the South Creek • and Berkshire Park soil landscapes.

Table 9 PCT 724 - Castlereagh Shale – Gravel Transition Forest



PCT 724: Broad-leaved Iron Cumberland Plain, Sydney	bark - Grey Box - Melaleuca decora grassy open forest on clay/gravel soils of the Basin Bioregion
	 Rainfall - average annual rainfall of 810.6 mm. Structure - open forest with occasional mid-storey and understorey varying between dense shrubs or low sparse shrub cover with an abundant cover of grasses. Dominant species - canopy dominated by Red Ironbark with a mid-storey of White-feather Honey-myrtle and understorey of Blackthorn over groundcover containing a mix of grasses, sedges and forbs. IBRA region and subregion – Sydney Basin region and Cumberland subregion.
Threatened Ecological Community (TEC) Status	NSW BC Act: All Intact, Thinned and Scattered trees condition state patches (with partially intact seedbank) were determined to meet the criteria for <i>Shale Gravel Transition Forest in the Sydney Basin Bioregion</i> (EEC). Scattered condition states which did not retain a partially intact seedbank do not conform to the listing criteria under the BC Act.
	outlined in the Listing Advice for the EPBC Act listed CEEC <i>Cumberland Plain Shale Woodlands</i> and Shale-Gravel Transition Forest (TSSC 2009).
	Patches in Thinned and Scattered trees condition states did not meet condition thresholds outlined in the Listing Advice for the EPBC Act listed community (TSSC 2009) as it did not support a 'substantial native understorey'.
	State and Commonwealth TECs are mapped on Figure 6.
Estimate of percent cleared value of PCT	75 % (DPIE 2021a) of pre-1750 extent has been cleared.
PCT 724 – Intact condition	





Table 10 PCT 725 - Castlereagh Ironbark Forest

PCT 725: Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion		
Common name	Castlereagh Ironbark Forest	
Vegetation formation	Dry Sclerophyll Forests (Shrub/grass sub-formation)	
Vegetation class	Cumberland Dry Sclerophyll Forests	
Extent on Non Biocertified and Existing Non-certified land	Impact area – 0.01 ha Impact assessment area – 0.52 ha (Figure 5)	
Extent on Existing Certified land	Impact area – 0.13 ha Impact assessment area – 0.38 ha	
Condition	Patches of this community occurring in the impact area and impact assessment area were recorded in a Scattered trees condition state in areas subject to recent clearing, grazing or	



PCT 725: Broad-leaved Iron Sydney Basin Bioregion	bark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain,
	roadside remnants, and thinned condition state in areas subject to historical clearing and grazing and in an Intact condition state in areas which have been conserved. Scattered condition states contain a native canopy, absent mid-storey and low cover of native species within the understorey. Thinned condition states contain a native canopy and under-developed native mid-storey and understorey. Intact condition states retain full structural integrity with native species dominating all strata.
Description	Castlereagh Ironbark Forest is superficially similar to Castlereagh Shale – Gravel Transition Forest and can be difficult to distinguish. This community typically occurs as a moderately tall open Eucalypt forest or woodland or a low dense thicket of <i>Melaleuca</i> spp. with occasional low emergent Eucalypts, a mid-storey of White-feather Honey-myrtle, Blackthorn and Prickly- leaved Paperbark <i>Melaleuca nodosa</i> and a mixed understorey of shrubs, grasses and forbs.
	Within the impact area, the intact condition patches contain an upper stratum dominated by Red Ironbark with subdominants; Narrow-leaved Ironbark <i>E. crebra</i> , Woollybutt <i>E. longifolia</i> and Mugga Ironbark over a mid-storey of White-feather Honey-myrtle, Prickly-leaved Paperbark, Black She-Oak and Cherry Ballart <i>Exocarpos cupressiformis</i> . The understorey consists of; Peach Heath <i>Lissanthe strigosa</i> subsp. <i>strigosa</i> , Native Blackthorn, White Dogwood, Weeping Grass, Threeawn Speargrass <i>Aristida vagans</i> , Variable Sword-sedge <i>Lepidosperma</i> <i>laterale</i> , Blueberry Lily <i>Dianella revoluta</i> , Bushy Hedgehog-grass <i>Echinopogon caespitosus</i> , Bordered Panic, Many-flowered Mat-rush <i>Lomandra multiflora</i> , Forest Nightshade, Rock Fern, Whiteroot, Grass Daisy <i>Brachyscome graminea</i> , Native Cranberry <i>Astroloma humifusum</i> and the moss <i>Dawsonia</i> sp.
	Exotic species recorded within this community included; Catsear <i>Hypochaeris radicata</i> , African Olive <i>Olea europaea</i> subsp. <i>cuspidata</i> , Common Sowthistle <i>Sonchus oleraceus</i> , Burr Medic <i>Medicago polymorpha</i> , Bridal Creeper, Moth Vine <i>Araujia sericifera</i> and African Lovegrass.
Survey effort	Three BAM plots/transects (one Intact, one Thinned, one Scattered trees) (Figure 7) were collected over the course of the field assessment.
Justification of PCT	 Castlereagh Ironbark Forest within the impact area and impact assessment area meets the PCT description via the following: Soils - occurs on the Berkshire Park soil landscape in addition to the Blacktown soil landscape close to intergrades with the Berkshire Park soil landscape. Structure - moderately tall open forest or woodland with mid-storey of White-feather Honey-myrtle and understorey varying between dense shrubs or low sparse shrub cover grasses and forbs. Dominant species - canopy dominated by Red Ironbark and subdominant Woollybutt with a mid-storey of White-feather Honey-myrtle and understorey containing Blackthorn and Peach Heath. IBRA region and subregion – Sydney Basin region and Cumberland subregion.
TEC Status	NSW BC Act: All Intact, Thinned and Scattered trees condition (with partially intact seedbank) state patches were determined to meet the criteria for <i>Cooks River/Castlereagh Ironbark Forest in the Sydney Basin Bioregion</i> (EEC). Scattered condition states which did not retain a partially intact seedbank do not conform to the listing criteria under the BC Act. This is the case for the patch of PCT 725 within the impact area north of Elizabeth Drive at Kemps Creek. Commonwealth EPBC Act: Patches in Intact condition states meets the condition thresholds
	outlined in the Conservation Advice for the EPBC Act listed CEEC Cooks River/Castlereagh



PCT 725: Broad-leaved Iron Sydney Basin Bioregion	bark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain,
	Ironbark Forest of the Sydney Basin Bioregion (DoE 2015a).
	Patches in Thinned and Scattered trees condition states did not meet condition thresholds outlined in the Listing Advice for the EPBC Act listed community (DoE 2015a) as it did not support a 'substantial native understorey'.
	State and Commonwealth TECs are mapped on Figure 6.
Estimate of percent cleared value of PCT	95 % (DPIE 2021a) of the pre-1750 extent has been cleared.
PCT 725 – Intact condition	
PCT 725 -Thinned condition	



PCT 725: Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion

PCT 725 – Scattered trees condition



Table 11 PCT 781 - Coastal Freshwater Wetland

PCT 781: Coastal freshwate	er lagoons of the Sydney Basin Bioregion and South East Corner Bioregion
Common name	Coastal Freshwater Wetland
Vegetation formation	Freshwater Wetlands
Vegetation class	Coastal Freshwater Lagoons
Extent on Non Biocertified and Existing Non-certified land	Impact area – 0.02 ha Impact assessment area – 0.08 ha (Figure 5)
Extent on Existing Certified land	Impact area – 0.00 ha Impact assessment area – 0.00 ha
Condition	There are three patches of this community occurring in the impact area and impact assessment area, all of which have been recorded in a Thinned condition state. The patches contain a depauperate native species assemblage, usually fringed by widely spaced Eucalypts and, in two patches, a monoculture of Broadleaf Cumbungi <i>Typha orientalis</i> .
Description	Coastal Freshwater Wetland typically occurs as a freshwater lagoon or swamp covered by a range of sedges, rushes and aquatic herbs with fringing shrubs and small trees occurring on the margins of the wetlands.
	Within the impact area, the Thinned condition patches contain fringing Eucalypts comprising Cabbage Gum or Swamp Oak <i>Casuarina glauca</i> over an understorey of; Broadleaf Cumbungi, Common Rush <i>Juncus usitatus</i> , Narrow-leaved Cumbungi <i>Typha domingensis</i> , Common Reed <i>Phragmites australis</i> , Slender Knotweed <i>Persicaria decipiens</i> and Water Ribbons <i>Cycnogeton</i> <i>procerum</i> .
	Exotic species recorded within this community included; Salvinia Salvinia molesta, Box Elder Acer negundo, Broadleaf Dock Rumex obtusifolius, Greater Beggar's Ticks Bidens subalternans, Common Sowthistle Sonchus oleraceus, Arrowroot Canna indica and Large-leaved Privet Ligustrum lucidum.



PCT 781: Coastal freshwate	r lagoons of the Sydney Basin Bioregion and South East Corner Bioregion
Survey effort	One BAM plot/transect (Figure 7) was collected over the course of the field assessment.
Justification of PCT	 Coastal Freshwater Wetland within the impact area and impact assessment area meets the PCT description via the following: Landscape - associated with freshwater lagoons, swamps and dams. Soils - occurs on the Blacktown, Richmond and South Creek soil landscape close to intergrades with the South Creek and Berkshire Park soil landscapes. Elevation - occurs at elevations between 40 - 48 m asl. Structure - understorey of sedges, rushes and reeds fringed by shrubs or small trees. Dominant species - dominated by Broadleaf Cumbungi, Narrow-leaved Cumbungi or Common Reed. IBRA region and subregion - Sydney Basin region and Cumberland subregion.
TEC Status	 NSW BC Act: All Thinned condition state patches were determined to meet the criteria for Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions (EEC). Commonwealth EPBC Act: This community is not listed under the EPBC Act. TECs are mapped on Figure 6.
Estimate of percent cleared value of PCT	74 % (DPIE 2021a) of the pre-1750 extent of has been cleared.
PCT 781 – Thinned condition	



Table 12 PCT 835 - Cumberland River-flat Forest

PCT 835: Forest Red Gum - Basin Bioregion	Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney
Common name	Cumberland River-flat Forest
Vegetation formation	Forested Wetlands
Vegetation class	Coastal Floodplain Wetlands
Extent on Non Biocertified and Existing Non-certified land	Impact area – 4.56 ha Impact assessment area – 7.22 ha (Figure 5)
Extent on Existing Certified land	Impact area – 0.02 ha Impact assessment area – 0.07 ha
Condition	Patches of this community occurring in the impact area were recorded in a Scattered trees condition state in areas subject to recent clearing, grazing or roadside remnants, and thinned condition state in areas subject to historical clearing and grazing and in an Intact condition state in areas which have been conserved. Scattered condition states contain a native canopy, absent mid-storey and low cover of native species within the understorey. Thinned condition states contain a native canopy and under-developed native mid-storey and understorey. Intact condition states retain full structural integrity with native species dominating all strata.
Description	Cumberland River-flat Forest typically occurs as an open Eucalypt forest on alluvial flats of rivers, streams and creeks with a canopy of Rough-barked Apple <i>Angophora floribunda</i> , Broad-leaved Apple <i>A. subveultina</i> , Cabbage Gum or Red Forest Gum. This community contains a mid-storey of <i>Melaleuca</i> spp. and Wattles <i>Acacia</i> spp. and an understorey of Blackthorn and abundant grasses, small forbs and ferns.
	Within the impact area, the Intact condition patches contain an upper stratum dominated by Cabbage Gum with subdominant Rough-barked Apple <i>E. crebra</i> and occasional Forest Red Gum, Thin-leaved Stringybark <i>E. eugenioides</i> , Narrow-leaved Ironbark and Spotted Gum <i>Corymbia maculata</i> over a mid-storey of; White-feather Honey-myrtle, Prickly-leaved Tea Tree <i>Melaleuca styphelioides</i> , Parramatta Wattle <i>Acacia parramattensis</i> , Black Wattle, Hickory Wattle <i>Acacia implexa</i> and Willow Bottlebrush <i>Callistemon salignus</i> . The understorey contains Wedge- leaf Hop-bush <i>Dodonaea viscosa</i> subsp. <i>cuneata</i> , Weeping Grass, Berry Saltbush, Kidney Weed <i>Dichondra repens</i> , Whiteroot, Twining Glycine <i>Glycine clandestina</i> , Knob Sedge <i>Carex inversa</i> , Slender Flat-sedge <i>Cyperus gracilis</i> , Slender Tick-trefoil <i>Desmodium varians</i> , Climbing Saltbush <i>Einadia nutans</i> , Fishweed <i>Einadia trigonos</i> subsp. <i>trigonos</i> and Native Wandering Jew.
	Exotic species recorded within this community included; Green Cestrum <i>Cestrum parquii</i> , White Flatweed <i>Hypochaeris microcephala</i> var. <i>albiflora</i> , Slender Pigeon Grass, Black-berry Nightshade, <i>Solanum sisymbriifolium</i> , Common Sowthistle, Purpletop <i>Conyza bonariensis</i> , Paspalum <i>Paspalum dilatatum</i> , White Clover <i>Trifolium repens</i> , Fireweed and Panic Veldtgrass <i>Ehrharta erecta</i> .
Survey effort	Six BAM plots/transects, (one Intact, four Thinned, one Scattered trees) (Figure 7) were collected over the course of the field assessment.
Justification of PCT	 Cumberland River-flat Forest within the impact area and impact assessment area meets the PCT description (DPIE 2021a) via the following: Landscape – occurs on broad alluvial flats adjacent to rivers, creeks and streams. Soils - occurs on the Blacktown, South Creek and Luddenham soil landscapes.



PCT 835: Forest Red Gum - Basin Bioregion	Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney
	 Elevation - between 38 - 64 m asl. Rainfall - average annual rainfall of 810.6 mm. Structure - open Eucalypt forest with a mid-storey of <i>Melaleuca</i> spp and <i>Acacia</i> spp. over an understorey with a low shrub layer and an abundant cover of grasses, forbs and ferns. Dominant canopy species - canopy dominated by Rough-barked Apple and Cabbage Gum with occasional Forest Red Gum, Spotted Gum. IBRA region and subregion – Sydney Basin region and Cumberland subregion.
TEC Status	NSW BC Act: All Intact, Thinned and Scattered trees condition (with partially intact seedbank) state patches were determined to meet the criteria for <i>River-flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i> (EEC). Scattered condition states which did not retain a partially intact seedbank do not conform to the listing criteria under the BC Act.
	Commonwealth EPBC Act: <i>River-flat eucalypt forest on coastal floodplains of southern New</i> <i>South Wales and eastern Victoria</i> was listed as a CEEC under the EPBC Act in December 2020, after the projects referral decision. As such the listing is not relevant to the current assessment. Refer to Section 9 for more information.
Estimate of percent cleared value of PCT	93 % (DPIE 2021a) of the pre-1750 extent has been cleared.
PCT 835 – Intact condition	





Table 13 PCT 849 - Cumberland Shale Plains Woodland

PCT 849: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion		
Common name	Cumberland Shale Plains Woodland	
Vegetation formation	Grassy Woodlands	
Vegetation class	Coastal Valley Grassy Woodlands	
Extent on Non Biocertified and Existing Non-certified land	Impact area – 4.83 ha Impact assessment area – 12.29 ha (Figure 5)	
Extent on Existing Certified land	Impact area – 1.01 ha Impact assessment area – 1.10 ha	
Condition	Patches of this community occurring in the impact area were recorded in a Scattered trees condition state in areas subject to recent clearing, grazing or roadside remnants, and thinned condition state in areas subject to historical clearing, grazing and restoration and in an Intact	



Red Guin grassy woodiand on hats of the Cumberland Plain, sydney basin bioregion
condition state in areas which have been conserved. Scattered condition states contain a native canopy, absent mid-storey and low cover of native species within the understorey. Thinned condition states contain a native canopy and under-developed native mid-storey and understorey. Intact condition states retain full structural integrity with native species dominating all strata.
Cumberland Shale Plains Woodland typically occurs as an open grassy woodland on gently undulating plains with a canopy of Grey Box <i>E. moluccana</i> and Forest Red Gum with subdominants Narrow-leaved Ironbark or Red Ironbark and occasional Spotted Gum over an understorey containing a sparse cover of shrubs and abundant grasses and forbs.
Within the impact area, the Intact condition patches contain an upper stratum dominated by; Forest Red Gum and Grey Box and Forest Red Gum over a mid-storey of Cherry Ballart, Black Wattle and Blackthorn. The understorey contains; Weeping Grass, Kidney Weed, Blue Trumpet <i>Brunoniella australis</i> , Small-leaf Glycine <i>Glycine microphylla</i> , Twining Glycine, Kangaroo Grass <i>Themeda triandra</i> , Prickly Beard-heath <i>Leucopogon juniperinus</i> , Many-flowered Mat-rush, Blueberry Lily, Ringed Wallaby Grass <i>Rytidospermum caespitosum</i> , False Sarsaparilla <i>Hardenbergia violacea</i> , Basket Grass <i>Oplismenus aemulus</i> and Knob Sedge.
Exotic species recorded within this community included; Panic Veldtgrass, Mickey Mouse Plant Ochna serrulata, Bridal Creeper, Easter Cassia Senna pendula var. glabrata, Small-leaved Privet Ligustrum sinense, Asparagus Fern Asparagus aethiopicus, African Lovegrass, Cobbler's Pegs Bidens pilosa, African Olive and Moth Vine.
Six BAM plots/transects (one Intact, three Thinned, two Scattered trees) (Figure 7) were collected over the course of the field assessment.
 Cumberland Shale Plains Woodland within the impact area and impact assessment area meets the PCT description (DPIE 2021a) via the following: Landscape – gently undulating plains. Soils - occurs on the Blacktown, Luddenham and Richmond soil landscapes on Wianamatta group shales. Rainfall - average annual rainfall of 810.6 to 866.4 mm. Elevation – between 18 to 96 m asl. Structure - open grassy woodland with sparse to dense mid-storey and understorey of abundant grasses and forbs. Dominant species - canopy dominated by Forest Red Gum and Grey Box. IBRA region and subregion – Sydney Basin region and Cumberland subregion.
 NSW BC Act: All Intact, and the majority of Thinned and Scattered trees condition state patches (with partially intact seedbank) were determined to meet the criteria for <i>Cumberland Plain Woodland in the Sydney Basin Bioregion</i> (CEEC). Scattered condition states which did not retain a partially intact seedbank do not conform to the listing criteria under the BC Act. Commonwealth EPBC Act: All patches in Intact condition states and some patches in Thinned condition states meet the condition thresholds outlined in the Conservation Advice for the EPBC Act listed CEEC <i>Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest</i> (TSSC 2009). The remaining patches in Thinned condition state and all patches in Scattered trees condition states did not meet condition thresholds outlined in the EPBC Act listed



PCT 849: Grey Box - Forest F	Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion
	State and Commonwealth TECs are mapped on Figure 6.
Estimate of percent cleared value of PCT	93 % (DPIE 2021a) of the pre-1750 extent has been cleared.
PCT 849 – Intact condition	
PCT 849 – Thinned condition	
PCT 849 – Scattered trees condition	33.8/306.150.68149.411m.83° 8.May 2020 8:54.38 am

Table 14 PCT 883 - Castlereagh Scribbly Gum Woodland

PCT 883: Hard-leaved Scribbly Gum - Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin Bioregion	
Common name	Castlereagh Scribbly Gum Woodland
Vegetation formation	Dry Sclerophyll Forests (Shrubby sub-formation)
Vegetation class	Sydney Sand Flats Dry Sclerophyll Forests
Extent on Non Biocertified and Existing Non-certified land	Impact area – 0.00 ha Impact assessment area – 0.00 ha (Figure 5)
Extent on Existing Certified land	Impact area – 0.03 ha Impact assessment area – 0.20 ha
Condition	Patches of this community occurring in the impact area were recorded in a Scattered trees condition state in areas containing roadside remnants and in an Intact condition state in areas which have been conserved. Scattered condition states contain a native canopy, absent mid-storey and very low cover of native species within the understorey. Intact condition states retain full structural integrity with native species dominating all strata.
Description	Castlereagh Scribbly Gum Woodland typically occurs as an open low growing woodland dominated by Narrow-leaved Scribbly-gum <i>E. racemosa</i> (formerly known as Hard-leaved Scribbly Gum <i>E. sclerophylla</i>) with subdominants Narrow-leaved Apple <i>A. bakeri</i> and Drooping Red Gum <i>E. parramattensis</i> subsp. <i>parramattensis</i> over a mid-storey of White-feather Honey- myrtle, a well-developed low shrub layer and a high cover of grasses and sedges. Within the impact area, the Intact condition patches contain an upper stratum dominated by Narrow-leaved Scribbly Gum over a mid-storey of White-feather Honey-myrtle, Prickly-leaved Paperbark, Black She-Oak and Tick Bush. The understorey contains; Bordered Panic, Rock Fern, Variable Sword-sedge, <i>Paspalidium distans</i> , Whiteroot, Many-flowered Mat-rush, Blue Trumpet, Weeping Grass, <i>Ptilothrix deusta</i> , Hairy Bush-pea <i>Pultenaea villosa</i> , Variable Stinkweed <i>Opercularia varia</i> , Kangaroo Grass and Peach Heath. Exotic species recorded within this community included; African Lovegrass, Spear Thistle <i>Cirsium vulgare</i> , Common Sowthistle, Black-berry Nightshade, Bridal Creeper, Catsear,
Survey effort	Three BAM plots/transects (one Intact, one Thinned, one Scattered trees) (Figure 7) were collected over the course of the field assessment.
Justification of PCT	 Castlereagh Scribbly Gum Woodland within the impact area and impact assessment area meets the PCT description (DPIE 2021a) via the following: Soils - predominantly occurs on the Berkshire Park soil landscape or at the intergrade between the Berkshire Park and Blacktown soil landscapes. Rainfall - average annual rainfall of 810.6 mm. Elevation - 48-68 m asl. Dominant species - canopy dominated by Narrow-leaved Scribbly Gum with a well-developed mid-storey of White-feather Honey-myrtle and Prickly-leaved Paperbark understorey of Blackthorn over groundcover containing a mix of grasses and sedges. IBRA region and subregion - Sydney Basin region and Cumberland subregion.



PCT 883: Hard-leaved Scribbly Gum - Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin Bioregion	
TEC Status	NSW BC Act: All Intact and Scattered trees condition state patches were determined to meet the criteria for <i>Castlereagh Scribbly Gum Woodland in the Sydney Basin Bioregion</i> (VEC).
	Commonwealth EPBC Act: All patches in Intact condition states meet the condition thresholds outlined in the Conservation Advice for the EPBC Act listed EEC <i>Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion</i> (DoE 2015b).
	The remaining patches in Scattered trees condition states did not meet condition thresholds outlined in the Listing Advice for the EPBC Act listed community (DoE 2015b) as they did not support an understorey containing ≥30% perennial native vegetation cover.
	State and Commonwealth TECs are mapped on Figure 6.
Estimate of percent cleared value of PCT	50 % (DPIE 2021a) of the pre-1750 extent has been cleared.
PCT 883 – Intact condition	
PCT 883 – Scattered trees condition	



PCT 1083: Red Bloodwood -	scribbly gum heathy woodland on sandstone plateaux of the Sydney Basin Bioregion
Common name	Coastal Sandstone Ridgetop Woodland
Vegetation formation	Dry Sclerophyll Forests (Shrubby sub-formation)
Vegetation class	Sydney Coastal Dry Sclerophyll Forests
Extent on Non Biocertified and Existing Non-certified land	Impact area – 1.38 ha Impact assessment area – 0.43 ha (Figure 5)
Extent on Existing Certified land	Impact area – 0.00 ha Impact assessment area – 0.00 ha
Condition	The patch of this community occurring in the impact area was recorded in a Thinned condition state, predominantly as secondary regrowth resulting from previous clearing to facilitate activities on WaterNSW and Sydney Water operational land at Warragamba. Moderate condition states contain a sparse, regenerating native canopy and under-developed native mid-storey and understorey.
Description	Coastal Sandstone Ridgetop Woodland typically occurs as a low open forest with a diverse shrub layer over an open groundcover of sedges.
	 Within the impact area, the Thinned condition patch contains an upper stratum dominated by Yellow Bloodwood <i>Corymbia eximia</i> and Grey Gum <i>Eucalyptus punctata</i> with subdominant Broad-leaved Stringybark <i>Eucalyptus globoidea</i>. The mid-storey contains pockets of; Black Sheoak, Coast Myall <i>Acacia binervia</i>, Long-leaf Wax-flower <i>Philotheca myoporoides</i>, Finger Hakea <i>Hakea dactyloides</i>, Cheese Tree <i>Glochidion ferdinandii</i>, Water Gum <i>Tristaniopsis laurina</i> and Large-leaf Hop-bush <i>Dodonaea triquetra</i>. The understorey contains; Rough Saw-sedge <i>Gahnia aspera</i>, Kangaroo Grass, Scrambling Lily <i>Geitonoplesium cymosum</i> Snake Vine <i>Stephania japonica</i>, Bordered Panic, Variable Sword-sedge, Barbed-wire Grass <i>Cymbopogon refractus</i> and <i>Lepidosperma urophorum</i>. Exotic species recorded within this community included; Lantana, Mickey Mouse Plant, Red Natal Grass <i>Melinus repens</i>, African Lovegrass and Cobbler's Pegs.
Survey effort	One BAM plots/transect (Figure 7) was collected over the course of the field assessment.
Justification of PCT	 Coastal Sandstone Ridgetop Woodland within the impact area and impact assessment area meets the PCT description via the following: Landscape - crests, ridges and exposed slopes on sandstone plateaux. Soils - occurs on the Hawkesbury soil landscape on Hawkesbury sandstone. Rainfall - average annual rainfall of 658.1 mm. Elevation - between 36 to 84 m asl. Structure - open grassy woodland with diverse shrub layer and understorey of containing sedges. Dominant species - canopy dominated by Yellow Bloodwood and Grey Gum. IBRA region and subregion - Sydney Basin region and Wollemi subregion.
TEC Status	Not listed under State or Commonwealth legislation.

Table 15 PCT 1083 - Coastal Sandstone Ridgetop Woodland



PCT 1083: Red Bloodwood - scribbly gum heathy woodland on sandstone plateaux of the Sydney Basin Bioregion	
Estimate of percent cleared value of PCT	17 % (DPIE 2021a) of the pre-1750 extent has been cleared.
PCT 1083 – Thinned condition	

Table 16 PCT 1105 - River Oak Open Forest

PCT 1105: River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion	
Common name	River Oak Open Forest
Vegetation formation	Forested Wetlands
Vegetation class	Eastern Riverine Forests
Extent on Non Biocertified and Existing Non-certified land	Impact area – 0.40 ha Impact assessment area – 0.46 ha (Figure 5)
Extent on Existing Certified land	Impact area – 0.00 ha Impact assessment area – 0.00 ha
Condition	Patches of this community occurring in the impact area were recorded in a Thinned condition state with a widely spaced native canopy and a highly disturbed mid-storey and understorey. The mid-storey is dominated by exotic species and the understorey contains a mix of both native and exotic species. The patch surveyed is currently being restored by bush regenerators.
Description	PCT 1105 typically occurs adjacent to swift-flowing waterways as an open or tall open forest with a canopy of River Oak <i>Casuarina cunninghamiana</i> over an open shrub layer predominantly populated by <i>Acacia</i> spp. and an understorey containing patchy grasses and forbs.
	Within the impact area, the Thinned condition patches contain an upper stratum of widely spaced River Oak over a mid-storey dominated by exotic species in addition to Coast Myall and an understorey dominated by exotic species interspersed with scattered natives including; Basket Grass, Native Wandering Jew, Water Pepper <i>Persicaria hydropiper</i> , Pennywort <i>Hydrocotyle tripartite</i> , Slender Flat-sedge and Hairy Joyweed <i>Alternanthera nana</i> .



PCT 1105: River Oak open f	orest of major streams, Sydney Basin Bioregion and South East Corner Bioregion
	Exotic species recorded within this community included; Balloon Vine <i>Cardiospermum</i> grandiflorum, Large-leaved Privet, Lantana Lantana camara, Trad Tradescantia fluminensis, Small-leaved Privet, African Olive, Black-berry Nightshade, Wild Tobacco Solanum mauritianum, Panic Veldtgrass, Rambling Dock Acetosa sagittata and Prairie Grass Bromus catharticus.
Survey effort	One BAM plot/transect (Figure 7) was collected over the course of the field assessment.
Justification of PCT	 PCT 1105 within the impact area and impact assessment area meets the PCT description via the following: Soils - occurs on the Richmond soil landscape. Landscape - occurs adjacent to the Hawkesbury-Nepean River (fast-flowing waterway). Elevation - 30 to 40 m asl. Structure - open forest with an understorey of patchy grasses and herbs. Dominant species - canopy dominated by River Oak. IBRA region and subregion - Sydney Basin region and Cumberland subregion.
TEC Status	Not listed under State or Commonwealth legislation.
Estimate of percent cleared value of PCT	40 % (DPIE 2021a) of the pre-1750 extent has been cleared.
PCT 1105 – Thinned condition	

Table 17 PCT 1181 - Hinterland Sandstone Gully Forest

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

Common name	Hinterland Sandstone Gully Forest
Vegetation formation	Dry Sclerophyll Forests (Shrubby sub-formation)
Vegetation class	Sydney Coastal Dry Sclerophyll Forests
Extent on Non Biocertified and Existing Non-certified land	Impact area – 0.07 ha Impact assessment area – 0.00 ha (Figure 5)



sandstone gullies of wester	rn and southern Sydney, Sydney Basin Bioregion
Extent on Existing Certified land	Impact area – 0.00 ha Impact assessment area – 0.00 ha
Condition	The patch of this community in the impact area was recorded in an Intact condition state along western boundary of a private property on Bents Basin Road with an open canopy of Eucalypts over a scattered shrub layer and dense groundcover of grasses, forbs and ferns.
Description	Hinterland Sandstone Gully Forest typically occurs on the lower slopes of sandstone gullies on the outskirts of the Cumberland Plain and is characterised by a canopy of; Blackbutt <i>Eucalyptus pilularis,</i> Red Bloodwood <i>Corymbia gummifera,</i> Grey Gum, Sydney Red Gum, Sydney Peppermint <i>Eucalyptus piperita</i> and Turpentine <i>Syncarpia glomulifera</i> .
	Within the impact area, the Intact condition patches contain an upper stratum dominated by Blackbutt over a mid-storey of; Black She-oak, Hedgehog Wattle <i>Acacia echinula</i> , Gorse Bitter- pea <i>Daviesia ulicifolia</i> , <i>Leptospermum arachnoides</i> , Narrow-leaved Geebung <i>Persoonia linearis</i> , Prickly Shaggy Pea <i>Podolobium ilicifolium</i> , Tick Bush <i>Kunzea ambigua</i> , Blunt Beard-heath <i>Leucopogon muticus</i> , Blackthorn and Hickory Wattle <i>Acacia implexa</i> . The understorey contains <i>Austromyrtus tenuifolia</i> , Barbed-wire Grass, Wiry Panic <i>Entolasia stricta</i> , Poison Rock Fern <i>Cheilanthes sieberi</i> , Weeping Grass, Threeawn Speargrass <i>Aristida vagans</i> , Many-flowered Mat- rush <i>Lomandra multiflora</i> , Dusky Coral Pea <i>Kennedia rubicunda</i> , Variable Sword-sedge, Tall Bluebell <i>Wahlenbergia stricta</i> and <i>Lomandra obliqua</i> .
	Exotic species recorded within this community included; Lantana, African Lovegrass, Fireweed, Buffalo Grass <i>Stenotaphrum secundatum</i> , Catsear, and juvenile Camphor Laurel.
Survey effort	One BAM plot/transect (Figure 7) was collected over the course of the field assessment.
Justification of PCT	 Hinterland Sandstone Gully Forest within the impact area and impact assessment area meets the PCT description via the following: Landscape - occurs on the lower slope of a sandstone rise on the outskirts of the Cumberland Plain. Elevation - occurs between 58-80 metres asl. Dominant species - canopy dominated by Blackbutt. IBRA region and subregion - Sydney Basin region and Wollemi subregion.
TEC Status	Not listed under State or Commonwealth legislation.
Estimate of percent cleared value of PCT	20 % (DPIE 2021a) of the pre-1750 extent has been cleared.

PCT 1181: Smooth-barked Apple - Red Bloodwood - Sydney Peppermint heathy open forest on slopes of dry



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

PCT 1181 – Thinned condition



Table 18 PCT 1800 - Cumberland Swamp Oak Riparian Forest

PCT 1800: Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley	
Common name	Cumberland Swamp Oak Riparian Forest
Vegetation formation	Forested Wetlands
Vegetation class	Coastal Floodplain Wetlands
Extent on Non Biocertified and Existing Non-certified land	Impact area – 0.92 ha Impact assessment area – 1.20 ha (Figure 5)
Extent on Existing Certified land	Impact area – 0.00 ha Impact assessment area – 0.02 ha
Condition	Patches of this community in the impact area were recorded in a Thinned condition state along the banks of waterways or waterbodies with a densely spaced canopy of Swamp Oak over an open or absent mid-storey of shrubs and a slightly disturbed understorey of native grasses and forbs. Scattered trees condition state patches contain a densely spaced canopy of Swamp Oak, an absent mid-storey and an understorey dominated by exotic species interspersed with scattered native grasses and forbs.
Description	Cumberland Swamp Oak Riparian Forest typically occurs on the riverflats of the Cumberland Plain as a stand of Swamp Oak with occasional Rough-barked Apple, Forest Red Gum and Grey Box over an open grassy and herbaceous understorey. Within the impact area, the Thinned condition patches contain an upper stratum dominated by Swamp Oak and occasional Cabbage Gum, Rough-barked Apple, Grey Gum <i>E. punctata</i> and Spotted Gum, over a mid-storey of; Prickly-leaved Tea Tree, White-feather Honey-myrtle, Prickly-leaved Paperbark, Blackthorn, White Sally <i>Acacia floribunda</i> and Crimson Bottlebrush <i>Callistemon citrinus</i> . The understorey contains; Spiny-headed Mat-rush <i>Lomandra longifolia</i> , Cockspur Flower <i>Plectranthus parviflorus</i> , Native Wandering Jew, Wonga Wonga Vine <i>Pandorea</i> <i>pandorana</i> , Headache Vine <i>Clematis glycinoides</i> , Berry Saltbush, Knotweed Goosefoot <i>Einadia</i>



PCT 1800: Swamp Oak oper	n forest on riverflats of the Cumberland Plain and Hunter valley
	<i>polygonoides,</i> Common Couch, Tussock Grass <i>Poa labillardierei</i> , Weeping Grass and Swamp Dock <i>Rumex brownii</i> .
	Exotic species recorded within this community included; Panic Veldtgrass, Trad, Madeira Vine <i>Anredera cordifolia</i> , Cobbler's Pegs, Vasey Grass <i>Paspalum urvillei</i> , Black-berry Nightshade and Night-blooming Cactus <i>Hylocereus undatus</i> .
Survey effort	Three BAM plots/transects (two Thinned, one Scattered trees) (Figure 7) were collected over the course of the field assessment.
Justification of PCT	 Cumberland Swamp Oak Riparian Forest within the impact area and impact assessment area meets the PCT description via the following: Landscape – occurs adjacent to waterways and waterbodies on the Cumberland Plain. Dominant species - canopy dominated by Swamp Oak over an open or absent midstorey and a grassy and herbaceous understorey. IBRA region and subregion – Sydney Basin region and Cumberland subregion.
TEC Status	NSW BC Act: All Thinned and Scattered trees condition state patches were determined to meet the criteria for <i>Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions</i> (EEC).
	Commonwealth EPBC Act: Large patches in a Thinned condition state in the vicinity of Kemps Creek meet the condition thresholds outlined in the Conservation Advice for the EPBC Act listed EEC <i>Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community</i> (DEE 2018).
	The remaining patches in Thinned and Scattered trees condition states did not meet condition thresholds outlined in the Listing Advice for the EPBC Act listed community (DEE 2018) as they were not of a size large enough to meet the criteria threshold and did not support a 'predominantly native understorey'.
	State and Commonwealth TECs are mapped on Figure 6.
Estimate of percent cleared value of PCT	60 % (DPIE 2021a) of the pre-1750 extant has been cleared.
PCT 1800 – Thinned condition	



PCT 1800: Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley

PCT 1800 – Scattered trees condition

