

2022

CUMBERLAND PLAIN ASSESSMENT REPORT

ADDENDUM REPORT – CHANGES TO OUTER SYDNEY ORBITAL

PREPARED FOR THE NSW GOVERNMENT DEPARTMENT OF PLANNING AND
ENVIRONMENT

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1 Introduction

1.1 CONTEXT

1.1.1 OVERVIEW OF THE PLAN AND ASSESSMENT REPORT

The NSW Department of Planning and Environment (the Department) has prepared the Cumberland Plain Conservation Plan (the Plan) (2021) as part of the environmental approvals for development in four urban growth areas ('nominated areas') and a series of major transport corridors to support the future growth of Western Sydney until 2056.

The Plan describes the proposed urban and other development and sets out a conservation program comprising a range of specific commitments to avoid, mitigate and offset the impacts of the development on biodiversity values.

The Cumberland Plain Assessment Report (Assessment Report) (2021) evaluates the Plan's acceptability under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and NSW *Biodiversity Conservation Act 2016* (BC Act). The Assessment Report comprises both:

- A Biodiversity Certification Assessment Report (BCAR) under the BC Act
- A Strategic Assessment Report (SAR) under the Commonwealth EPBC Act

The Department is seeking the following approvals for the Plan:

- Conferral of biodiversity certification under Part 8 of the BC Act
- Endorsement under Part 10 of the Commonwealth EPBC Act

The Plan was submitted to the Environment and Heritage Group (EHG) of the NSW Department of Planning and Environment, and the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW), for consideration in late 2021. This followed public exhibition of these documents in August to November 2020.

1.1.2 CHANGES WHICH HAVE OCCURRED SINCE SUBMISSION TO REGULATORS IN 2021

Since the Plan was submitted, several changes have occurred that are relevant to the Plan, including changes to the Plan to address feedback from regulators and changes associated with species listings under the EPBC Act.

The main changes include:

- Removing the proposed OSO Stage 2 transport corridor located within the Greater Macarthur Growth Area (GMAC) from the maps shown in the Plan and changing the land categories of the affected land
- Changes to matters listed under the EPBC Act, including:
 - Changes to the conservation status of Koala, which has been uplisted to Endangered, and which has had a new Conservation Advice and Recovery Plan endorsed
 - Endorsement of new Conservation Advices for the Large-eared Pied Bat and Deane's Melaleuca
 - New listings of four species which are relevant to the Plan and need to be assessed (Sydney Hawk Dragonfly, Gang-gang Cockatoo, Yellow-bellied Glider, and Pilotbird)
 - A newly listed key threatening process (KTP) relevant to the Plan, which is called 'fire regimes that cause declines in biodiversity'
- Small changes to the Plan, including:
 - Updating the outcome in the Plan for Koala
 - A small change to Commitment 7, Action 8 in relation to the Koala underpass under Appin Road to improve implementation and environmental outcomes
 - Minor updates to clarify the offset liability and reconciliation accounting approaches
 - Several minor updates to text in the Plan

1.1.3 HOW THESE CHANGES HAVE BEEN ASSESSED

The changes that have occurred since submission of the Plan and Assessment Report to regulators for consideration are addressed in two addendums to the Assessment Report.

- Addendum 1 – ‘Outer Sydney Orbital’ (this report) addresses changes relating to the OSO Stage 2 transport corridor
- Addendum 2 – ‘Changes to matters listed under the EPBC Act’ addresses:
 - The changes to the matters listed under the EPBC Act
 - The changes to the Plan which relate to Koala, specifically the changes to the Koala outcome and changes to Commitment 7, Action 8

The other changes to the Plan are not material and do not affect the conservation outcomes of the Plan or the analysis or conclusions in the Assessment Report and are therefore not addressed further in the addendums.

1.2 PURPOSE OF THIS REPORT

This report comprises Addendum 1 and:

- Describes the proposal to remove the OSO Stage 2 transport corridor located within GMAC from the maps shown in the Plan and associated changes to the land categories of the affected land
- Assesses the impacts of these changes on biodiversity values, including NSW and Commonwealth-listed matters

1.3 SUMMARY OF KEY FINDINGS

This assessment has found that the changes to the OSO Stage 2 transport corridor within GMAC will result in minor changes to biodiversity values avoided and impacted under the Plan. The implications of these changes are not significant in the context of the overall Plan and will not materially change the biodiversity outcomes.

2 Description of the changes to OSO Stage 2

The Department and Transport for NSW are seeking to:

- Remove the proposed OSO Stage 2 transport corridor located within GMAC from the mapping shown in the Plan and Assessment Report (2021)
- Change the land category of the affected land from ‘excluded land’ to different land categories

The proposed OSO Stage 2 transport corridor within GMAC is shown in the Plan and Assessment Report as ‘excluded land’ (see Figure 1 at the end of this report) and covered an area of 63.29 ha (see Table 1).

The land that is within the OSO Stage 2 transport corridor is proposed to be changed to a combination of:

- Certified – urban capable (increase of 54.21 ha)
- Non-certified – avoided land (increase of 7.56 ha)
- Excluded - (decrease of 61.77 ha)

Figure 1 (at the end of this report) shows these proposed changes. Table 1 sets out the proposed changes to the land categories within the OSO Stage 2 transport corridor. Table 2 sets out the proposed changes to the areas of the land categories across GMAC.

It is important to note that the OSO Stage 2 transport corridor was not included in the public exhibition version of the Plan and Assessment Report and land within the transport corridor was categorised as certified-urban capable land in that version. The impacts on biodiversity values of additional certified-urban capable land resulting from the removal of the transport corridor were therefore assessed in the public exhibition version of the report.

Table 1: Land category areas within OSO Stage 2 in GMAC

Land categories	Original areas (ha) with OSO Stage 2 <u>included</u> in GMAC	Proposed new areas (ha) with OSO Stage 2 <u>removed</u> from GMAC
Certified – urban capable	0	54.21
Non-certified – avoided land	0	7.56
Excluded	63.29	1.52
TOTALS	63.29	63.29

Table 2: Land category areas across the entirety of GMAC

Land categories	Original areas within GMAC (ha)	Area of proposed changes (ha)	Percentage of proposed changes	Proposed final areas within GMAC (ha)
Certified - urban capable land	2,810.00	54.21	1.93%	2,864.21
Certified - major infrastructure corridors	10.00	0	0.00%	10.00
Avoided land	2,175.00	7.56	0.35%	2,182.56
Excluded land	5,965.00	-61.77	-1.04%	5,903.23
TOTALS	10,960.00			10,960.00

3 Assessment of the changes to OSO Stage 2

3.1 AVOIDANCE

The proposed changes to land categories associated with the changes to the OSO Stage 2 transport corridor will increase the area of avoided land in GMAC by 7.56 ha. This slightly increases the overall avoidance outcomes achieved by the Plan across the nominated areas set out in Chapter 14, Section 14.5 of the Assessment Report. These areas are part of the koala corridors within the nominated area and provide habitat for TECs and multiple threatened species.

Additional biodiversity values avoided from the proposed changes in GMAC are:

- Native vegetation – 7.52 ha, including 6.19 ha of high condition native vegetation
- Shale Sandstone Transition Forest – 6.56 ha of the NSW-listed TEC and 6.48 ha of the Commonwealth-listed TEC
- Potential habitat for multiple NSW-listed and Commonwealth-listed threatened species (see Table 3), including all species impacted by the proposed changes to land categories in GMAC (see Table 6) except *Pimelea spicata*

Note that this Addendum addresses differences in avoided land and impacts for the newly listed species under the EPBC Act that are covered in Addendum 2. Table 3 and Table 6 provide an update to the statistics for these species to account for the changes to land categories associated with the changes to the OSO Stage 2 transport corridor.

Table 3: Additional avoidance of habitat for threatened species associated with the changes to land categories in GMAC

Scientific name	Common name	NSW status [^]	Cth status [^]	Additional avoidance from the proposed changes in GMAC (ha)
<i>Acacia bynoeana</i>	Bynoe's Wattle	E	V	5.9
<i>Acacia pubescens</i>	Downy Wattle	V	V	6.5
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	CE	7.4
<i>Callocephalon fimbriatum</i> * (breeding habitat)	Gang-gang Cockatoo	V	E	1.3
<i>Callocephalon fimbriatum</i> # (foraging habitat)	Gang-gang Cockatoo	V	E	7.4
<i>Calyptorhynchus lathami</i> *	Glossy Black-Cockatoo	V	-	3.3
<i>Cercartetus nanus</i>	Eastern Pygmy-possum	V	-	6.2
<i>Chalinolobus dwyeri</i> *	Large-eared Pied Bat	V	V	7.4
<i>Dasyurus maculatus</i>	Spot-tailed Quoll	V	E	7.4
<i>Epacris purpurascens</i> var. <i>purpurascens</i>		V	-	6.1
<i>Grevillea parviflora</i> subsp. <i>parviflora</i>		V	V	0.8
<i>Haliaeetus leucogaster</i> *	White-bellied Sea-Eagle	V	-	6.2
<i>Hibbertia fumana</i>		CE	-	4.5
<i>Hibbertia puberula</i>		E	-	4.5
<i>Hieraaetus morphnoides</i> *	Little Eagle	V	-	7.4
<i>Hoplocephalus bungaroides</i>	Broad-headed Snake	E	V	1.0
<i>Lathamus discolor</i> (foraging habitat)	Swift Parrot	E	CE	7.4
<i>Lophoictinia isura</i> *	Square-tailed Kite	V	-	7.4
<i>Melaleuca deanei</i>	Deane's Paperbark	V	V	4.3
<i>Meridolum corneovirens</i>	Cumberland Plain Land Snail	E	-	6.5
<i>Myotis macropus</i>	Southern Myotis	V	-	2.7
<i>Ninox connivens</i> *	Barking Owl	V	-	1.6
<i>Ninox strenua</i> *	Powerful Owl	V	-	1.6
<i>Persoonia bargoensis</i>	Bargo Geebung	E	V	6.1
<i>Petauroides volans</i>	Greater Glider	-	V	6.2
<i>Petaurus australis</i> #	Yellow-bellied Glider	V	V	7.4
<i>Petaurus norfolcensis</i>	Squirrel Glider	V	-	7.4
<i>Phascolarctos cinereus</i> *	Koala	V	V	7.4

Scientific name	Common name	NSW status [^]	Cth status [^]	Additional avoidance from the proposed changes in GMAC (ha)
<i>Pimelea spicata</i>	Spiked Rice-flower	E	E	0.0
<i>Pomaderris brunnea</i>	Brown Pomaderris	E	V	2.3
<i>Pseudophryne australis</i>	Red-crowned Toadlet	V	-	1.9
<i>Pteropus poliocephalus</i>	Grey-headed Flying Fox	V	V	3.2
<i>Pterostylis saxicola</i>	Sydney Plains Greenhood	E	E	6.2
<i>Pultenaea pedunculata</i>	Matted Bush-pea	E	-	4.3
<i>Tyto novaehollandiae</i>	Masked Owl	V	-	1.6

[^]CE = critically endangered; E = endangered; V = vulnerable; E.pop. = endangered population

*This habitat reported for this species has been mapped in accordance with the species credit species mapping requirements under the BAM for the species, and represents either important habitat or breeding habitat

#This provides an update to reported avoidance statistics in Addendum 2

3.2 DIRECT IMPACTS AND OFFSETS

The proposed changes to land categories associated with the changes to the OSO Stage 2 transport corridor will lead to an additional 54.21 ha of certified – urban capable land in GMAC. The vast majority of this certified – urban capable land is cleared and does not contain any native vegetation.

3.2.1 THREATENED ECOLOGICAL COMMUNITIES (TECS)

The additional certified – urban capable land in GMAC will directly impact two TECs:

- Cumberland Plain Woodland:
 - 2.40 ha of the NSW-listed TEC (this comprises 1.97 ha of PCT 849 and 0.43 ha of PCT 850)
 - 2.10 ha of the Commonwealth-listed TEC
- Shale Sandstone Transition Forest:
 - 2.44 ha of the NSW-listed TEC (PCT 1395)
 - 0.10 ha of the Commonwealth-listed TEC

Both TECs are SAII (serious and irreversible impacts) entities under the BC Act.

The impacts to these two TECs are shown in Table 4 and Table 5. The table also compares the amount of each TEC impacted in the 2021 version of the Plan and Assessment Report and the increase in impacts from the additional certified – urban capable land impacted in GMAC. The additional certified – urban capable land in GMAC will lead to an overall increase of 0.35% in impacts across the two NSW-listed TECs under the Plan.

Table 4: Direct impacts to NSW-listed TECs associated with the additional certified – urban capable land in GMAC

PCT	Original direct impacts from the Plan (ha)	Additional impacts from the proposed changes in GMAC (ha)	Percentage increase of proposed additional impacts	Proposed new total direct impacts from the Plan (ha)
849	677.30	1.97	0.29%	679.27
850	254.40	0.43	0.17%	254.83

PCT	Original direct impacts from the Plan (ha)	Additional impacts from the proposed changes in GMAC (ha)	Percentage increase of proposed additional impacts	Proposed new total direct impacts from the Plan (ha)
1395	459.80	2.44	0.53%	462.24
TOTALS	1391.50	4.84	0.35%	1396.34

Table 5: Direct impacts to Commonwealth-listed TECs associated with the additional certified – urban capable land in GMAC

	Original direct impacts from the Plan (ha)	Additional impacts from the proposed changes in GMAC (ha)	Percentage increase of proposed additional impacts	Proposed new total direct impacts from the Plan (ha)
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	180.3	0.10	0.06%	180.40
Shale Sandstone Transition Forest	180.7	2.10	1.16%	182.80
TOTALS	361	2.20	0.61%	363.2

These minor additional impacts do not change the assessment outcomes or conclusions about the significance or notability of the impacts on these TECs in the Assessment Report, which are provided in:

- NSW-listed TECs – Chapter 25 (SAII entities) – see below for a discussion of SAI entities
- Commonwealth-listed TECs – Section 31.6 (Shale Sandstone Transition Forest) and Section 31.7 (Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest)

Section 31 of the Assessment Report makes conclusions about the overall impacts of the Plan on the long-term viability of each Commonwealth-listed TEC. The additional impacts do not change these conclusions, and combined with the original impacts in the nominated areas are not expected to threaten the long-term viability of each TEC.

The existing commitments in the Plan are considered to adequately address the additional impacts to the two TECs. The Plan commits to provide the following offset targets for the impacted TECs:

- NSW-listed:
 - Cumberland Plain Woodland (PCT 849 = 2,150 ha, PCT 850 = 735 ha) – total = 2,885 ha
 - Shale Sandstone Transition Forest = 1,455 ha
- Commonwealth-listed:
 - Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest = 665 ha
 - Shale Sandstone Transition Forest = 675 ha

As shown in Section 41.4 of the Assessment Report:

- The offset targets for the three PCTs that make up the NSW-listed TECs Cumberland Plain Woodland and Shale Sandstone Transition Forest exceed the minimum area of each PCT needed to generate the required credits
- The offset targets for the Commonwealth-listed TECs meet the offset requirements needed to be consistent with the EPBC Environmental Offsets Policy by achieving a score greater than 90 per cent. The offset target for Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest greatly exceeds the offset policy requirement, receiving a score of 176.8 per cent. Shale Sandstone Transition Forest also exceeds the offset requirement under the EPBC Environmental Offsets Policy, receiving a score of 106.7 per cent

These offset outcomes will not change based on the minor additional impacts to these TECs in GMAC, and the offset targets will adequately address the proposed new total direct impacts from the Plan.

3.2.2 THREATENED SPECIES

There are no known records of threatened species within the additional certified – urban capable land in GMAC.

Table 6 identifies the NSW-listed and Commonwealth-listed species with potential habitat in the additional certified – urban capable land in GMAC and the amount of habitat for each species that will be directly impacted.

The table also compares the amount of habitat for each species impacted in the 2021 version of the Plan and Assessment Report and the increase in impacts from the additional certified – urban capable land impacted in GMAC.

Table 6: Direct impacts to threatened species associated with the additional certified – urban capable land in GMAC

Scientific name	Common name	NSW status [^]	Cth status [^]	Original direct impacts in the nominated areas (ha)	Additional impacts from the proposed changes in GMAC (ha)	Percentage increase of proposed additional impacts	Proposed new total direct impacts in nominated areas (ha)
<i>Acacia bynoeana</i>	Bynoe's Wattle	E	V	434.3	2.4	0.6%	436.7
<i>Acacia pubescens</i>	Downy Wattle	V	V	1,321.4	4.2	0.3%	1,325.6
<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	CE	1,099.8	4.1	0.4%	1,103.9
<i>Callocephalon fimbriatum</i> # (foraging habitat)	Gang-gang Cockatoo	V	E	248.6	4.1	1.6%	252.7
<i>Cercartetus nanus</i>	Eastern Pygmy-possum	V	-	67.1	1.4	2.1%	68.5
<i>Chalinolobus dwyeri</i> *	Large-eared Pied Bat	V	V	281.5	2.7	1.0%	284.2
<i>Dasyurus maculatus</i>	Spot-tailed Quoll	V	E	611.2	2.7	0.4%	613.9
<i>Epacris purpurascens</i> var. <i>purpurascens</i>		V	-	92.8	1.0	1.1%	93.8
<i>Haliaeetus leucogaster</i> *	White-bellied Sea-Eagle	V	-	17.7	0.7	3.7%	18.4
<i>Hibbertia fumana</i>		CE	-	73.7	3.8	5.1%	77.5
<i>Hibbertia puberula</i>		E	-	77.8	3.8	4.9%	81.6
<i>Lathamus discolor</i> (foraging habitat)	Swift Parrot	E	CE	1,099.8	4.1	0.4%	1,103.9
<i>Melaleuca deanei</i>	Deane's Paperbark	V	V	106.2	1.0	1.0%	107.2
<i>Meridolum corneovirens</i>	Cumberland Plain Land Snail	E	-	720.1	1.8	0.2%	721.9

Scientific name	Common name	NSW status [^]	Cth status [^]	Original direct impacts in the nominated areas (ha)	Additional impacts from the proposed changes in GMAC (ha)	Percentage increase of proposed additional impacts	Proposed new total direct impacts in nominated areas (ha)
<i>Myotis macropus</i>	Southern Myotis	V	-	759.2	1.7	0.2%	760.9
<i>Persoonia bargoensis</i>	Bargo Geebung	E	V	83.5	1.0	1.2%	84.5
<i>Petauroides volans</i>	Greater Glider	-	V	101.3	2.1	2.1%	103.4
<i>Petaurus australis</i> #	Yellow-bellied Glider	V	V	239.9	4.1	1.7%	244.0
<i>Petaurus norfolcensis</i>	Squirrel Glider	V	-	301.3	1.8	0.6%	303.1
<i>Phascolarctos cinereus</i> *	Koala	V	V	242.1	4.1	1.7%	246.2
<i>Pteropus poliocephalus</i>	Grey-headed Flying Fox	V	V	601.8	1.7	0.3%	603.5
<i>Pterostylis saxicola</i>	Sydney Plains Greenhood	E	E	47.1	0.6	1.3%	47.7
<i>Pultenaea pedunculata</i>	Matted Bush-pea	E	-	208.5	1.0	0.5%	209.5

[^]CE = critically endangered; E = endangered; V = vulnerable; E.pop. = endangered population

* This habitat reported for these species has been mapped in accordance with the species credit species mapping requirements under the BAM for the species

+Note that the impacts to important koala habitat in the public exhibition version of the Assessment Report were 278 ha and these were reduced in the 2021 version of the Plan and Assessment Report to meet the requirements of the NSW Chief Scientist

#This provides an update to reported impact statistics in Addendum 2

The minor additional impacts to species habitat do not change the assessment outcomes or conclusions about the significance or notability of the impacts for these species in the Assessment Report, which are provided in:

- NSW-listed species – Chapter 25 (SAII entities) – see below for a discussion of SAI entities
- Commonwealth-listed species – Chapter 29 (flora) and Chapter 30 (fauna)

Section 31 of the Assessment Report makes conclusions about the overall impacts of the Plan on:

- The level of risk of adverse direct impacts to each species (determined to be high, medium or low)
- The long-term viability of each Commonwealth-listed species

The additional direct impacts in GMAC do not change these conclusions – the additional impacts combined with the original impacts within the nominated areas do not change the level of risk of adverse direct impacts to any species and are not expected to threaten the long-term viability of these species.

The existing commitments in the Plan will adequately address these minor additional impacts to species habitat. Section 8.4.3 of the Assessment Report details the methods used to calculate offsets for species that are both NSW and Commonwealth listed as well as NSW-only listed species. The additional impacts in GMAC do not change the:

- Species requiring offsets
- Amount of offsets required for the species impacted by the proposed changes

For Koala, the offset in the final Plan is much greater than required based on the method used to calculate offset requirements (see Part 2, Chapter 8) and the minor increase in impacts to important koala habitat does not affect this.

3.2.3 ADDITIONAL NOTE ON OFFSETS

In considering the adequacy of the offset targets in relation to the additional impacts, it is also important to note that:

- The conservation program has been developed in recognition of the opportunities provided by strategic biodiversity certification to maximise benefits to biodiversity and address landscape scale conservation challenges, including by:
- Focusing the conservation program, including offsets, on the areas of the landscape considered most likely to be viable in the long-term and maximise ecological function and connectivity across the landscape
- Addressing ecological function and landscape-scale ecological processes through improving habitat connectivity and undertaking ecological restoration in priority parts of the landscape
- Implementing programs to manage threats at a landscape scale that can benefit multiple species and TECs
- Consolidating offsets into larger patches that are likely to be more viable in the long term
- More than double the amount of land may be protected under the Plan to meet the total offset target of 5,325 hectares of native vegetation, which is likely to result in protection of significant areas of additional non-targeted PCTs
- The NSW Government is committing substantial initial funding of \$114 million over the first five years of the implementation of the Plan to deliver priority conservation actions, including a land purchase program to support the early establishment of the Georges River Koala Reserve and to establish and expand other reserves
- Offset targets are defined in terms of hectares of land rather than credits, which has several benefits, including a consistent and enduring unit of measurement for the life of the Plan, a clearer reporting measure for stakeholders and recognition of the use of reserves and other conservation measures (which may not be measured in credits)

3.2.4 SERIOUS AND IRREVERSIBLE IMPACTS

Of the TECs and species with additional habitat impacted in the additional certified – urban capable land in GMAC, the following are serious and irreversible impact entities (SAII):

- Cumberland Plain Woodland
- Shale Sandstone Transition Forest
- *Chalinolobus dwyeri*
- *Haliaeetus leucogaster*
- *Hibbertia fumana*
- *Melaleuca deanei*
- *Pseudophryne australis*

The majority of the additional certified – urban capable land in GMAC is cleared and does not contain native vegetation or habitat. The additional amount of habitat for SAI TECs and species impacted is very minor. Only very small amounts of each TEC (see Table 4) will be impacted, and a maximum of 3.8 ha of potential habitat for any one of the SAI species will be impacted, with three of the five SAI species having impacts of 1 ha or less (see Table 6).

This does not result in any material changes to the SAI assessments for these TECs or species against each of the provisions set out in section 10.2.2 of the BAM and assessed in Chapter 25 of the Assessment Report.

The existing commitments in the Plan are considered to adequately address the additional impacts to these SAI entities. The offset targets for the three PCTs associated with the TECs exceed the minimum area of each PCT needed to generate the required credits. This will not change based on the increase in impacts in GMAC, and the offset targets will adequately address the proposed new total direct impacts from the Plan. The additional impacts in GMAC do not change the species requiring offsets or the amount of offsets required for the species impacted by the proposed changes.

The additional impacts in GMAC are unlikely to lead to additional indirect or prescribed impacts on biodiversity values and do not warrant any additional commitments or mitigation measures to manage these impacts (see below).

These conclusions are confirmed by the analysis in the public exhibition version of the assessment report, which assessed the impacts of the Plan on SAAI entities based on the additional certified – urban capable land in GMAC.

3.2.5 INDIRECT AND PRESCRIBED IMPACTS

The additional certified – urban capable land impacted in GMAC is unlikely to lead to additional indirect or prescribed impacts on biodiversity values and does not warrant any additional commitments or mitigation measures to manage these impacts.

The majority of the additional land is located through an area of existing certified – urban capable land (see the changes shown in red in the central and southern part of Figure 1). This is very unlikely to lead to additional risks of indirect or prescribed impacts on biodiversity values as the additional certified land will be surrounded by existing certified-land and is not located adjacent to areas to be retained for biodiversity. Furthermore, the Plan includes commitments and mitigation measures to manage indirect and prescribed impacts from the development on certified land.

Some of the additional certified – urban capable land is located adjacent to avoided land (this includes land that is part of the koala corridors) (see the changes in red in the northern part of Figure 1) and has resulted in the certified – urban capable land being located closer to the avoided land than assessed for this location in the final Assessment Report.

This may slightly increase the risk of indirect and prescribed impacts in this location on biodiversity values. However, this is not considered likely to lead to additional indirect or prescribed impacts. The commitments and mitigation measures under the Plan to mitigate indirect and prescribed impacts include measures that will address the potential for impacts at the interface between certified – urban capable land and avoided land, including a range of measures related to the koala corridors. These existing commitments and mitigation measures are expected to adequately address the slightly increased risk of indirect and prescribed impacts on nearby biodiversity values at this location.

These conclusions are confirmed by the analysis in the public exhibition version of the Assessment Report, which assessed the indirect and prescribed impacts of the Plan based on the additional certified – urban capable land in GMAC.

3.3 BIODIVERSITY CREDITS

Table 7 identifies the additional ecosystem credits required for the additional certified – urban capable land in GMAC and the new total amount of ecosystem credits required for GMAC.

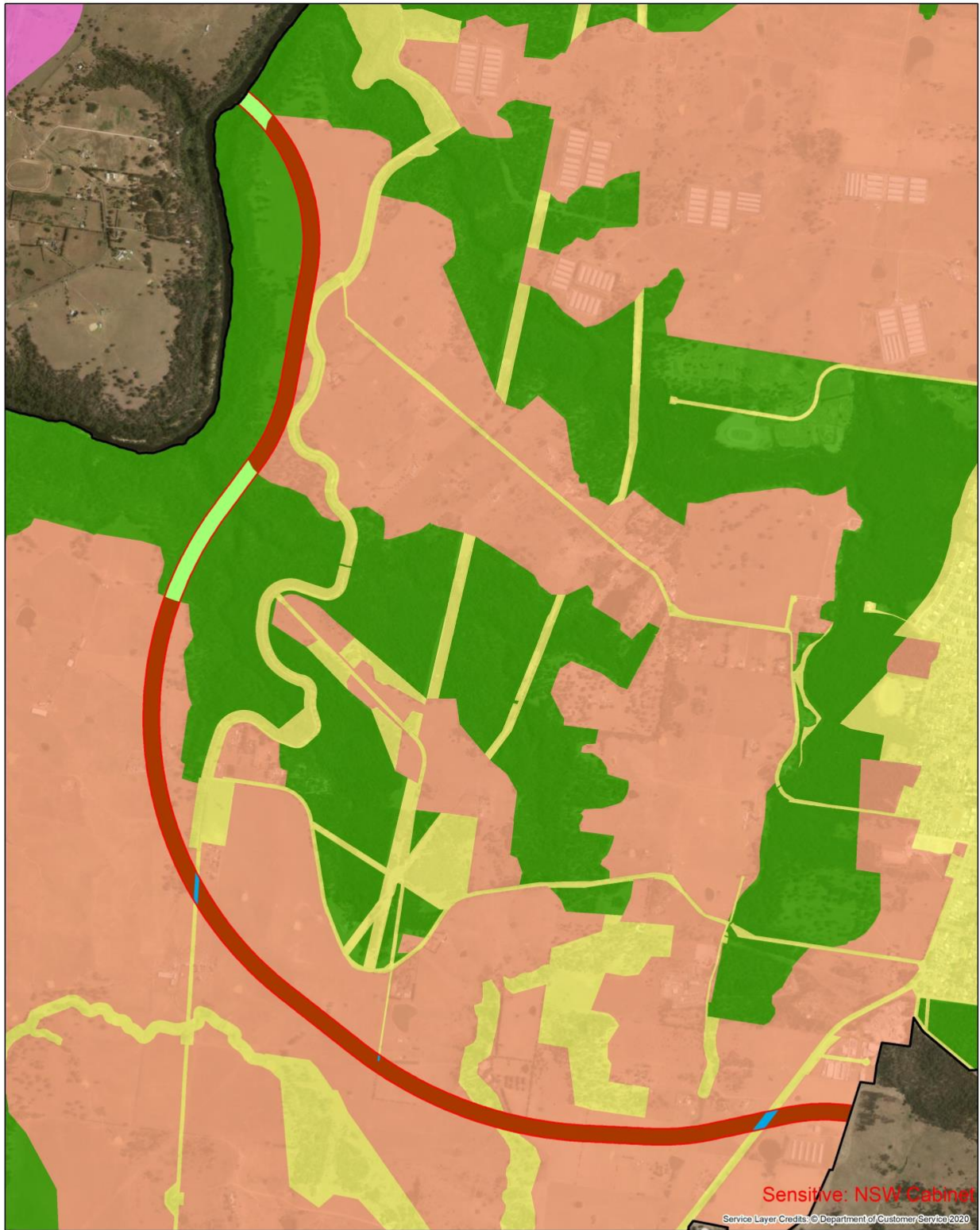
The updated credit summary report for GMAC is provided in [Attachment 1](#).

The additional species credits required for GMAC are set out in the credit summary report.

Table 7: Additional ecosystem credits required in GMAC associated with the additional certified – urban capable land in GMAC

Zone	PCT	Original ecosystem credits required in GMAC	Additional ecosystem credits required from the proposed changes in GMAC	New total ecosystem credits required in GMAC
830_Intact	830	1	0	1
830_Thinned	830	1	0	1
835_Intact	835	49	0	49
835_Thinned	835	207	0	207
835_Scattered_Trees	835	6	0	6
849_Intact	849	362	26	388
849_Thinned	849	988	0	988
849_Scattered_Trees	849	301	13	314
849_DNG	849	425	0	425
850_Intact	850	147	0	147

Zone	PCT	Original ecosystem credits required in GMAC	Additional ecosystem credits required from the proposed changes in GMAC	New total ecosystem credits required in GMAC
850_Thinned	850	570	0	570
850_Scattered_Trees	850	163	2	165
850_DNG	850	198	6	204
1395_Intact	1395	1585	60	1645
1395_Thinned	1395	2986	25	3011
1395_Scattered_Trees	1395	434	3	437
1395_DNG	1395	997	6	1003
TOTAL		9,420	141	9,561



Legend

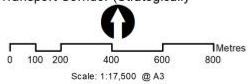
- Nominated areas
- Subject site

Proposed changes to land categories

- Certified - Urban Capable (previously excluded)
- Non certified - Avoided land (previously excluded)
- Excluded (previously excluded)

Final land categories

- Certified - Urban Capable
- Excluded
- Non certified - Avoided land
- Non certified - Major Transport Corridor (Strategically Assessed Only)



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Cumberland Plain Conservation Plan

Proposed changes to land categories in the Greater Macarthur Growth Area



Figure 1: Proposed changes to land categories in GMAC

Attachment 1

Updated credit summary report for GMAC

Proposal Details

Assessment Id 00013050/BAAS18134/18/00013052	Proposal Name Western Sydney Strategic Biodiversity Certification - Greater Macarthur Growth Area - OSO impacts updated	BAM data last updated * 24/11/2021
Assessor Name Jane Raithby-Veall	Report Created 16/03/2022	BAM Data version * 50
Assessor Number BAAS18134	BAM Case Status Finalised	Date Finalised 16/03/2022
Assessment Revision 5	Assessment Type Biocertification	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

Ecosystem credits for plant communities types (PCT), ecological communities & threatened species habitat

Zone	Vegetation zone name	TEC name	Current Vegetation integrity score	Change in Vegetation integrity (loss / gain)	Area (ha)	Sensitivity to loss (Justification)	Species sensitivity to gain class	BC Act Listing status	EPBC Act listing status	Biodiversity risk weighting	Potential SAI	Ecosystem credits
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Cumberland moist shale woodland												
1	830_Thinned	Moist Shale Woodland in the Sydney Basin Bioregion	20.1	20.1	0.01	PCT Cleared - 75%	High Sensitivity to Potential Gain	Endangered Ecological Community		2.00		1
21	830_Intact	Moist Shale Woodland in the Sydney Basin Bioregion	48.3	48.3	0.04	PCT Cleared - 75%	High Sensitivity to Potential Gain	Endangered Ecological Community		2.00		1
										Subtotal	2	
Cumberland riverflat forest												
2	835_Intact	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	76.6	76.6	1.3	PCT Cleared - 93%	High Sensitivity to Potential Gain	Endangered Ecological Community		2.00		49

3	835_Thinned	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	57.1	57.1	7.2	PCT Cleared - 93%	High Sensitivity to Potential Gain	Endangered Ecological Community	2.00	207
4	835_Scattered_trees	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	68.7	68.7	0.18	PCT Cleared - 93%	High Sensitivity to Potential Gain	Endangered Ecological Community	2.00	6
17	835_NO_grassland	River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	8	8.0	25.9	PCT Cleared - 93%	High Sensitivity to Potential Gain	Endangered Ecological Community	2.00	0

											Subtotal	262
Cumberland shale - sandstone Ironbark forest												
13	1395_Intact	Shale Sandstone Transition Forest in the Sydney Basin Bioregion	72.9	72.9	36.1	PCT Cleared - 80%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	1645
14	1395_Thinned	Shale Sandstone Transition Forest in the Sydney Basin Bioregion	63.9	63.9	75.4	PCT Cleared - 80%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	3011
15	1395_Scattered_trees	Shale Sandstone Transition Forest in the Sydney Basin Bioregion	30	30.0	23.3	PCT Cleared - 80%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	437
16	1395_DNG	Shale Sandstone Transition Forest in the Sydney Basin Bioregion	28.4	28.4	56.6	PCT Cleared - 80%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	1003
20	1395_NO_grassland	Shale Sandstone Transition Forest in the Sydney Basin Bioregion	5.4	5.4	476.2	PCT Cleared - 80%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	0
											Subtotal	6096

Cumberland shale hills woodland												
9	850_Intact	Cumberland Plain Woodland in the Sydney Basin Bioregion	58.1	58.1	4	PCT Cleared - 88%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	147
10	850_Thinned	Cumberland Plain Woodland in the Sydney Basin Bioregion	41.9	41.9	21.8	PCT Cleared - 88%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	570
11	850_Scattered_trees	Cumberland Plain Woodland in the Sydney Basin Bioregion	38.1	38.1	6.9	PCT Cleared - 88%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	165
12	850_DNG	Cumberland Plain Woodland in the Sydney Basin Bioregion	25.7	25.7	12.7	PCT Cleared - 88%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	204
19	850_NO_grassland	Cumberland Plain Woodland in the Sydney Basin Bioregion	12.3	12.3	465	PCT Cleared - 88%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	0
											Subtotal	1086
Cumberland shale plains woodland												
5	849_Intact	Cumberland Plain Woodland in the Sydney Basin Bioregion	53.9	53.9	11.5	PCT Cleared - 93%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	388

6	849_Thinned	Cumberland Plain Woodland in the Sydney Basin Bioregion	42.3	42.3	37.4	PCT Cleared - 93%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	988
7	849_Scattered_trees	Cumberland Plain Woodland in the Sydney Basin Bioregion	18.3	18.3	27.5	PCT Cleared - 93%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	314
8	849_DNG	Cumberland Plain Woodland in the Sydney Basin Bioregion	24.1	24.1	28.2	PCT Cleared - 93%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	425
18	849_NO_grassland	Cumberland Plain Woodland in the Sydney Basin Bioregion	10.1	10.1	137.4	PCT Cleared - 93%	High Sensitivity to Potential Gain	Critically Endangered Ecological Community		2.50	TRUE	0
										Subtotal		2115
										Total		9561

Species credits for threatened species

Vegetation zone name	Habitat condition (Vegetation Integrity)	Change in habitat condition	Area (ha)/Count (no. individuals)	Sensitivity to loss (Justification)	Sensitivity to gain (Justification)	BC Act Listing status	EPBC Act listing status	Potential SAIL	Species credits
Acacia bynoeana / Bynoe's Wattle (Flora)									
1395_Intact		72.9	72.9	29.1		Endangered	Vulnerable	False	1062
1395_Thinned		63.9	63.9	61		Endangered	Vulnerable	False	1951

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1395_Scattered_trees	30.0	30.0	20.8		Endangered	Vulnerable	False	312
1395_DNG	28.4	28.4	50.2		Endangered	Vulnerable	False	712
1395_NO_grassl and	5.4	5.4	0.05		Endangered	Vulnerable	False	1
							Subtotal	4038
<i>Acacia pubescens / Downy Wattle (Flora)</i>								
835_Intact	76.6	76.6	1.2		Vulnerable	Vulnerable	False	47
835_Thinned	57.1	57.1	5.9		Vulnerable	Vulnerable	False	168
849_Intact	53.9	53.9	8.5		Vulnerable	Vulnerable	False	230
849_Thinned	42.3	42.3	34.4		Vulnerable	Vulnerable	False	728
849_Scattered_trees	18.3	18.3	23.1		Vulnerable	Vulnerable	False	211
849_DNG	24.1	24.1	23.6		Vulnerable	Vulnerable	False	283
1395_Intact	72.9	72.9	32.3		Vulnerable	Vulnerable	False	1177
1395_Thinned	63.9	63.9	66.3		Vulnerable	Vulnerable	False	2118
1395_Scattered_trees	30.0	30.0	21.6		Vulnerable	Vulnerable	False	324
1395_DNG	28.4	28.4	53.3		Vulnerable	Vulnerable	False	756
835_Scattered_trees	68.7	68.7	0.18		Vulnerable	Vulnerable	False	6
1395_NO_grassl and	5.4	5.4	0.03		Vulnerable	Vulnerable	False	1
							Subtotal	6049
<i>Callocephalon fimbriatum / Gang-gang Cockatoo (Fauna)</i>								
835_Intact	76.6	76.6	0.09		Vulnerable	Not Listed	False	3

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849_Intact	53.9	53.9	1.2		Vulnerable	Not Listed	False	32
1395_Intact	72.9	72.9	1.8		Vulnerable	Not Listed	False	65
							Subtotal	100
<i>Calyptorhynchus lathami / Glossy Black-Cockatoo (Fauna)</i>								
1395_Intact	72.9	72.9	7.6		Vulnerable	Not Listed	False	275
							Subtotal	275
<i>Cercartetus nanus / Eastern Pygmy-possum (Fauna)</i>								
835_Intact	76.6	76.6	1.3		Vulnerable	Not Listed	False	49
849_Intact	53.9	53.9	4		Vulnerable	Not Listed	False	109
850_Intact	58.1	58.1	2.3		Vulnerable	Not Listed	False	68
1395_Intact	72.9	72.9	28.9		Vulnerable	Not Listed	False	1055
830_Intact	48.3	48.3	0.04		Vulnerable	Not Listed	False	1
							Subtotal	1282
<i>Chalinolobus dwyeri / Large-eared Pied Bat (Fauna)</i>								
835_Intact	76.6	76.6	1.3		Vulnerable	Vulnerable	True	74
835_Thinned	57.1	57.1	6.7		Vulnerable	Vulnerable	True	285
849_Intact	53.9	53.9	11.5		Vulnerable	Vulnerable	True	464
849_Thinned	42.3	42.3	25		Vulnerable	Vulnerable	True	794
850_Intact	58.1	58.1	3.8		Vulnerable	Vulnerable	True	166
850_Thinned	41.9	41.9	16.9		Vulnerable	Vulnerable	True	532
1395_Intact	72.9	72.9	36.1		Vulnerable	Vulnerable	True	1973
1395_Thinned	63.9	63.9	75.2		Vulnerable	Vulnerable	True	3606
830_Intact	48.3	48.3	0.04		Vulnerable	Vulnerable	True	1
							Subtotal	7895

<i>Epacris purpurascens</i> var. <i>purpurascens</i> / <i>Epacris purpurascens</i> var. <i>purpurascens</i> (Flora)									
1395_Intact	N/A	N/A	161			Vulnerable	Not Listed	False	242
1395_Thinned	N/A	N/A	275			Vulnerable	Not Listed	False	413
								Subtotal	655
<i>Grevillea parviflora</i> subsp. <i>parviflora</i> / <i>Small-flower Grevillea</i> (Flora)									
1395_Intact		72.9	72.9	0.13		Vulnerable	Vulnerable	False	5
1395_Thinned		63.9	63.9	2.2		Vulnerable	Vulnerable	False	69
								Subtotal	74
<i>Haliaeetus leucogaster</i> / <i>White-bellied Sea-Eagle</i> (Fauna)									
835_Intact		76.6	76.6	0.21		Vulnerable	Not Listed	False	8
849_Intact		53.9	53.9	0.36		Vulnerable	Not Listed	False	10
850_Intact		58.1	58.1	0.16		Vulnerable	Not Listed	False	5
1395_Intact		72.9	72.9	8		Vulnerable	Not Listed	False	291
830_Intact		48.3	48.3	0.04		Vulnerable	Not Listed	False	1
								Subtotal	315
<i>Heleioporus australiacus</i> / <i>Giant Burrowing Frog</i> (Fauna)									
1395_Intact		72.9	72.9	0.29		Vulnerable	Vulnerable	False	8
								Subtotal	8
<i>Hibbertia fumana</i> / <i>Hibbertia fumana</i> (Flora)									
849_Intact		53.9	53.9	0.62		Critically Endangered	Not Listed	True	25
849_Thinned		42.3	42.3	0.01		Critically Endangered	Not Listed	True	1
1395_Intact		72.9	72.9	1.8		Critically Endangered	Not Listed	True	101

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1395_Thinned	63.9	63.9	6.8		Critically Endangered	Not Listed	True	327
1395_Scattered_trees	30.0	30.0	0.2		Critically Endangered	Not Listed	True	5
1395_DNG	28.4	28.4	0.2		Critically Endangered	Not Listed	True	4
849_NO_grassland	10.1	10.1	0.37		Critically Endangered	Not Listed	True	3
1395_NO_grassland	5.4	5.4	0.73		Critically Endangered	Not Listed	True	3
							Subtotal	469
<i>Hibbertia puberula / Hibbertia puberula (Flora)</i>								
849_Intact	53.9	53.9	0.05		Endangered	Not Listed	False	1
849_Thinned	42.3	42.3	0.62		Endangered	Not Listed	False	13
1395_Intact	72.9	72.9	1.8		Endangered	Not Listed	False	67
1395_Thinned	63.9	63.9	6.8		Endangered	Not Listed	False	218
1395_Scattered_trees	30.0	30.0	0.2		Endangered	Not Listed	False	3
1395_DNG	28.4	28.4	0.2		Endangered	Not Listed	False	3
849_NO_grassland	10.1	10.1	0.37		Endangered	Not Listed	False	2
1395_NO_grassland	5.4	5.4	0.73		Endangered	Not Listed	False	2
							Subtotal	309
<i>Hieraetus morphnoides / Little Eagle (Fauna)</i>								
830_Thinned	20.1	20.1	0.01		Vulnerable	Not Listed	False	1

849_Intact	53.9	53.9	0.51		Vulnerable	Not Listed	False	10	
849_Scattered_trees	18.3	18.3	0.25		Vulnerable	Not Listed	False	2	
850_Intact	58.1	58.1	0.07		Vulnerable	Not Listed	False	2	
850_Thinned	41.9	41.9	0.26		Vulnerable	Not Listed	False	4	
1395_Intact	72.9	72.9	12.5		Vulnerable	Not Listed	False	342	
1395_Thinned	63.9	63.9	2.5		Vulnerable	Not Listed	False	59	
1395_Scattered_trees	30.0	30.0	2.7		Vulnerable	Not Listed	False	31	
830_Intact	48.3	48.3	0.04		Vulnerable	Not Listed	False	1	
Subtotal								452	
<i>Lophoictinia isura / Square-tailed Kite (Fauna)</i>									
849_Intact	53.9	53.9	0.51		Vulnerable	Not Listed	False	10	
849_Thinned	42.3	42.3	0.62		Vulnerable	Not Listed	False	10	
849_Scattered_trees	18.3	18.3	0.25		Vulnerable	Not Listed	False	2	
850_Thinned	41.9	41.9	0.18		Vulnerable	Not Listed	False	3	
1395_Intact	72.9	72.9	17.5		Vulnerable	Not Listed	False	478	
1395_Thinned	63.9	63.9	3.4		Vulnerable	Not Listed	False	82	
1395_Scattered_trees	30.0	30.0	2.7		Vulnerable	Not Listed	False	30	
Subtotal								615	
<i>Marsdenia viridiflora subsp. viridiflora - endangered population / Marsdenia viridiflora R. Br. subsp. viridiflora population in the Bankstown, Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool and Penrith local government areas (Flora)</i>									
835_Intact	76.6	76.6	1.3		Endangered Population	Not Listed	False	49	

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835_Thinned	57.1	57.1	2.8		Endangered Population	Not Listed	False	81
849_Intact	53.9	53.9	0.93		Endangered Population	Not Listed	False	25
849_Thinned	42.3	42.3	12.2		Endangered Population	Not Listed	False	259
850_Intact	58.1	58.1	0.44		Endangered Population	Not Listed	False	13
850_Thinned	41.9	41.9	5.5		Endangered Population	Not Listed	False	116
1395_Intact	72.9	72.9	2.4		Endangered Population	Not Listed	False	88
1395_Thinned	63.9	63.9	7.3		Endangered Population	Not Listed	False	232
830_Intact	48.3	48.3	0.03		Endangered Population	Not Listed	False	1
							Subtotal	864
<i>Melaleuca deanei / Deane's Paperbark (Flora)</i>								
1395_Intact	72.9	72.9	19.2		Vulnerable	Vulnerable	True	1049
1395_Thinned	63.9	63.9	30.4		Vulnerable	Vulnerable	True	1456
1395_Scattered_ trees	30.0	30.0	12.3		Vulnerable	Vulnerable	True	278
							Subtotal	2783
<i>Meridolum corneovirens / Cumberland Plain Land Snail (Fauna)</i>								
830_Thinned	20.1	20.1	0.01		Endangered	Not Listed	False	1
835_Intact	76.6	76.6	1.3		Endangered	Not Listed	False	49

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835_Thinned	57.1	57.1	7.2		Endangered	Not Listed	False	207
849_Intact	53.9	53.9	4		Endangered	Not Listed	False	109
849_Thinned	42.3	42.3	32.2		Endangered	Not Listed	False	681
850_Intact	58.1	58.1	3.7		Endangered	Not Listed	False	108
850_Thinned	41.9	41.9	17.9		Endangered	Not Listed	False	376
1395_Intact	72.9	72.9	23.9		Endangered	Not Listed	False	872
1395_Thinned	63.9	63.9	66.5		Endangered	Not Listed	False	2127
830_Intact	48.3	48.3	0.04		Endangered	Not Listed	False	1
							Subtotal	4531
<i>Myotis macropus / Southern Myotis (Fauna)</i>								
835_Intact	76.6	76.6	1.1		Vulnerable	Not Listed	False	41
835_Thinned	57.1	57.1	4.4		Vulnerable	Not Listed	False	127
849_Intact	53.9	53.9	8.4		Vulnerable	Not Listed	False	226
849_Thinned	42.3	42.3	22.3		Vulnerable	Not Listed	False	471
849_Scattered_t rees	18.3	18.3	17.6		Vulnerable	Not Listed	False	161
850_Intact	58.1	58.1	1.4		Vulnerable	Not Listed	False	42
850_Thinned	41.9	41.9	15.5		Vulnerable	Not Listed	False	324
850_Scattered_t rees	38.1	38.1	4.5		Vulnerable	Not Listed	False	86
1395_Intact	72.9	72.9	12.4		Vulnerable	Not Listed	False	452
1395_Thinned	63.9	63.9	35.6		Vulnerable	Not Listed	False	1139
1395_Scattered_ trees	30.0	30.0	12.7		Vulnerable	Not Listed	False	191
							Subtotal	3260

<i>Persoonia bargoensis / Bargo Geebung (Flora)</i>									
849_Intact	53.9	53.9	3.4			Endangered	Vulnerable	False	92
849_Thinned	42.3	42.3	5.2			Endangered	Vulnerable	False	110
1395_Intact	72.9	72.9	16.2			Endangered	Vulnerable	False	592
1395_Thinned	63.9	63.9	22.6			Endangered	Vulnerable	False	721
								Subtotal	1515
<i>Petaurus norfolcensis / Squirrel Glider (Fauna)</i>									
830_Thinned	20.1	20.1	0.01			Vulnerable	Not Listed	False	1
835_Intact	76.6	76.6	1.3			Vulnerable	Not Listed	False	49
835_Thinned	57.1	57.1	0.05			Vulnerable	Not Listed	False	1
849_Intact	53.9	53.9	1.9			Vulnerable	Not Listed	False	50
849_Thinned	42.3	42.3	11			Vulnerable	Not Listed	False	232
849_Scattered_t rees	18.3	18.3	4			Vulnerable	Not Listed	False	37
850_Intact	58.1	58.1	2.3			Vulnerable	Not Listed	False	66
850_Thinned	41.9	41.9	7.5			Vulnerable	Not Listed	False	158
850_Scattered_t rees	38.1	38.1	1.3			Vulnerable	Not Listed	False	25
1395_Intact	72.9	72.9	25.4			Vulnerable	Not Listed	False	924
1395_Thinned	63.9	63.9	42.4			Vulnerable	Not Listed	False	1354
1395_Scattered_ trees	30.0	30.0	11.3			Vulnerable	Not Listed	False	170
830_Intact	48.3	48.3	0.04			Vulnerable	Not Listed	False	1
								Subtotal	3068

<i>Phascolarctos cinereus / Koala (Fauna)</i>									
835_Intact	76.6	76.6	1.1			Vulnerable	Vulnerable	False	41
849_Intact	53.9	53.9	10.7			Vulnerable	Vulnerable	False	287
849_Thinned	42.3	42.3	12.3			Vulnerable	Vulnerable	False	260
849_Scattered_t rees	18.3	18.3	1.4			Vulnerable	Vulnerable	False	13
850_Intact	58.1	58.1	1.2			Vulnerable	Vulnerable	False	35
850_Thinned	41.9	41.9	8			Vulnerable	Vulnerable	False	168
850_Scattered_t rees	38.1	38.1	0.06			Vulnerable	Vulnerable	False	1
1395_Intact	72.9	72.9	35.9			Vulnerable	Vulnerable	False	1308
1395_Thinned	63.9	63.9	63.8			Vulnerable	Vulnerable	False	2039
1395_Scattered_ trees	30.0	30.0	4.9			Vulnerable	Vulnerable	False	73
830_Intact	48.3	48.3	0.04			Vulnerable	Vulnerable	False	1
								Subtotal	4226
<i>Pimelea spicata / Spiked Rice-flower (Flora)</i>									
835_Intact	76.6	76.6	0.85			Endangered	Endangered	False	33
849_Intact	53.9	53.9	2.9			Endangered	Endangered	False	78
849_Thinned	42.3	42.3	5.8			Endangered	Endangered	False	122
849_Scattered_t rees	18.3	18.3	1.7			Endangered	Endangered	False	16
849_DNG	24.1	24.1	1.2			Endangered	Endangered	False	14
850_Intact	58.1	58.1	3.3			Endangered	Endangered	False	95
850_Thinned	41.9	41.9	4.3			Endangered	Endangered	False	89

850_Scattered_trees	38.1	38.1	2.8		Endangered	Endangered	False	53
850_DNG	25.7	25.7	0.58		Endangered	Endangered	False	7
1395_Intact	72.9	72.9	3.5		Endangered	Endangered	False	126
1395_Thinned	63.9	63.9	3.8		Endangered	Endangered	False	122
1395_Scattered_trees	30.0	30.0	0.72		Endangered	Endangered	False	11
849_NO_grassland	10.1	10.1	5.5		Endangered	Endangered	False	28
850_NO_grassland	12.3	12.3	21.1		Endangered	Endangered	False	130
1395_NO_grassland	5.4	5.4	3		Endangered	Endangered	False	8
							Subtotal	932
<i>Pomaderris brunnea / Brown Pomaderris (Flora)</i>								
835_Intact	76.6	76.6	1.3		Endangered	Vulnerable	False	49
835_Thinned	57.1	57.1	0.72		Endangered	Vulnerable	False	21
1395_Intact	72.9	72.9	5		Endangered	Vulnerable	False	182
1395_Thinned	63.9	63.9	15		Endangered	Vulnerable	False	480
							Subtotal	732
<i>Pseudophryne australis / Red-crowned Toadlet (Fauna)</i>								
1395_Intact	72.9	72.9	7		Vulnerable	Not Listed	False	192
							Subtotal	192
<i>Pterostylis saxicola / Sydney Plains Greenhood (Flora)</i>								
849_Intact	53.9	53.9	8		Endangered	Endangered	False	216

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1395_Intact	72.9	72.9	27.6		Endangered	Endangered	False	1008
							Subtotal	1224
<i>Pultenaea pedunculata / Matted Bush-pea (Flora)</i>								
849_Thinned	42.3	42.3	2		Endangered	Not Listed	False	43
849_Scattered_trees	18.3	18.3	2.7		Endangered	Not Listed	False	24
850_Thinned	41.9	41.9	0.62		Endangered	Not Listed	False	13
850_Scattered_trees	38.1	38.1	0.59		Endangered	Not Listed	False	11
1395_Intact	72.9	72.9	4		Endangered	Not Listed	False	145
1395_Thinned	63.9	63.9	14.9		Endangered	Not Listed	False	476
1395_Scattered_trees	30.0	30.0	2.5		Endangered	Not Listed	False	37
							Subtotal	749
<i>Tyto novaehollandiae / Masked Owl (Fauna)</i>								
850_Intact	58.1	58.1	0.06		Vulnerable	Not Listed	False	2
1395_Thinned	63.9	63.9	0.05		Vulnerable	Not Listed	False	2
							Subtotal	4