

10 January 2025

Department of Planning, Housing and Infrastructure
Ms Nicole Brewer
12 Darcy Street
Parramatta NSW 2150

Dear Nicole Brewer,

UWF Nominees Pty Ltd (UWF) is writing in relation to Condition B21 of the Development Consent (SSD-6687), to request the Planning Secretary's agreement to the final calculation of the required biodiversity offset credit liability for UWF, prior to commencing construction.

Condition B21

Condition B21 of SSD-6687 requires:

Unless the Planning Secretary agrees otherwise, prior to the commencement of construction, the Applicant must:

- a) update the baseline mapping of the vegetation and key habitat within the development corridor;*
- b) calculate the biodiversity offset credit liabilities for the development in accordance with the Framework for Biodiversity Assessment under the NSW Biodiversity Offset Policy for Major Projects,*

in consultation with BCS, and to the satisfaction of the Planning Secretary.

Condition B21 a) Baseline mapping

UWF submitted the updated baseline mapping to the Planning Secretary in a letter dated 30 August 2021. An approval letter from the Planning Secretary was received on 23 September 2021, as shown in **Appendix A**.

Condition B21 b) Biodiversity offset credit liability

UWF has calculated the offset liability for the project based on vegetation impacts across 13 vegetation zones within the final disturbance footprint. The associated shapefiles and detailed calculations are included in this submission.

As part of this process, UWF obtained a Statement of Reasonable Equivalence from the Environment Agency Head of the Department of Planning and Environment, which is included in **Appendix B**.

In compliance with Condition B21(b), UWF sought consultation with the Biodiversity Conservation and Science (BCS) throughout the calculation steps. On 15 June 2023, BCS issued a letter confirming that the approach taken by UWF to recalculate the offset requirements for Ungula Wind Farm is sound. This letter is included in **Appendix C**.

In June 2024, UWF made minor amendments to the disturbance footprint, necessitating updates to the vegetation clearing calculations. These updated calculations were submitted to BCS, who subsequently provided written acknowledgment on 15 July 2024. This acknowledgment confirmed that the amendments remain within the clearing limits specified under the Development Consent for Ungula Wind Farm. This acknowledgment is included in **Appendix D**.

In summary, BCS have provided consultation and support for the methodology UWF has undertaken to meet Condition B21 b).

Final Vegetation Impact Calculations

Provided below are the updated clearing calculations for the UWF final impact footprint, as provided to BCS in June 2024. The associated shapefiles showing the impact areas are provided as part of this submission.

Uungula Wind Farm - Vegetation clearing calculations - per vegetation zone			Calculations accepted by BCS (May 2023)		Updated calculations (14 June 2024)		
Vegetation Zone	Veg Zone ID	Total impact area per 'EIS disturbance footprint'	'Disturbance footprint' (ha) - May 2023	Maximum impact area (ha) (includes 5% uplift to civil and U/G electrical design)	Updated 'disturbance footprint' (ha) - June 2024	Maximum impact area (ha) (includes 5% uplift to civil and U/G electrical design)	Change to maximum impact area (ha)
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion (Mod_Good – Mod)	1	6.28	5.44	5.46	5.44	5.47	0.01 increase
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion (Mod_Good - Poor_GrsLnd)	2	60.91	59.24	60.83	58.50	60.10	0.73 decrease
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion (Mod_Good – Mod)	3	18.78	15.14	15.74	15.08	15.67	0.07 decrease
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion (Mod_Good - Poor_GrsLnd)	4	26	22.18	22.95	22.18	22.95	Nil
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion (Mod_Good - Poor_Weedy)	5	7.21	5.77	6.03	5.77	6.03	Nil
Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the South Western Slopes (Mod_Good – Mod)	6	16.26	6.58	6.91	6.58	6.91	Nil
Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the South Western Slopes (Mod_Good - Poor_GrsLnd)	7	11.27	10.39	10.74	10.39	10.74	Nil
White Box - Rough-barked Apple alluvial woodland on the NSW western slopes (Mod_Good – Mod)	8	7.87	4.78	4.89	5.31	5.43	0.54 increase
White Box - Rough-barked Apple alluvial woodland on the NSW western slopes (Mod_Good - Poor_GrsLnd)	9	45.3	25.87	26.92	25.87	26.91	Nil
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes (Mod_Good – Mod)	10	14.56	9.52	9.67	9.52	9.67	Nil

White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes (Mod_Good - Poor_GrsInd)	11	301.67	155.41	162.12	156.30	163.01	0.89 increase
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes (Mod_Good - Poor_Weedy)	12	72.15	53.77	56.40	53.77	56.40	Nil
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes (Low - Poor_Weedy)	13	37.11	12.52	13.12	12.52	13.12	Nil
		625.37	386.62	401.77	387.23	402.41	0.64 increase

* In circumstances where UWF are required to calculate the offset liability and retire offset credits prior to commencing detailed design and wind farm construction, it has been necessary to apply a reasonable additional margin of impact area to the civil and electrical design (5%). UWF considers this a generous but reasonable buffer to account for minor adjustments that will be occur following detailed design.

Conclusion

The Planning Secretary's satisfaction is sought for Condition B21 b), confirming the calculation of the biodiversity offset liability for the development.

If you have any questions or concerns, please do not hesitate to contact the signer below.

Yours sincerely,



Sheree Kidziak

Environmental Advisor

For and behalf of Squadron Energy Ltd Pty.

Appendix A Updated Baseline Mapping Planning Secretary Approval



Planning,
Industry &
Environment

Ms Leanne Cross
Environment Manager
CWP Renewables Pty Ltd
Level 2, 2 Market Street
Newcastle NSW 2300

Via email: leanne.cross@cwprenewables.com

23/09/2021

Dear Ms Cross

Uungula Wind (SSD-6687) Updated Baseline Mapping

I refer to your letter dated 30 August 2021 providing details on the additional targeted survey effort undertaken for the Eastern Pygmy Possum and Squirrel Glider, which has been submitted in accordance with Condition B21(a) of the development consent for the Uungula Wind Farm (SSD-6687).

The Department has carefully reviewed the information provided, acknowledging that:

- the targeted surveys did not identify presence of either Eastern Pygmy-possum or Squirrel Glider;
- baseline mapping has been updated to remove the species polygons for these two species and therefore no species credits will be generated;
- there are no changes to the baseline mapping presented in the EIS for vegetation mapping, Koala or the Regent Honeyeater;
- the Biodiversity Conservation and Science Directorate of the Department (BCS) have been consulted and accept the updated baseline mapping for both Eastern Pygmy-possum and Squirrel Glider; and
- the final biodiversity credit obligations will be calculated during detailed design of the development, in accordance with Condition B21(b).

Accordingly, the Planning Secretary approves the updated baseline mapping as required under Condition B21(a).

If you wish to discuss the matter further, please contact Natasha Homsey 02 8275 1264 or at natasha.homsey@planning.nsw.gov.au.

Yours sincerely



Nicole Brewer
Director
Energy Assessments

As nominee of the Secretary

Appendix B Approved Statement of Reasonable Equivalence

Statement of assessment of reasonable equivalence of biodiversity credits

A delegate of the Environment Agency Head of the Department of Planning and Environment has determined that the number of biodiversity credits required to be retired under the *Threatened Species Conservation Act 1995 (TSC Act)* as part of the development consent listed in Part 1, are reasonably equivalent to the number and class of biodiversity credits under the *Biodiversity Conservation Act 2016 (BC Act)* set out in Part 2.

This document outlines that determination, made in accordance with clause 22(3) of the *Biodiversity Conservation (Savings and Transitional) Regulation 2017*.

Part 1 Existing statutory obligation to retire credits

Request made by:	Uungula Wind Farm Pty Ltd (ABN 68 143 399 295)
Date request received	17 May 2023 (final clearing areas)
Development Consent reference	SSD 6687
Development name	Uungula Wind Farm

Existing statutory obligation reference	Biodiversity credit name (Plant Community Type name and ID, or threatened species name)	IBRA sub region	Number of credits ¹
SSD 6687	Obligation 1 - Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (CW112)	Upper Slopes - Central West	383
SSD 6687	Obligation 1 - Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (CW112)	Upper Slopes - Central West	3,322
SSD 6687	Obligation 2 Red Stringybark woodland of the dry slopes of the NSW South Western Slopes Bioregion (CW177)	Upper Slopes - Central West	955

¹ Final clearing areas have been approved by BCD Northwest Regional Planning Team (DOC23/535162). The Planning Secretary has also approved the updated baseline vegetation mapping (DOC23/514894).

SSD 6687	Obligation 2 Red Stringybark woodland of the dry slopes of the NSW South Western Slopes Bioregion (CW177)	Upper Slopes - Central West	1,099
SSD 6687	Obligation 2 Red Stringybark woodland of the dry slopes of the NSW South Western Slopes Bioregion (CW177)	Upper Slopes - Central West	260
SSD 6687	Obligation 3 Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the NSW South Western Slopes Bioregion (CW202)	Upper Slopes - Central West	993
SSD 6687	Obligation 3 Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the NSW South Western Slopes Bioregion (CW202)	Upper Slopes - Central West	487
SSD 6687	Obligation 4 White Box - Rough-barked Apple alluvial woodland of the NSW central western slopes including in the Mudgee region (CW211)	Upper Slopes - Central West	449
SSD 6687	Obligation 4 White Box - Rough-barked Apple alluvial woodland of the NSW central western slopes including in the Mudgee region (CW211)	Upper Slopes - Central West	1,859
SSD 6687	Obligation 5 White Box - Tumbledown Red Gum - Long-leaved Box shrub/grass woodland on fine-grained sediments of the upper Macquarie River gorge, NSW central western slopes (CW212)	Upper Slopes - Central West	627
SSD 6687	Obligation 5 White Box - Tumbledown Red Gum - Long-leaved Box shrub/grass woodland on fine-grained sediments of the upper Macquarie River gorge, NSW central western slopes (CW212)	Upper Slopes - Central West	12,790
SSD 6687	Obligation 5 White Box - Tumbledown Red Gum - Long-leaved Box shrub/grass woodland on fine-grained sediments of the upper Macquarie River gorge, NSW central western slopes (CW212)	Upper Slopes - Central West	2,796
SSD 6687	Obligation 5 White Box - Tumbledown Red Gum - Long-leaved Box shrub/grass woodland on fine-grained sediments of the upper Macquarie River gorge, NSW central western slopes (CW212)	Upper Slopes - Central West	399
SSD 6687	Eastern Pygmy-possum (<i>Cercartetus nanus</i>)	NA	232
SSD 6687	Squirrel Glider (<i>Petaurus norfolcensis</i>)	NA	3,149

SSD 6687	Koala (<i>Phascolarctos cinereus</i>)	NA	3,721
SSD 6687	Regent Honeyeater (<i>Anthochaera phrygia</i>)	NA	11,021

Part 2 Determination of reasonable equivalence

The number and class of biodiversity credits that are reasonably equivalent under the BC Act are:

Ecosystem Credits

Obligation 1

- 1. Name of Plant Community Type:** Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (PCT277)

Number of ecosystem credits required	2,707 ²
Offset trading group	White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions
Hollow bearing trees	Not applicable
Vegetation class	Western Slopes Grassy Woodlands
Vegetation formation	Grassy Woodlands
IBRA³ subregion	Inland Slopes and any IBRA subregion that adjoins the subregion within which the development occurs and any such subregion that is within 100 kilometres of the outer edge of the impact site.

² Management Zone (MZ) 1 "moderate/good_medium" and MZ2 "moderate/good_poor" have been combined to form Obligation 1 as all credit attributes are the same. This equivalent BAM credit liability is a result of impacts to 65.569ha of CW112/PCT277 vegetation. The calculations use a 5% uplift in area as requested and detailed in an email from the applicant (DOC24/739126), including agreement from the BCD Regional office.

³ Interim Biogeographic Regionalisation for Australia

Obligation 2

2. **Name of Plant Community Type:** Red Stringybark woodland on hillslopes, northern NSW South Western Slopes Bioregion (PCT331)⁴

Number of ecosystem credits required	1,166 ⁵ ⁶
Offset trading group	Western Slopes Dry Sclerophyll Forests with percent cleared <50%
Hollow bearing trees	Vegetation containing hollow-bearing trees
Vegetation class	Western Slopes Dry Sclerophyll Forests
Vegetation formation	Dry Sclerophyll Forests (Shrubby sub-formation)
IBRA subregion	Inland Slopes and any IBRA subregion that adjoins the subregion within which the development occurs and any such subregion that is within 100 kilometres of the outer edge of the impact site.

⁴ The BCD Northwest Regional Planning Team have accepted the applicant's justification that PCT331 is reasonably equivalent to CW177 (DOC22/923957).

⁵ MZ3 "moderate/good_medium", MZ4 "moderate/good_poor" and MZ5 "moderate/good_other" have been combined to form Obligation 2 as all credit attributes are the same. This equivalent BAM credit liability is a result of impacts to 44.648ha of CW177/PCT331 vegetation. The calculations use a 5% uplift in area as requested and detailed in an email from the applicant (DOC24/739126), including agreement from the BCD Regional office.

⁶ There are 17 credits available from Biobanking Agreement 146. This value includes 1:1 ratio for 17 credits, and a full recalculation for the remaining 2,297 credits.

Obligation 3

3. **Name of Plant Community Type:** Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the NSW South Western Slopes Bioregion (PCT1279)

Number of ecosystem credits required	278 ^{7 8}
Offset trading group	Western Slopes Dry Sclerophyll Forests with percent cleared $\geq 70\%$ and $< 90\%$
Hollow bearing trees	Vegetation containing hollow-bearing trees
Vegetation class	Western Slopes Dry Sclerophyll Forests
Vegetation formation	Dry Sclerophyll Forests (Shrubby sub-formation)
IBRA subregion	Inland Slopes and any IBRA subregion that adjoins the subregion within which the development occurs and any such subregion that is within 100 kilometres of the outer edge of the impact site.

Obligation 3

4. **Name of Plant Community Type:** Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the NSW South Western Slopes Bioregion (PCT1279)

Number of ecosystem credits required	269 ⁹
Offset trading group	Western Slopes Dry Sclerophyll Forests with percent cleared $\geq 70\%$ and $< 90\%$
Hollow bearing trees	Not applicable
Vegetation class	Western Slopes Dry Sclerophyll Forests
Vegetation formation	Dry Sclerophyll Forests (Shrubby sub-formation)
IBRA subregion	Inland Slopes and any IBRA subregion that adjoins the subregion within which the development occurs and any such subregion that is within 100 kilometres of the outer edge of the impact site.

⁷ Calculations include a 5% uplift in impact area for MZ6, resulting in an impact area of 6.907ha as requested and detailed in an email from the applicant (DOC24/739126), including agreement from the BCD Regional office.

⁸ There are 57 credits available from Biobanking agreement 146. This value includes 1:1 ratio for 57 credits, and a full recalculation for the remaining 936 credits.

⁹ Calculations include a 5% uplift in impact area for MZ7, resulting in an impact area of 10.738ha as requested and detailed in an email from the applicant (DOC24/739126), including agreement from the BCD Regional office.

Obligation 4

5. **Name of Plant Community Type:** White Box - Rough-barked Apple alluvial woodland of the NSW central western slopes including in the Mudgee region (PCT274)

Number of ecosystem credits required	233 ¹⁰
Offset trading group	White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions
Hollow bearing trees	Not applicable
Vegetation class	Western Slopes Grassy Woodlands
Vegetation formation	Grassy Woodlands
IBRA subregion	Inland Slopes and any IBRA subregion that adjoins the subregion within which the development occurs and any such subregion that is within 100 kilometres of the outer edge of the impact site.

Obligation 4

6. **Name of Plant Community Type:** White Box - Rough-barked Apple alluvial woodland of the NSW central western slopes including in the Mudgee region (PCT274)

Number of ecosystem credits required	637 ^{11 12}
Offset trading group	Western Slopes Grassy Woodlands with percent cleared $\geq 70\%$ and $< 90\%$
Hollow bearing trees	Vegetation containing hollow-bearing trees
Vegetation class	Western Slopes Grassy Woodlands
Vegetation formation	Grassy Woodlands
IBRA subregion	Inland Slopes and any IBRA subregion that adjoins the subregion within which the development occurs and any such subregion that is within 100 kilometres of the outer edge of the impact site.

¹⁰ Calculations include a 5% uplift in impact area for MZ8, resulting in an impact area of 5.435ha as requested and detailed in an email from the applicant (DOC24/739126), including agreement from the BCD Regional office.

¹¹ Calculations include a 5% uplift in impact area for MZ9, resulting in an impact area of 26.915ha as requested and detailed in an email from the applicant (DOC24/739126), including agreement from the BCD Regional office.

¹² Case 145/2020/5048MP has a threatened ecological community (TEC) listed for this management zone (MZ), however the approved Biodiversity Assessment Report and Environmental Impact Statement confirms that MZ9 is not a TEC. MZ9 has had the TEC multiplier removed at the request of the applicant (DOC21/861013).

Obligation 5

7. **Name of Plant Community Type:** White Box - Tumbledown Red Gum - Long-leaved Box shrub/grass woodland on fine-grained sediments of the upper Macquarie River gorge, NSW central western slopes (PCT270)

Number of ecosystem credits required	302 ¹³ ¹⁴
Offset trading group	White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions
Hollow bearing trees	Vegetation containing hollow-bearing trees
Vegetation class	Western Slopes Dry Sclerophyll Forests
Vegetation formation	Dry Sclerophyll Forests (Shrubby sub-formation)
IBRA subregion	Inland Slopes and any IBRA subregion that adjoins the subregion within which the development occurs and any such subregion that is within 100 kilometres of the outer edge of the impact site.

Obligation 5

8. **Name of Plant Community Type:** White Box - Tumbledown Red Gum - Long-leaved Box shrub/grass woodland on fine-grained sediments of the upper Macquarie River gorge, NSW central western slopes (PCT270)

Number of ecosystem credits required	4,008 ¹⁵
Offset trading group	Western Slopes Dry Sclerophyll Forests with percent cleared <50%
Hollow bearing trees	Vegetation containing hollow-bearing trees
Vegetation class	Western Slopes Dry Sclerophyll Forests
Vegetation formation	Dry Sclerophyll Forests (Shrubby sub-formation)
IBRA subregion	Inland Slopes and any IBRA subregion that adjoins the subregion within which the development occurs and any such subregion that is within 100 kilometres of the outer edge of the impact site.

¹³ Case 145/2020/5048MP does not have a TEC listed for this MZ, however the approved Biodiversity Assessment Report and Environmental Impact Statement confirms that MZ10 is a TEC. MZ10 has had the TEC multiplier added at the request of the applicant (DOC21/861013).

¹⁴ Calculations include a 5% uplift in impact area for MZ10, resulting in an impact area of 9.67ha as requested and detailed in an email from the applicant (DOC24/739126), including agreement from the BCD Regional office.

¹⁵ MZ11 "moderate/good_poor", MZ12 "moderate/good_other" and MZ13 "low" have been combined to form "Obligation 5" as all credit attributes are the same. This equivalent BAM credit liability is a result of impacts to 232.525ha of CW212/PCT270 vegetation. The calculations use a 5% uplift in area as requested and detailed in an email from the applicant (DOC24/739126), including agreement from the BCD Regional office.

2. Species Credits

1. **Name of threatened species:** Eastern Pygmy-possum (*Cercartetus nanus*)

Number of species credits required	Not assessed at request of applicant.
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2. **Name of threatened species:** Squirrel Glider (*Petaurus norfolcensis*)

Number of species credits required	Not assessed at request of applicant.
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3. **Name of threatened species:** Koala (*Phascolarctos cinereus*)

Number of species credits required	2,867 ^{16 17 18}
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4. **Name of threatened species:** Regent Honeyeater (*Anthochaera phrygia*)

Number of species credits required	0 ¹⁹
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This statement was issued on 9th January 2025

Authorised by:



JOHN SEIDEL

Director Assurance and Biodiversity Stewardship

Department of Climate Change, Energy, the Environment and Water

Delegate of the Environment Agency Head

¹⁶ Applicant was able to satisfactorily show that no Koala credits were available on the register, having contacted owners and either receiving a negative response, or no response at all for a period of 2 months. In line with the approved method, a full credit recalculation was performed on these credits.

¹⁷ Note that although Koala are listed as a dual species and ecosystem credit under the BAM, advice from BAM Operations is that Koala should be treated as a species credit species under the BAM (DOC21/141366).

¹⁸ Koala species polygon area has been uplifted by 5% in line with the uplift in impact area for ecosystem credits, as detailed in request from applicant (DOC24/739015). Total impact area for Koala is 105.58ha.

¹⁹ Regent Honeyeater is now considered a dual species credit species under the BAM, with 'species credit' habitat being as per mapped important areas. There are no mapped important areas in the project area, therefore the equivalent number of BAM credits for this species is 0.

Appendix C BCS Consultation (Dated 15 June 2023)

Our ref: DOC23/498674

Alana Gordijn
Environmental Manager
Squadron Energy
Alana.gordijn@squadronenergy.com

Dear Alana

Uungula Wind Farm – Offsets liability

Thank you for your email dated 19 May 2023 to the Biodiversity, Conservation and Science Directorate (BCS) of the Department of Planning and Environment (DPE) inviting comments on the proposed strategy to calculate the revised offset requirement for Uungula Wind Farm. BCS also notes that supplementary material was provided to us on 23 and 25 May 2023, via email.

BCS is satisfied that the approach to recalculating the offset requirements for Uungula Wind Farm is sound.

Our preference, if engineering options allow, is that adjacent linear features such as roads and cabling are consolidated into a single footprint wherever possible (see Figure 1). This would largely eliminate concerns around the ability of clearing contractors to negotiate a more complicated footprint. It will also reduce potential indirect impacts of native vegetation between these corridors and, potentially, reduce the overall impact area resulting in further avoidance and a reduced offset liability.

In addition, given the inherent complexity of the development footprint, we consider it critical that a specific protocol is prepared detailing the method and reporting for tracking that actual disturbance limits remain within the proposed clearing and credit calculations. This protocol should be included as an attachment to the Biodiversity Management Plan for the project which is currently being prepared.

The final disturbance footprint clearing calculations have been attached to this letter in **Attachment A**.

If you have any questions about this advice, please do not hesitate to contact David Geering, Senior Conservation Planning Officer, via david.geering@environment.nsw.gov.au or (02) 6883 5335.

Yours sincerely



Ben Ellis
A/Principal Project Manager, Planning North West
Biodiversity, Conservation and Science Directorate

15 June 2023



Figure 1 Example of where clearing efficiencies may be achieved by further consolidating linear infrastructure.

Attachment A final disturbance footprint clearing calculations

Vegetation Impacts - Uungula Wind Farm 'Final Disturbance Footprint'						
Vegetation Zone	Veg Zone ID	PCT	HBT	Total impact area per 'EIS disturbance footprint'	Total impact area per 'final disturbance footprint' (ha)	Impact area with 5% uplift to civil and electrical design* (ha)
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion - Mod_Good - Mod	1	277	N	6.28	5.44	5.46
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion - Mod_Good - Poor_GrsInd	2	277	N	60.91	59.24	60.83
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion - Mod_Good - Mod	3	1095/331	Y	18.78	15.14	15.74
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion - Mod_Good - Poor_GrsInd	4	1095/331	Y	26	22.18	22.95
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion - Mod_Good - Poor_Weedy	5	1095/331	Y	7.21	5.77	6.03
Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the South Western Slopes - Mod_Good - Mod	6	1279	Y (659), N (283)	16.26	6.58	6.91
Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the South Western Slopes - Mod_Good - Poor_GrsInd	7	1279	Y (659), N (283)	11.27	10.39	10.74
White Box - Rough-barked Apple alluvial woodland on the NSW western slopes - Mod_Good - Mod	8	274	N	7.87	4.78	4.89
White Box - Rough-barked Apple alluvial woodland on the NSW western slopes - Mod_Good - Poor_GrsInd	9	274	Y	45.3	25.87	26.92
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes - Mod_Good - Mod	10	270	Y	14.56	9.52	9.67
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes - Mod_Good - Poor_GrsInd	11	270	Y	301.67	155.41	162.12
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes - Mod_Good - Poor_Weedy	12	270	Y	72.15	53.77	56.40
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes - Low - Poor_Weedy	13	270	Y	37.11	12.52	13.12
			SUM	625.37	386.62	401.77

Appendix D BCS Consultation (Dated 15 July 2024)

From: [David Geering](#)
To: [Alana Gordijn](#)
Subject: RE: CM Record: RE: Ungula Wind Farm - Biodiversity offset liabilities - Updated clearing calculations
Date: Monday, 15 July 2024 3:26:10 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

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Hi Alana

Based on the information provided, the revised vegetation clearing calculations, including the 5.43 ha for *White Box - Rough-barked Apple alluvial woodland on the NSW western slopes (Mod_Good – Mod)*, is within the clearing limits under the development consent for Ungula Wind Farm (SSD-6687-Mod-1).

I suggest you advise the Department of Planning, Housing and Infrastructure of the amended clearing calculations.

Regards

David

David Geering
Senior Conservation Planning Officer
North West Biodiversity, Conservation and Science Directorate
Department of Climate Change, Energy, the Environment and Water
[www.dccse.nsw.gov.au](#)

48-52 Wingewarra Street, Dubbo 2830
PO Box 2111 Dubbo NSW 2830
T: 02-6883-5335 | F: david.geering@environment.nsw.gov.au
48-52 Wingewarra Street, Dubbo NSW 2830



From: Alana Gordijn <alana.gordijn@squadronenergy.com>
Sent: Friday, 5 July 2024 9:00 AM
To: David Geering <David.Geering@environment.nsw.gov.au>
Subject: CM Record: RE: Ungula Wind Farm - Biodiversity offset liabilities - Updated clearing calculations

Good morning David,

Yes, that's correct – the grey area is the previously assessed and approved development corridor.

Cheers,

Alana Gordijn
Squadron Energy
+61 414 934 538

From: David Geering <David.Geering@environment.nsw.gov.au>
Sent: Friday, July 5, 2024 7:58 AM
To: Alana Gordijn <alana.gordijn@squadronenergy.com>
Subject: RE: Ungula Wind Farm - Biodiversity offset liabilities - Updated clearing calculations

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Hi Alana

Thank you very much for this. I assume that the grey area is all within the previously assessed project corridor.

Cheers

David

David Geering
Senior Conservation Planning Officer
North West Biodiversity, Conservation and Science Directorate
Department of Climate Change, Energy, the Environment and Water
[www.dccse.nsw.gov.au](#)

48-52 Wingewarra Street, Dubbo 2830
PO Box 2111 Dubbo NSW 2830
T: 02-6883-5335 | F: david.geering@environment.nsw.gov.au
48-52 Wingewarra Street, Dubbo NSW 2830



From: Alana Gordijn <alana.gordijn@squadronenergy.com>
Sent: Thursday, 4 July 2024 4:13 PM
To: David Geering <David.Geering@environment.nsw.gov.au>
Co: Sheree Kidziak <sheree.kidziak@squadronenergy.com>; Candice Somerville <Candice.Somerville@squadronenergy.com>; Calvin Houlison <Calvin.Houlison@environment.nsw.gov.au>
Subject: RE: Ungula Wind Farm - Biodiversity offset liabilities - Updated clearing calculations

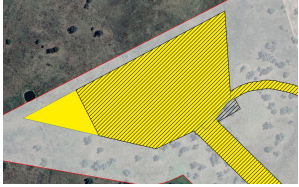
Good afternoon David,

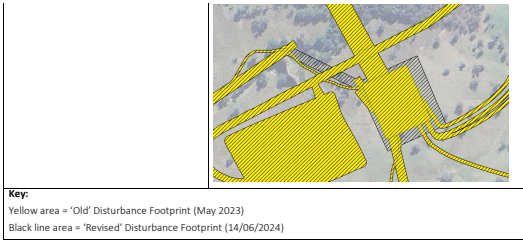
Thanks very much for your reply.

I have attached two Shapefiles for you (both GDA2020 Z55):

1. 'UWF_Revised Disturbance Footprint_14.06.2024'
Polygon layer of the UWF revised Disturbance Footprint.
2. 'UWF_Revised Disturbance Footprint_Veg Zones 1-13_14.06.2024'
Polygon layer containing only the native Vegetation Zones 1 – 13 within the UWF revised Disturbance Footprint (non-native Veg Zone 0 is excluded).

The Disturbance Footprint has been revised in three locations, as follows:

Location / description of change	Screenshot
1. Modified Switching Station footprint (far north of the project).	
2. Slight increase to the size of the Collector Substation.	
3. Addition of a missing overhead line section immediately north-west of the collector substation.	



I hope this helps, and please don't hesitate to contact me if you have any questions.

Best regards,

Alana Gordijn

Squadron Energy

+61 414 934 538

From: David Geering <David.Geering@environment.nsw.gov.au>

Sent: Wednesday, July 3, 2024 8:49 AM

To: Alana Gordijn <alana.gordijn@squadronenergy.com>

Cc: Joe May <joe.may@squadronenergy.com>; Sheree Kidziak <sheree.kidziak@squadronenergy.com>; Candice Somerville <Candice.Somerville@squadronenergy.com>; Calvin Houlison <Calvin.Houlison@environment.nsw.gov.au>

Subject: RE: Ungula Wind Farm - Biodiversity offset liabilities - Updated clearing calculations

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Hi Alana

Sorry for the delay in responding to this request but, unfortunately, our team has taken a hit from the myriad of viruses that seem to be doing the rounds.

In order for us to fully assess the proposed changes we will require the spatial data so we can verify the change to PCT impacts and location of the change. Once we have received this we will turn around your request as quickly as possible.

Regards

David

David Geering

Senior Conservation Planning Officer

North West Biodiversity, Conservation and Science Directorate

Department of Climate Change, Energy, the Environment and Water

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48-52 Wingewarra Street, Dubbo NSW 2830



From: Alana Gordijn <alana.gordijn@squadronenergy.com>

Sent: Tuesday, 25 June 2024 6:19 PM

To: Ben Ellis <Ben.Ellis@environment.nsw.gov.au>

Cc: Joe May <joe.may@squadronenergy.com>; Sheree Kidziak <sheree.kidziak@squadronenergy.com>; OEH ROGHD ROG North West Mailbox <rog.nw@environment.nsw.gov.au>; Candice Somerville <Candice.Somerville@squadronenergy.com>

Subject: RE: Ungula Wind Farm - Biodiversity offset liabilities - Updated clearing calculations

Good afternoon Ben,

I'm emailing on behalf of the Ungula Wind Farm project (UWF) in relation to the calculation of biodiversity offset liabilities, required by Condition 21 of SSD 6687.

We previously consulted with BCS in May / June 2023 regarding the vegetation clearing calculations for UWF – below is a quick recap of that consultation and outcomes:

- In May 2023, we consulted with BCS regarding the approach to determining offset liabilities and submitted the associated vegetation clearing calculations.
- In June 2023, BCS provided a letter (attached) confirming that the approach was sound, and which attached the abovementioned vegetation clearing calculations.
- In November 2023, we emailed BCS to provide an updated table of vegetation clearing calculations (refer to email chain below).

On 14 June 2024, the project made some further minor amendments to the disturbance footprint, and the vegetation clearing calculations have since been updated.

The updated calculations are provided in the **attached spreadsheet** (columns I & J). Overall, the clearing area has increased by 0.64ha.

Could BCS please review and provide their acceptance of the updated clearing calculations?

We can then proceed to determine the final biodiversity offset credit liability via application for an Assessment of Reasonable Credit Equivalence.

I will follow up with a phone call tomorrow to discuss.

Please don't hesitate to contact me if you have any questions or require further information.

Best regards,

Alana Gordijn

Squadron Energy

+61 414 934 538

From: Ben Ellis <Ben.Ellis@environment.nsw.gov.au>

Sent: Thursday, November 2, 2023 5:58 PM

To: Alana Gordijn <alana.gordijn@squadronenergy.com>

Cc: Joe May <joe.may@squadronenergy.com>; Sheree Kidziak <sheree.kidziak@squadronenergy.com>; Matthew Flower <Matthew.Flower@squadronenergy.com>; OEH ROGHD ROG North West Mailbox <rog.nw@environment.nsw.gov.au>

Subject: RE: Ungula Wind Farm - Minor update to clearing calculations

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Thanks Alana,

You've caught me just as I've started leave for the following 2 weeks (3-17 November inclusive).

I've CC'd in my teams mailbox. Please send any further correspondence in the short term to this mailbox and someone will be in touch

Any queries please call or email.

Regards

Ben Ellis

A/ Principal Project Manager (North West Region)

Biodiversity, Conservation & Science | Department of Planning and Environment

T 02 8275 1838 | M 0472 875 194 | E ben.ellis@environment.nsw.gov.au

www.dpie.nsw.gov.au

The *Spring Edition* of the DPIE NW Environment quarterly newsletter. Please [subscribe here](#) to receive future editions.

From: Alana Gordijn <alana.gordijn@squadronenergy.com>

Sent: Thursday, 2 November 2023 5:53 PM

To: Ben Ellis <Ben.Ellis@environment.nsw.gov.au>

Cc: Joe May <joe.may@squadronenergy.com>; Sheree Kidziak <sheree.kidziak@squadronenergy.com>; Matthew Flower <Matthew.Flower@squadronenergy.com>

Subject: Ungula Wind Farm - Minor update to clearing calculations

Dear Ben,

I am writing with reference to the attached letter from BCS dated 15 June 2023, which relates to the final disturbance footprint clearing calculations for the Ungula Wind Farm (UWF).

I am emailing to advise BCS that some very minor amendments have recently been made to the Final Disturbance Footprint impact calculations for UWF.

A section of internal overhead line (~200m in length) had been inadvertently omitted from the previous Final Disturbance Footprint. That section of OHL has now been added in, and has resulted in a minor increase to clearing calculations for Vegetation Zone 8 (approximately 0.4ha).
Amended figures are highlighted yellow below. This will result in a small increase to our biodiversity offset credit liability.

We are currently applying for an updated Assessment of Reasonable Equivalence to determine our final offset credit liability.
Once we have the Equivalence Statement in hand, we will submit a copy to BCS for consultation, in accordance with Condition B21(b) of the UWF development consent.

Vegetation Impacts - Ungula Wind Farm 'Final Disturbance Footprint'						
Last Updated: 30/10/2023 Change from previous version (19.05.2023) relates to a small (0.4ha) increase to Veg Zone 8 impact area, due to small change to the internal OHL easement.						
Vegetation Zone	Veg Zone ID	PCT	HBT	Total impact area per 'EIS disturbance footprint'	Total impact area per 'final disturbance footprint' (ha)	Impact area with 5% uplift to civil and U/G electrical design (ha)
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion - Mod_Good - Mod	1	277	N	6.28	5.44	5.46
Blakely's Red Gum - Yellow Box grassy woodland of the NSW South Western Slopes Bioregion - Mod_Good - Poor_Grslnd	2	277	N	60.91	59.24	60.83
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion - Mod_Good - Mod	3	1095/331	Y	18.78	15.14	15.74
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion - Mod_Good - Poor_Grslnd	4	1095/331	Y	26	22.18	22.95
Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion - Mod_Good - Poor_Weedy	5	1095/331	Y	7.21	5.77	6.03
Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the South Western Slopes - Mod_Good - Mod	6	1279	Y (659) N (283)	16.26	6.58	6.91
Tumbledown Red Gum - Black Cypress Pine - Red Box low woodland of hills of the South Western Slopes - Mod_Good - Poor_Grslnd	7	1279	Y (659) N (283)	11.27	10.39	10.74
White Box - Rough-barked Apple alluvial woodland on the NSW western slopes - Mod_Good - Mod	8	274	N	7.87	5.18	5.29
White Box - Rough-barked Apple alluvial woodland on the NSW western slopes - Mod_Good - Poor_Grslnd	9	274	Y	45.3	25.87	26.92
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes - Mod_Good - Mod	10	270	Y	14.56	9.52	9.67
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes - Mod_Good - Poor_Grslnd	11	270	Y	301.67	155.41	162.12
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes - Mod_Good - Poor_Weedy	12	270	Y	72.15	53.77	56.40
White Box - Tumbledown Gum woodland on fine-grained sediments on the NSW central western slopes - Low - Poor_Weedy	13	270	Y	37.11	12.52	13.12
			SUM	625.37	387.02	402.17

If you have any questions, please reach out to Biodiversity Offsets Manager Joe May or Environmental Advisor Sheree Kidziak (both cc'd).

Best regards,

Alana Gordijn

Environmental Manager
Delivery



Squadron Energy acknowledges the Traditional Owners and ongoing Custodians of the lands and waters on which we operate. We pay our respects to Elders past, present and emerging.

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