Projects and Engineering
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ABN 59 698 720 886

Mr Andrew Wilson
Epuron Pty Ltd
Level 11, 75 Miller Street
NORTH SYDNEY NSW 2060

A.Wilson@epuron.com.au

Dear Mr Wilson,

IDS Technical Report for Yass Wind Farm

Airservices has reviewed the IDS Technical Report into the effect of the planned Yass Valley Wind Farm, "EMC Study to evaluate the effect of the planned *Yass Valley* Wind Farm, NSW, on the Mt *Bobbara* SSR ATC radar and Mt *Majura* PSR/SSR ATC radar", Rev 1.1, (RT/2011/140).

On the 27th September 2012 Airservices met with IDS to discuss the report. This discussion identified some areas of the report that required additional work and/or clarification. Airservices is unable to assess the operational impact that the proposed wind farm will have on the surveillance environment until the report is updated.

The specific areas of concern to Airservices have been documented by IDS, reference document number ADM-001-FM4 v2, dated 13th November 2012. If IDS address all the points identified in that document, to the satisfaction of Airservices, then Airservices will have enough information to proceed with an assessment.

In making the final assessment of the impact of the YASS wind farm Airservices will take into account the information provided by IDS. However, Airservices reserves the right to make our own assessment and draw our own conclusions independent of those stated in the report.

Yours sincerely

Matthew Kelly
Engineering Specialist
Projects & Engineering - Navigation/Surveillance
matthew.kelly@airservicesaustralia.com

19 December 2012

Australian Government
Civil Aviation Safety Authority

AIRSPACE AND AERODROME REGULATION
File Ref: EF12/10988

30 January 2013

Mr Neville Osborne
Manager Energy Infrastructure Projects
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Osborne,

Re: Preferred Project Report for the Yass Valley Wind Farm (MP08_0246)

Thank you for your letter dated 7 December 2012 inviting CASA to make a submission on the Preferred Project Report for the Yass Valley Wind Farm.

Original advice from CASA in 2008 referred to the Advisory Circular for the Obstacle Marking and Lighting of Wind Farms. This Advisory Circular has since been withdrawn as current legislation does not empower CASA to direct a wind farm proponent in any way to provide obstacle lights on any structure in the interest of aviation safety, unless it is within the vicinity of an aerodrome.

As this proposal is not in the vicinity of an aerodrome, CASA can only provide comment on the proposal and cannot require obstacle lighting to be provided. Any proponent of a Wind Farm must assess their own obligations in relation to aviation safety when considering whether to provide obstacle lighting on a tall structure or not.

In regard to this Preferred Project Report, we offer the following recommended conditions on the proposal:

- The proponent must assess the risk to aircraft navigation and make a determination as to whether obstacle lighting should be installed to highlight the location of the wind farm. Should lighting be provided it must comply with the CASA Manual of Standards, Part 139 – Aerodromes, Chapter 9 downloadable from the CASA web page.

- The proponent must ensure that the heights and co-ordinates are reported to Airservices and the Department of Defence prior to commencement of construction. Heights and locations of structures are to be confirmed with each authority following completion of construction.

In addition, proponents of tall structures are normally advised by CASA to undertake, at least, the following consultation to assess the potential hazard posed to aviation by the proposed development:

- Consult with Airservices Australia to have them assess any potential impact on enroute lowest safe altitude, instrument approach procedures at aerodromes, navigational aids, communications facilities or surveillance facilities.
- Contact the Aerial Agriculture Association of Australia (02 6241 2100 - Mr Phil Hurst) to advise him of the proposal and seek comment on the potential hazards to aerial application and related operations in the area.
- Contact operators of any non-regulated aerodromes, i.e. privately owned landing areas also termed aeroplane landing areas (ALA), which may be located in the vicinity of the wind farm. Consult with the users of the ALA to ascertain if they consider the wind farm to be a hazard to their operations.
- contact Royal Flying Doctor Service (RFDS) to advise of the proposal and gain comment on any impact it may have on RFDS operating into the aerodrome

The proponent should also note that aircraft are permitted to fly as low as 500ft, (152m), and certain operations are permitted to fly below this height.

If the proponent should chose to provide obstacle lighting to indicate the presence of the wind farm at night, to ensure consistency and avoid any confusion to pilots, the obstacle lighting installation should conform with CASA Manual Of Standards (MOS) Part 139, Chapter 9. The MOS is available on our Web Site,

http://casa.gov.au/wcmswr/_assets/main/rules/1998casr/139/139mfull.pdf

Details of the wind farm should be reported for inclusion in the national database of tall structures maintained by the Royal Australian Air Force (RAAF). Information on reporting of tall structures may be found in advisory circular issued by CASA, "AC 139-08(0) Reporting of Tall Structures".

Any requirements placed on developers by planning authorities, insurers, or financiers, are beyond CASA's control.

For any further clarification of this information, please call the CASA Aerodrome Engineer Matthew Windebank on 131757.

Yours sincerely

Matthew Windebank
Aerodrome Standards Engineer
Airspace and Aerodrome Regulation Division

YASS WIND FARM - CROWN IMPACTS

ITEM No.	DESCRIPTION	LOT ASSOCIATION
1	Overhead Powerline - red option	Crown waterway crossing - Jugiong Creek north eastern corner Lot 2 DP 717646 - authorisation methodology
2	Overhead Powerline - red option	3 x crown road crossings through Lot 2 DP 717646
3	Access track	adjacent to end of road south Lot 2 DP717646
4	Turbine COP 38	adjacent to eastern end of road south Lot 2 DP 717646 - ensure doesn't impact on road
5	Access track	traversing crown road at south east corner Lot 92 DP 753602 - for about 150 m, may trigger transfer to Council
6	Turbine COP 9	on crown road west Lot 200 DP 753602 - relocate off road
7	Turbine COP 16	on crown road west Lot 1 DP 593527 - relocate off road
8	Access track	traversing crown road south west Lot 91 DP 753602 - for about 550 m, may trigget transfer to council
9	Substation	on or adjacent to crown road south west Lot 91 DP 753602 - relocate off road
10	Overhead electrical reticulation	adjacent to and crowssing crown road south west Lot 91 DP 753602 - authorisation methodology
11	Access track	crossing crown road at south west corner of Lot 197 DP 753602
12	Turbine COP 23	in proximity to crown road west Lot 210 DP 753602 - need to ensure no impact on road or turbine may need relocation
13	Access track	meanders across the crown roads in a number of places south west of Lots 90, 43, 41 & 42 DP 753602
14	Access track	traverses crown road at south west corner of Lot 194 DP 753626, and west of Lot 125 DP 753595 - for about 600 m, may trigger transfer to Council
15	Access tracks	intersecting at road north Lot 135 DP 753602 towards eastern end.
16	Turbine COP 81	located on crown road west Lot 344 DP 753595, needs to be relocated off road
17	Access tracks	intersecting at the crown road through Lot 344 DP 753595
18	Turbines COP 79 & 80	in proximity to crown road through Lot 344 DP 753595 - need to ensure no impact on road or turbines may have to be relocated.
19	Turbine COP 6	in proximity to crown road west of Lot 222 DP 753626 - need to ensure no impact on road or turbine may have to be relocated.
20	Access tracks	crossings of the road west Lot 222 DP 753626 and east Lot 181 DP 753626
21	Access track	crossing of the intersection of the two roads on northern boundary of Lot 126 DP 753595
22	Overhead Powerline - orange option	crossing the intersection of the roads at south east corner Lot 106 DP 753626 to north west corner of Lot 123 DP 753595 - authorisation methodology
23	Alternate substation site	in northern half of Lot 126 DP 753626 in proximity to the crown road on the northern boundary of lot - need to esnure no impact on road
24	Access track	crossing crown road on western boundary of Lot 123 DP 753595
25	Overhead Powerline - orange option	crossing the crown road east Lot 185 DP 753595 through to north west corner of Lot 306 DP 753595 - authorisation methodology
26	Access track	crossing the crown road on noth eastern boundary of Lot 344 DP 753595

27	Overhead Powerline - orange option	three crown road crossings - near north west corners of Lots 117 & 116 DP 753595 and Lot 2 DP 201889 - authorisation methodology
28	Overhead Powerline - orange option	crossing crown waterway - Jugiong Creek east Lot 208 DP 753595 - authorisation methodology.
29	Overhead Powerline - orange option	crossing Lot 7006 DP1115342 or part Res 13391 for water notified 14-2-1891 also held under Licence 493872 for grazing by Nils Taube Ltd - authorisation methodology
30	Overhead Powerline - orange option	crossing Lot 7010 DP 10961121 or part Res 13391 for water notified 14-2/1891 - authorisation methodology
31	Overhead Powerline - orange option	five crown road crossings - north Lot 1 DP 1088583, east of both Lots 43 and 171 DP 753595, north of Lot 169 DP 753595, at north eastern corner of Lot 101 DP 753629 - authorisation methodology
32	Overhead Powerline - orange option	four crown road crossings - south of Lot 58 DP 753626, north & west Lot 85 DP 753626, west Lot 197 DP 753626 - authorisation methodology
33	Access track	two crossings of crown roads through Lot 4 DP 1108872
34	Alternate substation site	at end of Crown road through Lot 4 DP 1108872
35	Overhead electrical reticulation	crossing road south Lot 129 DP 753626
36	Access track	two crossings of crown road south Lot 203 DP 753626; and travelling down road south Lot 209 DP 753626. Last section may trigger transfer to Council
37	Turbine MRL 26	located on Crown road south Lot 209 DP 753626 - needs to be reloated off road
38	Turbine MRL 32	Located on end of Crown road south of Lot 113 DP 753595 - needs to be relocated off road
39	Turbines MRL 36 & 34	Located on Crown roads at northwest corner and near south west corner of Lot 114 DP 753595 - need to be relocated off road
40	Access track	crossing crown road west Lot 111 DP 753626
41	Alternate substation site	On Crown road at north east corner of Lot 208 DP 753626 - needs to be relocated off road
42	Alternate overhead powerline - red option	running down Crown road from substation in previous item to south west corner of Lot 178 DP 753626 - authorisation method
43	Alternate overhead powerline - red option	Crossing Crown road at north east corner of Lot 209 DP 878465 - authorisation method
44	Alternate overhead powerline - red option	close to crown roads at notrth east corner Lot 105 DP 753633 - authorisation method; Turbine MRL 60 close to same road - need to ensure no impact on road
45	Alternate overhead powerline - red option	crossing crown road separating Lot 205 from Lot 201 DP 753596 - authorisation method
46	Turbine MRL 68	On crown road separating Lot 205 from Lot 201 DP 753596 - needs to be located off crown road
47	Access track	small section of Crown road adjacent to Turbine MRL 68 - authorisation method
48	Access track	crown road crossing near northern boundaries of Lot 205 & 201 DP 753596

Trade & Investment Crown Lands

NSW GOVERNMENT

PCU040971

Ref: 12/08259
Your Ref: MP08_0246

Mr Toby Philp
Senior Planner,
Infrastructure Projects
Planning & Infrastructure NSW
GPO Box 39
SYDNEY NSW 2000

Dear Mr Philp,

SUBJECT: SUBMISSION ON THE PREFERRED PROJECT REPORT FOR THE YASS WIND FARM

I refer to your letter of 7th December 2012 seeking Crown Lands comments on the preferred project report for the above project.

Based on the information supplied by your office and the proponent I would advise the following impacts on Crown roads by the project as outlined in the attached spreadsheet:

8. Items 4, 6, 7, 12, 16, 18, 19, 37, 38, 39 & 46 show turbines located on or very close to crown roads. The proposed location cannot impact on road usage or it could be considered a breach of Section 5(1) of the Roads Act 1993. In those circumstances there are two options for the proponent:
    a. Relocate the turbine such that the structure and blade overhang does not encroach on to the road reserve;
    b. Arrange for the adjoining landowners to close and purchase the roads in question if they are no longer required for access.
9. If the proponent alters the location of the turbines referred to in 1. or any other turbine, the changes should be bought to Crown Lands attention as soon as practicable to determine the effect of the change.
10. Items 9, 23, 34 and 41 show the locations of two substation sites on or adjacent to crown roads. The two options mentioned in 1 a. & b. apply to both substation sites.
11. Items 1, 2, 42, 43, 44 & 45 show the proposed overhead transmission line red option crossing or running down Crown roads. The options to authorise these transmission line routes are:
    a. Arrange for the adjoin landowners to close and purchase the affected sections of road;
    b. Seek the concurrence of the local Council to transfer the roads to their control;
    c. Place suitable easements over the affected sections of road with compensation to be assessed in a manner that replicates the provisions of the Land Acquisition (Just Terms Compensation) Act 1991 and the normal administration fee;
    d. Via the grant of a licence under the Crown Lands Act 1989.
12. Items 22, 25, 27, 28, 29, 30, 31, & 32 shows the proposed overhead transmission line orange option crossing or running down Crown roads. The authorisations options shown 4 a., b., c. & d. above also apply to these sites.
13. Items 10 & 35 show adjacent and or crossing Crown roads. The authorisations options shown 4 a., b., c. & d. above also apply to these sites.
14. The balance of the items in the schedule is crossings of Crown roads by internal wind farm access tracks.

Closure of affected segments of Crown roads is Crown Lands preferred option. Any deviation from this will require renegotiation with the Department.

Recommendations:
If approved, the attached response is sent to Planning & Infrastructure NSW.

Report prepared by

John Flarrety
Group Leader, Goulburn
Phone: (02) 4824 3714
Dated 4th December 2012

23/01/13

Grant Marsden
Manager South West Area

Australian Government
Department of Defence
Defence Support Group

PCU042263

EP_ID_ELP/2013/OUT/AF13065806

Mr Toby Philip
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Philip

RE: Preferred Project Report for the Yass Valley Wind Farm (MP08_0246)

Thank you for referring the Preferred Project Report (PPR) for the Yass Valley Wind Farm to the Department of Defence (Defence) for comment. Defence understands that the wind farm project will consist of a total of up to 148 wind turbines, at two sites known as 'Coppabella' and 'Marilba' located approximately 20-35km west of the town of Yass, NSW.

Defence has seen an earlier iteration of this proposal, and has previously provided comments to the proponent. For your information this advice is at Attachment A. Defence is pleased that its comments have been acknowledged in the PPR submission, and overall, the Department of Defence has no concerns with the proposal at this time.

Should you wish to discuss the content of this submission further please contact Mr Tim Hogan on (02) 6266 8540 or email on lpsi.directorate@defence.gov.au.

Please also note that I have recently been appointed as the Director of External Land Planning and my contact address is provided in the signature block below.

Yours sincerely

Simone Murray
Director External Land Planning
Department of Defence
BP26-1-A052
Brindbella Park
CANBERRA ACT 2602

4 March 2013

Australian Government
Department of Defence
Defence Support Group

2004/1044160/3
LPSI/OUT/2008/110

Mr Anthony Micallef
Eupuron Pty Ltd
Level 11, 75 Miller St
North Sydney, NSW, 2060

Dear Mr Micallef

RE: PROPOSED 'COPPABELLA' AND 'MARILBA' WIND FARMS WEST OF YASS, NSW

Thank you for referring the abovementioned wind energy projects to the Department of Defence (Defence) for comment. Defence understands that these projects will be located at two sites known as 'Coppabella' and 'Marilba' located approximately 20-30km west of the town of Yass, NSW. Defence further understands that the wind farm projects will consist of a total of 90 wind turbines at Coppabella Wind Farm and 80 wind turbines at Marilba Wind Farm.

As per your letter, Defence has performed its assessment based upon the wind turbines being situated atop 80m towers and using 105m diameter blades. The maximum height at the blade tip zenith will be up to 135m above ground level. As discussed in a phone call on 22 July 2008, Defence has also allowed for 1 wind monitoring mast at each site and associated works (including an electrical substation and overhead wiring to connect with the National Electricity Grid).

Defence has assessed the proposal with respect to any impact on the safety of military flying operations and possible interference to Defence communications and radars.

The proposed development will be outside any areas affected by the Defence (Areas Control) Regulations (DACR). The DACR control the height of objects (both man-made structures and vegetation) and the purpose for which they may be used within approximately 15km radius of Defence airfields. In addition, the proposal has been assessed as unlikely to affect existing Defence communications and radars in the region.

However, it should be noted that tall structures present a hazard to flight safety for low level flying operations. Consequently, there is an ongoing need to obtain and maintain accurate information about tall structures so that risks associated with inadvertent collision by low flying aircraft can be reduced. RAAF Aeronautical Information Service (RAAF AIS) in Melbourne is responsible for recording the location and height of tall structures. The information is held in a central database managed by RAAF AIS and relates to the erection, extension or dismantling of tall structures the top measurement of which is:

a. 30 metres or more above ground level - within 30 kilometres of an aerodrome; or
b. 45 metres or more above ground level elsewhere.

The proposed wind farm development will meet the above definition of tall structure. RAAF AIS has requested that the developer supply them with final design documentation before construction commences. After construction is complete, the Department of Defence requests that the developer provide RAAF AIS with "as constructed" details.

RAAF AIS has a web site with a Vertical Obstruction Report Form at www.raafais.gov.au/obstr_form.htm which can be used to enter the location and height details of tall structures. Any queries in regard to information about tall structures or the database should be directed to RAAF AIS.

The Civil Aviation Safety Authority (CASA) has produced an Advisory Circular, AC 139-18(0) *Obstacle Marking and Lighting of Wind Farms* dated July 2007, which provides amongst other things, guidance to proponents of wind farms. Wind turbines are tall structures which can be hazardous objects to aviation and AC 139-18(0) outlines measures on how to reduce the hazard including the use of obstacle marking and lighting. In accordance with the AC 139-18(0) CASA will need to be consulted on this proposal determination.

Overall, the Department of Defence has no concerns with the Coppabella Wind Farm and the Marilba Wind Farm at this time. Should you wish to discuss the content of this advice further, please contact Brenin Presswell, Executive Officer, Land Planning on (02) 6266 8128 or by email at brenin.presswell@defence.gov.au.

Yours sincerely

John Kerwan
Director Land Planning & Spatial Information
Department of Defence
BP3-1-A052
Brindabella Park
Canberra ACT 2600

5 August 2008

Cc. DSG - ACT/NSW
RAAF AIS
CASA

Your reference: MP08_0246
Our reference: FIL08/18697-02: DOC12/51852
Contact: Michael Heinze 02 6229 7002

Neville Osborne
Manager Energy Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Toby Philp

25 February 2013

Dear Mr Osborne

Re: Preferred Project Report for the Yass Valley Wind Farm (MP08_0246)

I refer to your letter of 7 December 2012 forwarding the Preferred Project Report for the proposed Yass Valley Wind Farm (MP08_0246) ("the PPR") and your invitation for the NSW Environment Protection Authority ("EPA") to review the PPR and provide comment.

As you are aware, large scale wind farms that have a capacity for generating more than 30 megawatts of electricity or that have been approved under certain provisions of the *Environmental Planning and Assessment Act 1979* are likely to require a licence from the EPA in the near future. Specifically, the draft *Protection of the Environment Operations Amendment (Wind Farms) Regulation 2012* proposes to amend Schedule 1 of the *Protection of the Environment Operations Act 1997* to require the operators of these large-scale wind farms to hold an Environment Protection Licence ("EPL") for both the construction and operational phases. The EPA anticipates that the final Regulation will commence after March 2013. The proposed Yass Valley Wind Farm will likely be subject of these new licensing requirements. If the project is approved, the proponent will need to make a separate application to the EPA to obtain an EPL and at this time, the EPA will liaise with the proponent regarding proposed licence conditions.

Bearing in mind that the EPA has not historically been responsible for licensing wind farms or imposing limits on operational noise, we did not conduct a detailed review of the Noise Impact Assessment ("NIA") in the Environmental Assessment during the public exhibition stage for this proposal during 2009. Our comments during the adequacy and public exhibition stages of the planning process (our letters of 10 June and 11 December 2009 respectively) related to biodiversity issues and not to the noise associated with the construction and operational phase of the proposed Yass Valley Wind Farm.

The EPA has now reviewed the PPR and believes that it adequately addresses the issues raised in the public submissions. We note however, that the NIA states that the final Wind Turbine Generator ("WTG") make and model are to yet be determined. It is usual for conditions of any project approval to a) require noise impacts to be confirmed by remodelling once the actual WTG(s) to be constructed have been confirmed to confirm predicted levels, and b) require an on-ground compliance assessment once the as constructed WTG(s) commence operation. The EPA would support the imposition of these requirements by the Department of Planning & Infrastructure for this proposal.

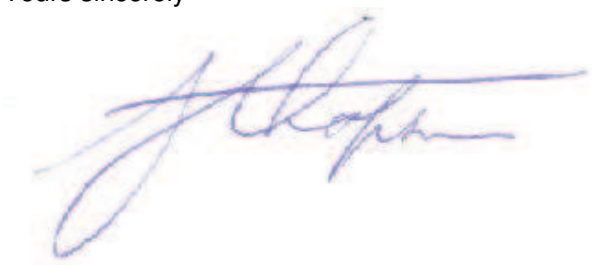
PO Box 622 Queanbeyan NSW 2620
Level 3/11 Farrer Place Queanbeyan NSW 2620
Tel: (02) 6229 7002 Fax: (02) 6229 7006
ABN 43 692 285 758
www.epa.nsw.gov.au

The EPA has also conducted a brief review of the NIA dated April 2009 and notes that the NIA identifies marginal exceedences of the South Australian EPA Wind Farm Noise Guidelines (2003) background noise ($L_{A90,\ 10\ min}$) + 5dBA criterion for 2 non-involved receivers (by up to 3dBA), and of the World Health Organisation ("WHO") Guidelines 45dBA criteria for 2 involved receivers (of up to 1.7dBA). We note that these exceedences were derived from the "worst-case scenario" WTG make and model. The EPA believes that the remodelling and on-ground compliance assessment mentioned above should enable the proponent to avoid these exceedences with the final WTG selection and turbine layout.

With regard to the deletion, micro-siting and/or relocation of numerous WTGs as detailed in the PPR, the EPA is unclear whether the modification to the WTG layout will change noise impacts for receivers to the extent that either the SA EPA Guidelines (2003) base criterion of 35dBA, or background noise ($L_{A90,\ 10\ min}$) + 5dBA, or the WHO Guidelines 45dBA criterion, are no longer complied with. While it can be assumed that the deletion of certain WTGs will reduce noise impacts in some instances, the EPA is concerned that the PPR does not give consideration to potentially increased noise impacts as a result of the addition of viable WTG sites, particularly in the area north-west of the Coppabella Hills precinct. In this instance, the EPA understands that the distance to the closest WTG for non-involved receiver C37 may be reduced by approximately half, but no detail is given in the PPR as to the potential for increased noise impacts at this location. The EPA would expect that such a statement could be provided as part of the remodelling of the noise data in the NIA referred to above.

Thank you for the opportunity to provide comment on this matter. Should you wish to discuss this matter further, please contact me Michael Heinze on 02 6229 7002.

Yours sincerely



JULIAN THOMPSON
Unit Head – South East Region
NSW Environment Protection Authority

NSW GOVERNMENT | Catchment Management Authority Murrumbidgee

Objective File Ref: A1357766

PCU042216

Dept. of Planning and Infrastructure
Attn: Neville Osborne
GPO Box 39
Sydney, NSW 2001

Dear Sir,

RE: Preferred Project Report for the Yass Valley Wind Farm (MP08_0246)

Thank you for your letter concerning the Preferred Project Report (PPR) for the Yass Valley Wind Farm dated 7 December 2012.

The Murrumbidgee Catchment Management Authority (CMA) has reviewed the PPR for the Yass Valley Wind Farm, November 2012.

The Murrumbidgee CMA concurs with the PPR that the revised Environmental Assessment will reduce residual impacts of the development on the existing environment.

If you would like to discuss the process further, please don't hesitate to contact Janelle Jenkins in the Wagga office on 02 69323282 or janelle.jenkins@cma.nsw.gov.au.

Yours sincerely

John Francis
General Manager
Murrumbidgee Catchment Management Authority

1 March 2013

Murrumbidgee Catchment Management Authority
Level 1, 43-45 Johnston Street, Wagga Wagga NSW 2650
PO Box 5224, Wagga Wagga, NSW 2650
Tel: 02 6932 3232 Fax: 02 6932 3269 www.murrumbidgee.cma.nsw.gov.

NSW GOVERNMENT | Office of Environment & Heritage

Your reference : MP08_0246
Our reference : DOC12/51399
Contact : Virginia Thomas (02) 6229 7105 or Allison Treweek (02) 6229 7082

PCU042319

Neville Osborne
Manager Energy
Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Toby Philip
4 March 2013

Dear Mr Osborne

RE: YASS VALLEY WIND FARM PREFERRED PROJECT REPORT (MP08_0246)

I refer to your letter dated 7 December 2012 in reference to the Preferred Project Report (PPR) for the Yass Valley Wind Farm. The Office of Environment and Heritage (OEH) has reviewed the documentation available on the Department of Planning and Infrastructure's (DoPI) website.

OEH notes that the proponent has addressed many of the issues raised in our submission of 2010, including: recalculation of permanent loss of Box Gum Woodland Endangered Ecological Community (BGW EEC), mapping of the proposed transmission easement and provision of greater detail on hollow-bearing trees (HBTs) in the areas previously not mapped in the Environmental Assessment.

However OEH continues to have concerns regarding some other issues raised in our submission or presented in the PPR and its accompanying Supplementary Ecological Report (SER), including the calculation of offset ratios, the clarification of conservation significance, the impacts on hollow-bearing trees and surveys for threatened species. Detailed comments are provided in Attachment A, together with OEH recommended conditions, for inclusion in the final project approval.
OEH has also reviewed the *Proposed Yass Valley Wind Farm Archaeological and Heritage Assessment Addendum – Transmission Line*" report and provides comments on this report at Attachment B
Please contact Virginia Thomas (02 6229 7105) or Allison Treweek (02 6229 7082) if you have any queries in relation to this matter.

Yours sincerely

Allison Treweek 4/3/13

Department of Planning
Received
8 MAR 2013
Scanning Room

ALLISON TREWEEK
A/Manager Landscape and Aboriginal Heritage Protection Section
Conservation and Regulation Division
Office of Environment and Heritage

Attachment A - OEH detailed Biodiversity comments on the PPR

Turbine Placement and Numbering

The differences in the numbering of the turbines in the PPR made it difficult to pinpoint individual turbines – turbine IDs mapped in the Supplementary Ecological Report (SER) and listed with coordinates in the table in Attachment 4 (numbered 1 to 148) were different to all the maps in the PPR and original EA (numbered COP 01 - COP 86 and MRL 01-MRL 70). This difference in numbering made it difficult to interpret the maps and the information supplied.

Offset Proposal

OEH acknowledges that Statement of Commitment (SoC) 21 states that the Offset Plan will be prepared in consultation with OEH, prior to construction. OEH fully supports this collaboration, and suggests this commitment be formalised in the conditions of consent, as below. However SoC 21 also states that the Offset Plan will be prepared in accordance with the offset strategy included as Appendix H of the SER. OEH is concerned with the following statements in that strategy "For a number of reasons, we propose not to calculate ratios using the Biometric Assessment Methodology, but rather to set ratios in advance, based on vegetation type, condition and habitat value." and "The proposed ratios below [table 7-3] have been developed based on our experience with the Biobanking calculator in similar vegetation types."

OEH notes that both the BioBanking Assessment methodology and the Property Vegetation Plan developer would 'red-light' the EEC vegetation in good condition, meaning that it could not be cleared. These tools were developed by the then NSW government to remove ambiguity and subjectivity from the assessment process and provide tools that were based on standardised calculations. Accordingly, OEH believes that if a BioBanking assessment was completed for the site, Box-Gum Woodland with an overstorey would generate a 10:1 offset ratio, and Box-Gum Woodland derived grassland would generate a 5:1 offset ratio. OEH would be happy to reconsider this requirement if the proponent or their consultant can demonstrate that the use of the BioBanking methodology in each of these vegetation types would yield a different offset ratio.

The use of comparisons (in the SER) with ratios derived from BioBanking assessments elsewhere is potentially inaccurate, as BioBanking assessments are designed to include site-specific condition of the vegetation. Some of the vegetation at the impact site is assessed to be in moderate-good or good condition.

Conservation Values

OEH seeks clarification of what constitutes the "vegetation of conservation significance" included in the calculations in Table 7-4 (Appendix H, p H-IV of SER). In particular, OEH seeks clarification of the terms: native pasture, BGW pasture, native grassland, BGW (native pasture), BGW (grassland), native dominated grassland and secondary grassland as used in this study – there are several inconsistencies in their use within the SER. For example, BGW derived grassland is referred to numerous times in the text, tables and maps as native pasture, yet in table 2-11 on p28 of the SER (also Table 7-1, Appendix F), native pasture and BGW pasture are listed separately (permanent losses of 68 and 23ha respectively). OEH also seeks clarification of whether the BGW derived grassland EEC is included in the figures in Table 2-13 on p 30, which states that the maximum impact area on BGW EEC vegetation is 37.8ha permanent and 9.3ha temporary loss. OEH requests the use of standard terminology in any further documentation from the proponent.

In the original EA (p 137) the proponent states that native pasture equates to BGW derived grassland EEC. OEH also notes the statement in the original EA (p 137) that EEC status does not necessarily equate to high conservation value. It must be stressed that EEC vegetation is protected by legislation, even in low condition.

OEH notes that the powerline easement has been realigned to avoid site 25 which was mapped as high constraint (Constraints Map 8 of 9). The survey details of the proposed realignment must also be supplied by the proponent, as it appears to pass through the same vegetation type and condition.

Hollow-bearing trees (HBTs)
The offset strategy states that the proposed offset ratios in Table 7-3 "apply only to areas of moderate and low constraint, as all high constraint areas would be excluded from impact (as per SoC 12)".

The SER states: "*Where hollow-bearing trees cannot be avoided, nest boxes would be installed to replace this resource. This measure is considered supplementary to offsets that would also take into account the removal of hollows.*" The original Marilba Hills Biodiversity Assessment (BA) states that HBT and mature paddock trees are in the high constraint class (Table 7-2, page 71). However in the new assessment areas, HBT and mature paddock trees are in the moderate constraint class (Table 2-8 p24 of the SER). This is despite the following survey results in the SER: "*Mature trees with Diameter at Breast height (DBH) greater than 60 centimetres are more prevalent within the new assessment areas than at those surveyed in the original Marilba Biodiversity Assessment. This may be because the majority of the additional development envelope consists of electricity transmission line and these are located across a range of landscape positions, not just focused on ridge lines and hilltops, as for turbines. Generally, one or more HBT was present at most survey sites. At site 19 and 13 (Appendix E.2 Maps 7 and 6; HE06 and HE08), the mean DBH was around 90 centimetres while at site 8 (Appendix E.2 Map 1; HE12) the mean DBH was 80 centimetres. At these sites, trees with hollows bore multiple hollows at a range of sizes.*"

OEH seeks clarification of why the loss of HBTs in the SER was classified as moderate constraint, in comparison to the Marilba Hills BA. OEH considers the removal of HBT to be a significant impact and all measures to avoid impacting upon HBT should be explored.

The offset proposal for mitigating impacts on HBTs has not been stated, despite these findings of large mature paddock trees with multiple hollows. The removal of HBTs is considered a direct loss which requires approximately a 10:1 offset of equally sized trees with comparable hollows, it is not able to be offset by nest boxes.

Threatened species
OEH request that the Biodiversity Management Plan, committed to in SoC 23, be developed in consultation with OEH, and should incorporate the detailed survey requirements listed in OEH's submission to the EA (2010). For example: stag watch surveys of all HBTs with large hollows (equal to or greater than 30cm) that are to be removed; and monitoring surveys of Eastern Bentwing-bat during the maternity period.

The Biodiversity Management Plan should be approved by the Director-General prior to the Offset Plan being developed for Yass Valley Wind Farm, and prior to commencement of construction.

Recommended Conditions of Approval

1. The proponent shall prepare a Biodiversity Management Plan in consultation with OEH, to the satisfaction of the Director-General. The proponent shall submit the Biodiversity Management Plan for approval prior to the preparation of an Offset Plan, and prior to commencement of construction.

2. The proponent shall prepare an Offset Plan, to the satisfaction of the Director-General, to offset losses of and impacts to native vegetation including hollow-bearing trees on the site. The Offset Plan is to be developed in consultation with OEH, Murrumbidgee CMA,

and Yass Valley Council. The proponent shall submit the Offset Plan for approval prior to the commencement of construction.

3. Details of the offset package shall be submitted for the approval of the Director General prior to the commencement of construction. The package shall
   a) Describe how the offset will be guaranteed and monitored in perpetuity.
   b) Ensure that the vegetation communities, hollow-bearing trees and threatened species subject to loss of native vegetation are represented in the offset area
   c) Demonstrate how the offset ratio determined improves or maintains biodiversity values. Recommended offset ratios are included in Table 1.
   d) Include requirements for post-construction review to confirm the extent of clearing was commensurate with and not greater than predicted. If clearing is greater, then the package shall demonstrate how the offset was modified and increased to the value of the actual biodiversity loss.

4. The areas of BGW EEC to be cleared shall be clearly defined. Areas of BGW EEC that are expected to be cleared (in the PPR) and recommended offsets are shown in Table 1.

Table 1 – BGW expected to be cleared and recommended offset

Vegetation Type	Area of loss	Recommended offset ratio*	Recommended offset area*
Box-Gum Woodland	12.6 ha	10:1	126 ha
Box-Gum Woodland (tree-less)	22.96 ha (91ha if native pasture is also BGW EEC)	5:1	114.8 ha (455ha if native pasture is also BGW EEC)
Total	35.56 ha		240.8 ha (581 ha)

*Unless varied in accordance with a BioBanking assessment within each of the vegetation types

Yass Valley Wind Farm – addendum report comments:

OEH has undertaken a review of the report titled "*Proposed Yass Valley Wind Farm Archaeological and Heritage Assessment Addendum – Transmission Line*" (the Addendum report) prepared by New South Wales Archaeology Pty Ltd (dated September 2012) and provides the following comments:

Whilst OEH is generally concerned with proposals to undertake further heritage assessment after Project design is completed, due to the reduced capacity to consider all Aboriginal heritage values up front and thereby allow for appropriate consideration of management measures prior to proposed impacts, OEH notes that the majority of the proposed Project area has been assessed and on the basis of previous survey information it is predicted that the additional turbine ridge would be of low archaeological and heritage significance.

As such, OEH agrees with the recommendations within the Addendum report and supports the conduct of archaeological assessment of any additional areas, including the additional turbine ridge, so as to adequately consider the impacts to all Aboriginal heritage values prior to any construction activities. If any areas of significant Aboriginal objects or archaeological deposits are subsequently located during additional surveys OEH recommends a firm commitment be given to considering all available management measures, such as changing the project layout and avoiding of these significant areas if warranted.

OEH notes the Addendum report recommendations also state that significant Aboriginal objects can occur anywhere in the landscape and, accordingly, they need to be identified and impact mitigation strategies implemented prior to impacts. OEH is therefore concerned as to how any new Aboriginal sites, that may be recorded as a result of any additional surveys required, will be adequately considered and managed within the Project after Project Approval has been issued. As such, OEH recommends clarification of the procedures to be followed be clearly documented in a Cultural Heritage Management Plan for the Project with a commitment made to addressing any management measures that may be recommended as part of the results of the additional surveys.

With regard to Aboriginal community consultation; OEH notes that it appears only the Buru Ngunawal Aboriginal Corporation were involved in the field assessment and consultation for the Addendum report. OEH recommends a copy of the Addendum report be forwarded to the other Aboriginal stakeholders registered for the overall Yass Valley Wind Farm project for their information and comment, if this has not already occurred.

In relation to the broader Yass Valley Wind Farm project, OEH continues to support the incorporation of the recommendations outlined within the report titled "*Proposed Yass Valley Wind Farm Archaeological and Heritage Assessment"* prepared by New South Wales Archaeology Pty Ltd (dated February 2009) as conditions of consent. Specifically, OEH supports the recommendation for the preparation and implementation of a Cultural Heritage Management Plan to document the procedures to be followed for managing impacts to Aboriginal cultural heritage values across the project area.

Toby Philp - Yass Valley Wind Farm

From: <wayne.jones@dpi.nsw.gov.au>
To: <toby.philp@planning.nsw.gov.au>
Date: 6/03/2013 10:36 AM
Subject: Yass Valley Wind Farm

Toby

Comment by Dept of Primary Industries below. Will follow under formal DPI letterhead shortly.

Comment by Agriculture NSW
Agriculture NSW advise no issues in respect to agriculture matters.

For further information please contact Wendy Goodburn, Resource Management Officer (Goulburn office) on 4828 6635 or at wendy.goodburn@industry.nsw.gov.au.

Comment by Fisheries NSW
Fisheries NSW advise no issues in respect to fisheries matters.

For further information please contact Trevor Daly, Fisheries Conservation Manager (Batemans Bay office) on 4478 9103 or at trevor.daly@dpi.nsw.gov.au.

Comment by NSW Office of Water
NSW Office of Water make the following advices and recommended conditions, should the application be approved.
(i) Key changes to water legislation related to this project have taken place since the exhibition of the original Environmental Assessment in 2009. These include:
o Commencement of the Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources
o Commencement of the Water Sharing Plan for the Murrumbidgee Unregulated and Alluvial Water Sources
(ii) The proponent will be required to adhere to the provisions of the above 2 Water Sharing Plans where groundwater or surface water is being taken or intercepted. These plans can be accessed at: http://www.water.nsw.gov.au/Water-management/Water-sharing-plans/Plans-commenced
(iii) Water extracted from Harvestable Rights Dams must be used on the property that the dam is located on. This needs to be considered when confirming any use of existing or new harvestable rights dams.

The NSW Office of Water requests the following conditions be included in any determination issued for the project:

1. The proponent shall prepare a Construction Environmental Management Plan and Operational Water Management Plan in consultation with and to the satisfaction of the NSW Office of Water prior to commencement of activities.
2. The design of waterway crossings for access roads and cable installations, and any associated in-stream works is to be included within the Construction Environmental Management Plan. These designs are to be prepared in accordance with NSW Office of Water *Guidelines for Controlled Activities on Waterfront Land (2012).*
3. If rock anchoring is selected for wind tower foundations, a groundwater assessment is to be undertaken and endorsed prior to construction. The assessment is to assess the risk of impact on existing licensed groundwater users and groundwater dependent ecosystems and provide suitable mitigation measures. Any necessary licensing requirements under the *Water Management Act 2000* will also need to be obtained.

For further information please contact Tim Baker, Planning and Assessment Coordinator (Dubbo office) on 6841 7403, or at: Tim.Baker@water.nsw.gov.au.

Comment by Crown Lands
It is advised that Crown Lands has responded by separate letter direct to your Department.

For further information please contact John Flarrety, Group Leader (Goulburn office) on 4824 3714, or at john.flarrety@lands.nsw.gov.au.

Regards
Wayne

Wayne Jones | Administrative Officer
Department of Primary Industries
Level 6, 201 Elizabeth Street | Sydney NSW 2000
T:02 8289 3933 | F:02 9286 3208| E: wayne.jones@industry.nsw.gov.au

Catchment Management Authority
Murrumbidgee

Objective File Ref: A1357766

Dept. of Planning and Infrastructure
Attn: Neville Osborne
GPO Box 39
Sydney, NSW 2001

Dear Sir,

RE: Preferred Project Report for the Yass Valley Wind Farm (MP08_0246)

Thank you for your letter concerning the Preferred Project Report (PPR) for the Yass Valley Wind Farm dated 7 December 2012.

The Murrumbidgee Catchment Management Authority (CMA) has reviewed the PPR for the Yass Valley Wind Farm, November 2012.

The Murrumbidgee CMA concurs with the PPR that the revised Environmental Assessment will reduce residual impacts of the development on the existing environment.

If you would like to discuss the process further, please don't hesitate to contact Janelle Jenkins in the Wagga office on 02 69323282 or janelle.jenkins@cma.nsw.gov.au.

Yours sincerely

John Francis
General Manager
Murrumbidgee Catchment Management Authority

1 March 2013

Murrumbidgee Catchment Management Authority
Level 1, 43-45 Johnston Street, Wagga Wagga NSW 2650
PO Box 5224, Wagga Wagga, NSW 2650
Tel: 02 6932 3232 Fax: 02 6932 3269 www.murrumbidgee.cma.nsw.gov.

yass valley council

the country the people

Your Reference:
Our Reference: L.02.08.00
Document No:
Contact: Mr D J Rowe
Phone: (02) 6226 1477

Address all correspondence to:
General Manager
Yass Valley Council
PO Box 6
YASS NSW 2582

21 March 2013

Mr Neville Osborne
Manager, Energy Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001

Dear Mr Osborne

I refer to your correspondence, dated 7 December 2012, regarding the Preferred Project Report (PPR) for the Yass Valley Wind Farm. I thank you for the invitation to make a submission on the PPR, including advice on recommended conditions of approval.

In Council's original submission to the Department on the Environmental Assessment of the Yass Valley Wind Farm (22 December 2009), there were three issues which Council considered deficient, namely:

- Traffic and access arrangements;
- Lack of contribution to a Community Enhancement Fund; and,
- Community and Council communication.

While the PPR has considered and responded to the issues raised by submissions on the Yass Valley Wind Farm Environmental Assessment, Yass Valley Council strongly recommends that the Department requires the Proponent to complete a more detailed Traffic Impact Study in consultation with the relevant authorities, including Yass Valley Council, prior to commencement of construction. A more detailed Traffic Impact Study would address the following specific issues:

- Assess the potential impacts of traffic on the road network and as a result, ensure that the condition of the subject roads and road user safety are not compromised.
- Undertake a detailed review of safety on all proposed roads to identify potential hazards along the length of each road.
- Undertake a structural assessment of the existing pavements and where these pavements are found to be substandard, improvement works should be undertaken to bring them up to the required standard. This should be done using scientific investigative techniques and the Austroads Pavement Design Guide to determine an adequate pavement thickness. Council's Road Standards Policy RD-POL-09 (attached) specifies a design traffic loading of $1x10^5$ ESA's for roads with an AADT of 51-200 vehicles per day and this is considered appropriate for these roads given the existing and predicted traffic volumes.
- Review the standard of all unsealed roads planned for use in the proposed development, and upgrade in accordance with RD-POL-09.
- Undertake a structural assessment of all bridges and major drainage structures along the proposed routes to be used for construction. Where the structural capacity of the bridges is found to be inadequate, load limits will be put in place unless the developer is willing to undertake improvement works to increase the capacity of the bridges. Any damage cause by construction traffic to bridges or drainage structures should be repaired by the developer to Council's satisfaction.

- Adequately address the location and standard of the proposed access points off the road network, and comply with the sight distance requirements of Table 3.2 of "Austroads Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections", and be designed and constructed in accordance with the requirements of Austroads Guide to Road Design.
- Review the controls for safety and asset protection impacts. Yass Valley Council recommends that significant improvement works are required as the primary safety and asset protection control measure, with a Traffic Management Plan used to complement these works to further improve safety.

In summary, it is considered that the proposed development will have a detrimental impact on Council's road network. Given that Council is not the consent authority, it is important that these issues are considered and that the developer undertakes all necessary works to ensure that the road network is able to cope with the demands of the increased traffic load and public safety is not compromised.

Council is also of the opinion that it should not be left with a future liability as a result of the proposed development and it is not considered appropriate to merely repair defects that appear during the construction period as this will not address the underlying deterioration of the roads.

Yours sincerely,

David Rowe
General Manager

Encl:

- RD-POL-09 – Road Standards Policy

Title: **ROAD STANDARDS POLICY** **RD-POL-9**

Keywords: Access, Parking, Road Standards, Right of Way, Dual Occupancy, S94.

Service: **ROADS**

Responsible Officer: **ENGINEERING SERVICES MANAGER**

Objective

1. To provide guidelines for minimum design standards of roads, private accesses and car parking facilities;

2. To provide guidelines to be used in assessment of development applications.

Policy

Definitions:

- **Dwelling** - "A room or suite of rooms occupied or used or so constructed or adapted as to be capable of being occupied or used as a separate domicile";
- **Dwelling House** - "A building containing one but not more than one dwelling";
- **Dual Occupancy** - "A building or group of buildings on one allotment of land containing two dwellings";
- **Existing Parcel** - As defined in Council's Environmental Planning Instruments.
- **Regional Roads** Sutton Rd, Gundaroo Rd, Murrumbateman Rd, Yass Valley Way, Burrinjuck Rd, and Wee Jasper Rd.

1. Right of Carriageway (RoW) Access

1.1. RoW's are not a desirable form of access and will not be permitted where subdivision to create new allotments with an entitlement to erect a dwelling house(s) is proposed, irrespective of the type of access arrangements currently servicing the land;

1.2. RoW's will only be considered to allow access from a road maintained by a public authority to a proposed dwelling house on an allotment where that allotment is either:

1.2.1. a vacant "existing parcel" or "land with a dwelling entitlement" currently accessed by a 'ROW';

OR

1.2.2. a vacant allotment lawfully created by subdivision for the purpose of a dwelling house under a previous planning instrument of Council which may be currently accessed by an existing right of way.

Note: Existing RoW's (or part thereof) that are substandard may require upgrading to the minimum standard specified in Clause 1.4, where there is a safety or environmental issue to be addressed.

1.3. RoW's will be allowed for access to a maximum of three dwellings . Where the Row is proposed to access more than three dwellings (or equivalent traffic loading), the RoW shall be upgraded to a public road standard as per Section 6 of this policy.

1.4. Minimum requirements for construction of RoW's shall be as follows:

Table 1.0. – RoW Characteristics

Land Zoning	Maximum No. of Accesses	Min. Dedicated Width (m)	Pavement Width (m)	Min. Pavement Depth (mm)	Drainage Design 1 in .... Years	Design Traffic ESA's
Rural and Rural Residential Note 3	1	7.5	3.5	100 Note 1	5	1×10^3
	2 or 3	8.5	4.5	150 Note 1	5	5×10^3
Urban Note 3, Note 4	1	5.0 Note 2	3.0 Note 2	100 Note 1	5	1×10^3
	2 or 3	6.5	4.5	150 Note 1	5	5×10^3

1 Minimum compacted depth of approved roadbase, designed in accordance with AUSTROADS "Guide to the Design of New Pavements for Light Traffic

2 Where a RoW in an urban area is longer than 30m the minimum dedicated width shall be 6.5m and a sealed passing bay (minimum width 4.5m) shall be provided sufficient to allow two vehicles travelling in opposite directions to pass.

3 Any RoW in an urban or rural-residential environment or where within 300m of a proposed or existing dwelling, or designated building site shall be constructed as follows:
Minimum of 50mm thick gravel base and 100mm thick concrete layer (25 MPA with SL72 mesh), or similar approved all weather pavement.

4 The maximum length of a RoW in an urban area shall be 50m.

1.5. Maintenance of RoW's is the responsibility of the beneficiaries.

2. Battle-Axe Handle Access

2.1. Battle-axe allotments will only be approved in exceptional circumstances where it can be demonstrated that the proposed layout

supports the planning, heritage and environmental objectives of the area;

2.2. Battle-axe handle accesses are not permitted to two adjoining allotments;

2.3. The maximum length of a battle-axe handle is 300 metres in rural or rural residential areas and 50m in urban areas;

2.4. Construction standards for battle axe handles shall be in accordance with table 1.0.

3. Urban Property Access

3.1 All property entrances accessing an urban road or village street shall be constructed to the following minimum specifications from the road pavement to the property boundary:

- *Safe Distance Requirements in accordance with Section 5 of this policy;*
- A Minimum of 3.0 metres wide with maximum trafficable width of 5.0 metres wide at the kerb;
- Minimum of 50mm thick gravel base and 100mm thick concrete layer (25 MPA with SL72 mesh), or similar approved all weather pavement;
- Cut and fill batters within the road verge shall be graded to a maximum of 1 in 8;
- Driveways are to be constructed at least 6m from the tangent point of the kerb at any intersection.
- The grade of the driveway from the kerb or edge of seal to the property boundary shall be +2.5% (ie. 2.5% sloping upwards from the kerb to the property boundary).
- The maximum allowable longitudinal change in grade of any driveway shall be 12%.

NB: Where the above requirements are not practical due to site constraints, alternative proposals may be considered by the Director of Operations.

3.2 Property accesses for corner blocks shall be located on the street with the lowest traffic volumes as determined by Council.

3.3 Driveways should generally be located 1.5 - 2 metres from the southern or western boundary of the block as appropriate. This will ensure any future residence on the block is able to make maximum use of any northerly aspect.

3.4 Details of the proposed garage Finished Floor Level (FFL) and the reduced level of either:

(a) concrete driveway where one already exists;

(b) back of kerb, or

(b) edge of seal where no kerb exists,

shall be provided to Council with all new Development Applications. In addition, where requested by Council, a detailed long section showing levels and longitudinal grades from the centreline of the road to the proposed garage shall be provided by the applicant to ensure that adequate access can be achieved.

3.5 New property accesses in Gundaroo, may be constructed of decomposed granite or other approved material in lieu of sealing to fit with the heritage conservation value of the village.

3.6 New property accesses shall not be constructed over any water service or sewer tie. Where an access is constructed over Councils water, sewer, or stormwater mains a minimum of 450mm cover is required over the main. Clearance to other services shall be by approval of the relevant service authority.

4. Rural Property Access

All property entrances accessing a rural or rural/residential road shall be constructed to the following minimum specifications from the road pavement to the property boundary:

- All property accesses shall be constructed to "Rural Property Access – *with Indented Access*" (see Appendix B) standard in accordance with *Austroads Guide to Road Design – Part 4: Intersections and Crossings General*, and be sealed from the edge of the road to the gate.

- Property accesses onto roads with Average Annual Daily Traffic (AADT) greater than 1000 vehicles per day shall also include a sealed BAR right turn treatment (see Appendix B). A BAR may also be required on Regional roads where specified by the RTA.

- *Site Distance requirements in accordance with Section 5 of this policy.*

- Access points are to be located to achieve Safe Intersection Sight Distance (SISD) in accordance with Austroads standards. Consideration will be given to accepting Approach Site Distance (ASD) on difficult sites subject to additional facilities such as BAR right turn treatment and/or BAL left turn treatments being provided as appropriate.

- Driveways are to be constructed with a minimum thickness of 100 mm. approved compacted gravel. Where the driveway accesses onto a sealed road pavement, then the entrance will also be provided with a two coat bitumen seal or 100mm thick concrete (25 MPA with SL72 mesh), or similar all weather pavement.

- Gate to be set back 15 metres from the edge of pavement on local roads and 20m from edge of pavement on Regional roads;

- Reinforced concrete pipes (minimum of 300 mm diameter) and headwalls are to be installed in the table drain in accordance with AS 3725 Pipe and headwall structures are to be set back a minimum of 2m from the edge of the road formation and be provided with permanent erosion protection upstream and downstream of the culvert. Pipes are to be designed for a minimum of a 1 in 5 year storm event or determined as follows:

Table 2.0. – Minimum Culvert Sizes

Catchment Size	Less than 0.5Ha	Less than 1Ha	Less than 2Ha	Less than 3Ha	3+Ha
Pipe Size	300mm	375mm	450mm	600mm	AR&R 1 in 5 year storm event

- Where a pipe culvert would be unsuitable, due to topography and pipe cover requirements, a reinforced concrete dish drain may be constructed in the table drain with the approval of the Director of Operations. Minimum requirements for the construction of a dish drain are as follows:
  - minimum 150mm thick;
  - 1.5m wide;
  - dish drain to be constructed full width of the driveway, minimum 5 metres in length;
  - 25MPa concrete with SL72 mesh.
  - Permanent erosion protection upstream and downstream of the dish drain.

- The finished surface of any earthworks required for the driveway shall be graded to a maximum of 1 in 4 in cut, and 1 in 2 in fill.

5. Sight Distance for Property Access

The required sight distance will be determined using the Austroads Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections. The following table provides a summary of the most common sight distance requirements:

Road Type/Location	Sight Dist. Category	Normal posted Speed	Sight Distance Required
Residential/Urban Areas	ASD*	50km/h	55m
Rural Residential	ASD*	70km/h	92m
Local Rural Roads	ASD*	100km/h	165m
Regional Roads	SISD#	100km/h	262m
State Roads/Highways	SISD#	100/110km/h	262m/300m

* ASD = Approach Sight Distance in accordance with Table 3.1 of Austroads.

SISD = Safe Intersection Sight Distance in accordance with Table 3.2 of Austroads.

NOTES:

1 Reaction Time, R_T, of 2.5 seconds is to be used in all cases.

2 Consideration will be given to accepting a lower Reaction Time R_T on difficult sites subject to additional facilities such as BAR right turn treatment and/or BAL left turn treatments being provided as appropriate.

3 The Design Speed for the purposes of determining adequate sight distance shall be the lower of either the:

- Posted Speed Limit; or
- The 85th percentile speed of vehicles using the road.

4 Grade correction factors in accordance with Table 3.3 of Austroads may be used as appropriate;

5 Accesses onto Regional or State Roads, or National Highways, may have additional requirements as they are governed by the Roads and Traffic Authority (RTA);

6. Parking for Commercial/Industrial Use

6.1 All parking facilities for commercial and industrial development shall be designed by a qualified engineer to meet the requirements of AusSpec and AS2890. The pavement is to be designed in accordance with the Austroads Pavement Design Guide to the following minimum specification:

- Minimum 150 mm. thick approved compacted gravel;
- two coat bitumen seal of 14/7 mm.

6.2 The number of car parking spaces for all commercial or industrial developments shall be calculated in accordance with the RTA Guide to Traffic Generating Developments.

6.3 All car parking requirements generated by a commercial or industrial development are to be accommodated on the subject site unless a Section 94 plan for parking has been adopted by Council for the locality to which the development application relates.

7. New Roads

7.1. General

7.1.1. New roads shall be deemed to be any public road created by a development;

OR

any existing road that is proposed to be utilised by the development which has not been formally gazetted as a Council Road or has not had any significant road formation constructed;

7.1.2. All new roads that are created or existing roads that are upgraded as a result of development, shall be constructed to the standards specified herein, registered or gazetted as a Council Road and be maintained by Council following Councils acceptance at the completion of the defects liability period (the exception being roads held in Community Title);

7.1.3. Community Title Roads may be created within any development, but must be constructed to the standards applicable if it were to be created as a Council Road;

7.2. Rural Roads

All rural roads and rural/residential roads shall be constructed in accordance with the following table:

Table 3.0. – Rural Road Standards

Category	Local Road HEIRACHY	AADT[1]	Design Traffic ESA's [2]	Pavement Width (m) [3]	Seal Width (m)[6]	Road Reserve Width (m)	Drainage Design 1 in ... [6]	Design Speed (km/h)
ACCESS [7]	4	<50	5×10^4	5.5[4]	See Note 5	20	5/20	See Note 11
LOCAL - Minor	3	51-200	1×10^5	7	6	20	5/20	See Note 11
LOCAL- Secondary	2	201-500	2×10^5	8	6.5	25	20/50	80
LOCAL – Primary	1	501-1,000	5×10^5	9	7	25	20/50	80
REGIONAL	-	1,001-2,000	1×10^6	10[9]	8	30	20/50	100
STATE	-	>2,000	2×10^6	11	9	30	20/50	100

NOTES:

1 AADT – average annual daily traffic.

2 ESA – equivalent standard axle.

3 Pavement – shall be designed in accordance with Austroads Pavement Design Guide. Minimum depth of approved roadbase shall be 150mm. and constructed in accordance with AusSpec;

4 Minimum pavement width 6.0m in rural residential, and village zones.

5 To be sealed for the full width of the pavement if located in:
- rural/residential zone;
- village zone;
- Murrumbateman Precinct as defined by the Section 94 Plan.

6 5/20 – design shall cater for a 1 in 5 year flow beneath the road and a 1 in 20 year trafficable flow;
20/50 – design shall cater for a 1 in 20 year flow beneath the road and 1 in 50 year trafficable flow.
All bridges or major structures shall be designed to pass 1 in 100 year flow beneath the structure.

7 Minimum seal requirements shall be a two coat bitumen seal (14 mm/7 mm.).

[8] Minimum standard of road "Access" category (previously know as a 'Category 1' road).

[9] Width may be reduced for reconstruction of existing regional roads where there are significant site constraints subject to the approval of the Director of Operations.

[10] Road reserve width may need to be increased to provide adequate space between road batters and the property boundary to allow for catch drains, service trenches, vegetation etc.

[11] Village roads = 50km/h design speed
Rural residential roads = 70km/h design speed
Rural roads = 80km/h design speed

7.3. Village Roads

7.3.1. All new roads are to be sealed;

7.3.2. Standards applicable shall be as per Table 3.0. unless it is deemed that kerb and gutter is appropriate to the development, hence Table 4.0. shall apply;

7.3.3. Roads within the 1(e) Rural Village Zone at Binalong shall be unsealed.

7.4. Urban Roads

New streets shall be created in accordance with the following table:

Table 4.0. – Urban Road Standards

Type	Width (m) [1]	Kerb Type	Road Reserve Width (m) [6]	Design Traffic ESA [2]	Design Speed (km/h)
Cul-de-Sac[4,5]	7	Layback	16	1×10^5	50
Local	9	Layback	18	2×10^5	50
Collector	11	Upright	20	1×10^6	50

NOTES:

[1] Width of roads are to be measured between the nominal kerb lines; in accordance with Councils standard Kerb and Gutter Drawing – Appendix A.

[2] Pavement shall be designed in accordance with AusSpec. Minimum depth of approved gravel is 200 mm.;

[3] All roads shall be sealed with a two coat bitumen seal (14 mm/7 mm.), or approved asphalt wearing course;

[4] Cul-de-sac head to have a 12m radius from the nominal kerb line;

[5] Alternatives to cul-de-sac treatments will be considered where the length of road is less than 50m;

6 Minimum road reserve width may have to be increased to allow for planned services/facilities in the particular subdivision.

7 All cul-de-sac heads are to be provided with an asphaltic concrete wearing surface. Minimum standard 40 mm thick AC14.

8 The maximum length of any cul-de-sac shall be 100m.

8. Contribution to Existing Road Network

8.1. Section 94 Contributions

Contributions to the existing road network shall be levied in accordance with the Section 94 Plan for that zone.

8.2. Murrumbateman Precinct

8.2.1. Where an existing sub-standard road abuts the proposed subdivision/development, the existing road shall be brought up to the required standard as detailed in Table 2.0.

This clause is additional to the requirements of Clause 7.1.

8.2.2. For the purposes of this policy, development assessment for roads in the former areas of Gunning and Yarrowlumla Shire be applied as if located in the Murrumbateman Precinct as defined by the Yass Valley Council Rural Roads Section 94 plan.

9. Subdivision on Substandard Roads

A road is considered substandard where it does not meet the minimum road width requirement of 5.5m and/or has significant deficiencies in terms of horizontal or vertical alignment. Substandard roads will be determined in accordance with Council Procedure RD-OP-04 – Substandard Road Assessment.

Substandard roads will be required to be upgraded to the standards specified in Section 7 at full cost to the developer where a subdivision is proposed on the road.

Proposed two lot subdivisions (ie. Creation of one additional lot) will be exempt from the requirement to upgrade a substandard road provided the following requirements are met:

(i) The land owner or a company part or fully owned by the land owner has not undertaken previous subdivision of the holding in question after the date of adoption of Councils Rural Roads Section 94 Contributions Plan (26 July 2000).

For the purposes of this clause a holding is considered to be one or more parcels of land in the one ownership which have frontage or access to the same road.

(ii) Specific safety improvement works are to be undertaken at the direction of Council where it is considered that additional traffic generated by the development would have an adverse effect on safety.

Exemption from the requirement to upgrade a substandard road does not entitle the developer to exemption from other charges applicable to the development under Councils Section 94 contributions plans.

10. Legal & Practical Access

Each separate property shall have legal and physical access as required by the Environmental Planning & Assessment Act 1979.

This legal and physical access shall be coincident, that is, the physical access must be located within the boundaries of the defined legal access.

11. Dual Occupancy

Demand for service on an access is created by the number of vehicles that utilise the access.

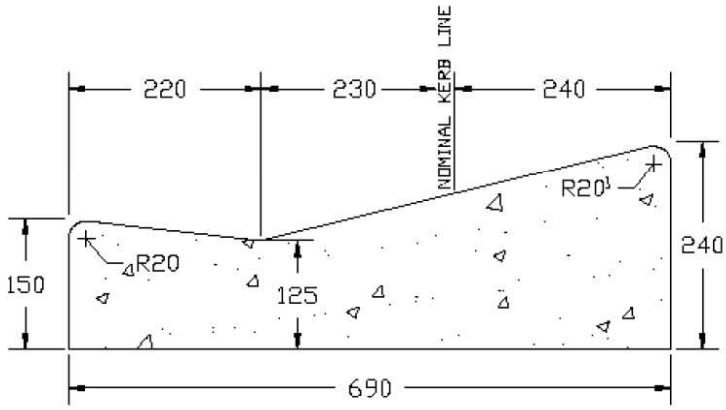
Road Standards and developer contributions for upgrading the road network are applied with respect to demand. The base unit of demand is a single dwelling.

Any dual occupancy is therefore considered to create the same demands for access as an additional allotment with entitlement to erect a dwelling house. In practical terms, this means that dual occupancies are assessed similarly to subdivisions.

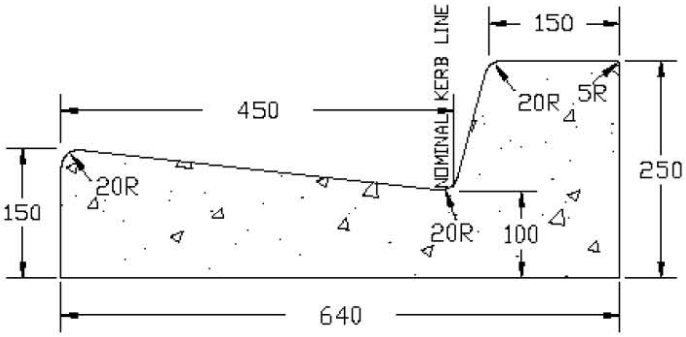
Dual occupancies where practicable are to be serviced by one common access to Councils road network.

Appendix A

yass valley council
the country the people



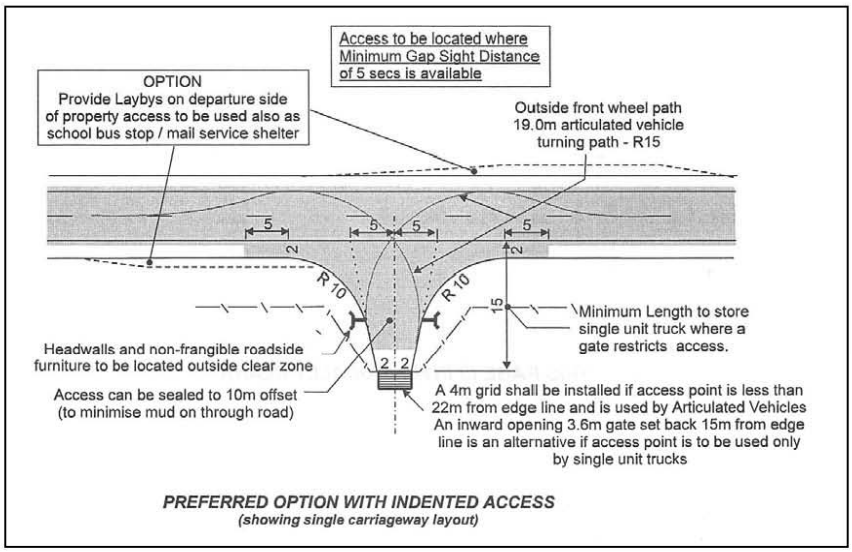
LAYBACK KERB



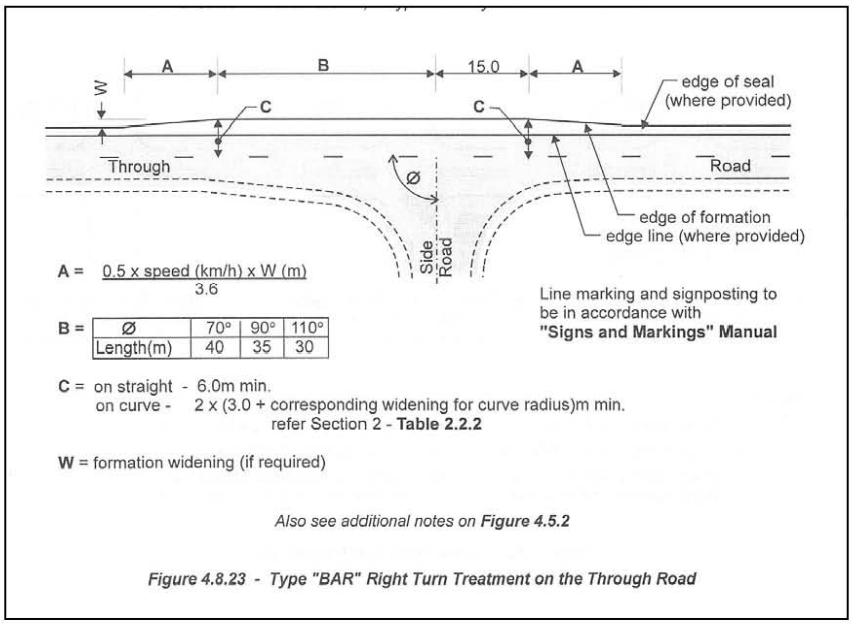
UPRIGHT KERB AND GUTTER

DATE	DRAWN	APPROVED	DRAWING No.	SCALE
20/1/2010	DTF	COUNCIL RD-POL-9	2005-015	N.T.S

Appendix B



RTA Rural Property Access – Layout 2(SU)



BAR Right Turn Treatment

Other Relevant Policies/Procedures

Previously known as Policy R.5.
Environmental Planning & Assessment Act 1979
Yass Local Environmental Plan 1987
Yarrowlumla LEP 2002
Gunning LEP 1997

History

Minute No	*Date of Issue*	*Action*	*Author*	*Checked By*
370	*27 August 2008*	*Confirmed*		*Council Meeting*
	7 July 2010	*Amended*	*Simon Cassidy*	*EMT*
254	*14 July 2010*	*Reviewed*		*Special Plannng Committee Meeting*
479	*24 November 2010*	*Adopted*		*Council Meeting*
	13 April 2011	*Reviewed*		*EMT*
126	*27 April 2011*	*Reviewed*		*Council Meeting*
241	*13 July 2011*	*Adopted*		*Special Planning Committee Meeting*