

**JOINT REGIONAL PLANNING PANEL
(Southern Region)**

JRPP No	2016STH006
DA Number	DA 7/2016
Local Government Area	Upper Lachlan Shire
Proposed Development	Use of land, erection of buildings and carrying out of works for the purpose of electricity generating works (solar farm)
Street Address	131, 250 & 280 Storriers Lane, Bannister
Applicant/Owner	John Titchen, Gullen Solar Pty Ltd / Goulburn Land Pty Ltd and Mr K & Mrs E J Ikin
Number of Submissions	Three
Regional Development Criteria (Schedule 4A of the Act)	Private infrastructure and community facilities over \$5 million
List of All Relevant s79C(1)(a) Matters	<ul style="list-style-type: none"> • SEPP 55—Remediation of Land • SEPP (Infrastructure) 2007 • SEPP (Rural Lands) 2008 • SEPP (State and Regional Development) 2011 • SEPP (Sydney Drinking Water Catchment) 2011 • Upper Lachlan LEP 2010 • Upper Lachlan DCP 2010 • EP&A Reg clause 92 (1) (b) • EP&A Reg clause 93
List all documents submitted with this report for the panel's consideration	<ul style="list-style-type: none"> • ULSC Works & Operations Department advice and requirements (Attachment 1 to report) • Water NSW concurrence advice (Attachment 2 to report) • NSW Office of Environment & Heritage advice (Attachment 3 to report) • Recommended conditions of consent (Attachment 4 to report).
Recommendation	That the Joint Regional Planning Panel determine the application by granting consent, subject to recommended conditions listed in Attachment 4 to the assessment report.
Report by	Roland Wong, Manager of Environment & Planning, Upper Lachlan Shire Council
Report date	9 June 2016

79C assessment

DA: 7/2016	Proposal: Use of land, erection of buildings and carrying out of works for the purpose of electricity generating works (solar farm).
Lot/Sec/DP: Lot 1 DP1196222, Lot 100 DP1026064 and Lot 2 DP1168750.	Property: 131, 250 & 280 Storriers Lane, Bannister.
Site Inspection Date: 22 March 2016.	Assessing Officer: Roland Wong.

Background

On 12 April 2016, the Southern Joint Regional Planning Panel (the JRPP) considered a report detailing assessment of the subject application. The report recommended determination by granting consent, subject to conditions including several designed to overcome shortfalls in the information accompanying the application.

The JRPP resolved to defer the application's determination pending the applicant's submission of additional information. On 16 May 2016, the applicant supplied Council with additional and revised information, which Council forwarded to the JRPP Secretariat on 25 May 2016.

Proposed development

The application proposes a "solar farm project...using solar panels and power conversion components". It indicates, "...electricity generated will be exported to the grid using the existing Gullen Range wind farm substation", with 33kV cables to connect the solar farm to the substation. Accompanying information indicates the proposed development layout (see Figure 1), and indicates the proposed development's main components include:

- Solar panel arrays including up to 42,500 solar panels
- Four power conversion blocks (inverters, transformers, switchgear and fans)
- A storage building
- A water storage tank
- Perimeter security fencing
- Access roads
- Underground cabling.

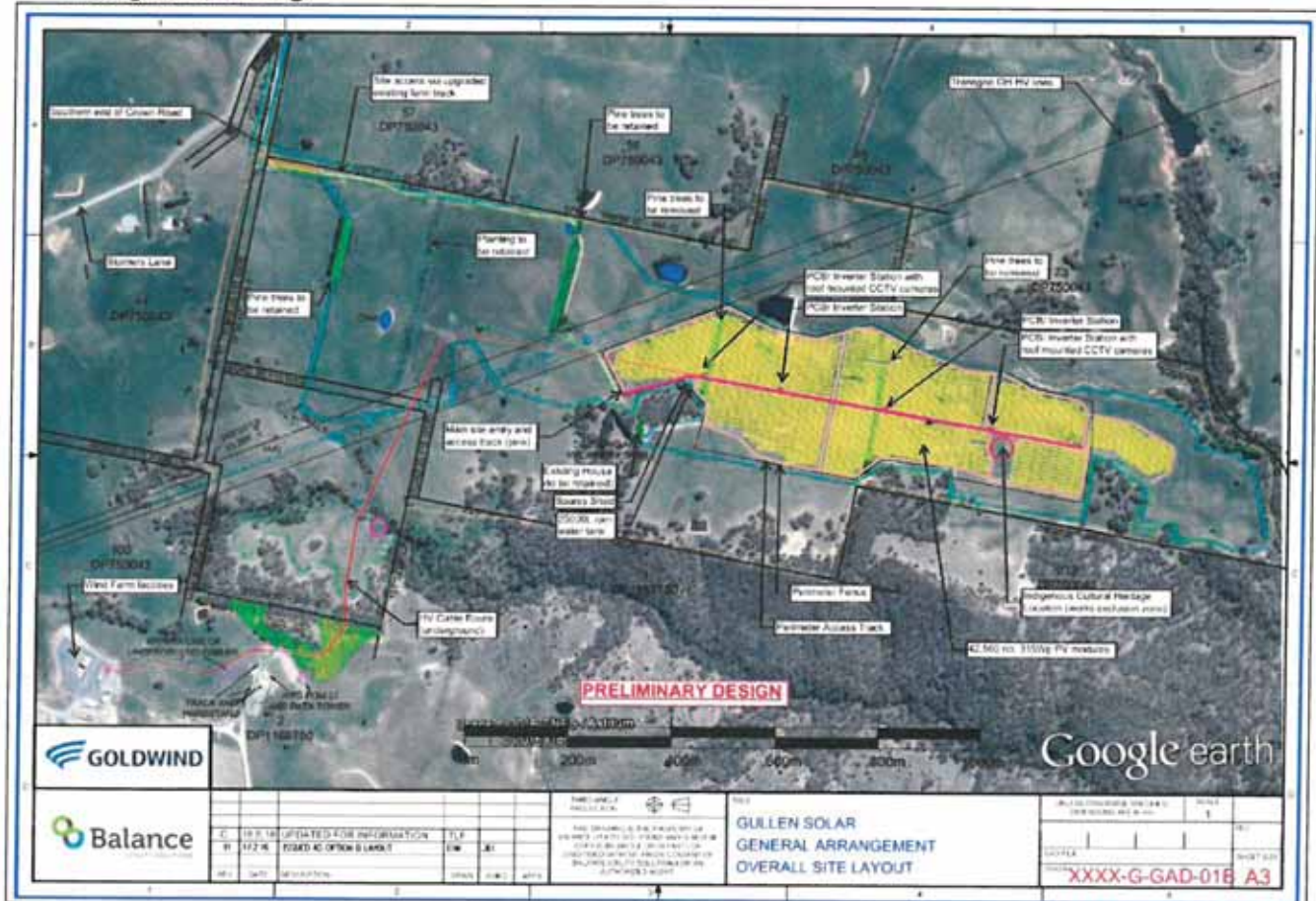


Figure 1: Proposed development layout.

Accompanying information indicates the proposed layout is, “one of several options...variations are still possible...” and “some adjustments may still be needed...to achieve a practical, viable and compliant layout”. A recommended consent condition requires consistency with stamped consent drawings.

It is proposed to upgrade and maintain part of Storriers Lane throughout construction of the development. It is also proposed to upgrade, maintain and eventually acquire an access road within an unformed Crown road reserve between Storriers Lane and the development. Recommended consent conditions specify Council’s Works and Operations Department’s requirements regarding upgrade and maintenance of both Storriers Lane and the Crown road.

The development also includes upgrade and maintenance of an existing private access track in Lot 100 DP1026064, linking Storriers Lane to the existing wind farm substation.

Accompanying information indicates an existing dwelling house on Lot 1 DP1196222 is currently unoccupied, but suggests the dwelling house may be used for office or residential purposes during construction of the development. Use of the building for office purposes would constitute a change of building use under the Building Code of Australia. In the absence of accompanying details of the building’s prospective use for office purposes, a recommended consent condition specifies the consent does not permit operation of the development to involve ongoing use of the dwelling house for the purpose of office premises, except where identified by an environmental planning instrument as development permitted without consent or exempt development.

Proposed construction times are 7:00am-6:00pm on weekdays and 8:00am-1:00pm on Saturdays. A recommended consent condition restricts times within which construction activities and associated vehicular deliveries are permitted.

The development’s anticipated operational lifespan is 25 years. A recommended consent condition specifies that the land shall be restored as far as practicable to its pre-development condition within one year of the development being decommissioned.

Site inspection

The land, outlined in Figure 2, is a 247.63ha parcel of three rural lots around 17km south of Crookwell.

Lot 2 DP1168750 (82.17ha) is vehicle accessible from Storriers Lane via Lot 100 DP1026064 (52.66ha). It is unclear whether any formal instrument or mechanism is in place to legally facilitate this access arrangement; a recommended consent condition therefore requires evidence of appropriate arrangements having been made for lawful access.

Lot 1 DP1196222 (112.8ha) is vehicle accessible from Storriers Lane via a Crown road between Lots 44 and 57 DP750043, immediately to the northwest. The proposed development would principally be located on this lot, but its operation would rely on linkage to an existing electricity substation on the adjoining Lot 2 DP1168750. Given this reliance, a recommended consent condition requires the proponent to either consolidate Lot 1 DP1196222 and Lot 2 DP1168750, or create an easement or easements over Lot 2 DP1168750 as necessary to accommodate infrastructure between the proposed solar farm and the existing substation.

The land has undulating topography with gentle to moderate slopes, and includes intermittent watercourses. Vegetation on the land consists mainly of grazed pastures, interspersed with individual and clustered native and exotic trees.

Much of the land appears historically and currently used for extensive agriculture. However, Lot 100 DP1026064 and Lot 2 DP1168750 are also occupied by buildings and works associated with the Gullen Range wind farm development, including wind turbines and a substation. Lot 1 DP1196222 is also occupied by a dwelling house.

Surrounding land appears to be used mainly for extensive agriculture, with scattered dwelling houses.



Figure 2: The subject land (outlined in red), consisting of three lots (delineated in green).

Site history

Most significantly, on 26 June 2009 the Minister for Planning granted project approval 07_0118 for construction and operation of a wind farm involving Lot 100 DP1026164, Lot 2 DP1168750 and many other lots in the broader locality, but excluding Lot 1 DP1196222. Notable conditions include:

- Conditions 1.9 and 1.10, specifying requirements relating to decommissioning the development and/or components thereof
- Condition 2.49, specifying requirements for a road dilapidation report before and after construction, decommissioning and associated materials transportation are carried out
- Condition 2.53, requiring the proponent to upgrade all site access roads for temporary use by heavy vehicles.

Some recommended conditions of consent for the subject proposed development essentially replicate conditions of approval 07_0118.

Referrals

	Date Sent	Date Received	Comments
Internal			
Roads & access (Council's Works & Operations Department)	8 February 2016	22 March 2016	E-mail message of 22 March 2016 from Council's Director of Works and Operations (Attachment 1) specifies advice and requirements, conveyed by recommended consent conditions.
External			
Water NSW (WNSW)	25 May 2016	26 May 2016	Letter of 26 May 2016 from WNSW confirms concurrence (Attachment 2), subject to conditions.
Office of Environment & Heritage (OEH)	25 May 2016	30 May 2016	Letters of 23 March and 30 May 2016 from OEH advise general terms of approval (Attachment 3), recommended to be included as consent conditions.

Notification

Council notified the applicant's additional and revised information of 16 May 2016 to those who made submissions in response to notification of the original application. No submissions were received in response.

Advertisement and notification of the original application drew three submissions. Issues raised are identified and addressed below, in no particular order.

- Issue 1: Cumulative impact

Two submissions raised concern over the proposed development's potential cumulative impact, e.g. additional to that of the adjacent wind farm development, particularly in terms of visual and operational noise impacts.

The existing wind farm development is visually prominent from considerable distances in all directions, due to the heights of its turbine structures and the total land area it occupies. The proposed development would occupy a smaller, more concentrated area than the wind farm, principally within Lot 1 DP1196222, and would utilise the wind farm's existing electricity substation. Information accompanying the application indicates proposed solar panels and supporting structures would have the greatest height of any component of the development, at a maximum 4.0m. Accordingly, a recommended consent condition restricts the maximum height of any structure in the development to 4.0m. A further recommended consent condition requires tree planting immediately outside the proposed perimeter fence to screen the development and soften its visual impact. Provided recommended consent conditions are complied with, the proposed development is not expected to have a significant negative visual impact additional to, and compared with, the nearby wind farm.

Information accompanying the application indicates expected combined operational noise impacts from the proposed development and the existing wind farm are below amenity noise criteria specified by the *NSW Industrial Noise Policy*, published by the NSW Environment Protection Authority in January 2000.

- Issue 2: Rural land use conflict and incompatibility of development in locality

Each submission suggests the proposed development is inconsistent with the rural character and amenity of the locality, with one submission further suggesting noise generated during construction will cause agricultural productivity on adjoining land to be compromised.

The locality is mainly characterised by productive agricultural land uses, aside from the existing Gullen Range wind farm development. Whilst the proposed development is not for a rural or related purpose, its net economic and environmental productivity and viability are considered likely to equal, and perhaps exceed, those resulting from use of the land for extensive agriculture. In this regard, the proposed development's operation is thus expected to have a positive net impact in the locality and broader region, without significantly compromising the viability of surrounding land for agricultural and related purposes. Furthermore, provided the development is sensitively decommissioned at the end of its lifespan (in accordance with recommended consent conditions), it is envisaged that productive agricultural use of the land may be resumed.

The above aside, the proposed development is considered to have potential to compromise agricultural productivity on adjoining properties through noise emissions during the construction period, which accompanying information suggests will be six months. One submission suggests, "The noise impacts in particular will have significant impact on the grazing and behaviour patterns of livestock. While stock may become accustomed to repetitive noise, they will tend to avoid it. This will increase grazing pressure on parts of paddocks least impacted by noise, which in turn will exacerbate internal parasite and production issues. Pregnant ewes will be restricted in their instinctive movement away from the mob for a quiet sheltered place to give birth with expected impact on lamb survival". This potential impact may be reduced through a recommended consent condition specifying that at least one month before any work in the development commences, and every month thereafter until all works have been completed, the developer shall notify the owner of each adjoining property of its intended detailed work schedule through to completion of works, with each monthly notification clearly identifying any changes made to the preceding work schedule. This will provide adjoining farmers and graziers with ongoing updates as to the progress of works, as well as notice of upcoming works that might affect their agricultural practices, allowing them to take proactive farm/livestock management measures to minimise or reduce impact on their own productivity.

- Issue 3: Noise impact

Two submissions express concern over potential noise emissions in the proposed development's construction and operation.

- *Construction noise*

A recommended consent condition specifies that work in the development, and associated vehicular movements, shall be restricted to:

- 7:00am-6:00pm from Mondays to Fridays,
 - 8:00am-1:00pm on Saturdays,

and no work or associated vehicular movements shall be carried out on Sundays or public holidays.

Information accompanying the application includes recommendations to help ensure all feasible and reasonable mitigation measures are applied. Accordingly, recommended consent conditions specify:

- All work in the development shall be carried out in compliance with Australian Standard AS 2436-2010 "Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites"
 - All personnel involved in carrying out of works in the development shall be thoroughly briefed to create awareness of the conditions of consent relating to noise emissions, the locality of sensitive receivers and the importance of minimising noise emissions
 - All mobile plant used in carrying out of works in the development shall be fitted with residential grade mufflers, where applicable.

- *Operational noise*

It is considered appropriate to focus on the potential operational noise impacts of the proposed development in combination with those of the nearby Gullen Range wind farm, i.e. the potential cumulative operational noise impacts of the two. Information accompanying the application indicates the expected combined operational noise impacts are below amenity noise criteria specified by the *NSW Industrial Noise Policy*. A recommended consent condition prohibits emission of offensive noise in the development's construction and operation.

- Issue 4: Visual impact

Two submissions express concern over the proposed development's potential visual impact.

It is considered appropriate to consider the proposed development's likely visual impact in the context of nearby development, including the existing Gullen Range wind farm. The existing wind farm development is visually prominent from considerable distances in all directions, due to the heights of its turbine structures and the total land area it occupies. The proposed development would occupy a smaller, more concentrated area, and would utilise the wind farm's existing electricity substation. Information accompanying the application indicates proposed solar panels and supporting structures would have the greatest height of any component of the development, at a maximum 4.0m; a recommended consent condition correspondingly restricts the height of any structure in the development. A further recommended consent condition requires tree planting to be carried out on the land to screen the development and soften its visual impact. Provided recommended consent conditions are complied with, the proposed development is not expected to have a significant negative visual impact additional to, and compared with, the nearby wind farm.

- Issue 5: Veracity of information accompanying the application

Two submissions suggest the information accompanying the application does not provide an adequate basis for determination. This issue is considered to have been addressed by the applicant's submission on 16 May 2016 of additional and revised information.

- Issue 6: Tree removal

Two submissions express concern over proposed tree removal. Provided recommended consent conditions are complied with – including general terms of approval specified by the NSW Office of Environment & Heritage – the proposed development is not expected to have a significant negative impact in terms of vegetation removal.

- Issue 7: Loss of productive agricultural land

One submission expresses concern that the proposed development “will result in the loss of productive rural land”.

The proposed development will occupy historically and currently viable agricultural land. However, provided recommended consent conditions are complied with, it is considered an economically feasible use of the land, unlikely to significantly compromise viability of surrounding land for agricultural and related purposes. Furthermore, provided the development is sensitively decommissioned at the end of its lifespan (in accordance with recommended consent conditions), it is envisaged productive agricultural use of the land may be resumed.

- Issue 8: Flood hazard

One submission suggests part of the development will affect and/or be affected by floodwater inundation.

The submission refers to the original proposed development possibly involving a watercourse crossing for internal access purposes. It asserts that during flood events, the watercourse is subject to inundation by fast-flowing flood waters to a depth of 3.0m.

Additional and revised information supplied by the applicant excludes any proposed watercourse crossing, thereby eliminating the issue of flood hazard.

- Issue 9: Potential watercourse disturbance

One submission suggests the development has potential to disturb a waterway.

Compliance with consent conditions recommended by Water NSW is expected to minimise the proposed development’s impacts on waterways in order to ensure a neutral or beneficial effect on water quality.

- Issue 10: Airborne dust

One submission expresses concern over potential for road traffic to and from the proposed development, including during its construction, to generate airborne dust.

Recommended consent conditions specify requirements of Council’s Works and Operations Department regarding the upgrade and maintenance of both Storriers Lane and a Crown road giving access to the proposed development, including requirements for road sealing where warranted to reduce generation of airborne dust by vehicular traffic movements to and from the development during construction and operation. A further recommended consent condition requires measures to contain airborne dust within the subject land throughout the development’s construction.

- Issue 11: Roads & traffic

One submission suggests existing road facilities providing access to the proposed development lack capacity for likely traffic flows during the proposed development’s construction and operation.

Recommended consent conditions specify the requirements of Council’s Works and Operations Department with regard to the upgrade and maintenance of both Storriers Lane and a Crown road giving access to the proposed development. Compliance with those conditions is expected to ensure the roads concerned have sufficient traffic capacity to cope with demands generated in the proposed development’s construction and operation.

- Issue 12: Waste management and disposal

One submission questions how waste generated in the proposed development’s construction, including removed trees and used fencing materials as well as effluent, will be managed and disposed of.

A recommended consent condition specifies that all wastes generated in the construction and operation of the development shall be lawfully disposed of at a suitably authorised waste processing/disposal facility. A recommended standard consent condition also specifies that no work in the development shall commence unless provision has been made for temporary toilet accommodation on the site of the work. Finally, a recommended consent condition specifies that the consent is granted on the basis that the development, in operation, will be

served by the existing system(s) of sewage management associated with the wind farm development the subject of project approval 07_0118.

- Issue 13: Bush fire hazard

One submission expresses concern over the lack of a bush fire management plan relating to the proposed development, suggesting the proposed development, by its nature, is a potential fire source.

As discussed below, compliance with recommended consent conditions is expected to ensure the proposed development will conform to the specifications and requirements of the NSW Rural Fire Service document, *Planning for Bush Fire Protection*. Recommended consent conditions include a requirement to provide an emergency/evacuation plan, consistent with the RFS Guidelines for the *Preparation of Emergency/Evacuation Plan*, to the local Bush Fire Management Committee.

Desk Top Assessment

Environmental Planning and Assessment Act 1979 (the Act) section 79BA—Consultation and development consent—certain bush fire prone land

Parts of the subject land and proposed development area, including access routes, are mapped as bush fire prone land.

The proposed development is not for a *special fire protection purpose* as defined by the Rural Fires Act 1997; nor is it *infill development* as defined by the NSW Rural Fire Service (RFS) document, *Planning for Bush Fire Protection* (PBP). It is therefore “other” development as described by PBP.

Section 4.3.6 of PBP specifies that “other” development should include an appropriate combination of bush fire protection measures, with evidence that the intent of each measure (with reference to relevant Tables in sections 4.1.3 and 4.2.7 of PBP) is satisfied.

Recommended conditions of consent specify as follows:

- To provide safe access to/from the public road system for firefighters providing property protection during a bush fire, and for any occupants faced with evacuation, all internal access roads in the development shall:
 - be trafficable by a two-wheel drive vehicle in all weather
 - have a minimum carriageway width of 4.0m
 - have a minimum vertical clearance of 4.0m to any overhanging obstructions, including tree branches
 - be designed to accommodate a vehicle turning circle with a minimum 12.0m outer radius
 - have a crossfall not exceeding 10 degrees
 - have grades not exceeding 15 degrees for sealed roads, or 10 degrees for unsealed roads
 - have capacity to carry fully-loaded fire fighting vehicles (15 tonnes).
- To provide suitable emergency and evacuation/relocation arrangements for occupants of the development, the development shall not commence operation unless an emergency/evacuation plan, consistent with the RFS Guidelines for the *Preparation of Emergency/Evacuation Plan*, has been prepared and a copy provided to the local Bush Fire Management Committee for their information.

Provided recommended consent conditions are complied with, the proposed development is expected to conform to the relevant specifications and requirements of section 4.3.6 of PBP, on which basis it is considered satisfactory with respect to section 79BA (1) (a) of the Act.

Provisions prescribed by EP&A Regulations	Clause 92 (AS2601) - Demolition of Structures	A recommended consent condition specifies that demolition work involved in decommissioning the development, or any component thereof, shall be carried out in compliance with the relevant provisions of Australian Standard AS2601—2001 The demolition of structures.
	Clause 93 Fire Safety Considerations (Change of use of an existing building):	As discussed earlier, information accompanying the application indicates an existing unoccupied dwelling house may be used for office purposes. Noting this would constitute a change of building

		use, and in the absence of details of the building's prospective use for office purposes, a recommended consent condition specifies the consent does not permit use of the existing dwelling house for office purposes not identified by an environmental planning instrument as development permitted without consent or exempt development.
	Clause 94 Fire Safety Considerations (rebuilding, altering, enlarging or extending existing building(s)):	N/A
79c 1(a) any environmental planning instrument:	<p><u>State environmental planning policies (SEPPs)</u></p> <p>Provided recommended consent conditions are complied with, the proposed development is considered satisfactory with respect to the relevant provisions of applicable SEPPs, including:</p> <ul style="list-style-type: none"> • SEPP 55—Remediation of Land <ul style="list-style-type: none"> ○ Clause 7—Contamination and remediation to be considered in determining development application • SEPP (Infrastructure) 2007 ("the Infrastructure SEPP") <ul style="list-style-type: none"> ○ Clause 34—Development permitted with consent ○ Clause 45—Determination of development applications—other development • SEPP (Rural Lands) 2008 ("the Rural Lands SEPP") <ul style="list-style-type: none"> ○ Clause 2—Aims of Policy ○ Clause 7—Rural Planning Principles • SEPP (State and Regional Development) 2011 <ul style="list-style-type: none"> ○ Part 4—Regional development • SEPP (Sydney Drinking Water Catchment) 2011 ("the Catchment SEPP") <ul style="list-style-type: none"> ○ Clause 3—Aims of Policy ○ Clause 9—Recommended practices and performance standards of Water NSW ○ Clause 10—Development consent cannot be granted unless neutral or beneficial effect on water quality ○ Clause 11— Development that needs concurrence of Regulatory Authority. <p>Clause 34 (1) and (7) of the Infrastructure SEPP effectively specifies the proposed development is permissible with consent.</p> <p>With respect to clause 45 of the Infrastructure SEPP, an easement for electricity purposes traverses Lot 1 DP1196222 and Lot 100 DP1026064. A recommended consent condition specifies the consent does not permit erection, installation or carrying out of any above ground building, structure or work within the electricity easement.</p> <p>With respect to the Rural Lands SEPP, the proposed development is not for a rural or related purpose. However, its economic productivity and viability are considered likely to equal, and perhaps exceed, those of any likely use of the land for extensive agriculture. Provided recommended consent conditions are complied with, the proposed development's operation is thus expected to have a positive net economic impact, without significantly compromising the viability of surrounding land for agricultural and related purposes. Furthermore, provided the development is sensitively decommissioned at the end of its lifespan (in accordance with recommended consent conditions), it is envisaged that productive agricultural use of the land may be resumed.</p> <p>With respect to the Catchment SEPP, Council referred the application to Water NSW with a request for its concurrence to favourably determine the application. Water NSW granted its concurrence, subject to conditions recommended to be included on</p>	

any consent for the development.

Upper Lachlan Local Environmental Plan 2010 (the LEP)

Provided recommended consent conditions are complied with, the proposed development is considered satisfactory with respect to the relevant provisions of the LEP, including:

- Clause 1.2—Aims of Plan
- Clause 1.4—Definitions
- Clause 2.3—Zone objectives and Land Use Table
- Clause 5.9—Preservation of trees or vegetation
- Clause 5.10—Heritage conservation
- Clause 6.2—Biodiversity
- Clause 6.3—Land
- Clause 6.5—Earthworks
- Clause 6.9—Essential services.

In terms of the definitions specified under clause 1.4, the proposed development involves use of land, erection of buildings and carrying out of works for the purpose of *electricity generating works*.

With respect to clause 2.3, each of Lot 1 DP1196222 and Lot 100 DP1026064 is located partly in Zone RU1 Primary Production and partly in Zone RU2 Rural Landscape. Lot 2 DP1168750 is located entirely within Zone RU2. With regard to the RU1 and RU2 zone objectives, the proposed development is not for, or directly related to, primary industry production. However, its economic productivity and viability are considered likely to equal, and perhaps exceed, those of any likely use of the land for extensive agriculture, and it is envisaged that productive agricultural use of the land may be resumed if and when the development is decommissioned in accordance with recommended consent conditions. Sensitive decommissioning is also expected to minimise the development's permanent visual impact on the agricultural landscape character in the locality. Furthermore, provided recommended consent conditions are complied with, the development is not expected to compromise agricultural viability of surrounding land during operation. On balance, provided recommended consent conditions are complied with, the proposed development is considered satisfactory with respect to the RU1 and RU2 zone objectives. Development for the purpose of *electricity generating works* is permitted with consent in both zones.

With respect to clause 5.9, a recommended consent condition specifies the consent does not permit any vegetation removal other than (a) indicated on consent drawings or in information accompanying the development application, (b) provided for by conditions of consent or (c) identified by an environmental planning instrument as development permitted without consent or exempt development.

With respect to clause 5.10, information accompanying the application indicates the proposed development has potential to impact on numerous Aboriginal objects on the land. Consequently, the development is integrated development, requiring grant of an Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974. The application was accordingly referred to the NSW Office of Environment & Heritage, which responded with its general terms of approval. These are included in recommended consent conditions.

With respect to clause 6.5, a recommended consent condition specifies the consent does not permit any earthworks not (a) indicated on consent drawings and/or in the information accompanying the development application, (b) provided for by conditions of consent or (c) identified by an environmental planning instrument as development permitted without consent or exempt development.

With respect to clause 6.9 (c), a recommended consent condition specifies firstly that the consent is granted on the basis that the development will be serviced by the existing system(s) of sewage management associated with the wind farm development the subject of project approval 07_0118, and secondly that the consent does not permit any work to be carried out for the purpose of a waste treatment device or a human waste storage facility or a drain connected to any such device or facility.

(b) Any draft environmental planning instrument: Nil

(c) Any Development Control Plan (DCP)

Upper Lachlan DCP 2010 (the DCP)

Provided recommended consent conditions are complied with, the proposed development is considered satisfactory with respect to the relevant provisions of the DCP, including:

- Section 2—Plan objectives
- Section 2.2—Rural development objectives
- Section 3.14—Notification
- Section 4—General development controls
- Section 4.1.1—Matters for consideration (general)
- Section 4.2.1—Tree and vegetation preservation
- Section 4.2.2—Waterways, water bodies and wetlands
- Section 4.2.6—Biodiversity management
- Section 4.2.7—Bushfire risk management
- Section 4.3.2—Landscaping
- Section 4.3.4—Crime prevention through environmental design
- Section 4.4.2—Indigenous heritage and archaeology
- Section 4.5.3—Impacts on drinking water catchments
- Section 4.6.1—Vehicular access and parking
- Section 4.6.3—Heavy vehicle generation development—haulage routes
- Section 9.9—Development in Sydney's drinking water catchments
- Section 10.1—Utility services
- Section 10.2.2—Rural (roads)
- Section 10.2.3—Crown roads
- Section 10.3—Easements.

With respect to section 4.2.2, a recommended consent condition specifies that no work in the development shall alter the hydraulic regime of any watercourse. Concurrence conditions specified by Water NSW also specify requirements and restrictions in this regard.

With respect to section 4.3.2, information accompanying the application suggests measures to mitigate the proposed development's potential visual impact, including tree planting. A recommended consent condition requires tree planting to be carried out on the land to screen the development and soften its visual impact.

With respect to section 4.6.1, for all intents and purposes, the proposed development will be an extension of existing electricity generating works (Gullen Range wind farm). Noting its area and that of the land, the proposed development is not considered to demand provision of additional formal vehicle parking facilities.

With respect to section 4.6.3, information accompanying the application indicates two proposed vehicular traffic routes to and from the subject land and development. Council's Works and Operations Department recommends some revision of the proposed traffic routes; these are conveyed by recommended conditions of consent.

Impacts in the locality:

CONTEXT & SETTING	The proposed development is expected to have some impact in terms of the locality's context and setting – particularly visually. However, it is expected to be considerably less visually prominent than the nearby wind farm development, being lower in profile and covering a smaller area. As discussed earlier, a recommended consent condition requires tree planting to screen the development's visual impact.
ACCESS, TRANSPORT & TRAFFIC	Satisfactory, provided recommended consent conditions are complied with.
LANDSCAPING / CLEARING	Satisfactory, provided recommended consent conditions are complied with.
NOISE	Satisfactory, provided recommended consent conditions are complied with. A recommended consent condition prohibits emission of offensive noise in construction and operation.
SAFETY, SECURITY & CRIME	Satisfactory, provided recommended consent conditions are complied with.

PREVENTION (NSW POLICE SERVICE CHECKLIST)	
ECONOMIC IMPACT IN THE LOCALITY	Satisfactory, provided recommended consent conditions are complied with.
SITE DESIGN & INTERNAL DESIGN	Satisfactory, provided recommended consent conditions are complied with.
FLORA & FAUNA (8 POINT TEST WHERE REQUIRED)	Satisfactory, provided recommended consent conditions are complied with.
NATURAL HAZARDS	Satisfactory, provided recommended consent conditions are complied with.
TECHNOLOGICAL HAZARDS	Satisfactory, provided recommended consent conditions are complied with.
CONSTRUCTION	Satisfactory, provided recommended consent conditions are complied with.

The suitability of the site for the development

Does the proposal fit the locality?

The proposed development is dissimilar to the land's historical agricultural usage. However, the land's proximity to existing infrastructure (e.g. an existing electricity substation) associated with the Gullen Range wind farm development lends it to development as proposed. Furthermore, the proposed development's visual impact is expected to be considerably less than that of the wind farm development, particularly with compliance with recommended conditions of consent.

Are the site attributes conducive to development? Yes.

The public interest

Provided recommended conditions of consent are complied with, granting of consent for the proposed development is not considered contrary to the public interest.

Upper Lachlan Section 94A Development Contributions Plan (the s94A plan)

Section 94A of the Act provides that the consent authority may impose a condition of consent requiring the applicant to pay a levy of the percentage, authorised by the s94A plan, of the proposed cost of carrying out the development. The nominated proposed cost of the development is \$25,000,000. In accordance with Table 2 to the s94A plan, the levy payable for the development is 1% of that proposed cost, i.e. \$250,000. A recommended consent condition specifies that no work in the development shall commence unless that levy has been paid.

Assessment Summary:

Provided recommended consent conditions are complied with, the proposed development is considered satisfactory with respect to the relevant matters specified at sections 79BA and 79C of the Act.

Recommendation:

That the Joint Regional Planning Panel determine the application by granting consent, subject to the recommended conditions listed in Attachment 4.

Signature:


 Roland Wong
 Manager of Environment & Planning
 Upper Lachlan Shire Council

Date: 9 June 2016

From: Phillip Newham
Sent: Tuesday, 22 March 2016 5:19 PM
To: Tina Dodson
Cc: Roland Wong
Subject: TRIM:

Hi Tina

The following comments relate to the Statement of Environmental Effects for the Gullen Solar Farm development:

- Access Arrangements at Site.
The access arrangements involving the acquisition of the Crown Road at the north western end of the proposed development (shown on Figures 2-3 and 2-4) are acceptable to Council. Council is aware of the requirements of DPI –Lands regarding the use of the Crown Road and is prepared to assist the proponent to acquire the road provided that this occurs at no cost to Council and doesn't involve ongoing maintenance costs. Council will also require that this access be constructed to an appropriate standard and sealed.

- Access from the Hume Highway to the site.
Council notes that the proponent wishes to use the following roads to access the site (as shown on Figure 5-8). Council's comments relating to each road are provided below:

i) Crookwell Road - Council has no objection to the use of Crookwell Road for travel between Goulburn and Crookwell. It should be noted that Crookwell Road is a State Road (MR 54). It also traverses across both Upper Lachlan Shire and Goulburn Murrumbidgee Local Government areas.

ii) Council will not allow the proponent to use Colyer Street for either a heavy or a light vehicle route from Crookwell Road to the site. This is due to several factors as follows:

- a) Colyer St is flanked by significant mature street trees. The trees overhang the road and could easily be damaged by the exhaust systems and loads on trucks. As the trees are mature, they are more prone to serious damage caused by minor contacts with vehicles. Council and the Crookwell Community are keen to preserve the heritage appearance of the street. To use the street for access by large vehicles will expose the streetscape to an unacceptable level of risk. It should also be noted that sight distance at the Colyer St/Goulburn St (Crookwell Rd) intersection (contrary to the statement made does not suit heavy vehicles.
- b) Colyer St passes by both of Crookwell's primary schools increasing the weight and volume of traffic past the schools poses an unacceptable risk to safety of the children attending those two schools.
- c) Colyer St passes the Crookwell District Hospital, the Crookwell Health Care Cottage (housing five practising, resident doctors plus visiting specialists) in addition to Crookwell's aged self care facility.

The additional (and heavier) traffic will provide unnecessary risks for those more vulnerable members of the community that will be using those facilities on a daily basis.

iii) Council will however allow the proponent to utilise a route from Crookwell Rd to the site via Grange Road, Cullen St and thence along Kialla Road as proposed. This route was upgraded and strengthened to meet the heavy haulage needs of the Gullen Range Windfarm prior to its construction.

iv) Range Rd between Kialla Rd and Bannister Lane is suited to use for the project construction traffic. The remainder of Range (as described in Section 5.5.1 of the Statement of Environmental Effects) has been repaired after the Gullen Range Windfarm was completed. To artificially increase the volume and weight of traffic on the untreated sections of Range Rd would increase the risk that the proponent would have to repair significant areas of the pavement that haven't been repaired before. It should also be noted here that the statement regarding the gazettal of Range Rd for use by 19m B-doubles (at Higher Mass Limits) has occurred by error which will be corrected soon. Range Rd is like any other reasonably constructed road and is accessible by any vehicle that has General Access Rights (normal semi-trailers and 19m B-Doubles at general mass

limits and at normal everyday traffic densities).Range Rd could be used by light vehicles to access the site from Goulburn.

- v)Bannister Lane from Range road to its intersection with Storriers Lane (and Storriers Lane from Bannister Lane to the Windfarm entry) were upgraded by Gullen Range Windfarm at the time of construction. Unfortunately ,very poor quality gravel was used which has resulted in poor performance of the pavement and numerous complaints from Gullen Range Windfarm itself. To resolve this ongoing issue, Council requires the proponent to add suitable gravel (or stabilise the existing gravel) and seal Bannister and Storriers Lanes from Range Rd to the short seal on the steep grade just beyond the Solar Farm access.
- vi) Council concurs with the statements regarding the use of sealing as a short and long term dust suppressant measure (as discussed in Section 5.5.3 of the Statement of Environmental Effects)
- Vii) Council concurs with the statement regarding the confirmation of the haulage routes ,however is surprised that the proponent wishes to confirm a route that is different to the one used for the Gullen Range Windfarm.
- viii)The proponent must not use Range rd between Kialla Rd and Grabben Gullen Village unless it is completely reconstructed and sealed. The pavement on this part of Range Rd is narrow and in poor condition.

- **Assessment of Traffic**

Council has concerns regarding statements made in Section 5.5.2 (Poential Impacts)of the Statement of Environmental Effects as follows:

- a) The estimation of the amount of concrete to be transported appears to be low (in certain circumstances) and very low in other circumstances. This is shown in the statement that 10 to 15 truckloads (50 to 75 cubic metres)of concrete would be required for the project. This statement must considered along with the possibility that the supports for the solar panels may be concreted in the ground or driven using a pile driver. There is also a 12m x 12m shed shed to be constructed,numerous tranformers and invertors to be founded on some type of base.To adequately assess the transport of concrete, the proponet needs to first decide on the footing type to be used for the solr panels.
- b) No information has been provided relating to the amount of roadmaking materials that will be used.
- c) The assumption that car pooling will be a feature of transporting personell to and from the site is a tenouous one which is almost imposible to achieve and police.
- d) It should be noted that operational issues will be adequately catered for if Council's recommendations are included in the conditions of approval.

Phil Newham

Director of Works and Operations

Upper Lachlan Shire Council

02 4830 1000

Our Ref: 16035-a2
Your Ref: 7/2016

Tina Dodson
Director Environment & Planning
Upper Lachlan Shire Council
PO Box 42
GUNNING 2581

Dear Ms Dodson

**Subject: Sydney Drinking Water Catchment SEPP
DA No 7/2016; Lot 100 DP 1026064, Lots 1 and 2 DP 1168750; 131 Storriers Lane,
Bannister**

I refer to your email received 25 May 2016 providing a supplementary report in response to the Southern Joint Regional Planning Panel's request for additional information and requesting Water NSW's comments on the Supplementary Report. Water NSW has previously provided concurrence advice to Council on 18 March 2016 under State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 on the proposal for a solar farm to be connected to an existing substation.

A Supplementary Information Report prepared by Goldwind Australia Pty Ltd (dated 16 May 2016) and an Amended NorBE Assessment Report prepared by Sustainability Workshop Ltd (dated 12 May 2016) along with previous documentation have been considered in the assessment of the application.

There is a concern that the proposed soil stabilisation method may not prevent erosion occurring without a high level of management. This matter and associated risks were explained by an email to a representative of the solar farm on 19 May 2016. Water NSW considers that with a high level of management that the proposal will achieve a neutral or beneficial effect on water quality. In light of additional information, Water NSW has amended its original advice provided to Council on 18 March 2016.

Based on Water NSW's site inspection and the information provided, the proposed development has been assessed by Water NSW as being able to achieve a neutral or beneficial effect on water quality provided appropriate conditions are included in any development consent and are subsequently implemented.

Water NSW would therefore concur with Council granting consent to the application subject to the following conditions being imposed. This advice replaces Water NSW previous concurrence advice provided to Council dated 18 March 2016.

General

1. The site layout and works shall be as specified in the Statement of Environmental Effects prepared by ngh environmental (dated 15 January 2016), but as varied by the Supplementary Information Report prepared by Goldwind Australia Pty Ltd (dated 16 May 2016) and the amended NorBE Assessment prepared by Sustainability Workshop Ltd (dated 12 May 2016). No revised site layout, staging or external works that will impact on water quality, shall be permitted without the agreement of Water NSW.

Reason for Condition 1 - Water NSW has based its assessment under the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 on this version of the development.

Wastewater Management

2. Portable toilet amenities shall be provided during the construction phase. The number and type to be hired shall be in accordance with the supplier's recommendation based on number of construction workers and existing site capacity. All sewage in the portable toilets shall be transported to an appropriate licenced sewerage treatment facility.

Reason for Condition 2 - To ensure that all wastewater is collected, transported for treatment and disposal at an appropriate sewerage management facility.

Site Access

3. Site access tracks shall be constructed with compacted roadbase (aggregate) as a minimum, and shall be located so as to minimise watercourse or drainage depression crossings, minimise cut and fill, minimise length, and avoid the need for vegetation clearing. The access tracks shall not exceed 10 percent slope, unless they are sealed or armoured and zigzagged up the slope. Access tracks shall also incorporate the following requirements:
 - any access track crossing of a watercourse or drainage depression shall be a properly engineered concrete causeway, pipe or box culvert crossing consistent with the guidelines Environmental Practice Manual of Rural Sealed and Unsealed Roads (ARRB Transport Research Ltd., 2002)
 - access tracks shall have vegetated swales or grassed buffer, as appropriate, on both sides of their entire length with appropriately spaced level spreaders, sills and mitre drains that divert water onto a stable surface capable of accepting concentrated water flow and provide for efficient sediment trapping and energy dissipation. Where outlets of swales discharge near drainage depressions or watercourses they shall be stabilised by an energy dissipater, and
 - all swales, buffer, batters and verges associated with the access tracks shall be vegetated and stabilised with bitumen and jute matting or similar as soon as possible after construction. In the steeper areas where the slope is in excess of 10 percent, the swales shall be armoured with boulders and cobbles.

Reason for Condition 3 - To ensure the site access tracks and associated drainage works are appropriately managed and maintained so as to ensure an overall and sustainable neutral or beneficial impact on water quality over the longer term.

Stormwater and Erosion Management

4. All stormwater management measures shall be implemented as specified in the NorBE Assessment prepared by Sustainability Workshop Ltd (dated 12 May 2016) except where varied by these conditions.
5. The drip lines for the solar panels shall be vegetated and stabilised as stated in the the NorBE Assessment prepared by Sustainability Workshop Ltd (dated 12 May 2016) as soon as possible after erection of the solar panels.
6. The existing fencing along the drainage lines shall be retained. The vegetation in these fenced-off drainage lines be retained and weeds kept under control.
7. Livestock shall be prevented from grazing in the fenced-off drainage lines or having direct access to the creek, although water for livestock may be provided by pumps, pipes and troughs subject to any requirements of DPI Water.

8. Appropriate signage shall be provided on the fence lines along the drainage features above identifying that these fenced-off areas are for water quality management and sediment and erosion control, and are not available for livestock grazing at any time.
9. Any variation to stormwater treatment and management measures shall be agreed to by Water NSW.
10. An Operational Environmental Management Plan (OEMP) shall be prepared in consultation with Water NSW by a person with knowledge and experience in the preparation of such plans prior to the commencement of operations of the solar farm. The OEMP shall include but not be limited to:
 - details on the location, description and nature of stormwater and erosion management measures, including identification of erosive soils, measures to combat and treat erosion including vegetation, matting and any others
 - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all erosion control and stormwater management measures, including the frequency of such activities
 - the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and
 - checklists for recording inspections and maintenance activities.

Reason for Conditions 4 to 10 – To ensure appropriate stormwater management and erosion control measures are implemented and maintained so as to achieve a sustainable neutral or beneficial impact on water quality, particularly during wet weather, over the longer term.

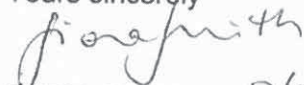
Construction Activities

11. A Soil and Water Management Plan shall be prepared, in consultation with Water NSW, for all works proposed or required as part of the development by a person with knowledge and experience in the preparation of such plans. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" and Department of Environment & Climate Change's Managing Urban Stormwater: Soils and Construction Volume 2A Installation of Services (2008), Volume 2C Unsealed Roads and be to the satisfaction of Council. The Plan shall be prepared prior to issuance of a construction certificate.
12. Effective erosion and sediment controls shall be installed prior to all construction works including access, and shall prevent sediment and contaminated water leaving the construction site or entering natural or constructed drainage system. The controls shall be regularly maintained and retained until works have been completed and groundcover established or ground stabilised.

Reason for Conditions 11 & 12 - To manage adverse environmental and water quality impacts during the construction phase of the development and to minimise the risk of erosion, sedimentation and pollution within or from the site during this construction phase.

Under Clause 11 of the SEPP, Council must provide Water NSW with a copy of its determination of the application within 10 days of the determination. If you wish to discuss this matter further please contact James Caddey on 4824 3401.

Yours sincerely



FIONA SMITH

26.5.16

Executive Manager, Water Quality, Catchment Protection and People & Culture



Office of
Environment
& Heritage

DOC16/80658-1
DA No. 7/2016

The General Manager
Upper Lachlan Shire Council
PO Box 10
Crookwell NSW 2583

Dear Mr Bell

Re: Development Application 7/2016 – Use of land, erection of buildings and carrying out of works for the purpose of electricity generating works (Solar Farm), Lot 1 DP 1196222, Lot 100 DP1026064 and Lot 2 DP1168750, 131, 250, and 280 Storriers Lane, Bannister

GENERAL TERMS OF APPROVAL

I refer to the development application and accompanying information provided for the proposed Gullen Solar Farm received by the Office of Environment and Heritage (OEH) on 18 January 2015. This application was referred to OEH as integrated development under section 91 of the *Environmental Planning and Assessment Act 1979* as it will impact Aboriginal objects.

I understand that the proposal is also deemed regional development, under the provisions of the *State Environmental Planning Policy (State and Regional Development) 2011*, and will be assessed by the Joint Regional Planning Panel.

OEH has reviewed the information provided and has determined that it is able to issue an Aboriginal Heritage Impact Permit (AHIP), under section 90 of the *National Parks & Wildlife Act 1974*, subject to a number of conditions. The general terms of approval for this proposal are provided at Attachment A

In assessing the proposal; OEH has identified a number of issues with the biodiversity assessment. These issues and recommended conditions of consent are discussed in Attachment B.

OEH notes that, as the proposal is integrated development, the proponent is expected to be able to provide certainty in their application to enable concurrent authorities to provide general terms of approval. OEH has requested a final detailed layout of the site be provided, however the proponent has not been able to complete this request. The general terms of approval provided at Attachment A and the recommended conditions of consent at Attachment B reflect this.

These general terms relate to the development as proposed in the documents and information currently provided to OEH. In the event that the development is modified either by the applicant prior to the granting of consent, or as a result of the conditions proposed to be attached to the consent, it will be necessary to consult with OEH about the changes before the consent is issued. This will enable OEH to determine whether its general terms need to be modified in light of the changes.

If you have any questions, or wish to discuss this matter further please contact Lyndal Walters on 02 6229 7157.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'JT', followed by the date '23/03/16' also in blue ink.

JACKIE TAYLOR
A/Senior Team Leader, Planning - South East
Regional Operations Group
OFFICE OF ENVIRONMENT AND HERITAGE

ATTACHMENT A - GENERAL TERMS OF APPROVAL FOR GULLEN SOLAR FARM DA NO. 7/2016

Administrative conditions

Information supplied to OEH

Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the integrated development application submitted to Upper Lachlan Council and received by OEH on 18 January 2016
- the *Statement of Environmental Effects: Gullen Solar Farm* prepared by nghenvironmental, dated January 2016 relating to the development, including *Gullen Solar Farm: Aboriginal Cultural Heritage Assessment Report (Final)* prepared by New South Wales Archaeology Pty Ltd and dated November 2015
- letter dated 15 January 2016 RE - *Gullen Solar Golden Sun Moth Surveys. Our Project Ref:6385* prepared by nghenvironmental
- letter dated 3 February 2016 RE - *Gullen Solar Tile Surveys. Our Project Ref:6385* prepared by nghenvironmental
- email correspondence from Jeff Bembrick, Goldwind Australia Pty Ltd, dated 18 March 2016, responding to the OEH request for clarification (emails dated 11 and 14 March 2016) on Aboriginal Cultural Heritage and biodiversity matters.

General Terms of Approval for Aboriginal cultural heritage

- No harm can occur to any Aboriginal objects within the development area unless an Aboriginal Heritage Impact Permit (AHIP) has been issued by OEH.
- The applicant must comply with the conditions of any AHIP that is issued by OEH.
- The applicant must ensure that all persons involved in actions or works covered by an AHIP (whether employees, contractors, sub-contractors, agents and invitees) are made aware of, and comply with, the conditions of any AHIP.
- Where an Aboriginal object/ site will be avoided by the proposed works then the boundary of the site must be fenced, with a qualified archaeologist present, and marked as a 'no-harm area' to ensure they are not inadvertently impacted during development activities.
- An Aboriginal Heritage Management Plan (AHMP) must be prepared by a qualified archaeologist, in consultation with Registered Aboriginal Parties and OEH, and submitted to OEH for consideration as part of the AHIP determination. The AHMP must include, but not be limited to:
 - a) A map of the finalised development footprint against which all of the Aboriginal cultural heritage sites have been mapped
 - b) Detail the long term management and protection measures for any Aboriginal objects/ sites that will not be impacted by the development activities
 - c) The provision of a salvage methodology for those Aboriginal objects recommended to be excavated, collected and/or relocated
 - d) Detail the long term management of any salvaged objects

- e) Detail the procedures to be followed if Aboriginal objects are found at any stage during the life of the development works and allow for the formulation of appropriate measures to manage any unforeseen impacts to Aboriginal heritage values;
- f) Specifically detail the procedures to be followed if any Aboriginal skeletal material is uncovered during the development works and allow for the development of appropriate measures to manage this material
- g) An outline of the process that will be followed for continuing consultation with the Aboriginal stakeholders and OEH, where required, and
- h) An outline of the process for how the AHMP procedures will be managed and adhered to during the operational life of the Gullen Solar Farm project.
- No human remains in, on or under the land may be harmed. If any human remains are discovered and/or harmed in, on or under the land, the proponent or AHIP holder must:
 - a) not further harm these remains
 - b) immediately cease all work at the particular location
 - c) secure the area so as to avoid further harm to the remains
 - d) notify the local police and OEH's Environmental Line on 131 555 as soon as practicable and provide any available details of the remains and their location, and
 - e) not recommence any work at the particular location unless authorised in writing by OEH.

ATTACHMENT B – DETAILED COMMENTS AND CONDITIONS OF CONSENT FOR BIODIVERSITY MATTERS FOR GULLEN SOLAR FARM

OEH has concerns about the removal of hollow bearing trees on the site, as it is listed as a key threatening process for many endangered species.

Thirty hollow bearing trees have been identified within the study area. Seven of these trees are located in the development envelope and likely to be removed. Another 16 trees are located near access tracks and cabling routes and may be removed, dependent on final detailed design.

OEH recommend as many hollow bearing trees be retained on the site as possible. OEH considers that the proponent can achieve this with careful consideration and placement of the access cables and transmission line route. As the final site layout has not been decided, OEH would like to see the proponent provide a final layout showing which hollow bearing trees will be removed prior to construction commencing. OEH preference is also that the hollows of these trees are retained and placed on other nearby trees, in accordance with the Tree Felling Protocol, rather than the use of nest boxes.

In addition, OEH understands that the endangered ecological community (EEC) identified as Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland will not be impacted by the proposed development, and would like to see measures put in place to ensure its protection.

OEH notes that a flora and fauna management plan would be prepared to manage the removal of infrastructure from the site and rehabilitation of areas disturbed during decommission. OEH would like to see this plan address the construction and operation of the project.

Recommended conditions of consent

1. The endangered ecological community (EEC) identified as Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, south East Corner and NSW South Western Slopes Bioregions, must be avoided. Protection measures such as temporary fencing should be installed to ensure that the construction works do not impact on it.
2. Prior to any construction commencing the proponent must identify a cable route and overhead line route that avoids as many hollow bearing trees as possible. This route should be identified in conjunction with an ecologist and be provided to OEH for review and comment prior to tree removal.
3. Any hollow bearing trees that are to be removed, must be removed in accordance with the Tree Felling Protocol titled "Gullen Solar Farm – Staged Tree Felling Protocol".
4. The proponent must develop a Flora and Fauna Management Plan that covers construction, operation and decommissioning of the project.



Office of
Environment
& Heritage

DOC16/263035-11

The General Manager
Upper Lachlan Shire Council
PO Box 10
Crookwell NSW 2583
Attention: Tina Dodson, Director Environment and Planning

Dear Ms Dodson

Re: Supplementary report for Development Application 7/2016 Gullen Range Solar Farm Lot 1 DP 1196222, Lot 100 DP1026064 and Lot 2 DP1168750, 131, 250, and 280 Storriers Lane, Bannister

I refer to your email, received by the Office of Environment and Heritage (OEH) on 25 May 2016, in relation to the above integrated planning proposal and the request by the Southern Joint Regional Planning Panel (SJRPP) for additional information.

OEH have reviewed the supplementary report and understands that a revised layout has been developed that has reduced the project footprint leading to a reduction in the impacts to biodiversity and Aboriginal cultural heritage. OEH is satisfied that the proponent has addressed most of our concerns raised in our letter of 23 March 2016. However, OEH would still like the proposed Flora and Fauna Management Plan for the decommissioning stage to also include construction, and operation of the solar farm.

OEH considers that the general terms of approval (GTAs) for Aboriginal cultural heritage remain the same as provided on 23 March 2016. However, the GTAs for biodiversity have been amended to reflect the certainty of the final site layout which has now been provided by the proponent. Refer to attachment A for revised biodiversity GTAs.

These general terms relate to the development as proposed in the documents and information currently provided to OEH. In the event that the development is modified either by the applicant prior to the granting of consent, or as a result of the conditions proposed to be attached to the consent, it will be necessary to consult with OEH about the changes before the consent is issued. This will enable OEH to determine whether its general terms need to be modified in light of the changes.

If you require further information or would like to discuss the above comments further, please contact Lyndal Walters on 02 6229 7157.

Yours sincerely


30/5/16

ALLISON TREWEEK
Senior Team Leader, Planning - South East
Regional Operations Group
OFFICE OF ENVIRONMENT AND HERITAGE

Attachment A – Detailed comments and conditions of consent for biodiversity matters for Gullen Solar Farm

OEH would like as many hollow bearing trees to be retained on the site as possible, as such OEH preference is that the hollows of any trees removed are retained and placed on other nearby trees, in accordance with the Tree Felling Protocol, rather than the use of nest boxes. OEH notes that the number of hollow bearing trees proposed for removal has been reduced to 7, with the possibility of being able to retain at least one of these as discussed on page 2 of the NGH environmental document titled "Summary of impacts of the revised layout".

OEH notes that a flora and fauna management plan would be prepared to manage the removal of infrastructure from the site and rehabilitation of areas disturbed during decommission, however OEH reiterates that it would also like to see this plan address the construction and operation of the project.

Recommended conditions of consent

1. The endangered ecological community (EEC) identified as Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland in the South Eastern Highlands, Sydney Basin, South East Corner and NSW South Western Slopes Bioregions, must be avoided. Protection measures such as temporary fencing should be installed to ensure that the construction works do not impact on it.
2. Any hollow bearing trees that are to be removed, should be removed in accordance with the Tree Felling Protocol titled "Gullen Solar Farm – Staged Tree Felling Protocol".
3. The proponent should develop a Flora and Fauna Management Plan that covers construction, operation and decommissioning of the project.

PART 1 GENERAL CONDITIONS

The following conditions have been applied to ensure the development is carried out in such a manner that it is consistent with the aims and objectives of environmental planning instruments affecting the land.

1. Except where otherwise required or permitted by conditions of development consent, the development shall be carried out generally in accordance with the information accompanying the development application and the following stamped consent drawings, including any notations or amendments marked by Council in red:
 - *Gullen Solar – General Arrangement – Overall Site Layout*, Drawing No XXXX-G-GAD-01B, Rev C, prepared by Balance Utility Solutions (drawn by TLF), dated 16 May 2016
 - *Gullen PV Farm – General Arrangement – Inverter Layout Details*, Drawing No GULL-S-GEN-05, Rev A1, prepared by Balance Utility Solutions (drawn by DW), dated 11 May 2016
 - *Gullen PV Array – Perimeter Fence – Gate Details*, Drawing No GULL-S-DET-05, Rev A1, prepared by Balance Utility Solutions (drawn by DW), dated 11 May 2016
 - *Gullen PV Array – Perimeter Fence – Fence Details*, Drawing No GULL-S-DET-06, Rev A1, prepared by Balance Utility Solutions (drawn by DW), dated 11 May 2016
 - *Gullen PV Array – Storage Shed – Shed Outline*, Drawing No GULL-S-DET-01, Rev A1, prepared by Balance Utility Solutions (drawn by DW), dated 11 May 2016
 - Figure 3.2 of *Gullen Solar Farm – DA 7/2016: Supplementary Information Report*, Document No GR-PM-REP-0002, Rev 0, prepared by Goldwind Australia Pty Ltd (author Jeff Bembrick), dated 16 May 2016.
2. All building work shall be carried out in accordance with the provisions of the Building Code of Australia. A reference to the Building Code of Australia is a reference to that Code as in force on the date that an application for a relevant construction certificate is made.
3. If Council is appointed as the principal certifying authority for the development, at least 48 hours' notice shall be given to Council to permit inspection of building work:
 - (a) After excavation for, and prior to the placement of, any footings, and
 - (b) Prior to pouring any in-situ reinforced concrete building element, and
 - (c) Prior to covering of the framework for any floor, wall, roof or other building element, and
 - (d) Prior to covering waterproofing in any wet areas, and
 - (e) Prior to covering any stormwater drainage connections, and
 - (f) After the building work has been completed and prior to any occupation certificate being issued in relation to the building.

These are critical stage inspections and must be inspected by the principal certifying authority.

Bookings for inspections should be made through Council's Crookwell Office on 02 4830 1000.

ADVISORY NOTE: Any required re-inspection or additional inspection will incur a fee in accordance with Council's fees and charges, current at the time of inspection. Council will not grant an occupation certificate unless all inspection fees have been paid.

4. The development consent does not permit any adaptation or ongoing use of the existing dwelling house on Lot 1 DP1196222 for any other purpose – including office premises – during the development's operation, unless identified by an environmental planning instrument as exempt development or development permitted without consent.

EXPLANATORY NOTE: Information accompanying the application indicates the dwelling house on Lot 1 DP1196222 "may be used during construction or operation as an office". Ongoing use of that building for office purposes in operation of the development would constitute a change of building use for the purposes of the Building Code of Australia (BCA). The application is not accompanied by information necessary to allow appropriate assessment of any such proposed change of use.

5. The development consent does not permit the erection or display of any signage not identified by an environmental planning instrument as development permitted without consent or exempt development.
6. The development consent does not permit any earthworks or removal of vegetation other than:
 - (a) indicated on consent drawings and/or in other information accompanying the development application,
 - (b) provided for by conditions of consent, or
 - (c) identified by an environmental planning instrument as exempt development or development permitted without consent.
7. The development consent does not permit erection, installation or carrying out of any above ground building, structure or work within any registered easement on the land, including the easement for electricity purposes burdening each of Lot 1 DP1196222 and Lot 100 DP1026064.
8. Having regard to section 79BA (1) (a) of the Act, the development shall conform to the relevant specifications and requirements of *Planning for Bush Fire Protection* (2006), prepared by the NSW Rural Fire Service in co-operation with the Department of Planning, that are relevant to the development. In this regard, noting section 4.3.6 of *Planning for Bush Fire Protection*:
 - (a) To provide safe access to and from the public road system for firefighters providing property protection during a bush fire, and for any occupants faced with evacuation, all internal access roads in the development shall:
 - (i) be trafficable by a two-wheel drive vehicle in all weather,
 - (ii) have a minimum carriageway width of 4.0m,
 - (iii) have a minimum vertical clearance of 4.0m to any overhanging obstructions, including tree branches,
 - (iv) be designed to accommodate a vehicle turning circle with a minimum 12.0m outer radius,
 - (v) have a crossfall not exceeding 10 degrees,
 - (vi) have grades not exceeding 15 degrees for sealed roads, or 10 degrees for unsealed roads, and
 - (vii) have capacity to carry fully-loaded fire fighting vehicles (15 tonnes).
 - (b) To provide suitable emergency and evacuation/relocation arrangements for occupants of the development, the development shall not commence operation unless an emergency/evacuation plan, consistent with the RFS Guidelines for the Preparation of Emergency/Evacuation Plan, has been prepared and a copy provided to the local Bush Fire Management Committee for their information.
9. Construction, operation and decommissioning of the development shall not cause emission of offensive noise as defined by the Protection of the Environment Operations Act 1997.
10. All wastes generated in the carrying out of works in the development, and in the development's operation, shall be lawfully disposed of to a suitably authorised waste processing/disposal facility.
11. Consent is granted on the basis that the development, in operation, will be serviced by the existing sewage management system(s) associated with the adjoining Gullen Range wind farm development (the subject of project approval 07_0118). The consent does not permit any work to be carried out in relation to installation, construction or alteration of any waste treatment device, human waste storage facility, or drain connected to any such device or facility as referred to in the Table to section 68 of the Local Government Act 1993.
12. Acquisition, upgrade and use of the Crown road between Storriers Lane and the northwestern corner of Lot 1 DP1196222 for the purposes of the development shall be carried out in accordance with applicable requirements of the NSW Department of Primary Industry – Lands (DPI Lands) and Council. Council is prepared to assist in the proponent's acquisition of the Crown road, provided it imposes no cost to Council and places no ongoing maintenance obligation upon Council.

13. The development shall be carried out in accordance with the following advice, requirements and restrictions of Council regarding public road access from the Hume Highway to the land and development during carrying out of works, operation, and decommissioning:
- (a) Council does not object to the use of Crookwell Road between Goulburn and Crookwell. It is noted that Crookwell Road is a State Classified Road (MR 54), and traverses both Upper Lachlan Shire and Goulburn Mulwaree local government areas.
 - (b) In Crookwell, Colyer Street shall not be used as either a heavy or a light vehicle route between Goulburn Street (part of MR 54) and the land. Instead, the proponent may utilise a route between Crookwell Road and the land via Grange Road, Cullen Street and thence via Kialla Road as proposed.
 - (c) Range Road between Kialla Road and Bannister Lane may be used by vehicular traffic associated with carrying out of works and decommissioning activities associated with the development. It is noted that the statement regarding gazettal of Range Road for use by 19m B-doubles (at higher mass limits) is erroneous, and will be corrected soon. Range Road is like any other reasonably constructed road and is accessible by any vehicle that has General Access Rights (e.g. standard semi-trailers and 19m B-Doubles at general mass limits and at normal everyday traffic densities).
 - (d) Bannister Lane between Range Road and Storriers Lane, and Storriers Lane between Bannister Lane and Lot 100 DP1026064, shall be upgraded to the satisfaction of Council's Works and Operations Department, including addition of suitable gravel (or satisfactory stabilisation of existing gravel) and sealing of Bannister and Storriers Lanes between Range Road and the existing sealed section of Storriers Lane adjoining Lot 44 DP750043.
 - (e) Road sealing shall be implemented as both a short and long term dust suppressant measure, as discussed in section 5.5.3 of *Statement of Environmental Effects: Gullen Solar Farm* (Revision Final V2), prepared by NGH Environmental (Jane Blomfield), dated 15 January 2016.
 - (f) Haulage routes to and from the land and development shall be confirmed in consultation with relevant roads authorities, as discussed in section 5.5.3 of *Statement of Environmental Effects: Gullen Solar Farm* (Revision Final V2), prepared by NGH Environmental (Jane Blomfield), dated 15 January 2016.
 - (g) Consent does not permit any use of Range Road between Kialla Rd and Grabben Gullen village.
14. Noting visual impact mitigation measures suggested at section 13.2 of *Gullen Solar Farm: Visual Impact Assessment* (Version No v3 dated May 2016), prepared by Green Bean Design and accompanying the development application, tree planting shall be carried out immediately outside the development's perimeter fence and elsewhere on the land as warranted to screen and reduce the visibility of the development from outside the land. Tree plantings shall be of species endemic to the locality, and the number of trees planted shall equal or exceed the number to be removed in the development. All trees planted shall be maintained and/or replaced as warranted throughout the development's lifespan, and shall be retained on the land when the development is decommissioned.

PART 2 - PRIOR TO COMMENCEMENT OF WORK

The following conditions have been imposed to ensure that the administration and amenities relating to the proposed development comply with all relevant requirements. These conditions are to be complied with prior to commencement of any work on site.

15. No building work in the development shall commence unless the following provisions of section 81A of the Act have been complied with:
- (a) A construction certificate for the building work concerned shall be obtained; and
 - (b) A principal certifying authority shall be appointed and Council shall be notified of the appointment; and
 - (c) Council shall be notified in writing at least two days prior to building work commencing.
16. No work in the development shall commence unless the applicant has paid to Council a levy of 1% of the proposed cost of carrying out the development, as authorised by the Upper Lachlan Section 94A Development Contributions Plan. As the proposed cost of development is \$25,000,000.00, the levy payable at the time of consent is \$250,000.00. The levy payable will be adjusted at the time of payment, in accordance with section 1.10 of Upper Lachlan Section 94A Development Contributions Plan.

17. To ensure the integrity of the development cannot be compromised by separate disposal of lots involved, no work in the development shall commence unless satisfactory evidence has been supplied to and accepted by Council of either:
- (a) registration in the office of the Registrar-General of a plan of consolidation of Lot 1 DP1196222 and Lot 2 DP1168750, or
 - (b) registration of easement or easements, burdening Lot 2 DP1168750 and benefitting Lot 1 DP1196222, as necessary to accommodate all components of the development located within Lot 2 DP1168750.
18. No building work or demolition work (e.g. in decommissioning the development) shall commence unless a sign has been erected, in a prominent position on any site on which such work is being carried out:
- (a) showing the name, address and telephone number of the principal certifying authority for the work, and
 - (b) showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
 - (c) stating that unauthorised entry to the work site is prohibited.

Any such sign shall be maintained while the building work or demolition work is being carried out, but must be removed when the work has been completed.

19. No building work or demolition work (e.g. in decommissioning the development) shall commence unless provision has been made for temporary toilet accommodation on the site of the work.
20. No demolition work (e.g. in decommissioning the development) shall be carried out unless:
- (a) A person having the benefit of the consent has supplied the engaged demolition contractor's licence details to Council; and
 - (b) Appropriate fencing to prevent public access to the site of the demolition work has been erected and will be maintained for the duration of the demolition work being carried out.
21. No work in the development shall commence unless satisfactory erosion and sediment control measures have been put in place to prevent soil erosion, water pollution and the discharge of loose sediment on surrounding land, including:
- (a) Diversion of uncontaminated run-off around cleared or disturbed areas, and
 - (b) Erection of silt fencing to prevent debris escaping into drainage systems and waterways, and
 - (c) Prevention of tracking of sediment by vehicles onto roads, and
 - (d) Stockpiling of topsoil, excavated material, construction and landscaping supplies and debris at the site of works.

Erosion and sediment control measures shall remain in place until all disturbed ground surfaces at the development site have been rehabilitated, vegetated and/or stabilised to prevent erosion or sediment loss.

22. No work in the development shall commence unless evidence has been supplied to and accepted by Council of a formal instrument, mechanism or the like having been put in place to allow lawful access from Storriers Lane to Lot 2 DP1168750 via Lot 100 DP1026064.
23. No work in the development shall commence within Lot 1 DP1196222, Lot 100 DP1026064 or Lot 2 DP1168750 unless the proponent has upgraded site access roads to a standard endorsed by Council and to the reasonable and feasible requirements of Council. In this regard:
- (a) Council shall not endorse any proposed road upgrade standards unless satisfied that quantities of concrete to be transported to the land for use in the carrying out of works in the development have been reasonably and accurately estimated.
 - (b) Council shall not endorse any proposed road upgrade standards unless satisfied as to the quantity of materials to be transported to the land for the purpose of road construction within the development.
24. The Crown road between Storriers Lane and the northwestern corner of Lot 1 DP1196222 shall be constructed and sealed to a standard to be advised by Council's Works and Operations Department after further consultation from the proponent.

25. At least one month prior to any work in the development commencing, and on a monthly basis thereafter until all works in the development have been completed, the proponent shall provide written notification to the owners of all lots adjoining the land of its intended detailed work schedule through to completion of works. Each notification shall clearly indicate the dates, nature and location of works to be carried out. Each notification subsequent to the first notification shall clearly identify any change that may have been made to the work schedule.

PART 3 - PRIOR TO CONSTRUCTION CERTIFICATE

The following conditions of consent must be complied with prior to issue of a construction certificate by the principal certifying authority. All necessary information to comply with the following conditions of consent must accompany the application for construction certificate.

26. No construction certificate shall be granted for any building work in the development unless details, specifications and drawings submitted with the application for construction certificate are consistent with the development consent.
27. If Council is appointed as the principal certifying authority for the development, no construction certificate shall be granted for any building work in the development unless a geotechnical report indicating the classification of the site has been submitted to and accepted by Council.
28. If Council is appointed as the principal certifying authority for the development, no construction certificate shall be granted for any building work in the development unless satisfactory practicing structural engineer's details of footings, slab(s) and structural components have been submitted to and approved by Council.
29. Any application for construction certificate for building work in the development shall be accompanied by information and drawings demonstrating compliance with the Building Code of Australia.

PART 4 - DURING CONSTRUCTION

The following conditions of consent have been imposed to ensure that the administration and amenities relating to the proposed development comply with all relevant requirements. These conditions are to be complied with throughout the construction of the development.

30. No construction work or decommissioning work, or associated vehicle movements, shall be conducted outside the following times, or on Sundays or public holidays:
- (a) On Mondays to Fridays (except public holidays) between 7:00am and 6:00pm, and
 - (b) On Saturdays (except public holidays) between 8:00am and 1:00pm.
31. No article associated with the development's construction, operation or decommissioning shall be permitted to be deposited on any Council land, including public reserves, roads, gutters or footpaths. Unless pre-existing damage to Council infrastructure is notified to Council in writing prior to commencement of work in the development, Council will hold the person(s) having the benefit of the consent liable for the cost of any necessary repairs.
32. Alterations to natural surface contours shall not impede or divert natural surface water runoff so as to alter the hydraulic regime of any watercourse, cause a nuisance to adjoining property owners or create an erosion or sediment problem.
33. Vehicles entering and leaving the land that are carrying excavated dusty materials, including clays, sands and soils, shall be covered at all times when not loading or unloading.

34. Noting section 6.6 of *Gullen Solar Farm Construction & Operational Noise Impact Assessment* (Revision 5, dated 16 May 2016) prepared by SLR Consulting Australia and accompanying the development application, the following construction noise control measures shall be implemented throughout the carrying out of works in the development:
- (a) All work in the development shall be carried out in compliance with Australian Standard AS 2436-2010 "Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites"
 - (b) All personnel involved in carrying out of works in the development shall be thoroughly briefed to create awareness of the conditions of consent relating to noise emissions, the locality of sensitive receivers, and the importance of minimising noise emissions
 - (c) All mobile plant used in carrying out of works in the development shall be fitted with residential grade mufflers, where applicable.
35. Throughout the carrying out of works in the development, dust suppression measures shall be implemented as necessary to ensure airborne dust is not transported beyond the boundary of the subject land.

PART 5 –DECOMMISSIONING

The following conditions of consent have been imposed to ensure that demolition and/or decommissioning associated with the development comply with all relevant requirements. These conditions are to be complied with in carrying out demolition work and/or decommissioning activities associated with the development.

36. To ensure it is feasible to resume productive extensive agriculture on the land after the development is decommissioned, within one year of decommissioning the development or any component thereof, the site of the development or – as the case may be – the site of the component concerned, shall be returned as far as practicable to the condition in which it was before any work associated with the development was carried out. Upon being decommissioned, all infrastructure in the development shall be removed from the site unless otherwise agreed by Council. All site roads in the development shall be removed unless otherwise agreed to by the relevant land owner. All other elements in the development, including any concrete footings, slabs and the like, shall be removed, and resulting waste materials lawfully disposed of to a suitably authorised waste processing/disposal facility.
37. Any demolition work involved in decommissioning the development shall be carried out in accordance with Australian Standard AS2601-2001 – The Demolition of Structures and the following requirements:
- (a) No demolition work shall commence unless security fencing and/or hoarding have been provided to the perimeter of the demolition work site to prevent access by unauthorised persons throughout the demolition period.
 - (b) Demolition work shall not be carried out in high winds.
 - (c) Any identified lead contaminated materials shall be handled and disposed of in accordance with the requirements of the NSW Environment Protection Authority.
 - (d) Dust controls shall be implemented on site prior to and throughout demolition work.
 - (e) Any demolition material identified as containing asbestos shall be removed and disposed of in accordance with the requirements of WorkCover NSW.
 - (f) All trucks/trailers entering or leaving the site shall have their loads adequately covered when not loading. Signage indicating this requirement shall be prominently displayed at the site's entry/exit point(s).
 - (g) Temporary toilet facilities shall be provided on the site throughout demolition work.
 - (h) Demolition work shall be restricted within the following hours:
 - (i) Mondays to Fridays (except public holidays) 7:00am-6.00pm
 - (ii) Saturdays (except public holidays) 8:00am-1:00pm
 - (iii) Sundays & public holidays no demolition work permitted.
 - (i) Sound pressure levels emitted from the site, measured as LA10 15 minutes, shall not exceed background noise levels at the nearest affected residence by the following criteria for the time interval specified:
 - (i) 20dB(A) (Demolition) -- period up to four weeks
 - (ii) 10dB(A) (Demolition) -- period greater than four weeks and not exceeding 26 weeks
 - (iii) 5dB(A) (Demolition) -- period exceeding 26 weeks.

PART 6 - PRIOR TO ISSUE OF THE OCCUPATION CERTIFICATE

The following conditions of consent must be complied with prior to the issue of an occupation certificate by the principal certifying authority. All necessary information to comply with the following conditions of consent must be submitted with the application for an occupation certificate.

38. No building in the development shall be occupied or used unless an occupation certificate has been obtained for the building.

Part 7 - AGENCY CONDITIONS

39. The development shall be carried out in accordance with the NSW Government Office of Environment & Heritage general terms of approval specified in:
- (a) Attachment A to the Office's letter of 23 March 2016 (relating to administrative conditions and Aboriginal cultural heritage)
 - (b) Attachment A to the Office's letter of 30 May 2016 (relating to biodiversity matters).

Each of the abovementioned letters and attachments is attached as Schedule 1 to Council's Notice of Determination of the development application.

40. The development shall be carried out in accordance with all the following requirements of Water NSW as detailed in its letter of 26 May 2016, attached as Schedule 2 to Council's Notice of Determination of the development application:

General

1. The site layout and works shall be as specified in the Statement of Environmental Effects prepared by ngh environmental (dated 15 January 2016), but as varied by the Supplementary Information Report prepared by Goldwind Australia Pty Ltd (dated 16 May 2016) and the amended NorBE Assessment prepared by Sustainability Workshop Ltd (dated 12 May 2016 2016). No revised site layout, staging or external works that will impact on water quality, shall be permitted without the agreement of Water NSW.

Reason for Condition 1 - Water NSW has based its assessment under the State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 on this version of the development.

Wastewater Management

2. Portable toilet amenities shall be provided during the construction phase. The number and type to be hired shall be in accordance with the supplier's recommendation based on number of construction workers and existing site capacity. All sewage in the portable toilets shall be transported to an appropriate licenced sewerage treatment facility.

Reason for Condition 2 - To ensure that all wastewater is collected, transported for treatment and disposal at an appropriate sewerage management facility.

Site Access

3. Site access tracks shall be constructed with compacted roadbase (aggregate) as a minimum, and shall be located so as to minimise watercourse or drainage depression crossings, minimise cut and fill, minimise length, and avoid the need for vegetation clearing. The access tracks shall not exceed 10 percent slope, unless they are sealed or armoured and zigzagged up the slope. Access tracks shall also incorporate the following requirements:
- any access track crossing of a watercourse or drainage depression shall be a properly engineered concrete causeway, pipe or box culvert crossing consistent with the guidelines Environmental Practice Manual of Rural Sealed and Unsealed Roads (ARRB Transport Research Ltd., 2002)
 - access tracks shall have vegetated swales or grassed buffer, as appropriate, on both sides of their entire length with appropriately spaced level spreaders, sills and mitre drains that divert water onto a stable

surface capable of accepting concentrated water flow and provide for efficient sediment trapping and energy dissipation. Where outlets of swales discharge near drainage depressions or watercourses they shall be stabilised by an energy dissipater, and

- all swales, buffer, batters and verges associated with the access tracks shall be vegetated and stabilised with bitumen and jute matting or similar as soon as possible after construction. In the steeper areas where the slope is in excess of 10 percent, the swales shall be armoured with boulders and cobbles.

Reason for Condition 3 - To ensure the site access tracks and associated drainage works are appropriately managed and maintained so as to ensure an overall and sustainable neutral or beneficial impact on water quality over the longer term.

Stormwater and Erosion Management

4. All stormwater management measures shall be implemented as specified in the NorBE Assessment prepared by Sustainability Workshop Ltd (dated 12 May 2016) except where varied by these conditions.
5. The drip lines for the solar panels shall be vegetated and stabilised as stated in the the NorBE Assessment prepared by Sustainability Workshop Ltd (dated 12 May 2016) as soon as possible after erection of the solar panels.
6. The existing fencing along the drainage lines shall be retained. The vegetation in these fenced-off drainage lines be retained and weeds kept under control.
7. Livestock shall be prevented from grazing in the fenced-off drainage lines or having direct access to the creek, although water for livestock may be provided by pumps, pipes and troughs subject to any requirements of DPI Water.
8. Appropriate signage shall be provided on the fence lines along the drainage features above identifying that these fenced-off areas are for water quality management and sediment and erosion control, and are not available for livestock grazing at any time.
9. Any variation to stormwater treatment and management measures shall be agreed to by Water NSW.
10. An Operational Environmental Management Plan (OEMP) shall be prepared in consultation with Water NSW by a person with knowledge and experience in the preparation of such plans prior to the commencement of operations of the solar farm. The OEMP shall include but not be limited to:
 - details on the location, description and nature of stormwater and erosion management measures, including identification of erosive soils, measures to combat and treat erosion including vegetation, matting and any others
 - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all erosion control and stormwater management measures, including the frequency of such activities
 - the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and
 - checklists for recording inspections and maintenance activities.

Reason for Conditions 4 to 10 – To ensure appropriate stormwater management and erosion control measures are implemented and maintained so as to achieve a sustainable neutral or beneficial impact on water quality, particularly during wet weather, over the longer term.

Construction Activities

11. A Soil and Water Management Plan shall be prepared, in consultation with Water NSW, for all works proposed or required as part of the development by a person with knowledge and experience in the preparation of such plans. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" and Department of Environment & Climate Change's Managing Urban Stormwater: Soils and Construction Volume 2A Installation of Services (2008), Volume 2C Unsealed Roads and be to the satisfaction of Council. The Plan shall be prepared prior to issuance of a construction certificate.
12. Effective erosion and sediment controls shall be installed prior to all construction works including access, and shall prevent sediment and contaminated water leaving the construction site or entering natural or constructed drainage system. The controls shall be regularly maintained and retained until works have been completed and groundcover established or ground stabilised.

Reason for Conditions 11 & 12 - To manage adverse environmental and water quality impacts during the construction phase of the development and to minimise the risk of erosion, sedimentation and pollution within or from the site during this construction phase.