

Issues Raised by Objectors	Applicant's Response	Council Officer Response
Aboriginal Archaeological Heritage		
<p>The Nangaroo Local Aboriginal Land Council (LALC) don't agree with the statement by the proponent that the subject site is not within 200m of a water body. The land Council considers there to be Aboriginal Archaeological Heritage Impacts. Further assessments required and Nangaroo LALC have requested involvement in these investigations.</p>	<p>EDPR Australia (formerly ITP Development Pty Ltd) noted the Nungaroo LALC's comments relating to the dry water course that passes through the proposed project lot (Lot 130 / DP751009), and the potential for it to hold great cultural significance. The applicant also noted the recommendations and initiated discussions with the LALC.</p> <p>EDPR Australia engaged the Nungaroo LALC to undertake an Aboriginal Cultural Heritage Assessment after the harvesting of the crops on the land, subject to weather (late November to early December 2024). After this period the LALC carried out investigations of the site, providing Council with the reported findings.</p> <p>The Report advised no Aboriginal objects were identified during a site inspection, expressing visibility limitations due to wheat stubble remains from a previous farming crop. The Report further suggested mitigation measures for the future discovery of any unknown Aboriginal objects, places, or archaeological material. The Nungaroo LALC recommended that any objects discovered during excavation, be recorded, and salvaged under their care and control.</p>	<p>It is considered that the issues raised in the submissions have been sufficiently addressed. Conditions have been incorporated into the recommended terms of consent to ensure the mitigation measures are met by the Applicant.</p>
Visual Impacts – Views and Vistas		
<p>The issues raised relating to Visual Impacts are detailed as follows: -</p> <ul style="list-style-type: none"> • The development will be seen from Borah Creek Road and by neighbouring properties; • There will be loss of views for residents; 	<p>EDPR Australia acknowledged the feedback received from members of the local community indicating they are amenable to making suitable improvements to the design of the solar farm.</p>	<p>The assessments (including visual impacts) submitted with the development application initially identified vegetation screening was not required. However, visibility and potential visual impacts of the proposed development was one of</p>

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<ul style="list-style-type: none"> • There is lack of vegetation screening; • There is an industrial intrusion into the landscape and the proposal will be an eyesore; • The development will detract from the landscape; • Unjust that one ratepayer benefits from the development (owner of the land) yet have no visual impact from their dwelling; • Solar Farm will distract drivers; and • The development should be located well away from residential areas and not be visible from public roads. 	<p>In response, landscaping and vegetation screening is now proposed for the development to address the visual impact concerns.</p>	<p>the primary concerns raised in the public submissions received. These concerns included the proximity of the project to surrounding residences and potential impacts on the scenic quality, landscape, and rural outlook of the locality. As a consequence, Council requested the proponent address these matters and provide a Landscaping Plan demonstrating intensified screening measures.</p> <p>It is considered that the potential visual impacts from the proposed development can be appropriately mitigated. The following recommended mitigation measures are also to be included:</p> <p>Vegetation screening – medium density, 1-2 rows deep comprised of varying native species and advanced (sapling) plants;</p> <ul style="list-style-type: none"> • Planting should be undertaken as soon as practicable in the construction process; • Carry out additional consultation with affected residents to inform the need for offsite mitigation, prior to the commencement of construction; • Design measures – use of non-reflective and earthy coloured materials (e.g. green, beige or muted wheat) where possible; • Construction – dust will be managed in response to visual cues and areas of soil disturbance rehabilitated progressively or immediately post-construction; and,

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		<ul style="list-style-type: none"> • Operation – ongoing maintenance of ground cover and vegetation screening, minimise traffic movements and outdoor lighting. <p>Conditions have been incorporated into the recommended terms of consent to ensure that the abovementioned mitigation measures are met by the Applicant.</p>
Land use Suitability and loss of agricultural land		
<p>A number of issues were raised relating to the loss of agricultural land and the suitability of the land for the proposed development. These are summarised as follows: -</p> <ul style="list-style-type: none"> • There will be limitation to the expansion of adjoining agricultural production zoned land • The development has the potential to permanently prevent the use of the land for agricultural production • The development is not suitable for the area, is an industrial land use and not agricultural in nature. • The solar Farm should be located elsewhere or in a more remote area. 	<p>The applicant responded to these concerns with the following comments: -</p> <p><i>“Some of the public submissions raised concerns about the suitability of the proposed land use and the potential loss of good agricultural land.</i></p> <p><i>We work very closely with our host landholders to understand their present land uses and future plans for the land. Reaching agreement on an area of land which is mutually acceptable and beneficial is an important part of our initial negotiations.</i></p> <p><i>The proposed solar farm is a project that is suited to a rural location. Solar farms, which produce energy, are captured under the definition of “electricity generating works”. Electricity generating works is a primary production activity that is mandated by SEPP (Transport and Infrastructure) 2021 and is permissible in a rural zone. The landowner has a reasonable expectation to develop a use that is permissible.</i></p> <p><i>It is noted that the land is not mapped as Strategic Agricultural Land and has a land capability classification of 3 which indicates that the land is of</i></p>	<p>The proposal is permissible under the provisions of Section 2.36(1)(b) of the SEPP (T&I) 2021. Further, the development is considered to be suitable for the proposed development, as detailed within the assessment report.</p> <p>The proponent identified the site, through a selection process, as having an area of great potential for solar energy generation which holds a relatively flat and large coverage. It was also advised the site is located in proximity to quality network infrastructure, capable of supporting the proposed electrical generation activities.</p> <p>The site is considered to be suitable for the proposed development, as detailed within the assessment report for DA 79/2024.</p>

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	<p><i>high capability with moderate limitations. It is also mapped as draft State Significant Agricultural Land, however, this mapping has not been finalised or endorsed and has nil statutory effect. The proposed solar farm can, in fact, compliment agriculture as the solar panels can be co-located with existing primary production activities such as grazing and even cropping. This co-existence allows regional farmers and communities to diversify their income sources, which can help make farming businesses more resilient to drought. In our agreements with landholders, we generally encourage the grazing of sheep underneath the panels. This dual use of land can result in improved conditions, as the solar panels provide shade and condensation adds moisture to the ground beneath the panels.</i></p> <p><i>Furthermore, the proposed solar farm does not represent a permanent land use change, with the land being returned to its pre-development land use or other agricultural purposes at the end of the lease period."</i></p>	
Traffic and Safety of Residents		
<p>The following concerns were identified, which related to traffic / trucks and the impact on the safety of residents:</p> <ul style="list-style-type: none"> • The increased traffic from the development will further degrade Borah Creek Road • Concerns for traffic safety for the existing road users / pedestrians (i.e. those walking and cyclists). • Traffic passing the Preschool on Borah Creek Road 	<p>In response to the issues raised the proponent advised the following: -</p> <p><i>"The construction phase for the proposed 5MW solar farm is expected to take a relatively short duration of about 3 months. Additionally, to manage traffic, our construction hours are typically 7am – 4pm Monday to Friday, and for heavy vehicle deliveries between 10am – 4pm to avoid peak traffic periods. Once operational, the site will be</i></p>	<p>It is considered that the Traffic Impact Assessment (TIA) sufficiently addresses the issues raised in the submissions.</p> <p>The TIA also recommends the following mitigation measures, which have been incorporated into the recommended terms of consent:</p> <ul style="list-style-type: none"> • Prior to works commencing, it is recommended that an easement or similar agreement for the duration of the solar project be provided

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	<p><i>unmanned. Routine maintenance (to maintain the panels, weed and pastures, as required) is typically scheduled quarterly or as required, and carried out by a crew of 2-3 people, generally only requiring use of light vehicles..."</i></p> <p>The proponent also indicated a dilapidation survey will be undertaken along Borah Creek Road and Porters Lane prior to construction to assess any impacts on the road during construction period, confirming any damages to be rectified by the developer/owner of the development.</p>	<p>through Lot 134 to secure access into the future for Lot 130.</p> <ul style="list-style-type: none"> • Prior to commencing works a Construction Traffic Management Plan (CTMP) be developed for Council's endorsement that incorporates notification of local residents of the works and informs them of the construction period and operating hours. • Shared transport for workers should be incorporated into the site management during construction period. • Access improvements required off Porters Lane to accommodate the largest vehicle that would access site (B-Double). • Driveway improvements for wet weather operation be considered including surfacing with additional gravel. • Dilapidation survey to be undertaken along Borah Creek Road and Porters Lane prior to construction works to assess any impacts on the road during construction period. <p>Given the short-term construction period and low number of personnel on site during operations, it is reasonable to ensure that the condition of the roads is not deteriorated further. This will be achieved via the preparation of a dilapidation report wherein any repairs will be at cost to the developer.</p>

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Decreased Property Value		
<ul style="list-style-type: none"> The location of development will devalue neighbouring properties 	<p>The proponent has advised there is no clear evidence that solar developments negatively impact property values. The proponent indicated there are some studies that suggest the presence of utility-scale solar farms in the area had neither a negative nor positive effect on property values.</p> <p>The proponent also provided a link to studies undertaken regarding the impacts of nearby solar facilities on local property values: https://cleanpower.org/wp-content/uploads/2021/08/Solar-and-Property-Values-Fact-Sheet_2.2.22.pdf</p>	<p>While not strictly a planning consideration, the management of impacts on the surrounding environment and properties will ameliorate much of the potential impact on the community and potential property values.</p> <p>Draft conditions have been included in the terms of consent to ensure that all potential impacts are appropriately mitigated by the Developer.</p>
Benefits to the Community		
<p>A number of submissions raised questions about the overall benefits of the development and the benefits to the local community. The following was also discussed: -</p> <ul style="list-style-type: none"> Power will be sent to Sydney with no benefit to the local community A cost-benefit analysis should be required prior to final decision. Minimal employment opportunities will be created 	<p>The proponent provided the following information in response: -</p> <p><i>“...Fossil fuels such as oil, natural gas and coal are examples of non-renewable energy resources that take billions of years to form naturally and cannot be replaced as quickly as they are being used. Public sentiment continues to shift towards renewable energy projects in response to the growing concerns around non-renewable energy, and the greenhouse gas emissions caused by them. Renewable energy generation, through projects such as the proposed solar farm, will contribute to decarbonisation efforts and minimise our environmental footprint to benefit future generations.</i></p>	<p>The economic impacts arising from the proposed development are addressed within the assessment report for DA79/2024. Draft conditions have been included in the terms of consent to ensure that all potential impacts are appropriately mitigated by the Developer.</p>

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	<p><i>EDPR Australia is committed to supporting local communities through our projects by using local services and engaging in local consultants and contractors as much as possible during the construction and operational phases of the project. This may include using local surveyors, electricians, plumbers, landscapers, cleaners, earthmoving and waste contractors, and other available labour hire. This generates employment opportunities and supports the development of local expertise and skills..."</i></p> <p>The Applicant also provided a list of the environmental and economic benefits of the project:</p> <ul style="list-style-type: none"> • Supplying the annual electricity requirements of approximately 2,150 households in the local network. Electricity generated by the solar farm will enter the local distribution network (rather than the long-distance transmission network) and provide power predominately to users in vicinity of the solar farm, including the residents and businesses in the township of Quirindi. • Displacing about 8,500 metric tonnes of carbon dioxide of greenhouse gas emissions per year; • Contributing to the downward pressure of electricity prices in the long-term. • Generating approximately 50 direct jobs and 125 indirect jobs during the construction process, as well as a smaller number but ongoing jobs during the operation stage of the development; and 	

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	<ul style="list-style-type: none"> • Creating flow-on effects for local communities. Local retailers and service providers benefit from increased economic activity in the locality of a solar farm. • Development fees payable to the local council also benefit the community. 	
Reflection and Glare		
<p>Concerns were raised that the proposal will cause reflection and glare having impacts on:</p> <ul style="list-style-type: none"> • traffic on the Borah Creek Road; • neighbouring dwellings; • sensitive receptors; • bike riders at the nearby motor-cross track; and • aeroplane pilots. 	<p>The applicant advised that a Glint and Glare Assessment was provided with the Development Application confirming that solar Panels are designed to absorb light and reflect approximately 2% of the light received. The proponent also provided the following information: -</p> <p><i>“...The aim of the panel design, and our project design, is to minimise the light reflected from each of the panels. Glare from solar panels is, in fact, less than that produced from a body of water. For this reason, glint and glare from the solar farm is typically not likely to be an issue for sensitive receivers.</i></p> <p><i>The assessment carried out by ITP Renewables used the Solar Glare Hazard Analysis Tool. A total of 11 observation points and two road routes were identified as potential visual receptors. The results of the Glare Gauge analysis indicated that two observations points and both road routes (Borah Creek Road and Porters Lane) received some glare. The existing roadside vegetation and structures are expected to provide a physical obstruction. The proposed addition of vegetation screening (see point 1 on Page 1) will further mitigate visibility of the solar farm. No observation point, or routes,</i></p>	<p>It is considered the Glint and Glare Assessment Report and the additional information provided by the proponent adequately addresses the issues raised in the submissions. Further, mitigation measures detailed in the draft conditions of consent will ensure the potential impacts of glint and glare are negligible.</p>

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	<i>received more than seven minutes of glare in any single day and the impacts were assessed as low and mitigation measures not required..."</i>	
Biodiversity Impacts		
<p>The following concerns relating to potential impacts on biodiversity were identified: -</p> <ul style="list-style-type: none"> • Impact due to glare, rays & construction works • Heat increment from plant • Spread of weeds • Photovoltaic Heat Island creation 	<p>The proponent advised that a biodiversity assessment was carried out to determine the potential impact on any threatened species and endangered ecological communities that are present on the development site and in the vicinity of the site. It was also advised; the development has been designed so that no trees are required to be removed.</p> <p>The applicant also indicated the assessments concluded the site is dominated by exotic planted crop and pasture grasses, having little to no value to threatened fauna. Threatened flora are also not present in the previously cultivated areas.</p>	<p>Draft conditions have been included in the recommended terms of consent to address any potential issues relating to biodiversity impacts.</p>
Fire Hazard and Safety		
<p>Concerns relating to the risk of fire from the development were identified. A number of submissions discussed the heightened risk of equipment starting a fire that would spread to neighbouring properties.</p>	<p>The applicant has indicated the following: -</p> <p><i>"Safety of the proposed development is paramount. Throughout the lifecycle of the project we are bound by Australian laws to comply with workplace health and safety standards. A Fire and Hazard Assessment was carried out and provided with the development application...A Bushfire Management Plan will also be prepared, which will outline the mitigation measures to be undertaken to minimise fire risks."</i></p>	<p>A Bushfire and Emergency Management Operations Plan is required to be submitted for approval prior to the issue of a Construction Certificate, as a recommended condition of consent. Further, prior to construction, a Construction Environmental Management Plan (CEMP) will be required to outline appropriate measures.</p> <p>Recommendations from the NSW Rural Fire Service have also been listed in the draft conditions as further measures to address these concerns.</p>

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Stormwater Run-off and Contamination		
<p>Some of the submissions raised concerns relating to: -</p> <ul style="list-style-type: none"> • Water run-off from the Panels • The impact on Porters Lane • Contamination of ground water and the creek 	<p>The applicant has advised the mounting systems are constructed similar to fencing or light posts. The piles are driven into the ground to depths of approximately 1.5 to 3.0 metres, eliminating or reducing the requirement for earthworks, footings, or extensive use of concreting.</p> <p>As such, the existing terrain is largely preserved under the panels, minimising changes to drainage of the site, and any rainfall that runs off from the solar panels will fall to the ground no different to regular rainfall hitting the ground directly where it is then absorbed by the natural friction of the soil. Please also refer to below which addresses contamination concerns.</p>	<p>Council's Works Engineer has reviewed the submitted information and advised the development is not making any changes to the natural and existing stormwater flow regime outside of the solar farm area. Conditions have been incorporated into the terms of consent to ensure compliance in this regard.</p>
Health Impacts		
<p>Submissions raised concerns relating to radiation and toxicity from the development and its potential effects on health. These concerns are detailed as follows: -</p> <ul style="list-style-type: none"> • Heat increment from plant • Glare and electromagnetic rays • Photovoltaic Heat Island creation • Radiation and Toxicity • Location of possible future high voltage power lines • Change to local climatic conditions 	<p>The applicant has responded as follows: -</p> <p><i>"... Electricity from solar panels and transmission to the power grid emits extremely low-level, weak electromagnetic fields (EMF). Exposure to low-level electromagnetic fields has been studied extensively, and there is no evidence it is harmful to human health, according to the World Health Organization (WHO).</i></p> <p><i>In terms of toxicity, the solar panels used are comparable to those found in residential rooftop solar panels across Australia. The panels are made almost entirely with abundant, earth-friendly materials like glass, aluminium, copper, and silicon and free of toxic heavy metals. Our solar farms do not produce air or water pollution or greenhouse</i></p>	<p>It is considered the information provided by the proponent adequately addresses the issues raised in the submissions. All recommended environmental controls are to be implemented to ensure that any potential impacts are managed and minimised. Further, mitigation measures detailed in the draft conditions of consent will ensure any potential impacts are negligible.</p>

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	<p><i>gases in operation. The solar panels chosen for the development will meet the Australian standard AS/NZS 5033 for photovoltaic (PV) modules.</i></p> <p><i>During the manufacturing process of a solar panel, the PV cells are typically encapsulated in a clear hardened resin with strengthened glass protecting the front side, as well as a back side made from a polymer material. The completed panel is then further protected by an aluminium frame. These features protect the panel from the environment including extremes in temperature, rainfall, hail, and humidity. A robust design, combined with a standard 25-year warranty ensures that the likelihood of cell material being exposed to the environment is very low.</i></p> <p><i>A Construction Environmental Management Plan (CEMP) will be put in place to provide clear instructions for routinely checking the panels after construction to ensure structural integrity and performance throughout the project lifecycle. Any panel deemed as defective would be dealt with in line with the requirements of the Protection of the Environment Operations Act 2014 regarding panel recycling.”</i></p> <p><i>In regard to the topic of heat island effect the proponent has indicated the development is for a relatively small utility-scale facility that generates 5MW. The distance from the urban area of Quirindi would also further negate any contribution to the heat arising from the hardstand of streets and buildings.</i></p>	

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Disposal and Decommissioning		
<p>Issues identified relating to waste and decommissioning are: -</p> <ul style="list-style-type: none"> • When the equipment fails or becomes damaged, there is no environmentally friendly way to dispose of it. • Abandonment at the end of the lifespan • Not appropriately decommissioned • Environmentally unfriendly once solar farm lifetime is complete. 	<p>In response to the concerns raised the applicant has advised as follows: -</p> <p><i>“...a substantial amount of the solar farm materials is made of recyclable materials. The materials will be disposed of appropriately, as per the assessments provided, the Waste Management Plan that will be produced prior to operations, and in accordance with relevant regulations and guidelines. Specialised industries currently already exist to undertake this work and it is expected these industries are expected to boom in the future and the processes streamlined as more solar farms are decommissioned...”</i></p>	<p>A Waste Management Plan (WMP) will identify waste management measures for each stage of the development, including site preparation, construction, and operations. Conditions have been included in the recommended terms of consent to ensure to that any waste and technological hazards generated by the development is appropriately managed.</p>
Lack of Notification / Lack of Communication from Developer		
<ul style="list-style-type: none"> • Lack of time to make a submission • No communication from the developer to neighbouring residents • No communication from the landowner • Liverpool Plains Shire Council (LPSC) did not cover a wider area during notification and all residents should have been notified 	<p>No response required from the Applicant in regard to notification of the development.</p> <p>The proponent has also advised consultation with the community did occur but acknowledged improvements could be made.</p>	<p>The proposal was notified in accordance with the Council's Community Participation Plan from Wednesday, 17 July 2024 until Wednesday, 31 July 2024. The notice also contained the prescribed information under the <i>Environmental Planning and Assessment Regulation 2021</i>. A notice was published on Council's website, the Quirindi Advocate newspaper and adjoining landowners. The notice included a description (including the address) of the lands on which the development is proposed to be carried out, being Lots 134 and 130, DP 751009, Borah Creek Road Quirindi 2343. The exhibition period was also extended a further week to Wednesday, 7 August 2024 at the request of numerous landholders to allow additional time to prepare to submissions.</p>

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		A draft condition has been included recommending consultation occur with the adjoining neighbours, pre-construction providing details of additional mitigation measures.
Noise		
Concerns relating to noise impacts are listed as follows: - <ul style="list-style-type: none"> Noise Emissions during construction Emissions after operation commencement Noise produced from the inverters and transformers 	No response provided by the applicant.	The NIA submitted with the application advises that operational noise will satisfy the <i>Noise Policy for Industry's Project Noise Trigger Levels</i> for the assessed receivers. A condition has been included in the recommended terms of consent to ensure that the development does not produce offensive or intrusive noise, as defined by the <i>Protection of the Environment Operations Act 1997</i> . Other draft conditions have also been included to limit construction hours, ensuring compliance in this regard.
Miscellaneous issues		
The lifespan of the development is questioned and is not considered to be sustainable.	No response provided by the applicant.	The proposed solar farm is considered to have a standard 25-year warranty and a 35-year life expectancy, depending on market conditions. Concerns relating to sustainability have also been addressed in the assessment report.
Seek guarantee solar farm will not increase beyond proposed 11.09 ha development footprint.	No response required.	The proposed development is restricted to the design plan layout. Should the development be approved conditions will ensure the footprint is restricted to the approved plans. Any modifications will be assessed on its merits as part of a future development application that will undertake the same process as this assessment.
The surrounding land has a Minimum Lot Size (MLS) subdivision potential and any new dwelling sites would be able to see the solar farm. There will be an impact on future subdivisions		Comments relating to potential future subdivision and residential development are not relevant to this application. Any future applications to Council will be assessed on its merits.

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Section 2.42 & 2.118 (Transport SEPP) should be considered in the assessment	No response required.	Liverpool Plains Shire Council has adequately addressed the relevant criteria of the provisions of the <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> and appropriate conditions have been recommended, should the application be supported.
Section 4.2.3 (Primary Production SEPP) should be considered. Development within the DPI 2022 draft map – State Significant Agricultural Land (SSAL)	No response provided by the applicant.	Liverpool Plains Shire Council has adequately addressed the relevant criteria of the provisions of the <i>State Environmental Planning Policy (Primary Production) 2021</i> and appropriate conditions have been recommended, should the application be supported.
Electricity Generating Works are prohibited under the LPSC LEP but the SEPP makes it permissible with consent	No response provided by the applicant.	Noted. Section 2.36(1)(b) of the <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> states that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed rural use zone, which includes the <i>RU1 Primary Production zone</i> .
LPSC Growth Management Strategy 2009 does not consider the post COVID migration to regional areas.	No response provided by the applicant.	Liverpool Plains Shire Council are currently preparing a Growth Management and Housing Strategy. This document, once adopted, will replace the current Growth Management Strategy 2009. However, Council considers the recommendations and proposed draft conditions will ensure impacts from the proposed development, during construction and operation, will have minimal impact for regional areas.
Previous owner was declined a building entitlement by LPSC.	No response required.	Not relevant to the assessment of this development application. Council planning staff can be contacted to discuss the matter relating to dwelling entitlements and permissibility.