Address all correspondence to: The Chief Executive Officer,
PO Box 42, Nowra NSW 2541 Australia
shoalhaven.nsw.gov.au/contact | 1300 293 111
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Council Reference: 68323E
Contact Person: Justin Lamerton

22 June 2023

Industry Assessments
Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2124

Attn: Sally Munk

Nowra Biogas Project – SSD-26264096
SCC Response to Request for Comments

I refer to the Department of Planning, Industry and Environment's request for comment in relation to the Nowra Biogas Project to be located at No. 54 Terara Rd Terara (Lot 401 DP 1256042).

Shoalhaven City Council (SCC) recognises the role this project will have within the region from an environmental and economic perspective, and is grateful for the opportunity to provide input into the proposal including details of any key issues and assessment requirements.

Noting the subject land is owned by SCC, the comments at Attachment 1 are provided within Council's regulatory capacity and outlines Council's response to the lodged documents.

If you need further information about this matter, please contact me on 4429 3111.

Yours faithfully

Justin Lamerton
Senior Development Planner
City Development

Development Planning Comments / Requirements:

Summary of Comments:

Further information is required to be provided in order for Shoalhaven City Council to be satisfied with the proposed development from a Development Planning perspective, noting the following detailed comments:

Detailed Comments:

Building Height

Following a detailed review of the submitted development plans, Council notes that there is a significant variation to the maximum height limit for the site which is 11 metres as per Section 4.3 of the Shoalhaven Local Environmental Plan (SLEP) 2014, as follows:

4.3 Height of buildings

(1) The objectives of this clause are as follows—

(a) to ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of a locality,

(b) to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development,

(c) to ensure that the height of buildings on or in the vicinity of a heritage item or within a heritage conservation area respect heritage significance.

(2) The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.

(2A) If the Height of Buildings Map does not show a maximum height for any land, the height of a building on the land is not to exceed 11 metres.

In this regard, the submitted plans depict the following building heights for particular buildings within the development:

- Main Building – Height of 15.52m (141.09% of the principal standard).
- Buffer Tank – Height of 19.51m (177.36% of the principal standard).
- AD Tank – Height of 24.62m (223.82% of the principal standard).
- Hydrolisis Tank – Height of 15.55m (141.36% variation to principal standard).

Noting that the building height represents a principal environmental standard, a Clause 4.6 variation is required to be submitted to support the proposed variation to the height limit. It is recommended that the Clause 4.6 Variation Statement incorporates the following:

> *Any request will need to show evidence of rigorous assessment and consideration given to any recent Land and Environment Court Judgements. You may wish to have regard to these particular Judgements: Wehbe v Pittwater Council [2007] NSWLEC 827; Four2Five Pty Ltd v Ashfield Council [2015] NSWLEC 1009 (and appeal at NSWLEC 90) along with the planning principles established in Veloshin v Randwick Council [2007] NSWLEC 428 and Stockland Development Pty Ltd v Manly Council [2004] NSWLEC 472.*

Visual Impact

Council notes the submitted Visual Impact Assessment submitted with the documentation concludes the following in relation to the overall development:

> *The proposed Bioenergy Facility development on the subject land, would be considered a local and state significant project both economically and socially. Finding a balance between the benefits to the local community and that of visual impacts is not the purpose of this report,*

however should form part of considerations when providing any cost-benefit analysis. From a visual perspective, the development would need to be somewhat consistent in character with the broader region and also within the context of the immediate peri-urban / rural- industrial environment, characterised by characterised used by water treatment infrastructure, cleared green open paddocks with scattered trees, hay bales, networks of creeks and formed water channels, sheds, scattered rural dwellings, and farm infrastructure.

Strategic layout and visual impact mitigation measures such as landscape buffers and built form controls would result in a reduced visual impact on the general landscape, the immediate peri urban / rural-industrial environment and the existing visual connection to the local vernacular.

The recommended visual impact mitigation diagram demonstrates that the proposed bioenergy facility can be successfully constructed and visually integrated into the site alongside the existing sewerage treatment plant, should proposed mitigation measures be implemented to reduce the visual impact of the overall development. The mitigation measures proposed can be applied through specific development controls or consent conditions as outlined in Section 5 Recommendations.

However, noting the extent of the height of the development (AD Tank being 223.82% of the height limit of 11m), Council maintains concerns regarding the visual impact of the proposal on a range of receivers including:

- Nearby and surrounding farms and associated homesteads.
- Commercial operators within the Nowra CBD

In this regard Council finds that a reduction of the building height and/or sufficient justification in a Clause 4.6 variation statement as provided above, in combination with the recommendations provided in the submitted Visual Impact Assessment would enable the proposal to be further considered in relation to visual impacts. In addition to this, careful consideration of the colours / materials used on the exterior facades must be considered to ensure it is compatible with the surrounding landscape.

Detail regarding end of life of buildings is required to ensure that suitable remediation of land and demolition of buildings occurs to ensure that the land is left in a satisfactory condition should / when the development ceases to operate.

Shoalhaven Water Comments / Requirements:

Summary of Comments:

Further information is required to be provided in order for Shoalhaven City Council to be satisfied with the proposed development from a Shoalhaven Water perspective, noting the following detailed comments:

Detailed Comments:

Application for a Certificate of Compliance under Section 305 of the Water Management Act 2000

Applicant will need to include information on the following matters:

- Backflow (protection of the town water supply),
- Liquid Trade Waste matters,
- Waste receival to be bunded and undercover,
- Odour assessment and mitigation measures. Impact of odours from both the proposal and the newly constructed Nowra WwTP will have a greater impact to the surrounding urban and rural areas.,
- Noise assessment and mitigation measures. What impact (if any does the proposal have),

- Water cycle process,
- Water usage by the proposal. Assessment of existing water supply infrastructure to support the proposal for domestic, operational & fire-fighting needs (note there is limited capacity in the existing watermains and Shoalhaven Water does allow for any booster pumps to be directly connected to Council watermains).,
- Waste discharge to Nowra WwTP (quantity, quality, biological loading),
- Location and identification of all assets (operating and disused) within the envelope of the proposal. Treatment and disposal of Asbestos Cement mains.
- A minimum clearance of 5 metres to be provided from any proposed structure (including drainage) to the outside face of any water or sewer assets on the site.
- Impact and interaction with the operation of the Nowra WwTP (traffic, services, etc)
- Security between the proposal and Nowra WwTP.
- Sewer connection (for amenities only) to Nowra WwTP.

Inaccurate Statements in EIS

In the EIS Executive Summary and in various sections throughout the main EIS, it states that the project's generated electricity will be used to power the Nowra STP. This opportunity has only ever been flagged as a possibility with Shoalhaven Water and is far from definitive. Since these initial discussions about this opportunity, Shoalhaven Council has signed an 8-year Power Purchase Agreement with electricity retailer Flow Power, which covers exclusive retail electricity supply to the Nowra STP. The wording in the EIS is therefore not accurate and should read 'Bioenergy Plant could possibility supply some wholesale 'behind the meter' electricity to the adjacent Nowra STP, subject to feasibility and technical analyses'.

Traffic and Roads

The proposed biogas plant is located towards the end of a private driveway, referred to as a 'private access road' in the EIS. This section of private driveway is approx. 550 metres long from the biogas plant entrance to its intersection with Terara Road. This private driveway is owned and maintained by Shoalhaven City Council, mostly for access to/from Shoalhaven Water's Nowra Sewage Treatment Plant (STP), located at the terminal end of this private driveway. As part of its operations, the Nowra STP receives regular truck and vehicle movements, including septic tank pump out trucks, requiring acceptable road access and road pavement conditions for ease of access and to prevent vehicle accidents or damage.

Terara Road, either side of the entrance to the private driveway/road for the proposed Biogas Plant, is currently in a poor state after the substantial rainfall experienced over the past few years. This road will require an upgrade around this intersection to ensure the additional truck movements to/from the biogas plant do not damage the road any further for other road users, including sewer pump out trucks accessing Nowra STP.

The Traffic Impact Assessment states 'The private access road extends south from Terara Road to provide access to the Nowra Sewage Treatment Plant and the site. It has a typical carriageway width of 8 metres and accommodates two-way vehicle movement. There is a cattle grid provided approximately 100 metres south of Terara Road which reduces the road width to one lane at this location'. Table 1-5 in the EIS also states that the private road is 8 metres wide. The actual existing sealed carriageway width of this private access road/driveway is in some sections **less than 4 metres wide**. The cattle grid along this road is around 5.5 metres width, constraining any passing of vehicles.

Compared to the current truck movements on the private driveway entering the Nowra STP (approx. 10 pump out trucks per day), the proposed increase in traffic on this private driveway is significant and could damage the existing road pavement. Peak vehicle movements during the operational stage would be 152 vehicles (as shown in the main report Table 4-9 and 13-4), with 112 of those being 'truck size' vehicles. During the operational phase of the biogas plant, peak vehicle movements

(again mostly large trucks) are stated in Table 13-4 to be **59 vehicles per hour**. **This is effectively a truck every minute** – and could cause traffic issues along the private driveway/road and could spill out onto Terara Road.

The EIS states that the road network is able to accommodate the traffic generated by the Project during the construction, operation and decommissioning stages. **Shoalhaven Water disagrees with this statement and has concerns that this increase in vehicle movements along Terara Road and the private access driveway, mostly trucks, could damage the existing road pavement, particularly during wet weather when the road surface is more vulnerable to surface damage.** The 'queuing' of biogas trucks along the private single lane road/driveway is not considered acceptable due to the hindrance of safe access to the Nowra STP by sewer pump out trucks.

There are also some safety concerns about trucks turning into/out of the private driveway/road onto Terara Road heading west towards Nowra. There is a bridge adjacent to this intersection that restricts the road width and is likely to be a 'pinch-point' for trucks passing to/from the plant. An upgrade to the intersection of Terara Road and the private road should be considered to ensure road safety for all road users.

* Note that the land upon which the proposed biogas facility is to be constructed is already under a 25-year commercial lease with Shoalhaven City Council (LD9247). Under the lease, the Lessee, Nowra Bioenergy Energy Pty Ltd, is granted access to the Property with certain conditions.

Shoalhaven Water requests that a full traffic assessment be undertaken to assess the impact on the existing road network and the private access road/driveway from Terara Road to the Biogas Plant. Subject to the outcomes of that assessment and comments from Council's Development Engineering Section that upgrades to both the access road, Terara Rd and suitable off-street traffic queuing be conditioned as part of any consent to always ensure adequate and safe access to the Nowra STP.

Air Quality & Odour

The SEARS submitted by the NSW EPA for this proposed development specify the following:

- Describe the receiving environment in detail. The proposal must be contextualised within the receiving environment (local, regional, and inter-regional as appropriate). The description must include but need not be limited to: a) Meteorology and climate b) Topography c) Surrounding land-use d) Identified sensitive receptors; and e) Ambient air quality
- Identify comparable facilities within the airshed and consider the cumulative of air emissions from these facilities;

It is Shoalhaven Water's opinion that neither of these specifications have been fully satisfied in the EIS.

The Air Quality Impact Assessment (AQIA) identified 229 sensitive receptors surrounding the Project Site, with the nearest receptors stated as being the residential areas approx. 285 m to the west of the Project Site. The AQIA fails to recognise the Nowra STP, and Wondalga Farm which is directly adjoining the Project Site, as a location where several people work (including permanent fulltime staff, contractors, sewer pump truck operators, etc.). The 'Technical framework: assessment and management of odour from stationary sources in NSW' (NSW DEC 2006), actually referenced in the EIS assessment report, defines a 'Sensitive receptor' as 'a location where people are likely to work or reside; this may include a residential dwelling, school, hospital, office or public recreational area'. By definition then, the Nowra STP and Wondalga Farm, being a location where people are likely to work, should be included as a sensitive receptor in the analysis and air quality assessment.

Shoalhaven Water requests that the AQIA be modified and reanalysed to include the Nowra STP & Wondalga Farm as a sensitive receptor, in the interests of maintaining workplace health and safety of our onsite employees and contractors.

Page 31-32 of the Air Quality Impact Assessment states "The Nowra STP, Shoalhaven Starches Bomaderry and Bomaderry WWTP are the main potential odour generating sources identified. However, odours from the Project operations (i.e., residual odour from the biofilter) will have a different characteristic compared to odours from the Nowra STP." The AQIA further states that 'The Technical Notes only require: "Where it is likely that two or more facilities with similar odour character will result in cumulative odour impacts, the combined odours due to emissions resulting from all nearby facilities should also be assessed against the odour assessment criteria. Given the nature of the operations undertaken at the other facilities and the distances between those facilities and the Project Site, it is concluded that the dust or gaseous emissions and odours from these facilities ***would not have potential to give rise to cumulative impacts to those from the Project***. On this basis, only air pollutant emissions and odours from the Project have been quantified and assessed within this report."

The localised area surrounding the proposed biogas Project Site regularly has a strong organic odour, typically emanating from the nearby Shoalhaven Starches Factory and flooded farmlands. The Nowra STP also emits typical STP odours within close proximity to the plant. The operation of the Nowra Biogas facility directly adjacent to the Nowra STP has the potential to increase odours in the vicinity in a cumulative (combined) manner. The assessment supplied does not support with any data or evidence that the biogas facility odours will have a different characteristic compared to the odours from the Nowra STP. Shoalhaven Water has concerns that any increase in odours in the vicinity will be directed at the Nowra STP, when they may in fact emanate from the Biogas facility.

Recommendation: Shoalhaven Water recommends air quality monitoring stations be established around the biogas plant to gauge odours before and during operation of the biogas facility. This will help to establish baseline odour measurements to gauge the impact of odours emitted from the biogas facility.

It is surprising that the Air Quality Impact Assessment **did not take any existing ambient air quality samples for analysis of background levels of odour at the Project Site**, particularly when the NSW sought this information as part of their SEARS. The AQIA relies on existing air quality monitoring data recorded at Albion Park – some 35 kilometres away – and far from the localised odour impacts often experienced around the Nowra region from the existing land use and industry. It is considered an oversight that the EIS has failed to conduct any measurement of existing air quality and odours at the proposed Project Site, as this is considered to be an obvious existing local impact in the area and should be quantified. These measurements could then be used to substantiate the claim in the EIS that the biogas facility will have a different characteristic smell compared to nearby assets such as the Nowra STP and Shoalhaven Starches factory, and not be a cumulative odour emitter in the area.

The EIS states 'Based on the findings of this AQIA, it is concluded that air quality issues do not pose a constraint for the Project'. Shoalhaven Water does not support this conclusion based on the following inadequacies within the AQIA:

1. Failure to define the Nowra STP Amenities Building and workplace in the AQIA as a 'sensitive receptor' when it clearly is by definition of the DEC 2006 Technical Framework used in the EIS. This has led to the adjoining Nowra STP being excluded from the assessment as a sensitive receptor. The Nowra STP Amenities building, which is occupied on work days by fulltime staff, is situated less than 30 metres from some of the proposed biogas plant infrastructure. The safety and well-being of these staff is a priority and there is minimal evidence provided in the EIS to assure their safety with regard to offensive odour, fire, noise, chemical/biological hazards, etc. from the biogas facility.
2. Failure to conduct any **actual air quality measurements** at the Project Site and relying on air quality data collected at Albion Park 35 kms away. The local air quality around Nowra is potentially compromised with ongoing odours emanating from the Shoalhaven Starch factory and other industry/farmland. The EIS therefore does not assess the potential cumulative odours that the proposed biogas facility could exacerbate. Shoalhaven Water recommends

that there be some background odour/air quality measurements and ongoing odour monitoring stations established for this development.

Electricity

As previously stated, the biogas facility has over stepped the mark by assuming the Nowra STP will be fully powered by the biogas plant. The proposed removal of so-called 'redundant HV underground cabling and overhead mains' currently supplying the Nowra STP and shown in Fig 4-8, is outside the boundary and scope of the proposed biogas facility. Shoalhaven Water does not intend to truncate its existing electrical supply with Endeavour Energy, nor be 100% reliant on power from the Biogas Plant. At best the Nowra STP may accept some 'behind-the-meter' electricity from the Biogas Facility to help reduce the plant's electricity spend, but this has not yet been finalised in any way.

Staff and Infrastructure Safety – Adjacent Nowra STP

The proposed facility layout shows infrastructure including the Liquid Digestate Storage Tank and Gas Holder tank sited within 20-30 metres of the Amenities Building at the adjacent Nowra STP. This Amenities Building hosts a number of operational staff, lunch room and computing hardware. It is important that these STP staff and infrastructure are protected from any adverse physical or biochemical hazards, noxious gases, fire, offensive odours and noise emitted from the biogas facility. It is important that safety 'distance off' buffers are adhered to for the safety and well-being of the STP staff, as there is only a cyclone mesh security fence separating them from the proposed biogas facility. Of some concern is the odour modelling displayed in Fig 7-1 of the EIS that shows the Nowra STP Amenities Building situated well within the coloured impact plumes. More information on this would be welcomed to ensure all measures are taken to protect staff in this adjacent building from offensive odours and hazards.

Floodplain Engineer Comments / Requirements:

Summary of Comments:

Further information is required to demonstrate how the proposed development complies with the safe occupation and efficient evacuation requirements in LEP Section 5.21 Flood Planning. Does the proposed biogas facility require staff to be on site 24 hours a day for operational purposes or can the facility be operated remotely if staff evacuated the facility prior to a flood event? If the facility needs staff on site at all times for operational reasons then further clarification is required as to how these staff can safely occupy the site in the full range of flood events up to and including the PMF and what development controls are proposed to ensure safe occupation for isolated staff during a flood event.

Detailed Comments:

The Environmental Impact Statement report (D23/194401), the Detailed Flood Study (D23/194384) and the Facility Design Drawings (D23/194413) have been reviewed.

The site is located at 54 Terara Road, Terara, with the project footprint located within the former Sewage Treatment Plant (STP) which has now been demolished.

The proposal is for the construction and operation of a large-scale bioenergy facility and associated infrastructure, with the capacity to process up to 30,000 tonnes per year of food waste and 74,400 tonnes per year of cow manure. The facility aims to generate 2.2 MW of electricity and produce digestate. Ancillary infrastructure includes an office building with amenities, installation of electricity infrastructure, internal roads, weighbridge and wheel wash, washdown facility for vacuum trucks, car parking, fencing, and landscaping. The proposal also involves bulk earthworks to raise the

development footprint to approx. 4.7m AHD for flood protection purposes, however, the proposed fill level varies from approx. 3.57m AHD to 4.86m AHD. The depth of filling within the floodplain generally exceeds 1 metre.

A hydraulic impact assessment has been conducted by Rienco Consulting to determine the peak flood levels at the subject site for various events and to assess the potential impacts of the proposed development on neighbouring land. The TUFLOW hydraulic model was used for the assessment, with boundary data extracted from the *Lower Shoalhaven River Flood Study (1990)*. The assessment undertaken by Reinco does not consider impacts of 2050 and 2100 sea level rise scenarios or any other climate change impacts.

It should be noted that the study was conducted before the adoption of the *Lower Shoalhaven Flood Study (2022)* by Council.

The flood study report prepared by Rienco Consulting states that the model results are consistent with both the Lower Shoalhaven River flood studies conducted in 1990 and 2011. However, the 1% AEP flood level for the existing scenario generated by the Rienco model is significantly lower than that of the *Lower Shoalhaven River Floodplain Risk Management Study and Plan – Climate Change Assessment (2011)*. According to Council's *Lower Shoalhaven River Floodplain Risk Management Study and Plan – Climate Change Assessment (2011)*, the 1% AEP flood level for existing conditions is 4.6m AHD and 4.7m AHD for the 2050 scenario, while Reinco is reporting a 1% AEP flood level of 4.3m AHD for the existing conditions scenario.

The proposed development involves fill within High Hazard Flood Storage areas. The fill level equals the 1% AEP flood level for the 2050 scenario as per Council's 2011 flood study of 4.7m AHD. However, Council's newly adopted *Lower Shoalhaven River Flood Study (2022)* have a 2050 scenario 1% AEP flood level of 4.1m AHD for the site. The hydraulic model results for the post-development scenario demonstrate that there are nil or acceptable impact (< 50mm on rural land) as a result of the filling of the floodplain from the frequent 10% AEP flood event up to the PMF. Reinco has not assessed the impact of the development on projected changes to flood behaviour as a result of climate change, but the 0.5% AEP and 0.2% AEP events have been modelled which at times are used as a proxy for a 1% AEP event with climate change impacts.

During the Ordinary Council meeting held on 23 January 2023, the amended *Flood Planning Levels (FPL) for the Lower Shoalhaven River Floodplain Policy (2023)* was adopted. According to this policy, Flood Planning Levels must be obtained from the *Lower Shoalhaven River Floodplain Risk Management Plan – Climate Change Assessment (2011).* As such, the FPL for the site in the 2050 and 2100 scenarios are 5.2m AHD and 5.3m AHD respectively.

The proposed development includes an office building, with the proposed floor level at 4.85m AHD. However, the habitable floor level should be at or above the 2050 Scenario Flood Planning Level (FPL), which is 5.2m AHD. The applicant needs to update the plan accordingly, and this can be conditioned. Although the proposed development will be above the 1% AEP flood level, it is important to note that the access route to the property will be cut off during frequent flood events. Therefore, a flood evacuation plan will be required.

Further information is required to demonstrate how the proposed development complies with the safe occupation and efficient evacuation requirements in LEP Section 5.21 Flood Planning. Does the proposed biogas facility require staff to be on site 24 hours a day for operational purposes or can the facility be operated remotely if staff evacuated the facility prior to a flood event? If the facility needs staff on site at all times for operational reasons then further clarification is required as to how these staff can safely occupy the site in the full range of flood events up to and including the PMF and what development controls are proposed to ensure safe occupation for isolated staff during a flood event.

The proposed development has been assessed as a Type G Critical infrastructure assets / potentially polluting activity and Type C Commercial / Industrial / Agricultural Building / Retail for the main building, in accordance with Schedule 1 of DCP Chapter G9. It can likely comply with the relevant requirements of DCP Chapter G9 and Shoalhaven LEP Flood Planning Clause 5.21 pending the outcome from the additional information request.

Development Engineering Comments / Requirements:

Summary of Comments:

Further information is required to be provided in order for Shoalhaven City Council to be satisfied with the proposed development from a Development Engineer perspective, noting the following detailed comments:

Detailed Comments:

Local Road Network Requirements

Agreement needs to be reached with Council addressing how either:

a) The applicant carries out substantial upgrades to the local road network which would be used to achieves ingress and egress to the development site from the Princes Hwy and from the development site to the pick-up locations to achieve compliance with the applicable requirements including
    a. Austroads; and
    b. Council's Engineering Design Standards; or
b) Negotiation with Council is required in relation to a contribution scheme to assist in funding maintenance costs associated with the use of the local roads for the purposes of the development.

This is required given the expected traffic impact associated with the development, in particular the large amount of heavy vehicles. The road which are proposed to be used have not been designed to accommodate such long and heavy vehicles given they are rural in nature and primarily designed to service rural allotments.

Travel Path / Private Road

It is noted that the proposed truck travel path for trucks exiting the biogas plant utilises Millbank Rd and also the intersection of Millbank Rd and Greenwell Point Rd and Kalandar St with the Princes Hwy. It is advised that SCC has particular concerns with trucks traversing Millbank Rd given the poor condition and narrow width of this road. In this regard, it is advised that an alternative truck travel path to the Princes Hwy should be devised that avoids the use

Maintenance Responsibility

Agreement should be reached between the operator of the site, Shoalhaven Water and Building Services (as asset custodian for the Wondalga Property) as to the maintenance responsibility of the private access road.

Traffic Impact Assessment

There appears to be an inconsistency in the traffic generation numbers marked within the submitted Traffic Impact Assessment prepared by MAKER ENG Pty Ltd, as follows:

Table 5 indicates that a total of 76 vehicles are expected per day (average) and a peak of 152 vehicles per day as follows:

Table 5: Traffic Generation During Operation

Vehicle Type	Average Vehicle Movements per Day		Peak Vehicle Movements per Day	
	Daily (vpd)	Peak Hour (vph)	Daily (vpd)	Peak Hour (vph)
Light Vehicle (car / 4WD)	20	10	40	15
MRV/HRV	33	17	66	26
AV	23	12	46	18
Total	**76**	**39**	**152**	**59**

Whereas Section 4.3.2 of the Assessment indicates that only 36 vehicle trips are expected per day:

> The table indicates that the surrounding local road network is expected to experience a minimal increase in traffic movements. It is noted that the site is expected to generate 36 vehicle movements per day on Terara Road and Moss Street associated with staff accessing the site which can be readily accommodated on the road network.

Further clarification is required to be provided to ensure the traffic generation numbers provided in the Traffic Impact Assessment are correct.

Access Driveway

As stated above, the proposed biogas plant is located towards the end of a 550 metre long private driveway from the biogas plant entrance to its intersection with Terara Road. This private driveway is owned and maintained by Shoalhaven City Council, mostly for access to/from Shoalhaven Water's Nowra Sewage Treatment Plant (STP), located at the terminal end of this private driveway. As part of its operations, the Nowra STP receives regular truck and vehicle movements, including septic tank pump out trucks, requiring acceptable road access and road pavement conditions for ease of access and to prevent vehicle accidents or damage.

It has a typical carriageway width of 8 metres and accommodates two-way vehicle movement. There is a cattle grid provided approximately 100 metres south of Terara Road which reduces the road width to one lane at this location'. Table 1-5 in the EIS also states that the private road is 8 metres wide. The actual existing sealed carriageway width of this private access road/driveway is in some sections **less than 4 metres wide**. The cattle grid along this road is around 5.5 metres width, constraining any passing of vehicles.

Noting the expected peak hour traffic generation would be 59 vehicles per hour, further detailed plans are to be provided, detailing how two way traffic and/or passing bays can be provided to demonstrate that vehicles are capable of passing one another during peak hour periods.

Intersection with Terara Rd

The junction of the private driveway and Terara Road is required to be upgraded and an intersection treatment provided, to ensure the additional truck movements to/from the biogas plant do not damage the road any further for other road users, including sewer pump out trucks accessing Nowra STP.

Further detailed plans must be submitted, detailing how this treatment would be provided, particularly the following:

- Austroads
- Council's Engineering Design Specifications.

Sight Distance

There are also some safety concerns about trucks turning into/out of the private driveway/road onto Terara Road heading west towards Nowra. There is a bridge adjacent to this intersection that restricts the road width and is likely to be a 'pinch-point' for trucks passing to/from the plant. Further detail is required to ensure the safety of motorists utilising Terara Rd is able to be maintained, having regard for trucks queuing for access to the biogas plant.

Environmental Health Comments / Requirements:

Summary of Comments:

Environmental Health has reviewed the submitted documents for the proposed biogas facility. It is envisaged that odour will be the key environmental impact emanating from this development should it be approved. It is noted that regulation of the proposed biogas facility and the current STP fall within the licencing jurisdiction of the NSW EPA.

Detailed Comments:

Noise and Vibration

The report prepared by SLR Consulting Australia Pty Ltd specifies that at the time of reporting the specific equipment and machinery items (and their associated noise emission data) had not sourced or finalised. Therefore, typical spectrums for noise emission sources were included. The report then proceeds to include discussion on exceedances due to pressure valve releases, without elaborating on what this entails. Specified in the EIS is that -

"*The worst case operating scenario reflects unscheduled activities that do not form part of standard operating procedures, and will only occur in events of malfunction and/ or incorrect operation leading to air pressure release valves blowing off and generating excessive noise. Such an event will be managed as an emergency and the plant would be shut down*."

The report specifies mitigation and management measures will be applied through the implementation of construction and operational noise and vibration management plans. Detailed design stage noise modelling will be undertaken to confirm operational noise levels comply with the appropriate levels.

Contamination

A Detailed Site Investigation has been prepared by Environment & Natural Resource Solutions (ENRS) the DSI outlines the Site is assessed as suitable for the proposed development pending the preparation of an Acid Sulphate Soil Management Plan (ASSMP). It is noted the DSI references SEPP 55, however it should be showing compliance with *State Environmental Planning Policy (Resilience and Hazards*) 2021.

Attachment 1 – SCC recommended inclusion for SEARs

Air quality

An odour report has been submitted and prepared by SLR; it appears to be satisfactory from a cursory review. However, it is noted that Council's Environmental Health Officers do not have any formal training in odour issues, particularly at this magnitude of development. It is recommended that a specialised odour expert is engaged to assess the impacts of odour on the community.

By-products

Discussions in the documents specified the removal of an organic by-product for use by local farmers is potential this requires compliance with the POEO Waste Regulations including Classification and Resource Recovery guidelines. It should also be considered further in a management plan prepared by the operator that advisers the end users of appropriate use i.e., tilling mechanisms and in appropriate weather conditions i.e., not during times of high wind.