

NSW Planning Industry & Environment
Att. katelyn.symington@planning.nsw.gov.au.

APPLICATION

DE-2018/65

Date

30 July 2021

Dear Sir/Madam

Development	Proposed Liquid Waste Treatment Plant - 2018 Advice on EIS - Liquid Treatment Plant - 2021
Location	201 Five Islands Road, UNANDERRA NSW 2526

STATE SIGNIFICANT DEVELOPMENT SSD 8304 – PROPOSED LIQUID WASTE TREATMENT– REQUEST FOR ADVICE

Thank you for providing Council with the opportunity to comment on this State Significant Development proposal.

The submitted documentation has been reviewed and comments are provided overleaf.

If you have any enquiries or wish to discuss these matters further, please contact me on (02) 4227 7111.

This letter is authorised by

John Wood
City Wide Development Manager
Wollongong City Council

Council comments for the proposed Liquid Waste Treatment Plant

The following matters are identified for consideration by the Department:

1. Planning

- The site is zoned IN3 – Heavy Industrial pursuant to Wollongong Local Environmental Plan (WLEP) 2009. The proposed liquid waste treatment plant is considered permissible in the zone.
- There is no maximum building height or floor space ratio for the subject allotment pursuant to WLEP 2009. It is noted that the proposal comprises of the installation of equipment and an internal fit out for the purposes of liquid waste treatment within the existing Building E. Whilst it appears that no external or structural works are proposed to the existing building, any building works if proposed are to comply with the Building Code of Australia/NCC.

2. Development Engineering

- Council's records indicate the site is flood affected and coded as 'Flood Risk Precinct Classification under Review'. Information on flooding at the site can be found in Council's adopted Allans Creek Flood Study dated 2019. Council's adopted flood model files can also be downloaded from the NSW State Emergency Service (SES) Flood Data Portal.
- The flood assessment report by SitePlus (Rev No. 2 dated May 2021) uses information from a superseded flood study (being the Allans Creek Flood Study conducted in September 2006 by Lawson & Treloar) to address flood controls for the development. This has resulted in an underestimation of flood levels and flood affectation on the site. The flood assessment report and development proposal needs to be amended to address flood controls using the most up-to-date flood level information, being Council's adopted Allans Creek Flood Study dated 2019.
- Council's adopted Allans Creek Flood Study dated 2019 indicates a significant flood flow path through the site flowing adjacent to and around the existing building within which a liquid waste treatment plant is proposed (i.e., 'Building E'), with predicted flood levels and corresponding above floor flood depths in existing Building E being as per the table below.

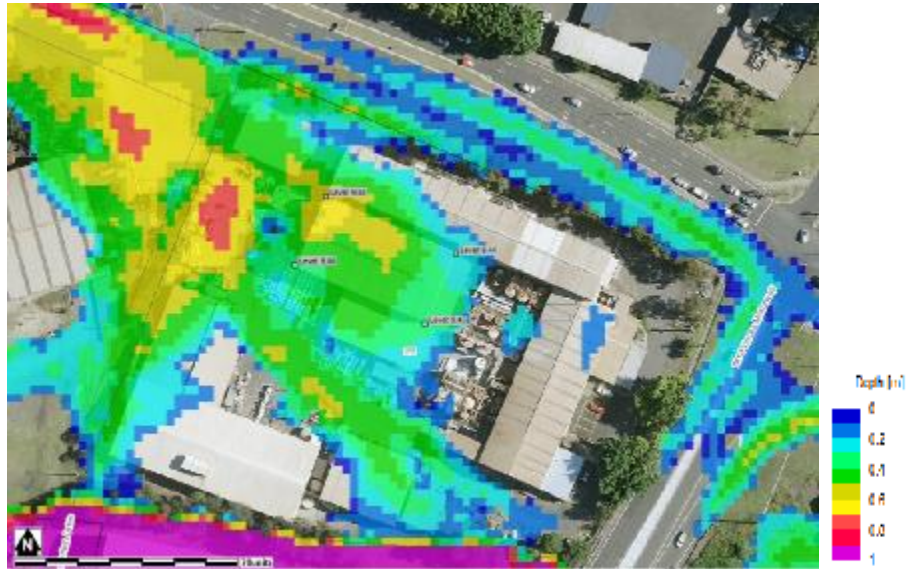
	10 % AEP (10 year ARI)	1 % AEP (100 year ARI)	PMF (Probable Maximum Flood)
Flood Level (m AHD)*	9.53	9.84	10.43
Above Floor Flood Depth (m)**	0.35	0.66	1.25

*The maximum flood level at Building E – predicted by Council's adopted Allans Creek Flood Study dated 2019.

**Above floor flood depth determined using the surveyed finished floor level for Building E (RL 9.18 m AHD) shown on the site survey plans appended to submitted flood risk assessment report by SitePlus.

1 % AEP Flood Depths and Spot Flood Levels (m AHD)

NOTE: Image is in colour



- Council's adopted Allans Creek Flood Study dated 2019 also maps the location of Building E as a mix of hydraulic hazard category '*H2 – Unsafe for small vehicles*' and '*H3 – Unsafe for all vehicles, children & elderly*'.
- Due to the predicted flood levels, depths, and hazard through the site and within Building E (as above), the development proposal presents significant flood risks, due to potential damage to plant/equipment, machinery, etc., and pollution of the surrounding land in the event of floodwater combining with liquid waste.
- Due to the flood depths and hazard on the site, the area inside the existing building is categorised as Medium Flood Risk Precinct, in accordance with the definitions in Section 6.3 of Chapter E13 of the Wollongong DCP 2009. The development is categorised as 'Industrial and Commercial' development according to Appendix A – Land Use Categories in Chapter E13 of the Wollongong DCP 2009.
- The following controls apply to Industrial development within the Medium Flood Risk Precinct (refer Schedule 4: Prescriptive Controls – Allans Creek Floodplain, in Appendix C of Chapter E13 of the Wollongong DCP 2009):
 - For industrial land use only – All Floor Levels to be equal to or greater than the 1% AEP flood, being equal to or greater than RL 9.84 m AHD in this instance, unless justified by site specific assessment.
 - Habitable floor levels to be equal to or greater than the 1% AEP flood level plus 0.5m (freeboard), being a level of RL 10.34 m AHD. In applying this control, a habitable floor area means:

In an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.
 - All structures to have flood compatible building components below or at the 1% AEP flood level plus 0.5m (freeboard), being a level of RL 10.34 m AHD.
 - Applicant to demonstrate that any structure can withstand the forces of floodwater, debris and buoyancy up to and including a 1% AEP flood plus freeboard (being RL 10.34 m AHD), or a PMF plus freeboard (being RL 10.93 m AHD) if required to satisfy evacuation criteria (*see below*).

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- Engineers report required to certify that the development will not increase flood affectation elsewhere, includes medium and high density residential proposals.
 - Reliable access or refuge required during a 1% AEP flood.
 - The development is to be consistent with any relevant flood evacuation strategy or similar plan.
 - Site Emergency Response Flood plan required (except for single dwelling-houses) where floor levels are below the PMF.
 - Applicant to demonstrate that area is available to store goods above the 1% AEP flood level plus 0.5m (freeboard), being a level of RL 10.34 m AHD.
 - No external storage of materials below the *flood planning level* (being a level of RL 10.34 m AHD) which may cause pollution or be potentially hazardous during any flood.
- In addition to the above and given the nature of the development and risk of environmental pollution in the event of a flood, it is also recommended that measures be integrated into the design of the development to ensure that liquid waste cannot physically come into contact with floodwaters in the event of a flood.
 - Due to the flash flooding nature of the catchment, measures that rely on manual activation and/or human intervention are unlikely to be effective. The proposed method of physically segregating liquid waste from floodwaters should be failsafe and inherently integrated into the design and operation of the facility, e.g., permanent bunding with a suitable freeboard provided between the maximum flood levels and top of bund level or elevating all liquid waste treatment/storage/processing areas above the maximum flood levels such that there is no possibility of the liquid waste coming into contact with floodwater.
 - In relation to the above, where it is found to be unfeasible or impractical to provide a suitable and failsafe method of physically separating liquid waste from floodwater flows, then the proposal is unlikely to be a suitable use for the site.

3. Traffic

It is noted that the site is accessed via the State Road network which is under the jurisdiction of TfNSW. Comments would need to be sought from TfNSW regarding the network and intersection impacts.

From review of the DA, it can be seen that background traffic growth has been established from previous traffic counts using pre-COVID data to estimate current and future (10 year) traffic growth assumptions. This method is accepted due to the current downturn in traffic from COVID restrictions/lockdowns etc.

The relevant intersections were assessed. The level of service at these intersections was found to exceed the operating capacity with background traffic alone.

However, the additional development traffic (5 additional heavy vehicles per day, and 6 additional peak hour staff movements) were shown to have a minimal effect on the future operation of these intersections.

Swept paths demonstrate that the design vehicle is able to enter and exit the site in a forward direction.

The proposed expansion of the internal car parking area appears to be generally acceptable. During construction the layout would need to comply with AS 2890.1.

- The parking dimensions, internal circulation, aisle widths, kerb splay corner clearance heights, ramp widths and grades of the car parking areas are to be in conformity with the current relevant Australian Standard AS 2890.1, except where amended by other conditions

of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.

- Each disabled person's parking space must comply with the current relevant Australian Standard AS 2890.6 – Off-street parking for people with disabilities. This requirement shall be reflected on the Construction Certificate plans.
- Any proposed structures adjacent to the driveway shall comply with the requirements of the current relevant Australian Standard AS 2890.1 to provide for adequate sight distance. This includes, but is not limited to, structures such as signs, letterboxes, retaining walls, dense planting etc. This requirement shall be reflected on the Construction Certificate plans.
- Approval, under Section 138 of the Roads Act must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing or any proposed interruption to pedestrian and/or vehicular traffic within the road reserve caused by the construction of this development.
- The application form for Works within the Road Reserve – Section 138 Roads Act can be found on Council's website. The form outlines the requirements to be submitted with the application, to give approval to commence works under the roads act. It is advised that all applications are submitted, and fees paid, five (5) days prior to the works within the road reserve are intended to commence. The Applicant is responsible for the restoration of all Council assets within the road reserve which are impacted by the works/occupation. Restoration must be in accordance with the following requirements:
 - a All restorations are at the cost of the Applicant and must be undertaken in accordance with Council's standard document, "Specification for work within Council's Road reserve".
 - b Any existing damage within the immediate work area or caused as a result of the work/occupation, must also be restored with the final works.

4. Environment

- Stage 1 and Stage 2 Site Investigation
Stage 2 Detailed Site Investigation resulted from the Stage 1 Preliminary Site Investigation recommending a targeted soil and groundwater sampling program and Environmental Management Plan (EMP).
Council agrees with Dr James Fox (Principal Geochemist) Land & Water Consulting review and assessment of the Stage 2 Detailed Site Investigation.
- BDAR Waiver
There are no issues with the BDAR waiver as the site is entirely hardstand or existing buildings.
- Noise Impact Assessment
The Noise Impact Assessment and Modelling assumed a potential worst-case scenario with predicted results being within applicable criteria. Council agrees that proposed project can operate within acceptable noise criteria at the designated sensitive receivers.
- Air Quality and Greenhouse Gas Assessment

Air Quality
CALPUFF predictive air dispersion modelling was used to assess the potential for off-site air pollutant impacts. The consultant has stated...

"It is predicted that the Project would have a negligible incremental and cumulative impacts at the surrounding residential receptor locations and would comply with the relevant air quality criteria.

Nevertheless, the site would apply appropriate air quality mitigation and management measures to ensure it minimizes the potential occurrence of excessive air emissions from the site."

Greenhouse Gas Assessment

The consultant predicts annual contribution annual greenhouse emissions to be 0.0007 percent of the estimated greenhouse gas emissions for Australia during 2016 which was 533.0Mt CO₂-e (Department of the Environment and Energy, 2019). Council is of the opinion with continued vigilance and improvement that this contribution is negligible.

Council agrees that proposed project can operate without causing significant air quality impact at residential receptors in the surrounding environment.

Water and Land Pollution Incident - Flash Flooding

Council's Senior Stormwater Development Engineer's assessment using the Allans Creek flood model (2019) predicts that flooding in the 10yr ARI, 100yrARI and PMF would cause inundation of building to an above floor depth of 0.35m (10yr), 0.66m (100yr) and 1.25m (PMF). Additionally, due the nature of the catchment flooding could be categorised as flashy which will limit response time to a flooding event.

It would be essential for the applicant to meet the responsibilities of the POEO ACT (as a minimum the definition of water pollution) that the applicant provide assessments, documentation, design specifications of plant/equipment and management plans addressing the very real likelihood for the proposed project to be flooded during these events.

Council would need to be assured that potential pollution incidents related to flooding events can be mitigated and/or contained on site.