Referral Response - Environmental Health - Environmental Management

Application Number:	DA17/1092
Referral Officer	Teresa Dalton
Referral Unit	Environmental Health - Environmental Management
Date of referral	10 May 2018
Land to be developed (Address):	Lot 2 DP 1108408 13 - 15 Park Road WALLACIA NSW 2745
Proposed Development:	Staged Construction of Wallacia Memorial Park including Cemetery for 88,000 Burial Plots, Chapel & Related Crematorium & Function Rooms, Administration Building, Services Outbuilding, Parkland Areas, Internal Roads, Car Parking & Associated Landscaping & Site Servicing Works

Recommendation
Not supported

Detailed assessment

I have reviewed the application and plans submitted by Catholic Metropolitan Cemetries Trust C/- Urbis Pty Ltd. I have not undertaken an inspection of the site.

The following comments are provided for your consideration and assessment:

Noise impact
Unsatisfactory for the following reasons:
Acoustic Report prepared by Acoustic Studio reference 20171024 dated 24th October 2017

Noise source from the operation of the clubhouse is not a part of the assessment as the operation of the centre will not change from its current operations. Conditions will be provided to ensure that the current legislation and guidelines are adhered to.

Further information needs to be provided on the operating hours of the clubhouse including delivery times of goods and services associated with the operation and maintenance of the clubhouse.

Operating hours of the cemetery 7am-5pm Mon-Fri and 7am-12pm Saturday

Sensitive land uses have been identified and taken into account when establishing data logger locations.

Acoustic assessment method has been carried out according to the NSW INP. Building services and plant (including furnaces) impact on receivers assessed against NSW Industrial Noise Policy 2000. Traffic noise for activities of the operations of the site and operational noise associated with the proposed buildings and traffic noise from internal noise were assessed.

The acoustic report does not however state that the distance the noise meter was located from the most affected point (INP states if this is more than 30m from the residence, the logger should be located at the most affected point within 30 m of the residence).

Construction

Relevant guidelines and standards have been referenced in developing the project noise criteria. Noise Policy for

Industry (2017) does not apply as the assessment was carried out prior to the date of Policy coming into effect.

The report states construction noise and vibration assessment associated legislation from NSW DECC, Australian Standards and POEO Act 1997 apply. *Design noise and vibration limits have been set for the project for construction activities*. No detail has been provided on the type of equipment being used during construction, distance from the most sensitive receiver, vibration effects and sound power output of the equipment.

As recommended in the acoustic report, a Construction Noise and Vibration Management Plan should be provided and approved by council prior to the commencement of construction. Furthermore as per the report's recommendations, noise monitoring is recommended to ensure that compliance is being maintained. Managing of communication and complaints from and with the community to the site manager should be carried out as per information provided in the acoustic report.

Conditions will be applied to ensure that additional noise control measures are put in place and construction best practice presented on the report to minimise the noise impacts on the neighbourhood.

External Noise

Traffic Noise emissions

It is acknowledged that the background noise reading taken for the purpose of this report may not provide an accurate background and ambient noise levels were dominating around the site such noise associated with the golf course.

Statement is provided that compliance with Road Noise Policy will be met relating to places of worship day 50dBA Night 40dBA Residential 55dBA and Night 50dBA. To ensure compliance is met conditions will applied.

Mechanical Plant

While a statement indicating sound mitigation measures will be implemented for the furnaces (and number of) and mechanical plant, further acoustic information and compliance with NSW INP and POEO Act 1997 will be will need to be provided once the specific brand of furnace has been decided. Location of flue will also need to be provided.

Chapel

Data from noise assessment indicates compliance with INP however conditions will be applied to ensure that offensive noise and noise levels are no more than 5dBA from the background noise. Time restrictions as mentioned in the SOEE report will be condition to operating hours of 7am-6pm daily. Statement required to confirm seating number of chapel at full capacity is 100 people.

Noise Intrusion from Internal Roads

Minimal impact of noise intrusion from internal roads on the clubhouse however conditions will be applied to ensure that requirements of AS2107 are achieved for the proposed new buildings but not the established clubhouse.

Operational Noise Impact

Traffic

Traffic noise generation predicted car traffic is correct in relation to data provided by RMS on nearest location station at Parker Road Kingswood. It would not be expected that there would be a substantial increase in traffic to the current operations/patrons of the site however it is acknowledge that there is a predicted 2dBA noise level increase form traffic flow during operations of the site. Therefore no mitigations to manage noise from traffic will be required. Conditions will apply for the management of noise from traffic should substantiated complaints arise.

Crematorium

Noise level predictions have been provided for 1 furnace from 7am-6pm however the development states that 2 furnaces will be operating on a worst case scenario of 24 hours a day 365 days/year. Further detailed assessment needs to be provided on source noise levels of the furnace and equipment mechanical plant for day, evening and night.

Building Services

As mentioned in the report, final plant equipment has not been decided therefore further detailed assessment

needs to be provided on accumulative operational noise impact from building services equipment day, evening and night; noting that evening background noise 29dBA at the most sensitive receiver allows for maximum noise output of 34dBA

Kitchen

No information has been provided on noise sources from mechanical equipment operating from the kitchen or catering area. Further detailed assessment needs to be provided on the operational noise impact on residence from the coolroom compressor fans and exhaust fans for day, evening and night.

Building Use

While the SOEE report recommends that conditions of consent can be applied achieve the relevant criteria it will be recommended that a qualified acoustic engineer will be required to provide a detailed acoustic report to council prior to conditions being placed on the consent to begin construction. The acoustic report must show compliance with the relevant legislation in relation to the predicted *accumulative* noise levels of all equipment/mechanical plant, building services, and traffic and patron noise prediction/modeling during operations of the site in the day evening and night at the most sensitive receivers. A map showing noise contours during construction and operation of the site should be detailed in the report including expected noise barriers from buildings and the environment and indications of the most sensitive receivers to the operation of the noise sources.

Proposed noise control measures will be conditioned to be implemented.

Air pollution/odour

Satisfactory subject to review and approval by consultant qualified in assessing air quality reports:

Assesment carried out by Northstar Airquality ref:18.1014FR1V3 sated 2 November 2017
6 (group C development after 2005) of the Protection of the Environment Operations (Clean Air) Regulation 2002 and in accordance with the Approved Methods for Modeling and Assessment of Air Quality in NSW and Australian Cemeteries & Crematoria Association

Assessment has been carried out as worst case scenario of 24 hours/day operation 365 days/year with resulting statement that the assessment indicates that the operation can be performed with no exceedance of the relevant air quality criteria

Assessment requirements have been modelled off the NSW EPA Air Quality Impact Assessment, Approved Methods for the Modeling and Assessment of Air Quality in NSW, Approved Methods for the Sampling and Analysis of Air Pollution in NSW and the National pollution Inventory for Crematoria.

Start-up operating temperature of primary and secondary combustion chambers 300°C-800°C after preheating to 850°C average time of cremation 90minutes per body at 800°C-1000°C

The NPI states that the above temperature and residence time for combustion is correct. The applicant is using 1st and 2nd Chamber in the crematoria and has stated there will be no odour emissions as a result of this process (on the proviso that the equipment is operating efficiently.

Equipment used in the crematoria must to meet the POEO (Clean Air) Regulation 2010 (non-scheduled activities in NSW) where the operation of a plant and equipment should be performed to minimise air pollution. The most stringent in-stack emission limits have been adopted and shown to be compliant with the relevant criteria in the assessment. In addition the assessment shows compliance with the relevant criteria with ambient air quality adopted are predicted to be achieved (as per POEO Act 1997 requires.

Best Available Techniques (BAT) are referenced to minimise pollution emissions however it is noted that the report acknowledges that the ACCA wet scrubbing is not recommended due to cost and disposal of waste liquid. The use of modern and well maintained cremators not normally requiring wet scrubbers. Assessment is proposing dry scrubbers /filtration to reduce mercury.

The assessment states that the proposed operation will contribute to less than 1.5% of the relevant criteria at Warragamba Dam with emissions of the proposal to contribute to <1% of the relevant criteria at Warragamba Dam.

Dispersion modeling predictions of principal toxic air pollutants are in compliance with the impact assessment criteria in the Approved Methods for the Modeling and Assessment of Air Pollutions in New South Wales (2017). Statement is required indicating if there is to be an impact off dispersion of pollutants as a result of there being a variation of results of 7.5% calm winds in Badgerys Creek automatic weather station and 2.5% difference shown in 2015 modeling in Appendix B for calm weather.

Recommended emission controls of dry scrubber/filtration unit should be put in place to ensure that Mercury levels are kept below emission limits stated in the Approved Methods for the Modeling and Assessment of Air Pollutions in New South Wales. Ongoing monitoring as stipulated in the assessment must be adhered to as per requirements listed in Appendix A of the assessment.

The assessment states that continuous monitoring requirements of (Department for Environment, Food & Rural Affairs UK 2012) abated cremators. It is recommended that monitoring parameters in table 8.5 of the ACCA Environmental Guidelines for Crematoria and Cremators be followed.

As per the ACCA Guidelines, the facility must ensure that operations and maintenance of equipment in a good condition must be maintained following parameters in 8.5 Internal auditing and reporting in the ACCA Environmental Guidelines for Crematoria and Cremators.

The stated method and frequency of monitoring referred to in the assessment is deemed acceptable and will be conditioned to be adhered to.

Further information needs to be provided regarding proposed airport and possible affects relating to the crematorium operation i.e. air quality affect and effect of heat from crematorium. It is recommended that the development application be referred to the Air Services Australia for further comments on the effects of the crematorium over the flight path.

In addition, further information needs to be provided regarding seasonal inversion effects on the air quality and emissions from the crematorium, it's affect on the neighbouring residents, creeks and Warragamba Dam water.

Due to the complexity of the application it is recommended that Council employ the services of a consultant qualified in assessing air quality reports specifically for crematoriums to ensure that the proposal is within compliance of the relevant legislation and standards

Waste

Satisfactory subject to conditions:
Waste Management Plan
Plan mentions compliance with Penrith City Councils' DCP 2014, Protection of the Environment Operations Act 1997 and NSW EPA Waste Classification Guidelines Part 1 Classifying Waste and compliance with AS2601: The demolition of structures as referenced in the EP&A Regulation 2000

Testing for waste classification of excavated material is to be conducted by the project manager with the proposal of implementing a waste management plan based on the results. It is recommended that no construction certificate be issued until the testing for waste type and development of waste management plan (including disposal location) is provided to Council and approved by Council in writing. Reference is required to be made to section 143 of the Protection of the Environment Operations Act with information provided as to type of waste identified and nominated facility for depositing of the classified waste. Conditions of consent will reflect this

requirement.

Asbestos waste (and the management of the waste) from the existing sheet lining in the outbuildings has been identified in the management plan. Disposal of asbestos according to the relevant legislation has been referenced. Asbestos piping has been identified in the contaminated land report

Details and receipts of waste materials from construction must be made available for council to view. This will be conditioned in the conditions of consent

Storage of waste is approximately 3 meters from Park Road. Conditions will be made to ensure that no members of the public are to have access the waste storage area and that the waste is covered and secured at all times to prevent rubbish and dust from dispersing from the bin. Staff will be required to carry out daily collection of any windblown material

Wastewater

Unsatisfactory for the following reasons:
Waste Management Plan for Liquid Waste requires further details

Further information on sediment control for washing of vehicles needs to be provided. Identification of areas where truck are to be hosed down and location of storm water drains to be identified. Sediment erosion controls measures need to be detailed around areas where pollution could occur from liquid waste

Storm water pollution prevention methods proposed to be developed by the contractor needs to be provided to Council prior to the issue of Construction Certificate

Specific details of how waste water is to be disposed of needs to be supplied including advice provided by Sydney Water

Operational waste management plan
Reference has been made to compliance with Penrith Councils Penrith DCP 2014, C5 Waste Management conditions will be placed to ensure continual compliance.
Further information required on liquid, clinical or hazardous waste relating to the body preparation prior to burying or cremating needs to be identified with nominated waste facility stipulated

Health Grease Trap locations and Sydney water trade waste agreement will be required to be submitted to council prior to the issue of occupation Certificate. Conditions will be applied to ensure compliance

Land contamination and Geotechnical Report by Douglas Partners project #76652.02 dated June 2017
Unsatisfactory for the following reasons:

Preliminary site investigation on the land has occurred providing only basic information on possible contaminations, salinity, acid sulphate soil information.
Current possible contamination of land has been identified: asbestos piping, chemical storage/sheds and hazardous building materials and chemicals stored /spilt in sheds and areas of filling on site. 2x1000L above ground storage tanks containing diesel and the other with petroleum needs to be further investigated for possible ground contamination through leakage.

The presence of hotspots of pesticides, herbicides and fertilisers contaminants in the soil also need to be identified through further testing.
While the report states that the type of contamination of potential areas of environmental concern (PAEC)

associated with these areas is low to medium hazard rating (level 1 to 2), it is agreed that further intrusive investigation is carried out to determine the extent of each PAEC and identify any further potentials contamination of concern.

Salinity has been identified through the DIPNR, 2002 'Salinity Potential in Western Sydney' as having 'moderate salinity potential'. Further investigation on salinity levels are required due to the evidence of scalding and indicator vegetation on historical mapping.

No known occurrence of acid sulphate soils were identified using the NSW OEH acid sulphate risk mapping of the site

Sensitive receptors & site history information was provided albeit history information was limited due to access and confidentiality of the assessment. Areas where the golf course was developed, sheds were built and removed and ground disturbance were identified.

No notices have been identified on NSW EPA website. A review of Council holds environmental report(s) relating to the subject property (Land ID 82667). Report Title: Environmental Assessment of Stockpiled Fill - Wallacia Golf Course, 13 Park Road Wallacia NSW 2745 (Ref: DL2940_S000025 Revision 2) The assessment report provided to council indicated that soil samples carried out on the fill used on the premises did not contain any volatile, semi volatile hydrocarbons, pesticides or PCBs. PAH and heavy metals were detected however were below NEPME. No asbestos was detected in the soils however foreign material was found which may contain asbestos.

Whilst the areas of fill were deemed satisfactory for the use of the land as a golf course, further detailed site investigation should be undertaken to determine the associated risk of exposure to asbestos and chemicals to the community and workers during the digging up of soil for burials and during the construction phase of the site.

Should any excavated soil be reused onsite, contamination assessment of excavation materials (soil) must be carried out and a report submitted to council for approval prior to the reuse of the materials. This will be addressed as a condition of consent.

Further detailed site investigation (DSI) should be undertaken including intrusive investigation, sampling analysis and assessment to determine land use suitability focusing on the identified PAEC. DSI should follow the requirements of the National Protection Authority (NSW EPA) Guidelines:

- Guidelines for the NSW Site Auditor Scheme 3rd Edition (EPA 2017)
- Guidelines for Consultant reporting on Contaminated Land Sites (EOH 2011)
- Sampling Design Guidelines (EPA 1995)
- Other Guidelines made or approved by the EPA that are relevant to the site such as Australian Standards or guidance on a specific issues

It is recommended that a hydrological risks assessment is carried out. The risk assessment will be based upon data and knowledge gained from the desktop assessment and the intrusive site investigation. The scope of the risk assessment required will be dependent on site specific factors such as intended annual burial rate, the local vulnerability of groundwater and the scale of the site proposed.

Geotech report

Detailed plans of the burials be provided indicating the layout of the burial plots. The following must be take into consideration (practice guides cemeteries burials and the water environment):

- Burial plots should be at least 250 m away from a borehole, spring or well used for the supply of drinking water.
- Burial plots should be at least 50 m away from all other boreholes, springs or wells.
- Burial plots should be at least 50 m away from a river or wetland
- Burial plots should be at least 10 m away from field drains (this also includes old agricultural drainage systems no longer in use as they can act as preferential pathways).
- If bedrock is encountered in the trial pit, that area of the site should not be used for burials.

The area of the site is not suitable for burial if there is standing water at the bottom of the burial pit when first dug.

Based on the above comments and review of the proposal, the proposed application is unsatisfactory. Prior to further assessment by the Environment Team, the above matters must be addressed by the applicant. Please refer back to the Environment team when the issues raised above have been fully addressed.

Yours sincerely,

Teresa Dalton
Environmental Health Officer