

your reference: JRRP-13-369
Our reference: DOC13/27592
Contact: J Goodwin 9995 6838

Ms Glennys James
The General Manager
Blacktown City Council
PO BOX 63
BLACKTOWN 2148
Atten: Melissa Parnis

Dear Ms James

PROPOSED THE PONDS PUBLIC SCHOOLS PROJECT

I am writing to you in reply to your invitation to the EPA to provide comments concerning the above project.

The EPA's main concerns are that any development consent ensures that the proponent adequately addresses predicted environmental impacts and proposed mitigation measures, especially those associated with:

- (a) remediation of site contamination (including dust control and management during remediation of the subject site and overall project site);
- (b) construction-related noise and vibration (including recommended standard construction hours and respite periods for high noise impact work);
- (c) construction-related dust control and management,
- (d) construction-related erosion and sediment control; and
- (e) potential noise impacts of school activities on surrounding residents and appropriate feasible and reasonable noise mitigation and management to ensure compatibility of school and residential land uses.

The EPA expands on its concerns in Attachment A to this letter.

The EPA emphasises that, while the EPA is the 'appropriate regulatory authority' (ARA) for operational activities undertaken by the Department of Education and Communities, the Council is the ARA for noise complaints that may arise from activities by community groups and other external hirers of school facilities that are effectively tenants.

cc

25 JUN 2013

3.C.C.

FILED IN:

LETTER No:

Parnis

13-17041

Priority 4
Reply Optional

Should you require clarification of any of the comments in Attachment A please contact John Godwin on 9995 6838.

Yours sincerely



20-6-13

FRANK GAROFALOW
Manager, Metropolitan Infrastructure
NSW Environment Protection Authority

Attachment A – Comments on Development Proposal

- ENVIRONMENT PROTECTION AUTHORITY COMMENTS -

THE PONDS PUBLIC SCHOOLS AND ASSOCIATED SITE REMEDIATION AND EARTHWORKS

1. General

The EPA considers that the project comprises two distinct phases (construction and operational) and has set out its comments on that basis.

2. Construction phase

The project Statement of Environmental Effects (SEE) raises a number of environmental concerns about environmental impacts during the construction phase of the development which should be addressed by the conditions on any consent that may be forthcoming.

The EPA anticipates that construction and construction related activities will be required to be undertaken in an environmentally responsible manner with particular emphasis on -

- site remediation and preparation
- effective erosion and sediment control
- recommended standard construction hours
- feasible and reasonable noise and vibration minimisation and mitigation
- intra-day respite periods from high noise generating construction activities such as jack hammering, pile driving and saw cutting
- effective dust control and management

2.1 Site remediation and preparation

The SEE and associated documents indicate that the site was previously used for residential and intensive poultry farming. The EPA further understands that similar land uses occurred on land adjoining the project site. Thus the EPA anticipates possible previous use of insecticides, fungicides and other chemicals in conjunction with those poultry farming activities. Similarly the EPA anticipates that the footprint and curtilage of the dwelling-houses and outbuildings on the project site are likely to have been treated with termiticides and other pesticides.

The EPA also anticipates the presence of septic tanks and associated absorption areas on the site which will require de-commissioning and removal in accordance with NSW Health guidelines.

The January 2013 Targeted Hazardous Materials Survey Report prepared by Noel Arnold and Associates is based on a visual inspection of the site. The Report indicates a number of areas were not accessible or investigated. And, in section 6 (pp. 6-7) large amounts of bonded asbestos material (and some friable asbestos material) was found and in section 5 that sampling and analysis confirmed the presence of asbestos.

The proponent should apprise itself of the requirements of clause 42 of the Protection of the Environment Operations ('Waste Regulation) 2005 concerning asbestos wastes. The EPA provides additional guidance material at its web-site <http://www.environment.nsw.gov.au/waste/asbestos/index.htm>.

Survey Report section 6.7 confirmed the presence of free-standing fuel storage tanks but no underground tanks. The EPA anticipates that there is likely to have been fuel spills and leaks of unknown quantity and

duration over the years and as such subsequent investigation should address the prospect of hydrocarbon contamination of soil contamination especially in the vicinity of the storage tanks.

The EPA is concerned that the scope of the site investigations conducted to date are insufficient to adequately characterise the general contamination status of the site, noting at the same time that additional investigation is recommended by Noel Arnold and Associates before determining remedial action to make the site suitable for the proposed use(s).

The SEE at section 5.8.8 recognises that further investigations are required. It goes on to conclude "The subject site can be made suitable for the proposed educational establishment ..." but goes on to state "... it is not clear if a remedial action plan (RAP) may need to be prepared and implemented ...". However, the EPA suggests that the suitability of the site for its intended use has not been established at this stage.

Schedule 1 to the Protection of the Environment Operations (Waste) Regulation 2005 prescribes waste to which waste tracking requirements apply. Although the SEE does not appear to address the issue of wastes that are required to be tracked, the EPA suggests that such wastes might be expected to be identified during the course of site remediation. A fact sheet on 'tracked waste' is available at the following web page: <http://www.environment.nsw.gov.au/resources/owt/trackwaste07522.pdf>

The EPA does not consider that the SEE provides sufficient information on the contamination status of soils and groundwater to enable it to provide meaningful comments.

For instance, the SEE and Targeted hazardous Materials Survey Report do not include detailed information about –

- (a) groundwater (example: depth and likely impact to groundwater),
- (b) the presence or otherwise of fill material or on-site waste disposal pits typical of rural holdings,
- (c) the stockpiles "... present across the site ..." (para 3, section 5.8.8 of SEE), or
- (c) potential soil contamination related to chemical use (example: insecticides, termiticides and fungicides) and fuel storages associated with previous land uses on the project site and adjoining land.

The EPA is unclear whether a site auditor has been engaged for the project at this point in time. Considering that the site is to be redeveloped for a more sensitive land use (i.e. a primary school, high school and a playing field), the involvement of a Site Auditor who has experience in similar projects (i.e. determining site suitability for school and playing fields) is considered warranted for this project.

The EPA understands from Urban Growth NSW any contamination on land adjoining the southern boundary of the project site and occupied by similar land uses will most likely be remediated at the same time as the project site.

Recommendation

Council should consider, based on the former land uses and the limited information available, that as a condition of any consent further site investigations are required and that :

- once on-site buildings have been demolished and removed, the proponent will need to engage a suitably qualified consultant to carry out a more detailed site assessment to establish the potential for contamination at the site, and
- it be provided with a site audit statement by an EPA accredited site auditor under the *Contaminated Land Management Act 1997* determining site suitability for the proposed land use.

Recommendation

Council should consider requiring the proponent to consult with –

- (a) Workcover NSW concerning the proper management and control of asbestos handling of asbestos wastes, and
- (b) NSW Health's Environmental Health Branch concerning the de-commissioning of any septic tanks.

2.2 Waste control and management (general)

All wastes generated during the project must be properly assessed, classified and managed in accordance with the EPA's guidelines to ensure proper treatment, transport and disposal at a landfill legally able to accept those wastes.

The EPA further anticipates that, without proper site controls and management, mud and waste may be tracked off the site during the course of the project.

Recommendation

Council should consider requiring the proponent to ensure that :

- (1) all wastes generated during the project are assessed, classified and managed in accordance with the "*Waste Classification Guidelines Part 1: Classifying Waste*" (Department of Environment Climate Change and Water, December 2009);
- (2) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and
- (3) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site, is removed before the vehicle, trailer or motorised plant leaves the premises.

2.3 Dust control and management

The EPA considers dust control and management to be an important air quality issue during site preparation and subsequent construction. Bulk earthworks inevitably generate dust as a result of –

- (a) the excavation, processing and handling of excavation spoil,
- (b) wind action on spoil stock piles, and
- (c) wind action on and plant movement across areas bare of vegetation or other cover.

Recommendation

Council should consider requiring the proponent to:

- (a) minimise dust emissions on the site, and
- (b) prevent dust emissions from leaving the site.

2.4 Erosion and sediment control

The SEE identifies a natural drainage line/ watercourse along the northern boundary of the site.

The Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called 'Blue Book') provides guidance material for achieving effective erosion and sediment control on construction sites.

The EPA emphasises the importance of –

- (a) not commencing earthmoving or vegetation removal until appropriate erosion and sediment controls are in place, and
- (b) daily inspection of erosion and sediment controls which is considered fundamental to ensuring timely maintenance and repair of those controls.

2.5 noise and vibration

The EPA considers that the project is likely to generate significant noise and vibration impacts on surrounding residences and other noise sensitive land uses during construction.

The proponent should –

- (a) identify surrounding noise sensitive land uses, and
- (b) undertake a noise and vibration impact assessment of construction activities, especially any such activities -
 - (i) likely to generate noise with annoying characteristics, or
 - (ii) proposed to be undertaken outside the recommended standard hours discussed in Interim Construction Noise Guideline (ICNG).

Guidance material is available on the EPA web site including downloadable copies of –

- the Interim Construction Noise Guideline (2009), and
- Assessing Vibration: a technical guideline (2006).

2.5.1 *construction hours (including respite periods)*

Interim Construction Noise Guideline section 2.2 (p.8) specifies the recommended standard hours for construction outside of which long experience shows increasing levels of community concern about construction noise impacts.

At the same time, the EPA accepts that certain emergency work may need to be undertaken urgently (other than during the standard recommended hours) in order to avoid –

- loss of life,
- damage to property, or
- environmental harm.

ICNG section 4.5 specifies construction activities proven to be particularly annoying to nearby residents or otherwise likely to generate noise with impulsive, intermittent, low-frequency or tonal characteristics. The EPA anticipates that those activities generating noise with particularly annoying characteristics would be subject to a regime of intra-day respite periods where –

- (a) they are only undertaken over continuous periods not exceeding 3 hours with at least a 1 hour respite every three hours, and.
- (b) 'continuous' means any period during which there is less than an uninterrupted 60 minute respite between temporarily halting and recommencing any of the work referred to in ICNG section 4.5

Recommendation

The Council should consider requiring:

- (a) construction and construction-related activities (including site preparation) to be restricted to the construction hours as recommended in Table 1, Chapter 2 of the Interim Construction Noise Guideline, July 2009; and
- (b) scheduled intra-day 'respite periods' for construction activities identified in the Interim Construction Noise Guideline as being particularly annoying to surrounding residents and other noise sensitive receivers - typically 3 hours on followed by at least a 1 hour respite.

2.5.2 reversing and movement alarms

The EPA has identified the noise from 'beeper' type plant movement alarms to be particularly intrusive and is aware of feasible and reasonable alternatives. Transport for NSW (nee Transport Construction Authority), Barangaroo Delivery Authority/Lend Lease, Networks Alliance and Leighton Contractors (M2 Upgrade project) have undertaken safety risk assessments of alternatives to the traditional 'beeper' alarms. Each determined that adoption of 'quacker' type broadband movement/reversing alarms instead of traditional beepers on all plant and vehicles would not only maintain a safe workplace but also deliver improved outcomes of reduced noise impacts on surrounding residents.

Interim Construction Noise Guideline Appendix C provides additional background material on this issue.

Recommendation

The Council should consider requiring the proponent to undertake safety risk assessment of construction and construction-related activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety.

3. Operational phase

The EPA anticipates that environmental impacts once the school commences operation can largely be averted by measures aimed at ensuring compatibility of school and residential land uses.

3.1 School maintenance activities

The EPA regularly receives noise complaints about day-to-day school maintenance activities (example: leaf blowers, out of hours waste collection) impacting on surrounding residents.

Recommendation

Council should consider requiring the proponent to ensure that noisy day-to-day maintenance activities such as waste collection and grounds maintenance (involving the use of leaf blowers, lawn mowers or other noisy equipment) are undertaken only between the hours of 7.30 am and 6.00 pm Monday to Friday.

3.2 School public address (PA) system

The Environmental Noise Impact assessment report (prepared by Day Design and dated 15 February 2013) discusses the proposed use of a so-called 'school bell' to signal "... the start and end of classes." as and indicates that it would be linked to the public address system.

The EPA recognises that an effective public address system is essential to the proper administration of the school and the safety of students, staff and visitors. However, the EPA has received a number of noise complaints about school PA systems that are poorly designed or over used. Section 7.5 to the Day Design assumes that there will be up to 6 speakers to cover a very large school campus. The EPA considers a diffuse array of more lower power speakers would be less likely to generate noise impacts on surrounding residents than a few high power speakers. Importantly, we understand that other schools use an Announcement System that is connected to an intercom in classrooms and consider the 'school bell' as proposed (i.e. through loudspeakers) to be inappropriate.

The EPA previously advised the Department of Education and Communities of various measures it considers are likely to reduce the risk unacceptable noise impacts from school PA systems, including -

- (a) that well-designed systems would typically comprise –
 - Amplifier with no more than 30 Watts of power,
 - more lower power speaker horns in preference to a few higher power speaker horns,
 - zones to limit noise to only those zones essential to the particular announcement,
 - speaker horns located only in essential control areas rather than throughout the campus.
 - speaker horns pointed in the appropriate direction within the campus, and
 - speaker horns inclined downwards at an angle of 45 degrees;
- (b) a zoned announcement capability to be considered in the context of a safety risk assessment to ensure such capability would not compromise safety when making emergency announcements in the event of evacuation or 'lockdown' scenarios [note: the EPA accepts the Department's advice that zoned announcements are not desirable for emergency announcements in the event of evacuation or 'lockdown' scenarios].;
- (c) the PA system being controlled from the principal's/deputy principal's office and not available to the general staff;
- (d) restricting announcements to those necessary for proper administration of the schools;
- (e) not using the PA system to play music, and
- (f) co-ordinating announcements for both schools on weekly assembly day (example: avoiding competing announcements).

3.3 Outdoor games courts

Outdoor games courts are proposed in the northeastern corner of site and are considered likely to be a source of annoyance to surrounding residents particularly if in use –

- (a) before 8.00 am and after 6.00 pm, and
- (b) during weekends and public holidays.

3.4 Noise compliance monitoring

The EPA considers it prudent to require the proponent to undertake compliance noise monitoring during commissioning of the mechanical plant and the PA system to ensure that equipment does not exceed the relevant noise criteria determined in accordance with the guidance material provided in the NSW Industrial Noise Policy.

3.5 Water conservation and re-use

The EPA considers it prudent to require the proponent to investigate and implement feasible and reasonable options -

- (a) to minimise consumption of potable water supply (a.k.a town water) generally and in particular for non-potable uses such as landscaping and sporting field maintenance,
 - (b) to collect, store and use rainwater for non-potable uses.
-