

Your reference: SSD 12-5374
Our reference: DOC12/ 48374
Our contact: Bob Marr

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Heather Warton
Director Metropolitan & Regional Projects North
Department of Planning and Infrastructure
23-33 Bridge St
SYDNEY NSW 2001

Attention: Kate MacDonald

Dear Ms Warton

The Environment Protection Authority (EPA) refers to your letter dated 19 November 2012, seeking a submission on the Barangaroo Central Waterfront Promenade & Interim Public Domain project (SSD 12_5374). EPA refers also to the related Environmental Impact Statement dated November 2012 and titled *Barangaroo Central – Waterfront Promenade and Interim Public Domain Works - State Significant Development Application*, prepared by MG Planning Pty Ltd for the Barangaroo Delivery Authority (BDA).

EPA has reviewed the above documents and offers the following comments:

Construction Noise

Construction Noise Management Plan

The EPA recommends that the proponent must prepare and implement a detailed Construction Noise Management Plan (CNMP), prior to commencement of construction activities, that includes but is not necessarily limited to;

- a. identification of each work area, site compound and access route (both private and public);
- b. identification of the specific activities that will be carried out and associated noise sources at the premises and access routes;
- c. identification of all potentially affected sensitive receivers;
- d. the construction noise objectives identified in accordance with the Interim Construction Noise Guideline (DECC 2009);
- e. assessment of potential noise and vibration from the proposed construction methods (including noise from construction traffic) against the objectives identified in (d);
- f. where the objectives are predicted to be exceeded an analysis of feasible and reasonable noise mitigation measures that can be implemented to reduce construction noise impacts;

- g. description of management methods and procedures and specific noise mitigation treatments that will be implemented to control noise and vibration during construction, including the early erection of operational noise control barriers;
- h. procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity; and
- i. measures to monitor noise performance and respond to complaints.

Air

Air Quality and Odour Management Plan

The EPA recommends that the proponent must develop and implement an air quality and odour management plan (AQOMP) for the Barangaroo Central Waterfront Promenade and Interim Public Domain Project. The AQOMP must include work and management practices that represent best available technology and best environmental practice for emission control.

Ambient air monitoring program and reactive management strategy

The EPA recommends that the proponent must develop and implement an ambient air monitoring program and reactive management strategy to monitor fugitive emissions from the project and prevent exceedences of air quality criteria.

The ambient air monitoring program must include each of the following elements:

1. the nomination and establishment of a network of real-time particulate monitoring sites within and/or beyond the project boundary for the purposes of monitoring project emissions using short (maximum 15 minute) averaging periods. These "management" monitoring sites shall be used to inform day-to-day reactive management measures. The management monitors should be fit-for-purpose but need not comply with AM-22 of the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*;
2. the nomination and establishment of a suitable number of ambient PM₁₀ monitoring sites at relevant locations, which are predicted to be the most impacted, for the purpose of comparison with suitable criteria, and to inform management measures. These monitoring sites must be maintained so as to be capable of continuously monitoring the parameters specified in the following table -

Parameter	Units of measure	Frequency	Averaging Period	Sampling Method
PM ₁₀	µg/m ³	Continuous	24-hour	AM-22
Additional requirements				
- Siting				AM-1 & AM-4
- Measurement				AM-2 & AM-4

3. the nomination and establishment of a suitable number of ambient monitoring sites to monitor chemicals known to be present in the contaminated soil to be used on-site as fill, for the purpose of determining compliance with the criteria used in the document *Air Quality and Health Impact Assessment – Barangaroo Central Waterfront Promenade and Barangaroo Central Interim Public Domain* dated November 2012;
4. the establishment of a suitable program to monitor odour at locations on and off site; and

5. the establishment of a real-time meteorological monitoring station.

The **reactive management strategy** must include:

1. at least hourly review of real-time monitoring data;
2. well defined monitoring trigger levels and appropriate trigger actions to prevent any exceedence of air quality criteria; and
3. regular review of monitoring activities, trigger levels and mitigation actions, that are based on monitoring data and site emission control performance.

Details of the ambient air monitoring program and reactive management plan including the type, location and frequency of monitoring to be undertaken, trigger levels and trigger level actions, must be submitted to the EPA for comment.

(Site operations must not commence until the proponent receives and implements all formal written requests from the EPA on the program and strategy.

The proponent must ensure that the ambient air monitoring program is underway when excavation begins in order to demonstrate the effective operation of the emission controls used for the project.

Any sampling required by the proponent should be analysed by a laboratory accredited by NATA or equivalent, for the relevant sample analysis and matrix.

On-site meteorological weather station establishment, measurements and actions

The EPA recommends that a real-time meteorological weather station must be established and maintained on-site so as to be capable of continuously monitoring the parameters specified in the following table -

Parameter	Units of measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm	Continuous	1 hour	AM-4
Wind speed @ 10 metres	m/s	Continuous	15 minute	AM-2 & AM-4
Wind direction @ 10 metres	°	Continuous	15 minute	AM-2 & AM-4
Temperature	°C	Continuous	15 minute	AM-4
Solar radiation	W/m ²	Continuous	15 minute	AM-4
Additional requirements				
- Siting				AM-1 & AM-4
- Measurement				AM-2 & AM-4

- Web-based telemetry including the notification of appropriate staff where wind speed trigger levels are reached must be established and implemented using meteorological station data.
- The AQMP and reactive management strategy must incorporate data from the on-site meteorological weather station to include:
 - well defined monitoring trigger levels and appropriate trigger actions to prevent any exceedence of air quality criteria; and
 - regular review of monitoring activities, trigger levels and mitigation actions, that are based on monitoring data and site emission control performance.

Fill material pre-classification

The EPA recommends that:

- Site materials originating from parts of the Barangaroo Site other than the Barangaroo Central that are to be used as fill must comply with the maximum criteria and daily mean criteria listed in the Table 5.2 of the JBS Environmental document *Air Quality and Health Impact Assessment – Barangaroo Central Waterfront Promenade and Barangaroo Central Interim Public Domain* (November 2012);
- Prior to the receipt of materials from parts of the Barangaroo site other than the Barangaroo Central site, material testing results for the material to be received must be reviewed and compared with the criteria in accordance with the project Materials Compliance Management System; and
- Materials originating from parts of the Barangaroo Site other than the Barangaroo Central site must not be received on the Barangaroo Central site until test results have been reviewed and it is confirmed that the material complies with the fill criteria.

Water

The EPA recommends that all works associated with this project is conducted in a manner that ensures the protection of the water quality objectives and environmental values for Sydney Harbour estuarine waters, as per the following guideline documents:

- *NSW Water Quality Objectives*; and
- *The Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)*: (for the environmental values under the ANZECC guidelines).

No contaminated or treated site waters (surface, collected groundwater, or contaminated construction waters) are permitted to enter Sydney Harbour unless in accordance with the conditions attached to Environment Protection Licence number 13336 issued by the EPA.

Dredging and/or construction and excavation works in the water/land interface must be done in a manner which prevents visible silt plumes outside of the silt curtains.

Any modification of estuarine foreshores (including the incorporation of measures to improve the habitat value of newly created waters such as environmentally friendly seawalls) should be done in accordance with the recommendations contained in the EPA publication titled *Environmentally Friendly Seawalls - A Guide to Improving the Environmental Value of Seawalls and Seawall-lined Foreshores in Estuaries* (DECC, 2009).

Waste

The EPA recommends that construction wastes generated as a result of these works must be managed in accordance with:

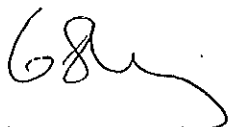
- The EPA's brochure titled: *Know your responsibilities: managing waste from construction sites*; and
- The relevant waste management conditions attached to Environment Protection Licence 13336.

In summary EPA considers that environmental impacts associated with these works can be adequately managed providing the applicant complies with the above recommendations/requirements, the Statement of Commitments, the relevant Project Approval conditions, the relevant Environmental Management Plans (as updated) and the conditions of Environment Protection Licence (EPL) No. 13336.

In summary, EPA has no objections on environmental grounds to DoP&I approving this project should it decide to do so.

If you have any queries regarding these matters please contact Bob Marr on 9995 6825.

Yours sincerely



21/12/12

GREG SHEEHY
Manager Sydney Industry
Environment Protection Authority

