



DOC20/160870

24 September 2020

Mr Jonathan Kerr
Planning Officer
Transport Assessments
Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001

Dear Mr Kerr

**Sydney International Speedway (SSI 10048)
Advice on Environmental Impact Statement (EIS)**

I am writing to you in reply to your invitation to the Environment Protection Authority (EPA) to provide advice on the EIS for the above project.

The EPA has reviewed the *Environmental Impact Statement – Volume 1 Main Document*, dated 12 August 2020, prepared by Arcadis/Jacobs (EIS main report) and relevant technical reports identified within **Appendix A**.

The EPA has determined that it will be the Appropriate Regulatory Authority (ARA) for the construction of the project, due to Section 6(2)(c) of the *Protection of Environment Operations Act 1997* (POEO Act) which states: “A local authority is the appropriate regulatory authority for non-scheduled activities in its area, except in relation to ... (c) activities carried on by the State or a public authority, whether at premises occupied by the State or a public authority or otherwise ...” As Sydney Metro is a public authority, the EPA will be the ARA during construction.

However, the EPA will not be the ARA during the operation of the project as the speedway is not a scheduled activity with Schedule 1 of the POEO and will not require an Environment Protection Licence (EPL). The EPA request that the Response to Submissions (RtS) clearly identifies who will be responsible for regulating each phase of the proposal, as this was not included in the EIS.

The EPA understands that construction activities include clearing, earthworks and levelling which is likely to intersect areas of contamination, as indicated by preliminary site investigations (PSI). However, a Detailed Site Investigation – as recommended by the PSI – has not yet been conducted to determine the extent of contamination and the requirements for the preparation of a Remediation Action Plan (RAP).

The EPA also considers that given the likelihood of contamination on site, there is the potential for water discharges to contain pollutants at non-trivial levels after all practical and reasonable measures have been implemented. Consequently, the applicant may need to seek a non-scheduled activity licence for water discharge during construction. As the Surface Water Impact Assessment will need to be informed by the Detailed Site Inspection, the EPA is recommending that the requirement to

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undertake the Surface Water Pollution Impact Assessment be included in the conditions of consent. The Surface Water Pollution Impact Assessment would then inform:

- i) whether an EPL to pollute waters is required;
- ii) the discharge limits under this licence; and
- iii) the monitoring requirements.

In addition, the assessment notes that groundwater levels across the project site range between 1 metre below ground level and over 30 metres below ground level based on historic assessments of 17 bores across the site. The EIS main document states “excavation works are not expected to intercept ‘substantial’ groundwater”, without defining what is meant by ‘substantial’ – particularly where *Table 4-1 Summary of Contamination Risk* in the PSI identifies groundwater as a potential source of contamination. There is insufficient information to clarify the impacts.

Further detail regarding the EPA’s consideration of noise and vibration, air quality, contamination, surface water quality and groundwater, are provided in **Appendix A**.

The EPA understands that there are significant time constraints for the delivery of the project. Should you require clarification of any of the advice or wish to meet to clearly understand the additional information requested, please contact Anna Timbrell on 9274 6345 or email anna.timbrell@epa.nsw.gov.au

Yours sincerely



JACQUELINE INGHAM
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APPENDIX A

1. Noise and Vibration

The EPA reviewed the *Noise and Vibration Technical Paper*, dated 3 August 2020, prepared by SLR (NVPT). It is noted that the proposal is for 24-hour 7-days-a-week construction works. In accordance with the *Interim Construction Noise Guidelines* (EPA, 2009) (ICNG), strong justification is required for outside standard hours works. This has been provided within Section 5.6.4 of the EIS main report and the EPA is satisfied that the residential receivers are well-distanced from the site, and there are predicted to be minimal construction noise impacts during the evening and night periods. The EPA concurs with the implementation of a Construction Noise Management Plan to manage 24/7 construction works (the Construction Environmental Management Framework and the Sydney Metro Construction Noise and Vibration Standard in Section 8.1 of the NVTP). However, please note that the EPA does not provide comment or approval or otherwise of the management plan contained within the EIS, only the recommendation that one is implemented to manage construction noise impacts.

The EPA notes that the noise from the speedway events has been assessed using guidance in the *Noise Guide for Local Government* (EPA, 2013) (NGLG). The guidance in the NGLG is a case study and not necessarily applicable to all motorsport events. The predicted noise levels from the speedway events are up to 12 dBA above background under neutral weather conditions and 16 dBA above background under adverse meteorology. Absolute noise levels are LAeq,15minutes 51 dBA and 55 dBA as a worst-case (neutral and adverse meteorology respectively). Whilst the character of the noise from the speedway will be different to road traffic and industrial activity in the area, the noise level from speedway will be comparable to other nearby industrial premises. The EPA concurs with the approach in Section 8.2 of the NVTP to mitigate the noise impact for the isolated residences to the south of the speedway (likely in the form of architectural treatment such as mechanical ventilation). The EPA also agrees with the implementation of an Operational Environmental Management Plan (Section 8.2.4 of the NVTP).

The sensitive receivers to the south (potentially worst-affected receivers) are already exposed to motorsport noise. The NVTP includes a comparison to existing Sydney Dragway events, measured as approximately 10 dBA higher than the predicted Speedway levels at nearest sensitive receivers to the south.

Recommended condition: The EPA notes that there is proposed to be around 36 events at the speedway each year. In order to minimise the impact on sensitive receivers, the EPA **recommends** that the conditions of approval include a limit on the number of events per year.

2. Air Quality

The EPA reviewed the *Air Quality Impact Assessment*, dated 30 July 2020, prepared by Jacobs (AQIA) which assessed the potential impacts of Total Suspended Particles for the proposed construction and operation activities. Modelling results predicted no additional exceedances for any of the assessed pollutants at any of the selected sensitive receivers.

Considering the inherent level of uncertainty related to the approach used to characterise the operation of the speedway (e.g. using emission rates based on monitoring data), using quantitative modelling prediction should be treated with a degree of caution. The EPA considers that given the nature of the proposed activities, amenity-based impacts on neighbouring land uses could potentially occur regardless of quantitative assessment predictions.

Nevertheless, it is noted Section 7.2 of the AQIA identifies some of the mitigation measures proposed to minimise dust generation and manage potential amenity impacts during operations, including:

- Vegetation along the boundary between the Sydney International Speedway racetrack and Sydney Dragway;
- Installation of dust screens to reduce windspeed and migration of dust; and

- Curation of the track including water suppression during race events and potentially combining the clay used in the track with additives, which would minimise the mobilisation of dust during the use of the racetrack.

Section 2.7 of the EIS main document also states that, “*Dust mitigation and controls protocols have been agreed and would be incorporated in both the Dragway lease and the Speedway lease.*”

To reduce risks and alleviate potential amenity impacts, the proponent should continuously engage and keep effective communication channels with surrounding land use occupiers to ensure appropriate responses and solutions can be provided if required.

Recommended Condition: The EPA **recommends** that all dust mitigation measures identified in Section 7 of the AQIA be included in the proposed an Air Quality Management Plan. The EPA also **recommends** the following conditions be included in an approval:

1. All operations and activities occurring at the premises must be carried out in a manner that prevents and minimises the emission of air pollutants from the premises.
2. The premises must be maintained in a manner that prevents and minimises the emission of air pollutants.
3. The EPA recommends that a Community Communications Strategy be developed to facilitate communication between the proponent and community (including relevant councils, adjoining affected landowners and business, and others directly impacted by the SSI) during design and construction and for a minimum of 12 months following completion of the project.

3. Contamination

The EPA reviewed the *Preliminary Site Investigation*, dated 31 July 2020, prepared by Arcadis/Jacobs (PSI) which identified a high potential for widespread on-site contamination (soil, groundwater, ground gas) as a result of:

- extensive historic earthworks and filling activities (c. 2004- 2009);
- stockpiling of waste soils and waste materials;
- spills and leaks associated with the general use of unsealed areas for Sydney Dragway spectator parking; and
- the potential for the migration of leachate-affected groundwater and landfill gas from the adjoining landfilling operations.

Although recommended by the PSI, a Detailed Site Investigation (DSI) has not yet been conducted to determine the extent of contamination and the requirements for the preparation of a Remediation Action Plan (RAP). A DSI must be undertaken to determine the nature and extent of contamination within the project footprint and to inform the RAP.

The EPA **recommends** that the DSI be provided as part of the Response to Submissions. The DSI – and subsequent recommended reports – must be prepared (or reviewed and approved) by consultants certified under either the Environment Institute of Australia and New Zealand’s ‘Certified Environmental Practitioner (Site Contamination) (CEnvP(SC)) scheme’ or the Soil Science Australia ‘Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme’. The DSI and subsequent reports must be prepared in accordance with the relevant guidelines made or approved by the EPA under section 105 of the *Contaminated Land Management Act 1997*.

The EPA strongly **recommends** the proponent engage a NSW EPA-accredited site auditor early in the process, and throughout the duration of the works, to ensure that any work required in relation to soil or groundwater contamination is appropriately managed.

As part of the Response to Submissions, it is **recommended** the proponent submit interim audit advice from the site auditor commenting on the nature and extent of the contamination, and what further works are required.

4. Surface Water Quality

As noted in the previous section, the PSI identified high potential for widespread on-site contamination (soil, groundwater and ground gas) and the potential for the migration of leachate-affected groundwater and landfill gas from the adjoining landfilling operations. Therefore, potential pollutants in site water discharges may include heavy metals, hydrocarbons, polycyclic aromatic hydrocarbons, pesticides, volatile and semi-volatile organic compounds, polychlorinated biphenyls and hydrogen sulfide.

Preliminary investigations would indicate that standard erosion and sediment controls based on *Managing Urban Stormwater Soils and Construction Volume 1* (the Blue Book) would not be adequate for managing the potential water pollution impacts associated with contaminated areas. The Blue Book only provides erosion and sediment practices and principles relevant to the management of uncontaminated sediment for short-term land disturbance.

Indicative sediment basin volumes are stated to be based on the Blue Book (noting that the assessment does not appear to have considered the potential for contamination entering stormwater). A water balance for construction of the project is provided in Table 22-4 in the EIS main report, based on water demand and stormwater discharges. However, this water balance only compares total inputs to total outputs in a table, but does not provide:

- a suitable assessment of basin sizing that identifies the volume and frequency of overflows from areas of different levels of contamination;
- the model assumptions and outputs including the rainfall period of records used, or time periods before storage capacity for basins is restored through reuse or discharge to enable subsequent rainfall events to be captured; or
- any consideration of any limitations on the reuse or treatment of stormwater due to contamination such as re-contaminating areas during reuse or occupational health and safety aspect of reuse.

The EIS main reports states that “*Site specific design parameters were used to size the sediment basins including rainfall intensity for two-year Average Recurrence Interval (ARI) rainfall event.*” It is unclear what this statement is referring to in relation to basin sizing in accordance with the Blue Book or contamination guidelines, e.g. what is the duration of the two-year ARI and how does it relate to the Blue Book sediment basin sizing based on 5-day rainfall depths. Such measures are **recommended** to be addressed in a Construction Soil and Water Management Plan.

The EPA has identified the potential for discharges from sediment basins to contain pollutants at levels with the potential to cause non-trivial harm to receiving waters. As a result, the proponent needs to undertake an assessment to demonstrate water impacts, in particular whether a non-scheduled activity licence to permit water discharge, to avoid potential prosecution under section 120 of the POEO Act, is required during the construction phase of the proposal.

As the Surface Water Impact Assessment will need to be informed by the Detailed Site Inspection, the EPA is recommending that the requirement to undertake the Surface Water Pollution Impact Assessment be included in the conditions of consent. In particular, the EPA **recommends**:

The Licensee must engage a suitably qualified and experienced person(s) to prepare a construction stage **Surface Water Pollution Impact Assessment (SWPIA)** for medium and high-risk areas of contamination (note, for areas that are subject to a RAP, the SWPIA can be incorporated into the RAP). The SWPIA must be submitted to the EPA for review and comment.

The SWPIA must include, at a minimum:

- a) identification of all the potential pollutants of concern which may be present in a discharge from the Premises. The list of pollutants must be developed in consultation with the EPA.
- b) for each area of contamination risk, a prediction of surface water pollutant discharge concentrations (desktop assessment or based on surface and groundwater sampling) for all

identified potential pollutants of concern in the sediment basins and contaminated water systems. This should include, but is not limited to:

- i. heavy metals
 - ii. hydrocarbons
 - iii. polycyclic aromatic hydrocarbons
 - iv. pesticides
 - v. volatile and semi-volatile organic compounds
 - vi. polychlorinated biphenyls
 - vii. hydrogen sulphide
 - viii. total suspended solids/turbidity
 - ix. pH.
- c) an assessment of the potential impact of discharges on receiving waters based on the surface water discharge characterisation and with reference to the ANZG (2018) assessment criteria for slightly to moderately disturbed ecosystems and the NSW Water Quality Objectives
- d) specify the analytical limits of reporting used for any data that is being assessed and:
- i. compare the analytical limits of reporting to the relevant ANZG (2018) assessment criteria for slightly to moderately disturbed ecosystems
 - ii. where the limit of reporting does not provide a suitable basis for assessing risk of water pollution, propose alternative options to characterise the risk, including more sensitive laboratory testing or risk mitigation options
- e) where pollutants have the potential to cause non-trivial harm in discharges, an investigation of practical measures that could be taken to avoid or minimise pollution. Consideration should include but not be limited to establishing a nil-discharge site for contaminated areas, at-source controls on site, reducing wastewater run-off volumes (covering stockpiles, bunding, flow diversions), wastewater treatment and wastewater storage sizing based on contamination risk.
- f) consider the need for an environment protection licence application, including discharge criteria for any pollutants that could cause non-trivial harm to human health or the environment after all practical measures are implemented
- g) consider re-contamination and human health risks associated with the surface wastewater reuse process at the site
- h) establish an ongoing surface water monitoring program of discharge quality for the construction stage.

The level of reporting for concentrations of pollutants should be sensitive enough to detect pollutants at levels related to their environmental risk and ANZG (2018) toxicant guideline value (where available) while having regard to the best available analytical practical quantification limits using available technology.

The basis for the EPA's response to an application to licence a non-scheduled activity for water pollution will be to evaluate the characteristics of the activity and take an approach that is based on the environmental risk and the availability and application of best management practices or guidelines. The SWPIA would be required to inform this consideration by the proponent, including appropriately characterising the risks associated with discharges and identifying management and mitigation measures.

The EPA also **recommends** that the following conditions of approval include be included:

The SSI must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided in an EPL.

Prior to the commencement of construction, the Applicant must design, install and operate a **surface water management system** for the construction stage in consultation with the EPA. The system must:

1. be designed and constructed by a suitably qualified and experienced person(s)
2. design sediment basin sizing and pollution mitigation measures based on a detailed site investigation of contamination risk, including:

- in low contamination risk areas measures to minimise discharges such as increased basin sizing, reuse where appropriate, and enhanced sediment and erosion controls e.g. use of “water sensitive” stormwater treatment measures
 - in moderate to high contamination risk areas, options to avoid or minimise stormwater discharges and enhanced erosion and sediment control measures. Basin sizing should be commensurate with the risks to human health and the environment and based on, at a minimum:
 - a detailed site investigation and RAP process
 - sufficient capacity to appropriately treat pollutants to achieve the necessary ambient water quality outcomes
 - managed overflows only occurring in response to a large defined rainfall event.
3. develop a Trigger Action Response Protocol (TARP) for sediment and contaminant monitoring of surface water discharges, including a contingency plan for any contaminant levels that exceed specified maximum levels in the TARP
 4. provide a water balance that details the frequency and volume of controlled discharges and managed overflows for each stormwater management area (low, medium and high impact of contamination); and reuse of wastewater onsite
 5. be designed so that any controlled discharges can achieve the relevant ambient water quality outcomes. This should be based on an assessment against the ANZG (2018) guidelines and NSW Water Quality Objectives.

Finally, the EPA advises that the speedway should be designed to ensure that contamination is suitably contained on site and there is sufficient water infrastructure to ensure no pollution of waters during operation.

5. Groundwater

The EPA main report states that groundwater levels across the project site range between 1 metre below ground level and over 30 metres below ground level based on historic assessments of 17 bores across the site. The EIS main document states “excavation works are not expected to intercept ‘substantial’ groundwater”, without defining what is meant by ‘substantial’ – particularly where *Table 4-1 Summary of Contamination Risk* in the PSI identifies groundwater as a potential source of contamination.

The EPA is concerned about the absence of assessment into the impact of groundwater to demonstrate whether, or how, groundwater will be impacted from the proposed construction activities. As such it is **recommended** that the proponent prepare a Groundwater Impact Assessment as part of the Response to Submissions.