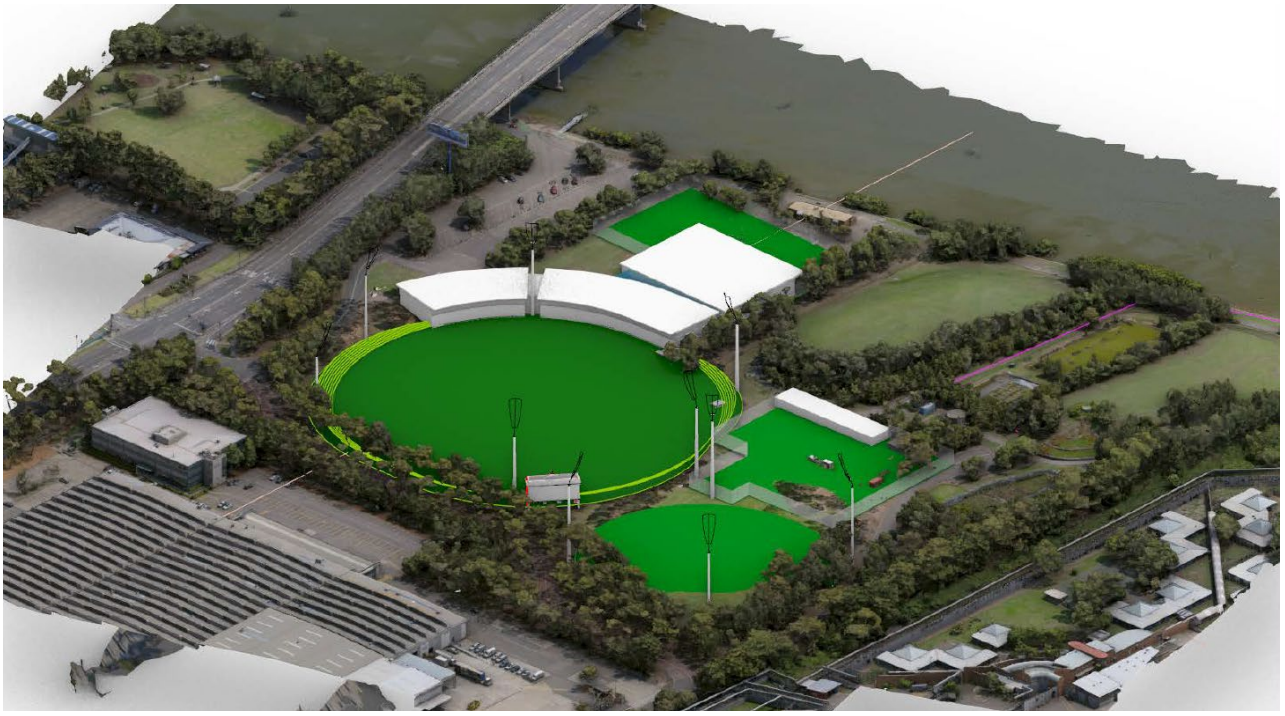

Construction and Environmental Management Plan

NSW Cricket Centre

Wilson Park

Sydney Olympic Park, NSW

October 2019

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1.0 INTRODUCTION

This report supports a State Significant Development Application (SSDA) submitted to the Minister for Planning and Public Spaces, pursuant to Part 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This SSDA seeks consent for the design, construction and operation of a new Cricket NSW Centre of Excellence at Wilson Park, within Sydney Olympic Park.

The NSW Cricket Centre will comprise a state-of-the-art, dedicated, year-round cricket, training and administration facility that services both regional and metropolitan cricketers, as well as providing facilities for community use to support sport, social, health and educational programs.

1.1 Background

Given the redevelopment and closure of Sydney Football Stadium and its associated cricket training facilities, Cricket NSW decided to relocate its facilities to Sydney Olympic Park. The Wilson Park site has been identified and selected as the appropriate location for the development.

Wilson Park is a former gasworks site, today being used predominantly as playing fields with mature trees generally located around the peripheries. The site has a landfill leachate treatment plant located to its north-east, sharing the same boundary with the site.

1.2 Site Description

The site is located at Wilson Park, in the suburb of Sydney Olympic Park, within the Parramatta Local Government Area (LGA) and is situated at the north western corner of the Sydney Olympic Park (SOP) precinct.

The site is located in proximity to a number of regionally significant facilities and amenities including the Olympic Park Railway Station, ANZ Stadium, Qudos Bank Arena and Sydney Showground, which are all approximately 2.5km south east of the site. Further to this, the site is located approximately 2km west of Wentworth Point.

The site's locational context is shown in *Figure 1* below.

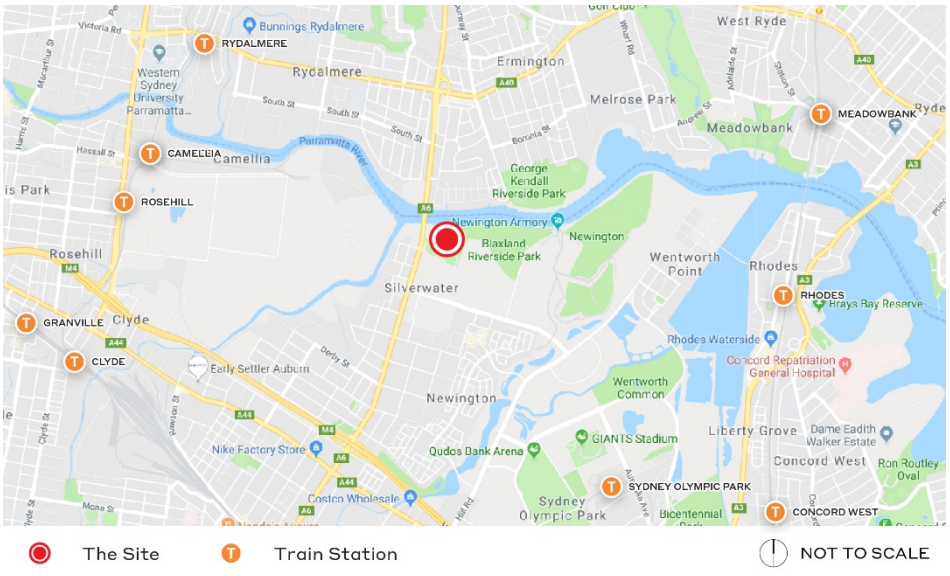

Figure 1 - Locational context

The site is irregular in shape and comprises a single allotment of land with an area of 121,082m2 and a leased area where development will occur with a site area of 65,767m2. The site is currently owned by the Sydney Olympic Park Authority (SOPA) and it is legally described as Lot C in DP 421320. The site is bounded by the Parramatta River to the north, Silverwater correctional facility to the east, industrial lands to the south and Silverwater Road to the west. An aerial image of the site is shown in **Figure 2**.

Figure 2 - Site aerial

1.3 Overview of Proposed Development

The proposal relates to a development application to facilitate the development of the NSW Cricket Centre at the Wilson Park site. Specifically, the works that are proposed for the DA include:

- A two storey cricket centre, including an internal atrium, gymnasium, community facilities, sports science and sports medicine facilities and business offices;
- An International Cricket Council compliant oval 136m long x 144m wide (16,040m2)(Oval 1) and associated seating;
- A second oval (Oval 2) that complies with the Cricket Australia community guidelines for community club cricket (with a minimum diameter of 100m (6365m2);
- Outdoor practice nets, 71 wickets with a minimum of 30m run ups;
- A double height (10.7m) indoor training facility with 15 wickets;
- A single storey shed for machinery and storage;
- Associated car parking, landscaping and public domain works; and
- Extension and augmentation of services and infrastructure as required.

1.4 Planning Approvals Strategy

The site is located with the Sydney Olympic Park precinct, which is identified as a State Significant site in Schedule 2 of *State Environmental Planning Policy (State and Regional Development) 2011*. As the proposed development will have a capital investment exceeding $10 million, it is declared to be State Significant Development (SSD) for the purposes of the EP&A Act, with the Minister for Planning and Public Spaces the consent authority for the project.

This SSDA seeks approval for the detailed scope development described in **Section 4.0** above.

The Department of Planning, Industry and Environment provided the Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement for the proposed development on 23 July 2019. This report has been prepared having regard to the SEARs as relevant.

1.5 Construction Environmental Management Plan (CEMP)

This Construction Environmental Management Plan supports a State Significant Development Application (SSDA) submitted to the Minister for Planning and Public Spaces, pursuant to Part 4.7 of the Environmental Planning and Assessment Act (EP&A Act). This SSDA seeks consent for the design, construction and operation of a new Cricket NSW Centre at Wilson Park, within Sydney Olympic Park. This report will describe the environmental strategy, methods, controls, and requirements for the execution of the project.

This CEMP is a preliminary report to satisfy the requirements of the SSDA. A detailed CEMP will be developed by the Main Contractor undertaking the works prior to issue of the Construction Certificate.

1.6 Purpose of the Construction Environmental Management Plan

The purpose of this Construction Environmental Management Plan (CEMP) is to:

- Identify the procedures for community consultation, notification and complaints handling;
- Establish the impacts of construction on adjoining development and proposed measures to mitigate construction impacts;
- Identify noise and vibration impacts on and off site;
- Identify the water quality management measures
- Establish the dust control measures;
- Determine construction waste classification, transportation and management methods in accordance with DECCW's *Know Your Responsibilities: Managing Waste from Construction Sites Guideline;* and
- Establish identification, handling, transportation and disposal of any asbestos waste, lead-based paint and PCBs that may be encountered during demolition, site preparation and construction.
- Outline existing site contamination conditions and required control to manage environmental and human health risks associated with site demolition, earthworks and construction.

1.7 Environmental Objectives

The objectives for the project are:

Aspect	Objective
Waste	To minimise waste going to landfill
Water quality	To prevent contamination of water ways
Noise & vibration	To minimise noise & vibration levels for the duration of the Project
Asbestos	To ensure workers are not exposed to asbestos
Dust	To minimise dust levels throughout the Project

1.8 Hours of Work

The standard construction hours for the Project are as follows:

Standard Work Hours	
Days	Hours of Work
Monday to Friday	6.00am – 6.00pm
Saturday	8.00am to 5.00pm
Sunday & Public Holidays	Not permitted

Haulage Hours	
Days	Hours of Haulage
Monday to Friday	6.00am – 6.00pm
Saturday	6.00am – 5.00pm
Sunday and Public Holidays	Not permitted

The Head Contractor will be responsible for ensuring that any changes to the working hours comply with all relevant Authority Approvals.

1.9 Key Environmental Issues

The key environmental issues on the project are:

- Community Consultation, Notification and Complaints Handling;
- Impacts on Adjoining Development;
- Noise & vibration;
- Water Quality Management;
- Dust Control Measures;
- Contamination Management
- Waste; and
- Asbestos Management.

2.0 COMMUNITY CONSULTATION AND NOTIFICATION

As part of the State Significant Development Application process, Cricket NSW undertook a process of community consultation and notification. This incorporated a letterbox drop to the northern side of Parramatta River along with the immediate surrounding neighbours (industrial estates and Silverwater Correctional Facility) and 'Community Drop in Session' at Wilson Park hosted on Saturday 28 September.

This provided attendees with the opportunity to provide feedback as well as contact details for general enquiries.

2.1 Complaints Handling

Complaints may include any interaction with a community member or stakeholder who expresses dissatisfaction with the project, services or staff member's action during the project.

To ensure complaints are managed consistently, the following information is required to help resolve the complaint quickly and effectively.

- Complainant Contact Details
- Description of Complaint
- The Requested Remedy/Action
- Due Date for Response
- Immediate Action (if any)

All complaints are to be referred to MostynCopper for entry into the Complaints Register and management of outcomes.

3.0 IMPACTS ON ADJOINING DEVELOPMENT

The Wilson park site is irregular in shape and comprises a single allotment of land with an approximate area of 52,700m2 (5.2Ha). The site is located within the 640-hectare Sydney Olympic Park Boundary and is currently owned by the Sydney Olympic Park Authority (SOPA,) and is legally described as Lot C in DP 421320. It is Located 14km west of Sydney's central business district.

It is fronted to the north by the Parramatta River, to the West by Silverwater Road, to the south by Industrial Lands and to the East by the Silverwater Correctional Facility.

Appropriate hoarding / fencing (as specified in Australian Standards and WorkCover requirements) and safety barriers will be installed to the entire work areas prior to commencement of the works. Site Hoardings will be erected around the perimeter of the site and maintained to prevent public access. Site signage will provide 24-hour emergency contact details including contact name and telephone number.

Construction vehicle access / egress gates / Signage will be installed.
These public and property protection measures will be reviewed at the time of contract award for the works to ensure alignment with proposed preferred methodologies and sequencing developments and to ensure that the safety of the general public is maintained at all times during the works.

4.0 NOISE AND VIBRATION

4.1 Noise

The contractor will be required to provide noise monitoring where possible during the works and comply with legislative requirements.

Management of noise emissions from the site will be consistent with requirements of the *Interim Construction Noise Guideline*, and relevant Australian Standards. A Construction Noise Management Plan will be prepared which will specify performance requirements for the contractor. No machine work will be permitted outside the normal working hours set unless appropriate written approval has been obtained.

The noise and vibration from the use of any plant equipment and / or building services associated with the works will not give rise to an offensive noise as defined under the provisions of the Interim Construction Noise Guideline, EPA and Australian Standards.

As part of the noise mitigation treatment for the project, the Main Contractor will be responsible for the management, checking of compliance maintenance regimes and statutory supervision of all equipment, such as making sure all trucks and machinery involved in the works are checked for defective exhaust systems and general servicing.

The Main Contractor will be responsible for producing a detailed Dilapidation report of the adjoining buildings and surrounding infrastructure prior to any works commencing.

4.2 Vibration

The Head Contractor will ensure that its programming, planning, work methods, equipment and processes comply with the noise and vibration requirements specified in the TfNSW Construction Noise Strategy and the EPA's Interim Construction Noise Guideline, as well as the relevant Project Determination Conditions for high noise generating activities.

The Head Contractor will assess, mitigate and monitor the construction noise and vibration impacts of the Contractor's Activities in accordance with requirements of the Authority Approvals and the EPL (if applicable).

5.0 WATER QUALITY MANAGEMENT

Stormwater flow and drainage flow lines will have appropriate sediment controls such as hay bales or sedimentation socks. All such controls will be required to be consistent with the Blue Book.

Erosion and sediment controls for the works will be designed, installed and maintained in accordance with the requirements of *Managing Urban Stormwater: Soils and Construction* (4th Edition) ("The Blue Book") and / or details provided by project engineering consultants.

Stormwater grate inlets surrounding works areas will be covered with geotextile fabric to allow water to enter into drains while retaining sediments.

Controls will be implemented to manage runoff from outside the site ('run on') entering the site. Where this is not be possible, appropriate controls will be implemented to maintain separation of 'clean' run on water from runoff from the works site.

All drainage control devices will be regularly checked including during and immediately following heavy rainfall periods. Any remedial work required to maintain the effectiveness of controls will be undertaken as a priority.

Given the know extensive contamination capped on site, in the event of any water / runoff coming into contact with waste, including stockpiled spoil containing waste or in open excavation below the 500mm capping layer, that water will be classified as leachate (contaminated wastewater). Removal of leachate must be strictly removed in accordance with the contamination disposal protocols (refer to Douglas Partners CMP). Leachate cannot under any circumstances be pumped from wells / excavation into stormwater. It must be contained and transferred via tanker off-site to a facility that can lawfully receive that waste.

It is noted that the existing pump pit (PP22), is no longer required to be maintained as part of the remediated lands infrastructure, as advised by SOPA's Environmental Infrastructure team, and will need to be properly decommissioned by qualified persons prior to construction works to prevent construction debris and run-off into the bioremediation ponds and irrigation water collection system.

Considering the size of the construction site, a sediment and erosion control plan / soil management plan including stockpile management and controls to prevent vehicle tracking off-site. This will be required to be prepared prior to construction by the nominated head contractor.

6.0 DUST CONTROL MEASURES

The Head Contractor will be responsible for implementing and monitoring dust control measures and will form part of an Air Quality Management plan for the works. The key objectives of the dust control measures are to:

- conduct works in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust.
- To undertake all construction activities with the objective of preventing visible emissions of dust from the site.
- To identify and implement all practicable dust mitigation measures, including termination of relevant works, as appropriate, such that emissions of visible dust cease should visible dust emissions occur at any time.
- To meet the relevant air quality standards for preventing degradation of ambient air quality and nuisance to adjoining properties during construction and transport activities.

Relevant dust control mitigation measures which will be implemented by the Head Contractor during the construction period include:

- Dust emissions will be controlled by the use of water spraying when required.
- Dust screens will be used at the perimeter of the site where applicable
- Heavy vehicles entering and leaving the site will be covered at all times;
- Works involving potential dust generating activities will be scheduled to avoid gale wind forces when possible
- Vehicle and machinery movements during the construction works will be restricted to designated areas.
- Vehicle speed limits of 25 km/hr will be imposed on all vehicles on site.
- Equipment will be operated in a proper, efficient and correct manner which includes proper maintenance in order minimise exhaust emissions.
- Should visible dust emissions occur at any time, works generating the dust emissions will cease, so that emissions of visible dust cease.
- Odour emissions from the site which could adversely affect air quality, or the amenity of the local area are to be monitored.

Recent (July 2019) CBR bores carried out by Douglas Partners at 14 locations found potential asbestos containing material (ACM) at two location in the fill (CPT27 and CPT 39). Works involving potential dust generating activities should be scheduled to avoid high wind conditions and appropriate monitoring by the Contractor.

7.0 WASTE

Waste generated during the construction stage of the development will be managed by the Head Contractor and sub-contractors, with materials being reused and recycled wherever possible. Where neither reuse nor recycling are possible, waste will be disposed of as general waste at a licensed landfill site. Waste dockets for any waste transported of site must be retained and provided to SOPA upon their request.

The Head Contractor is responsible for implementing a Waste Management Plan (WMP). Where possible, an Environmental Management Representative (EMR) should also be appointed for the project to help ensure compliance.

The Head Contractor will implement waste management measures that work toward a target of at least 91% of construction waste generated during site preparation and construction of the project must be diverted from landfill and either recovered, recycled or reused.

Waste products generated during the construction of the Proposal are likely to include:

- spoil from earthworks;
- general waste, including food and other wastes generated by construction workers; and
- contaminated spoil when excavating below 500mm.

7.1 Waste Identification & Minimisation

All construction areas shall identify waste streams and minimisation methods in the following ways:

- Identify all activities likely to produce waste;
- Construction waste and provide separate storage locations and/or destinations for both; and
- Liaise with suppliers to minimise packaging and product damage.

7.2 Disposal

All identified waste streams shall dispose of non-recyclable waste materials in the following ways:

- Plan for waste materials to be disposed of at appropriately licensed waste disposal facilities;
- Provide waste collection facilities at each site; and
- Ensure the disposal of chemical, fuel and lubricant containers, solid and liquid wastes in accordance with EPA guidelines.
- Wash up of Concrete Trucks, concrete pump and other associated equipment shall be done in accordance with TfNSW Concrete Washout Guidelines.

7.3 Recycling Strategy

All construction areas shall adhere to a recycling strategy where practicable in the following ways:

- Identify all recyclable materials. Items to be considered include, but are not limited to:
  - Asphalt;
  - Bricks;
  - Cardboard Packaging;
  - Concrete, masonry, spoil;
  - Green waste (organics);
  - Metal, Steel/Copper Pipe;
  - Plastics;
  - Soil;
  - Topsoil.
- Ascertain whether materials can be re-used on-site and provide an appropriate and clearly identified designated area for storing such materials;
- Install segregated bins for recyclable materials;
- If material cannot be re-used on-site establish a collection service for the recyclable materials; and
- Erect signs within the construction areas to encourage employees to reduce, re-use, and recycle.

Specific strategies for the above-identified materials are as follows:

- Asphalt – Hot in-place recycling or reprocessed into Reclaimed Asphalt Pavement (RAP)
- Bricks – Cleaned and/or rendered for reuse, crushed for fill, sold or provided to a recycled materials yard
- Cardboard Packaging – Recycled at a paper/cardboard recycling facility
- Concrete, Masonry, Spoil – Reused on-site as fill, levelling or crushed for road base
- Green Waste (Organics) – Mulched, composted for reuse, trees chipped for use in landscaping or removed carefully and reused onsite or sold
- Metal, Steel/Copper Pipe – Recycled at a metal recycling facility, melted into secondary materials for structural steel, roofing, piping etc. copper sold for reuse
- Plastics – Reused as secondary materials for playgrounds, park benches etc.
- Soil – Stockpiled onsite for reuse as fill
- Topsoil – Stockpiled onsite for reuse in landscaping

7.4 Competence, Training & Awareness

All staff employed during the demolition and construction stages of the development must undertake site-specific induction training regarding the procedures for waste management and specifically around site contamination and working on contaminated sites. The Head Contractor will provide a specific induction outlining their duties and how they are to enforce the waste management procedures. Protocols outlines in this training must not be inconsistent with those requirements as set out in the RLMP for this site in relation to OH&S.

8.0 CONTAMINATION MANAGEMENT

Wilson Park is one of ten engineered remediated landfill areas managed by Sydney Olympic Park Authority (SOPA) and is subject to a 'maintenance of remediation notice' issued by the NSW EPA under Section 26 of the Contaminated Lands Management Act 1997.

Throughout the design and planning phases or the project, where possible, the intention has been to minimise removal of soil below the capping layer (0.5m – 1.5m). SOPA's Remediated Lands Management Plan (RLMP) advises that the capping layer at Wilson park comprises:

- A minimum of 0.5 m of compacted clay overtopped with 0.5 m of synthetically prepared and validated capping material, consisting of crushed sandstone and compost;
- Installation of a geo-fabric membrane beneath the cap;
- Placement of site topsoil (previously shown to have a significant population of indigenous hydrocarbon degrading microorganisms) within the top 0.1 m of the capping; and
- Maintenance of fertile grass cover over capping layer, which acts as a natural biofilter, eliminating risk of human exposure to volatile contaminants.

A summary of the key construction activities relevant to the proposed development are summarised below:

- Filling to achieve final design levels (fill to be sourced from site and imported);
- Excavation works within the south east portion of the site, cutting down the existing landscape mounds;
- Piling works associated with construction of the main building;
- Trench excavations for the main in-ground stormwater system; and
- Minor excavation works for other services and general landscaping.

It is understood that all surplus soil generated from the construction activities will be retained on site and capped, where possible, which is the preferred option for waste management as per the RLMP. Soils found not to be suitable or accommodated by this process will be subject to waste classification prior to disposal to landfill.

Due to the known site contamination and the history of the site, the site will be completely fenced and secure to prevent public access for the duration of construction.

8.1 Acceptance of Material for Filling

It is anticipated that a significant amount of material will need to be imported to site to achieve the proposed design levels. It is noted that some of the filling will also be sourced from the site where existing mounds will be cut.

The proposed formation of the design levels will effectively create an additional capping layer over the majority of the site. The filling will also form a cap over the minor ACM impacts identified in Douglas Partners Detail Site Investigation (2019), as well as any other currently unknown ACM impacted fill.

<u>Imported Material</u>

All material imported to the site for filling to design levels, as aggregate (e.g. base course), or in landscaping must comprise either:

- Virgin Excavated Natural Material (VENM); or
- Material complying with a general or specific Resource Recovery Order (RRO) under the Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014, which permits land application.

Apart from complying with the conditions of the abovementioned classifications, all imported material used for filling at the site must also meet the site acceptance criteria (SAC). Any on-site materials proposed to be used as the capping layer must meet the SAC.

The Environmental Consultant and Site Auditor must review all documentation made available from a fill source site prior to any of the materials being imported to site. All imported materials with appropriate documentation will also be subject to "check" sampling and testing by the Environmental Consultant

On-Site Material

The proposed development will involve filling from current levels generally by around 0.5 m, with some cut into existing the existing mounds in the south-east quarter of the site. It is not clear in previous investigation documentation if tar impacted soil was placed in these mounds area and/or whether a capping layer exists. As such, delineation of the areas of proposed cut will be undertaken as follows:

- The proposed depths and locations of cutting as part of the development will be confirmed;
- Once confirmed, an in-situ investigation of these areas will be documented by the Environmental Consultant in a sampling, analysis and quality plan (SAQP) for review and approval by the Site Auditor. The investigation will aim to delineate the capping layer from deeper fill;
- Once delineated, capping layer soils will be excavated under the direction of the Environmental Consultant and stockpiled for re-use as a capping layer as required;
- Deeper fill soils will be excavated and reinstated in areas of the site, allowing for construction of a capping layer of minimum 0.5 m thickness;
- The approved capping layer soils will be placed over a marker layer to a minimum thickness of 0.5 m.

Soils considered suitable to be reinstated as a capping layer must comply with the SAC.

8.2 Environmental Management Procedures and Control Plan

For detailed information relating to the environmental management plan proposed to be implemented during the works and relates to the key construction activities, refer to Section 8 of the Contamination Management Plan prepared by Douglas Partners (Appendix A).

For detailed information relating to the unexpected finds protocol proposed to be implemented during the works and relates to the key construction activities, refer to Section 10 of the Contamination Management Plan prepared by Douglas Partners (Appendix A).

8.3 Worker Health and Safety

For detailed information relating to the potential landfill-related worker health and safety hazards, relevant to the proposed construction works, refer to Section 9 of the Contamination Management Plan prepared by Douglas Partners (Appendix A)