



## **531 – Bankstown North Public School – Main Works**

# **CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN**

<b>Client:</b>	<b>SINSW</b>
<b>Project Address:</b>	<b>322 Hume Highway, Bankstown, NSW 2200</b>
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# ENVIRONMENTAL MANAGEMENT PLAN

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<b>1</b>	<b>INTRODUCTION</b>
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This Environmental Management Plan defines the Patterson Building Group (PBG) system for the management of potential environmental issues for the Bankstown North Public School project and outlines how the requirements of the specification have been addressed. The plan is based on AS/NZS ISO 14001:2016 Environmental management system guidelines – requirements with guidance for use. This environmental plan, in conjunction with the Patterson Building Group corporate management system forms the Project Environmental Management system..

This Environmental Management Plan describes the environmental issues, preliminary site assessment, structure and responsibilities, controls, and requirements of the project.

The Environment Management Plan is utilised for the site activities related to all environmental aspects of the Project. The plan advised of the our procedures, defining how the environmental aspects of the project will be reviewed and completed.

<b>2</b>	<b>SCOPE OF WORKS</b>
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The project involves the design, documentation and construction of the staged upgrade of Bankstown North Public School which includes the following:

☐ Design Finalisation:

- Engagement of relevant consultants to complete Gateway 4 Detailed Design, including adherence to Educational Facilities Standards and Guidelines (EFSG) and incorporation of Technical Stakeholder Group (TSG) and Project Reference Group (PRG) complete these works;
- Preparation of required Response to Submissions (RTS) issued by the Department of Planning and Environment (DPE) as received during the contract period;
- Review and ensure compliance with State Significant Development Application (SSDA) conditions once finalised during the contract period;
- Obtain Crown Building Approval prior to commencement;

☐ Main Works Stage 2.1 (MW 2.1):

- Construction of new three storey Blocks 2 and 4 consisting of twenty-four (24) new Homebases, Administration, Library and amenities;
- Associated assembly area (Part of), landscaping and access ramps and pathways;
- Design, supply & installation of a new substation adjacent existing Block A;

☐ Main Works Stage 2.2 (MW 2.2):

- Construction of a new access road connecting the new carpark on the northern boundary of the site to Davis Lane at the western boundary;
- Construction of a new kiss and drop area within the access road; and

☐ Main Works Stage 2.3 (MW 2.3):

- Removal of the existing administration demountable;
- Construction of the secondary portion (extension) of the assembly area and associated batters / retaining walls dependent on the final scope to be determined following assessment of the Mandatory Alternatives included within the tender submission;

☐ Main Works Stage 2.4 (MW 2.4):

- Relocation of teaching operations to the new Blocks 2 and 4 from the temporary demountables;
- Collaboration in decanting the temporary demountable school with ProGroup;
- Demolition of foundations, temporary walkways, ramps and stairs to access demountables;
- Removal of temporary service provisions to cater for demountables;
- Demolition of the existing central portion of the school, including existing demountables,

- asphalt surfaces and the like;
- Construction of new pathways and landscaped areas;
- Construction of a new games court on the existing playing field.

The project is located at 322 Hume Highway, Bankstown, NSW, 2200.



#### Construction Site Permitted Working Hours

In accordance with the SSDA Approval Conditions (SSD-10290), works must only be undertaken onsite in compliance with the following conditions:

- ≡ Construction, including the delivery of materials to and from the site, may only be carried out between the following hours (C4):
  - Between 7am and 6pm, Mondays to Fridays inclusive; and
  - Between 8am and 1pm, Saturdays.
- ≡ Notwithstanding condition C4, provided noise levels do not exceed the existing background noise level plus 5dB, works may also be undertaken during the following hours (C5):
  - Between 6pm and 7pm, Mondays to Fridays inclusive; and
  - Between 1pm and 4pm, Saturdays
- ≡ Construction activities may be undertaken outside of the hours in condition C4 and C5 if Required (C6):
  - By the Police or a public authority for the delivery of vehicles, plant or materials; or
  - In an emergency to avoid the loss of life, damage to property or to prevent environmental harm; or
  - Where the works are inaudible at the nearest sensitive receivers; or
  - Where a variation is approved in advance in writing by the Planning Secretary or his nominee if appropriate justification is provided for the works.
  - Notification of such construction activities as referenced in this condition (C6) must be given to affected residents before undertaking the activities or as soon as is practical afterwards (C7).

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- Rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours (C8):
    - (a) 9am to 12pm, Monday to Friday;
    - (b) 2pm to 5pm Monday to Friday; and
    - (c) 9am to 12pm, Saturday.

<b>3</b>	<b>LEGAL &amp; COMPLIANCE OBLIGATIONS</b>
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Mandatory compliance obligations and requirements relevant to the project are outlined below. Procedure **L1 – Legal Requirements NSW** outlines the process that the organisation uses to determine legal and other mandatory requirements.

All personnel associated with the project will comply with all relevant requirements including:

- Laws (Acts, regulations, and policies)
- Environment protection licence and permits
- Development consents
- Relevant industry standards and codes.
- Contract requirements
- Other compliance obligations outline in this CEMP, including any voluntary compliance obligations.

An assessment of the relevant legislative requirements applicable to this project has been completed by the Project Manager during the development of the Project Management Plan which can be found in Appendix A3 – Legal & Other Requirements Register - Environmental.

The register will be reviewed monthly and updated (if necessary) as the project progresses and in compliance with the relevant conditions reported by the Project Manager.

The corporate register & templates will be reviewed & updated in conjunction with the six-monthly management review or where there has been a change to relevant legislation by the Systems/HSEQ Manager. All changes will be communicated to project teams for revision of the CEMP in line with the master template updates.

A copy of relevant permits, licences, and any development approvals relevant to PBG's activities will be kept on-site.

<b>4</b>	<b>PRELIMINARY SITE ASSESSMENT</b>
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Following detailed inspections of the onsite conditions throughout the Early Works portion of the contract works, PBG have noted the following areas that require careful planning, monitoring and consideration at all levels of construction and in conjunction with SINSW environmental requirements and procedures.

Risk
<b>Adverse impact on BNPS school students and staff</b>
<b>Run-off, Spoil entering the Stormwater System</b>
<b>Noise and vibration from mobile plant</b>
<b>Flora and Fauna</b>
<b>Waste</b>

Dust and debris on area surrounding the work site, and adjacent areas surrounding the Project.
Increase of dust and reduction of air quality during heavy construction works.
Surrounding Occupants & Community Disruption
Unexpected Heritage Findings (Aboriginal or Historical)
Traffic

#### Environmental aspect

Elements of any PBG's activities or products or services that can interact with the environment. (For example: wastewater discharges, air emissions, resource consumption, energy usage, ecosystem alterations etc). **Aspects are "cause", impact is the "effect"**. Examples of an aspect are Waste generation, Material usage, Fuel usage, Air emissions, Chemical consumption, and Energy consumption.

#### Environmental impact

Any change to the environment whether adverse or beneficial, wholly or partially resulting from PBG environmental aspects. (Based on the aspects, for example: air emissions impact the air by degrading the air quality). Environmental aspects and impacts are located within each risk area subsection in sections 8 onwards.

General Project aspects and impacts are noted below, specific aspects and impacts relevant to each risk subsection are provided from section 8 onwards.

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>General</b>	The works shall be carried out in accordance with requirements as detailed within: Environmental Management Plan	Project Manager	Prior to works commencing and ongoing	Audit / inspections
	Site signage with a contact point nominated for dealing with complaints and queries	Project Manager	Prior to works commencing and ongoing	Audit – contact details on sign on fence
	The Environmental Management Plan to be forwarded to the Client's Representative	Project Manager	Prior to commencement of works	Audit
Performance objectives	<ul style="list-style-type: none"> <li>✓ Compliance with project environmental plan</li> <li>✓ No situations where non-conformances are not actioned in a timely manner</li> </ul>			

### **5 KEY ENVIRONMENTAL ISSUES NOTED IN THE CONTRACT DOCUMENTS**

The critical issues and related mitigation measures for this project are:

- Noise Control and Vibration Management
- Dust Control
- Air Quality
- Hazardous / Asbestos Containing Material or Debris
- Site Remediation Works
- Discharge into stormwater pits and street drainage
- Recycling and waste management
- Protection of existing vegetation

<b>6</b>	<b>PLANNING</b>
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Environmental planning for this project shall be co-ordinated by the Project Manager in accordance with Procedure E4 “Environmental Planning and Assessments” and Procedure R2 “Risk Management”.

As a result of planning activities including the preparation of PMP Appendix B1 – Project Risk Assessment, a list of environmental aspects and impacts has been identified and checklists (Forms I3.2 adapted to suit the project – refer to App B8 Site inspection checklist) are developed which detail the activities required to mitigate the issues.

The Project Manager shall ensure that a program is established, and resources allocated to implement and maintain the control measures.

<b>7</b>	<b>ENVIRONMENTAL DOCUMENTATION</b>
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The project environmental management system is documented by the project environmental plan and associated checklists and forms.

Control of project documentation shall be in accordance with Procedure D4 “Drawings and Project Documents”.

<b>8</b>	<b>SOIL AND WATER MANAGEMENT</b>
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PBG will comply with the Section 120 of the Protection of the Environment Operations Act 1997 during the construction works of this project. All no stage will water or construction waste be discharged into the stormwater system.

The existing stormwater drainage system will be protected prior to construction works commencing and will be monitored and maintained during the construction programme. Site inspections are conducted on a weekly basis at minimum, or daily if changes, or new works occur onsite. Inspections are also undertaken before rain events to ensure ERS&D controls are in place, and after rain events to undertake maintenance if required.

The ground levels to this project are very flat so there is low risk of erosion and sedimentation and downstream impacts, given the relatively flat ground erosion and sedimentation controls to be installed around the works poses a low risk for sedimentation pollution.

PBG will be implementing the DA approved MW (C2.01, C2.02, C2.11) Sediment & Erosion Control Plans which have been incorporated into PBG’s **MW Construction Soil & Water Management Sub-Plan** in full throughout the project. This has been included as **Appendix E1A** of this CEMP.

If site-specific amendments are required to the completed project Erosion and Sediment Control Plans f will be completed and issued to SINSW for review and comment in accordance with the “The Blue Book”, Managing Urban Stormwater: Soils and Construction Guidelines (landcom 2004), which will include:



- Erosion Controls;
- Sediment Controls;
- Water Management Controls;
- Strict containment of washed down concrete trucks and pumps

Mitigation Measures	Responsibility	Project Phase
<p>All workers will be provided with an environmental induction prior to commencing works. This induction will include information on the soil and water precautions on site:</p> <ul style="list-style-type: none"> <li>• All site staff including sub-contractors to be site inducted prior to commencing works on-site</li> <li>• The site induction includes an environmental component, which outlines key soil/water management requirements/procedures</li> <li>• Regular training (e.g. toolbox talks) shall highlight any erosion and sedimentation problems, actions, procedures required</li> </ul>	All staff	Prior to Construction
ECMs will be prepared in accordance with the Managing Urban Stormwater: Soils and Construction. They will be made available onsite and progressively updated as and when required to ensure plans are current and consistent with works under the contract.	Site Manager	Prior to Construction /Construction
<p>Works will be managed to minimise the duration and extent of soil that is left exposed.</p> <p>The project site will be delineated to minimise the amount of disturbance to outside areas.</p>	Site Manager	Construction
<p>Physical control measures will be maintained and inspected regularly</p> <p>- including sediment fences, sediment filters and onsite diversion drains.</p>	Site Manager	Construction
Erosion control and sediment capture measures will be installed prior to stockpiling material.	Site Manager	Construction
Run-off will be directed around excavations and stockpile sites where possible.	Site Manager / Subcontractor	Construction
<p>Concrete washout areas will be established away from drainage lines and location communicated to required personnel. Appropriate sediment controls shall be implemented to prevent runoff.</p> <p>All concrete washouts will be impervious and bunded at all times.</p>	Site Manager / Subcontractor	Construction



<ul style="list-style-type: none"> <li>• All fuels, chemicals and hazardous liquids will be stored within an impervious bunded area in accordance with Australian Standards, EPA Guidelines and the Storage and Handling of Dangerous Goods, Code of Practice 2005</li> <li>• Emergency spill kits will be kept on site and in appropriate vehicles at all times. (Spill kits shall be readily available and accessible to construction workers. Spill kits shall be kept at in site compounds and specific construction vehicles.) All staff will be made aware of the locations of the spill kits and will be trained in their use.</li> <li>• Where a spill to a watercourse is identified as a risk, spill kits shall be kept in close proximity to potential discharge points;</li> <li>• All hazardous materials spills and leaks shall be reported in accordance with PBG Management Procedure requirements and actions shall be immediately taken to remedy spills and leaks;</li> <li>• Construction plant, vehicles and equipment will be refuelled off site.</li> <li>• Vehicles and machinery will be maintained to minimise the risk of fuel / oil leaks.</li> <li>• Visual inspection of vehicles, plant and equipment (Pre-start Checks) shall be carried out prior to commencement on site.</li> </ul>	Site Manager / Subcontractor	Construction
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**Project Soil and Water Aspects and Impacts are noted below:**

**SOIL & WATER MANAGEMENT OBJECTIVES – To minimise water quality and quantity impacts to surface and ground waters**

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>SOIL &amp; WATER QUALITY</b>	Concrete curing compounds have separate wash out bins prior to management of materials to ensure volumes of material to be legally disposed of are not increased or mixed unnecessarily.	Site Manager	Prior to works commencing and on going	Inspections / Audit
	For painting materials have separate wash out bins prior to releasing water.	Site Manager	During induction	Audit
	Silt protection to be installed around existing drainage pits	Site Manager	Prior to works commencing and on going	Inspections / Audit
	Erosion and sediment controls to be installed	Site Manager	Prior to works commencing and on going	Inspections / Audit

<b>9</b>	<b>FLORA AND FAUNA MANAGEMENT</b>
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The impacts during the construction works such as clearing, stock piling and material storage have the potential to effect flora and fauna in the area.

The mitigation measures that will be implemented during construction works to minimise the impact on the surrounding flora and fauna will be as follows:

Mitigation Measures	Responsibility	Project Phase
Training will be provided to relevant project personnel, including relevant sub-contractors on flora and fauna requirements from this plan through inductions, toolboxes and targeted training.	All staff	Prior to Construction
Construction methodology around trees shall be carried out as per AS 4970—2009 Protection of trees on development sites.	Site Manager / Site Foreman / Subcontractor	Prior to Construction /Construction
If unexpected threatened flora or fauna are discovered, works shall stop immediately and the client shall be contacted.	Site Manager / Site Foreman / Subcontractor	Construction
Vegetation disturbance will be minimised as much as possible.	Site Manager / Site Foreman / Subcontractor	Construction
Stockpiles will be located outside of the tree protection zone of trees or native vegetation identified for retention.	Site Manager / Site Foreman / Subcontractor	Construction
Machinery will be checked to ensure they are free from mud and vegetation prior to entering the Project construction sites to prevent the spread of weeds or pathogens.	Site Manager / Site Foreman / Subcontractor	Construction
Open excavations and storage areas to be inspected regularly for the presence of fauna species. No personnel on site are permitted to kill, injure, feed, capture, extract, or otherwise disturb aquatic, animal, or vegetative species while performing any tasks in performance of the work.	Site Manager / Site Foreman / Subcontractor	Construction

### **Project Flora & Fauna Assessment Requirements**

PBG intend on implementing all requirements and specific mitigation measures documented within the “***EW Flora & Fauna Assessment V2.0***” report prepared by SLR on behalf of SINSW and issued during tender.

As identified within the completed report, despite the relatively minor nature of the impacts on flora and fauna and their habitats, the following mitigation measures identified to be implemented by PBG are as followed:

- A Project Ecologist should undertake a pre-clearance inspection to identify any micro-bat roosting prior to demolition. If micro-bats are found during demolition works, works are to stop and the Project Ecologist or wildlife carer should be contacted to undertake relocation.
- If any injured fauna species are found during the construction period, construction must stop immediately so that the injured animal can be taken to a vet or wildlife carer. All handling of fauna species should be conducted by a Project Ecologist or wildlife carer.
- During vegetation clearing, any animals that are displaced are to be captured (by a licenced wildlife carer or ecologist) and relocated to nearby bushland prior to felling or the tree or structure shall be sectioned and dismantled under the supervision of a Project Ecologist before relocating the animals.

### **Project Tree Removal & Protection Requirements**

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PBG will be engaging an Arborist for this project to comply with DA obligations and the requirements of the Arboricultural Impact Assessments for the MW work package prepared by 'Arboreport' and issued during tender.

**Appendix E1E – MW Arboricultural Impact Assessment & Removal Plan + Permit** contains the following documented information:

- MW Arboricultural Impact Assessment
- Main Works Tree Location & Protection Plan
- CBCC Issued Tree Removal Permit

In conjunction with the requirements highlighted in the Appendix documentation above, the following general tree protection requirements must be implemented onsite and maintained throughout the project.

### **Tree Protection Zones (TPZ)**

The TPZ is a radial area extending outwards from the centre of the trunk equal to the DBH x 12. This area shall be protected by a TPF (see below). For all trees to be retained a TPZ is to be created and maintained.

The TPZ function is primarily to protect the root zone by restricting access, however, the canopy of the tree shall also be protected from damage or injury. The project arborist shall approve the extent of the TPZ.

The TPZ shall be mulched to a depth of 75mm with an approved organic mulch. Supplementary watering shall be provided in dry periods to reduce water or construction stress, particularly to those trees which may have incurred root disturbance.

An area equivalent to the encroachment is required to be provided (additional to and contiguous with the remaining TPZ) to offset against the encroachment. This additional area is to be protected during construction.

### **Tree Protection Fencing (TPF)**

Prior to construction works commencing, tree protection fencing will be installed by PBG to establish the TPZ for trees to be retained. Tree protection fencing will be maintained for the duration of the construction project.

Tree protection fencing will:

- Enclose as much of the TPZ as possible, allowing for pedestrian access and 1m offset around construction footprint and scaffolding.
- Consist of ATF type temporary fencing or similar
- Be certified and inspected by the project arborist
- Installed prior to commencement of construction works
- Be prominently signposted with 300mm x 450mm signs stating 'NO ACCESS TO THIS AREA – TREE PROTECTION ZONE – CONTACT PBG SITE MANAGER'.

### **Trunk & Root Zone Protection**

Other measures may be required in addition to tree protection fencing. These specific protection measures will be implemented by PBG as directed by the project arborist to protect the canopy, trunk or branches from the risk of damage.

The project arborist will be consulted if there is risk of damage to a retained tree.

The project arborist may require:

- A 75mm layer of approved mulch to be installed to the TPZ

- A temporary drip irrigation line to be installed to the TPZ
- Additional root protection to be installed
- Additional trunk and branch protection to be installed

### **Tree Damage**

In the event of damage to a tree or the TPZ of a tree to be retained the project arborist will be engaged by PBG to inspect and provide advice on remedial action. This will be implemented as soon as reasonably practicable and certified by the project arborist.

### **Excavation Within TPZ**

Excavation within the TPZ should be avoided, with any excavation within the canopy drip line or TPZ subject to the approval and supervision of the project arborist. Excavation must be conducted by hand.

Where roots 50mm dia. Or greater are encountered, alternative construction methods must be considered to ensure that roots are not severed. Adequate allowance should also be made for future radial root growth.

If there is no avoiding placing services through the TPZ, excavation will take place outside and upto the TPZ, with under boring to take place below the root ball of the tree as directed by the project arborist.

**General Project Flora and Fauna Aspects, Impacts and mitigating actions are noted below:**

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>FLORA &amp; FAUNA</b>	Tree Protection to be installed and signed off	Site Manager	Prior to works commencing and on going	Inspections / Audit
	Weed maintenance during the project to be ongoing	Site Manager	On going during the project	Inspections
	Exclusion zones to be installed to provide protection from any vegetation damage	Site Manager	On going during the project	Inspections
	Requirements of the Arboricultural Impact Assessments for both the EW & MW packages to be implemented in full	Site Manager / Project Manager	On going during the project	Inspections / Audit

## **10 NOISE AND VIBRATION MANAGEMENT**

PBG will manage construction noise and vibration throughout the Bankstown North Public School in accordance with the requirements and criteria outlined within ***'Bankstown North Public School – Construction Noise and Vibration Management Sub-Plan'***. Please refer to **Appendix E1B** for complete CNVMP, with key management plan and PBG standard requirements for noise and vibration covered below.

### **Construction Noise Management Levels (CNVMP Section 5.2.1)**

Noise levels arising from this construction project, measured within an area of sensitive receiver premises (i.e. at boundary or within 30 m of the residence, whichever is the lesser), should not exceed the established Noise Management Levels (NMLs) in line with the ICNG. The established NMLs for this project in accordance with the ICNG are indicated in the table below:

	Time of day	Hours	Construction Noise Management Levels, dB, $L_{Aeq}(15\text{minute})$			
			ICNG	NCA01	NCA02	NCA03
Residences affected by construction works	Recommended Standard Hours / Approved construction hours	Monday to Friday 7:00 am to 6:00 pm	Noise affected <sup>1</sup> RBL <sup>2</sup> + 10 dBA	57	55	61
		Saturday 8:00 am to 1:00 pm	Highly Noise affected <sup>3</sup> 75 dBA	75	75	75
	Outside Recommended Standard Hours		Noise affected <sup>1</sup> RBL + 5 dBA			
	Daytime (out of hours)	Saturday 1:00 pm to 6:00 pm Sunday 8:00 am to 6:00 pm		52	50	56
	Evening	6:00 pm to 10:00 pm		51	48	55
	Night-time <sup>3</sup>	10:00 pm to 7:00 am		47	34	50
Noise at Sensitive Land Uses (other than residences)	Classrooms at schools and other educational institutions	7:00 am to 4:00 pm <sup>4</sup>		-	-	-
	Active recreation areas (characterised by sporting activities and activities which generate their own noise or focus for participants, making them less sensitive to external noise intrusion)	7:00 am to 6:00 pm <sup>4</sup>		-	-	-

Note 1: The noise affected level represents the point above which there may be some community reaction to noise.

Note 2: dB,  $L_{A90}$  - The "background noise level" or "Rating Background Level" (RBL) in the absence of construction activities. This parameter represents the average minimum noise level during the daytime, evening and night-time periods respectively. The dB,  $L_{Aeq}(15\text{minute})$  construction noise management levels are based on the RBLs.

Note 3: Additional assessment of sleep disturbance is to be completed should the Project requires to undertake construction works during the night-time period.

Note 4: Assumed operating hours. To be confirmed with the relevant operator prior to construction.

Note 5: Based on assumed partially open window reduction of 10 dB and to the internal Construction Noise Management Level of 45 dB,  $L_{Aeq}(15\text{minute})$

In the event construction noise levels are predicted to be above the NMLs, all feasible and reasonable work practices are investigated to minimise noise emissions.

### **Nominated Site Control Vibration Targets (CNVMP Section 5.)**

Based on the vibration criteria detailed within sections 5.2.2 & 5.2.3 of the CNVP, the determined site-specific control limits that PBG will follow to reduce the risk of cosmetic damage as per DIN 4150 are outlined in the table below:

Structure	Site Control vibration Criteria <sup>1</sup> (Peak Particle Velocity, PPV) in any Orthogonal Direction	
	Warning Level	Stop Level
Residential buildings	4 mm/s	5 mm/s
Commercial Buildings (school building)	10 mm/s	20 mm/s

Note 1: Vibration levels measured at the base of the building

### **General Noise & Vibration Mitigation Measures (CNVMP Section 7.1)**

Typical noise management procedures and mitigation measures that PBG will implement throughout the project are as follows:

#### **General**

- Where feasible and reasonable, construction should be carried out during the approved standard daytime working hours. Work generating high noise and/or vibration levels should be scheduled during less sensitive time periods.
- Avoiding the coincidence of noisy plant working simultaneously close together and adjacent to sensitive receivers (both noise and vibration generating activity).

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- The contractor will take all reasonable and feasible measures to mitigate noise effects;
  - The contractor will take reasonable steps to control noise from all plant and equipment. Examples of appropriate noise control include efficient silencers and low noise mufflers;
  - Minimise plant and vehicles idling when not in use;
  - All plant and equipment should be maintained in a proper and efficient manner to minimise noise emissions, including the replacement of engine covers, repair of defective silencing equipment, tightening of rattling components and the repair of leakages in air lines;
  - Notification of occupant's adjacent to the site of when these activities occur; and
  - Implementing an effective community consultation and complaints management.

#### Noise

- Provision of localised treatment such as temporary barriers, shrouds and the like around fixed plant such as pumps, generators and groundwater extraction plant during use and by "stepping down" the plant settings out of construction hours or turned off completely where able. The detailed design of acoustic treatments will be undertaken during the detailed design phase; and
- Maximising the offset distance between noisy plant items and nearby noise sensitive receivers;
- Where practicable, provision of additional respite from noise producing activities during extended hours operations;
- Use of broadband alarm in place of tonal alarm where practicable;
- Selection and maintenance of "quiet" type equipment where practicable;
- Minimise consecutive works in the same locality (if applicable);
- Minimising consecutive works in the same locality;
- Silenced air compressors, fitted with noise labels indicating a maximum (LA<sub>max</sub>) sound pressure level of not more than 75 dBA at 7 m is to be used on site. The sound pressure level of noise emitted from a compressor used is to comply with noise label requirements;
- Orienting equipment away from noise sensitive areas; and
- Carrying out loading and unloading away from noise sensitive areas.

#### Vibration

- Selection and maintenance of low vibration equipment where practicable;
- Use only dampened rock breakers and/or "city" rock breakers to minimise the impacts associated with rock breaking works;
- Trial testing of vibration levels is to be conducted where equipment identified as having the potential to exceed the human comfort criteria or where the vibration intensive plant or equipment is required to operate in close proximity (30 m or less) to sensitive structure exceeding the nominated minimum working distances;
- Trial vibration monitoring to determine appropriate work distances of proposed vibration intensive activities; and
- Utilise the smallest practicable size of plant equipment when in close proximity to the sensitive structure (e.g. small vibratory roller).

#### Construction traffic

- Where practicable, site should be arranged to provide one-way traffic movement minimise reversing of vehicles onsite;
- Utilising main road networks to access site and where practicable;
- Provide instructions for heavy vehicles operators regarding minimising noise when entering and leaving the construction sites;
- Delivery truck should be scheduled to arrive on site within the approved construction hours;
- Queuing of trucks are to be minimise as far as practicable and located away from residences and operating school buildings in order to reduce noise impacts due to trucks idling; and
- Where practicable, heavy vehicles should be switched off while queuing or not in use.

#### **Noise & Vibration Monitoring (CNVMP Section 7.2-7.3)**

As part of site management for noise emissions, Construction Contractor would undertake a daily log of construction activities kept onsite by the site manager.

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In addition, where required, noise monitoring would be conducted at the nearest residential receiver to the construction works being undertaken for:

- The beginning of the proposed construction activity;
- Whenever an item of “noise intensive” plant or equipment is brought onto site for the first time. For the purpose of internal noise audits, any item of plant or equipment with Sound Power Level (SWL) greater than or equal to 110 dBA would be considered to be potentially “noise intensive”; and
- In response to complaints once differentiation between site related construction noise sources and other sources has been established.

As part of site management for noise emissions, PBG will undertake a daily log of construction activities as part of our site diary reporting process, with electronic records accessible onsite by the site manager.

In addition, where required, noise monitoring would be conducted at the nearest residential receiver to the construction works being undertaken for:

- The beginning of the proposed construction activity;
- Whenever an item of “noise intensive” plant or equipment is brought onto site for the first time. For the purpose of internal noise audits, any item of plant or equipment with Sound Power Level (SWL) greater than or equal to 110 dBA would be considered to be potentially “noise intensive”; and
- In response to complaints once differentiation between site related construction noise sources and other sources has been established.

#### **Noise & Vibration Auditing (CNVMP Section 7.2.1-7.3.1)**

The results of all noise audits and monitoring would be submitted to PBG’s Site Manager (environmental representative) who will compile progressive impact assessments as work progresses. Submission of the internal noise auditing report to relevant authorities and/ or stakeholders may be applicable on an as per requested basis.

Site noise & vibration emissions requiring monitoring (e.g. following a complaint) would be undertaken in accordance with procedures outlined within the Construction Environmental Management Plan and would be carried out on the property of an affected receiver or at the boundary of the receiver (whichever is most affected).

The noise & vibration audit reporting would include the following information as a minimum during construction works:

- Work activity.
- Name of auditor and site manager.
- Details of the instrument used for the measurement including make, model, serial number and last calibration date.
- Date and time of test.
- Weather condition during test, including air temperature, wind speed, wind direction and details of rain/wet conditions if applicable.
- Plant and equipment operating at the time of measurement.
- Noise measurement recorded for each activity as follows:
  - Concurrent construction occurring (not associated with Ex-Situ works) and other background noise sources.
  - Photograph of transducer and description of mounting location.
  - Plant and equipment operating at the time of measurement.
  - Description of other vibration source(s) (non-site related) and level if measurable.

General noise & vibration auditing requirements to be followed as per sections 7.2.1 & 7.3.1 of the CNVMP – Appendix E1D.

#### **PBG Standard Noise & Vibration Management Requirements**

##### **Noise Intensive works**



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In accordance with PBG requirements for noise intensive works, activities such as rock breaking, rock hammering, sheet piling, pile driving and any other activities which result in impulsive or tonal noise generation and affect sensitive receivers are only scheduled between the following hours:

- (a) 8.00 am and 12.00 pm Monday to Friday;
- (b) 2.00 pm and 5.00 pm Monday to Friday; and
- (c) 8.00 am and 12.00 pm Saturdays.

Where these activities are undertaken for a continuous three-hour period and exceed the construction noise management levels at noise sensitive receivers, a minimum respite period of at least one hour shall be scheduled before activities recommence.

#### Regular Noise Checks of Equipment

Regular noise checks of plant and equipment will be undertaken to ensure they are within the limits set by the manufacturer. If they are found to be higher than nominated for the equipment, items such as mufflers and engine shrouds will be installed to reduce the level of noise produced.

#### Selection of Alternate Processes

Where a particular construction activity is found to generate excessive noise levels, alternative processes and methods will be assessed for implementation. For example, the use of a pulveriser in lieu of a hammer would reduce noise levels and dependant on the specific application would be a viable alternative.

#### Acoustic Barrier

Barriers or screens can be an effective means of reducing noise. Barriers on this project would be located at the source of the noise if required. It is noted that the placement of barriers at the source is generally only effective for static plant and equipment such as jackhammers, or concrete cutting. Mobile plant cannot be effectively attenuated by placing barriers at the source.

#### Material Handling

The installation of rubber matting over material handling areas can reduce the sound of impacts due to material being dropped by up to 20dB(A). If material is being dropped on an ongoing basis rubber matting will be installed for use.

The Project Manager is responsible for implementing the above controls during construction. Noise and Vibration impact assessment is to be undertaken before commencement of works.

**General Project Noise and Vibration Aspects and Impacts are noted below:**

**NOISE & VIBRATION MANAGEMENT OBJECTIVES – To ensure noise impacts are kept to a practical minimum and avoid nuisance to BNPS students and staff as well as neighbouring properties**

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>NOISE &amp; VIBRATION</b>	Construction activities to be scheduled to achieve lowest possible disturbance due to construction noise	Site Manager	Prior to works commencing and on going	Inspections / Audit
	When construction / demolition will involve the use of heavy equipment and significant noise generating activities, a Community letter notification will be issued to all local residents or disruption notice to the facility will be issued prior to commencement.	Site Manager	Prior to works commencing and on going	Inspections / Audit

	Tools to be selected for low noise transmissions where possible Wherever practical, piling activities that affect sensitive receivers shall be undertaken using quieter alternative methods than impact or percussion piling, such as bored piles or vibrated piles.	Site Manager	Prior to works commencing and on going	Inspections / Audit						
	Construction machinery and tools to be maintained according to manufacturer's specification or better	Site Manager	Prior to works commencing and on going	Inspections / Audit						
	Contact telephone number to be provided for the public so that information can be received or complaints be made in relation to noise or vibration. <i>Displayed on outside fence in accordance with the WHS Regulation</i>	Project Manager	Prior to works commencing	Inspections / Audit						
	Monitoring to be undertaken in response to any public complaints. Noise levels to be maintained below the limits specified below.	Site Manager	On going	As required						
	Shield sensitive receivers from noisy activities – use structures to shield residential receivers from noise such as noise barriers, site shed placement etc	Site Manager	On going	As required						
	Construction related traffic – limit the speed of vehicles and avoid the use of engine compression brakes	Site Manager	On going	As required						
	Minimise disturbance arising from delivery of goods to construction sites – loading and unloading of materials is to occur as far as possible from sensitive receivers	Site Manager	On going	As required						
Performance Objectives	<ul style="list-style-type: none"><li>✓ Minimal complaints in relation to “unreasonable” or “intrusive” noise from BNPS students, staff or members of the public and surrounding properties.</li><li>✓ Construction in accordance with requirements of Department of Environment &amp; Climate Change ‘Interim Construction Noise Guideline’.</li><li>✓ Construction in accordance with AS22436-1981, Guide to Noise Control on Construction, Maintenance and Demolition Sites</li><li>✓ All work to be carried out during permitted hours as stipulated in the Contract.</li></ul>									
	<b>NSW Environmental Protection Act Noise Criteria from construction sites for residential receivers</b> <table><tr><td>Parameter</td><td>Maximum Acceptable Noise Level</td></tr><tr><td>Construction periods of 4 weeks or less</td><td>L<sub>10</sub> noise level not to exceed existing L<sub>90</sub> background noise level by more than 20 dB</td></tr><tr><td>Construction periods of 4 – 26 weeks</td><td>L<sub>10</sub> noise level not to exceed existing L<sub>90</sub> background noise level by more than 10 dB</td></tr></table> <p><u>Note:</u> L<sub>10</sub> is the level of noise exceeded over 10 per cent of the monitoring time L<sub>90</sub> is the level of noise exceeded over 90 per cent of the monitoring time Noise activities exceeding EPA noise levels are not to exceed 15 minutes in duration</p>				Parameter	Maximum Acceptable Noise Level	Construction periods of 4 weeks or less	L <sub>10</sub> noise level not to exceed existing L <sub>90</sub> background noise level by more than 20 dB	Construction periods of 4 – 26 weeks	L <sub>10</sub> noise level not to exceed existing L <sub>90</sub> background noise level by more than 10 dB
Parameter	Maximum Acceptable Noise Level									
Construction periods of 4 weeks or less	L <sub>10</sub> noise level not to exceed existing L <sub>90</sub> background noise level by more than 20 dB									
Construction periods of 4 – 26 weeks	L <sub>10</sub> noise level not to exceed existing L <sub>90</sub> background noise level by more than 10 dB									

<b>11</b>	<b>CONTAMINANTS AND WASTE MANAGEMENT</b>
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Due to areas of contaminated ground being identified during a preliminary environmental assessment and supplementary contamination assessments conducted at the Bankstown North Public School project site, a Remedial Action Plan (RAP) has been prepared by Alliance Geotechnical on behalf of SINSW to outline the following:

- Areas of environmental concern
- Contaminants of potential concern
- Site remediation extent
- Proposed & preferred remediation option (being excavation and off-site disposal)
- Sequence of works for remediation
- Remediation works, relevant areas and proposed remediation strategy
- Remediation contingency plan
- Unexpected finds protocol

PBG will fully implement the requirements of the RAP supplied during tender and will engage a project hygienist selected from the DOE approved panel to supervise all remediation works. The key requirements of the RAP plan highlighted above are covered in more detail below.

### **BNPS Remedial Action Plan**

#### **Remedial Goal**

The remedial goals for this site are as follows:

- To remediate non-friable asbestos containing material contaminated soil to a level that does not present an unacceptable human health exposure risk, based on the proposed and use setting;
- To remediate Benzo(a)pyrene contaminated soils to a level that does not present an unacceptable human health exposure risk, based on the proposed land use setting;
- To remediate concentrations of contaminants of concern in soil to a level that does not present an unacceptable ecological screening/investigation level; and
- To remediate concentrations of Copper, Lead and Zinc in contaminated soil to a level that does not present an unacceptable ecological investigation level.

ID	Area of Environmental Concern	Land Use Activity	Contaminants of Potential Concern
AEC01	TP05	Demolition and uncontrolled filling	Benzo(a)pyrene TEQ, Copper, Lead, and Zinc
AEC02	TP02, TP03, BH07, BH08, BH11, TP12, TP13, BH15, BH16, BH17, BH18, BH19, BH25, TP27, TP28	Demolition and uncontrolled filling	Zinc
AEC03	TP14	Demolition and uncontrolled filling	Non-Friable Asbestos in fill materials
AEC04	BH25	Demolition	Non-friable Surface Asbestos

#### **Remediation Extent & Options**

The extent of remediation on the site is considered to be the following:

- Benzo(a)pyrene TEQ, Copper, Lead, and Zinc (AEC01)
- Zinc (AEC02)
- Non-friable ACM within fill materials surrounding TP14 (AEC03); and
- Non-friable ACM restricted to surface soils localised at BH25 (AEC04).

The inferred extents of remediation are highlighted in the Remedial Action Plan Diagram - Appendix E1E.

It is noted that the extent of remediation for the site may require amendment, subject to the discovery of unexpected findings during remedial works.

The preferred remediation option identified by Alliance Geotechnical to be utilised onsite by PBG is: Excavation and off-site disposal.

#### Remediation Works

Remedial works will be guided and monitored by the environmental consultant. The environmental consultant will assist the remediation contractor in setting out the inferred lateral extents of remediation required for each AEC. The environmental consultant will monitor remedial works in each AEC and provide guidance to the remedial contractor on:

- Benzo(a)pyrene TEQ, Copper, Lead, and Zinc (AEC01)
- Zinc (AEC02)
- Non-friable ACM within fill materials surrounding TP14 (AEC03); and
- Non-friable ACM restricted to surface soils localised at BH25 (AEC04)
- When to pause remedial works in an AEC, to allow validation works to be undertaken; and
- Where to extend remedial works in an AEC beyond the inferred extent (if observations indicate a need for chasing out additional contamination).

The tracking of waste materials across and off the site, will be the responsibility of the remediation contractor. This is integral for the successful completion of a site validation report.

A broad asbestos contamination risk requiring remediation, has been identified for the site. The proposed remedial strategy to be adopted for each of those risks, along with the relevant

AECs that those strategies apply to, are presented in the table below:

Contamination Risk	Relevant Areas	Proposed Remedial Strategy
Non-friable ACM on surface (generally <0.3m deep)	AEC04	Excavation of surface soils (approximately 0.3 m bgs), temporary stockpiling, disposal off-site  The remediation contractor will retain transport and disposal records for all wastes removed off site.
Contamination Risk	Relevant Areas	Proposed Remedial Strategy
Non-Friable Asbestos in fill materials	AEC03	Excavation of soils down to depth of fill materials, temporary stockpiling, disposal off-site  The remediation contractor will retain transport and disposal records for all wastes removed off site.
Benz(a)pyrene and Heavy Metals in fill materials	AEC01-AEC02	Excavation of soils down to depth of fill materials, temporary stockpiling, disposal off-site  The remediation contractor will retain transport and disposal records for all wastes removed off site.

#### Remediation Contingency Plan

Remediation works have an inherent degree of uncertainty. Based on the site history information made available, and AG's experience with comparable projects, AG has considered the situations set out in the table below may be encountered during remediation works.

Contingency plans for those situations are also presented in the table below:

Situation	Contingency Plan
Unexpected potential contamination or underground structures encountered during remediation (e.g. underground storage tank, underground pit).	<p>Consider excavation of test pits / trenches to assess potential for contamination to be present.</p> <p>Remove underground structures (if required) and associated soil contamination (if required).</p> <p>Consider groundwater assessment, subject to nature and extent of identified soil contamination.</p> <p>Amendment to the preferred remedial strategy (if required), pending the outcomes of the assessment of the unidentified contamination.</p>
Potential asbestos containing materials (ACM) observed in fill material.	<p>Stop work. Analyse sample/s of potential ACM. Subject to results, commence relevant SafeWork NSW notifications, engage a suitably experienced environmental consultant, amend soil waste classification/s (if warranted) and remove asbestos impacted materials. Removal works may require raking, hand picking and/or excavation, depending on the nature and extent of the asbestos find (refer remedial strategy details presented in <b>Section 6.5.4</b>. The consultant will then implement the relevant asbestos validation methodology (refer <b>Section 7.7.4</b>), depending on the nature/extent of the asbestos find and remedial option adopted.</p>

#### Unexpected Finds Protocol

It is possible that unexpected finds may be present within the fill material. To this end, an Unexpected Finds Protocol has been compiled, and is summarised herein. Unexpected finds could include, but are not limited to:

- Benzo(a)pyrene TEQ, Copper, Lead, and Zinc (AEC01)
- Zinc (AEC02)
- Non-friable ACM within fill materials surrounding TP14 (AEC03); and
- Other underground storage tanks that are previously not identified;
- Buried containers, general waste, organic (poultry) waste and drums;
- Phase separated hydrocarbons;
- Asbestos containing materials other than in the areas already listed in the RAP;
- Powders and other suspicious buried material;
- Potentially hazardous materials; and
- Evidence of contamination including significant staining, odours and discolouration.

In the event that any material suspected of containing potentially hazardous substances is found during remediation works, the following steps will be followed:

1. The environmental consultant will be consulted immediately for assessment and advice.
2. The area of concern will be cordoned off.
3. Appropriate environmental management measures will be implemented until the assessment is completed and further advice is received from the consultant.
4. The environmental consultant will undertake any necessary assessment and provide advice on a strategy to manage the identified unexpected contamination.
5. The RAP may require revision depending on the findings and proposed management strategy.
6. The findings of the assessment post remediation and validation will be discussed with the client and relevant stakeholders (i.e. remedial contractor) immediately after

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any unexpected finds are encountered.

7. The site validation report must incorporate a comprehensive account of all unexpected finds encountered during remedial works. This should include but is not limited to the steps outlined above, importantly, the management and remedial strategy implemented.

### **PBG General Contaminants & Waste Management Measures To be Implemented**

#### **ACTION TAKEN FOR MINOR SPILLS**

The following shall occur to contain any minor spills on the project.

Any minor spill of chemicals, dangerous goods, hazardous materials or unknown substances is to be reported to the Site Manager. A non-conformance report (Form N1.1) will be raised. The Site Manager has an industrial spill kit in the site shed and workers are to be instructed on its proper use.

Immediate attempts are to be made to contain and/or limit the spill using all resources as required to carry out this containment.

Likely measures could include one or more of the following:

- Use of absorbent material
- Use of sand bags to construct a bund wall
- Temporary sealing of any cracks / damage to infrastructure
- All reasonable measures implemented to aid in the containment of the material.

As required the Site Manager is to co-ordinate the response, containment and clean up. Disposal of all materials shall be performed in accordance with legislation. Spills are to be reported to the Environmental Representative.

#### **ACTION TAKEN FOR MAJOR SPILLS**

Major spills are not expected on site as there are only small volumes of chemicals being used.

Any major spill of chemicals, dangerous goods, hazardous materials or unknown substances is to be reported to the Site Manager. A non-conformance report (Form N1.1) will be raised.

Any major spill of chemicals, dangerous goods, hazardous materials or unknown substances is to be reported to the Site Manager. A non-conformance report (Form N1.1) will be raised.

Refer to the SDS for the chemical to ascertain what to do in case of a spillage.

An initial assessment is made of the situation, in particular what needs to be done to contain and / or limit the spill and what resources will be required to carry out this containment. Likely measures could include one or more of the following:

- Use of absorbent material
- Use of sand bags to construct a bund wall
- Transferring remaining substance to alternative storage areas
- Temporary sealing of any cracks/damage to infrastructure
- All reasonable measures to be undertaken to aid in the containment of the material

If the spill can be dealt with by on site resources, the Site Manager is to co-ordinate the response. Disposal of all materials shall be performed in accordance with legislation.

If containment is regarded to be outside the on-site resources, then the NSW Fire and Rescue is to be called. If some doubt exists, NSW Fire and Rescue (Tel: 000) should be called as a precautionary measure.

The NSW EPA (formerly DECC) for Hazardous Waste (Tel: 9995 5000) should be notified if appropriate.

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Where appropriate, evacuation procedures will be implemented to remove non-essential personnel from the affected area.

On site staff representing the client is to be notified.

Access and egress to the area is to be established to ensure that the appropriate vehicles have effective access and congestion is minimised.

If the NSW Fire and Rescue or EPA attends, their senior officer assumes control of the operation with PBG employees and subcontractors assisting as required.

A full investigation report of the event is completed as soon as is practicable after the situation has stabilised. Recommendations to prevent a re-occurrence are to be acted upon in accordance with the timing recommended in the investigation report.

### CONTAMINATED GROUND

The Project Manager shall promptly notify the Client's Representative of any suspected or potentially contaminated ground exposed during construction activities. PBG shall cease construction activity in the vicinity of the suspected or potentially contaminated ground until it has been assessed and appropriate protection measures determined. PBG shall comply with the Contaminated Land Management Act in relation to disturbance or treatment of potentially contaminated ground.

The Site Manager shall install any control measures needed to divert surface runoff away from contaminated ground and to treat any surface runoff contaminated by exposure to contaminated ground

### LEAD BASED PAINT, PCBs

If unknown hazardous materials are found during the works, work will stop in that area until removal is approved by the Client's Representative. Lead based paint, heavy metals or unknown waste will be managed in accordance with the project SWMS '*Demolition for lead based paint*', '*SWMS painting for lead based paint control measures*'.

### ASBESTOS

If asbestos is potentially identified all works are to cease and the area made safe with material sheeting and wet down to contain air born fibres. The area will then fenced off until a licenced asbestos assessor can inspect the area. Upon a potential find the client representative is to be informed and the wider work crew notified of the issue.

### HERBICIDES

All herbicide use should be undertaken in accordance with the requirements of the Pesticides Act 1999 and the Pesticides Regulation 1995. It is the responsibility of herbicide applicators to complete a risk assessment prior to use of herbicides to ensure that the weed control is completed without risk of:

- Injury to another person
- Damage to another person's property
- Harm to a non-target plant or animal.

If there is risk of injury, damage or harm, weed control should cease until the risk may be controlled.

In addition, all herbicide applicators should be suitably trained, maintain records and ensure that the application method (i.e. the situation in which it is used, target species, the application rate, application method and use of additives such as dye or surfactant) are consistent with either:

- The product label and Material Safety Data Sheet (MSDS), and/or;
- An off-label permit for minor and emergency uses issued by the Australian Pesticides and Veterinarian Medicines Authority (an application should also be made to undertake



works with an existing permit if the permit does not apply to persons generally).

**Project Contamination and Waste Aspects and Impacts are noted below:**

**CONTAMINATION AND WASTE MANAGEMENT OBJECTIVES – To appropriately manage contaminated materials and wastes generated by the project, thereby conserving valuable resources and reducing potential impacts on water and land.**

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>HAZARDOUS CHEMICALS</b>	Hazardous Chemicals storage shall be bunded in accordance with AS1940 (The Storage and Handling of Flammable and Combustible Liquids).	Site Manager	Prior to works commencing and ongoing	Inspections / audit
	Impermeable membranes (for example plastic / concrete blinding over plastic) will be installed within the bunded area to prevent ground contamination in the event of a spill.	Site Manager	Prior to works commencing and ongoing	Inspections / audit
	Storage locations will be in areas where materials will not be able to enter water courses or drains.	Site Manager	Prior to works commencing and ongoing	Inspections / audit
	Small amounts of Hazardous Chemicals to be used – general construction materials. If not specified, environmental friendly products to be sourced.	Site Manager	Prior to works commencing and ongoing	Inspections / audit
	Herbicides must only be used onsite by suitably qualified and/or experienced personnel.			
	Storage of material to be secured to prevent vandalism / malicious damage.	Site Manager	Ongoing	Inspections / audit
	All material safety data sheets (MSDS's) and information relating to the storage, use and handling of chemicals and spillage will be kept at nearby the Site office, and first aid kit.	Site Manager	Prior to works commencing and ongoing	Inspections / audit
	Appropriate spill clean-up materials shall be stored nearby the site shed. The location of spill containment materials shall be identified in the environment induction.	Site Manager	Prior to works commencing and ongoing	Inspections / audit
Project Objectives	<ul style="list-style-type: none"> <li>✓ Spills are minimised, effectively contained, clean up and disposed of in accordance with relevant legislation and best practices</li> <li>✓ Bunded and lined maintenance areas are intact, correctly sized and clean of other materials</li> <li>✓ No contamination of land</li> </ul>			

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>WASTE AND RESOURCES</b>	Requirements of <b>Appendix E1D – 'MW Construction Waste Management Sub-Plan'</b> to be implemented throughout the project.	Site Manager / Project Manager	On going	Inspections / audit
	Waste to be segregated wherever possible.	Site Manager	On going	Inspections / audit
	Solid waste to be assessed prior to disposal.	Site Manager	On going	Inspections / audit
	Recycling of construction materials, chemicals and other equipment to be undertaken where practicable	Site Manager	On going	Inspections / audit Recycling

				dockets, WRAPP report
	Food scraps to be placed within PBG provided bins	Site Manager	On going	Inspections / audit
Regulated Wastes (includes sewerage, hazardous wastes)	Any hazardous waste (PCBs, Asbestos, lead based paint etc) to be managed in accordance with the WHS plan, ITPs and disposed of in accordance with Occupational Health and Safety and Environmental requirements.	Site Manager	On going	Inspections / audit
Performance objectives	<ul style="list-style-type: none"> <li>✓ No waste of any description to be released from the works site in an uncontrolled situation</li> <li>✓ Maximum recycling of all waste where practicable</li> <li>✓ All non recyclable waste shall be disposed of at an EPA licensed waste facility according to "Environmental Guidelines: Assessment, Classification and Management of liquid and non liquid wastes (EPA 1999)</li> <li>✓ Ecologically sustainable management of hazardous waste in accordance with Hazards and risk section in environmental plan</li> <li>✓ Purchase of recycled materials for roadworks where possible</li> </ul>			

<b>12</b>	<b>OTHER ENVIRONMENTAL ASPECTS AND IMPACTS</b>
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Other environmental aspects and impacts assessed as relevant to this project identified below have been addressed in the following sections:

- Restoration of Site
- Fire Management
- Aboriginal & Historical Heritage – WWII Slit Trench & Block A (No works scheduled, and exclusion zone established around building to prevent damage during construction works)
- Air Quality
- Traffic Management

**SITE RESTORATION OBJECTIVES – To ensure that restored areas at completion of construction are safe, stable, non-polluting, self-sustaining and require minimal additional management through operation of the site.**

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>RESTORATION OBJECTIVES</b>	Soil disturbance and vegetation clearing activities will be limited to the project footprint only.	Site Manager	Prior to works commencing / Ongoing	Inspections / Audit
	Site restoration will be undertaken as soon as reasonably practicable.	Site Manager	On going	Inspections / Audit
	Excavated soil will be used elsewhere on site if practical. Soil will be reused as close as possible to its origin.	Site Manager	On going	Inspections / Audit
	Direct return of topsoil to be practiced wherever practicable.	Site Manager	On going	Inspections / Audit
	Following completion of construction works, the site will be rehabilitated by PBG to a condition suitable to prevent erosion and allow for the landscape contractor to undertake revegetation works.	Project Manager	At completion of project	Audit
Performance Objectives	<ul style="list-style-type: none"> <li>✓ Land is returned to its previous condition or in a manner suitable for its intended use post-construction</li> <li>✓ No complaints from landholders regarding land reinstatement and productivity</li> </ul>			

	✓ No harm to people or fauna from rehabilitation activities.
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**FIRE MANAGEMENT OBJECTIVES – To minimise the risk of fires being started by the project works and to manage the risk of off-site bushfires**

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>FIRE MANAGEMENT OBJECTIVES</b>	Ensure smoking is only conducted within the designated smoking area with cigarette butt bins provided	Project Manager	Prior to works commencing and at induction	Inspections / Audit
	All construction associated machinery or vehicles should be equipped with portable fire extinguishers	Site Manager	On going	Inspections / Audit
	Open fires, including barbecues and brush burning are prohibited.	Site Manager	On going	Site Inspections/ Audit
	Flammable material must not be stockpiled or stored near hot work activities (including vegetation stockpiles).	Site Manager	On going	Inspections / Audit
	All workers must comply with fire restrictions and PBG hot works permit procedures.	Site Manager	On going	Inspections / Audit
	Fire bans for high risk days, must be complied with.	Site Manager	During Fire Bans	Inspections / Audit
Performance Objectives	✓ Compliance with the Rural Fires Act (NSW) 1997 & Rural Fires Regulation 2013. ✓ No Hot Works permits issued and works permitted during fire bans. ✓ No Fires either on or off-site started by any aspect of the project.			

**ABORIGINAL & HISTORICAL HERITAGE OBJECTIVES – To prevent or minimise the disturbance of Aboriginal or historically significant heritage items and requirements**

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>HERITAGE OBJECTIVES</b>	Client Heritage Items or requirements addressed as per the contract documents. <b>Note:</b> No sites of aboriginal or historical significance have been identified within the project area bar the potential to impact (considered low risk) the WWII slit trench in the approximate location of the oval & new games court in accordance with the <b>'Historical Archaeological Assessment'</b> report conducted on behalf of SINSW. Regarding Aboriginal significant items, in accordance with the <b>'ACHAR'</b> report prepared by Unearthed Archaeology & History on behalf of SINSW with the Aboriginal archaeological assessment concluding that it is highly unlikely that any Aboriginal objects of evidence of occupation exists within the project area.	Project Manager	Prior to works commencing	Audit
	Any findings of European or aboriginal heritage items, or human remains, all works to cease immediately with the Client and Heritage Consultant to be notified.	Site Manager / Client PM Team.	As required	Audit
	Following the findings, works to proceed based on the recommendations from the Heritage Impact Assessment.	Project Manager / Client PM Team.	As required	Audit
	Exclusion Zone to be established around Block A with temporary fencing or bunting to ensure that no	Site Manager	Prior to works	Inspections/ Audit

	construction works (plant movement, materials storage, etc.) impacts the heritage building.		commencing	
Performance Objectives	✓ Compliance with Heritage Act 1977 No 136 (NSW) and <i>Heritage Regulation 2012</i> ✓ No complaints from BNPS staff, client, NSW Government, or members of the public.			

**AIR MANAGEMENT OBJECTIVES– To prevent any irreversible damage caused by the release of dust, fibres, odour and gas emissions contributed from planned activities**

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>AIR QUALITY</b>	Ensure vehicles entering and leaving site do not deposit mud or dirt to prevent them from entering the roadways and stormwater systems. This is to be achieved by vehicles not entering site during rain events, and tyres to be washed prior to exiting site.	Site Manager	Ongoing	Inspections / Audit
	Water to be used to suppress during demolition works if required. Demolition not to commence during high winds.	Site Manager	Ongoing	Inspections / Audit
	Visual dust monitoring will be conducted to gauge the concentration of airborne dust in the working environment in real time.	Site Manager	During works and ongoing.	Inspections / Audit
	Fitting power tools with dust collection devices where practical.	Site Manager	During works	Inspections / Audit
	Spray mist bottles and clothes will be used to dampen any demolition materials, bins etc. prior to leaving the work area.	Site Manager	During works and ongoing	Inspections / Audit
	Ensure machinery is maintained correctly	Site Manager	During works and ongoing	Inspections / Audit
	Ensure the machinery is turned off when not in use	Site Manager	During works and ongoing	Inspections / Audit
Performance Objectives	✓ No complaints received in relation to excessive emission of air impurities			
<b>PUBLIC HEALTH</b>	Project WHS plan to be produced to ensure construction staff are not at risk	Project Manager	Prior to works commencing and updated as required	Audit
	Incident response plans to be developed to ensure incidents are managed effectively.	Project Manager	Updated as required	Audit
	Construction & Permanent external lighting installations to be not directed towards site boundaries and installed in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting	Project Manager	Prior to works commencing and updated as required	Audit
Performance Objectives	✓ All incidents reported and actioned in accordance with Incident / Emergency plans as outlined in project induction.			
<b>HAZARDS and RISKS</b>	Project WHS plan to be prepared. Key elements to include: <ul style="list-style-type: none"> <li>• Definition of communication channels between internal and external management staff, Client's Representative and the community.</li> <li>• Change / control procedure for changes in personnel etc</li> <li>• Procedures to be appropriate for full range of</li> </ul>	Project Manager	Prior to works commencing and updated as required	Audit

	safety / emergency issues <ul style="list-style-type: none"> <li>Legislation affected by construction hazards</li> </ul>			
Performance Objectives	<ul style="list-style-type: none"> <li>✓ Compliance with Australian Standards for WHS criteria for WHS activities.</li> <li>✓ Australian Standards for WHS criteria for road construction.</li> <li>✓ SafeWork NSW criteria for WHS activities.</li> <li>✓ AS1742.3 – 1985 Traffic Control Devices for Work on roads.</li> <li>✓ Action taken on all incident reports.</li> </ul>			

### TRAFFIC AND ACCESS MANAGEMENT OBJECTIVES– To prevent and mitigate and disturbances to the local road network resulting from planned activities

Issue	Mitigating Actions	Responsibility	Timing	Monitoring
<b>ACCESS AND TRAFFIC</b>	Appropriate notice regarding any disruptions to normal traffic flow must be given to the community – especially if it affects staff parking for the existing facility. Site Manager to be notified to assist in access and egress of vehicles.	Project Manager	Prior to works commencing and ongoing	Inspections / audit
	A Traffic and Access Management Plan has been developed to incorporate mitigation controls during the construction period. – Refer to Appendix B6 of PMP	Project Manager	Prior to works commencing and ongoing	Inspections / audit
	Emergency services to be informed of any changes to normal traffic flow that may have an impact on their ability to respond to incidents / emergencies urgently.	Project Manager	Prior to works commencing and ongoing	Inspections / audit
	Ensure pedestrian and cyclist access is through or around the site is provided.	Project Manager	Prior to works commencing and ongoing	Inspections / audit
	Locations for safe parking of construction vehicles to be identified and communicated to PBG site personnel.	Site Manager	Prior to works commencing and ongoing	Inspections / audit
Performance Objectives	<ul style="list-style-type: none"> <li>✓ No complaints from the client, local councils, NSW Government, local residents.</li> </ul>			

## 13 STRUCTURE AND RESPONSIBILITY

The duties and responsibilities of all Patterson Building Group' staff are defined in Position descriptions, which are available for review in the PBG Management System.

### Project organisational chart

The project organisational structure is defined in Appendix A of the PMP.

### **Project Manager: Petar Bosnjak – 0421 256 490**

Has Responsibility and Authority for:

- developing the Environmental Plan to comply with requirements of relevant regulations, standards and codes
- reviewing and authorising the project environmental plan
- instructing the Site Manager in requirements for operation of the plan on the site

- ensuring the provision of training to improve awareness / knowledge of environmental issues
- informing subcontractors of Environmental requirements
- ensuring requirements of the Environmental Management Plan are implemented by site personnel
- reviewing the implementation of the Environmental Plan
- preparing for PBG works, Safe Work Method Statements to cover environments impacts and ensuring compliance with safe working practices contained therein
- allocating sufficient resources to ensure that the Environmental Management Plan can be effectively implemented on this project
- evaluating subcontractors and supplier's ability to comply with environmental requirements
- verifying the effectiveness of the Environmental Management Plan through routine inspections
- quarantining unsafe work areas, materials, plant, and equipment in the event of an incident or spillage which impacts on the safe operation of the site
- initiating and verifying preventive and corrective actions with respect to the effective operation of the Environmental Management Plan

**Site Manager – Grant Walter: 0405 319 746**

**Site HSE Officer – Ian Boulton: 0408 476 479**

Has Responsibility and Authority for:

- implementing the environmental plan and will be the authority for the project on environmental matters. The officer has the authority to direct all activities to comply with the environmental plan.
- training of all site personnel in requirements of the Environmental Management Plan during Induction
- assigning project staff to perform verification duties
- monitor and enforce compliance with the Environmental Management Plan
- conduct site inspections Form I3.2
- management of accident and emergency procedures, including being the 24 hour emergency contact.
- ensuring non-conformance is reported and that corrective action is timely and effective
- ensuring subcontractors fulfil their environmental obligations
- attending meetings to discuss environmental issues
- liaison with environmental representatives from the client and community groups
- assisting with environmental reports as part of the monthly project reports

#### **Management Representative**

The Project Manager has nominated the Site HSE Officer / Site Manager to act on his behalf in all matters relating to environmental protection on the project.

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#### **ENVIRONMENTAL INSPECTIONS**

Environmental inspections can be undertaken formally during weekly site inspections using form or informally using form in which environmental issues may be identified. When issues are identified, a priority for action to be implemented is to be as follows:

Priority	Action required
Immediate	Immediately and closed out on day of inspection
High	Within 24 hours
Medium	Within 3 working days
Low	Within 5 working days
Other	By the date noted

All environmental incidents must be reported to SINSW within 24 hours (immediately for incidents that may cause material harm to the environment) of occurring or first being observed. Following an investigation, additional information found following the incident are to be recorded within the 48 hours of the incident first being observed.

A list of emergency response personnel with contact details with contact detail will be located on the site notice board outside the Site Manager's office.

Environmental emergency services contact details are listed below for use in case of an environmental emergency requirement:

Situation	Non-Project Emergency Contacts	
Fire	Fire Brigade	000
	SafeWork NSW	13 10 50
Liquid chemical spill, into water or soil	OEH-EPA	13 15 55
	Fire Brigade	000
	SafeWork NSW	13 10 50
Uncontrolled release of water	OEH-EPA	13 15 55
	Sydney Water	13 20 90
Flood	SES	13 25 00
	OEH, if damage to environment	13 15 55
Storm	SES	13 25 00
	OEH, if damage to environment	13 15 55
Uncontrolled release of gas	OEH	13 15 55
	Safe Work NSW	131050
	Fire Brigade	000
	Police, if evacuation required off site	000
Explosion	Fire Brigade	000
	Police	000
	OEH, if damage to environment	13 15 55
	WorkCover	121050
	Utility companies, if utilities damaged	131388

An environmental incident can be caused by many circumstances that will impact the environment. These incidents include contamination, harm to flora and fauna, damage to heritage items etc.

Please see below a list of possible environmental incidents:

Type	Incidents
Air	Odour that travels beyond the site boundary
Air	Dust exceeding reasonable levels without active management measures in place



Air	Operation or maintenance of plant in a manner that causes or is likely to cause air pollution
Water	Discharge of water on or off site in a manner that causes or is likely to cause water pollution
Noise	Noise that travels beyond the site boundary as a result of poorly maintained plant or operation of plant in an inefficient manner
Noise	Failure to comply with the approved hours of work
Land	Cause any substance to leak, spill or otherwise escape (whether or not from a container) in a manner that harms or is likely to harm the environment
Land	Spill/deposit material or allow material to be deposited on land in a manner that causes or is likely to cause land pollution
Land	Cause contamination of land
Land	Dispose of waste in a manner that harms or is likely to harm the environment
Flora/ Fauna	Harm or "pick" a threatened species, endangered population or endangered ecological community
Flora/ Fauna	Damage to vegetation, fauna or habitat including watercourses
Heritage	Damage, disturbance, destruction or works to heritage items/relics
Heritage	Damage, disturbance, or destruction of Aboriginal objects or places

<b>15</b>	<b>COMMUNICATING AND REPORTING – COMMUNITY ENGAGEMENT</b>
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### **Communication**

Communication and interfaces shall be conducted in accordance with Procedure T 1 "Tool box meetings". Any site meetings shall be performed in accordance with Procedure M1 "Meetings".

Environmental issues specific to this project are communicated as follows:

Method / Medium	Frequency	Participants	Record
Tool Box meeting	Where relevant to a particular work activity	Relevant project personnel and subcontractors	Form T1.1 "Tool Box meeting record" and site diary
Management review	Monthly	Project team / Managing Director	Minutes
Site meeting	As directed by the Client	PM/SM/client	Minutes

### **Reporting**

The Project Manager in consultation with the Site Manager and HSE Officer will submit a monthly report to the Managing Director detailing any environmental issues for the period.

### **Community Engagement, Media & Stakeholder Management**

Communication with all Stakeholders will be critical for this project. PBG and (Client) stakeholders will hold weekly Coordination Meetings. The meetings will be used to discuss the progress of the building works, WHS and any environmental issues or impacts within the project.

Disruption Notices will be issued for approval if any work element is to impact surrounding areas.

PBG will assist in the preparation and implementation of the project Communications & Engagement Plan (CEP as developed by SINSW – Awaiting issue).

Once the completed CEP is developed and authorised, it will be included within this CEMP as Appendix E1G.

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The intent of the CEP is to:

- Promote the benefits of the project
- Build key schools community stakeholder relationships and maintain goodwill with impacted communities
- Manage community expectations and build trust by delivering on our commitments
- Provide timely information to impacted stakeholders, schools and broader communities
- Address and correct misinformation in the public domain
- Reduce the risk of project delays caused by negative third party intervention
- Leave a positive legacy in the Bankstown community.

PBG will work collaboratively with SINSW in relation to:

- Building and maintaining BNPS's relationship with their community and with residents
- Ensuring cooperation with all SINSW planned communications activities
- Providing all required material, whilst cooperating with and providing assistance to SINSW Communications Directorate for the preparation of media releases, site events and responses to priority correspondence
- Contributing information to, and attending, stakeholder and community meetings as required e.g. information booths, information sessions and site walkthroughs with stakeholders
- Assisting in the provision of regular information to the community and local stakeholders through written communications and other channels as agreed in the CEP and as directed by the Principal
- Ensuring regular information is provided to the community and relevant stakeholders in a timely and sensitive manner as directed and coordinated by the Principal Developing specific communications plans for disruptive works, such as road diversions and closures, which impact the local community
- Developing specific communications plans for sensitive works, such as tree removal, hazardous material removal and demolition of heritage items, which will be of specific interest to the local community
- Ensuring (to reasonable effect) the ongoing operation of any local facilities including bicycle lanes and shared use paths.

PBG will ensure that all persons working the site do not engage with, approach or provide comment to media, political stakeholders, neighbours, parents, students or other stakeholders in relation to project matters. All media or stakeholder enquiries will be referred to the PAP.

<b>16</b>	<b>TRAINING AND AWARENESS</b>
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The Project Manager shall identify the training needs for project personnel but are to include general environmental awareness including incident management, community sensitivities and noise and dust mitigation at a minimum.

Site Induction shall be provided to all personnel working on the site in accordance with Procedure I 1 "Induction". The project specific environmental requirements will be included in the site rules (Appendix B3 of the project management plan) which are discussed during induction. The Site Manager shall ensure that records of all site induction are maintained.

<b>17</b>	<b>MONITORING AND TESTING</b>
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General

Monitoring and testing activities will be carried out by the Site Manager / Site HSE Officer or specialist environmental agencies / organisations during the removal of asbestos or other hazardous materials – this will be referenced within the HAZMAT removal plan developed by a qualified occupational hygienist.

Where testing is performed by registered laboratories, the test reports shall be issued on a laboratory test report signed by an authorised signatory for the test concerned.

#### Monitoring of delivery to site for plant and equipment

Any equipment, plant or materials delivered to site shall be checked by the Site Manager and / or Site HSE Officer and subcontractor's representative as follows:

Item	Environmental attributes to be checked	Documents required
Deliveries	<ul style="list-style-type: none"> <li>• Items delivered to the correct areas</li> <li>• Materials are to be stacked out of access ways</li> <li>• Do not store materials in within operational areas</li> <li>• SDS required for all chemicals</li> </ul>	Deliveries in first instance to site compound. PBG to deliver materials to the area near site shed
Fuel, oil, chemicals and lubricant	<ul style="list-style-type: none"> <li>• Lids / covers secured</li> <li>• No leakage / spillage</li> <li>• Correct labelling</li> </ul>	Site inspection checklist SDS
Equipment (generators, pumps)	<ul style="list-style-type: none"> <li>• With specified noise level</li> <li>• No excessive vibration</li> <li>• Fuel and oil leaks</li> </ul>	Forms P 5.2 or subcontractor's paperwork Maintenance log

All machinery and plant will be visibly inspected including the review of all service records, maintenance log books. All plant and machinery without the relevant records and log books will be removed off site.

Where discrepancies exist with any of the above, the items / Plant shall be identified and not allowed to be used.

#### Environmental Monitoring and Testing Records

Weekly environmental inspections are carried out during construction by the Site Manager or Site HSE Officer or Project Manager. In the event of heavy rainfall or strong winds, a further formal environmental inspection is carried out.

18	<b>COMPLAINTS, NON-CONFORMANCE &amp; CORRECTIVE ACTION</b>
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#### Non-conformance

Non-conformance related to environmental practices, activities and processes identified during monitoring, verification and testing shall be suitably identified / marked and reported. All non-conformances shall be documented using a Non-conformance / Improvement / Corrective Action Report (Form N1.1) and be actioned as specified in Procedure N1.

#### Complaints

Community groups, clients, interested parties etc may complain re our practices, activities, and processes.

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On receipt of the complaint, the Site Manager, Project Manager or Site HSE Officer shall record the necessary details on the Form N1.1. Complaints are to be reported to the Project approved Environmental Representative daily.

Upon completion of corrective action, the staff member shall document the action taken. The Project Manager, Site Manager or Site HSE Officer shall verify that the corrective action taken is suitable and effective. Upon satisfactory verification, the Project Manager shall ensure an appropriate response is provided to the originator of the complaint.

The Project Manager will seek the written approval of the Managing Director and the Client's Representative prior to any news release or publishing or disclosing anything pertinent to the works under the Contract in any trade or technical paper or elsewhere.

The complaint will be registered as a non-conformance.

#### Incident reporting

Any incident, such as spillage of chemicals, at the workplace which has the potential to cause an impact on the environment shall be dealt with by the Site HSE Officer in conjunction with the Site Safety Officer. Incident management is detailed in the project emergency plan (Appendix B4 in the project management plan) and is in accordance with project requirements.

#### Property Damage

Any complaints resulting from property damage will be investigated immediately and reported to the proponent as described above. Property damage will be rectified as soon as possible in consultation with the relevant parties.

<b>19</b>	<b>ENVIRONMENTAL RECORDS</b>
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Adequate records shall be maintained to demonstrate conformance to specified environmental requirements. The records to be maintained for this project shall include, but not be limited, to the following:

- Site inspections
- Meeting minutes
- Tool box meeting minutes
- Calibration / checking reports
- Monitoring and testing records
- Training records
- Audit records
- Permits / approvals
- Impact statements
- Asbestos records
- Spoil removal
- Waste records – scrap steel, paper waste

All such records shall be legible and identifiable as to the item / area covered. The Site Manager shall ensure that all records are filed, stored and maintained in such a way as to be readily retrievable and to minimise deterioration, damage or loss. The records shall be maintained in accordance with Procedure R1 "Records" Records will be archived for 5 years after Practical Completion.

<b>20</b>	<b>ENVIRONMENTAL AUDITING</b>
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Planned and documented audits aimed at evaluating the conformance of the project management system shall be carried out as detailed in Procedure A2 "Audits" by the HSEQ

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Manager – Chris Sposito. Auditors shall be suitably trained and independent of the area being audited.

The Systems/HSEQ Manager maintains an audit schedule for the project. Generally, the initial audit occurs within 3 months of on-site mobilisation and at 3-4 monthly intervals for the duration of the project.

#### Independent Environmental Audit

In Accordance with C38 of SSD-10290 Approval conditions, independent environmental audits of the project must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements. With the proposed independent auditor to be approved by DPIE prior to the commencement of the audit as per C37.

<b>21</b>	<b>MANAGEMENT SYSTEM REVIEW</b>
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Reviews of the Project environmental system occur after each internal audit to ensure the system's continuing suitability and effectiveness. Management receives a copy of all audit reports.

<b>22</b>	<b>EMERGENCY PREPAREDNESS AND RESPONSE</b>
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The Project Manager will develop an emergency plan (Appendix B4 project management plan) which specifies the steps to be taken and the parties to contact in the event of an emergency / evacuation.

The Site Manager shall arrange for an emergency / evacuation exercise to test the effectiveness of the procedure within the first two weeks after site establishment, at Phase 1, Phase 2 and Phase 3 of the project. For projects of less than 3 months, two drills are to be conducted.

<b>23</b>	<b>UNEXPECTED FINDS PROTOCOL – ABORIGINAL &amp; HISTORIC</b>
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#### Aboriginal Heritage

As noted within Section 12 – Aboriginal & Historic Heritage Objectives, in accordance with the 'ACHAR' report prepared by Unearthed Archaeology & History on behalf of SINSW with the Aboriginal archaeological assessment concluding that it is highly unlikely that any Aboriginal objects of evidence of occupation exists within the project area.

In accordance with C26 of SSD-10290 approval, PBG will ensure that in the event that surface disturbance identifies a new Aboriginal object, the following steps will be implemented IMMEDIATELY:

- ≡ All works will be halted in the immediate area with an exclusion zone established to prevent any further impacts to the object(s). A suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects.
- ≡ The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by Heritage NSW under Department of Premier and Cabinet and the management outcome for the site included in the information provided to AHIMS. The Applicant must consult with the Aboriginal community representatives, the archaeologists and Heritage NSW to develop and implement management strategies for all objects/sites.
- ≡ Works shall only recommence with the written approval of Heritage NSW.

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## Historic Heritage

Regarding historically significant items, no sites of historical significance have been identified within the project area bar the potential to impact (considered low risk) the WWII slit trench in the approximate location of the oval & new games court in accordance with the 'Historical Archaeological Assessment' report conducted on behalf of SINSW.

In accordance with C27 of SSD-10290 approval, PBG will ensure that If any unexpected archaeological relics are uncovered during the work, the following steps will be implemented IMMEDIATELY:

- ≡ All works will be halted in the immediate area with an exclusion zone established to prevent any further impacts to the object(s). Heritage NSW will be contacted the significance of the objects.
- ≡ Depending on the possible significance of the relics, an archaeological assessment and management strategy may be required before further works can continue in that area.
- ≡ Works shall only recommence with the written approval of Heritage NSW.

<b>24</b>	<b>RELEVANT LEGISLATION / AUSTRALIAN STANDARDS / GUIDELINES</b>
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Environmental legislation (as amended) relevant to work under the Contract may include, but is not limited to:

**Planning Approval:** SSDA-10290

**Environmental legislation** (as amended) relevant to work under a Contract may include, but is not limited to:

**Air Quality**

Clean Air Act, 1961 (NSW)

*Protection of the Environment (Clean Air) Regulation 2010 (NSW)*

**Asbestos Containing Material**

Code of Practice – How to Manage and Control Asbestos in the Workplace, Sep 2019

Code of Practice – How to Safely Remove Asbestos, 2019

**Environmental Protection**

Fisheries Management Act, 1994(NSW)

Marine Pollution Act, 2012 (NSW)

Marine Parks Act 1997

Threatened Species Conservation Act, 1995 (NSW)

Native Vegetation Conservation Act, 2003 (NSW)

*Native Vegetation Regulation 2013*

Noxious Weeds Act, 1993 (NSW)

Pesticides Act 1999

Protection of the Environment Operations Act, 1997 (NSW) (refer to Clause 6.3.2)

Environmental Management Plan Guideline: Guideline for Infrastructure Projects (DPIE April 2020)

**Environmental Planning and Impact Assessment**

Roads Act, 1993 (NSW)

Environmental Planning and Assessment Act, 1979 (NSW)

Local Government Act, 1993 (NSW)

Soil Conservation Act, 1938 (NSW)

National Parks and Wildlife Conservation Act, 1974

*National Parks and Wildlife Amendment (Public Health) Regulation 2013*

Land and Environment Court Act, 1979 (NSW)

Environment Protection Act, 1997

*National Parks and Wildlife Regulation 2009*

*Environmental Protection Regulation 2005*

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**Fire**

Rural Fires Act, 1997 (NSW)  
*Rural Fires Amendment Regulation 2013*

**Hazardous Substances and Waste Management**

Environmentally Hazardous Chemicals Act, 1985 (NSW)  
Waste Avoidance and Resource Recovery Act 2001  
Waste Recycling and Processing Corporation Act 2001 (NSW)  
Dangerous Goods Act, 2008 (NSW)  
Contaminated Land Management Act, 1997 (NSW)  
*Contaminated Land Management Regulation 2013*

**Heritage Conservation**

Heritage Act 1977 No 136 (NSW)  
*Heritage Regulation 2012*  
Protection of Moveable Cultural Heritage Act, 1986  
Aboriginal and Torres Strait Islander Heritage Protection Act, 1984

**Noise**

Noise Control Act, 1975 (NSW)

**Pollution**

Environmental Offences and Penalties Act, 1989 (NSW)

**Water Quality**

Clean Waters Act, 1970 (NSW)

**Protection of the Environment Operations Act (POEO Act)**

The POEO Act of 1997

**Australian Standards**

AS/NZS ISO 14001:2016 Environmental Management systems – requirements with guidance for use  
AS 2436 Guide to noise control on construction, maintenance and demolition.

