



APPENDIX 11 TO HSE PLAN

Environmental Management Plan

Project No: 200741

Site Address: 8 Central Park Ave Chippendale

Date of Issue: **11th April 2016**

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**Insert details of project amendments to the Environmental Management Plan*

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1.0 Environmental Management Policy

Built. ENVIRONMENTAL MANAGEMENT POLICY

OUR AIM:

Built is committed to establishing and maintaining their and their clients work environments with priority given to minimising adverse environmental effects from our activities and fostering a culture of sustainable environmental management.

The Built environmental strategy is the ongoing development of a system based on AS/NZS ISO14001, legislation and applying the principles of best practice environmental management to our activities. Built is committed to objectives and individual programs by applying proactive approaches to environmental stewardship through:

- Identifying environmental activities, aspects and impacts and applying appropriate environmental actions;
- Minimising the effects of our activities on the environment;
- Preventing pollution;
- Complying with applicable environmental laws and regulations, Codes of Practice and Guidelines leading to the development of appropriate monitoring, measurement and review activities;
- Working cooperatively with our clients and responsible agencies in exercising environmental due diligence at all stages;
- Conducting relevant environmental education and training to improve awareness, knowledge and skills;
- Developing and implementing plans and procedures for the effective operation and management of our processes;
- Meeting Performance Standards and Key Performance Indicators, and taking action to improve performance through regular and formal reviews;
- Communicating with staff, clients and stakeholders on all areas on environmental performance;

Built acknowledges this environmental policy as a commitment that involves cooperation and consultation with all stakeholders to meet the company's business objectives.

Built is committed to continual improvement in environmental management. This includes regular monitoring, assessment and review of all aspects of the system by both internal and external audits.



Brett Mason
Managing Director
22 February 2013

2.0 Environmental Management Plan

The Environmental Management Plan is an attachment to the HSE Plan and describes the environmental strategy, methods, controls and other requirements to effectively manage environmental aspects of the project and should be read in conjunction with the Project HSE Plan.

The Environmental Management Plan shall be reviewed at Project Team Meetings and following any significant environmental incident or significant changes to the project scope or methodology at frequencies not exceeding 12 months.

3.0 Purpose of the Environmental Management Plan

The purpose of this Environmental Management Plan is to:

- Identify the environmental issues (aspects and impacts) relevant to the project;
- Establish the environmental and operational controls to reduce any adverse impacts on the environment from the company's activities, products and services.
- Describe the methods and processes by which the project will maintain compliance with all relevant environmental legislation, any applicable license, approval and permit, regulatory requirements
- Ensure the works are effectively managed so as to eliminate or reduce potential adverse impacts on the environment as a result of construction activities
- Action any outcomes from incidents or accidents, project audits or other identified non-conformances and to continually improve the Environmental Management System.

4.0 Environmental Objectives

Built's environmental objectives for the project are:

Aspect	Objective	Target
Waste	To minimise waste going to landfill	90% waste diversion
Sediment & Erosion Control	To prevent sediment from entering waterways or stormwater	Zero calls regarding stormwater pollution
Noise & vibration	To mitigate all noise and vibration as much as reasonably practicable and promptly respond to all community complaints	Respond to all community complaints within 48 hours.
Dust	To receive no community complaints regarding dust	Zero complaints and zero injuries
Toxic substances & chemicals	To minimise use on site and contain any spills	Zero toxic substances entering stormwater drain
Control disposal of contaminants	To ensure all paints, sealers, adhesives, sealants, waterproofing products, fuels and tar are disposed of per regulations	All contaminants properly disposed.
Fumes	Minimise sooty plant fume emissions and associated airborne particulates	Zero complaints and all plant maintained per industry best practice guidelines

5.0 Project Hours of Operation

5.1 Objective

To minimise inconvenience to adjoining residents, businesses and other community members during the construction phase, within the appropriate hours of; 7am - 7pm Monday-Friday, 7am - 5pm Saturday and restricted internal only work 24 hours per day, 7 days per week.

5.2 Restricted Location Works

Works permitted within restricted location:

- Internal fitout works within the constructed façade only, such as installation of plasterboard, services installation / commissioning, painting, joinery, laying of floor finishes, installation of furniture, cleaning & the like.
- Internal fitout works to the retail podium in compliance with the 45db(A) Lav max to surrounding residential receivers.
- No vehicle movement is permitted on site (with the exception of internally within the building envelope).
- No deliveries to the site, or vehicles movement within or to and from the site;
- No use of cranes;
- No work outside of, and including, the building facade; and
- No floodlighting or additional lighting over and above current lighting levels required for safety and access i.e. no change from current lighting levels.

Site Access during Restricted Work Hours:

The main site entry points, Gate 1 & Gate 2, on the corner of Abercrombie and Irving Street(s), Gate 3 on O'Connor Street and Gates 5 & 6 leading to Central Park Ave (North) will not be used during the extended/restricted construction hours. All pedestrian traffic leaving the site at the end of the working shift will be required to use the secondary entry/exit point, Gate 4, located on the corner of Irving St & Central Park Avenue (currently closed to the public) and proceed directly onto Chippendale Green, away from the sensitive residential receivers.

Vehicle access to the site is restricted to the existing approved hours, with no extension sought as part of the modification.

Workers will be required to park off-site during the extended construction hours and enter/exit the site via Gate 4 as described above.

5.3 Management Strategy

The normal hours of building activity allowed are detailed in the Local Council Permit.

During the construction period Built will work with the Client and/or their representative to maintain contact with neighbours and others affected to ensure ample notice is given regarding any approved "Out of Hours" work.

(The main impact of "Out of Hours" work is considered to be noise; this is further detailed in Attachment 1 – Environmental Aspects and Impacts Register)

6.0 Environmental Rating Tools

6.1 NABERS Energy: N/A

~~The Nabers Energy Rating scheme assists office building owners and tenants to reduce energy use, reduce energy costs and reduce greenhouse emissions.~~

~~There is (a/no) proposed Nabers Energy rating for this project. (The Nabers rating is: -)~~

6.2 Green Star

Green Star rating system is a comprehensive, national, voluntary environmental rating scheme that evaluates the environmental design and achievements of buildings.

There is a proposed Green Star rating for this building. The Green Star rating is: **5 Star MURT v1 Design & As Built ratings.**

7.0 Internal and External Communication.

Monthly PCG (Program Control Group) – External

A section on environmental management issues and sustainability progress will be updated within the Monthly PCG report as necessary.

Monthly PMR (Project Management Report) - Internal

A section on environmental management issues and sustainability progress will be updated within the Monthly PMR as necessary.

Rapid Incident

For any reportable environmental incidents/accidents, a report will be written and a potential investigation will ensue to determine causes and impacts as well as future mitigation techniques.

HSE-029 – Toolbox Meeting and Consultation Record

A prompt is provided within the Toolbox talk form to enable any environmental issues that arisen on site to be discussed with the project team.

Subcontractor Meeting

A prompt is provided within the Subcontractor Meeting Agenda to enable any environmental issues that arisen on site to be discussed with the project team.

8.0 Project Organisational Chart

Refer to Clause 4.2 of the HSE Plan And Appendix 3 of the HSE Plan

9.0 Responsibilities & Duties

Refer to Clause 4.0 of the HSE Plan and Appendix 3 of the HSE Plan.

10.0 Environmental Risks/Environmental Aspects

Potential environmental obligations and risks associated with the project shall be identified prior to the start of the project by the Project Team in consultation with the Project Manager on the '**Project Environmental Aspects and Impacts Register**' (Refer Attachment 1).

A copy of the '**Environmental Aspects and Impacts Register**' is to be provided to relevant subcontractors prior to their commencement on site and is to be taken into account in the execution of their work.

Risks levels (i.e Consequence and Likelihood) in relation to environmental Aspects and Impacts rated as 'High' or 'Medium' are considered 'Significant' as they have the potential to adversely impact on the environment, result in additional costs to and potential fines to Built or damage the company's reputation. Where an environmental aspect results in a positive impact on the environment (e.g. waste elimination or waste re-use) these are considered to also be significant.

11.0 Environmental Impacts and Controls

11.1 Project Environmental Management Plans

The **‘Project Environmental Aspects and Impacts Register’** describes operational controls used to manage environmental issues across the project.

The Foreman will ensure that environmental controls are inspected on a regular basis, as part of the site inspections described in the HSE Plan or as separate environmental inspections and are in accordance with the requirements outlined in the **‘Project Environmental Aspects and Impacts Register.’**

Information on hazardous materials, including each material’s potential impact on the environment and measures to be taken in the event of accidental release will managed via the Hazardous Substances Register.

11.2 Supplementary Environmental Plans

Supplementary Plans required by the contract or deemed necessary by the Project Manager will be attached to this plan.

Supplementary Plans required by the contract for the project are:

- Waste Management Plan
- Construction, Noise and Vibration Management Plan
- Traffic & Pedestrian Management Plan
- Community Consultation Plan
- Erosion and Sediment Control Plan

Supplementary environmental plans are located within the HSE Plans folder in a Supplementary Management Plans folder.

12.0 Subcontractors and Suppliers

Subcontractors and suppliers shall meet the environmental management requirements specified in the HSE Plan.

Subcontractors shall be made aware of their responsibilities under the terms of the applicable environmental legislation, by being provided a copy of this Environmental Management Plan and any relevant sub plan and by participating in site induction and subcontractor coordination meetings..

Subcontractors will be requested to submit appropriate environmental control procedures or other information such as ITP’s providing details of how they intend to manage environmental aspects and potential impacts of their work.

Where subcontractors do not have such documentation, Built may assist in the development of any necessary documentation, including induction of the subcontractor and those carrying out the work on behalf of the subcontractor into any relevant environmental control procedures.

Subcontractor performance will be monitored during site inspections such as; Consultative Inspection, Supervisor inspection or Task Observation to ensure that contracts are being fulfilled and appropriate environmental management practices are being followed and are in accordance with Built’s **‘Project Environmental Aspects and Impacts Register’ (Refer Attachment 1)**.

13.0 Legal & Other Requirements

13.1 Legislative Compliance

Environmental

Environmental legislation applicable to the project is listed in the **'Environmental Legal Register' (Refer Attachment 2)**.

Other Requirements:

- Building Code of Australia;
- NSW Government Environment Guidelines;
- **5 Star Green Star Multi Unit Residential v1 Rating;**
- BASIX Energy and Water provisions
- NatHERS Thermal Comfort
- Road Transport (General) Amendment (Heavy Vehicle Driver Fatigue and Speeding Compliance) Regulation 2008;
- ANZECC Water Quality Guidelines;
- NSW Department of Housing's Managing Urban Stormwater (2004);
- Acid Sulphate Soils Management Advisory Committee;
- ANZECC Publication: Organochlorine Pesticides Waste Management Plan (1999);

13.2 Licenses & Approvals

Where Development Consents, permits or approvals relate specifically to the project, these issues will also be deemed as "significant" and will be included in the **Environmental Aspects and Impacts Register (Attachment 1)**.

14.0 Contaminated Site Procedure

Projects undertaken on contaminated sites will undergo a Contaminated Site Assessment (CSA). CSA reports shall be provided as part of planning approvals process of a proposed development.

The CSA and associated approvals shall be reviewed and actioned by The Project Manager.

All relevant CSA reports, documents and relevant approvals will be obtained and reviewed prior to site activities commencing. Operational controls will include any specific procedures described in the report or approvals.

Where required, ITPs and/or other verification documentation shall be developed to address requirements of CSAs and to ensure verification of the works being completed as described.

The Site Manager will also ensure that on site workers are made aware of potential contamination issues associated with the contaminated site development. Advice shall be provided should problems be identified. The Site Manager will maintain spoil disposal records.

15.0 Monitoring

The Environmental Management Plan shall be monitored following implementation to ensure that:

- Environmental operational controls are being effectively applied and maintained;
- Project specific environmental monitoring targets specified in the Development Consent or other planning permits for air, water and noise are being met;
- Unpredicted impacts are identified and remedial action is taken; and
- The project objectives listed above are being met.

Responsibilities for monitoring and compliance requirements are detailed in the Project Environmental Plans and the Project HSE Risk Register (Appendix 5).

Built will monitor environmental aspects of the project using forms HSE-045 (Task Observation), HSE-033 (Inspection report)

Monthly reports are provided to the Construction Manager and General Managers for review. The performance of projects against company environmental objectives and targets is reviewed on a quarterly basis.

The Site Manager/Foreman will ensure that environmental controls are inspected on a regular basis, as part of the site inspections described in the HSE Plan or as separate environmental inspections and are in accordance with the requirements outlined in the **'Project Environmental Aspects and Impacts Register.'**

16.0 Communication and Consultation

16.1 Training

Prior to the commencement of project activities, all site personnel (including sub-contractors) will attend the site induction.

Site Induction shall include an:

- An outline of the key requirements of this EMP
- Responsibilities and accountabilities of all site personnel for prevention of pollution and general management of environmental issues
- Site rules will be included in the induction session.
- Built site personnel shall be trained in environmental aspects relevant to their role. Records of training shall be kept to verify competency in the management of environmental aspects of the project.
- Several toolbox conducted with the site over the course of the project will focus on environmental aspects

16.2 Community Consultation

The Foreman shall conduct tool box talks for Built employees and require Subcontractors to conduct tool box meetings to address safety & environmental hazards relevant to their work activities.

Where work on site is likely to have an impact on adjoining neighbours, property owners/users the Project Manager will advise them of the nature and scope of works including any potential impacts. Notification shall be either via a letter box drop or special arranged consultation meetings. Where required, community consultation will be outlined further in the Community Consultation Plan.

16.3 External Stakeholders

External stakeholders in the project have been listed in the table below:

Agency/Company	Contact	Phone/Fax/Email
Dept of Environment & Conservation	NA	02 9995 5000
City of Sydney Council	NA	02 9265 9333
NSW Environmental Protection Authority	NA	02 131 555
Sydney Water	NA	02 132 092
Acoustic Consultants – Acoustic Logic	Ben White	02 8339 8000
GBCA	Ulises Cervantes	02 8239 6200

ESD Consultant – Surface design	Belinda Konopka	0410519867
Workcover	NA	131050

16.4 Community Complaints

Community complaint shall be recorded on **‘HSE-076 Complaint Report Form’** and recorded on **‘HSE-077 Complaint Report Register’** and actioned by the Project Manager. Any complaints received shall be actioned and closed out by the Project Manager or their nominee.

Remedial action must be taken as soon as practical. Any action taken shall be recorded on the form.

17.0 Emergency Planning & Response

Refer to the Emergency Plan in the relevant Appendices of the HSE Plan.

18.0 Incident Investigation & Reporting

Any required reporting is completed through Rapid Incident online portal. This program provides monthly reporting confirming any incidents raised within the last reporting period and over the entire project duration. The program also confirms where no incidents have occurred.

18.1 Non Conformance

In the event of breach in the requirements of the EMP, a Non Conformance Report will be completed and issued to the offending party.

Non Conformances will be registered in the Non Conformance Report Register.

A copy of the Non Conformance Notice will be forwarded to the Project Manager and the Subcontractor, who will implement appropriate corrective action.

The Project Manager or Site Manager/Foreman shall ensure that all incidents occurring in or around the site involving company personnel, Subcontractors, visitors or passers-by, are investigated and reported regardless of how minor they appear at the time of the occurrence.

‘HSE-107 Non-conformance Report’ shall be completed for each incident that cannot be immediately rectified and has no ongoing environmental impact. More significant environmental incidents shall be subject to detailed investigation using HSE-019 or similar.

18.2 Duty to Notify Department of Pollution Incident

Built shall notify the NSW EPA Pollution Line: 131 555 regarding pollution incidents that have occurred in the course of its activities, if the following apply:

The actual or potential harm to the health or safety of human beings or ecosystems is not trivial,
The actual or potential loss or property damage (including clean-up costs) associated with a pollution incident may exceed \$10,000.

19. Audits

Projects audits shall be scheduled by the Systems Manager and form part of the company’s audit schedule. Refer Audit procedure QAP-8.2-001

Audits shall address the requirements of ISO9001, ISO14001, AS4801, Built’s Management System and the various Management Plans.

3 month review of environmental impacts and aspects risk register, 6 month review of Appendix 11 using Built Audit tool.

Attachment 1 – Environmental Aspects and Impacts Register

Environmental Aspect	Environmental Impact	Risk Rating (Risks ranked as 'High' or 'Med' are deemed significant)	Legal Requirements	Environmental Actions, Controls and Criteria	Responsibility
SECTION D: ENVIRONMENTAL ASPECTS					
Dust Generation Particulate Emissions (General)	Air pollution	Low	NSW - POEO Act (Sections 124-126)	• Install shade cloth on perimeter fencing • Vehicle corridors will be clearly identified and restricted to control vehicle access onsite. • Limit vehicle speed onsite to 5km/hr • Fixed and mobile (water tanker) water sprays • Reduce work activities /stop work during moderate to high wind velocity periods. • Maintain equipment. Smokey plant to be stopped until repair works completed. • Turn off vehicle engines whilst not in use (no long periods of idling) • All Plant on site must be registered on form HSE-050	• Built / Subcontractors
Dust Generation (Construction)	Air pollution	Low	NSW - POEO Act (Sections 124-126)	• Minimise areas of site disturbed and stage works where possible. • Dust suppression strategies to be used, i.e. water sprays, soil binders, hydro mulching, controlled speed onsite, roadbase + shaker grids. • Stockpiled topsoils and rubble will be restricted to 4m high. Stabilise if insitu for >4-6months. • On site drilling or coring operations will be undertaken by equipment fitted with air filtration equipment.	• Built / Subcontractors
Dust Generation (Construction Fitout)	MDF Dust Generation	Medium	NSW - POEO Act (Sections 124-126)	The following controls shall be implemented: MDF Cutting Room Setup • Designated cutting room • Ensure plastic protection is sealed and overlaps at joints, entry and over floor Cutting • Ensure all electrical power cutting tools and vacuums are tagged • Vacuum is to be operational whilst cutting at all times • A dust collection bag should be installed on the cutting tool • Dust should not be vented out into the outside atmosphere at any time • Regular daily clean up with approved industry vacuum • All dust is to be double bagged and seal prior to disposal in site bins • Limit where reasonably practicable workers within the vicinity of cutting room PPCE (in addition to standard site requirement) • P2 respirator • Eye protection • Hearing protection	• Subcontractors
Odour	Air pollution Odour	Low	NSW - Protection of the Environment Operations Act 1997, s 129; Common law of nuisance; Local Government Act 1993, s125	• If odorous materials uncovered, recover immediately. • Seek advice from consultant regarding soil /materials management.	• Built / Subcontractors
Emissions to Air	Air pollution	Med	NSW - Protection of the Environment Operations Act 1997, s 124-125, s 139	• Ensure machinery is maintained correctly	• Built / Subcontractors
Greenhouse	Resource use Air pollution Global warming	High	Green Star BASIX Energy and Water NatHERS Thermal Comfort	• Ensure purchased electrical products/whitegoods products comply with specification for CFCS & energy ratings • Low solvent paints to be used as a priority • Building to conform to Green Star performance criteria • Deliveries / transport from site effectively planned to limit inefficient transport, assist back loading etc • Review equipment schedules to ensure purchased electrical products comply with specification for energy ratings • Review all subcontracts to ensure respective subcontractors are committed to Green Star compliance in their procurement and site activities • Obtain documentation from manufacturers and suppliers via subcontractors to check compliance with Green Star requirements	• Built / Subcontractors / Design Team / Client

Environmental Aspect	Environmental Impact	Risk Rating (Risks ranked as 'High' or 'Med' are deemed significant)	Legal Requirements	Environmental Actions, Controls and Criteria	Responsibility
				- Only low VOC paints, adhesives and sealants to be used on site - Only low VOC carpets and flooring with reduced environmental impacts are to be used on site - Concrete and steel with reduced environmental impacts may be used on site - All wastes generated on the site are to be recorded and reported by all contractors where appropriate. Dockets shall be provided to Built as required Only reused, or AFS/FSC certified timber to be used on site - Only certified PVC or alternatives to be used for conduit, piping, wiring/cabling, and flooring - Only engineered timber conforming to E1 formaldehyde emissions to be used on site. - Building to conform to NatHERS and BASIX Energy, Water and Thermal Provisions and Green Star criteria	
Stormwater (Discharge from sedimentation basins, flooding)	Water contamination	Med	NSW - Protection of the Environment Operations Act 1997, s 120, 122; Protection of the Environment Operations (General) Regulation 1998, cl 55; Local Government Act 1993, s 638 ANZECC Water Quality Guidelines NSW Department of Housing's Managing Urban Stormwater (2004) ANZECC Water Quality Guidelines	- Water quality to meet ANZECC Water Quality Guidelines. → PH 6.5- 8.5, Turbidity <50NTU, No visible oil & grease - Obtain advice for use of flocculants to settle sediment from water. - Sedimentation pond to be maintained at low levels to ensure capacity during rainfall event. - DO NOT DISCHARGE IF CONTAMINANTS SUSPECTED. Obtain advice.	Built / Subcontractors
Sewer (Trade waste)	Water pollution	Med	NSW - Protection of the Environment Operations (General) Regulation 1998, cl 55; Sydney Water Act 1994, s 49; Hunter Water Act 1991, s 31; Local Government Act 1993, s 68 (cl 4 of Part C of the Table)], Consent to Discharge Industrial Trade Wastewater, Special Conditions Schedule 6 paragraphs 1-2	- No paints or other chemical to be poured down drains. - If required, obtain trade waste licence for discharge or local council approval - Wash out tray for all wet trades	Built / Subcontractors
Land (Acid sulphate soils, contaminated soils, imported fill)	Contaminated waterways Soil contamination	Low	NSW - Contaminated Land Management Act 1997, s 60; Contaminated Land Management Regulation 1998, cl 3 Acid Sulphate Soils Management Advisory Committee	- Potential for acid sulphate soils will be assessed based on the sites proximity to low-lying coastal areas eg. Coastal plains, wetlands and mangroves where the surface elevation is less than five metres above mean sea level. - Stop work if unexpected potentially contaminated soils are encountered. - Obtain waste classification from consultant in accordance with DECC guidelines Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes (June 2004) www.environment.nsw.gov.au/waste/envguidlms/index.htm. - Where required a Remediation Action Plan will be developed and implemented. - Sign off by Site Auditor may be required to validate cleanup. - Any groundwater or ponded rainwater will be tested and classified by consultants prior to disposal. - Check geotech requirements. Ensure soil classification suitable for land use ie. Schools, residential, commercial etc.	Built / Subcontractors
Land	Contaminated waterways Soil contamination	Low	NSW - Contaminated Land Management Act 1997, s 60, Contaminated Land Management Regulation 1998, cl 3, Protection of the Environment Operations Act 1997, s 142A-E ANZECC Publication: Organochlorin Pesticides Waste Management Plan (1999)	- If odorous soils (rotten egg gas) or grey/yellowed mottled soils encountered, stop work. - If suspected, consultant to prepare Acid Sulphate Soil management Plan (ASSMP). - Excavation and neutralisation to be supervised by consultants as per ASSMP. - The requirements to import fill will be minimised by utilising on site cut material wherever possible. - All analysis certificates shall be handed over as part of the completion documents to the client. - Record all imported fill on FormHSE-066 Product Identification & Traceability. - Mark up locations where fill compacted in site plan. Survey if required	Built / Subcontractors

Environmental Aspect	Environmental Impact	Risk Rating (Risks ranked as 'High' or 'Med' are deemed significant)	Legal Requirements	Environmental Actions, Controls and Criteria	Responsibility
Resources – water, materials, energy	Resource use Landfill Air pollution	Low		- For design and construct jobs, refer to the design specification for ESD requirements and product choices. - Buy local wherever possible to reduce impacts of transport on environment. - Capture rain water for flushing of amenities	Built / Subcontractors / Design Team / Client
Noise	Community complaints	Med	NSW - POEO Act (Sections 139, 140)	- Refer to DA for noise restrictions and working hours. - Use hoarding or acoustic mats as required. - Situate generators and plant away from sensitive receivers. - Turn off machinery. Maintain equipment and stop noisy plant until repaired. - No early deliveries. - Extended working hours will only apply to internal works not expected to generate excessive noise and only within façade enclosed areas of the building. - Refer Acoustic Logic Noise & Vibration Management Plan updated to account for extended working hours.	Built / Subcontractors
Vibration	Community complaints, Damage to structures	Med	NSW - POEO Act (Sections 139, 140)	- Conduct dilapidation report prior to work starting. - Limit the use of vibratory rollers, rock breakers, impact piling etc adjacent to buildings (>7m). - Regenerated noise may also transfer through bedrock and building structures. - Obtain advice if required	Built / Subcontractors
Community	Community Concerns Noise Restricted access	Med		- Provide information (eg. Signage, letterbox drops) to community on programmed works - Provide contact name for inquiries. - Advise locals of “noisy” work. - If required in noise sensitive areas and/or in response to complaints, engage consultants to undertake monitoring at nominated receivers. - Vehicles will not be permitted to queue outside the site or in residential areas unless a defined area is established which does not adversely impact on neighbours. - No floodlights to be used during extended working hours. - Subcontractors to only use nominated gates for site entry and exit during extended working hours to minimise disturbance to neighbours.	Built
Flora	Destruction of flora Erosion	Med	NSW - State Environmental Planning Policy No 14 - Coastal Wetlands, s 7(1, 5), 7A; Native Vegetation Act 2003, s 12; Forestry Act 1916, s27(1); National Parks and Wildlife Act 1974, s 117(1), 118(1)]	- Review planning documentation to determine the presence of any protected, threatened or significant flora. Obtain approvals as required. - Engage arborist to develop report referring to DA. - Education and training at site toolbox meetings and induction. - Report all sightings to the site manager. - Fence or barricade protected flora at the drip zone. Erect Keep Out signage. - Do not stack materials under/against trees. - The potential for reuse of vegetative wastes by mulching, chipping or on-site placement of trunks or limbs shall be reviewed for each project.	Built / Arborist
Fauna	Destruction of fauna	Low	NSW Environmental Planning and Assessment Act 1979, s 5A, 78A(8)(b), 79B, 111 & 112-112E Threatened Species Conservation Act NSW 1995; National Parks and Wildlife Act 1974, Part 8A	- All native animals protected. - Review planning documentation to determine the presence of any protected, threatened or significant fauna. Obtain approvals as required. - Site rules/induction to include information regarding of the - For injured animals, to relocate call WIRES PH 1300 094 737	Built
Waste	Landfill	Low	NSW - POEO Act 1997, s 116, s 142, s 143, 144-146NSW - Waste	- Hazardous materials surveys to be completed. - Materials to be removed prior to demolition	Built / Subcontractors

Environmental Aspect	Environmental Impact	Risk Rating (Risks ranked as 'High' or 'Med' are deemed significant)	Legal Requirements	Environmental Actions, Controls and Criteria	Responsibility
Litter	Contamination of waterways Soil contamination		Avoidance and Resource Recovery Act 2001, NSW Crown Lands Act 1989, s 155, Management of Waters and Waterside Lands Regulations - N.S.W., cl 13; PEO (Waste) Regulation 2005, cl 49, 12, 16, 17, 23	- Registers and waste disposal requirements as per WorkCover and DECC/EPA requirements for removal, storage, transport and disposal. - General site wastes –use one bin system and sort in contractors yard to produce quantities of material for recycling, reuse, disposal etc. - Empty drums are to be taken off-site for disposal. - Empty drums shall be crushed prior to recycling/disposal. - Do not overfill skip bins. Provide plenty for use. Cover where potential for windblown litter.	
Landfilling	Landfill Contamination of waterways Soil contamination	Low	NSW - POEO Act s 116, 142	- Reduce, reuse and then dispose - Dispose of hard construction wastes for recycled gravels and sands - Do not send soil to landfill until alternatives for beneficial reuse have been explored as per consultants advice. - Consideration should be given to chipping of the vegetation and reuse - Reuse packaging to protect works	Built / Subcontractors
Chemicals	Contamination of waterways Soil contamination Fumes Worker safety	Low	NSW - POEO Act s 116, s 142, NSW - Occupational Health and Safety Regulation 2001, Consent to Discharge Industrial Trade Wastewater, Special Conditions Schedule 6 paragraphs 1-2	- Chemicals to be stored in bunded areas (impervious + 110% of largest container) away from stormwater drains & pits. - Refer Workcover Code of Practice for Storage & Handling of Dangerous Goods, DECC Guidelines for Bunding & Spill Management. Appropriate chemicals storage is in conformance with: → AS 1940 The Storage and Handling of Flammable and Combustible Liquids → Storage and Handling of Dangerous Goods WorkCover Code of Practice 2005– refer p. 86 - DEC requirements http://www.environment.nsw.gov.au/mao/bundingspill.htm - Ponded water within bunds will not be discharged to stormwater. Fuel and hydraulic leaks to be cleaned up immediately. Drilling muds to be contained within bunds and reused. Liquid paints NOT to be poured down drains. Spread on waste cardboard or similar and leave to dry. Paint brushes to be rinsed and paint solids allowed to settle. Container of paint solids to be disposed to liquid waste facility. - Construct concrete washout pit for washout, away from stormwater drains. Send back to batch plant where possible. Concrete cuttings to be contained and wetvac to prevent runoff into stormwater drains. - Storage of bulk fuels (>200L) on site is prohibited. All refuelling shall be undertaken by a mobile facility with appropriate spill control and containment control equipment. - MSDS's must be provided to the Foreman prior to a chemical being received on site and by subcontractors using chemicals/products.	Built / Subcontractors
Traffic	Site access restrictions Community safety Pollution	Med	Local Government Requirements	- Develop and implement traffic management plans. Submit to local council as required. - Signage and notices regarding disruptions. - Use crushed concrete, mulches etc along site access roads. - Install shakers and wheel wash as required. - Organise regular street sweeping. - Haulage routes and rules will be provided to subcontractors prior to commencing on site. - All loads of soil, demolition wastes, general wastes etc are to be tarped	Built / Subcontractors
Hazardous Materials (Asbestos)	Worker health Air contamination Contaminated waterways Soil contamination	Low	NSW - POEO Act s 142, NSW PEO (Waste) Regulation 2005, cl 42 Asbestos removal code	- A licence subcontractor must be used to demolish, remove, repair or disturb asbestos. - A WorkCover asbestos licence is required to remove 10 square metres or more of bonded asbestos - A Workcover licence is required to remove, repair or disturb friable asbestos	Built

Environmental Aspect	Environmental Impact	Risk Rating (Risks ranked as 'High' or 'Med' are deemed significant)	Legal Requirements	Environmental Actions, Controls and Criteria	Responsibility
Aboriginal heritage	Destruction of heritage items	Low	NSW - Heritage Act 1977, s 146, National Parks and Wildlife Act 1974, s 90-91	- Education and training at site toolbox meetings and induction. It is illegal to destroy heritage items. - Review local or regional environmental plans, or on the State Heritage Register is to be consulted prior to work starting onsite. - Obtain excavation permit issued by the Heritage Council of NSW if required. - Any heritage relics or sites discovered during construction shall be reported to the NSW Heritage Office. - Work in the subject area to cease until specialist advice is obtained. - The area will be fenced and signs erected to restrict access. - Heritage consultants may be required to provide advice on demolition/construction processes and finishes.	Built / Subcontractors
European heritage	Destruction of heritage items	Low	NSW - Heritage Act 1977	- Education and training at site toolbox meetings and induction. It is illegal to destroy heritage items. - Also check the register of the National Estate. - Obtain approval from NPWS (Section 90 consent). - Any evidence of Aboriginal relics discovered during construction shall be reported to the National Parks and Wildlife Service. - Local land Land Council representatives may be required to monitor stripping/excavation. - Work in the subject area to cease until specialist advice is obtained. - The area will be fenced and signs erected to restrict access	Built / Subcontractors
Emergency Preparedness	Worker health Air contamination Contaminated waterways Soil contamination	Med		- Spill kit onsite. The location will be highlighted on mud map - Refer to the MSDS for advice and procedures. - All spills must be reported to the Site Manager & cleaned up. Complete BUILT Accident /Incident report. - Sediment pond pumped out regularly to maintain capacity in case of emergency - Ensure you know where stormwater drains are and have materials to block them in case of a fire	Built / Subcontractors

Environmental Aspects and Impacts Risk Assessment Matrix				
Consequence (severity) – is how serious could the environment be harmed		Likelihood – is an estimate of how probable it is for the environmental hazard to occur leading to environmental harm.		
		Very Likely (VL)	Possible (POS)	Very Unlikely (VU)
HIGH SEVERITY (H) - Irreversible damage to the environment - Extensive damage to the environment e.g. large area of contamination (costs exceeding > \$500k - Court proceedings leading to prosecution and significant fine - Damage to Built's reputation as a result of widespread adverse publicity	RISK LEVEL	HIGH	HIGH	MEDIUM
MEDIUM SEVERITY (M) - Temporary harm to the environment e.g. small area of contamination but no ongoing long term damage - Clean-up costs < \$250k - Low level fine - No adverse media publicity on a significant level		HIGH	MEDIUM	LOW
LOW SEVERITY (L) Minor harm to the environment e.g. small scale spill readily mitigated/cleared; Noise complaint from adjoining property		MEDIUM	LOW	LOW
RISK LEVEL		HIERARCHY OF CONTROL		
		Order of priority in the selection of controls corresponding to level of risk (Acceptable Risk Treatment)		
High Risk - Action must be taken to eliminate the risk to the environment		1st Elimination - i.e. the permanent removal of the hazard		
Medium Risk – if the risk to the environment cannot be eliminated so far as is reasonably practicable or minimised so far as is reasonably practicable by implementing control measures listed as 2nd, 3rd or 4th (in this order of priority)		2nd Substitution - substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser rise		
Low Risk - if the risk to the environment cannot be eliminated so far as is reasonably practicable or minimised so far as is reasonably practicable by implementing control measures listed as 2nd, 3 rd , 4 th or 5th (in this order of priority) then Administrative controls may be applied		3rd Isolation - isolating the source of the hazard that poses a threat to the environment		
		4th Engineering - controls to reduce the risk to the environment		
		5th Administrative - procedural controls to eliminate or reduce the risk of environmental contamination		

Risks levels (i.e Consequence and Likelihood) in relation to environmental Aspects and Impacts rated as ‘High’ or ‘Medium’ are considered ‘Significant’ as they have the potential to adversely impact on the environment, result in additional costs to and potential fines or damage the company’s reputation. Where an environmental aspect results in a positive impact on the environment (e.g. waste elimination or waste re-use) these are considered to also be significant.

Attachment 2 – Environmental Legal Register



ENVIRONMENTAL LEGAL REGISTER

Revision Date: 18th March 2

1.0 NSW (NEW SOUTH WALES) - ENVIRONMENTAL LEGAL REGISTER

Major Environmental and Planning legislation/

- [Environmental Planning and Assessment Act 1979](#)
- [Environmental Planning and Assessment Regulation 2000](#)
- [Protection of the Environment Operations Act 1997](#)
- [Protection of the Environment Operations \(Clean Air\) Regulation 2010](#)
- [Protection of the Environment Operations \(General\) Regulation 2009](#)
- [Protection of the Environment Operations \(Noise Control\) Regulation 2008](#)
- [Protection of the Environment Operations \(Underground Petroleum Storage Systems\) Regulation 2008](#)
- [Protection of the Environment Operations \(Waste\) Regulation 2005](#)

Laws relating to water, oceans, rivers and waterways/

- [Marine Pollution Act 1987](#)
- [Marine Pollution Regulation 2006](#)

Laws relating to parks, vegetation and land use/

- [Contaminated Land Management Act 1997 No. 140 \(NSW\)](#)
- [Soil Conservation Act 1938](#)

Laws relating to heritage/

- [Heritage Act 1977](#)

Laws relating to the atmosphere and clean air/

- [Ozone Protection Act 1989](#)
- [Protection of the Environment Operations Act 1997](#)
- [Protection of the Environment Operations \(Clean Air\) Regulation 2010](#)

Laws relating to dangerous goods etc/

- [Environmentally Hazardous Chemicals Act 1985](#)
- [Environmentally Hazardous Chemicals Regulation 2008](#)

Attachment 3 – Site Layout Plan

