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#### 1. Introduction

## 1.1 Purpose

The purpose of this Environmental Management Plan is to provide a coordinated high level plan that details, at a Project level, the environmental management strategies and procedures that will be adopted on the Mosman High School Project (MHS) on which Multiplex is operating as the Principal Contractor.

This plan is a sub-plan of the Project Management Plan and is in accordance with GC21 Preliminaries, which forms part of Multiplex Management System which is certified to:

- » ISO 9001:2015 Quality Management System
- » ISO 14001:2015 Environmental Management System
- » ISO 45001:2018 Occupational Health and Safety Management System
- » Federal Safety Commission Accreditation Scheme.

Copies of these certifications can be found on the Multiplex Operating System 'Document and Forms Library'.

#### 1.2 Scope of this Plan

This Plan applies to the works associated with the Project and consists of:

- » An overview of the Environmental Management System (EMS)
- » The organisational structure for environmental management
- » Applicable legislative requirements
- » Sub-plans to manage the environmental aspects of the Project
- » Environmental incident management processes
- » Processes to monitor and evaluate environmental performance.

#### 1.3 Abbreviations

The abbreviations used in this Plan are outlined below.

Abbreviation	Definition
AS/NZS	Australian and/or New Zealand Standard
ASS	Acid Sulfate Soil
EMP	Environment Management Plan
DEC	Department of Environment and Conservation
DIA	Department of Indigenous Affairs
EMS	Environmental Management System
EWMS	Environmental Work Method Statement
SDS	Safety Data Sheet
MPX	Multiplex Constructions Pty Ltd
MSOP	Management System Operational Procedures
NEPC	National Environment Protection Council
NEPM	National Environmental Protection Measures

Figure 1 Abbreviations

#### 1.4 Precedence

Where ambiguity is detected between the procedures and requirements in this plan and the MSOPs located on Multiplex Operating System, then the procedures nominated in this Plan will take precedence.

## 1.5 Interface with other Operational Procedures and Project Plans

This Plan should be read in conjunction with the MSOP and Management Plans detailed in Section 2.2 of this Plan.

The MSOP referenced in this Plan are confidential documents, and as such, will not be issued outside of Multiplex. However, they will be made available, for the purpose of surveillance and audit of the EMS.

#### 1.6 Project Overview

The proposed upgrade to Mosman High School will include new building works, including a new building on the corner of Military and Belmont Roads with capacity for up to 1,200 students, associated core infrastructure, new outdoor play areas including roof top play space and associated landscaping works. This application seeks approval for the following development:

- » Demolition of Building B, Building C and part Building E;
- » Removal of existing sports court and surrounding retaining walls and nominated trees;
- » Construction of a new part 3/ part 4 storey building plus lift overrun and net enclosure to rooftop multi-court (Building G) on the corner of Military Road and Belmont Road providing:
  - administration and staff facilities;
  - multipurpose gym/hall;
  - library; o canteen facilities;
  - general and senior learning units;
  - science learning unit;
  - health / PE and performing arts unit; and
  - learning and admin support unit. Associated landscaping works including new outdoor play areas, a rooftop play space and rooftop multi-purpose court; and – Relocation of the main pedestrian entrance from Military Road to Belmont Road.



Figure 2 Proposed Site Plan

## 1.7 Project Scope

Scope	Overview
General	Multiplex is engaged to design, procure, construct, test, commission and handover the following building and areas as part of their works.
Demolition	This will incorporate the demolition of the following Buildings:  Building B and associated link way and stairwell structure  Building C  Annexe to Building E  External Tennis Court  External Hardstand to courtyard playground
New Building G	Building G is a part three (3) / part four (4) storey building plus lift overrun and rooftop multi-court enclosure. Building G accommodates expansion in the following learning units:  » A new Gymnasium with Stage  » A new Canteen  » A new Admin unit  » A new Lecture Theatre  » New amenities  » 2 Performing Arts/Fitness Workshops  » 4 Performing Arts/Fitness GLSs  » 4 Science General Learning Spaces  » 9 Senior GLSs and associated informal spaces  » 2 GLSs  » New staff rooms  » A new Library  » A new rooftop Games court
External Landscaping – Soft and Hard	The key landscape components include:  » Military Road Landscape;  » Arts Courtyard;  » Hall Forecourt;  » Central Lawn;  » Lower Terrace;  » Curtilage Works;  » Level 3 Library Terrace; and  » Level 4 Rooftop multi-court.

Figure 3 Project Scope

## 1.8 Legal and Other Requirements

In accordance with Procedure BU AUS IMS P DIV 050 – Document and Records Management, a schedule of environmental legislation has been developed to identify all environmental legal and other requirements that are applicable to the project. This schedule is maintained on Multiplex Operating System and is reviewed annually by the WHS&E Manager/Coordinator.

#### 1.8.1 Legislative References

The pertinent Acts, Regulations and Guidelines that apply to the project are outlined below:

# ENVIRONMENTAL LEGISLATION REGULATIONS AND GUIDELINES Acts Contaminated Land Management Act 1979 Environmentally Hazardous Chemicals Act 1985 Pesticides Act 1999

#### **ENVIRONMENTAL LEGISLATION REGULATIONS AND GUIDELINES**

- » Environmental Planning and Assessment Act 1979
- » Heritage Act 1977
- » Land and Environment Court Act 1979
- » Local Government Act 1993
- » National Parks and Wildlife Act 1974

- » Protection of the Environment Operations Act 1997
- » Soil Conservation Act 1938
- » Sydney Water Act 1994
- » Waste Avoidance and Resource Recovery Act 2001
- » Water Act 1912

#### Regulations

- » Contaminated Land Management Regulation 2013
- » Environmentally Hazardous Chemicals Regulation 2017
- » Environmental Planning and Assessment Regulation 2000
- » Heritage Regulation 2012 various amendments and Regulations
- » Land and Environment Court Regulation 2005
- » Local Government (General) Regulation 2005
- » National Parks and Wildlife Regulation 2009
- » Pesticides Regulation 2017

- » Protection of the Environment Operations (Clean Air) Regulation 2010
- » Protection of the Environment Operations (General) Regulation 2009
- » Protection of the Environmental Operations (Underground Petroleum Storage Systems) Regulations 2014
- » Protection of the Environment Operations (Noise Control) Regulation 2017
- » Protection of the Environment Operations (Waste) Regulation 2014
- » Sydney Water Regulation 2017

#### Commonwealth (National) Environmental Legislation

- » Aboriginal and Torres Strait Islander Heritage Protection Act 1984
- » Environmental Protection and Biodiversity Conservation Act 1999
- » National Environment Protection Council Act 1994
- » National Greenhouse and Energy Reporting Act 2007
- » Ozone Protection and Synthetic Greenhouse Gas Management Act 1989
- » Product Stewardship Act 2011
- » Water Efficiency Labelling and Standards Act 2005

#### **Commonwealth National Environmental Protection Measures**

- » National Environment Protection (National Pollutant Inventory) Measures 1998
- » National Environment Protection (Ambient Air Quality) Measure 1998
- » National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)
- » National Environment Protection (Diesel Vehicle Emissions) Measure 2001
- » National Environment Protection (Used Packaging Materials) Measure 2011
- » National Environment Protection (Air Toxics) Measure 2011

#### **NSW Environmental Planning Policies**

- » State Environmental Planning Policy (State and Regional Development 2011
- » State Environmental Planning Policy (Exempt and Complying Development Codes (2008)
- » State Environmental Planning Policy (Infrastructure) 2007
- » State Environmental Planning Policy (Major Development) 2005
- » State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- » State Environmental Planning Policy No 71 (Coastal Protection)
- » State Environmental Planning Policy No 55 (Remediation of Land)
- » Sydney Local Environmental Plan 2012

#### **Guidelines/ Australian Standards**

- » Air Quality Guidance Notes for Construction Sites
- » Assessing Significance for Historical Archaeological Sites and Relics
- » Assessing Vibration Technical Guidelines (2006) DEC (EPA) AS1055
- » Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)
- » City of Sydney Code of Practice for the Construction Hours/Noise 1992
- » City of Sydney Council's Policy for Waste Minimisation in New Developments 2005
- » Technical Guidelines to Minimise Blasting Overpressure and **Ground Vibration**

- » NSW Heritage Office Guidelines- Photographic Recording of Heritage Items using Film or Digital Capture.
- » AS 1940-2017- The storage and handling of flammable and combustible liquid
- » AS 4976-2008- The removal and disposal of underground petroleum storage tanks
- » AS 4897-2008 The design, installation and operation of underground petroleum storage systems
- » UPSS Technical Note:Site Validation Reporting
- » UPSS Techinal Note: Decommissioning, Abandonment and removal of UPSS

#### **ENVIRONMENTAL LEGISLATION REGULATIONS AND GUIDELINES**

- » Environmental Management Systems Guidelines for the Construction Industry
- » Interim Construction Noise Guideline
- » Know Your Responsibilities Managing Waste From Construction Sites
- » Managing Urban Stormwater Soils and Construction
- » National Australian Built Environment Rating System (NABERS Energy)

Figure 4 Environmental Legislative Regulation and Guidelines

#### 1.8.2 Approvals, Licenses and Permits

The relevant approvals, permits and licenses for the project are outlined below:

Approval/Licence/Permit	Relevant Authority	Details
» Crown Certificate	» Environmental Planning and Assessment Act 1979	» Under section 6.28 of EPAA certificate is to be obtained prior to any works commencing
» State Significant Development Approval	» Independent Planning Commission	» The Project is deemed to have state signficance.

Figure 5 Approvals, permits and licenses

#### 1.8.3 Development Conditions

This plan has been prepared in accordance with the below consent conditions for the project. A full list of the consent conditions can be found in appendix 7.

Condition No.	Condition Heading	Condition Description	Reference
B17	Contruction Environmental Management Plan	"Prior to the commencement of construction, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifier and provide a copy to the Planning Secretary for information. The CEMP must include, but not be limited to, the following:	
B17	Contruction Environmental Management Plan	(a) Details of:	
B17	Contruction Environmental Management Plan	(i) hours of work;	Section 1.9
B17	Contruction Environmental Management Plan	(ii) 24-hour contact details of site manager;	Section 4.1
B17	Contruction Environmental Management Plan	(iii) management of dust and odour to protect the amenity of the neighbourhood;	Section 15.2
B17	Contruction Environmental Management Plan	(iv) stormwater control and discharge;	Section 15.3 and Appendix 6
B17	Contruction Environmental Management Plan	<ul><li>(v) measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site;</li></ul>	Appendix 6
B17	Contruction Environmental Management Plan	<ul><li>(vi) groundwater management plan including measures to prevent groundwater contamination;</li></ul>	Section 15.3

Condition Heading	Condition Description	Reference
Contruction Environmental Management Plan	<ul><li>(vii) external lighting in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting;</li></ul>	Section 9
Contruction Environmental Management Plan	(viii) community consultation and complaints handling as set out in the Community Communication Strategy required by condition B8;	Section 4
Contruction Environmental Management Plan	(b) an unexpected finds protocol for contamination and associated communications procedure to ensure that potentially contaminated material is appropriately managed	Section 6.4.1
Contruction Environmental Management Plan	(c) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure;	Section 6.5
Contruction Environmental Management Plan	(d) Construction Traffic and Pedestrian Management Sub-Plan (see condition B18);	Appendix 3
Contruction Environmental Management Plan	(e) Construction Noise and Vibration Management Sub-Plan (see condition B19);	Appendix 4
Contruction Environmental Management Plan	(f) Construction Waste Management Sub-Plan (see condition B20);	Appendix 5
Contruction Environmental Management Plan	(g) Construction Soil and Water Management Sub-Plan (see condition B21).	Appendix 6
Contruction Environmental Management Plan	A Driver Code of Conduct must be prepared and communicated by the Applicant to heavy vehicle drivers and must address the following:  (a) minimise the impacts of earthworks and construction on the local and regional road network;  (b) minimise conflicts with other road users;  (c) minimise road traffic noise; and  (d) ensure truck drivers use specified routes.	Appendix 3 CTMP, Attachment 6
	Contruction Environmental Management Plan  Contruction Environmental	Contruction Environmental Management Plan  (vii) external lighting in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting;  (viii) community consultation and complaints handling as set out in the Community Community condition B8;  Contruction Environmental Management Plan  (b) an unexpected finds protocol for contamination and associated communications procedure to ensure that potentially contaminated material is appropriately managed  Contruction Environmental Management Plan  (c) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure;  Contruction Environmental Management Plan  (d) Construction Traffic and Pedestrian Management Plan  Contruction Environmental Management Sub-Plan (see condition B18);  Contruction Environmental Management Sub-Plan (see condition B19);  Contruction Environmental Management Plan  A Driver Code of Conduct must be prepared and communicated by the Applicant to heavy vehicle drivers and must address the following:  (a) minimise the impacts of earthworks and construction on the local and regional road network;  (b) minimise conflicts with other road users;  (c) minimise road traffic noise; and

Figure 6 Development Conditions

In addition to the above clauses by which Multiplex guarantees the compliance of, refer below plans that have been prepared by Multiplex's appointed consultants and Subcontractors. These plans will be followed upon the commencement of works on site, as well as in the preliminary stages of design and planning.

Plan	Consultant/Subcontractor	Appendix Reference
Construction Traffic Management Plan	PTC	Appendix 3
Construction Noise and Vibration Management	JHA	Appendix 4
Environment and Waste Management Plan	Moits	Appendix 5

Construction Soil and Water TTW Management Plan	Appendix 6
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Figure 7 Plans prepared by Multiplex's appointed consultants

#### 1.9 Hours of Work

As outlined in the SSDA, the hours of work are strictly limited to:

Day	Time
Monday – Friday	7am – 6pm
Saturday	7:30am – 3:30pm
Sunday / Public Holidays	No Work

Figure 8 Hours of Work

Notwithstanding, provided noise levels do not exceed the existing background noise level plus 5dB, works may also be undertaken during the following hours:

- (a) Between 6pm and 7pm, Mondays to Fridays inclusive; and
- (b) Between 3.30pm and 4pm, Saturdays

Activities may be undertaken outside of these hours pursuant to the following SSDA conditions and if notification of such activities are provided to affected residents before these undertakings.

- » If required by the Police or a public authority for the delivery of vehicles, plant or materials
- » If required in an emergency to avoid the loss of life, damage to property or to prevent environmental harm
- » If works are inaudible at the nearest sensitive receivers
- » If a variation is approved in advance in writing by the Planning Secretary or her nominee.

Works including but not limited to rock breaking, rock hammering and sheet piling may only be conducted during the below times:

Day	Times
Monday – Friday	9am – 12pm ; 2pm – 5pm
Saturday	9am – 12pm

Figure 9 Hours of Work (Works including but not limited to rock breaking, rock hammering and sheet piling)

#### 1.10 Document Control

This plan and relevant environmental sub-plans will be revised:

- » Six monthly
- » In response to future project approvals or modifications
- » In response to changes in law, risks or accepted practices
- » In response to major changes in site conditions or work methods, or due to incidents
- » Commencement of new phases or stages of design and construction
- » In response to the findings, recommendations or outcomes of a planned management review, audit or risk assessment

- » Requests or requirements of EPA or any other Authority
- » In support of planning approvals or licence variations as necessary.

Electronic distribution of this Plan will be made to those detailed on the distribution list on Aconex.

All changes will be identified as below, and communicated to all relevant personnel.

Revision	Date	Description	Page	Reviewed By	Approved By
1	15/09/2021	Initial Draft for MWO	All	Max Reginato	Jade Nicholson
1	15/10/2021	Initial Issue for MWO	All	Christina Travers- Jones	Jade Nicholson
2	11/11/2021	Updated Following MWO Review	All	Max Reginato	Jade Nicholson
3	01/12/2021	Update to Heritage Management Sub- Plan	Pg.56	Max Reginato	Jade Nicholson
4	02/12/2021	Inclusion of subplans for SSD update	Appendix	Christina Travers- Jones	Jade Nicholson
5	10/12/2021	Inclusion of SINSW comments	All	Christina Travers- Jones	Jade Nicholson
6	18/7/2022	Inclusion of Additional Waste Management Sub Plan	Appendix	Christina Travers- Jones	Jade Nicholson
7	3/10/2023	Update to Soil and Water Management Plan	Appendix	Christina Travers- Jones	Darren Marshall

Figure 10 Document Revisions Control

## 2. Environmental Management System Framework

## 2.1 Approach to Environmental Management

Multiplex is continuously seeking to improve environmental culture and standards across its business and the broader industry.

Multiplex works with its clients to integrate environmental management controls at the earliest opportunity. Our aim is to eliminate critical risks which may have long-term consequences.

Multiplex's approach to environmental management is underpinned by a mature and disciplined environmental culture which is embraced by its people and driven by what its leaders do and say. Multiplex encourages its people to learn from each other's experiences and share best practice.

#### 2.2 Management System Framework

Multiplex has a management framework which is applied throughout the business and on all projects it undertakes. The EMS documentation forms part of this System Framework and maintained in electronic format on Multiplex Operating System.

The structure of the overall Management System is explained below.

Element	Content	
Internal Control Framework	<ul><li>» Operating Environment</li><li>» Risk Assessment</li><li>» Control Activities</li></ul>	<ul><li>» Information and Communication</li><li>» Monitoring Activities</li></ul>
Polices	<ul><li>» Work Health and Safety</li><li>» Environmental</li><li>» Quality</li><li>» Risk</li></ul>	<ul><li>» Drugs and Alcohol</li><li>» Injury and Rehabilitation</li><li>» Indigenous Engagement</li><li>» Diversity</li></ul>
Operational Procedures	<ul> <li>» Risk Management</li> <li>» Integrated Management</li> <li>» Quality Management</li> <li>» Design Management</li> <li>» Construction Management</li> <li>» Health and Safety Management</li> </ul>	<ul> <li>» Environmental Management</li> <li>» Project Administration</li> <li>» Bid Management</li> <li>» Human Resources Management</li> <li>» Planning and Programming</li> </ul>
Management Plans	<ul> <li>Project</li> <li>Quality</li> <li>Design</li> <li>Work Health and Safety</li> <li>Environmental</li> <li>Emergency</li> <li>Traffic</li> </ul>	<ul> <li>Construction</li> <li>Stakeholder</li> <li>Risk</li> <li>Commissioning and Testing</li> <li>Aboriginal Participation</li> <li>Workplace Injury</li> </ul>
Sub Plans	<ul> <li>Construction Noise and Vibration</li> <li>Dust and Air Quality</li> <li>Water Quality</li> <li>Erosion and Sediment</li> <li>Chemicals</li> <li>Land Contamination</li> </ul>	<ul><li>» Waste</li><li>» Heritage</li><li>» Flora and Fauna</li><li>» Site Office</li></ul>
Risk Management	» Project Risks	» Aspects and Impacts
Forms and Guides	» As per Appendix 2	

Figure 11 Management Framework

## 3. Responsibility and Accountability

## 3.1 Environmental Policy

Multiplex policies relating to environmental management are contained in **Appendix 1**.

This policy will be made publicly available through the Multiplex Intranet and distributed for display in prominent Project locations. In addition, all personnel attending Project inductions will be made aware of the policy and Multiplex's commitment to implement it.

#### 3.2 Objectives, Targets and Programs

Environmental objectives and targets established in the table below and in each sub-plan will be monitored, reviewed and assessed by Senior Management, in accordance with Procedure BU AUS IMS P DIV 030 – *Planning and Performance Measurement*.

Objective	Target	Measure
Maximising opportunity to control risk by design, planning and re-planning.	Conduct an environmental risk workshop within 2 months of project commencement.	Environmental aspects and impacts register established within 2 months of project commencement.
Focusing priority on control of critical risks.	Continuously monitor and improve environmental performance through a program of inspections.	Inspections conducted on a fortnightly basis by the onsite Environmental Coordinator.
Closing the gap between paperwork and practice.	Conduct environmental training of all onsite Environmental Coordinators prior to assigned responsibility.	Training conducted prior to assigned responsibility.
Growing a mature culture: innovative, reporting, learning and collaborative.	No environmental regulatory infringements or major pollution incidents.	Number of environmental regulatory infringements and major pollution incidents.

Figure 12 Environmental Project Objectives and Targets

#### 3.3 Management Review

Through the use of audit results, inspection reports, corrective and preventative actions and meetings, Multiplex will continually improve the effectiveness of the EMS in accordance with Procedure BU AUS IMS P DIV 140 – *Management Review*.

Changes to existing procedures will be recorded and communicated to the affected personnel.

#### 3.4 EMS Organisational Chart

Environmental management during construction is the responsibility of each and every member of the Multiplex project team. Management and supervisory personnel lead environmental management by example, through provision of suitable resources to implement and monitor environmental measures, identify and correct any non-conforming conditions or behaviours, and actively promote environmental awareness and individual environmental responsibility.

The organisational chart following identifies the Multiplex personnel responsible for the implementation of the EMS.

# 3.5 Multiplex Roles and Responsibilities

Multiplex has identified appropriate levels of resources, individual responsibility, and accountability for managing environmental across all roles within the Project Team. These are contained in Procedure BU AUS IMS P DIV 010 – *Responsibility and Accountability*. The general responsibilities and accountabilities of key project personnel in relation to Environmental are outlined over.

Role and Responsibility	CEO	Group Sustainability Manager	Regional Managing Director	Regional Director	WHS&E Manager/Coordinator	Project Manager	Site Manager	Design Manager/Senior Project Engineer	Contracts Manager/Admin	Engineer/s	Supervisor/s	WHS&E Coordinator	Construction Workers
Provide <b>resources</b> including personnel, time and finances to ensure compliance with Environmental legislation and the Environmental Management System.	✓	1	✓	✓									
Ensure MPX operations identify <b>monitors and complies with the current legislation</b> for Environmental Management.	✓	✓	✓	✓	✓								
Ensure that the MPX Management System, risk assessment and procedures reflect the requirements of current environmental, legislation, guidelines and standards.		1		✓	✓								
Identify by way of subscription, all <b>environmental legislation</b> , standards, codes of practices and guidelines pertinent to our works.					✓								
Promote a positive workplace environmental culture.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Engage in <b>risk workshops</b> to identify, assess and determine appropriate controls for all potential risk and opportunity where required.				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Establish realistic project specific measurable <b>targets</b> . Monitor and report.					✓	✓	✓						
Have a working <b>knowledge</b> of the MPX Environmental Management System.	✓	1	✓	✓	✓	✓	✓	1	✓	✓	✓	✓	<b>✓</b>
Complete project specific <b>environmental documents</b> utilising templates.					✓	✓	✓					✓	
Establish the environmental requirements for the projects <b>site establishment and planning</b> requirements.					✓	✓	✓					✓	
Establish a schedule of <b>environmental legislation</b> , Communicate and monitor for change.					✓								
Establish records filing system and maintain environmental records.												✓	
Establish and maintain <b>environmental registers including legislation</b> , <b>training and quantifiable targets.</b>					✓							✓	
Establish and organise the environmental component of the <b>induction programme</b> .					✓		✓					✓	
Identify and assess <b>competency</b> of employee's including any unforeseen workforce requirements. Undertake training needs analysis and facilitate any <b>training</b> requirements.				✓	✓	✓	✓						
Determine and assess requirements for <b>environmental monitoring</b> (ie. noise, air and dust) and implement. Review results to determine compliance.					✓		✓					✓	
Assess subcontractor's ability to comply with the project environmental requirements and environmental contract requirements.					✓	✓	1		✓			✓	
Provide SC's with relevant <b>environmental documents</b> templates, EMPS, EWMS relevant parts of the site specific MPX EMP.												✓	

Role and Responsibility	СЕО	Group Sustainability Manager	Regional Managing Director	Regional Director	WHS&E Manager/Coordinator	Project Manager	Site Manager	Design Manager/Senior Project Engineer	Contracts Manager/Admin	Engineer/s	Supervisor/s	WHS&E Coordinator	Construction Workers
Obtain <b>Environmental documentation</b> from each subcontractor prior to commencing. Register and review adequacy and request changes prior to accessing the site.					✓		✓					✓	
<b>Monitor subcontractors activities</b> and report on performance against EWMS and EMP.					✓		✓				✓	<b>✓</b>	
Conduct inductions for all persons attending site and maintain records.												✓	✓
Complete an <b>environmental aspects</b> , <b>impacts and risk assessment</b> at commencement of the project and update as required to reflect current site conditions.					✓	✓	✓					✓	
Identify and maintain a register of all onsite hazardous materials and dangerous goods.												<b>✓</b>	
Obtain safety data sheets no greater than 5 years old and provide adequate hazardous substances and dangerous goods <b>storage facilities</b> onsite.							✓				✓	~	<b>✓</b>
Conduct <b>Environmental inspections</b> distribute for action, obtain signoffs from SC and close out.					✓							✓	
Attend projects to <b>monitor and discuss Environmental issues</b> with project management, supervisors and workers.		1	1	✓	✓								
Monitor, resolve and prevent significant <b>Environmental issues</b> and share lessons learnt.	1	1	1	✓	✓								
Schedule and conduct environmental <b>audits</b> of Subcontractors. Distribute report and monitor status.					✓							✓	
Conduct Environmental consultation and communication on environmental matters where required.	1	✓	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Implement emergency response procedures as outlined in the site Emergency Response Plan						✓	✓				✓	~	✓
Record, report and investigate environmental <b>incidents</b> . Monitor corrective actions and distribute any lessons learnt.				✓	✓	✓	<b>✓</b>					1	
Report and distribute <b>non-conformances</b> and implement corrective and preventative actions. Review effectiveness of corrective actions.					✓	✓	✓			✓	✓	✓	<b>✓</b>
Implement environmental sub-plans and procedures.					1	1	✓	✓	1	✓	✓	1	✓
Prepare <b>monthly report</b> on the status of the environmental management system.						✓	✓					✓	
Review Environmental performance including adequacy of resources.	✓	✓	✓	✓	✓	✓	✓					✓	
Obtain feedback for both internal/external training conducted and evaluate the effectiveness of the <b>training programs</b> .		✓			✓								
Review environmental objectives and targets annually and provide clear direction of the Environmental management system for the next 12 months.		1	1	1	✓								
Acquire and disseminate <b>Environmental and related information</b> including alerts and lessons learnt.		1			✓								
<b>Review procedures and forms</b> resulting from any changes in legislation, regulation, standards, codes of practices and incidents.					✓								

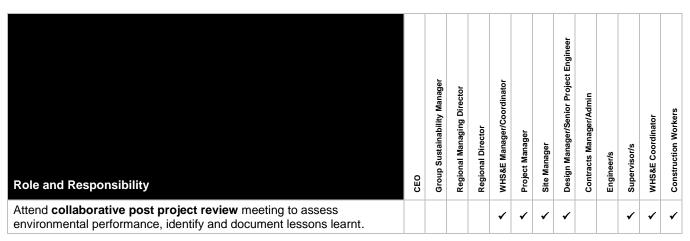


Figure 13 Multiplex EMS Roles and Responsibilities Matrix

## 3.6 Contractor Roles and Responsibilities

Contractors must ensure they have an EMP and comply with statutory requirements and instructions given by Multiplex representatives in the performance of work in which they are engaged. Contractors will be responsible for:

- » Implementing their EMS
- » Reporting incidents, near misses and issues of non-compliance with EMS procedures to their supervisor or Multiplex contact
- » Ensuring construction work complies with environmental legislative requirements.

#### 4. Communication and Consultation

#### 4.1 Communication

Multiplex will ensure meaningful and effective communication processes are established and maintained in accordance with Procedure BU AUS IMS P DIV 040 – *Communication and Consultation*.

Communication on EMS matters will occur through the mechanisms outlined below.

Event	Frequency Requirement	Participants	Record/Evidence
Project specific induction	Prior to commencement of contracted work	All personnel	Project induction and declaration form
Work activity Induction (in EWMS or equivalent).	Prior to commencing any building/construction work	Personnel carrying out specific work activities	Record of training – listed on the EWMS or toolbox meeting record
Toolbox meetings	During the introduction of a new process (EWMS) or when discussing environmental issues / topics	MPX Supervisors and Subcontractors	Toolbox meeting record
Subcontractor meetings	Weekly or as required	Project team / Subcontractors, their employees and others as required	Minutes of meeting
Project team meetings.	Fortnightly or as required	Project team	Minutes of meeting
PCG meetings	Monthly	Client and Project Manager.	PCG report
Electronic media (i.e. Aconex)	As required	All personnel	Aconex
Project notice board and general signage	As required	All personnel	Project notice board
Environmental Site inspection actions	Fortnightly	Project team and subcontractors	Environmental Site inspection report
Enquiries and Complaints	As required	As per Stakeholder Management Plan	Communications register
Other	As required	As per Stakeholder Management Plan	As per Stakeholder Management Plan

Figure 14 Project EMS Communication Mechanisms

The Mosman High School projects 24hr contact details of the Site Manager are as follows:

Category	Detail
Name	Matt Hogan
Phone	0438 570 309
Email	Matt.hogan@multiplex.global

Figure 15 Site Manager 24hr Contact Details

#### 4.2 Consultation

To ensure effective consultation occurs at all levels throughout the life of the Project, Multiplex will operate in accordance with Procedure BU AUS IMS P DIV 040 – *Communication and Consultation*.

Employees and contractors will be consulted with regard to aspects and impacts that have the potential to impact on the environment.

Consultation on environmental matters will occur through the mechanisms outlined in the table below.

Event	Frequency	Participants	Record
Work activity induction (in EWMS or equivalent)	Prior to commencing work	Personnel carrying out specific work activities	Record of training – listed on the SWMS or Toolbox Talk Record
Aspects and Impacts Risk Workshops	6 monthly	Project team and subcontractors (where required)	Aspects and Impacts Register
Toolbox meetings	As required	Subcontractors	Toolbox meeting record
Subcontractor meetings	Weekly	Project team and subcontractors	Minutes of meeting
Project team meetings	Weekly	Project team	Minutes of meeting

Figure 16 Project EMS Consultation Mechanisms

## 5. Contractor Management

#### 5.1 Evaluation and Selection of Contractors

All Multiplex Contractors (including subcontractors, suppliers and consultants) will be selected and appointed in accordance with Procedures BU AUS IMS P DIV 060 – *Contractor Management*, PAM P DIV 030 – *Tendering Subcontracts* and PAM P DIV 040 – *Letting of Agreements*.

Multiplex's procurement processes ensure that all contractors engaged must meet the environmental Management requirements. This is achieved by:

- » Documenting and correctly completing subcontract agreements, supplier agreements and consultant deeds that include a scope of work and environmental requirements
- » Examination and evaluation of subcontractor's demonstrated experience and capabilities
- » Selecting appropriate subcontractors and suppliers for tender
- » Conducting a tender interview to verify the environmental requirements related to the contract can be met
- » Evaluation, recommendation and seeking approval from senior management for engagement of the preferred contractor.

#### 5.2 Subcontractors Environmental Management Plans and EWMS

All subcontractors are required to operate with the requirements of the EMP and associated documents.

Based on the EMP and risks identified in the Project Risk Assessment, MPX will assess the subcontractor's environmental management strategies against the following:

- » The potential environmental impacts of the subcontractor's activities
- » The environmental sensitivity of the area(s) in which the subcontractors will be working
- » The nature and scope of the subcontractor's activities
- » The scale of the subcontractor's activities
- » The subcontractor's capacity to manage its own environmental performance effectively
- » The subcontractor's previous performance.

Where a subcontractor is determined to be working in an area identified as high risk for potential impact to the environment, additional management controls will be put in place. These may include the submission of a dedicated EMP / EWMS to address the specific work package(s) awarded and be submitted for review to MPX prior to commencement of work on site. Comments resulting from the review by Multiplex will be issued to the subcontractor for action and where required, re-submission. The EMP / EWMS must assess the level of environmental risk and implement appropriate management controls for the subcontractor's full scope of work.

EWMSs are aimed specifically for use by foremen and construction workers, and are reviewed by each member of the work team before they commence work. This review provides an opportunity for the work team to contribute to environmental controls, and ensure that the work team is trained in environmental methods. Changes to EWMSs are documented and communicated to workers prior to commencing changed methods.

#### 5.3 Contractor EMS Submission Requirements

A summary of the subcontractors EMS submission requirements is outlined in the table below.

Item	Description	Time Frame / Frequency of Submission
1	Project Environmental Management Plan for selected trades determined by Multiplex	10 days before commencing on site.
2	Environmental Work Method Statement (EWMS) for all high activities	10 days before commencing on site.
3	Incident/Near Miss Report	Following an incident

Item	Description	Time Frame / Frequency of Submission
4	Incident Investigation Reports	Following an incident
5	MPX Inspections – completed and signed off	As per timeframe nominated in report
6	Inspection and Monitoring Records as detailed in each Environmental Sub-Plan	As per Environmental Sub-Plan

Figure 17 Summary of Subcontractor Environmental Submission Requirements

## 5.4 Subcontractor Environmental Management Monitoring

Multiplex will monitor work activities in accordance with Procedures BU AUS IMS P DIV 060 – *Contractor Management* – to ensure that subcontractors are carrying out work in accordance with SWMS documentation. Monitoring may be achieved by one or more of the following:

- » Ongoing visual inspections by supervisors
- » Environmental inspections
- » External Inspections/Audits.

#### 5.5 Purchasing of Goods and Services

Multiplex personnel responsible for the procurement of materials, plant and equipment will ensure that the requirements outlined in Procedures BU AUS IMS P DIV 060 – *Contractor Management* – are implemented to ensure compliance with the relevant Australian Standards and environmental legislation.

Where goods such as materials, plant and equipment are procured, procedures for complying with environmental specifications will be implemented and will cover all environmental standards, legislation or organisational compliance requirements.

Items and equipment that are used to execute the work potentially impacting on the health and safety of a worker of the public, will be subject to hazard identification and risk assessment prior to purchase or hire.

Workers or their WHS Representatives will be consulted regarding any purchasing decisions that could affect their health and safety.

## 6. Risk Management

## 6.1 Risk Workshops

Multiplex and its subcontractors will undertake risk workshops outlined in the table below. Further detail relating to risk management is detailed in Procedure BU AUS IMS P DIV 020 – *Risk and Opportunity Management*.

Type of Risk Programme	Purpose	Frequency	Participants	Record
Project Risk Workshops	Overarching risk workshop conducted to identify all significant risks/opportunities and develop control strategies relating to the project	As per schedule	Project Team	Project Risk Register
Project EMS Risk Workshops	To identify key EMS aspects, impacts and develop control strategies for all works associated with the project	Six monthly intervals	Project Team, WHS&E Manager / Coordinator	Project Risk Register
Trade/Element Risk Workshops	To identify key EMS aspects, impacts and develop control strategies for all works associated with the project	As per schedule	Project Team, WHS&E Manager / Coordinator	Project Risk Register

Figure 18 Risk Workshops

#### 6.2 Aspects and Impacts

Key activities carried out by or on behalf of MPX in connection with the Project are identified in the Environmental Aspects and Impacts Risk Register outlined in the table below. This register is completed during the preliminary risk assessment process to help establish key project risks in accordance with Procedure BU AUS IMS P DIV 020 – Risk and Opportunity Management.

All risks identified are managed in Project Risk Register on Multiplex Operating System. For each activity the environmental aspects and associated actual and potential environmental impacts are identified for normal operations and uncommon events. All aspects are assessed for risk based on standard controls being in place. Any aspects with a risk rating of high or extreme will be considered a significant aspect and require additional controls / plans to minimise the risk. Additional controls or plans will be referenced in the Environmental Management Subplans.

Aspect	Impact	Consequence	Likelihood	Risk Rating
Water Quality	Pollution / contamination of atmospheric, ground or surface water bodies through degradation of water quality.			
Erosion & Sediment Control	Soil loss to environment potentially affecting water quality subsequently impacting ecological values.			
Site Contamination	Mobilisation of chemicals above the level normally found in nature, potentially having an adverse effect on the surrounding environment.			
Air Quality	Pollution/ contamination of atmosphere from dust, exhaust emissions, odour and airborn chemicals.			
Noise & Vibration	Disturbance/ nuisance caused from 'unreasonable' or excessive levels of noise to public/ environment.			
Hazardous Chemicals	An acute event where hazardous chemicals have the potential to be spilt and released to the environment causing adverse effects.			
Cultural Heritage	Damage or disturbance to archaeological/cultural artefacts including skeletal remains, shell middens or other artefacts.			
Flora and Fauna	Direct / indirect impact (stress-death) on an individual or species of flora/ fauna.			

Aspect	Impact	Consequence	Likelihood	Risk Rating
Waste Management	Degradation of aesthetic values due to ineffective waste management. Build-up of chemical and organic waste.			
Office Resources	Depletion of resources as a result of construction and office operations			

Figure 19 Environmental Aspects and Impacts Register

		Likelihood				
		Almost certain	Likely	Possible	Unlikely	Rare
	A. Extraordinary	1	2	4	7	11
nce	B. Major	3	5	8	12	16
Consequence	C. Moderate	6	9	13	17	20
Cons	D. Minor	10	14	18	21	23
	E. Insignificant	15	19	22	24	25

Figure 20 Consequence and Likelihood Matrix

# 6.3 EIA Environmental Management Measures

Actions		Person responsible	Timing / frequency	Document Source & Compliance record
Flora ar	nd Fauna			
•	All tree protection works shall be carried out before excavation, grading and site works commence  The tree protection measures are to be maintained in good and serviceable condition throughout the construction period	s e	Prior to Commencement During Construction	t <b>EIS</b> Appendix AJ
Bushfire	e			
N/A				
Non Ab	original Heritage			
•	The proposed upgrade works will be in accordance with the recommendations of the Heritage Impact Assessment prepared by Purcell, dated 30 March 2021 (Appendix J), i.e. "The Military Road Conservation Area, in the vicinity of the site, should be recorded by means of photographic archive prior to the commencement of works	e y y  e s	Prior to Commencemen	t <b>EIS</b> section 8. and Appendix J  B23 -Heritage Archival Recording Report by Purcell
Aborigi	nal Heritage			
•	All contractors undertaking earthworks on situs should be briefed on the protection of Aborigina heritage objects under the National Parks and Wildlife Act 1974 and the penalties for damage to these items.	Site Manager	Prior to Demolition	EIS section 8. Appendix K and Appendix L  CEMP Section 7.6
	to those items.			

 All contractors undertaking earthworks in the study area should undergo an induction on identifying Aboriginal heritage objects;

#### **Visual and Aesthetics**

NA

#### **Traffic and Access**

 A detailed Construction Traffic and Pedestrian Management Plan will be required to be prepared as a condition of consent. This is to address cumulative impacts of other on-site and nearby developments and account for their truck movements. Project Manager

Prior to Commencement **EIS** section 8. and Appendix AG

**CEMP** Appendix 3 - CTMP

#### **Social and Economic**

- Communication strategy to be developed to inform staff, students, parents and carers of the construction process, and provide regular updates.
- Preparation and implementation of a Construction Management Plan (CMP) to minimise disruptions to educational quality.
- Complaints register managed by the novated constructor and School Infrastructure NSW during construction.
- Preparation of a Construction Management Plan (CMP) to ensure an efficient and effective construction process that appropriately utilises workers and enhances the local economy.
- Ensure appropriate school facilities are available for P&C and other school organisations use during the construction phase.
- Promote community liaison officers through frequent and regular project newsletter updates for the school and local community during construction.
- Development of safety management plan for staff to use and promote to students during the construction and operation.
- Construction Management Plan (CMP) to be developed that ensures the school remains accessible and safe for staff and students during the construction phase.

Project Manager During Construction EIS

EIS Appendix O

#### **Cumulative Impact**

 During Construction liaison with adjacent developments (if any) will be undertaken to mitigate the cumulative effect of the concurrent works. **Project Manager** 

During Construction as required

**EIS** section 6.23 **CEMP** Appendix 3 - CTMP

## 6.4 Environmental Controls Map

An Environmental Controls Map has been prepared for the Project to include key information from the sub-plans and other sources. A copy of the plan can be found in appendix 8. The plan will be displayed on site notice boards, and include:

» The worksite layout and boundary

- » Location of the nearest noise sensitive receivers
- » Sediment and erosion control measures
- » Noise barriers
- » Site offices
- » Construction traffic routes within and adjacent to the worksite
- » Dust control measures
- » Monitoring equipment (e.g. dust and noise monitors)
- » Location of environmentally sensitive areas (e.g. conservation areas, protected trees)
- » Location of heritage (indigenous and non-indigenous) items (e.g. artefacts, registered sites)
- » Location of spill containment and clean-up equipment
- » Location of hazardous substance storage
- » Stormwater drainage and watercourses
- » Location of worksite waste management facilities
- » Demolition works.

#### 6.5 Hazardous Materials Risk Management

Should unexpected contamination or aesthetically unacceptable material be encountered during the demolition, excavation or the remediation activities, works will stop in the affected part of the site. This area will be isolated to minimise potential for disturbance to the affected soils. The sub-contractors on-site, Multiplex and SINSW will be notified of the unexpected find and a suitably qualified environmental consultant engaged to attend site to assess the find.

#### 6.5.1 Unexpected Finds Procedure

Should an unexpected actual or suspected contamination be encountered during the remediation or site redevelopment works, the following procedure will apply:

- 1. Stop work in the potentially hazardous area as soon as it is safe to do so and move to the upwind side of the area, or away from the area.
- 2. Assess the potential immediate risk to human health posed by the unexpected find and assess if evacuation or emergency services need to be contacted.
- 3. Delineate an exclusion zone around the affected area using fencing and/or appropriate barriers and signage. Additional control measures may be required for odours and/or volatile compounds.
- 4. Contact the appointed environmental consultant for advice and request a site visit to undertake an assessment of the unexpected find.
- 5. The environmental consultant will assess the unexpected find and provide advice regarding:
  - a. Preliminary assessment of the contamination and need for immediate management controls;
  - b. What further assessment and/or remediation works are required and how such works are to be undertaken in accordance with contaminated site regulations and guidelines;
  - c. Preparation of an addendum to the remediation action plan (if necessary) or provide clean up advice;
  - d. Remediation works required (where applicable);
  - e. Validation works required following remediation works (if applicable).
- 6. Works are not to recommence in the affected area until appropriate advice has been obtained from the environmental consultant.
- 7. If it is deemed safe to do so, works may resume in the affected area.

#### 6.6 Archaeological, Aboriginal and Heritage Materials Risk Management

#### 6.6.1 Historical Archaeological Protection Measures

Austral Archaeology has advised that the proposed footprint of new building G will impact zones of potentially high archaeological significance. A detailed archaeological investigation will be undertaken in main works following the demolition of the existing building B and prior to any excavation works commencing in these areas. A number of test trenches will be excavated under the supervision of the excavation director to determine if any significant archaeological fabric remains. No excavation works will be permitted to take place until the area is cleared and approval given by the Excavation Director.

If unexpected historical archaeological or aboriginal relics are found during the works, all works in the immediate vicinity are to cease immediately 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.

## 7. Training and Competency

#### 7.1 Training and Competencies

Multiplex is committed to achieving and maintaining high standards in training and development.

Multiplex will implement systems in accordance with Procedure BU AUS IMS P DIV 110 – *Training and Competency* – to ensure employees have the required skills and training to competently perform required tasks. Multiplex will maintain a training program that identifies:

- » The training required to meet statutory and legislative obligations
- » The training required for each role or position to meet the required competencies
- » A schedule of required refresher training.

Training programs will remain current and be reviewed at least annually or:

- » When new or unforeseen workplace requirements are identified
- » Following significant changes to the division's business operation
- » Following a significant incident
- » Following changes in legislation
- » Following feedback from employees.

Multiplex will review the training programs to ensure that the training has been effective.

#### 7.2 Induction Training

The Project has developed induction programmes for Project personnel. The project induction outlines key environmental issues. All personnel directly or indirectly working on the Project, including sub-contractors, are required to complete the induction prior to starting work, and will be provided with identification to show they have been inducted. The environmental induction will be periodically reviewed for adequacy.

The project induction includes the following environmental aspects:

- » Key issues relating to the project and existing environment, such as ecological and heritage conservation areas
- » Relevant environmental requirements, relevant conditions of planning approvals and environmental licences, and the obligations of all staff in relation to compliance with approvals and licences
- » Environmental policy
- » Site specific issues, such as:
  - Waste management and minimisation
  - Washing, refuelling and maintenance of vehicles, plant and equipment
  - Efficient use of plant, equipment and materials
  - Minimising potential environmental impacts including noise, air and water quality
  - Site-specific erosion and sedimentation controls, and use of spill kits to contain spills
  - Environmental emergency plans, and incident reporting procedures for environmental harm/incidents.

## 7.3 Tool Box Meetings

Where deemed necessary toolbox meetings are used to highlight specific environmental and community issues relevant to site personnel. Toolbox meetings will be held as required.

A signoff sheet is completed by all personnel in attendance at toolbox meetings to acknowledge understanding of the information provided.

## 8. Traffic Management

Traffic management on the project will be done in accordance with a Construction Traffic Management Plan. Multiplex will engage an authorised traffic control and management consultant to provide the aforementioned plan and Multiplex will work in accordance with that plan. A copy of the plan can be found in appendix 3.

#### 8.1 Driver Code of Conduct

A driver code of conduct has been prepared in accordance with the conditions of consent and the Construction Traffic Management Plan. The driver code of conduct can be found in the attachment 6 of the CTMP.

## 9. External Lighting

Any external lighting during construction will be installed in compliance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting.

## 10. Incident and Emergency Management

#### 10.1 Incident Management

Multiplex maintains a uniform system for the management and investigation of incidents which is outlined in Procedure BU AUS IMS P DIV 100 – *Incident Management*.

All incidents and near misses will be investigated by competent personnel, reported and recorded in the electronic database and conducted in line with the requirements set out in the internal investigation proforma and procedures. All incident investigations will identify the root causes of the incident so that appropriate remedial and preventative control measures can be identified and implemented.

Where required and where possible, incidents will be reported to EPA.

Corrective actions resulting from incident investigations will be prioritised and carried out in accordance with defined priorities. The corrective action will be evaluated for its effectiveness and whether the initially identified deficiency has been corrected and prevented from recurring.

#### 10.2 Emergency Management

Emergency situations are to be managed through Procedure BU AUS IMS P DIV 100 – *Incident Management and include*:

- » An Emergency Management Plan details a single set of emergency contacts and procedures, consistent with the Project activities that can be scaled as appropriate for any incident or emergency
- » A Site Evacuation Diagram identifies the locations of emergency assembly points, fire exits, first aid kits and associated equipment, directional flow of pedestrian traffic and firefighting equipment
- » A Crisis Management Plan which provides guidance, details, responsibilities and lines of communication for effective emergency management.

Relevant details of the Emergency Management Plan will be provided to all personnel during the site induction, and information posted on notice boards.

#### 11. Inspections, Testing and Monitoring

#### 11.1 **Environmental Site Inspections**

To ensure compliance with both regulatory requirements environmental inspections detailed in the table below will be implemented in accordance with Procedure BU AUS IMS P DIV 070 - Inspection Testing and Monitoring.

The outcomes and status of inspection activities will be recorded in inspection reports and issued to the persons delegated with responsibility for rectifying the impact. The onsite WHS&E Coordinator will be responsible for tracking actions resulting from all inspections.

Type of Inspection	Inspection By	Frequency	Record
General	All Supervisors	Daily	Visual
Environmental Impacts	Environmental graduate	Fortnightly and after a shower / rain event.	Environmental Site Inspection
Environmental Impacts	WHS&E Manager / Coordinator	Monthly	Environmental Site Inspection Report
Other	Project Team / Subcontractors	As per Environmental sub-plans	As per Environmental sub-plans

Figure 21 EMS Inspection Programme

#### 11.2 **Environmental Site Testing and Monitoring**

To ensure compliance with regulatory, testing and monitoring requirements, all monitoring and testing will be conducted in accordance with the environmental sub-plans outlined in section 13 and Procedure BU AUS IMS P DIV 070 - Inspection Testing and Monitoring.

#### 12. Audits and Non-Conformances

#### 12.1 Audits

An EMS auditing programme outlined below will be established and implemented to assess compliance, identify trends, drive continual improvement and provide assurance that management processes are being effectively implemented and that performance objectives are being met.

Audit procedures including the scope, frequency and methodology to be used as well as the responsibilities and requirements for conducting audits and reporting results will be in accordance with Procedure BU AUS IMS P DIV 120 – *Internal / External Auditing*.

Type of Audit	Audit By	Frequency	Purpose	Record
Internal EMS audit	WHS&E Manager / Coordinator	3 monthly	To confirm compliance against the MPX EMS.	Audit Report
External surveillance audits	External certified organisation	As per schedule	To confirm compliance of the MPX EMS and AS/NZS 14001.	Audit Report

Figure 22 EMS Audit Programme

Audit results will be recorded and an action plan developed identifying the observations and corrective action required against each of the findings in the audit report. Details of any non-conformance reports will be issued in accordance with Procedure BU AUS IMS P DIV 080 – *Control of Non Conformances*.

A follow-up audit will be carried out, as deemed necessary by the auditor, in order to verify and record the implementation and effectiveness of the corrective action taken. Implementation and effectiveness of the corrective actions will be verified and recorded during follow-up. Audits will be closed out in a timely manner.

## 12.2 Non-Conformances, Corrective and Preventative Action

Deficiencies identified during audits, site inspections or observations of day-to-day operations will be generally recorded on the audit report or inspection report/checklist and actioned.

When non-compliance is identified, Multiplex will document the issue on the Non-Conformance Report in accordance with Procedure BU AUS IMS P DIV 080 – *Control of Non Conformances* – on Aconex identifying the non-conformance and corrective actions. Where appropriate, the recipient and/or Multiplex will also develop measures to prevent recurrence of the non-conformance. The instigator will carry out a follow up review and closeout of the Non-Conformance Report to verify completion of measures taken to rectify and to prevent recurrence of the Non-Conformance within the specified time frame.

## Document and Records Management

#### 13.1 Document Control

Multiplex's system of document management and record keeping is detailed at Procedure BU AUS IMS P DIV 050 – *Document and Records Management*. The EMS documentation is maintained in electronic format on Multiplex Operating System and describes and provides direction to the core documents that make up the system. The documentation consists of the following:

- » Policy statements which summarise and detail Multiplex high level commitment to the implementation of the EMS
- » Management System Operating Procedures to effectively and efficiently manage projects from feasibility and planning phase's right through to the design and construct phases of a project
- » Supporting materials including Forms, Guides (as outlined in **Appendix 2**) and Management Plans provide the tools to ensure conformance with operational procedures.

Project documentation will be controlled in accordance with the Procedure BU AUS IMS P DIV 050 – *Document and Records Management* – which defines the controls to ensure that:

- » The documentation is periodically reviewed, revised as necessary and approved for adequacy prior to issue
- » The documentation is current, readily identifiable and available at all points of use
- » The staff are immediately notified of any changes in the documentation such as, the development or receipt of new documentation and any amendments to the current documentation
- » The documentation of external origin is registered and regularly reviewed for currency
- » The obsolete documents are appropriately identified and archived.

#### 13.2 Record Control

The Project will maintain records in Aconex (web-based document control system), Multiplex Share Drive and other applications as defined in the table below to demonstrate conformance to specified requirements and to ensure the effectiveness of the operation of the EMS. Pertinent EMS records from subcontractors will be an element of this data.

Record	MPX OP System	Aconex	Share Drive	CHEMALERT	SMARTEK
MPX Management Plans		$\boxtimes$			
Subcontractor EMP		$\boxtimes$			
Subcontractor EWMS		$\boxtimes$			
Permits			$\boxtimes$		
Incident and Investigation Reports					
Inspection and Test Reports		$\boxtimes$			
Audit Reports		$\boxtimes$			
Safety Data Sheets				$\boxtimes$	
Meeting Minutes		$\boxtimes$			
Toolbox Meetings			$\boxtimes$		
Environmental Risk Workshops					
Induction Records					$\boxtimes$
Training Records	$\boxtimes$				
Reports		$\boxtimes$	$\boxtimes$		
Monitoring Records		$\boxtimes$	$\boxtimes$		
Environmental Complaints	$\boxtimes$				

Figure 23 Records Management

# 14. Reporting

The Project will establish and maintain a uniform system of record keeping to enable accurate reporting of EMS matters in accordance with Procedure BU AUS IMS P DIV 130 – *Reporting*. Reporting on environmental matters will include those outlined in the table below.

Type of Report	Report By	Frequency	Recipient/s
Monthly PCG Report	Project Manager/Site Manager	Monthly	Client, Client's Representative and Regional Director.
Environmental Incident Notification Report	Project Manager/Site Manager	As required	Directors, WHS&E Manager/Coordinator and DEC where required.
Environmental Incident Investigation Report	Project Manager/Site Manager or others nominated by Project Manager /Site Manager	As required	Directors, WHS&E Manage/Coordinator and DEC where required.
Environmental Internal Audit Report	Project Manager / Site Manager / Environmental Manager	As required	Project Team and WHS&E Manager/Coordinator
External Surveillance Audit	External Auditor	As required	WHS&E Manager/Coordinator, Systems Manager, Directors, Project Manager
Other	As per environmental sub-plan	As per environmental sub-plan	As per environmental sub-plan

Figure 24 EMS Reporting Programme

# 15. Environmental Management Sub Plans

# 15.1 Construction Noise and Vibration Management Sub-Plan

## 15.1.1 Objectives and Targets

Objective	Target	Key Performance Indicator
To ensure any works causing noise or vibration do not effect nearby structures or residents.	No complaints from the community regarding noise or vibration.	No. of complaints from residents / businesses related to noise.
Compliance with State and Local requirements as required.	Compliance with the Environmental Protection (Noise) Regulations 1997 - Section 6 of AS 2436-2010 (Standards Australia, 1981).  Compliance with 10mm/s vibration limit or as otherwise specified.	Results from environmental inspections  Noise and vibration monitoring records

## 15.1.2 Management Strategies

Parameter	Action	Timing	Responsibility
Construction Work	All construction work to take place during the hours as determined by either the Client or Environmental Protection (Noise) Regulations 1997, (i.e. 7:00am-7:00pm) and not on Sundays and Public Holidays (except for dust control operations which may be undertaken on Sundays).	Construction	All Subcontractors
Plant and Equipment	Plant and equipment noise control equipment to be maintained in accordance with manufacturer's specification to reduce noise levels.	Construction	All Subcontractors
Plant and Equipment Noise Control	All mobile machinery and stationary equipment to be fitted with noise control equipment as per the manufacturer's specifications.	Construction	All Subcontractors
Noise Monitoring	Noise monitoring to be undertaken if required by the Client and Council conditions or if complaints are received due to unreasonable levels of noise in a noise sensitive area. These levels are to be assessed against levels set in the Environmental Protection (Noise Control) Regulations 2017.  Where applicable a Noise Management Plan will be prepared by an appropriately qualified external consultant and attached to this EMP for works outside the hours of 7am – 7pm, Monday to Saturday. This plan is to be approved by the Local Council. As an alternative, consideration is to be given to undertaking works at more suitable times to the complainant.	Establishment / Construction	MPX / Subcontractor
Vibration Monitoring	During operation, if equipment is likely to cause excessive vibration, sensitive structures or areas to be monitored for vibration levels. An appropriately qualified external consultant will develop a Vibration Management Plan which will be attached to this EMP. Vibration levels monitored at sensitive premises are not to exceed 10mm/s (as per German Standard DIN 4150-03 – Structural Vibration Part 3 – Effects of Vibration on Structures) or as otherwise specified in the Vibration Management Plan. Regardless of the criteria above, constant observation of vibration levels and any effects on adjoining structures to be monitored closely during construction, as this may alter vibration monitoring trigger levels.  Dilapidation studies to be undertaken of surrounding structures and building prior to any construction.	Establishment / Construction	MPX / Subcontractor

Parameter	Action	Timing	Responsibility
Noise / Vibration – Control Measures	If noise and / or vibration complaints are received, the following techniques should be considered to reduce impact to adjoining owners:  Undertake works outside of adjoining building operating hours / peak hours as per the approved Noise Management Plan Isolate work activity using noise barriers Ring saw instead of hammering column / beams Use smaller machinery or quieter alternative Use static rolling where possible.	Construction	MPX / Subcontractor
Communication and Notification	A contact list to be prepared to enable nearby residents and owners to be notified regarding works that may impact them as a result of noise and vibration. This will be managed in accordance with the Communication Management Plan and approved Noise Management Plan (where applicable).	Establishment / Construction	MPX
Complaints	Where a complaint is received regarding noise and vibration, the complaint will be investigated and where appropriate, additional control measures will be taken to address the nature of the complaint	Demolition/Civil/ Construction	MPX

# 15.1.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Vibration monitoring if required by Client, local authority and in response to complaints	At commencement and during excessive vibration	MPX	Vibration monitoring records
Noise monitoring if required by Client, local authority and in response to complaints	At commencement and during excessive Noise	MPX	Noise monitoring records
Integrity of noise control equipment (if deemed applicable)	During construction	MPX / All Subcontractors	Environmental Site Inspection
Number of noise and/or vibration complaints	As required	MPX	Communications Register

# 15.2 Dust and Air Quality Management Sub-Plan

## 15.2.1 Objectives and Targets

Objective	Target	Key Performance Indicator
Ensure that dust or odour emissions do not adversely affect the health or visual amenity of surrounding communities.	No complaints from adjoining owners in relation to dust emissions from the works.	No. of public complaints from the public related to dust.
Compliance with State and Local regulatory requirements in relation to dust management.	No visual evidence of deposited dust or suspended particulate matter. Compliance with National Environment Protection Measures (NEPM) standards (where required) and DEC standards during construction.	Visual monitoring of dust movement during environmental inspections.  Dust monitoring results (where required).

## 15.2.2 Management Strategies

Parameter	Action	Timing	Responsibility
Stabilised Driveways	A stabilised driveway is to be installed to minimise the tracking of dirt on public roadways.	Establishment	MPX
Dust Control Method – Physical Barriers	A physical barrier can be erected perpendicular to prevailing winds prior to the commencement of works along the boundary or around uncontrolled dust sources. Fences can be standard hoarding panels / fence or a fence with a screening material with a porosity of 50% or less.	Establishment	All Subcontractors
Dust Control Method – Chemical Stabilisation	Where an exposed area or stockpile is located away from traffic and needs to sit for up to 3 months or where an area needs immediate stabilisation, a chemical soil stabiliser can be used such as Zerosion or the area hydromulched (seed free).	Construction	Bulk Earthworks / Civil / MPX
External Roads	If any sediment is deposited onto the roads adjoining the site, the roads are to be swept regularly and including prior to any rainfall. No hosing is to be undertaken external to the site.	Construction	MPX
Haul roads	Haul roads to be covered with gravel / road base to minimise dust production or at best concrete to be regularly swept.	Construction	MPX
Speed limits	The speed of all vehicles on-site to be restricted to 10 km/hr. This speed to be further reduced if large amounts of dust are still being generated.	Construction	All Subcontractors
Windy Conditions	Dust generating activities to be assessed during periods of excessively windy conditions (>40km/h). Where dust cannot be adequately controlled work is to be ceased and rescheduled to a time when adequate control of dust generation can be achieved.	Construction	All Subcontractors
Water Carts/ Sprays	Water carts or sprinklers are to be used for specific process activities that may cause dust, and can be used to assist in the dust control on access tracks. Consideration should be given to water efficiency and the possible use of a dust control method above.	Construction	Excavation / Demolition Subcontractor
Housekeeping	During construction the site to be kept clean to reduce dust lift off during windy days.	Construction	All Subcontractors
Plant and Equipment Maintenance	All construction plant and equipment with access to the site to be properly maintained and serviced in accordance with the manufacturer's specification.  During the works maintenance logs are to be maintained and available during inspections and audits.	Construction	All Subcontractors
Exhaust Fumes	Operating machinery and vehicles to be visually checked to ensure exhaust fumes are not discharged into adjoining buildings air intakes.	Construction	All Subcontractors

Parameter	Action	Timing	Responsibility
Truck Transportation	Trucks transporting materials such as sand, soil, landscape materials and gravel to have loads covered and tailgates secured.	Construction	All Subcontractors
Paint-Spraying	Paint-spraying activities not be undertaken in adverse weather conditions or near building air intakes.	Construction	All Subcontractors
Exposed Areas	Measures including watering down exposed areas and access will be undertaken to reduce dust generation.	Construction	All Subcontractors
Hazmat	Any Hazmat discovered on the project to be left undisturbed and subsequently managed in accordance with the WHS Management Plan.  Asbestos or other containment material found in ground will require assessment in accordance with State requirements. Additionally, air monitors will be utilised when handling asbestos impacted soils.  Refer to WHS Handbook Rev 3.  Asbestos  Lead Dust/Paint	Construction	All Subcontractors
Sweeping	Where applicable, sealed roads to be swept to remove deposited material that could generate dust.	Demolition , Excavation and Construction	All Subcontractors
Complaints	Where a complaint is received regarding dust, the complaint will be investigated and where appropriate, additional dust control measures taken to address the nature of the complaint	Construction	MPX

#### 15.2.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Inspect dust control measures, to ensure they are in place and implemented.	Fortnightly	MPX	Environmental Site Inspection
Visually inspect emissions from plant to ensure they are not contributing to ill health effects.	Fortnightly	MPX	Environmental Site Inspection
Dust monitoring in response to community complaints or in accordance with regulatory requirements.	As required	MPX	Dust monitoring records

# 15.3 Water Quality Management Sub-Plan

#### 15.3.1 Objectives and Targets

Objective	Target	Key Performance Indicator
Avoid the release of contaminants to waterways or drainage systems.	All water discharged complies with minimum water quality criteria.	Water quality records conforming to minimum water quality criteria (where applicable).  No breaches of management strategies in applicable Management Plans.  Results from environmental inspections.
Ensure that groundwater quality or height is not significantly affected by the construction.	No significant change in groundwater levels and quality during dewatering activities (if applicable).	Groundwater quality reports.

#### 15.3.2 Management Strategies

Parameter	Action	Timing	Responsibility
Dewatering for construction purposes	Water to be discharged from sediment basins or similar must be tested and, if required, treated to ensure that it meets water quality criteria and that pollution of the receiving waters does not occur; Results of testing and details of any treatment undertaken must be documented i.e. MPX water Discharge Permit, photographic evidence (photograph of the PH strip and Turbidity tube)  "Turbidity: <50 NTU  "Suspended solids: <50 mg/L (Nata tested)  "PH: 6.5-8.5  "Oil and Grease (visual only)  The discharge must be monitored throughout to ensure that the water being pumped;  "complies with the discharge criteria  "Does not come into contact with any soil or exposed surfaces before discharging does not mix with any sediment laden/untested water at either the inlet or outlet.  "Water must never be discharged or reused onsite in a manner that exceeds the capacity of sediment controls and/or generates runoff with the potential to discharge from site.	Establishment	MPX / Excavation Subcontractor
Abstraction of groundwater for construction purposes	A Licence to Take Water is to be obtained from Department of Water before abstraction of groundwater can commence for use in dust suppression and other construction activities. A Dewatering Management Plan may be required to be prepared by an appropriately qualified external consultant and attached to this EMP.  A groundwater abstraction licence is to be obtained for all projects before dewatering can commence.  Exemption from a dewatering licence is only available if:  Abstraction is from the water table aquifer  Abstraction is solely for the purpose of removing groundwater to facilitate construction  Abstraction pump rate does not exceed 10L/sec over a period of 30 consecutive days  The volume of water taken over the 30 days period does not exceed 25,000kL.	Establishment	MPX / Excavation Subcontractor
Acid Sulfate Soil	All excavation with potential to expose Acid Sulfate Soils (ASS) to be determined prior to commencement and an ASS Management Plan is to be prepared to be prepared by an appropriately qualified	Establishment / Construction	MPX / Excavation Subcontractor
	external consultant and attached to this EMP.		

Parameter	Action	Timing	Responsibility
Trade Waste	Installation of a 3 x 1m3 settlement system for wet-trade washout to be completed	Establishment	Hydraulic Subcontractor
Tool box meeting	All construction personnel undertaking discharge of water to on-site or off-site areas to undergo a tool box meeting to ensure the correct controls are in place.	Establishment	MPX / Subcontractor
Static Concrete Pumping	A designated washout area and purpose built bunded structure to be provided for concrete pumps and their attachments.	Establishment	Concrete Subcontractor
Mobile Concrete Pumping	An impervious catch tray to be placed below the pump's hopper to contain any possible spillage or droppings. Concrete washout to be undertaken in designated concrete washout area.	Construction	Concrete Subcontractor
Concrete Truck Washout	Concrete trucks are not allowed to wash out on site.	Construction	Concrete Subcontractor
Spills	All spills on site of hazardous chemicals to be cleaned up immediately to minimise pollution of stormwater/groundwater. If water contaminated by hazardous chemicals requires discharge it will need to be sampled and analysed before release to ensure it meets ANZECC water quality criteria for Aquatic Ecosystems. If contaminated, it will need to be removed and treated by an appropriately licence waste contractor.	Construction	MPX / Subcontractor
Chemical Storage	Paint, form oil, solvents and fuels to be stored correctly and bunded in accordance with Chemical Management Sub-plan.	Construction	All Subcontractors
Paint Washout	The painting subcontractor is required to wash out into purpose built tanks that are to be removed by the painting contractor through a licensed liquid waste facility with an arrangement to attain verifiable proof of disposal.	Construction	Painting Subcontractor

# 15.3.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Dewatering process and water quality results	Daily (while dewatering) or as specified in the management plan	Supervisor / Onsite WHS&E Coordinator	Environmental site inspection Water Discharge permit
Monitor abstraction of ground water to ensure compliance with licence	Weekly or as per licence requirements	Supervisor / Onsite WHS&E Coordinator	Environmental site inspection Abstraction records
Trade waste and washouts	Weekly	Supervisor / Onsite WHS&E Coordinator	Environmental site inspection

# 15.4 Erosion and Sediment Control Management Sub-Plan

#### 15.4.1 Objectives and Targets

Objective	Target	Key Performance Indicator
Prevent clay, silt or sand from entering stormwater drains and waterways.	All disturbed stormwater to pass through primary erosion and sediment controls listed below.	Environmental Inspection records of no uncontrolled release of disturbed stormwater to drains and waterways.

#### 15.4.2 Management Strategies

Parameter	Action	Timing	Responsibility
Erosion and Sediment Control Plan	For sites with a soil disturbance less than 2,500m² and with slopes <10%, an Erosion and Sediment Control Plan is to be prepared in accordance with MPX minimum requirements.  For sites with a soil disturbance greater than 2,500m² or on a site with a slope of >10%, an Erosion and Sediment Control Plan is to be prepared by a Certified Practitioner in erosion and sediment control. The plan is to be attached as an Appendix to the Construction Environmental Management Plan.	Establishment	Multiplex
Minimum Requirements for sites <2500m2 and less <10% slopes	<ul> <li>Evaluate site limitations:         <ul> <li>Isolate retained vegetation from clearing with tape</li> <li>Identify highly erodible soils with advice from geotech</li> <li>Identify up-slope drainage catchments to be diverted around works</li> <li>Identify work areas to allow for erosion and sediment controls.</li> </ul> </li> <li>Stabilise all site entry / exit points in accordance with MPX minimum requirements. Inspect all vehicles for residual mud and remove before leaving the site. Street sweeping (never hosing down) is to be carried out to reduce sediment on roads.</li> <li>Install sediment fence(s) down-slope of the site. Treat sediment laden water with the use of sediment fencing installed in accordance with MPX minimum requirements to allow ponding.</li> <li>The runoff from any slope catchment area exceeding 1,500m² is to be diverted around works. The diversion drain is to be appropriately lined to prevent erosion and discharged to lawful stormwater connection outlet.</li> <li>Clear only those areas necessary for building works to occur.</li> <li>Strip and stockpile any weed-free topsoil to be reused in revegetation works. Ensure the top soil stockpile is long and low to maintain aeration and microbiological properties and ensure it is stabilised to prevent erosion.</li> <li>All stockpiles are to be located away from drainage areas and surrounded with sediment fence or covered with a product that will prevent erosion if in an area where it has the potential to enter the stormwater system. All stockpiles stored for longer than 2 weeks are to be covered to prevent erosion.</li> <li>Prevent erosion by mulching areas that have achieved final levels but are not ready for landscape works immediately. For completed areas ensure appropriate top soil is available and establish grass cover within 10 days.</li> <li>Commence building activities.</li> <li>Ensure all runoff from concreted and roof areas is immedi</li></ul>	Establishment / Construction / Completion	Multiplex

Parameter	Action	Timing	Responsibility
	» Remove any remaining temporary drainage, erosion and sediment control measures upon complete stabilisation of the site.		

# 15.4.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Inspect erosion and sediment controls are	Fortnightly or after a shower / rain event.	Multiplex/Subcontrac tor	» Environmental Site Inspection
effective and maintained			» Erosion and Sediment Control Plan

# 15.5 Chemicals Management Sub-Plan

#### 15.5.1 Objectives and Targets

Objective	Target	Key Performance Indicator
Avoid contamination of soil and water from chemicals.	No release of chemicals/pollutants as listed under the Environmental Protection (Unauthorised Discharges) Regulations 2004, into the environment during construction.	No instances of uncontrolled spills.

#### 15.5.2 Management Strategies

Parameter	Action	Timing	Responsibility
Hazardous Chemicals	Safety data sheets which outline the procedures for handling, storage and emergency response for all hazardous chemicals stored or used on the Project, to be available in the first aid facility.	Establishment	MPX
Spill Kits	Spill kits are to be established at locations adjacent to where chemical spills have the potential to occur. The spill kits are to be maintained and readily available in the event of a spill.	Establishment	MPX / All Subcontractors
Toolbox Talks	Toolbox talks will be undertaken in the use of spill kits and the steps taken in the event a spill.	Construction	MPX / All subcontractors
Tank and Mobile Tankers	Tank and mobile tankers to be fitted with a screw fitting or overflow protection connected to prevent leaks.	Construction	All subcontractors
Bunds	Bunds capable of storing 110% of the largest container volume to be installed around areas where chemicals are stored. The bund is to be impervious, chemically resistant and fire resistant. Further, the bund is to be protected from weather to avoid the potential of rain reducing the bund capacity.  Must be compliant with AS 1940 -2017- The Storage and handling of flammable and combustible liquid	Construction	All subcontractors
Labelling of Chemicals	All chemicals and dangerous goods used on site to be appropriately labelled.	Construction	All subcontractors
Fuel Tankers	Fuel tankers to be equipped with an appropriate device to prevent overfilling. An emergency shut off valve is also to be installed.	Construction	All subcontractors
Handling of Chemicals	Handling of chemicals is to take place in a designated area where there is no potential for spills or contaminated run-off that could to reach stormwater.  Fuel stored on vehicles is to be stored in a spill tray or other approved container capable of handling a spill.	Construction	All subcontractors
Fuelling of Vehicles or Construction Plant	Refuelling is to take place in designated areas or where contaminated run-off could reach the stormwater.  Fuel tankers will use a spill tray beneath the refuelling connection to prevent spills on ground.	Construction	All subcontractors
Fluid Leaks	Trucks that leak any sort of mechanical fluid will not be permitted on or adjacent to the site.	Construction	All subcontractors
Oil Contaminated Stormwater	Oil contaminated water is to be disposed of through a licensed waste facility by a licensed subcontractor.	Construction	All subcontractors
Minor Spills (<100L)	In the event of a spill, the spill kit is to be utilised and the cleaned up material taken to a licensed facility as trackable waste and reported.	Construction	All subcontractors

Parameter	Action	Timing	Responsibility
Major Spills (>100L)	In the event of a major spill, the procedures contained in the Emergency Management Plan are to be implemented and reported.	Construction	All subcontractors
Volume of Fuel and Chemicals	Volumes of fuels and chemicals kept on site are to include only those volumes necessary to complete the works within a reasonable delivery schedule.	Construction	All subcontractors
Solvent Based Paints	Containers of solvent based paints are to be disposed of at an appropriate recycling depot by the subcontractor and a verifiable receipt or docket retained on file by the subcontractor and produced upon request to Site Management.	Construction	All subcontractors

# 15.5.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Check all bunds are the appropriate size and they are functioning.	Fortnightly	Subcontractors / MPX	Environmental site inspection
Check all chemicals are labelled, stored in a container in good condition and in a bunded area.	Fortnightly	Subcontractors / MPX	Environmental site inspection
Check equipment is free from leaks.	Fortnightly	Subcontractors / MPX	Environmental site inspection
Check the spill kit is available and adequately stocked.	Fortnightly	Subcontractors / MPX	Environmental site inspection

# 15.6 Land Contamination Management Sub-Plan

#### 15.6.1 Objectives and Targets

Objective	Target	Key Performance Indicator
To manage contamination in accordance with regulatory requirements.	No spread of contaminants onsite	No Environmental Notices issued to MPX. Waste disposal receipts (where applicable)

#### 15.6.2 Management Strategies

Parameter	Action	Timing	Responsibility
Induction	During inductions all personnel are to be made aware of individual responsibilities in regards to contamination management.	Establishment	All subcontractors
Contamination Investigation	Where a site is to have known contamination, and has not been remediated, a qualified environmental consultant/professional is to be engaged to determine whether a Contaminated Site Investigation is required. Where required, a Contaminated Site Investigation is to be carried out in accordance with State and Local Government requirements.	Establishment	MPX
Management of Contamination	Where contamination is found and requires additional management measures to that found in this EMP, a Remedial Action Plan is to be developed and attached to this EMP as an Appendix.	Establishment	MPX
Contaminated Water	Where contaminated water is proposed to be discharged a full site contamination analysis is to be undertaken on the water prior to works commencing and prior to discharge.  Where water is found to be contaminant free in accordance with the ANZECC Water Quality Guidelines, water is to be discharged in accordance with the Water Quality Management Sub Plan.  Where water is found to contain contaminates above the criteria in the ANZECC Water Quality Guidelines, water management is be undertaken with advice from a qualified environmental consultant/professional.	Establishment	MPX / Excavation Subcontractor
Acid Sulfate Soils (ASS)	Where a project is in a known ASS risk area and involves excavation, dewatering, or compacting saturated soils or sediments then an ASS Investigation is required.  The ASS Investigation and further management are to be undertaken with State and Local Government requirements.  Any ASS Management Plan to be prepared by a qualified environmental consultant/professional and is required to be attached to this EMP as an Appendix.	Establishment	MPX / Excavation Subcontractor

Parameter	Action	Timing	Responsibility
Commissioning and decommissioning and removal of UPSS	SAFEWORK NSW is responsible for the WHS issues relating to decommissioning and removal of tanks from a site. The following SafeWork NSW requirements must be met during decommissioning: the tank and contents made safe in line with Code of Practice: Storage and handling of dangerous goods & AS 1940: 2017 The storage and handling of flammable and combustible liquids SafeWork NSW to be notified of the abandonment within seven days, so the tank can be removed from their database. SafeWork licensed demolition contractors are authorised to carry out decommissioning, abandonment or removal of UPSS that have contained flammable or combustible liquids. Contractors with a restricted demolition licence are not authorised to do demolition of chemical installations unless they have made an application for an upgraded restricted demolition licence that authorises demolition of chemical installations PCBU's should ask for written confirmation that the work will be completed by a SafeWork NSW licensed demolition contractor who is not restricted for demolition of chemical installations.  Installation/Commissioning of storage tanks; The tank must be installed and commissioned in line with POEO- UPSS Regs 2014 & AS 4897 The design, installation and operation of UPSS.	Excavation	Excavation Contractor /Demolition Contractor
Excavated Materials	All excavated materials removed from the site is to be removed in accordance with the approved plan for the management of contamination and disposed of at a facility licensed to take that level of contamination.	Excavation	Excavation Subcontractor
Waste Transport Certificate	A Waste Transport Certificate for all contaminated material is required from the responsible contractor.	Excavation	Excavation Subcontractor
Unexpected Contamination	If unexpected contaminants are identified, all associated activities are to be ceased and a reassessment of the area/contaminants undertaken by a qualified environmental consultant/professional. Contamination is to be managed as per State and Local Government requirements.  Refer to WHS Handbook Rev 3 – Flow Chart Unexpected Find Protocol	Excavation	MPX / Subcontractor

#### 15.6.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Contamination Assessment	Commencement	MPX	Site contamination report / Acid Sulfate Soil Report
Management of Contaminated Material	Construction	MPX	Environmental site inspection Water quality records Remediation Report

# 15.7 Waste Minimisation and Management Sub Plan

#### 15.7.1 Objectives and Targets

Objective	Target	Key Performance Indicator
Solid and liquid waste to be disposed of as per Regulatory requirements.	All waste to be disposed of by a licensed waste contractor	Onsite waste disposal facilities confirmed and documented.
MPX aim to maximise landfill diversion.	Recycle 80% of demolition and construction waste.	Waste reporting by waste contractors.
No waste to affect nearby premises.	No complaints related to construction waste affecting nearby premises during construction.	No. of complaints relating to waste.

#### 15.7.2 Management Strategies

Parameter	Action	Timing	Responsibility
Induction	During inductions all personnel are to be made aware of individual responsibilities in regards to waste management, including the understanding that all personal rubbish and construction rubbish generated is to be properly disposed of in designated disposal facilities.	Establishment	All subcontractors
Waste Reduction	Design in waste minimisation during the design phases by standard sizing of materials, the use of modular and prefabricated construction techniques.  Stockpile clean fill during the excavation phase by for use as backfill on-site  Provide sub-contractors during the construction phase with clear guidance for reducing packaging on their own materials by both their suppliers and subcontractors, by accurate ordering and handling of materials.  Specify reusable, stackable and returnable packaging.	Establishment / Construction	MPX, Consultants and Subcontractors
Waste Management Plan	Demolition and excavation subcontractors will be required to develop a Waste Management Plan for their Scope of Work detailing the type of waste generated, waste avoidance / reduction / reuse / recycling strategies.	Establishment	Demolition and Excavation Subcontractors
Waste disposal Storage area	Appropriate waste disposal facilities (e.g. bins) shall be provided in strategic locations onsite.  Waste bins shall be located such that they do not affect the community and not close to surrounding premises.  Separation of waste for recycling will be enforced and monitored.	Establishment / Construction	MPX
	Waste disposal facilities shall be regularly collected or emptied by a licensed waste collector in accordance with Local Council Health Laws.	Construction	MPX
	Where possible a storage area allocated for the separation, collection and recycling of wastes will be established.	Establishment	MPX
Waste contractors	Licensed contractors shall be engaged to remove construction waste. A minimum target of 80% landfill waste diversion will be achieved.	Establishment	MPX
Putrescibles waste (Organic waste)	All putrescibles waste to be placed in a lidded bin and removed separately.	Establishment	MPX
Recycling / waste reduction	Recycling initiatives will be investigated and where practicable implemented onsite. This may include dedicated bins for different waste streams and use of alternative products.	Establishment / Construction	MPX / All subcontractors

Parameter	Action	Timing	Responsibility
Site office	The site office shall implement the following office waste minimisation techniques:  » Organising recycling paper bins in the office for waste paper  » Recycle toner cartridges pick-ups  » Using electronic storage to reduce use of paper  » Purchasing products in bulk to reduce packaging	Establishment	MPX
Hazardous waste	Hazardous waste will be managed and disposed of as per the Safety Data Sheet requirements and Environmental Protection (Controlled Waste) Regulations 2004.	Construction	MPX / All subcontractors
Servicing	Where practicable plant will be serviced offsite to reduce the generation of hydrocarbon waste onsite and potential for spills.	Construction	All Subcontractors

#### 15.7.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Percentage of diversion from landfill	Monthly	MPX	Monthly Waste Report
Segregated waste and appropriate waste placement	Weekly	MPX	Environmental Site Inspection

#### 15.7.4 Demolition and Excavation Phase Waste Management Plan

MATERIALS ONSITE	REUSE AI	ND RECYCLING	DISPOSAL
ONSITE		OFF-SITE	
Type of Materials	Specify methods	Specify contractor and recycling outlet	Disposal
DEMOLITION			
Masonry, brick & tile	General waste bin	Transfer for reprocess or recycle - Demolition subcontractor	Divert from Landfill
Timber	General waste bin	Transfer for reprocess or recycle - Demolition subcontractor	Divert from Landfill
Metal	General waste bin / dedicated steel scrap bin	Transfer for reprocess or recycle - Demolition subcontractor	Divert from Landfill
Mixed waste	General waste bin	Transfer for reprocess or recycle - Demolition subcontractor	80% Recycling
Asbestos	As per standards	Transfer & disposal at hazardous landfill - Demolition subcontractor	Hazardous Landfill
Bitumen	General waste bin	Transfer for reprocess or recycle - Demolition subcontractor	Divert from Landfill
	prior to commencement shall on oved in separate trucks for rec	develop a Waste Management Plan cycling, re-use and landfill.	for the Project. Material shall be
EXCAVATION			
Clean Fill	Assess, excavate & stockpile	Transport & fill	Nil
Any hazardous waste will be isolated and managed as per the legislation for hazardous waste. 100% of the clean excavation material will be diverted from landfill.			

#### 15.7.5 Construction Phase Waste Management Plan

MATERIALS ONSITE	REUSE AN	ID RECYCLING	DISPOSAL
ON	NSITE	OFF	-SITE
Type of Materials	Specify methods	Specify contractor and recycling outlet	Disposal
Concrete	General waste bin.	Transfer for reprocess or recycle - Waste contractor	Divert from Landfill
Masonry, Brick& Tile	General waste bin	Transfer for reprocess or recycle - Waste contractor	Divert from Landfill
Timber	General waste bin	Transfer for reprocess or recycle - Waste contractor	Divert from Landfill
Metal	General waste bin	Transfer for reprocess or recycle - Waste contractor	Divert from Landfill
Plasterboard	Separate in designated bin	Transfer for reprocess or recycle - Waste contractor & plasterboard recycler	Divert from Landfill
Cardboard	Separate in designated bin	Transfer for reprocess or recycle - Contractor to be confirmed	Divert from Landfill
Mixed waste	General waste bin	Transfer for reprocess or recycle - Waste contractor	80% Recycling
Paper	Separate in designated bin	Transfer for reprocess or recycle - Waste contractor	Divert from Landfill
Packaging	Separate in designated bin	Transfer for reprocess or recycle - Waste contractor	Divert from Landfill

Waste will be minimised through reduction of waste generated, reuse of products and recycling. The waste stream will be separated where possible to maximise landfill diversion. Subcontractors will be responsible for recycling and reuse of their waste material.

# 15.8 Heritage Management Sub-Plan

#### 15.8.1 Objectives and Targets

Objective	Target	Key Performance Indicator
Comply with the requirements of the Aboriginal Heritage Act 1972.	Protection of all sites of Aboriginal Heritage significance, both known and as yet unknown.	Immediate reporting of archaeological remains if discovered. Level of disturbance to significance sites recorded.
Minimise impacts on unknown Cultural and Aboriginal Heritage sites.	As above.	As above.

#### 15.8.2 Management Strategies

Parameter	Action	Timing	Responsibility
Induction	Aboriginal Heritage protection related material will be included in workforce inductions.	Establishment	MPX / All subcontractors
General	Operations generating vibration and dust will be managed as per the relevant sections of this Plan.	Construction	MPX
Earthworks	Excavations are to be monitored as required by the ethnographic consultant.	Construction	The Client (as required, when applicable)
Object discovery	Objects found during excavation works will be salvaged and managed according to advice from archaeologists.  Location and nature of objects will be reported to the local heritage office, local Department of Indigenous Affairs (DIA) etc.	Early Works	MPX
Skeletal remains	If suspected skeletal remains found – works will cease immediately until all clear is given by Police, DIA and archaeologists.	Construction	MPX
	Suspected skeletal remains will be immediately reported to Police Service, local DIA office.  If remains are found to be of an Aboriginal Heritage matter and not a police matter, they will be left in situ until a decision is made at an on-site meeting about how to proceed in respect to the remains.	Construction	The Client

#### 15.8.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Report findings to Client and relevant authorities	As required	MPX	Environmental Incident Report
Presence of official monitors during earth works (as required)	As required	MPX	Environmental Incident Report Attendance Records

# 15.9 Flora and Fauna Management Sub-Plan

#### 15.9.1 Objectives and Targets

Objective	Target	Key Performance Indicator
To reduce the impact of construction on native flora and fauna.	No damage / injury to preserved flora and fauna.	Weekly Environmental Inspection

#### 15.9.2 Management Strategies

Parameter	Action	Timing	Responsibility
Induction	<ul> <li>Undertake a site induction addressing the management of flora and fauna including:</li> <li>» No employee on the Project will intentionally injure native fauna including reptiles.</li> <li>» Construction personnel are not to handle fauna.</li> <li>» All rubbish and food scraps must be placed in lidded bins that will be serviced regularly.</li> <li>» Native fauna are not to be fed by project employees.</li> </ul>	Establishment	MPX/ All subcontractors
Fencing and bunting	Fencing/bunting and signage is to be installed to protect vegetation identified for retention within the works area.	Establishment	MPX
Vegetation Clearing	A clearing permit must be obtained and approved from the relevant authority prior to any clearing works undertaken.  Vegetation removal is to be minimised wherever possible by clearly defining designated work areas.  Designated exclusion zones (i.e. retained vegetation) are to be made secure with fencing/bunting and signage.	Construction	MPX / clearing subcontractor
Arborist	All works carried out on either foliage or root systems will be carried out as per the Australian Standard 4970-2009 Protection of Trees on Development Sites and will be undertaken in consultation with a qualified Arborist.	Construction	MPX / Clearing subcontractor
Excavation	All trenches / excavations are to be inspected each morning by the excavation subcontractor.  Where flora and fauna are discovered, personnel are to cease work in the subject area and notify the WHS&E Manager/Coordinator / MPX Supervisor / or appointed Catcher.	Construction	MPX / Excavation subcontractor
Unidentified Flora or Fauna	If any previously unidentified flora or fauna is discovered on- site, personnel are required to notify the Site Manager.	Construction	All subcontractors
Active Nests of Native Birds	Any trees or shrubs to be removed from the site are to be checked for the presence of active nests of native birds (i.e. those containing fertile eggs or nestlings) and arboreal mammals (e.g. possums) prior to removal or relocation by a Qualified Wildlife Spotter / Catcher.	Construction	All subcontractors
Rehabilitation	Monitor disturbed areas for weed invasion, and undertake control measures as necessary.  Regularly water, weed and fertilise rehabilitated areas to ensure their success.	Construction	MPX / Landscape subcontractor

Parameter	Action	Timing	Responsibility
Weed Management	All declared weeds within the site are to be removed in accordance with the below procedures:  "The use of pesticides and herbicides is to be restricted, have specific application, storage and clean up procedures, and meet requirements of relevant agencies.  "Herbicides are to be administered by contractors licensed in accordance with the provisions of State Legislation.  "Chemical products must always be used as per Safety Data Sheets.  "Only qualified personnel should undertake chemical control of weeds.  "Correct disposal of weeds is to be undertaken ensuring accidental spread of weeds does not occur. Weeds or material containing weed matter must be transported to a landfill under covered load. The cover must seal the top and sides of the load to prevent any weed material being transported by wind.	Construction	MPX / Landscape subcontractor

#### 15.9.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Protected tress	As per the DA	MPX	Environmental site inspection
Clearing Monitoring	Daily during clearing works	MPX / clearing subcontractor	Clearing permit
Rehabilitation Areas	As per the DA	MPX	Environmental site inspection

# 15.10 Site Office Environmental Management Sub-Plan

#### 15.10.1 Objectives and Targets

Objective	Target	Key Performance Indicator
Maximise the efficient use of resources within the office environment.	Recycle 100% office paper	Monthly Recycling Reports
	Recycle 100% of materials where available	Monthly Recycling Reports

#### 15.10.2 Management Strategies

Parameter	Action	Timing	Responsibility
Use of Resources	Recycle office paper and cardboard cans, bottles and printer cartridges.	Commencement to completion	MPX
Use of Energy	Turn off electrical equipment where practicable and use energy efficient products.	Establishment to completion	MPX
Use of Resources	Use office paper with recycled content.	Commencement to completion	MPX
Double Sided Printing	Use double sided printing on photocopiers where possible.	Commencement to completion	MPX

#### 15.10.3 Monitoring and Reporting

Type of Monitoring / Reporting	Timing	Responsibility	Record
Percentage of diversion from landfill	Monthly	Waste Contractor	Monthly recycling report.

#### 16. Appendices

#### 16.1 Appendix 1: Environmental Policy

# **MULTIPLEX**

# HEALTH, SAFETY, ENVIRONMENTAL AND QUALITY POLICY STATEMENT

This Policy applies to all employees, contractors, and other people at workplaces managed by Multiplex.

#### OUR COMMITMENT

Multiplex and its senior management are committed to:

- Protecting the health, safety and wellbeing of everyone within our workplaces including employees, contractors, visitors, public, neighbours and the community.
- Ensuring that our activities place minimal impact on the environment including pollution.
- Delivering projects that add economic, social and environmental value to our clients, our community and those who invest in us.

#### OUR STRATEGIES

Multiplex works collaboratively with key stakeholders, including our clients, regulators, industry peers, suppliers and contractors, to exceed our legal, contractual and other compliance obligations through the following key strategies:

- Managing risks and opportunities through early intervention in planning and design.
- Monitoring constantly the changing landscape over the project lifecycle and develop rigorous controls in response.
- Creating an outlook and culture in which our commitments are front of mind and part of everyday business.
- Valuing the competency (skills, knowledge and experience) of all persons to perform and find better ways of doing the work.
- Providing employees and other stakeholders the opportunity and expectation to acquire the appropriate competency to enable them to carry out their work safely without risk to themselves, fellow workers and the public.
- Focusing on open conversations between our employees, our clients and the people we work with not just paperwork.
- Creating a culture that encourages the reporting of incidents and occurrences to enable knowledge sharing, learning and information to facilitate improvements in performance.
- Promoting strategies that are driven and embedded by senior management who encourage ownership and continuous improvement in behaviours, practices and outcomes by all persons.
- Aligning our behaviour to our values with an emphasis on teamwork and recognition for innovation and initiative.

John Flecker

CEO – Multiplex Australia & India

October 2019

#### Built to outperform.

# 16.2 Appendix 2: EMS Forms and Guides

Category	Forms	Guides
Planning	» Environmental Subcontractor Documentation Status Chart	» Schedule of Environmental Legislation and Other Requirements NSW
Communication and Consultation		» Environmental Fact Sheets
Incident and Emergency Management	» Incident Investigation Report	
Induction and Training	<ul><li>» Induction Training Handout</li><li>» Project Induction and Declaration</li></ul>	
Hazardous Chemicals Wash Box		» ChemAlert
Inspection and Monitoring	» Environmental Site Inspection	
Subcontractor Management	<ul> <li>» Environmental Management Plan Review Checklist</li> <li>» Environmental Safe Work Method Statement Review Checklist</li> </ul>	» Subcontractor Environmental Management Plan Template
Audits	» Environmental Internal Audit Checklist	

Note: Reference should be made to the Multiplex Operating System Document and Forms library to obtain the current versions of the documents above.



16.3 Appendix 3: Construction Traffic Management Plan



16.4 Appendix 4: Construction Noise and Vibration Management Plan



16.5 Appendix 5: Environment and Waste Management Plan



16.6 Appendix 6: Construction Soil and Water Management Plan

16.7 Appendix 7: Consent Conditions



16.8 Appendix 8: Environmental Control Plan