ERTECH HOLDINGS

WORKPLACE HEALTH, SAFETY & ENVIRONMENT MANAGEMENT PLAN

FOR

WHYTE'S GULLY STAGE 2 AND 3 CONSTRUCTION

PROJECT NUMBER 13853

DOCUMENT REVISION SUMMARY

Rev. No.	Rev. Date	Section Revised	Revision Description	Prepared By	Checked By	Approved By
A	04.02.2016	Whole Document	Initial Issue	SC	NOC	
B	07.04.2016	F2; F15	2016 WAS KPI's revised; Task & Workplace Inspections added	NOC	SC	NOC
C	15.04.2015	Whole Document	Updated template onto approved Master Word Document Template. Updated page numbers. Reference added for construction work over and near water.	SC	NOC	NOC
D	22.04.2016		Alignment with WHS requirements	RA	NOC	NOC
		1.3; 3.3; 4.22; 7.5	Inclusion of: cease work provisions; union right of entry; workplace facilities; HSE issue resolution.	RA	SC	NOC
E	04.05.2016	Appendix D	Inclusion of glossary of terms	NOC	NOC	NOC
		Appendix E	Inclusion of RMS mapping sheet.	RA	JW	NOC
F	11.05.2016	Appendix F-L	Re-Formatted	NOC	TL	NOC
		Sec. 15.2, 15.3	Detail on Workplace and Task Inspections added.	SC	NOC	NOC
G	19.05.16	Sec 1.3	Project Rules added	SC	NOC	AC

PROJECT REVISION SUMMARY

Rev. No.	Rev. Date	Section Revised	Revision Description	Prepared By	Checked By	Approved By
A	15022017	Plan	First Draft	PS	JW	JW
B	06032017	Plan	Second Draft	SC	PS	JW
0	09032017	S&WMP	Include soil and water controls Response to Clients Checklist	PS	JW	JW
1	14032017	Table 2.1 CLIENT AND SITE SPECIFIC REQUIREMENTS	Included Environmental Harm Reporting	PS	NS	JW
2	14032017	NSW EPL 5862 L4 Potentially offensive odour	Included Environmental Harm Reporting	PS	NS	JW
3	22032017	Response to Client Comments	Various	PS	NS	JW
4	29032017	Response to Client Comments	12.1 Incidents 9.1 Fitness	PS	NS	JW
5	18/04/2017	H.2.5	Amended to reflect new leachate dam works		NS	
6	20/04/2017	Scope & H.2.6	Amended to reflect new leachate dam controls	PS	NS	NS
7	23/05/2017	Update Noise Receivers	Appendix G	PS	NS	NS
8	24/05/2017	Update ERSED plans	Appendix H	PS	NS	NS

CONTENTS

INTRODUCTION **8**

FOUNDATION 1: LEADERSHIP, ACCOUNTABILITY AND HEALTH & SAFETY CULTURE **9**

1.1 GENERAL OBLIGATIONS 9
1.2 AT-RISK BEHAVIOUR 9
1.3 PROJECT RULES 9
1.4 CEASE WORK PROVISION 10

FOUNDATION 2: PLANNING **10**

2.1 CLIENT AND SITE SPECIFIC REQUIREMENTS 11
2.2 CORPORATE & PROJECT WHSE TARGETS 19
2.2.1 SAFETY AND ENVIRONMENT POLICIES 19
2.2.2 KEY PERFORMANCE INDICATORS (KPI) 20
2.2.3 SAFETY KPI 20
2.2.4 ENVIRONMENT KPI 20

FOUNDATION 3: LEGAL COMPLIANCE **20**

3.2 RELEVANT LEGISLATION 22
3.3 FEDERAL SAFETY ACCREDITATION SCHEME 23
3.4 UNION RIGHT OF ENTRY (IN STATES GOVERENED BY WHS LEGISLATION) 23

FOUNDATION 4: RISK MANAGEMENT **23**

4.1 PROJECT RISK REGISTER 23
4.2 PERMITS TO WORK 23
4.3 WORKPLACE INSPECTIONS 24
4.4 SAFETY IN DESIGN 24
4.5 PROTECTION OF PUBLIC 24
4.6 HOUSEKEEPING 25
4.7 HIGH RISK ACTIVITIES 25
4.7.1 TEMPORARY WORKS 25
4.7.2 WORK AT HEIGHTS 25
4.7.3 TILT-UP CONCRETE CONSTRUCTION 26
4.7.4 POWERED MOBILE PLANT AND EQUIPMENT 26
4.7.5 CLASSIFIED PLANT 27
4.7.6 MECHANICAL HEAVY LIFTING 27
4.7.7 ELECTRICAL WORK 27
4.7.8 EXCAVATION GREATER THAN 1.5M 28
4.7.9 WORKING WITH LIVE SERVICES 29
4.7.10 WORKING WITH LIVE VEHICULAR TRAFFIC 29
4.7.11 DEMOLITION WORK 29
4.7.12 MANAGEMENT OF ASBESTOS CONTAINING MATERIAL 29
4.7.13 CONFINED SPACE 29
4.7.14 WORKING OVER OR NEAR WATER 29
4.7.15 USE OF EXPLOSIVES 30
4.7.16 EXPLOSIVE POWERED TOOLS 30
4.7.17 CONTROL OF HAZARDOUS SUBSTANCES AND DANGEROUS GOODS 30
4.8 WORKPLACE FACILITIES 30
4.9 ENVIRONMENTAL MANAGEMENT 31
4.9.1 GENERAL 31
4.9.2 CLEARING 31
4.9.3 EXCAVATION AND TRENCHING 31
4.9.4 DEWATERING 32
4.9.5 BIOSECURITY AND WEED CONTROL 32
4.9.6 ABORIGINAL HERITAGE & MONITORING 32
4.9.7 WASTE MANAGEMENT 33
4.9.8 HYDROCARBON MANAGEMENT 33
4.9.9 HAZARDOUS MATERIALS MANAGEMENT 33
4.9.10 DUST, NOISE AND VIBRATION 33

4.9.11 BUSHFIRE MANAGEMENT 33

FOUNDATION 5: SAFE WORK SYSTEMS 34

5.1 SAFE WORK METHOD STATEMENT 34
5.2 PERSONAL RISK ASSESSMENT CARD 34

FOUNDATION 6: CHANGE MANAGEMENT 34

6.1 CHANGE MANAGEMENT 34

FOUNDATION 7: COMMUNICATION, CONSULTATION AND H&S COMMITTEES 35

7.1 DAILY PRE START MEETINGS 35
7.2 TOOLBOX MEETINGS 35
7.3 SMG MEETINGS 36
7.4 WHSE NOTICE BOARDS 36
7.5 ISSUE RESOLUTION 36

FOUNDATION 8: TRAINING AND COMPETENCY 36

8.1 SITE ACCESS 38
8.2 INDUCTION BRIEFING 38

FOUNDATION 9: FITNESS, HEALTH AND HYGIENE 39

9.1 ALCOHOL AND OTHER DRUGS 39
9.2 SMOKING 39
9.3 FATIGUE MANAGEMENT 39

FOUNDATION 10: SUBCONTRACTOR AND SUPPLIER RELATIONSHIPS 39

10.1 SUBCONTRACTOR DOCUMENTATION GUIDELINES 39
10.2 SUBCONTRACTOR AND SUPPLIER MANAGEMENT 40

FOUNDATION 11: PLANT AND EQUIPMENT 41

11.1 POWERED MOBILE PLANT AND EQUIPMENT 41
11.2 ANCILLARY EQUIPMENT 41
11.3 EQUIPMENT AND TOOLS 41
11.4 COMPRESSED AIR TOOLS 41
11.5 MACHINERY GUARDING 42
11.6 NOISE EMITTING EQUIPMENT 42
11.7 FIRE PREVENTION 42
11.8 SAFETY SIGNAGE 42
11.9 PERSONAL PROTECTIVE EQUIPMENT (PPE) 42
11.10 LASER BEAMS 43
11.11 GAS CYLINDERS 43
11.12 WELDING SAFETY 43
11.13 FIRST AID 43
11.14 EQUIPMENT CALIBRATION 44

FOUNDATION 12: INCIDENT MANAGEMENT 44

12.1 INCIDENT REPORTING 44
12.2 INJURY MANAGEMENT AND RETURN TO WORK 44
12.3 GENERAL HSE REPORTING 45
12.4 HAZARD REPORTING 45

FOUNDATION 13: EMERGENCY PLANNING AND RESPONSE 45

FOUNDATION 14: DOCUMENT AND RECORDS MANAGEMENT 46

14.1 DOCUMENT CONTROL 46
14.2 RECORDS MANAGEMENT 46

FOUNDATION 15: MONITOR, REVIEW AND IMPROVEMENT 47

15.1 AUDITS 47
15.2 TASK INSPECTION 47

15.3 WORKPLACE INSPECTION 48

APPENDICES 49

A APPENDIX - WHSE PLAN ACKNOWLEDGMENT 49

B APPENDIX - WHSE IMPLEMENTATION PLAN 50

C APPENDIX - ROLES AND RESPONSIBILITIES 57

D APPENDIX - GLOSSARY OF TERMS 61

E APPENDIX - FLORA AND FAUNA SUB-PLAN 67

E.1 SCOPE 67
E.2 PROJECT COMPLIANCE REQUIREMENTS 67
E.2.1 PROJECT TARGETS 67
E.2.2 CONTROLS USED TO MANAGE FLORA AND FAUNA 68
E.2.3 MONITORING 69
E.2.4 FLORA AND FAUNA MONITORING 69
E.2.5 PLAN OF MONITORING LOCATIONS 69

F APPENDIX - AIR QUALITY SUB-PLAN 71

F.1 SCOPE 71
F.2 PROJECT COMPLIANCE REQUIREMENTS 71
F.2.1 PROJECT TARGETS 71
F.2.2 CONTROLS USED TO MANAGE AIR QUALITY 72
F.2.3 MONITORING 72
F.2.4 AIR QUALITY MONITORING 73
F.2.5 PLAN OF MONITORING LOCATIONS 73

G APPENDIX - NOISE AND VIBRATION SUB-PLAN 74

G.1 SCOPE 74
G.2 PROJECT COMPLIANCE REQUIREMENTS 74
G.2.1 PROJECT TARGETS 74
G.2.2 CONTROLS USED TO MANAGE NOISE AND VIBRATION 75
G.2.3 MONITORING 76
G.2.4 NOISE AND VIBRATION MONITORING 76
G.2.5 PLAN OF MONITORING LOCATIONS 77

H APPENDIX - WATER SOIL AND EROSION MANAGEMENT SUB-PLAN 78

H.1 SCOPE 78
H.2 PROJECT COMPLIANCE REQUIREMENTS 78
H.2.1 PROJECT TARGETS 78
H.2.2 CONTROLS USED TO MANAGE WATER SOIL AND EROSION 79
H.2.3 MONITORING 80
H.2.4 WATER SOIL AND EROSION MONITORING 80
H.2.5 PLAN OF MONITORING LOCATIONS 82

I APPENDIX - WASTE MANAGEMENT SUB-PLAN 84

I.1 SCOPE 84
I.2 PROJECT COMPLIANCE REQUIREMENTS 84
I.2.1 PROJECT TARGETS 84
I.2.2 CONTROLS USED TO MANAGE WASTE 85
I.2.3 MONITORING 86
I.2.4 WASTE MONITORING 86
I.2.5 PLAN OF MONITORING LOCATIONS 86

J APPENDIX - CULTURAL, ARCHAEOLOGICAL HERITAGE SITES SUB PLAN 87

J.1 SCOPE 87
J.2 PROJECT COMPLIANCE REQUIREMENTS 87
J.2.1 PROJECT TARGETS 87
J.2.2 CONTROLS USED TO MANAGE ABORIGINAL HERITAGE SITES 88

J.2.3 MONITORING 88
J.2.4 CULTURAL, ARCHAEOLOGICAL AND HERITAGE MONITORING 89
J.2.5 PLAN OF MONITORING LOCATIONS 89

K APPENDIX – SITE LAYOUT AND BOUNDARIES 90

LIST OF TABLES

Table 1: Client and Site Specific Requirements 11
Table 2: Weighted Average Score Key Performance Indicators 20
Table 3: Fall and Rigging Gear Testing and Tagging Frequencies 25
Table 4: Electrical Equipment Inspection and Testing Frequencies 28
Table 5: Electrical Equipment Testing and Tagging Frequencies 28
Table 6: Site Registers 46
Table 7: WHSE Plan Management Acknowledgment 49
Table 8: WHSE Implementation Plan Checklist 50
Table 9: Roles and Responsibilities 57
Table 10: Flora & Fauna Hazards and Risks 67
Table 11: Flora & Fauna Project Targets 67
Table 12: Flora & Fauna Risks 68
Table 13: Flora & Fauna Monitoring 69
Table 14: Air Quality Hazards and Risks 71
Table 15: Air Quality Project Targets 71
Table 16: Air Quality Risks 72
Table 17: Air Quality Monitoring 73
Table 18: Noise and Vibration Hazards and Risks 74
Table 19: Noise and Vibration Project Targets 75
Table 20: Noise and Vibration Risks 75
Table 21: Noise and Vibration Monitoring 76
Table 22: Water Soil and Erosion Management Hazards and Risks 78
Table 23: Water Soil and Erosion Management Project Targets 79
Table 24: Water Soil and Erosion Risks 79
Table 25: Water Soil and Erosion Monitoring 80
Table 26: Waste Management Hazards and Risks 84
Table 27: Waste Management Project Targets 84
Table 28: Waste Management Risks 85
Table 29: Waste Monitoring 86
Table 30: Cultural, Archaeological Heritage Hazards and Risks 87
Table 31: Cultural, Archaeological Heritage Project Targets 87
Table 32: Controls Used to Manage Cultural, Archaeological Heritage Risks 88
Table 33: Cultural, Archaeological Heritage Monitoring 89

INTRODUCTION

Employees and subcontractors conducting any work or activity on any Ertech site must be informed of the requirements stipulated within this WHSE management plan. Clarification is required, and discussion must be conducted during site inductions.

In this plan WHS, WHSE, HSE, WHSE, OHS and OSH are used interchangeably, as appropriate. Meanwhile the state in which the work is being conducted, and the contract in force, determine the applicable legislation (see Sec. 3.1 - Relevant Legislation).

PURPOSE

The Work Health Safety and Environmental Management System is based on a structured set of 15 Foundations. The Foundations are integrated into relevant Work Health Safety and Environmental management procedures. Each Foundation has expectations required to comply with the management system.

The purpose of this plan is to:

- Ensure that projects align with the Work Health Safety and Environmental management Foundations structure.
- Ensure site specific WHSE goals are achieved.
- Provide Managers, Supervisors, Employees and Sub-contractors with the information to enable them to safely and efficiently manage their areas of responsibility.
- Provide a reference document to highlight specific requirements of the Principal/Superintendent in regards to Work Health, Safety and the Environment.
- Identify High Risk Tasks and manage them through the use of relevant safe work procedures.
- Give an understanding, to both Ertech and the Client, of what procedures will be implemented and followed during construction to comply with the contract.

SCOPE OF WORK

The extension of the Wollongong Waste and Resource Recovery Park (WWARRP) is intended to provide for the future 40 years of landfilling for the Wollongong area, and is to be constructed in stages over a number of years. The WWARRP is an operational landfill site.

This contract is for the construction of packages 2 and 3 which form the second of a number of stages to be constructed. The scope includes:

- Demolition of slabs, roadways, pits and associated items
- Surface water management system construction
- construction of cascade diversion drain
- construction of perimeter drain
- construction of piggy-back diversion drain
- Landfill base liner construction
- Subgrade and perimeter bund construction including perimeter diversion drains
- Connection of existing leachate pipes to leachate management system
- Landfill liner construction works
- Leachate collection system
- Rain flap system
- Landfill piggy back liner construction
- Subgrade and bund construction
- Landfill gas venting system construction
- Landfill liner construction works

- Leachate collection system
- Protection material placement
- Construction of new leachate pond

FOUNDATION 1: LEADERSHIP, ACCOUNTABILITY AND HEALTH & SAFETY CULTURE

1.1 GENERAL OBLIGATIONS

Ertech management teams shall provide and maintain so far as is practicable a workplace that is safe and without risk of harm to its employees, members of the public or the environment in accordance with relevant legislation.

Employees and subcontractors shall comply with:

a) Relevant WHSE/HSE legislation, Codes of Practice and Australian Standards;

b) Company WHSE/HSE management system, WHSE/HSE policies, procedures and standards that apply from time to time; and

c) Any directions relating to WHSE/HSE given by a company management representative.

1.2 AT-RISK BEHAVIOUR

Behaviour demonstrated by any employee, subcontractor or visitor that is a serious breach of work health, safety, environmental, community or quality requirements, or repeated warnings for the same offence, will lead to dismissal from the site.

1.3 PROJECT RULES

All Ertech personnel and sub-contractors shall observe the following rules on site:

- Applicable site-specific policies and procedures will be communicated to all employees during the initial HS&E induction and any changes to existing procedures will be notified via site HS&E bulletins, Construction Notices and on-going HS&E meetings.
- Responsible persons on site must ensure that personnel who are allocated tasks are competent to complete that task.
- The Ertech 3 Commandments are to be abided by at all times.
- Alcohol or other drugs (other than prescribed by a medical doctor) shall not be allowed on work sites. Persons under the apparent influence of alcohol or other drugs, or who are found to be under the influence of drugs or alcohol shall not be permitted on the site.
- The use of mobile phones at the work location shall be minimised to those personnel approved / authorised to use them.
- Cameras are not allowed on site unless authorised by the Construction Manager.
- Firearms/offensive weapons shall not be permitted.
- Gambling, horseplay and fighting is not permitted.

- Abuse, theft or destruction of another person's property is an unlawful offence and is liable to be treated by the State Authorities as such.
- Employees and sub-contractors shall not take items, other than essentials such as tool boxes, onto the work site.
- Failure to adhere to Site HS&E Rules may result in dismissal from Site.

1.4 CEASE WORK PROVISION

All workers and Health and Safety Representatives (HSR) have the right to cease work in the instance of being exposed to immediate or imminent exposure to hazard, with a serious risk to health and safety. Work that has been ceased by workers and/or HSRs must be reported to the relevant supervisor/manager and 'suitable alternative work' must be provided, as required.

FOUNDATION 2: PLANNING

Client, partner and other key stakeholder health and safety requirements relevant to the Project shall be clearly identified and addressed. The Work Health Safety and Environmental Management Plan addresses the Project's requirements below.

A WHSEMP/HSEMP addresses the Project's risk profile has been developed and agreed in consultation with key stakeholders.

Project safety objectives and targets have been defined for the project and a schedule of internal and external health and safety audits and reviews have been developed.

2.1 CLIENT AND SITE SPECIFIC REQUIREMENTS

Table 1: Client and Site Specific Requirements

Reference	Client Expectation/Project Specific Requirements	How the Project Meets the Client's Expectations
Tender No. T16/29 - Construction of a New Landfill Cell at Wollongong Waste and Resource Recovery Park - A1 Project Specification		
NSW Environment Protection Authority EPL 5862.	Meet the requirements associated with the EPL	Keep a copy of EPL 5862 at the construction site Communicate the limit conditions that relate to ERTECH Limit Conditions L1 Pollution of Waters Qualitative (visual) inspections daily ERSED controls and diversion of stormwater Operating Conditions O3 Dust Qualitative (visual) inspections daily
4.0 SITE ESTABLISHMENT AND MAINTENANCE	The Contractor shall delineate the work area with highly visible tape and pickets and present this for approval by the Superintendent at least one day prior to site establishment. The Contractor shall have this boundary surveyed. Possession of site will not be granted until the Superintendent has reviewed and is satisfied with the preconstruction submittals and has responded to the Contractor in writing indicating acceptance of the plans.	Refer to the following sections of this plan: 4.5 PROTECTION OF PUBLIC K APPENDIX SITE LAYOUT AND BOUNDARIES
4.1 Site Induction	Attention is drawn to the requirement of the Contract Particulars for site induction to be completed as a pre-condition to Site Access.	Refer to the following sections of this plan: 8.1 SITE ACCESS 8.2 INDUCTION BRIEFING
4.7 Site Utilities	Should generating plant be required by the Contractor for the supply of electric power, such equipment shall be supplied, operated and maintained by the Contractor at its own cost. Appropriate potable water, telephone and other services are to be supplied, operated and maintained by the Contractor if needed at the Contractor's own cost.	Refer to the following sections of this plan: 4.8 WORKPLACE FACILITIES 11.2 ANCILLARY EQUIPMENT
4.8 Sanitary Accommodation	The Contractor shall provide adequate, approved temporary toilets (of the chemical closet type) for the use of workers employed on the site. Such toilets shall be kept clean, tidy and disinfected until completion of the works whereupon they shall be removed and the area reinstated on completion of the Contract.	Refer to the following sections of this plan: 4.8 WORKPLACE FACILITIES
5.1 Work Method Statements	Work Method Statements are to be prepared for key activities in accordance with the requirements of the Technical Specifications and submitted to the Superintendent for approval prior to site establishment, or such other time as agreed by the Superintendent. Work Method Statements shall include as a minimum: • Description of the Works	Refer to the following sections of this plan: 4.7 HIGH RISK ACTIVITIES 5.1 SAFE WORK METHOD STATEMENT

Reference	Client Expectation/Project Specific Requirements	How the Project Meets the Client's Expectations
	• Methods to be employed to carry out the work activity listed in the order that they will • be carried out • Materials to be incorporated into the Works • Resources to be used to complete the Works • Environmental protection and Health and Safety requirements as they relate specifically to each work activity • Training required • Responsibilities and authorities of key personnel • Monitoring of effectiveness and quality of the works • Corrective actions to be taken where control measures are out of compliance, or cause actual damage or non-complying discharges; and • Document control, review and approval process	
5.4 Responsibilities	The Contractor's responsibilities include but are not limited to the following: • Compliance with site management plans (e.g., Environmental Management Plan, Safety Management Plan) throughout the duration of the Works;	Refer to the following sections of this plan: C APPENDIX – ROLES AND RESPONSIBILITIES
9.1 Construction Environmental Management Plan	The Contractor shall prepare a detailed Construction Environmental Management Plan (CEMP) for the Works which complies with the requirements of the Construction Environmental Management Plan Framework, the Environment Protection License and Conditions of Approval.	Refer to the following sections of this plan: 4.9 ENVIRONMENTAL MANAGEMENT E APPENDIX – FLORA AND FAUNA SUB-PLAN F APPENDIX – AIR QUALITY SUB-PLAN G APPENDIX – NOISE AND VIBRATION SUB-PLAN H APPENDIX – WATER SOIL AND EROSION MANAGEMENT SUB-PLAN I APPENDIX – WATSE MANAGEMENT SUB PLAN J APPENDIX CULTURAL ARCHAEOLOGICAL HERITAGE SITES SUB-PLAN
9.2 Surface Water Management Plan	It is the responsibility of the Contractor to prepare a Surface Water Management Plan, including erosion and sedimentation control measures for the Works, and to comply with the Plan for the duration of the Works.	Refer to the following sections of this plan: 4.9.4 DEWATERING H APPENDIX – WATER SOIL AND EROSION MANAGEMENT SUB-PLAN
9.3 Wheel Contamination	If needed, to prevent waste or soil materials from wheels or undercarriage of the Contractor's or Supplier's vehicles being deposited on existing roads beyond the Site, the Contractor shall be responsible for providing a suitable truck wheel washing facility at a location approved by the Superintendent. The cost of these provisions shall be at expense to the Contractor	Refer to the following sections of this plan: E APPENDIX – FLORA AND FAUNA SUB-PLAN H APPENDIX – WATER SOIL AND EROSION MANAGEMENT SUB-PLAN

Reference	Client Expectation/Project Specific Requirements	How the Project Meets the Client's Expectations
10.0 WORKPLACE HEALTH AND SAFETY REQUIREMENTS	The Contractor shall, at all times, take all necessary precautions for the safety of their employees, and shall comply with all statutory requirements, including WorkCover directions, and with such directions as the Superintendent may serve from time to time. The Contractor shall ensure that all persons employed on the works site are issued with and wear approved personal protective equipment	Refer to the following sections of this plan: 1.3 PROJECT RULES 1.4 CEASE WORK PROVISION FOUNDATION 3: LEGAL REQUIREMENTS 8.1 SITE ACCESS 8.2 INDUCTION BRIEFING 11.9 PERSONAL PROTECTIVE EQUIPMENT (PPE)
10.1 Health and Safety Management Plan	The Contractor is responsible for preparation of a Health and Safety Management Plan to the Superintendent for review and approval prior to site establishment. Any changes to the Health and Safety final Plan shall be made only after written approval of the Superintendent. The Health and Safety Management Plan shall include: • Owner personnel; • Project Superintendent personnel; • Contractor personnel; • Visitors to the site; • Traffic Management; • First Aid Trained Personnel; and • Work method statement for construction activities. The Health and Safety Management Plan is required to clearly incorporate the following: • Designated work zones established for the site; and • The requirements of the Tender Documents. The Health and Safety Management Plan shall include a risk assessment undertaken in accordance with the Workplace Health and Safety Regulations 2011 and COP How to Manage Work Health and Safety Risks 2011. The Health and Safety Management Plan shall be in the form of a written manual and as a minimum shall cover policy, consultation, hazard control, training, instructions to employees and sub-contractors. For each section of work where the risks change substantially, a new site-specific risk assessment will be undertaken to address the risks that are particular to that site.	Refer to the following sections of this plan: 1.3 PROJECT RULES 4.1 PROJECT RISK REGISTER 4.7 HIGH RISK ACTIVITIES 4.7.10 WORKING WITH LIVE VEHICULAR TRAFFIC 5.1 SAFE WORK METHOD STATEMENT 6.1 CHANGE MANAGEMENT 8.1 SITE ACCESS 8.2 INDUCTION BRIEFING FOUNDATION 10: SUBCONTRACTOR AND SUPPLIER RELATIONSHIPS 11.13 FIRST AID FOUNDATION 13: EMERGENCY PLANNING AND RESPONSE C APPENDIX – ROLES AND RESPONSIBILITIES K APPENDIX SITE LAYOUT AND BOUNDARIES
10.2 WH&S Monitoring	The Contractor is required to establish a monitoring program to ensure compliance with the Health and Safety Management Plan. The monitoring is to be carried out on a regular basis and must include a written report by the Contractor prepared on a weekly basis and submitted to the Superintendent. The report should as a minimum contain: • reports of incidents/accidents including any near misses;	Refer to the following sections of this plan: 12.1 INCIDENT REPORTING 12.3 GENERAL HSE REPORTING FOUNDATION 15: MONITOR, REVIEW AND IMPROVEMENT

Reference	Client Expectation/Project Specific Requirements	How the Project Meets the Client's Expectations
	• details of the monthly Health and Safety statistics; • information in regards to regulatory authority site visits, including outcomes, notices issued etc.; • a list of toolbox talks which have taken place on the project, listing the names of the Companies carrying out the toolbox talks; • details of material changes to the Health and Safety Management Plans, e.g. changes to site risk assessment, traffic management plan etc.; • details of site inspections carried out by the Foreman/Project Manager and the Safety Manager; • details of any non-conformances, copies of reports on any health and safety or environmental audits carried out on the project; and • details of any sub-contractors self-audits.	
WORKS CONTRACT FOR STAGE 2 - CONSTRUCTION OF A NEW LANDFILL CELL AT WOLLONGONG WASTE AND RESOURCE RECOVERY PARK		
5.9 PROCEDURE UPON LOSS OR DAMAGE	If loss of or damage to any part of the Works or a Stage occurs whilst the Contractor bears the risk of loss of or damage to the Works or the Stage under clause 5.1: • the Contractor must: ▪ make the Works, or the Stage, and the Site safe and secure;	Refer to the following sections of this plan: FOUNDATION 12: INCIDENT MANAGEMENT FOUNDATION 13: EMERGENCY PLANNING AND RESPONSE
7.1 CONTRACTOR TO INFORM ITSELF	(a) Without limiting clause 7.2, the Contractor warrants that it has, and it will be deemed to have, done everything that would be expected of a prudent, competent and experienced contractor in: • assessing the risks which it is assuming under the Contract; and • ensuring that the Contract Price contains allowances to protect it against any of these risks eventuating. (b) Locating Existing Services - The Contractor is appointed as the person with management and control of the workplace and is responsible for locating services, including underground essential services, and in doing so, must comply with the WorkCover Work Near Underground Assets Guideline and Safe Work Australia Code of Practice Managing Risks in Construction. (c) Before commencement of construction work, the Contractor must establish the precise locations of all underground and other existing services at the Site and in areas adjacent to the Site that may be affected by the work under the Contract, and: • obtain advice from Dial Before You Dig and the owners of the services; • engage a services locator; • examine the Site and surrounding areas for indications of services; • where any service is underground, use pot-holing (or equivalent non-destructive techniques); and • verify the location of all identified services; • mark prominently on the Site the locations of all services; and • document the locations of services on a site plan and provide a copy of the plan to each subcontractor before the subcontractor starts work on the Site.	Refer to the following sections of this plan: 4.7.9 WORKING WITH LIVE SERVICES

Reference	Client Expectation/Project Specific Requirements	How the Project Meets the Client's Expectations
	(d) Dealing with Existing Services - Existing services (such as drains, watercourses, public utilities, telecommunications and other services) obstructing the Works or if damaged in the course of the Works, must be dealt with as follows: • if the service is to be continued: repair, divert, relocate as required; • if the service is to be abandoned: cut and seal or disconnect and make safe as required. (e) Temporary Services - Unless otherwise agreed in writing, the Contractor must make all arrangements and pay all costs (including for connection and disconnection) associated with the provision of temporary services necessary to carry out and complete the Works.	
8.16 SAFETY	The Contractor must carry out the Contractor's Activities safely and so as to protect persons and property. If the Contract Administrator reasonably considers there is a risk of injury to people or damage to property arising from the Contractor's Activities, the Contract Administrator may direct the Contractor to change its manner of working or to cease working.	Refer to the following sections of this plan: 1.3 PROJECT RULES 1.4 CEASE WORK PROVISION 4.5 PROTECTION OF PUBLIC 8.1 SITE ACCESS 8.2 INDUCTION BRIEFING
8.17 WORKPLACE HEALTH, SAFETY AND REHABILITATION MANAGEMENT	Contractor's Activities: Must complies with all Statutory Requirements and other requirements of the Contract for workplace health, safety and rehabilitation management; and its subcontractors comply with the requirements referred to in this clause 8.17; keep the Contract Administrator fully informed of all workplace health, safety and rehabilitation matters arising out of, or in any way in connection with, the Contractor's activities as soon as they occur; The Contractor must in relation to site: • provide, erect and maintain suitable barricades, guards, fencing, temporary roadways and footpaths, signs and lighting; and • provide watchmen and traffic flagmen; and remove them when no longer required; • provide temporary protection for, and not interfere with or damage, any property, roadway, footpath, drain, water course, public utility and other service which is visible or the location of which can be ascertained by the Contractor from the appropriate authority or from Council • prevent nuisance or inconvenience to the public generally and to the owners, or occupiers of properties adjacent to the Site; • in performing the Contractor's Activities, comply with and satisfy and, if required by Council, provide evidence thereof from time to time with all Statutory Requirements. • submit to Council a workplace health and safety management plan for the carrying out of the Contractor's Activities identifying: ▪ potential risk of injury to workers (including sub-contractors or any other	Refer to the following sections of this plan: 1.3 PROJECT RULES 1.4 CEASE WORK PROVISION FOUNDATION 3: LEGAL COMPLIANCE 4.5 PROTECTION OF PUBLIC 4.7.1 TEMPORARY WORKS 4.7.9 WORKING WITH LIVE SERVICES 4.7.10 WORKING WITH LIVE VEHICULAR TRAFFIC FOUNDATION 5: SAFE WORK SYSTEMS FOUNDATION 8: TRAINING AND COMPETENCY 8.1 SITE ACCESS 8.2 INDUCTION BRIEFING FOUNDATION 10: SUBCONTRACTOR AND SUPPLIER MANAGEMENT FOUNDATION 11: PLANT AND EQUIPMENT FOUNDATION 12: INCIDENT MANAGEMENT FOUNDATION 13: EMENRGENCY PLANNING AND RESPONSE FOUNDATION 15 MONITOR, REVIEW AND IMPROVEMENT

Reference	Client Expectation/Project Specific Requirements	How the Project Meets the Client's Expectations
	person deemed to be a worker), any visitors to the Site and members of the public in the vicinity of the Site and establishes controls for ensuring that the risk of injury is minimised; ▪ identifies the type of equipment and standard operation procedures required to operate the equipment or to complete the Works in a safe manner; ▪ identifies safe systems of work to be implemented ▪ identifies clear guidelines for responding to workplace health and safety incidents ▪ training programs which ensure that people engaged in the Contractor's Activities are aware of the risks of personal injury and the measures taken to minimise those risks; and ▪ F identifies all measures which will be implemented in order to comply with Statutory Requirements; ▪ develop, document, implement and maintain workplace health and safety rules which conform to Statutory Requirements, and which are approved by Council. ▪ when directed by Council, attend a course conducted by Council about Council's specific workplace health and safety requirements; • Provide Council with: ▪ written history of the workplace health and safety performance over the preceding five years; and ▪ all of the Contractor's employee and training records; ▪ provide Council with evidence of training, competency and qualification for any work which is specifically covered by a Statutory Requirement prior to that work being undertaken; ▪ immediately report to Council's Representative and in writing to Council all incidents involving injury or potential injury ▪ allow Council to authorise audits to be undertaken of the Site without any prior notification being given to the Contractor and provide access to the Site and the Works to enable those audits to be undertaken and not obstruct the conduct of the audits.	
8.19 CLEANING UP	In carrying out the Contractor's Activities, the Contractor must: (a) keep the Site and the Works clean and tidy and free of refuse; and (b) as a condition precedent to Completion of the Works or a Stage, remove all rubbish, materials and Plant, Equipment and Work from the part of the Site relevant to the Works or the Stage.	Refer to the following sections of this plan: 4.6 HOUSEKEEPING 4.9.7 WASTE MANAGEMENT I APPENDIX – WASTE MANAGEMENT SUB-PLAN
8.20 THE ENVIRONMENT	The Contractor must ensure that in carrying out the Contractor's Activities: • it complies with all Statutory Requirements and other requirements of the Contract for the protection of the environment; • it complies with Council's Pesticides Notification Policy;	FOUNDATION 3: LEGAL COMPLIANCE 4.9 ENVIRONMENTAL MANAGEMENT E APPENDIX – FLORA AND FAUNA SUB-PLAN

Reference	Client Expectation/Project Specific Requirements	How the Project Meets the Client's Expectations
	• it does not pollute, contaminate or otherwise damage the environment; and • its subcontractors comply with the requirements referred to in this clause 8.20; and • make good any pollution, contamination or damage to the environment arising out of, or in any way in connection with, the Contractor's Activities, whether or not it has complied with all Statutory Requirements or other requirements of the Contract for the protection of the environment; and • indemnify the Owner for the full extent permitted by law against: • any liability to or a claim by a third party; and all fines, penalties, costs, losses or damages suffered or incurred by the Owner, arising out of or in connection with the Contractor's breach of this clause	F APPENDIX – AIR QUALITY SUB-PLAN G APPENDIX – NOISE AND VIBRATION SUB-PLAN H APPENDIX – WATER SOIL AND EROSION MANAGEMENT SUB-PLAN I APPENDIX – WATSE MANAGEMENT SUB PLAN J APPENDIX CULTURAL ARCHAEOLOGICAL HERITAGE SITES SUB-PLAN
8.22 VALUABLE OBJECTS FOUND ON SITE	Any things of value or archaeological or special interest found on or in the Site will, as between the parties, be the property of the Owner. Where such an item is found the Contractor must: • immediately notify the Contract Administrator; • protect it and not disturb it further; and • comply with any instructions of the Contract Administrator in relation to the item. The Contract Price will be increased by the extra costs reasonably incurred by the Contractor in complying with the Contract Administrator's instructions, as determined by the Contract Administrator.	J APPENDIX CULTURAL ARCHAEOLOGICAL HERITAGE SITES SUB-PLAN
8.23 Notification of Environmental Harm	Environmental Protection License 5862 Section R2 Notification of Environmental Harm If there is an incident that requires reporting under the Protection of the Environmental Operations Act 1997 147 Meaning of material harm to the environment (1) For the purposes of this Part: (a) harm to the environment is material if: (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations), and (b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment. (2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.	The contractor will inform the Clients Representative (Superintendent) of any incident that requires reporting to the NSW Environmental Protection Authority Clients Superintendent Padraic Joyce 0466 429 124
NSW EPL 5862 L4 Potentially offensive	O6.8 The licensee must not exhume any landfilled waste unless approved in writing by the EPA.	Work Method Statement and program submitted to the Client's Superintendent.

Reference	Client Expectation/Project Specific Requirements	How the Project Meets the Client's Expectations
odour L4.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.		The program will provide the time frame for the Client to notify the NSW EPA. The area exposed will be minimised whenever possible by a localised staged program Cover material should be applied in a timely manner to assist with odour control
Discovery of Contaminated Land Requirements CEMPF Table 1 CoA 19		If there is a discovery of contaminated land or acid sulphate soils the contractor will follow the requirements and control measures as detailed in the CEMPF Section 3.7 Contaminated Management Plan
A 6 Project Approval Construction Environmental Management Plan		

2.2 CORPORATE & PROJECT WHSE TARGETS

2.2.1 SAFETY AND ENVIRONMENT POLICIES

SAFETY AND HEALTH POLICY

We are committed to providing and maintaining safe work sites for employees, subcontractors and others affected by our work. We believe that all accidents are preventable**.**

To meet our commitment and belief we will:

- Ensure that everyone knows their obligations with senior managers providing visible leadership and commitment.
- Provide an OH&S system based on AS/NZS 4801 for identifying, assessing, reporting and, managing hazards and monitoring compliance.
- Comply with all applicable legislative standards, Company requirements and contractual obligations.
- Maintain a mature safety culture within our organisation.
- Empower our employees to stop a job where an unsafe condition exists.
- Ensure effective, transparent and open communication and consultation is maintained with stakeholders associated with Company activities.
- Ensure continual improvement by setting of objectives and targets which are communicated and regularly reviewed.
- Engage suppliers and subcontractors who commit to and support this policy.
- Report and thoroughly investigate all incidents and implement corrective actions to prevent reoccurrences.
- Ensure employees are assessed for their fitness for work and are protected from health hazards associated with Company operations.
- Ensure procedures and resources are in place to effectively respond to crisis and emergency situations.
- Implement systems for injury management and workplace rehabilitation.
- Implement systems and processes which allow our employees and subcontractors to perform their duties unimpaired by fatigue.
- Our motto is “No Harm in Doing it Right”, which encapsulates our commitment to eliminating harm from our workplace.

ENVIRONMENTAL POLICY

We are committed to conducting our business activities in a way that minimises environmental risks and adverse effects on the environment**.**

To meet our commitment we will:

- Ensure that everyone knows their obligations with senior managers providing visible leadership and commitment.
- Provide an Environmental Management System based on AS/NZS ISO 14001 for identifying, assessing, reporting, managing risks and monitoring compliance through internal and third party audits and inspections.
- Comply with all applicable legislative standards and contractual obligations.
- Develop an environmental awareness culture in our organisation through inductions and training.
- Ensure continual improvement of environmental performance by setting objectives and targets which are communicated and regularly reviewed.
- Engage suppliers and subcontractors who commit to and support this policy.

2.2.2 KEY PERFORMANCE INDICATORS (KPI)

The principal WHSE target for the Project Teams is to complete the project with no work health, safety or environmental incidents.

The Corporate KPIs below are measured on a monthly basis and communicate to site personnel through pre-start or toolbox meetings. These corporate KPIs are applicable to each company contract.

Table 2: Weighted Average Score Key Performance Indicators

KPI 1	KPI 2	KPI 3	KPI 4
Task Inspections	Workplace Inspections	Closing Action Items	Recordable injuries
25% weighting	25% weighting	25% weighting	25% weighting

2.2.3 SAFETY KPI

- Complete 2 Task Inspections per month for site management personnel
- Complete monthly workplace inspections (Site Supervisor(s) & Site HSE Advisor(S)
- Complete weekly toolbox meeting
- Close out corrective actions by date due

2.2.4 ENVIRONMENT KPI

- One environmental Task Inspection per quarter per eligible person.
- One environmental toolbox topic per quarter
- No spills over 15 litres

FOUNDATION 3: LEGAL COMPLIANCE

Legal and regulatory requirements relating to work health safety and environmental for the project are identified below.

A register of legal requirements relating to work health safety and environmental is maintained at a corporate level and distributed when Legal changes occur.

The operational activity program shall be regularly assessed to ensure legal and regulatory requirements relating to health and safety are being met.

Personnel on the site have access to current versions of legislation, standards and codes of practice.

3.2 RELEVANT LEGISLATION

The primary legislation for the scope of works is as follows:

New South Wales	
1.	Work Health and Safety Act 2011
2.	Work Health and Safety Regulation 2011
3.	The Workers Compensation Act 1987
4.	The Workplace Injury Management and Workers Compensation Act 1998
5.	The Workers Compensation Regulation 2010
6.	Workers Compensation (Bush Fire, Emergency and Rescue Services) Act 1987
7.	Contaminated Land Management Act 1997
8.	Dangerous Goods (Road and Rail Transport) Act 2008
9.	Environmentally Hazardous Chemicals Act 1985
10.	Forestry Act 2012
11.	National Environment Protection Council (New South Wales) Act 1995
12.	Ozone Protection Act 1989
13.	Pesticides Act 1999
14.	Protection of the Environment Administration Act 1991
15.	Protection of the Environment Operations Act 1997
16.	Radiation Control Act 1990
17.	Recreation Vehicles Act 1983
18.	Waste Avoidance and Resource Recovery Act 2001
19.	Contaminated Land Management Regulation 2013
20.	Dangerous Goods (Road and Rail Transport) Regulation 2009
21.	Environmentally Hazardous Chemicals Regulation 2008
22.	Pesticides Regulation 2009
23.	Protection of the Environment Administration Regulation 2012
24.	Protection of the Environment Operations (Clean Air) Regulation 2010
25.	Protection of the Environment Operations (General) Regulation 2009
26.	Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002
27.	Protection of the Environment Operations (Noise Control) Regulation 2008

28.	Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008
29.	Protection of the Environment Operations (Waste) Regulation 2005
30.	Radiation Control Regulation 2013
31.	National Parks and Wildlife Act 1974
32.	Environmental Planning and Assessment Act 1979

3.3 FEDERAL SAFETY ACCREDITATION SCHEME

Suppliers shall read and understand the requirements of the Office of Federal Safety Commissioners' Project Safety Audit Criteria, as relevant to the scope of its subcontract work.

Project Safety Audit Criteria can be downloaded via www.fsc.gov.au . Subcontractors shall meet the requirements of the Project Safety Audit Criteria (as relevant to scope of works) or adopt the company Standards.

3.4 UNION RIGHT OF ENTRY (IN STATES GOVERENED BY WHS LEGISLATION)

Union members only have the right of entry with a WHS entry permit, and are not able to address IR related matters. 24 hours' notice of intention to enter the workplace must be given, except where there is a suspected contravention of the Act.

FOUNDATION 4: RISK MANAGEMENT

All personnel are responsible to identify, assess and control hazards.

Systematic processes are defined and implemented for identifying health and safety risks at all stages of the Project, including the initial Risk Assessment of the Construction Methodology.

Regular inspections are conducted to monitor compliance and effectiveness of identified controls.

Relevant documents:

H-SYS-PRO-084-Manage Risks
H-SYS-GDL-013-Guide for Risk Assessment Tools and Methods.

4.1 PROJECT RISK REGISTER

Relevant personnel shall develop a project risk register using the risk and opportunities register in the bid workbook. Major subcontractors shall be required to contribute to the project risk register.

Relevant documents:

H-SYS-PRO-084-Manage Risks
H-PRJ-TPT-130-BID WORKBOOK

4.2 PERMITS TO WORK

Work permits required are specific to each project. Company pemits are required for the following high risk activities.

- Working at heights
- Confined space
- Hot works

- Isolations and commissioning
- Excavations
- Working near overhead electrical networks
- Working near underground existing services
- Working near water

Relevant documents:

H-SYS-PRO-091-Manage Permits to Work.
H-SYS-GDL-015-Guide to Managing Permits
H-SYS-FOR-098-Working at Heights Permit
H-SYS-FOR-091-Confined Space Entry Permit.
H-SYS-FOR-092-Hot Works Permit
H-SYS-FOR-093-Isolation Permit
H-SYS-FOR-097- Excavation Permit
H-SYS-FOR-099-Working Near Overhead Electrical Networks Permit
H-SYS-FOR-100-Working Near Underground Existing Services Permit

4.3 WORKPLACE INSPECTIONS

Weekly or fortnightly inspections shall be conducted on all sites. Access to subcontractor work areas by company management representatives shall be allowed to conduct workplace inspections.

Workplace inspections must include at least monthly inspections on subcontractor work areas and equipment. Subcontractors shall participate in these workplace inspections.

Relevant documents:

H-SYS-FOR-080-Workplace Inspection
H-SYS-FOR-079-Workshop Inspection

4.4 SAFETY IN DESIGN

Relevant personnel responsible for design shall provide a project risk register based on the design prior commencement of work.

Where design is provided to the site management team, the Project Manager must request a copy of the design risk assessment. Design risks must be included within the project risk register.

Relevant document:

H-PRJ-TPT-130 Bid Workbook

4.5 PROTECTION OF PUBLIC

All relevant personnel shall provide install and maintain all fences, guards, hoardings, warning notices, lighting and other things whatsoever, required by law or where directed by the Project Manager.

The Superintendent shall be notified at least one day prior to site establishment. Site boundaries shall be surveyed. The site possession will not be attained until notification in writing from the Superintendent is achieved.

The site layout and location of work areas are identified in Appendix K of this plan.

Work shall not commence, if persons in the vicinity but not on site could be injured unless:

- Works shall be delineated with high visibility tape to identify work areas
- Hoarding or barricades have been put in place to reduce the risk
- Gantry is erected to prevent injury from falling objects

- The design, erection, use and maintenance of a hoarding, barricade or gantry is adequate for the loads placed on it.
- Hoarding, barricade or gantry must not be removed or altered without permission from Principal Contractor.
- Installation of hoarding or barricades must comply with all requirements.

4.6 HOUSEKEEPING

Employees and subcontractors shall ensure work areas are kept tidy at all times. Subcontractors are responsible to remove all their wastes from sites unless stated in their contract.

4.7 HIGH RISK ACTIVITIES

All high risk activities identified by legislation shall be controlled through appropriate risk mitigation strategies. Safe work method statements are required for all high risk activities.

4.7.1 TEMPORARY WORKS

Temporary works (e.g. formwork, false work, pre-cast, shoring, back propping, temporary structures etc.) must be identified, designed and independently verified by appropriately qualified persons.

The designer must provide certification of the temporary works design that takes into account intended use, load tolerances, lifting calculations, access/egress, and installation and dismantling.

Safe systems of work are to be developed taking into consideration structural alterations that require temporary support to prevent collapse.

Relevant document:

H-SYS-PRT-016 Temporary Works

4.7.2 WORK AT HEIGHTS

Working at heights shall comply with:

- AS1657 Fixed platforms, walkways, stairways and ladders - Design, construction and installation; AS/NZS1576 Scaffolding – General Requirements;
- AS/NZS 4576 – Guidelines for Scaffolding;
- AS2550.7 Cranes - Safe use - Builders Hoists and associated equipment
- *AS/NZS 1418.10: Cranes, hoists and winches - Mobile elevating work platforms*. For Elevated Work Platforms
- AS/NZS 1891 for Fall arrest/ restraint equipment
- AS/NZS 1892. For Ladders
- AS/NZS 1576, AS/NZS 4576 for Scaffolding

Relevant documents:

H-SYS-PRT-012-Working at Height
H-SYS-FOR-098-Working at Heights Permit

Equipment shall be checked by competent personnel at interval not exceeding 3 months.

The colour coding periods are:

Table 3: Fall and Rigging Gear Testing and Tagging Frequencies

Colour	Start Month	Finish Month
Red	January	March
Green	April	June
Blue	July	September
Yellow	October	December

4.7.3 TILT-UP CONCRETE CONSTRUCTION

Design, supply, transport, erection and record-keeping of manufactured tilt-up concrete panels shall comply with current legislation and *AS3850 Tilt-up concrete construction.*

Employees and subcontractors involved in tilt up or pre cast construction shall:

Hold one pair of either:

- CPCCOHS1001A (Work safely in the construction industry)
- CPCCM1007A (Carry out tilt up work safely)

Or:

- CPCCOHS2001A (Apply OHS requirements, policies and procedures in the construction industry).
- CPCCCM2011A (Carry out tilt up work safely).

Personnel that have completed Contribute to Safe Tilt Up Construction are not required to complete new courses.

Supervisors shall have:

- CPCCBC4022A (Supervise tilt up work).

Personnel supervising tilt up work or the manufacturing process without completing CPCCBC4022A shall have completed:

- CPCCM1007A or
- CPCCM2011A or
- Contribute to Safe Tilt Up Construction

These personnel supervising shall complete CPCCBC4022A as soon as practicable.

Experienced personnel in erecting concrete elements, given the responsibility for the direction, coordination and erection of concrete work, shall hold an intermediate or advanced rigging licence.

Relevant document:

H-SYS-PRT-025-Tilt-up Precast Concrete.

4.7.4 POWERED MOBILE PLANT AND EQUIPMENT

All activities requiring the use of powered mobile plant shall have SWMS developed for the task. For information relating to plant standard refer to Foundation 11 Plant and Equipment.

Relevant document:

H-SYS-PRT-027-Mobile Plant and Vehicles
H-AST-PRO-058 Perform Plant Onsite Administration, Maintenance and Inspection
H-AST-PRO-059 Manage Plant
H-AST-FOR-032 Plant On Hire and Off Hire Inspection Form
H-AST-FOR-039 Weed Inspection and Clean Down Certificate for Mobile Plant

4.7.5 CLASSIFIED PLANT

Classified plant shall comply with the requirements of Part 4 of the Occupational Health and Safety Regulations 1996, relevant Australian Standards in AS2550 (all parts), AS1418 (all parts).

4.7.6 MECHANICAL HEAVY LIFTING

Plant designed to lift equipment or materials shall require:

- Competent personnel shall complete a lift risk assessment.
- Rigging equipment e.g. slings, chains, spreader bars and the like are to be inspected, tagged and certified for use by a competent person prior to use.
- Rated capacity limiter must be fitted to all mobile cranes and in working order determined by a competent person as witnessed by our representative.
- Only cranes or hoists are permitted to suspend a load unless an appropriate load chart is provided and lifting is within the SWL
- Safe working load limits are to be displayed on plant and attachments.
- Slings shall be inspected every 3 months by a qualified person.
- Chains shall undergo non-destructive annual testing.
- Chains and slings must be place on project registers and tagging kept in date.
- No chains or sling are to be used unless appropriately tagged.

Employees and subcontractors involved in mechanical heavy lifting shall complete a lift checklist, permits and calculations as required.

Critical lifts where one or more of the following conditions exist require a critical lift study:

- More than one crane is utilised.
- Special lifting equipment or non-standard crane configuration used.
- Gross load greater than 50 tonnes.
- Load capacity greater than 85% of chart capacity.

Relevant documents:

H-SYS-FOR-103-Critical Lift Study Checklist
H-SYS-FOR-102-Critical Lift Calculation Sheet - Dual Crane Lift
H-SYS-FOR-101-Critical Lift Calculation Sheet - Single Crane Lift
H-SYS-FOR-099-Working Near Overhead Electrical Networks Permit

4.7.7 ELECTRICAL WORK

Equipment that complies with Australian Electrical Standards *AS/NZS3000 and AS/NZS3012* shall only be permitted on site. Installations, in-service safety inspections and the testing of electrical equipment shall comply with *AS 3760 and Australian/ New Zealand Wiring Rules*.

Inspection, testing and tagging of electrical equipment is carried out as follows:

Table 4: Electrical Equipment Inspection and Testing Frequencies

Daily	Users of any electrical equipment. Daily check by all users to detect damaged leads or to report faults to competent persons.
Quarterly	All portable electrical equipment portable tools extension leads, generators, welders, fixed electrical plant and equipment, installations such as crib huts and workshops.
Yearly	Fixed and portable electrical equipment and appliances used in offices.

Tag colours shall comply with those listed below:

Table 5: Electrical Equipment Testing and Tagging Frequencies

Colour	Start Month	Finish Month
Red	Dec	Feb
Green	Mar	May
Blue	Jun	Aug
Yellow	Sep	Nov

Generators and power supply units shall have:

- Isolation points clearly identified.
- Isolation tags along with both master and individual locks provided and used for all electrical isolations.
- Approved earth leakage protection for all circuits.
- Temporary distribution boards will have appropriate signage and be fixed to the ground, lockable (for isolation purposes) and weatherproof.
- Mains boards must include a system circuit map.
- Electrical equipment shall not be used without any current test and tag.
- Testing and tagging will only be conducted by approved and qualified personnel.
- Temporary electrical leads will be secured off the ground by insulated hooks and/or lead stands.

Relevant documents:

H-SYS-PRT-023-Electrical.
H-SYS-PRT-031-Isolation and Tagging.

4.7.8 EXCAVATION GREATER THAN 1.5M

All excavation greater than 1.5m in depth, require excavation permits and SWMS. The excavation permit identifies the safe slope and benching to be adopted.

Relevant documents:

H-SYS-PRT-018 Excavation and Trenching
H-SYS-FOR-097- Excavation Permit

4.7.9 WORKING WITH LIVE SERVICES

Services shall be accurately located using the DBYD relevant services drawings and the location physically verified when within 2m of any excavation. Work permits are required for working in the vicinity of existing services. Employees and subcontractors must obtain a permit prior commencement of work.

Relevant documents:

H-SYS-FOR-100-Working Near Underground Existing Services Permit,
H-SYS-FOR-099-Working Near Overhead Electrical Networks Permit

4.7.10 WORKING WITH LIVE VEHICULAR TRAFFIC

Traffic Management Plan (consistent with *AS1742.3*) shall be developed by a competent traffic engineer for all projects involving interaction with live vehicular traffic.

Employees and subcontractors required to install or inspect traffic plans on live roads shall hold a current Basic Worksite Traffic Management Certificate, personnel controlling traffic shall be accredited Traffic Controllers.

Relevant documents:

H-PRJ-POL-038-Traffic Management Policy
H-SYS-PRT-026-Traffic.

4.7.11 DEMOLITION WORK

Demolition work shall not commence prior approval by local government and the project manager or delegate. Demolition work shall comply with AS 2601 *Demolition of structures*, legislation.

Relevant document:

H-SYS-PRT-014-Demolition.

4.7.12 MANAGEMENT OF ASBESTOS CONTAINING MATERIAL

Employees and subcontractors shall notify the site Manager or Delegate of the removal of asbestos prior commencement of work.

Management of Asbestos shall comply with the Code of Practices for the Safe Removal of Asbestos and Management and Control of Asbestos in Workplaces.

Relevant document:

H-SYS-PRT-015-Asbestos.

4.7.13 CONFINED SPACE

Prior to an employee or subcontractor entering a confined space, a permit shall be in place. Work performed in a confined space shall be in accordance with AS *2865 Confined Spaces*, OHS legislation, Management procedure.

Relevant documents:

H-SYS-PRT-017-Confined Space.
H-SYS-FOR-091-Confined Space Entry Permit.

4.7.14 WORKING OVER OR NEAR WATER

All activities requiring work to be conducted over or near water where there is a risk of drowning shall have SWMS developed for the task.

Relevant document:

H-SYS-PRT-03 Construction work In Over or Adjacent to Water

4.7.15 USE OF EXPLOSIVES

No explosives or detonating devices are permitted on the site without the written permission of the Project Manager. Use of Explosives shall comply with *AS 2187 Explosives - Storage, transport and use*

Relevant document:

H-SYS-PRT-020-Explosives.

4.7.16 EXPLOSIVE POWERED TOOLS

- Explosive power tools must be used in accordance with *AS/NZS 1873 Powder-Actuated hand-held fastening tools.*
- Hazard warning signs *(AS1319*) must be displayed.
- Only persons holding the prescribed certificate of competency must use explosive powered tools.
- All explosive charges must be kept in a locked metal box.
- Always select power tools that are the most suitable for the job giving consideration to weight, vibration and kickback.
- If equipment is hired, check correct type and weight ordered is received.
- Do not remove fitted guards or handles from the equipment; it is fitted to prevent injuries.

4.7.17 CONTROL OF HAZARDOUS SUBSTANCES AND DANGEROUS GOODS

- All employees and subcontractors shall be provided training in the safe use of hazardous substances
- Material Safety Data Sheets (MSDS) for all substances shall be kept on site at all times.
- Storage of substances shall comply with the MSDS requirements.
- Disposal of substances shall comply with the MSDS recommendations.
- A register shall be kept on site of all materials requiring an MSDS

4.8 WORKPLACE FACILITIES

The Project will ensure it provide adequate site facilities, as reasonably practicable, including:

- Safe access and egress to and from the workplace
- Clear and accessible workspaces, free from obstructions
- Adequate workplace space, ventilation and lighting
- Suitable floor surfaces
- Toilets, drinking water (potable) , and eating facilities
- Reasonable temperature

Additional workplace facilities may be required including: Accessible and secure personal storage

- Showering facilities
- Accommodation

4.9 ENVIRONMENTAL MANAGEMENT

4.9.1 GENERAL

The protection of the environment during construction works will be governed by this WHSEMP and associated procedures. The aspects addressed include land disturbance, water, flora, fauna, waste, noise, rehabilitation, indigenous and heritage protection.

Environmental controls will be documented and implemented into daily activities. These controls will be audited on the project to ensure compliance.

The Project General Site Induction will include Project specific environmental requirements. Personnel shall be trained on environmental aspects relevant to the Contract.

Employees and subcontractors shall ensure work is conducted in an environmentally responsible manner to minimise the effects on the environment and community.

Incident reporting and management is addressed in this WHSEMP.

The strategies that will be used to address environmental issues are detailed in the following sections

A copy of the Stage 1 Construction Environmental Management Plan (Whytes Gully New Landfill Cell CEMP 8/6/2016 Number 117625003_155_R_Rev 2) is lodged with the Director General of NSW Department of Planning, a copy of this plan will be kept on site as a reference for mitigation measures of the risks identified in the conditions of approval. This will be referenced in this document as CEMP and section number.

Relevant documents:
H-SYS-GDL-014-Guide to Environmental Management

4.9.2 CLEARING

Prior to undertaking any clearing the Site Supervisor shall confirm with the client that clearing areas are correctly defined.

The Site Supervisor is responsible for ensuring that all requirements are adhered to; and that the Project Engineer approves any variations from the client specific requirements and variations are recorded.

The management objective in regards to clearing is to ensure that disturbance to culturally sensitive sites, native vegetation, wildlife habitat and surface and groundwater is avoided or minimised.

4.9.3 EXCAVATION AND TRENCHING

The management objective with regard to excavation and trenching is to ensure that adverse impacts to soil and water and native fauna are minimised.

The Site Supervisor is responsible for ensuring that client specific requirements are adhered to and that proposed deviations obtain approval from the client representative prior to work commencing.

If blasting is necessary, blasting operations shall be monitored to ensure compliance with relevant State legislation and measures such as appropriate blast design, blanketing and collaring shall be employed to minimise impacts on sensitive habitats and fauna.

Trench spoil shall be stockpiled separately from stockpiled topsoil and vegetation and shall not be stockpiled where it has the potential to impede surface drainage or result in sedimentation of watercourses

Plugs and ramps shall be placed at regular intervals along the trench to allow movement of fauna and facilitate the escape of fauna that may fall into the trench. All open trenches will be inspected daily prior to work commencing. Fauna that has been accidentally trapped will be identified where possible and released.

Pipe shall be strung, allowing gaps for vehicles, stock and wildlife access across the line of pipe. Gaps shall coincide with access roads or tracks, stock and wildlife trails, boundary fences and gaps in stockpiled vegetation.

4.9.4 DEWATERING

The management objective with regard to dewatering is to ensure that water is appropriately disposed of and that adverse impacts on soil, water and native flora and fauna are minimised.

Suitable options for disposal of water generated by the de-watering process are provided below in order of preference:

- Recycling
- Recharge of local groundwater
- Reuse off site
- Irrigation
- Discharge to local surface water
- Storage of the water for evaporative disposal
- Any dewatering that is suspected or confirmed leachate impacted must be disposed of into the sites leachate system. Prior approval from Council required

4.9.5 BIOSECURITY AND WEED CONTROL

The management objectives with regard to biosecurity and weed control are to prevent the introduction of weeds and dieback, prevent the transmission of infectious diseases in crops, natural flora and fauna, livestock, quarantined pests, invasive alien species, and living modified organisms into project disturbed areas.

Where evident transmission sources are present, or suspected to be present, works shall be carried out under strict hygiene controls to prevent any further spread.

4.9.6 ABORIGINAL HERITAGE & MONITORING

The management objectives around aboriginal heritage are:

- To minimise disturbance to Aboriginal sites;
- To establish appropriate management and protective measures for Aboriginal sites;
- To ensure that the disturbance of any site is properly approved consistent with the Heritage Act, 1977 and the wishes of the appropriate Aboriginal heritage custodians and spokespeople;
- To manage relationships with Aboriginal people in the region.

The potential impacts of the Project on Aboriginal heritage sites are related primarily to direct disturbance of sites and include:

- Damaging sites during construction;
- Collecting or excavating artefacts from heritage sites;
- Damaging artefacts by off-road use of vehicles; and
- Trespassing on sites by unauthorised personnel and culturally inappropriate behaviour (including defacing artefacts or artworks).

Controls will consist of the following:

- Restricting of land clearing to approved site plans only;
- Ensuring that appropriate management and protective measures are established for Aboriginal sites if encountered;
- Providing relevant training to site personnel, ensuring that they are made aware of their obligations to report all discoveries of Aboriginal heritage sites to their supervision and the Department of Indigenous Affairs;

4.9.7 WASTE MANAGEMENT

The objective with regard to waste management is to minimise the health and environmental impacts associated with the generation and disposal of waste during construction and operational activities (i.e. disposal of oils, general waste etc.).

All waste materials generated by the project will be adequately contained and regularly removed from the site to the designated recycling and disposal facilities

4.9.8 HYDROCARBON MANAGEMENT

All hydrocarbons and hazardous materials used on-site must be must be kept in a safe isolated environment (e.g. Bunding and hazmat cupboards) consistent with AS/NZ Std 1940 – 1993 Section 5.9.3.

All hydrocarbons and chemicals (regardless of capacity and volume) must be secondarily contained. This containment must be able to contain 110% of the material stored and prevent pollution in the event of failure of the container.

Spill trays or other secondary containment must be placed under generators, welders, pumps, and other stationary engines at site.

Spill kits should be easily accessible in workshop areas, and on service vehicles. Spill rags should be kept on major machinery.

All spills must be cleaned up immediately. Contaminated soil must be transported to the closest bioremediation facility.

4.9.9 HAZARDOUS MATERIALS MANAGEMENT

No chemicals or materials that are potentially hazardous shall be brought onto site without prior approval of the project manager. A register will be maintained and have Material Safety Data Sheet available for all chemicals brought to site

All substances shall be handled, stored and used in accordance with the relevant Material Safety Data Sheet.

4.9.10 DUST, NOISE AND VIBRATION

Dust, Noise and Vibration are significant hazards to the surrounding stakeholders and general public, as well as the project workforce. As such appropriate effort will be taken to eliminate, mitigate and minimise these hazards during the project.

4.9.11 BUSHFIRE MANAGEMENT

The management objective in regards to fire prevention is to ensure that construction activities minimises the risk of bushfires and that emergency response plans are established to manage bushfires should they occur.

Open fires will be banned on the project. This will include open barbecues, bush burning and rubbish burning. Unnecessary build-up of flammable material in working areas will be avoided, with vegetation and other flammable material being stockpiled well clear of hot work areas. Where vegetation is to be stockpiled adequate provisions must be considered to ensure fire breaks are maintained. Where practical a 360° of access around mulch or stripped vegetation stockpiles should be upheld to allow for firefighting in the event of a stockpile fire.

Suitable firefighting appliances shall be ready for use at all times. All vehicles shall be equipped with a 1.5 kg Dry Powder fire extinguisher, earthmoving plant, welder trailer and towing unit shall carry a full Knapsack and hot work locations shall have mobile fire fighting equipment available.

FOUNDATION 5: SAFE WORK SYSTEMS

Activities requiring safe work systems are identified and required safe work systems are adopted or developed for the project. Access to safe work systems is established and maintained by the project manager. Safe work systems are regularly reviewed to ensure currency and employees and contractors are trained in relevant safe work systems.

5.1 SAFE WORK METHOD STATEMENT

Relevant personnel shall develop a safe work method statement (SWMS) for all high risk work. Company high risk protocols shall be used in the development of SWMS. It is the responsibility of project teams to ensure that the controls stipulated within the high risk protocols are reflected within SWMS. Guidelines for meeting the high risk protocol requirements can be found on cDMS.

All SWMS and subcontractor SWMS/JHA/SWP's must meet the minimum requirements of the SWMS checklist.

Relevant documents:

H-SYS-TPT-004-SWMS Template.
H-SYS-FOR-087-SWMS Checklist.
H-SYS-GDL-018 Guide for High Risk Protocols

5.2 PERSONAL RISK ASSESSMENT CARD

All personnel shall complete personal risk assessment cards prior commencing any task. Personnel risk assessments are to be complete for each task conducted throughout a day's work.

Relevant document:

H-SYS-FOR-086-Personal Risk Assessment

FOUNDATION 6: CHANGE MANAGEMENT

6.1 CHANGE MANAGEMENT

The company Manage Change procedure clearly demonstrates how the changes are to be managed effectively.

Changes effecting the construction phase and safety are to be reviewed, assessed, documented, controlled and communicated to field staff. A change that results in a change to the method of work must be reviewed for health safety and environmental impacts.

Relevant document:

H-SYS-PRO-019 Manage Changes

FOUNDATION 7: COMMUNICATION, CONSULTATION AND H&S COMMITTEES

This section outlines the requirements and processes for the consultation, communication and the resolution of WHSEC issues between management, employees and subcontractors and community member for all Ertech Holding workplaces.

Relevant documents:

H-SYS-PRO-087 Manage HSEC Communication and Consultation
H-BDV-PRO-035 Manage Customer Feedback

7.1 DAILY PRE START MEETINGS

Pre-start meetings shall be held prior to the start of each shift.

Discussing:

- WHSE issues
- Problems with the job or machinery (including servicing)
- Job progress
- Review SWMS / Hazard reports
- Work plan for the day

Mandatory Attendance includes all:

- Management
- Field employees
- Subcontractor personnel

Relevant documents:

H-SYS-FOR-083-Pre-Shift Meeting
H-SYS-PRO-087 Manage HSEC Communication and Consultation

7.2 TOOLBOX MEETINGS

Project Teams will ensure that WHSE toolbox meetings are held weekly and attendance shall be kept on record.

Mandatory Attendance includes all:

- Management
- Field employees
- Subcontractor personnel

Meetings shall discuss:

- Outstanding Action or items from previous meetings
- Incidents
- Safety Alerts

- Subcontractor movements
- SWMS
- New WHSE or site issues
- Hazard Trends

Relevant documents:

H-SYS-FOR-082-Toolbox Meeting
H-SYS-PRO-087 Manage HSEC Communication and Consultation

7.3 SMG MEETINGS

Establish Safety Management Groups (SMG) when sites have 30 personnel or more. Site management shall communicate the purpose of SMG Committee Meetings to the workforce to encourage expression of interest for SMG representatives. In the event of zero volunteer interest or an election decision by the workforce the site supervisor shall identify key workforce personnel to represent in SMG Committee Meetings.

SMG Meetings shall be held Bi-Monthly where required. The SMG shall be recorded and discussed with the workgroup upon completion.

Relevant documents:

H-SYS-TPT-166-SMG Template
H-SYS-PRO-087-Manage HSEC Communication and Consultation

7.4 WHSE NOTICE BOARDS

The Project Team shall supply a designated WHSE notice board to be displayed in a prominent position, typically crib room(s). The WHSE notice board shall hold relevant WHSE data, and may include:

- WHSE alerts and bulletins
- Project WHSE statistics
- Topical WHSE information
- WHSE committee meeting minutes
- Emergency communication contacts
- Details of any significant events or performance

The Site Supervisor should be responsible to ensure the notice board at that workplace contains up to date information.

7.5 ISSUE RESOLUTION

The Project Team shall ensure that in the event of HSE issues between management, employees, and subcontractors, the Issue Resolution Process is followed. HSR's must be involved in the resolution process.

Relevant documents:

H-SYS-PRO-087-Manage HSEC Communication and Consultation

FOUNDATION 8: TRAINING AND COMPETENCY

Employees and subcontractors shall:

- Hold appropriate current qualifications and competencies
- Submit copies of licenses and certificates
- Undertake site inductions
- Verification of competence
- Undertake additional training as required

Workers shall provide evidence of attending construction industry safety-related training course before starting work.

Activities identified requiring high risk work licences are only to be conducted by personnel holding a licence.

High risk work licences include:

- Dogging
- Basic, intermediate, advanced rigging
- Basic, intermediate, advanced scaffolding
- Tower cranes
- Self-erecting tower cranes
- Derrick cranes
- Portal boom cranes
- Bridge and gantry cranes
- Vehicle loading cranes (10 metre tonnes or greater lifting capacity)
- Non-slewing mobile cranes (greater than 3 tonnes lifting capacity)
- Slewing mobile cranes (up to and including 20 tonnes lifting capacity, includes CN and CV)
- Slewing mobile cranes (up to and including 60 tonnes lifting capacity, includes C2,CN and CV)
- Slewing mobile cranes (up to and including 100 tonnes lifting capacity, includes C6,C2,CN and CV)
- Slewing mobile cranes (open/over 100 tonnes lifting capacity, includes C1,C6,C2,CN and CV)
- Boom type elevating work platforms (boom length 11 metres or greater)
- Materials hoists (cantilever platform)
- Hoists (personnel and materials, includes HM)
- Concrete placing booms
- Basic, intermediate, advanced boiler operation
- Steam turbine operation
- Reciprocating steam engine operation
- Forklift truck

- Order picking for lift truck

All relevant personnel shall be trained in every aspect of work required and provide evidence of competency for each worker.

- A training and skills matrix shall be developed and populated appropriate for the project scope of works.
- Tickets and certificates of competencies will be retained within site files.
- Where training gaps exist training will be scheduled for completion.

8.1 SITE ACCESS

- Personnel visiting or working on the site shall complete relevant inductions.
- Personnel shall provide information on their experience in the construction industry.
- New and inexperienced personnel shall be paired up with an experienced employee for a length of time.

Relevant documents:

H-SYS-FOR-084-Site Induction
H-SYS-FOR-085-Workshop Induction
H-SYS-FOR-106-Visitors Induction and Sign-In Register.

8.2 INDUCTION BRIEFING

Employees and subcontractors shall attend site inductions. Signed completed induction records shall be kept on site at all times.

Outlining:

- Relevant personnel
- Emergency response information
- Site specific hazards
- Site environmental conditions
- WHSE Compliance requirements
- Site KPIs
- 3 commandments
- Equipment requirements
- Incident notification

Relevant document:

H-SYS-FOR-084-Site Induction

FOUNDATION 9: FITNESS, HEALTH AND HYGIENE

9.1 ALCOHOL AND OTHER DRUGS

Employees and subcontractors shall comply with H-SYS-POL-015-Drug and Alcohol Policy.

Drug and Alcohol testing shall comply with AS.NZ 4308, AS 3547 and AS.NZ 4760.

Including:

- Random drug and alcohol screening
- For cause testing

9.2 SMOKING

Smoking is not allowed in any enclosed area, or within the vicinity flammables or hazardous materials.

Smoking is not permitted within the regulated site area (WWARRP) and may only be conducted within ERTCH's site compound.

9.3 FATIGUE MANAGEMENT

Maximum number of working in one 24 hour period must not exceed 14 hours, including travel to and from work / place of hire.

A 24 hour rest day shall be scheduled following 13 consecutive days of work. Ten hours between each shift shall be allocated for rest.

FOUNDATION 10: SUBCONTRACTOR AND SUPPLIER RELATIONSHIPS

10.1 SUBCONTRACTOR DOCUMENTATION GUIDELINES

Documentation aligned with the standard of this plan to be supplied by Subcontractors includes:

- Safe Work Method Statement (SWMS) for High Risk work
- Plant Risk Assessment for individual powered mobile plant
- Licences, certificates and competencies for all workers
- Hazardous Chemicals Register and Material Safety Data Sheets
- Safety Plan, Environmental Plan, Quality Plan and/or Inspection and Test Plans where required

All sub-contractor documentation must be reviewed and approved by company management representatives prior to beginning any task on projects.

Sub-contractor documentation may need to be amended to align with company WHSE requirements.

Should sub-contract documentation not be supplied or does not meet the minimum standard of this plan, the subcontractor shall be required to adopt company documentation.

10.2 SUBCONTRACTOR AND SUPPLIER MANAGEMENT

Selection processes ensure subcontractors and suppliers meet our minimum WHSE requirements. Subcontractors and suppliers are required to actively participate in WHSE management on the Project. Subcontractors and suppliers are audited and reviewed to assess their performance and compliance with Ertech Holdings minimum WHSE requirements.

Relevant documents:

H-PRJ-PRO-036 Identify and Prequalify Suppliers
H-PRJ-PRO-073 Review and Approval of Supplier HSECQ Documents
H-PRJ-PRO-074 Validate Supplier HSECQ Compliance
H-PRJ-PRO-075 Supervise Supplier Hazard ID, Risk Assessment and Control Process
H-PRJ-PRO-077 Involve Suppliers in Safety

FOUNDATION 11: PLANT AND EQUIPMENT

11.1 POWERED MOBILE PLANT AND EQUIPMENT

Mobile plant entering any company workplace must be inspected upon arrival at the worksite. The Plant On Hire and Off Hire Inspection Forms are to be used. Areas of environmental sensitivity must have weed and seed inspections conducted on mobilisation and demobilisation.

Minimum plant requirements are as follows:

- Plant operators must be verified as competent prior to operation of any mobile plant.
- Mobile Plant shall only be operated in accordance with manufacturer's instructions and engineering design parameters;
- Audible warning devices activate when plant is reversing
- Amber flashing lights activate during operation
- Pre-start inspections conducted every morning prior to use;
- Faulty equipment must not be used. Faults must be reported, recorded and rectified.
- Mobile Plant and equipment supplied is compliant with legislation and be serviced and maintained in accordance with manufacturer recommendations.
- Have a dry powder type fire extinguisher, amber flashing light, two way radio and a first aid kit.

Relevant document:

H-SYS-PRT-027-Mobile Plant and Vehicles
H-AST-PRO-058 Perform Plant Onsite Administration, Maintenance and Inspection
H-AST-PRO-059 Manage Plant
H-AST-FOR-032 Plant On Hire and Off Hire Inspection Form
H-AST-FOR-039 Weed Inspection and Clean Down Certificate for Mobile Plant

11.2 ANCILLARY EQUIPMENT

Ancillary must be inspected upon arrival at the worksite. The Ancillary Plant On Hire and Off Hire Inspection Forms are to be used.

Relevant document:

H-AST-FOR-033 Ancillary Plant On Hire and Off Hire Inspection Form

11.3 EQUIPMENT AND TOOLS

The Project Team will ensure the provision, selection, inspection, maintenance and use of tools and equipment is appropriate to the task.

The Project Team will monitor compliance with relating to inspection and maintenance of equipment via workplace inspections.

11.4 COMPRESSED AIR TOOLS

Compressed air supplies shall be labelled to ensure correct pressure and air quality for the tools being used.

11.5 MACHINERY GUARDING

All electrical, mechanical and pneumatic machinery shall not be operated unless all guarding is in place and in a satisfactory condition. The addition of barricading maybe required if the residual risk is not reduced enough on the risk assessment.

Fail safe switches or devices shall be installed on all manually operated rotating mobile plant and equipment and power tools.

All plant, equipment and machinery shall comply with the emergency stop requirements as set out by the Western Australian Code of Practice: Safeguarding of machinery and mobile plant.

11.6 NOISE EMITTING EQUIPMENT

- Industrial noise levels shall comply with *AS 2436 Guide to Noise Control on Construction, Maintenance and Demolition Sites and Code of Practice Managing Noise at Workplaces 2002*
- Noise above the accepted level shall be properly sign posted and exposure times/time weighted averages shall be discussed at pre-start meetings.

11.7 FIRE PREVENTION

- Hazardous substances will be stored in accordance with *AS 1940.*
- Sufficient supply and regular maintenance of fire extinguishers shall comply with *AS 1841* and *AS1850.*
- Smoking is prohibited in all offices, crib rooms and machine cabs.

Relevant document:

H-SYS-PRT-024-Contaminated Flammable Atmosphere

11.8 SAFETY SIGNAGE

Hazards requiring safety signage shall display hazard warning signs that comply with AS 1319 Safety signs for the occupational environment.

11.9 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Employees and subcontractors must wear at all times the PPE as deemed appropriate.

Including:

- Safety footwear (*AS2210*)
- Safety helmet (*AS1800* and *AS1801*)
- Safety glasses (AS*1336,* AS1337 and AS1338)
- High visibility clothing (AS4602) and materials (AS1906.4)
- Long-sleeved shirt
- Long trousers
- Hearing protection (AS 1269 and AS1270)
- Protective gloves (AS2161)

Subcontractors shall provide its workers with adequate PPE. Issued PPE must meet the relevant Australian Standard and be worn correctly.

Relevant document:

H-SYS-GDL-016-PPE Guideline.

11.10 LASER BEAMS

Laser sources shall only be used by qualified operators. Hazard warning signage shall be erected. Only lasers or laser products labelled in accordance with *AS/NZS IEC 60825: Safety of laser products* shall be used and operation shall comply with *AS 2397 Safe use of lasers in the building and construction industry*.

11.11 GAS CYLINDERS

- Gas cylinders must be handled and secured during use and storage.
- Oxygen and acetylene cylinders in use or being lifted shall be supported in cradles.
- Cylinder valves are shut off during periods of non-use and pressure bled from hoses.
- Hoses are to be fitted with flash back arrestors at the cylinder and hand piece.
- Gas cylinders shall not be located and stored where they will be at risk of vehicular traffic, block stairs, exits, and ladders or walk ways.
- Trolleys designed for the handing of cylinders shall be used at all times.

Relevant document:

H-SYS-PRT-021-Pressurised Gas.

11.12 WELDING SAFETY

Work shall be conducted in accordance with AS *1388 Filters for Eye Protectors*, AS1674 *Safety in Welding and Allied Processes*, relevant legislation. A hot works permit shall be required and approved for specific projects.

Relevant document:

H-SYS-FOR-092-Hot Works Permit

11.13 FIRST AID

- Personnel requiring first-aid treatment must contact our nominated First-Aid Officer.
- Injuries occurring on site shall in the first instance be treated.
- Injuries will be recorded and investigated.
- Injuries that require treatment beyond Basic First Aid personnel shall accompany to a preferred Medical Provider or Hospital (as required).
- Subcontractors must provide all-necessary first aid equipment and trained personnel.

First aid kits shall be checked on a fortnightly basis.

11.14 EQUIPMENT CALIBRATION

All relevant personnel must identify equipment that needs to be calibrated. Calibration certificates for equipment such as Water, Sewer, Gas gauges, penetrometers, multi-meters etc. are maintained and are available on request.

Calibrated equipment must be kept on the site registers.

- Pressure test gauges 1 year
- Sewer ovality tool 1 year
- Alcolizer HH1 300 tests or 180 days
- Alcolizer HH2 900 tests or 180 days
- Air receiver 2 years
- Torque wrench 1 year

Relevant document:

H-SYS-FOR-028-Test Request.

FOUNDATION 12: INCIDENT MANAGEMENT

All incidents are followed by appropriate response and notification. All incidents are entered and closed out in the WHSE reporting system. Incident investigations are conducted appropriate to the POTENTIAL severity of the incident. Corrective and preventative actions are taken after incidents, and lessons are shared with other projects and throughout the Ertech Holdings Group. High potential and repeat incidents are regularly reviewed by the project management team.

All personnel conducting incident investigations are trained to competently perform the task. Employees, contractors and visitors have access to medical and first aid services. Injured personnel are actively rehabilitated and effective workers compensation processes are in place.

12.1 INCIDENT REPORTING

Employees and subcontractors shall report an incident immediately or as soon as practicable to the relevant personnel.

The ERTECH Project Manager will report all notable safety, damage to property and environmental incidents to the Client's Superintendent at the weekly meeting. All reportable incidents will be reported to the Client's Superintendent as soon as practicable after the incident and in accordance with NSW laws and the contract.

Relevant documents:

H-SYS-PRO-062-Report and Investigate Incidents
H-SYS-PRT-009-Incident Investigation Authority Notification.
H-SYS-PRT-008-Incident Notification Schedule
H-SYS-FOR-048-Incident Notification Form
H-SYS-FOR-049-Witness Statement.

12.2 INJURY MANAGEMENT AND RETURN TO WORK

Employees and subcontractors with a work related injury or illness shall participate in a suitable "Return to Work" program.

Employees and subcontractors shall ensure any worker injured at the workplace returns to safe and meaningful employment as soon as possible.

Relevant documents:

H-SYS-PRO-063-Manage Injuries and Return to Work
H-SYS-POL-035-Injury Management Policy.
H-SYS-FOR-050-Incident Injury Form
H-SYS-FOR-053-Return to Work (RTW) Diary.

12.3 GENERAL HSE REPORTING

HSE performance will be reviewed and reported weekly and monthly using the internal dashboard report. The reports will be developed according to the company cycle. Essentially the reports will be developed as 3 weekly reports, then one monthly report, i.e. monthly report generated on a 4 week cycle.

Action plans will be developed to improve performance as required.

Relevant documents:

H-PRJ-GDL-007 Guide to (P6) Dashboard Report Development

12.4 HAZARD REPORTING

All personnel are responsible for reporting hazards on site. One hazard report is required per month form all site personnel as a minimum. A person who identifies the hazard owns the hazard and must rectify hazardous situation if able and safe to do so.

- If the hazard has been controlled, then tick “yes” to state the hazard is removed
- If the hazard has been not been controlled, then tick “no” to state the hazard has not been removed
- If the identification hazard results in an unplanned event which had the potential to cause harm then
- Select the “potential incident” category which will trigger the need to complete an incident report
- Once the hazard report has been completed hand it to the supervisor or line manager to be signed
- The hazard report is to be entered into the incident management system, to track trends
- It is important to take action and rectify the hazard wherever possible

FOUNDATION 13: EMERGENCY PLANNING AND RESPONSE

A full emergency evacuation will be conducted within the first 6 weeks of project start up and following 6 monthly thereafter or once during the life of the project if shorter than 1 year.

In the event of an evacuation/ emergency the Emergency Coordinator will raise the alarm. It is a requirement that there is an evacuation procedure to be followed in the event of fire or other emergency at the workplace.

All personnel will move directly to the evacuation Muster points. If the Muster point is considered to be unsafe, personnel will be directed to assemble in an alternative location. The Line Manager will ensure all persons under their control are accounted for.

- Fire extinguishers and fire hose reels shall be maintained and serviced every six months.
- An emergency evacuation shall be conducted within six weeks of mobilisation and every six months after that or once during the life of the project if shorter than one year.
- Signage shall be maintained and inspected periodically.
- An emergency contact list shall be displayed at all sites.

- Wollongong City Council will have an Environmental Emergency Management Plan in relation to NSW EPA Environment Protection Licence (EPL) 5862 copies of this plan has been obtained from the council and will be kept on site.

Emergency coordinators shall have:

- Senior first aid

Relevant documents:

H-SYS-TPT-153-Emergency Poster

FOUNDATION 14: DOCUMENT AND RECORDS MANAGEMENT

14.1 DOCUMENT CONTROL

Current versions of all relevant documents and records are available and controlled. Documents and records are stored in the appropriate systems. Document shall be managed in accordance with Ertech internal procedures.

Relevant Document:

H-SYS-PRO-018- Control Documents and Records Procedure

14.2 RECORDS MANAGEMENT

Ertech shall maintain health and safety statistical data and registers to establish trends and to prevent injuries. The health and statistical data include but are not limited to;

- Workplace Inspections
- Task Inspections
- Hazard Reports
- Incidents
- Potential Incidents (Near Misses)
- Man hours
- Performance against KPI's
- Pre-Start meeting minutes
- Toolbox meeting minutes
- SMG meeting minutes
- HSE corrective actions

Ertech shall maintain a site registers of the following. This will be reviewed and amended as the project develops.

Table 6: Site Registers

Incident Register	Permit Register
Induction Register	Lifting Gear Register (Incl. Harnesses & Rescue)

Electrical Equipment Register	Ladder Register
Fire Extinguisher Register	Test & Calibration Certificate Register
First Aid Kit Location Register	Classified Plant Register
SWMS Register	WHSE Activity Planner
Medical Condition Register	Aboriginal Monitoring Log
Chemical Register (Incl. HAZMAT)	

FOUNDATION 15: MONITOR, REVIEW AND IMPROVEMENT

15.1 AUDITS

Audits are undertaken to ensure compliance with the WHSE Management Plan (MP). All audits are undertaken by suitably qualified and experienced personnel. Ertech have developed an Audit Schedule that details the audits to be undertaken for the duration of the contract.

Ertech will fully implement its approved Audit Schedule and produce a documented report for each audit. The report will detail the scope of the audit, the audit questions and audit findings. The report will be saved on Ertech's HSE Events Database. Corrective actions will be monitored and addressed to ensure they are properly implemented. Ertech reserves the right to conduct internal audits and/or third party audits on any of its subcontractor.

15.2 TASK INSPECTION

TASK Inspections focus on high risk tasks, which are key risks to the business.

- Plan Task Inspections to ensure a variety of tasks are being regularly reviewed.
- Completion of the Task Inspection can be done in a group or as individuals. Note: only the lead inspector (One Person per Inspection) is recorded against the Weighted Average Score when inspections are completed in groups.
- A Task Inspection should take a maximum of 10-20 minutes to complete. The inspection is designed to check the compliance of project tasks against the project's HSE standards.
- All site-based & workshop-based management personnel are required to complete Task Inspections. As a minimum, the white collar roles are expected to conduct one Task Inspection per fortnight. (An eligible role is required to complete a Task Inspection for every 76+ hours they work on the project per fortnight. So, for a normal month, 2 Task Inspections are completed a month.)
- Eligible roles are:
    - Environmental officer
    - Graduate engineer
    - Site Engineer
    - HSE Advisor
    - Project Engineer
    - Senior Project Engineer
    - Project HSE Manager

- Project Manager
- Senior Project Manager
- Quality Engineer
- Site Surveyor

15.3 WORKPLACE INSPECTION

- This inspection reviews the general site HSE conditions – A standard workplace inspection.
- Workplace Inspections are to be completed monthly.
- A Workplace Inspection is to be completed by an eligible person (Site-Based or Workshop-Based): the site Supervisor, and the site HSE Advisor (where allocated to the project).
- The inspection should not take longer than 30 - 60 minutes to complete.
- An eligible role is required to complete a Workplace Inspection for every 152+ hours they work on the project per month.
- Access to subcontractor work areas by company management representatives shall be allowed to conduct workplace inspections.
- Workplace inspections must include at least monthly inspections on subcontractor work areas and equipment. Subcontractors shall participate in these workplace inspections.

Note: 1 Workplace inspection fulfils 1 Task Inspection. So, for a normal month, an eligible role (Supervisor; HSE Advisor) is required to complete only 1 Workplace Inspection and 1 Task Inspection.

Relevant documents:

H-SYS-PRO-064-Conduct Internal Audits
H-SYS-FOR-088-Audit Opening and Closing Meeting Agenda
H-SYS-FOR-001-Audit Notification
H-SYS-FOR-045-Project Audit Tool
H-SYS-FOR-043-Non Conformance Report (NCR)
H-SYS-GDL-028 Conducting Task and Workplace Inspections Guidelines

APPENDICES

A APPENDIX - WHSE PLAN ACKNOWLEDGMENT

By signing you acknowledgment that you have read and understood your responsibility for implementing the requirements stipulated within this WHSE Management Plan.

Table 7: WHSE Plan Management Acknowledgment

Responsible Person (Name)	Position	Signature	Date
Nat Stevens	Project Manager		9/3/17
Peter Sheehan	Q&E Manager		9/3/17
Jaime Silva	Project Engineer		6/4/17
Dan O'Reilly	ERTECH Superintendent		11/4/17

B APPENDIX - WHSE IMPLEMENTATION PLAN

Table 8: WHSE Implementation Plan Checklist

Project Details		Project Team		Date	
Job Number	13853	Project Manager	Nat Stevens	6/4/17	
Division	ERTECH	Project Supervisor	Dan O'Reilly		
Project Name & Location	Whytes Gully Pk 2&3	Project Engineer	Jaime Silva		

	WHSE Management System Criteria	Responsibility	By When	Status (Completed)	Comments (List actions if status is incomplete)	By Date
PLAN	1. Pre-planning meeting held and recorded for reference.	PM	Prior to job start.	☐ Yes ☐ No ☐NA		
	2. Management plans are in place Significant Compliance – WHSE MP in place client specific requirements are included. Management plan signed and acknowledged by project team.	PM	Start of the job	☐ Yes ☐ No ☐NA		
	3. WHSE objectives & targets established for the project and are they consistent with WHSE policies Significant Compliance – Separate objectives for WHSE are documented in the WHSE MP, displayed for work crew & reviewed on a regular basis. Ensure there is a clear linkage in identifying, reviewing & communicating objectives. (Criteria – Cl.4.3.3 AS4801 & ISO14001, Cl.5.4.1ISO9001)	PM	Start of the job	☐ Yes ☐ No ☐NA		
	4. WHSE hazards/risks identified and documented Risks of identified hazards are assessed having regard to the likelihood & consequence of injury, illness or incident occurring. Significant Compliance - Documented risk assessment clearly identifying WHSE risks separately and SWMSs are consistent with Company risk matrix e.g. Extreme to low with only administrative controls in place is unacceptable. (Criteria- Cl.4.3.1 AS4801, Cl.4.3.1 ISO14001)	PM & PS	Start of the job	☐ Yes ☐ No ☐NA		
	5. Safety in Design - Risk assessment conducted by Consultants/Client/Designers has been obtained and associated risks are	PM	Start of the job	☐ Yes ☐ No ☐NA		

	WHSE Management System Criteria	Responsibility	By When	Status (Completed)	Comments (List actions if status is incomplete)	By Date
PLAN	reviewed and incorporated within Company Risk Assessment. Significant Compliance - Documented risk assessment from client/consultant/designer has been obtained. Risks identified by them are clearly incorporated within Company risk assessments. Demonstrate if the risk assessments conducted by client/consultant /designer were requested.					
	6. Project hazard identification & risk assessment process is undertaken by competent personnel. Significant Compliance – Person completing or signing off RAs, SWMSs have completed OSH for supervisors course.	PM	Start of the job	☐ Yes ☐ No ☐NA		
	7. Legal & other requirements are identified Significant Compliance – a. WHSE Plans identify legal requirements (including CoP, Australian Standards as identified in Clients specification) b. Pre-planning meeting identifies license requirements c. Licenses are available on site d. Standards, CoPs and legislation are easily accessible. (Criteria – Cl.4.3.2 AS4801&ISO14001, Cl.7.2.1 ISO9001)	PM		☐ Yes ☐ No ☐NA		
	8. Management of Change - Legislation, standards & other requirements relevant to WHSE are monitored for change Significant Compliance – Updates are monitored through WHSE Monitor emails in SMGs	Systems Manager	Ongoing	☐ Yes ☐ No ☐NA		
	- Design changes during the construction phase are reviewed, assessed, documented, controlled and communicated to field staff. Significant Compliance – Management of Change Form (H-SYS-FOR-011) are documented signed off & documents such as Risk Assessments are reviewed & changes are communicated to field staff.	PM		☐ Yes ☐ No ☐NA		
	DO					

PLAN	WHSE Management System Criteria	Responsibility	By When	Status (Completed)	Comments (List actions if status is incomplete)	By Date
	9. Resource Management - The project is adequately resourced to maintain WHSE management systems & to improve its effectiveness. Significant Compliance – Project Org Charts, Staff responsibility statements & resource schedule are available. (Criteria – Cl.6.1 ISO9001, Cl.4.1 ISO14001 & Cl.4.4.1.1 AS4801)	PM		☐ Yes ☐ No ☐NA		
	- Project infrastructure is provided to ensure that the WHSE Management system is established, implemented & maintained. Significant Compliance – Offices, IT infrastructure, Crib Rooms, Toilets, etc. are available. (Criteria – Cl.6.1 ISO9001, Cl.4.1 ISO14001 & Cl.4.4.1.1 AS4801)	PM		☐ Yes ☐ No ☐NA		
	10. Competence, Awareness & Training - Personnel performing work are competent Significant Compliance – Workers performing high risk activities have appropriate certification, licences, permits to work, or other suitable training. E.g. Operators hold national competency tickets, CSAT Cards, OHS for Supervisors, etc. Verify records against the skills matrix. (Criteria – Cl.6.2.2 ISO9001, Cl.4.2 ISO14001, Cl.4.4.2 AS4801)	PS		☐ Yes ☐ No ☐NA		
	- Personnel performing work are made aware of the relevance & importance of their activities. Significant Compliance – Corporate Induction for Company employees, Site specific induction for site staff, toolbox meetings, SMGs, Pre-starts, etc. (Criteria – Cl.6.2.2 ISO9001, Cl.4.2 ISO14001, Cl.4.4.2 AS4801)	PS		☐ Yes ☐ No ☐NA		
	- Training is provided to field staff on the activities they perform. Significant Compliance – a. Operators are trained in their job specific SWMS's & are also provided Environmental training. b. Training Needs matrix is reviewed on a monthly basis and training is provided based on the gaps identified. (Criteria – Cl.6.2.2 ISO9001, Cl.4.2 ISO14001, Cl.4.4.2 AS4801)	PS		☐ Yes ☐ No ☐NA		
	- Effectiveness of internal training is evaluated Significant Compliance – H-HRM-FOR-077-Training Feedback is completed & stored on completion of an internal training program. (Criteria – Cl.6.2.2 ISO9001, Cl.4.2 ISO14001, Cl.4.4.2 AS4801)	PM / PS/ PE		☐ Yes ☐ No ☐NA		

PLAN	WHSE Management System Criteria	Responsibility	By When	Status (Completed)	Comments (List actions if status is incomplete)	By Date
	11. Communication & Consultation - All client and external communication will be directed through the Public Works Advisory Project Manager - Structured communication & consultation processes are in place. Significant Compliance –Inductions, Toolbox meetings, Daily Pre-starts, SMGs, Operations Meetings are held on a regular basis and records are maintained. (Criteria –Cl.4.4.3.2 AS4801, Cl.4.4.3 ISO14001 & Cl.5.5.3 ISO9001) - Information is provided to staff on effectiveness of the WHSE Management System. Significant Compliance – Hazard & Incident trends, WHSE Alerts, performance against WHSE system objectives are discussed with site staff & discussion is minuted in the minutes (Criteria –Cl.4.4.3.2 AS4801, Cl.4.4.3 ISO14001 & Cl.5.5.3 ISO9001) - Customer Communication Effective arrangements are in place to communicate with customers in relation to product information, contracts, enquiries (incl. amendments), customer feedback (incl. complaints) Significant Compliance – Regular client meetings are held, variations, technical queries & client feedback is discussed during these meetings (Criteria – Cl.7.2.3 ISO9001) - Senior Managers regularly visit the site and discuss the WHSE issues with the site management and employees. Significant compliance – Senior Managers are part of meetings where WHSE issues are discussed, e.g. SMGs, toolbox, etc.	PM / PS/ PE		☐ Yes ☐ No ☐NA		
		PM		☐ Yes ☐ No ☐NA		
		PM /PE		☐ Yes ☐ No ☐NA		
		GM		☐ Yes ☐ No ☐NA		
	12. Operational Control Supplier Management - Appropriate SWMS assessments are done for suppliers engaged directly to work on the project (Significant Compliance – SWMSs are completed by supplier employees and reviewed against the H-SYS-FOR-087-SWMS Checklist. SWMSs are approved by the Company Supervisor) (Criteria Cl. 7.4 ISO9001, Cl.4.4.6 ISO14001, Cl.4.4.6 AS4801) - Supplier agreements are in place and are adhered to Significant Compliance – Supplier agreements are completed & signed off. Insurance certificates are maintained.	PM		☐ Yes ☐ No ☐NA		
		PM		☐ Yes ☐ No ☐NA		

PLAN	WHSE Management System Criteria	Responsibility	By When	Status (Completed)	Comments (List actions if status is incomplete)	By Date
	(Criteria – MP-7-60, Cl. 7.4 ISO9001, Cl.4.4.6 ISO14001, Cl.4.4.6 AS4801) - Are all subcontractor personnel site inducted - have signed off on attendance sheets of toolbox meetings, SMGs, etc.	PM		☐ Yes ☐ No ☐NA		
		PS		☐ Yes ☐ No ☐NA		
	Purchasing - Purchased product conforms to specified purchase requirements. Significant Compliance – Purchase orders are raised, Suppliers used are approved, purchased product is verified to ensure it meets requirements e.g. Test certificate for road base material. WHSE risks associated with the product are assessed and controls are put in place. (Criteria – Cl.7.4 ISO9001)	PE		☐ Yes ☐ No ☐NA		
	Environment Management - Air Emissions are controlled (Significant Compliance – Dust Management contingencies in place, Client specific requirements are identified, Dust classification is risk assessed, Vehicle/Plant maintenance schedule is adhered to, Dust suppression techniques are implemented, etc.)	PM		☐ Yes ☐ No ☐NA		
	- Noise Emissions are controlled Significant Compliance – Noise Management contingencies is in place, Client specific requirements are identified, Vehicle/Plant maintenance schedule is adhered to, etc. (Criteria - Cl.4.4.6 ISO14001)	PS		☐ Yes ☐ No ☐NA		
	- Management of Land Significant Compliance – CALM or Crown Land is identified, Clearing permits are in place & adhered to, Fencing is provided to restrict wandering animals, Daily fence checks are performed, Adequate signage is in place for dieback infected areas, Erosion control technique is implemented, etc. (Criteria - Cl.4.4.6 ISO14001)	PM		☐ Yes ☐ No ☐NA		

	WHSE Management System Criteria	Responsibility	By When	Status (Completed)	Comments (List actions if status is incomplete)	By Date
PLAN	- Waste is managed to reduce impact on environment. Significant Compliance – Waste is segregated, Waste disposal is through approved waste vendor & their licence is maintained on site, Employees are made aware of waste management, etc. (Criteria - Cl.4.4.6 ISO14001)	PM / PS		☐ Yes ☐ No ☐NA		
	- Water emissions are controlled Significant Compliance – Dewatering, bore installation & extraction licences are in place and adhered to, Metres are installed on bores, daily check is performed to confirm any visible leaks, quantity of water extracted is monitored, etc. (Criteria - Cl.4.4.6 ISO14001)	PM / PS		☐ Yes ☐ No ☐NA		
	- Emergency Preparedness & Response Potential emergency situations are identified and site specific emergency rescue procedures / plans are documented and reviewed regularly. Significant Compliance – SWMS requiring rescue procedures are in place Emergency Response Posters are in place, Muster points are identified, and Evacuation plan is displayed. (Criteria – 4.4.7 AS4801 & ISO14001)	PM		☐ Yes ☐ No ☐NA		
	- Emergency response arrangements are communicated to all personnel & visitors.	PS		☐ Yes ☐ No ☐NA		
	- Emergency drills are planned and carried out onsite and designated emergency personnel receive training to their allocated responsibilities. Significant Compliance – Drills are conducted at a minimum 6 monthly interval, reports are identified and training as appropriate is provided. (Criteria - Cl.4.4.6AS 4801)	PS		☐ Yes ☐ No ☐NA		
	- A dangerous goods/hazardous substances manifest or inventory system is in operation. Significant Compliance – MSDS Register is available, Hazchem is labelled, stored correctly, MSDS's are available, etc. (Criteria - Cl.4.4.6AS 4801)	PS		☐ Yes ☐ No ☐NA		
	- First Aid requirements have been assessed for the project, and the first aid process is place is appropriate to the project site. Significant Compliance – First aiders are displayed, tickets are available, local doctors, hospitals have been identified and locations are noted. (Criteria - Cl.4.4.6AS 4801)	PS		☐ Yes ☐ No ☐NA		
C	CHECK					

	WHSE Management System Criteria	Responsibility	By When	Status (Completed)	Comments (List actions if status is incomplete)	By Date
PLAN	13. Monitoring & Measurement There is a process in place to regularly monitor performance against WHSE objectives & targets.	PM		☐ Yes ☐ No ☐NA		
	Workplace inspection program is in place. Significant Compliance – Workplace Inspections are conducted regularly. Registers (Electrical, Hazchem, Lifting register, etc.) are in place. (Criteria – Cl.4.5.1 AS4801)	PS		☐ Yes ☐ No ☐NA		
	14. Incident Investigation, Corrective & Preventive Action Incidents/Injuries are investigated as per Company Risk matrix & learning's are shared with the workforce. Significant Compliance – Competent personnel have completed investigations, learning's are discussed with the workforce and appropriate controls are implemented. (Criteria – Cl.4.5.2 AS4801 & ISO14001)	PM		☐ Yes ☐ No ☐NA		
	There is a process for recording & monitoring corrective actions resulting from inspections, incident investigations, and internal audits. Significant Compliance – Incidents, Actions are entered in JDE and are reviewed and closed out. (Criteria – Cl.8.5 ISO9001, Cl.4.5.3 ISO14001)	PM		☐ Yes ☐ No ☐NA		
	ACT					
ACT	15. Management Review Site management reviews the site's WHSE management system at planned intervals to ensure its continuing suitability, adequacy and effectiveness. Significant Compliance – Site management review meetings are conducted regularly and are documented. (Criteria – Cl.4.6 AS4801, ISO 14001 & Cl.5.6 ISO9001)	PM		☐ Yes ☐ No ☐NA		

C APPENDIX - ROLES AND RESPONSIBILITIES

Table 9: Roles and Responsibilities

Role Title	Responsibilities
Workplace Manager	• Demonstrating a genuine interest and commitment to health/safety and environment management and supporting supervisory staff in the workplace • Communicating and promoting safety and environment leadership. • Implementing, maintaining and complying with the Ertech Holdings Health/Safety and Environment Management System. • Ensuring the Project complies with all relevant legislation, standards and codes of practice relating to health/safety and environment. • Developing and maintaining the Project's WHSEMP. • Actively and openly communicating with workplace personnel during toolbox talks, safety meetings, etc. • Developing, where necessary, detailed safe work systems for high-risk work activities and reviewing these systems for adequacy. • Establishing the health and safety requirements of all subcontractors before work begins and ensuring compliance to these requirements. • Ensuring risk management systems and procedures are implemented, monitored and reviewed. • Ensuring risks associated with change are identified, assessed, controlled and communicated. • Communicating allocated health and safety responsibilities to all personnel employed at the workplace. • Providing and maintaining competent supervision, adequate safe equipment, information, instruction, communication, training and resources. • Ensuring all necessary plant and equipment is provided to allow work to be carried out safely and ensuring all plant is maintained to the manufacturer's specification by qualified personnel. • Setting up facilities for first aid, firefighting and emergency. preparedness and ensuring compliance with the relevant authorities • Identifying and regularly reviewing the training needs of employees and, where necessary, providing training. • Consulting with HR resources and using company procedures to recruit competent personnel. • Ensuring all staff and employees undergo a pre-placement examination and are placed in positions suitable to their conditions. • Ensuring all personnel, including subcontractors and their employees, provide evidence of their experience, competence, training and proficiency before they begin work on-site. • Taking appropriate disciplinary action against personnel who fail to fulfil their allocated responsibilities. • Ensuring the workplace has effective and active health and safety consultative mechanisms that meet legislative requirements. • Ensuring all incidents are appropriately reported and investigated and that identified corrective actions have been implemented. • Actively participating in the rehabilitation of injured workplace personnel to ensure the necessary support is given to the injured worker and their family. • Communicating and monitoring health and safety performance to ensure established performance targets are achieved. • Continuously improving the health and safety management system by reviewing site audits and implementing corrective actions.
Health and Safety Manager or Advisor	• Complying with the Project's health and safety management policy, standards, systems, management plans and procedures. • Advising the Workplace Manager and supervisory staff on overall health and safety in the workplace and the provision and adequacy of competent supervision, adequate safe equipment, information, instruction, communication, training and resources. • Helping the Workplace Manager and supervisory staff manage health and safety risks on the project.

Role Title	Responsibilities
	• Managing the workplace rehabilitation program for all injured or ill staff to assist and support injured employees. • Conducting regular inspections of the workplace, including subcontractor activities, to ensure the health and safety standards are observed, and taking corrective measures as required. • Ensuring all injuries, work-related illnesses and dangerous occurrences are investigated and recorded, and make recommendations as required. • Ensuring all Project personnel are correctly using personal protective equipment. • Ensuring safety inductions occur at the workplace for all new personnel, including subcontractors. • Organising and conducting health and safety committee meetings and ensuring records of meetings, including recommendations, are maintained. • Maintaining up-to-date records for verifying implementation and management of the Health and Safety Management System.
Design Manager	• Using the design stage to actively remove as many health and safety hazards as possible. • Implementing a formal safety-in-design process for considering health and safety hazards during all formal Project design evaluation or review processes. • Ensuring all hazards identified or controlled during the design stage are recorded on the Project's risk register. • Monitoring the design process to ensure health and safety hazards are systematically evaluated and outcomes are documented. • Ensuring that H&S issues not fully eliminated at the design stage are adequately identified, documented and passed to the construction team at a formal handover meeting so they can be managed during construction. • Ensuring residual risks that remain post-construction are documented and provided to the asset owner. • Providing verification the design complies with legislative and specification requirements.
Line Manager	• Implementing the Project's health and safety initiatives and promoting health and safety. • Implementing the Project's environment initiatives and promoting environmental awareness. • Communicating and promoting health and safety policies and standards. • Supervising compliance to the Health/Safety and Environment Management System, including policy, standards, systems, management plans and procedures. • Ensuring correct and safe work procedures are implemented, communicated, trained and adhered to by all personnel under their control. • Ensuring all personnel, including subcontractors and their employees, provide evidence of their experience, competence, training and proficiency before they start work on-site. • Taking appropriate disciplinary action against people who fail to fulfil their allocated responsibilities for health and safety management. • Providing safe plant and equipment, information, instruction, communication, training and resources. • Checking on all plant and equipment to ensure that appropriate documentation, in accordance with company procedures, is sighted before it is used. • Actively participating in site WH,S&E consultative forums. • Identifying and taking corrective action to eliminate or control hazardous work conditions, equipment or practices to reduce the risk to personnel, plant, property damage and financial loss. • Ensuring acceptable standards of housekeeping are met and maintained as well as ensuring the necessary facilities are available to ensure good housekeeping. • Ensuring employees are provided with and use appropriate personal protective clothing and equipment, and are provided with the necessary training in its correct use.

Role Title	Responsibilities
	• Reporting and investigating all incidents in accordance with company procedures and ensuring appropriate corrective action is taken and communicated to all employees. • Assisting and cooperating in the workplace rehabilitation program to support injured employees and their families. • Ensuring subcontractors comply with their health and safety systems, practices and obligations. • Monitoring health/safety and environmental performance to ensure established performance targets are achieved.
Employees	• Complying with the Ertech Holdings Health/Safety and Environment Management System, including its policy, standards, systems, management plans and procedures. • Immediately reporting to line management any unsafe condition or activity, dangerous occurrence, hazard, incident or injury in the workplace. • Participating in and contributing to the effectiveness of health and safety meetings, toolbox talks work activity briefings and risk assessments where applicable. • Helping inform new employees of proper work procedures and practices. • Working in a manner that will not endanger themselves or any other person. • Correctly using all provided personal protective clothing or equipment • Reporting any defective or damaged personal protective clothing, equipment, plant, or gear, and returning the item to the Supervisor for replacement or repair. • Complying with the instructions given by a Supervisor or Health and Safety Manager/Advisor regarding the use of personal protective clothing, equipment or gear or any other matter in relation to health and safety. • Not interfering with anything that has been provided in the interest of health and safety in the workplace. • Not engaging in any activity or operating any plant or equipment that requires certification, unless the relevant certificate or permit is held and permission has been given. • Not attempting any task unless they are capable, competent and authorised to safely carry out the task. • Understanding the importance of working safely to achieve health and safety performance targets. • Coming to work fit for duty (FFD) and notifying the supervisor of any potential FFD issues of themselves or their peers.
Subcontractors	• Strictly adhering to the Company's Health/Safety and Environment and the HSEMP. • Complying with all subcontract conditions regarding health/safety and environment and following instructions issued by the Workplace Manager. • Implementing, monitoring and reviewing risk management systems and procedures for the purpose of reducing the risk to personnel, plant, property and finance. • Helping achieve performance targets for health and safety management as specified. • Forwarding to the Project, before work begins a health and safety plan or a method statement for the work to be performed. • Cooperating fully with the supervisory staff, Health and Safety Manager/Advisor and health and safety committee representative (where applicable). • Participating in and contributing to the effectiveness of health and safety meetings, toolbox talks work activity briefings and risk assessments, where applicable. • Immediately reporting to the Workplace Manager, supervisory staff or Health and Safety Manager/Advisor any unsafe condition or activity, dangerous occurrence, hazard, incident or injury in the workplace. • Providing adequate training and documented evidence to demonstrate all employees can perform the tasks expected of them safely and proficiently.

Role Title	Responsibilities
	• Providing competent supervision, adequate safe equipment, information, instruction, communication, training and resources to employees under their control at all times. • Participating in the workplace rehabilitation program to support injured employees. • Providing and maintaining personal protective equipment and instructing employees in the safe use of such equipment. • Complying with all statutory health and safety regulations, Acts, codes of practice and licences, etc. • Not engaging in any activity or operating any plant or equipment that requires certification, unless the relevant certificate or permit is held and permission has been given. • Not attempting any task unless they are capable, competent and authorised to safely carry out the task. • Reviewing health and safety management system audit reports and implementing corrective actions, ensuring compliance with contractual and Company procedure in order to bring about continuous improvement.

D APPENDIX - GLOSSARY OF TERMS

The following table outlines key terms used in this document:

Term	Definition
Change	An addition, revision, deletion, modification or replacement to any aspect of the company's business that is not a replacement in kind and has the reasonable potential to impact health and safety outcomes or expectations. Change does not include variations to processes, plant, equipment and people that are within routine decision making protocols or authorities, including designed or agreed controls, boundaries or tolerances.
Change Owner	The person who formally prepares and submits the change documentation.
Competency	Competency is having and applying specific knowledge and skill to a required performance standard. It involves all aspects of work performance, including: • Performing at acceptable skill level • Organising own tasks • Responding and reacting appropriately when things go wrong • Fulfilling a specific role • Transferring skill and knowledge to new situations.
Competent Person	A competent person is one who has the qualifications and/or experience required to skilfully perform the stated duties.
Core Systems of Work (CSW)	Corporately mandated procedures to manage select high risk procedures. Current CSWs include lifting operations and work at height.
Dangerous goods	Dangerous goods are those substances, usually with hazardous properties, that are listed in the Australian Dangerous Goods Code.
Due Diligence	Due diligence essentially means persons must not only have a clear understanding of the organisation, its safety risks and how to minimise those risks to ensure substantive compliance with the organisation's OHS obligations, but be able to verify compliance – for example, have documentation relating to systems, training, reporting of incidents and hazards, follow up procedures and consultation with employees.
Foundation	Key areas that make up the core structure of each of the management plans.
Emergency	An emergency is any abnormal and dangerous and/or environmentally threatening situation needing prompt action to control, correct and return to a safe condition. Types of emergencies include: • Fire • Explosion • Chemical spills

Term	Definition
	• Gas leak (toxic or flammable) • Natural events • Impact events • Civil disturbances • External events, e.g. loss of services or emergency in neighbouring facility • Significant discharge/spillage
Emergency response plan	An emergency response plan that addresses all identified emergencies with specific emergency procedures for each different potential emergency. The emergency response plan (ERP) should cover: • Roles and responsibilities for all personnel • Safe evacuation procedures and routes • Appropriate treatment of injured persons • Dangerous goods/hazardous substances response
Emergency response procedures	Specific emergency procedures must be prepared and implemented for each potential emergency identified in the Emergency Response Plan and must be readily accessible.
Emergency Services	An organisation/group that provides assistance during an emergency. This may include including police, ambulance services, doctor/clinic, Poisons information centre and fire brigade.
Employee Assistance Program (EAP)	The EAP is a confidential and voluntary counselling service. The aim is to assist with the resolution of personal and work related problems which may affect work performance.
Expectation	The high-level outcomes achieved as part of each Foundation.
External Stakeholders	Entities such as customers, suppliers, lenders, or the wider society which influence and are influenced by an organization but are not its 'internal part'.
First Aid	The initial treatment of persons suffering injury or illness at a workplace.
First Aid Attendant - Qualified	A person appointed by the Workplace Manager who has the current qualifications in first aid plus any workplace specific information required to do the job (A qualified first aid attendant normally also performs other tasks).
Fit for purpose	Appropriate and of a necessary standard for its intended use.
Formal Inspections	Formal inspections are recorded on a checklist and closed out by the Superintendent/Site Manager.
Formal Observations	Formal observations are scheduled and recorded on an approved form.

Term	Definition
H&S Representative	Elected members of the workplace that have acquired the skills and knowledge to enable them to fulfil the role of workplace health and safety representative as required under legislation.
High Risk Activity	The category assigned to an activity after a risk assessment has considered the likelihood and consequence or as defined by legislation.
H&S Alert	A standard company communication tool used to transfer learnings from a hazardous condition/incident. The H&S Alert must be approved by the workplace manager and BU H&S Manager.
H&S Committee	A forum involving members of Company management and the workforce with the primary function to assist cooperation between the employer and workers in developing and carrying out measures to improve workplace health and safety.
H&S Reporting System	The H&S Reporting System is an intranet database used to collect statistical and incident data from projects and business units. All Ertech Holdings incident classifications are contained in the H&S Reporting System. Visit http://H&Sstats.Ertech.com.au/ and select Guidance Documents/Forms located on the front page of the database.
H&S Reporting System-Corrective Actions database	The corrective action database forms part of the H&S Reporting System and enables actions to be electronically assigned, tracked and reported on.
HSE	Health Safety and Environment
Incident	An occurrence causing injury, disease, plant, property, or environmental damage, including a near-miss.
Individual training plan	Also known as a development plan as detailed in Ertech Holdings Performance and Development Management Standards and Guidelines.
Induction	Refers to programs designed to impart specific knowledge to new employees, so they understand the business and can begin to safely and effectively carry out their work. Induction programs vary in length and structure depending on the employee's role and duties in the organisation.
Informal Inspections	Informal inspections are not recorded on a checklist and rely on the experience of the observer.
Informal Observations	Informal observations are not recorded on a form and rely on the experience of the observer.
Injury Management File	A separate confidential rehabilitation file documents staff members' injury management and return to work progress.
Irregular visitor/delivery	Requires access to the workplace (operational areas) at a frequency exceeding monthly.
Joint Venture	A Joint Venture (JV) is an unincorporated association between two or more parties, for a specific business project where the parties meet project cost and receive a share of any resulting output rather than revenue or profit. Disposal of each party's share of output is determined

Term	Definition
	by that party.
Key Performance Indicator	A Key Performance Indicator is the collection of information used to measure performance of a particular function or operation.
Lag indicator	A lag indicator is essentially a statistic or other measure that simply indicates the result of a planned activity but do not measure the effective implementation of safety programs, proactive action plans and preventative activities in place. An example of a lag indicator is Lost Time Injury Frequency Rate (LTIFR).
Lead indicator	These measures have been determined as the critical control points necessary to prevent workplace injuries from occurring Examples include workplace inspections conducted, training completed etc.
Legal Compliance	Legal Compliance is the effective control of legal risks at a workplace to ensure compliance with all applicable laws.
Legislation	Legislation is acts or laws passed by government bodies, including Federal, State and Local Government.
Line Manager	The line manager is your direct report or next person of authority.
Lost Time Injury (LTI)	Lost time injury is an occurrence resulting in a fatality, permanent disability or lost time from work of one day/shift or more.
Safety Data Sheet (SDS) (formerly Material Safety Data Sheet (MSDS)	Key source of documentation for health and safety information for a substance. Includes precautions of use, hazard information, first aid requirements.
National Competency Standards	National Competency Standards specify the knowledge and skill required in employment, as well as the application of that knowledge and skill to the standard of performance required. Standards are expressed in terms of workplace outcomes and are developed by the industry parties, based on the structure of work within the particular industry.
OHS	Occupational Health and Safety
Operational Area	As defined by the workplace manager- usually where persons would access the live construction/mining zones, does not include the main office compound.
Pre-Start Meeting	Pre-start meetings are a forum to discuss the required work for the day and associated H&S aspects.
Project Charter	A commitment or values statement developed in consultation with others that outline the desired safety culture/performance of the project.
Regular visitor/delivery	Requires access to the workplace (operational areas) at a frequency not exceeding monthly.
Resource Plan	A staffing plan that shows the number of personnel, by type, that will be required on the project.

Term	Definition
Return to work coordinator	Responsible for the continued management of an employee who has sustained an injury. This includes; • Ensuring notification of an injury is reported to the TIMS team within 24 hours of occurrence • Accompanying an injured employee to medical treatment (where possible) • Assisting the injured employee to complete relevant paperwork and forward to the State Coordinator on the same day • Identifying suitable and meaningful duties to enable the development of the Suitable Duties/ Return to Work Plan • Monitoring employee's progress and adherence to the suitable duties/ Return to Work Plan • Regularly communicating with the injured employee and State Coordinator regarding the return to work progress • Ensuring any documentation provided by the injured employee, such as medical certificates are promptly forwarded to the TIMS team for processing • Generally offering support and encouragement to any injured employee
Return to work plan	A return to work plan is based on the principle that the employer can enable a coordinated return to work. The plan must match the injured employee's capabilities and limitations as outlined on the medical certificate. The plan sets out how treatment, rehabilitation, claims management and employment practices are to be coordinated to achieve a safety and durable return-to-work for an injured employee.
Risk	The chance of something happening that will have an impact upon objectives. It is measured in terms of consequence and likelihood. For this plan, also encompasses opportunity.
Risk Assessment	A risk assessment is the logical and systematic approach to identifying hazards, assessing risks, and implementing and maintaining controls in order to reduce risk to an acceptable level.
Risk Register	A register of the identified issues, risks/opportunities, analysis, evaluation and treatments for the project.
Safe Work Method Statement	A task level risk assessment tool addressing High Risk Tasks, and concentrating on current conditions, interactions and resources.
Skills matrix	A table that matches personnel, or job roles, or other resources, with desired skills to provide views of the need for additional development, training or the acquisition of new resources.
Subcontractor	A subcontractor is a company, partnership, trust or individual business under a signed contract to carry out works for the principal contractor.
Toolbox Talk	A tool box meeting is an interactive informal meeting of workgroup members. Foreseeable work hazards are discussed and controls planned.
Visitor	Any person entering a site for the purpose of one off and/or irregular visit and who will not be undertaking any work at the workplace.
WHS	Workplace Health and Safety

Term	Definition
WHSE	Workplace Health, Safety and Environment
Work Area	A separable portion of work that is identified early in construction planning to help drive early definition of construction methodology and alignment of design activities. Work Areas should be listed in the overall construction methodology. The planning document for a work area is called a Work Area Plan.
Work area plan	The main document prepared during the construction planning for that work area. Includes construction methodology, risk assessment, constructability reviews and Work Pack listing.
Work pack	A pack of relevant construction documents that contains relevant information for Site Engineers and foremen to manage the works. There will be multiple Work Packs contained in a WAP. A Work Pack contains work method statements, risk assessments, SWMS, ITPs, drawings, site instructions, environmental controls, etc.
Workplace Hazard Inspection	A planned, systematic appraisal of the workplace to identify hazards and assess and control risks.
Workplace H&S Observation	A planned, systematic appraisal of the workplace to identify safe and at risk workforce behaviours.
Workplace Manager	Also referred to as the Project Manager or similar- the person who has overall responsibility for the operation of the workplace.

E APPENDIX - FLORA AND FAUNA SUB-PLAN

E.1 SCOPE

This sub-plan addresses the management of flora and fauna in relation to project activities.

Activities conducted on the project that has the potential to impact flora and fauna are provided below. These have been extracted from project risk assessments:

Table 10: Flora & Fauna Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Blasting	Generation of noise	Nuisance to community
Operation of earthmoving equipment	Generation of noise	Nuisance to community and or damage to flora
Reversing sirens	Generation of noise	Nuisance to community

E.2 PROJECT COMPLIANCE REQUIREMENTS

E.2.1 PROJECT TARGETS

Based on the requirements defined at Section 4 (Project Compliance Requirements), the findings of project risk management processes and the potential impacts to the community, the following targets have been set for managing flora and fauna on the project. Any deviance from the targets will result in Project Management immediately implementing corrective actions:

Table 11: Flora & Fauna Project Targets

Metric/Measure	Target	Time frame	Accountability
Number of native fauna injured	Zero	At all times	Workplace Manager
Area of vegetation cleared	As required (CEMP 3.11.3)	As required	Workplace Manager

Metric/Measure	Target	Time frame	Accountability
Area of land cleared or disturbed without authorisation	Zero	At all times	Workplace Manager
Number of actions taken by regulators and/or client	Zero	At all times	Workplace Manager

E.2.2 CONTROLS USED TO MANAGE FLORA AND FAUNA

Controls that are adequate to ensure compliance and to reduce risk to a rating of to as low as reasonably practical (ALARP) (as defined by the Risk Classification Matrix H-MGT-PRT-004) are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 12: Flora & Fauna Risks

Control	Accountability
Minimize the clearance required	Project Engineer
No new disturbance, clearing or grubbing activities will occur in any location until a permit to clear is in place	Site Engineer
Prior to clearing areas, a wildlife catcher/spotter or the Environmental Representative will assist with and ensure any fauna present are relocated	Project Engineer
Speed limits of 20 km/hr. are in place in all areas known to be high risk for vehicle/fauna collisions, this includes: (Detailed in TMP)	Project Engineer
Boundaries of allowable disturbance areas on the project are clearly marked and delineated	Project Engineer
Specific trees and other forms of flora that are not to be disturbed are clearly delineated and signed to ensure they are not disturbed	Project Engineer
Cleared/removed vegetation will be beneficially used either on or off the project where possible (e.g. for habitat, chipped for mulch and reused)	Project Engineer
Ensure machinery parking, material storage and stockpiling are well outside sensitive natural features, including native vegetation, wetlands and drainage lines	Project Engineer
Maintain suitable buffer distances to waterways	Project Engineer
Where possible revegetation activities will preferentially use of only species that are indigenous to the area	Project Engineer

If a Green and Gold Bell frog is found work should cease and the Environmental Manager contacted	Site Engineer

E.2.3 MONITORING

Monitoring is performed that complies with legal and contract requirements.

The planning and conduct of monitoring and analysis of data will be carried out by competent personnel. Training records will be maintained.

Where monitoring determines non-compliance to be a risk, corrective actions are implemented immediately.

All flora and fauna monitoring will conducted by personnel that are deemed trained and competent by regulators.

It is the accountability of the Environmental Representative to ensure all monitoring is performed according to these requirements.

The Site Engineer will conduct a weekly visual inspection of protected flora to ensure the controls are still in place and there is no damage to the trees.

E.2.4 FLORA AND FAUNA MONITORING

The following flora and fauna monitoring will be undertaken on the project:

Table 13: Flora & Fauna Monitoring

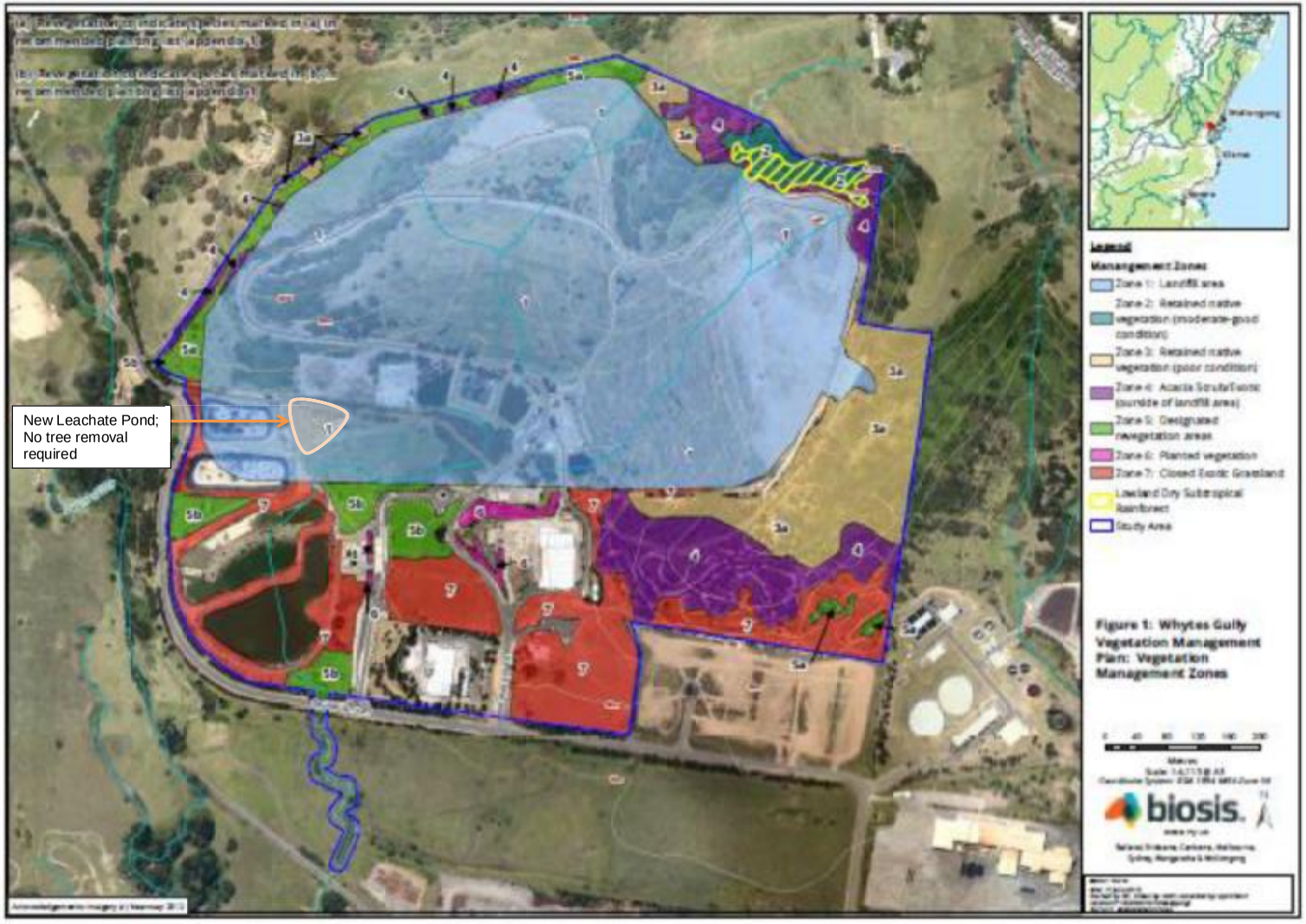
Location	Parameter	Equipment Type	Frequency
As per work site	No damage to preserved trees	visual	Monthly

E.2.5 PLAN OF MONITORING LOCATIONS

Visual monitoring as per plan from Stage 1 CEMP 3.11

The Site Engineer will conduct a weekly visual inspection of protected flora to ensure the controls are still in place and there is no damage to the trees.

Vegetation Management Plan - CEMP Page 30



F APPENDIX - AIR QUALITY SUB-PLAN

F.1 SCOPE

This sub-plan addresses the management of emissions to the atmosphere that may be caused by Project activities and that have the potential to adversely affect the environment or community by affecting air quality.

Activities conducted on the project that have the potential to impact air quality are provided below. These have been extracted from project risk assessments:

Table 14: Air Quality Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Vehicle movement	Generation of dust	Nuisance to community
Stock piling	Generation of dust	Nuisance to community

F.2 PROJECT COMPLIANCE REQUIREMENTS

F.2.1 PROJECT TARGETS

Based on the requirements defined at Section 4 (Project Compliance Requirements), the findings of the Project's risk management processes and the potential impacts to the community, the following air quality targets have been set for the Project. Any deviance from the targets will result in Project management immediately implementing corrective actions.

Table 15: Air Quality Project Targets

Metric/Measure	Target	Time frame	Accountability
Number of non-compliant monitoring results	Zero	At all times	Workplace Manager
Number of actions taken by regulators and/or client	Zero	At all times	Workplace Manager

F.2.2 CONTROLS USED TO MANAGE AIR QUALITY

Controls that are adequate to ensure compliance and to reduce risk to a rating of to as low as reasonably practical (ALARP) (as defined by the Risk Classification Matrix H-MGT-PRT-004) are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 16: Air Quality Risks

Control	Accountability
Minimising the areas in which vegetation has been removed or disturbed	Site Engineer
Consider weather conditions prior to commencing earthworks	Project Engineer
Progressively rehabilitating or grassing areas as soon as they become available	Project Engineer
Applying dust suppressant (water/biodegradable polymer-based application) to areas that present a high risk for dust generation at a frequency sufficient to ensure contractual and compliance requirements are achieved and the community is not adversely affected	Site Engineer
Establishing properly constructed rumble pads at all Project sites, for the ingress and egress of all vehicles	Project Engineer
Establishing traffic speeds of 20 km/h in order to minimise dust generation	Workplace Manager
Assessing exhaust emissions as part of plant inspections, with excessive emissions resulting in the plant being removed from use	Plant Manager
Ensuring that burning-off does not occur on the Project	Site Engineer
If dust emissions are being generated from other areas not related to ERTECH works the workplace will note the source of the dust and the wind direction	Workplace Manager

F.2.3 MONITORING

Air quality monitoring is performed that complies with legal and contractual requirements and which is sufficient to identify potential non-compliances before they occur.

Qualitative (visual) assessments will be conducted at the start of each new construction activity.

Where monitoring determines non-compliance to be a risk, work practices are altered and/or additional controls are implemented immediately. Air quality monitoring is conducted according to the requirements of the EMS Guidelines.

Monitoring and analysis of data will be carried out by competent personnel. Training records will be maintained.

Independent air quality monitoring will occur at least each quarter to support and verify Project monitoring. This monitoring will only be conducted by individuals who are trained and competent.

F.2.4 AIR QUALITY MONITORING

The following Air Quality monitoring will be undertaken on the project:

Table 17: Air Quality Monitoring

Location	Parameter	Equipment Type	Frequency
Various work sites	Qualitative (visual) assessment	Plant	Monthly and at each new construction activity

F.2.5 PLAN OF MONITORING LOCATIONS

N/A at each new construction activity site

G APPENDIX - NOISE AND VIBRATION SUB-PLAN

G.1 SCOPE

This sub-plan addresses the management of noise and vibration generated by project activities that have the potential to adversely affect the environment and/or community.

Activities conducted on the project that has the potential to generate undesirables levels of noise are provided below. These have been extracted from project risk assessments:

Table 18: Noise and Vibration Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Blasting	Generation of noise	Nuisance to community
Operation of earthmoving equipment	Generation of noise	Nuisance to community
Reversing sirens	Generation of noise	Nuisance to community

G.2 PROJECT COMPLIANCE REQUIREMENTS

G.2.1 PROJECT TARGETS

Based on the requirements defined at Section 4 (Project Compliance Requirements), the findings of the Project's risk management processes and the potential impacts to the community, the following noise and vibration targets have been set for the Project. Any deviance from the targets will result in Project management immediately implementing corrective actions.

The following sensitive receivers are identified in the CEMP (Whytes Gully New Landfill Cell CEMP 8/6/2016 Number 117625003_155_R_Rev 2 Page 9)

- N1 – Residence NW of Whytes Gully RRP (130 meters from boundary)
- N2 - Residence NE of Whytes Gully RRP (960 meters from boundary)
- N3 - Residence SW of Whytes Gully RRP (230 meters from boundary)
- N4 - Residence NE of Whytes Gully RRP (1,100 meters from boundary)
- N5 – Closest residence at Farmborough Heights (700 meters from boundary)

The standard working hours are;

- 7.30 am to 4.30 pm Monday to Friday
- 8.00 am to 4.00 pm Saturdays
- No works Sundays or public holidays

Table 19: Noise and Vibration Project Targets

Metric/Measure	Target	Time frame	Accountability
Number of non-compliant monitoring results	Zero	At all times	Workplace Manager
Number of actions taken by regulators or client	Zero	At all times	Workplace Manager
Number of nuisance complaints	Zero	At all times	Workplace Manager

G.2.2 CONTROLS USED TO MANAGE NOISE AND VIBRATION

Controls that are adequate to ensure compliance and to reduce risk to a rating of to as low as reasonably practical (ALARP) (as defined by the Risk Classification Matrix H-MGT-PRT-004) are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 20: Noise and Vibration Risks

Control	Accountability
Limiting the hours of work to comply with all conditions stated at 5.2.2 (above)	Workplace Manager
Limiting the hours of work in response to community concerns	Workplace Manager
All equipment is serviced and maintained according to, as a minimum, the original equipment manufacturers recommendations, or more frequently if required to minimise noise generated	Plant Manager Subcontractors
Noise attenuation of fixed and mobile plant as required in order to achieve compliance	Workplace Manager
Construct and maintain noise barriers as required in order to comply	Workplace Manager

Adjust the Project Traffic Management Plan/Plans to minimise noise impacts	Project Engineer
Pending safety requirements, the least noise-intrusive reversing alarms are used	Plant Manager
There will be early consultation with owners and occupants of potentially affected community members where predictive modelling indicates potential impacts that exceed compliance limits	Community Manager
In the event that implementation of all above-stated controls are insufficient to achieve compliance then mitigation measures (e.g. fitting air conditioners and double-glazing windows) are implemented at sensitive receptors	Workplace Manager

G.2.3 MONITORING

Noise and Vibration monitoring is performed that complies with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, and incident report and corrective actions are raised in JDE and work practices are altered and/or additional controls are implemented immediately.

Noise and Vibration monitoring is conducted according to the requirements of the EMS Guidelines. Monitoring and analysis of data will be carried out by a competent person. Evidence of competence retained.

Independent Noise and Vibration monitoring will occur at least each quarter to support and verify the project monitoring. This monitoring will only be conducted by individuals who are trained and competent.

It is the accountability of the Environmental Representative to ensure all monitoring is performed according to these requirements.

G.2.4 NOISE AND VIBRATION MONITORING

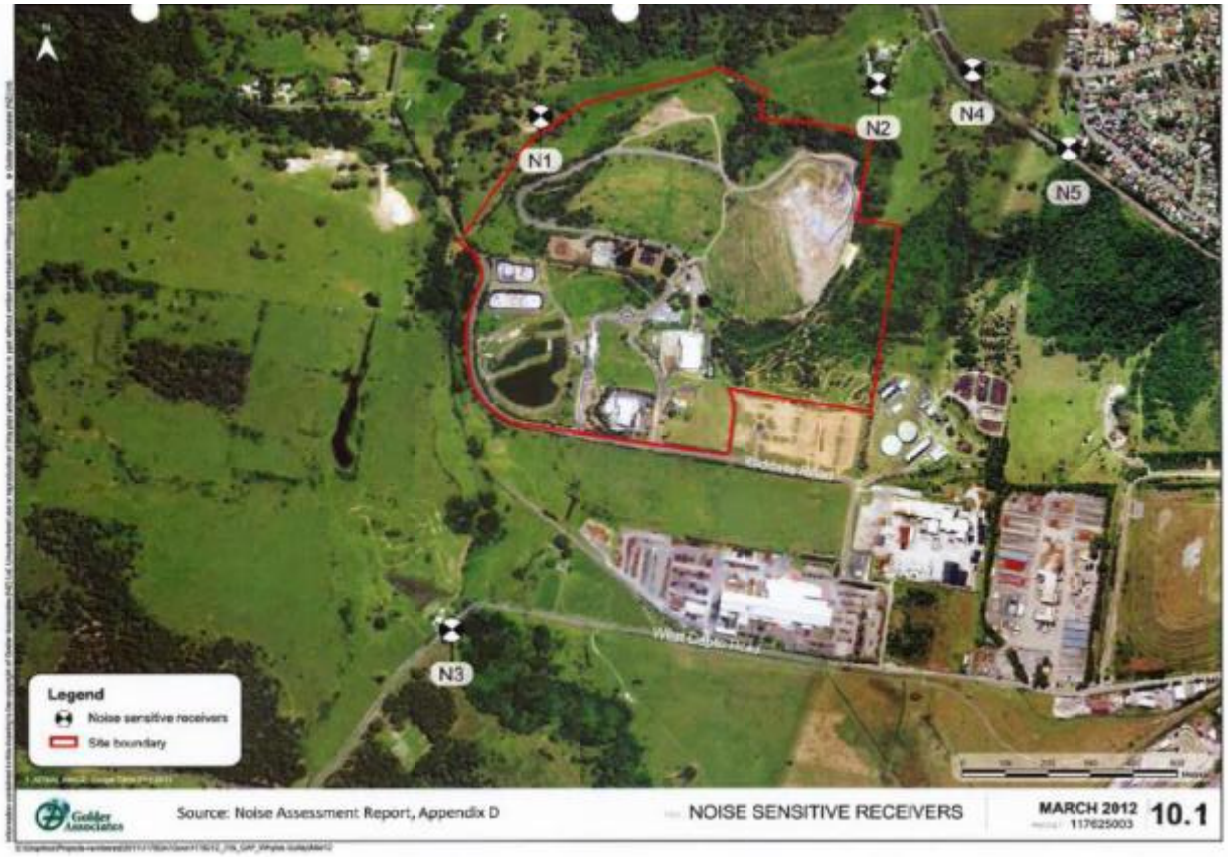
The following Noise and Vibration monitoring will be undertaken on the project:

Table 21: Noise and Vibration Monitoring

Location	Parameter	Equipment Type	Frequency
Closest receiver to the current works	Qualitative (i.e. audibility of construction works against other noise sources)	Plant	Periodic (i.e. monthly or during high noise activities)

G.2.5 PLAN OF MONITORING LOCATIONS

Insert plan/drawing/schematic showing the location of each monitoring station/point



H APPENDIX - WATER SOIL AND EROSION MANAGEMENT SUB-PLAN

H.1 SCOPE

This sub-plan addresses the management of impacts to water, soils and erosion and/or quantity that may be caused by Project activities and that have the potential to adversely affect the environment and/or community.

Activities conducted on the project that has the potential to impact water quality and/or quality is provided below. These have been extracted from project risk assessments:

Table 22: Water Soil and Erosion Management Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Clearing and grubbing	Increased sediment load in run-off waters	Impacts to aquatic fauna and flora
Excavation	Damage to watercourse or waterway	Impacts to aquatic fauna and flora
Concreting	Discharge of contaminated water	Water quality negatively impacted
Storage and use of flammable and combustible liquids and solids	Spills	Water quality negatively impacted
Operation of a concrete batching plant	Use of water	Unnecessary load on water resources contributing to resource availability

H.2 PROJECT COMPLIANCE REQUIREMENTS

H.2.1 PROJECT TARGETS

Based on the requirements defined at Section 4 (Project Compliance Requirements), the findings of project risk management processes and the potential impacts to the community, the following targets have been set for managing water, soils and erosion on the project. Any deviance from the targets will result in Project Management immediately implementing corrective actions:

Table 23: Water Soil and Erosion Management Project Targets

Metric/Measure	Target	Time frame	Accountability
Number of non-compliant monitoring results	Zero	At all times	Workplace Manager
Number of actions taken by regulators and/or client	Zero	At all times	Workplace Manager
Number of incidents of non-compliant water leaving site	Zero	At all times	Workplace Manager

H.2.2 CONTROLS USED TO MANAGE WATER SOIL AND EROSION

Controls that are adequate to ensure compliance and to reduce risk to a rating of to as low as reasonably practical (ALARP) (as defined by the Risk Classification Matrix H-MGT-PRT-004) are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 24: Water Soil and Erosion Risks

Control	Accountability
The project has been designed and is being constructed to divert as much water as possible away from the site (i.e. to prevent the water from entering the site)	Project Engineer
Minimising the areas from which vegetation is removed/disturbed	Site Engineer
Progressively rehabilitating/revegetating areas as soon as they become available	Site Engineer
All material to be stockpiled for a period of greater than one month will be protected from erosion as soon as practicable(e.g. seeded, mulched, hydro-mulched)	Site Engineer
Erosion and sediment controls are installed prior to or immediately upon any disturbance to vegetation or soil	Site Engineer
All erosion and sediment controls are properly designed by a competent person to ensure they are: The correct type of control Adequately sized according to the soil and climatic conditions and catchment areas such that discharged water will meet compliance limits	Project Engineer

Control	Accountability
Constructed to an engineering standard that complies with the requirements of the relevant regulatory body/bodies	
Sediment laden water (dirty water) captured onsite will be preferentially used for dust controls.	Site Engineer
No water is discharged from site until a water a discharge permit is approved by the Environmental Representative	Project Engineer
Where necessary to meet water quality discharge compliance limits, water will be chemically treated prior to discharge from site	Project Engineer
Water treatment plants used are designed and constructed by a competent person and considering the quantity and quality of water predicted to require treatment. The quantity and quality prediction is based on the outcomes of a model that is provided by a suitably qualified person	Project Engineer
Water treatment plants are subject to scheduled routine maintenance that as a minimum complies with the requirements of the supplier	Site Engineer
All hazardous substances (liquids and solids) are stored and managed according to AS1940. All refuelling points, including refuelling/lube trucks, will carry hydrocarbon spill kits	Project Engineer
An adequate number of concrete washout pits will be maintained at all times. The washout pits will be isolated from surface water flows at with bunds to prevent contamination of clean surface waters and will be lined to prevent contamination of soil and ground water.	Project Engineer

H.2.3 MONITORING

Water Soil and Erosion monitoring is performed that complies with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in JDE Water Soil and Erosion monitoring is conducted according to the requirements of the EMS Guidelines. Monitoring and analysis of data will be carried out by a competent person. Evidence of competence retained.

It is the accountability of the Environmental Representative to ensure all monitoring is performed according to these requirements.

H.2.4 WATER SOIL AND EROSION MONITORING

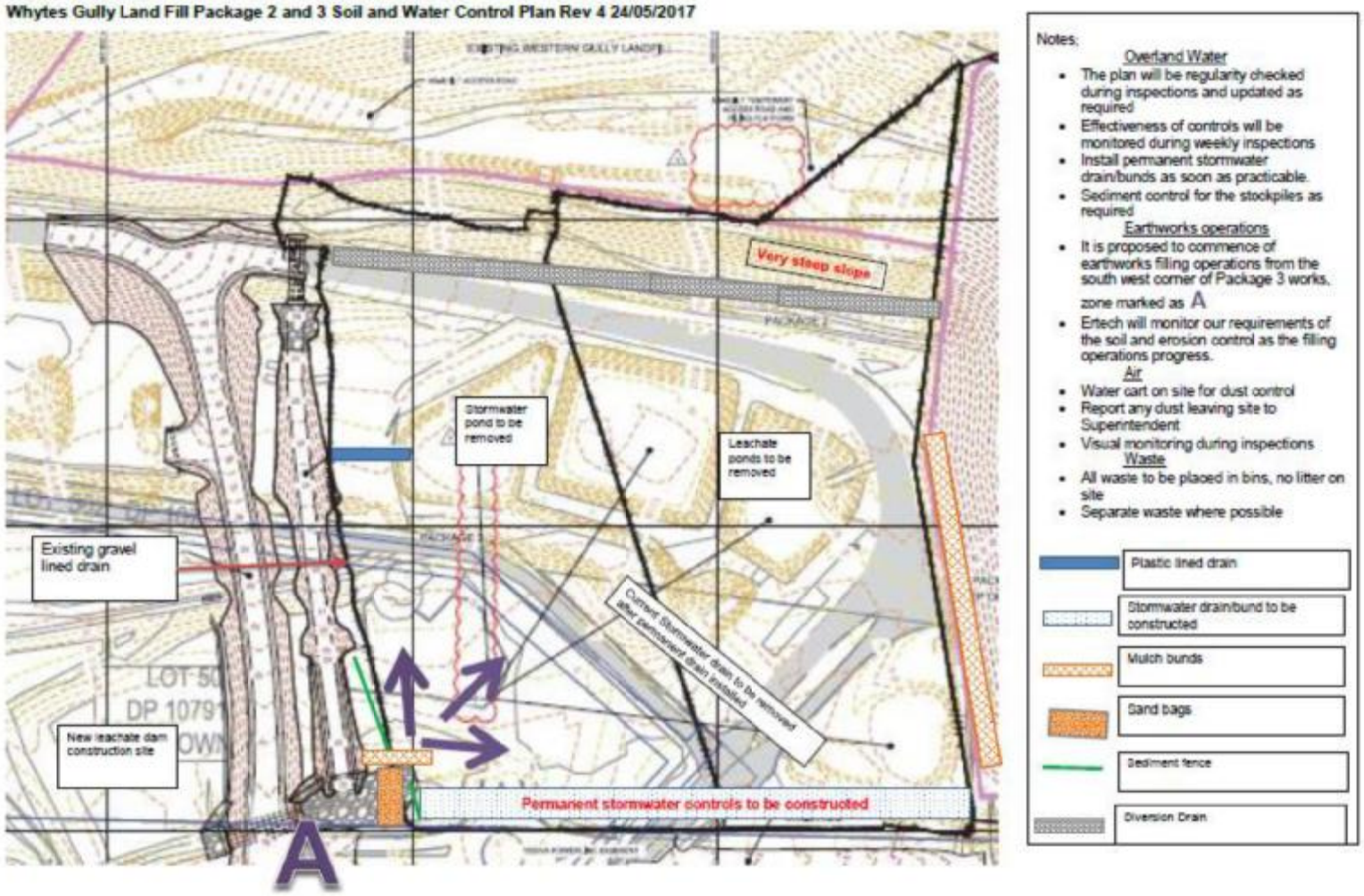
The following Water Soil and Erosion monitoring will be undertaken on the project:

Table 25: Water Soil and Erosion Monitoring

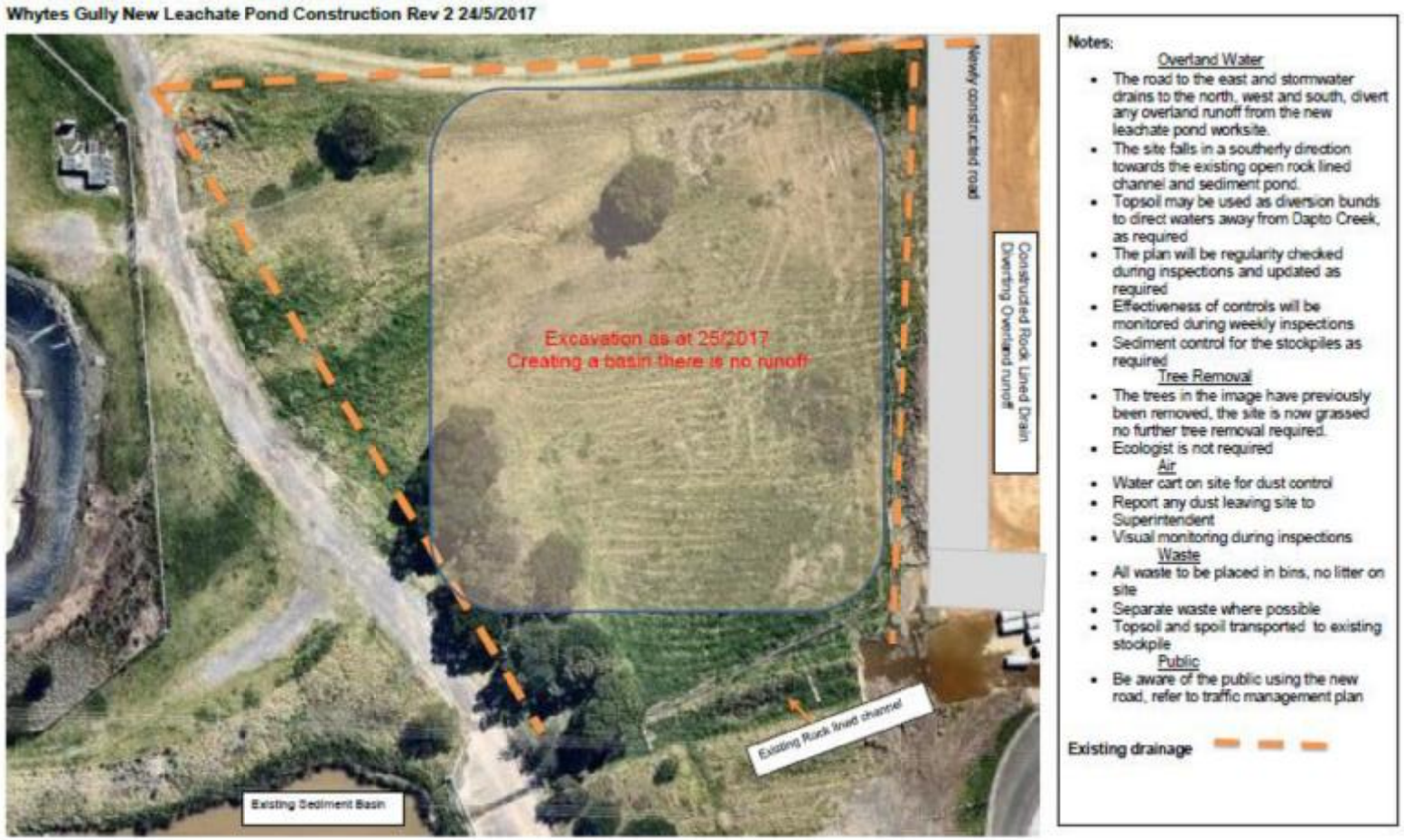
Location	Parameter	Equipment Type	Frequency
Current work site	CEMP Management strategy 3.2.2	Qualitative (i.e. No turbid water leaving	During rain events that result in overland

	Requirements	site) Clean water diversion from works	flows
	Overland run-off	Install permanent drains as early as practicable Mulch bunds to be used for overland flow management	Early works

H.2.5 PLAN OF MONITORING LOCATIONS Package 2 and 3



H.2.6 Controls for New Leachate Pond Construction



I APPENDIX - WASTE MANAGEMENT SUB-PLAN

I.1 SCOPE

This sub-plan addresses the management of waste generated on/caused by the project that have the potential to adversely affect the environment and/or or community.

Activities conducted on the project that have the potential to generate waste are provided below. These have been extracted from project risk assessments:

Table 26: Waste Management Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Beneficiation/refinement processes	Generation of waste product	Soil and water contamination
Plant maintenance	Generation of waste oil	Soil and water contamination
Operation and maintenance of offices, crib huts and camp facilities	Generation of general waste	Unnecessary load on landfill availability

I.2 PROJECT COMPLIANCE REQUIREMENTS

I.2.1 PROJECT TARGETS

Based on the requirements defined at Section 4 (Project Compliance Requirements), the findings of project risk management processes and the potential impacts to the community, the following targets have been set for managing water, soils and erosion on the project. Any deviance from the targets will result in Project Management immediately implementing corrective actions:

Table 27: Waste Management Project Targets

Metric/Measure	Target	Time frame	Accountability
% of waste generated sent to landfill	85% of total waste generated	At all times	Workplace Manager
% of waste reused or recycled	15% of total waste generated	At all times	Workplace Manager

Metric/Measure	Target	Time frame	Accountability
% reduction in total waste generated	5% reduction in total waste generated	Every 12 months	Workplace Manager
% of regulated/hazardous wastes for which transfer certificates are retained	100%	At all times	Workplace Manager
Number of actions taken by regulators and/or client	Zero	At all times	Workplace Manager

I.2.2 CONTROLS USED TO MANAGE WASTE

Controls that are adequate to ensure compliance and to reduce risk to a rating of to as low as reasonably practical (ALARP) (as defined by the Risk Classification Matrix H-MGT-PRT-004) are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

Table 28: Waste Management Risks

Control	Accountability
The procurement of goods includes assessment of packaging minimisation, bulk goods are purchased preferentially	Procurement Commercial Manager
Bins are provided at each work area in sufficient numbers in order to facilitate segregation at the source of generation. As a minimum, the following types of bin are provided where relevant: General waste, Recyclables, Re-use (e.g. waste timber for chipping), Hazardous/regulated wastes.	Project Engineer
Bins are clearly signed to adequately inform all project personnel of the correct material to be placed within each bin type. Bins are emptied at a frequency that is sufficient to ensure their correct use.	Project Engineer
All wastes are placed in the correct bin.	All Personnel
No waste will be buried or burned on the project	Workplace Manager
All hazardous/regulated wastes are treated and disposed of in accordance with regulatory requirements.	Project Engineer
All hazardous/regulated wastes removed from site for treatment are collected from the project, transported and treated by companies authorised to do so.	Project Engineer

Control	Accountability
Waste transfer certificates are retained for all waste removed from site for treatment as required by regulatory requirements.	Site Engineer
All subcontractors engaged to manage waste are audited to ensure	Subcontractors
A fully maintained concrete washout pit will be maintained on the site at all times.	Project Engineer
CEMP 3.7.3 Management strategy and control	Project Engineer

I.2.3 MONITORING

Waste monitoring is performed that complies with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are raised in JDE waste monitoring is conducted according to the requirements of the EMS Guidelines. Monitoring and analysis of data will be carried out by a competent person. Evidence of competence retained.

It is the accountability of the Environmental Representative to ensure all monitoring is performed according to these requirements.

I.2.4 WASTE MONITORING

The following Waste monitoring will be undertaken on the project:

Table 29: Waste Monitoring

Location	Parameter	Equipment Type	Frequency

I.2.5 PLAN OF MONITORING LOCATIONS

N/A

J APPENDIX - CULTURAL, ARCHAEOLOGICAL HERITAGE SITES SUB PLAN

J.1 SCOPE

This sub-plan addresses the management of cultural, archaeological heritage sites in relation to project activities.

Activities conducted on the project that has the potential to impact cultural, archaeological and heritage sites are provided below. These have been extracted from project risk assessments:

Table 30: Cultural, Archaeological Heritage Hazards and Risks

Project Activity	Environmental Hazard	Environmental Risk
Dredging	Impacts to heritage sites during construction activities.	Damage or disturbance of heritage sites
Excavation	Impacts to heritage sites during construction activities.	Damage or disturbance of heritage sites
Clearing	Impacts to heritage sites during construction activities.	Damage or disturbance of heritage sites

J.2 PROJECT COMPLIANCE REQUIREMENTS

J.2.1 PROJECT TARGETS

Based on the requirements defined at Section 4 (Project Compliance Requirements), the findings of project risk management processes and the potential impacts to the community, the following targets have been set for managing cultural, archaeological and heritage sites on the project. Any deviance from the targets will result in Project Management immediately implementing corrective actions:

Table 31: Cultural, Archaeological Heritage Project Targets

Metric/Measure	Target	Time frame	Accountability
Number of non-compliant monitoring results	Zero	At all times	Workplace Manager
Number of actions taken by regulators or client	Zero	At all times	Workplace Manager
Number of incidents of damage caused to heritage sites	Zero	At all times	Workplace Manager

Metric/Measure	Target	Time frame	Accountability

J.2.2 CONTROLS USED TO MANAGE ABORIGINAL HERITAGE SITES

Controls that are adequate to ensure compliance and to reduce risk to a rating of to as low as reasonably practical (ALARP) (as defined by the Risk Classification Matrix H-MGT-PRT-004) are implemented before any relevant works commence. Elimination of the hazard is the first preference of control, followed by engineering, then administrative controls. Controls used on this project include:

The CEMP section 3.10 is related to aboriginal and heritage protection, it identifies 2 heritage sites;

PAD 1 one basalt flake artefact identified

PAD 2 no cultural identification

PAD 3 One basalt core, one basalt angular fragment and one chert angular fragment identified

The location of the PAD's are outside the work area

Table 32: Controls Used to Manage Cultural, Archaeological Heritage Risks

Control	Accountability
Limiting the work areas and comply with all conditions stated at 5.7.2 (above)	Workplace Manager
Limiting the work in response to community concerns	Workplace Manager
There will be early consultation with owners and occupants of potentially affected sensitive places or structures where predictive modelling indicates potential heritage impacts.	Community Manager
Work practices predicted to generate unacceptable damage will be assessed prior to commencing works to the extent required to comply with applicable permits and authority.	Workplace Manager
CEMP 3.10.3 Strategy and control measures	Project Engineer

J.2.3 MONITORING

Cultural, archaeological and heritage monitoring is performed that complies with legal and contract requirements and which is sufficient to identify potential non-compliances before they occur.

Where monitoring determines non-compliance to be a risk or to have occurred, and incident report and corrective actions are raised in the HSE Reporting System and work practices are altered and/or additional controls are implemented immediately.

Cultural, archaeological and heritage monitoring is conducted according to the requirements of the EMS Guidelines. Monitoring and analysis of data will be carried out by a competent person. Evidence of competence retained.

Independent cultural, archaeological and heritage sites monitoring will occur at least each quarter to support and verify the project monitoring. This monitoring will only be conducted by individuals who are trained and competent.

It is the accountability of the Environmental Representative to ensure all monitoring is performed according to these requirements.

J.2.4 CULTURAL, ARCHAEOLOGICAL AND HERITAGE MONITORING

The following cultural, archaeological and heritage monitoring will be undertaken on the project:

Table 33: Cultural, Archaeological Heritage Monitoring

Location	Parameter	Equipment Type	Frequency

J.2.5 PLAN OF MONITORING LOCATIONS

The PAD's are outside the work area and monitoring is not required

K APPENDIX – SITE LAYOUT AND BOUNDARIES