LEVEL CROSSING REMOVAL PROJECT FURLONG MAIN BLACKBURN HEATHERDALE

ENVIRONMENTAL MANAGEMENT STRATEGY

DOCUMENT NUMBER: LAH-EN-PLN-0001_02

REVISION DATE: 26/07/2016

DOCUMENT APPROVAL

Rev.	Date	Prepared by	Reviewed by	Recommended by	Approved by	Remarks
А	8/07/15	M. Costin	. 0			Draft
Signature:						
В	27/08/15	P. SPARKS	•		000	Incorporate VR Comments
Signat	ure:					
С	11/09/15	P. SPARKS				Review
Signat	ure:	•				
00	22/09/15	P. Sparks	M Nation	P Skene		FOR ALT AproVal
Signat	ure:					
01	30/09/15	P. Sparks	P. Sparks		P Skene	Incorporate VR Comments
Signature:						
02	26/07/16	E Watson	P. Sparks		P Skene	Include CMS REquirements
Signat	ure:			•		





Table of Contents

1.	Defin	itions		3
2.	Proje	ct Overv	iew	4
3.	Struc	ture of th	nis Plan	5
4.	Plan	Overview	<i>/</i>	7
	4.1	Purpose	e and Scope	7
	4.2	Environ	mental Contract Requirements	7
	4.3	Objectiv	ves and Targets	8
	4.4	Key Env	rironmental Stakeholders	8
5.	Envir	onmenta	ıl Management System	10
	5.1	System	Overview	10
		5.1.1	Governance documentation	10
		5.1.2	Environmental Management Plans (EMPs)	10
		5.1.3	Procedures, Knowledge and Tools	10
	5.2	Improve	ement	11
	5.3	Interact	tions with Other Management Plans	11
6.	Signif	icant En	vironmental Hazards and Environmental Sub Plans	13
Ap	pendix	A: CPB	Contractors Environment Policy	14
Ap	pendix	B: Envir	onmental Roles and Responsibilities	15
Ap	oendix	c C: MIRF	RA Schedule	17

1. Definitions

Term	Meaning	
DMS	Acronym for Document Management System.	
FMBH LCRP	Acronym for Furlong Main Blackburn Heatherdale Level Crossing Removal Project.	
FSC	Acronym for Federal Safety Commission.	
Incite	Document management system used for all Project correspondence.	
LCPL	Acronym for Leighton Contractors Pty Ltd.	
LXRA	Acronym for Level Crossing Removal Authority.	
NCR	Acronym for Non-Conformance Report.	
PDM	Acronym for Project Document Management.	
PTR	Acronym for Product Request.	
QA	Acronym for Quality Assurance. It refers to the planned and systematic activities implemented under the Project Quality Plan so that the quality requirements under the Contract will be fulfilled.	
RFI	Acronym for Request for Information.	
RMP	Acronym for Records Management Plan.	
SI	Acronym for Site Instruction.	
Synergy	Management system used for the management of Health, Safety and Environment.	
SWMS	Acronym for Safe Work Method Statement. Also referred to as a Job Safety and Environmental Analysis (JSEA) by others. It is a document used to convey detailed information about a scope for a work crew, with the sequence of work or task steps listed, with hazards expected, present or generated and associated risk controls to be implemented.	
WAP	Acronym for Work Area Plan.	

2. Project Overview

Over the next eight years, the Victorian State Government will deliver a coordinated program to remove 50 of the worst level crossings in Melbourne, improving safety, reducing congestion and enabling more frequent train services. Delivery of these projects is being overseen by the Level Crossing Removal Authority (LXRA).

An Alliance comprising VicRoads, Public Transport Victoria (PTV), Metro Trains Melbourne (MTM), Leighton Contractors, Aurecon and Hyder Consulting has been contracted to deliver the Furlong Main Blackburn Heatherdale Level Crossing Removal Project (the Project). This includes the removal of level crossings at Main Road and Furlong Road in St Albans, Blackburn Road in Blackburn and Heatherdale Road in Mitcham, Victoria.

To ensure the Project is a success, the following objectives are to be achieved:

Objective				
Project Benefits	The provision of an infrastructure solution at the sites which addresses the identified issues with:			
	 Safety: by removing many factors that limit the safe movement of pedestrians and vehicles. 			
	 Congestion: by removing the conflicts between pedestrians, vehicles and rail movements and improving travel times and the reliability of travel times for the various modes of transport. 			
	 Connectivity: by improving access to services, local amenity and opportunities for economic growth. 			
Cost Performance	 Minimisation of the long term operational and maintenance costs. 			
	 Achieve positive environmental sustainability outcomes. 			
	 Clear demonstration of best value of the investment delivering the Project Benefits at the lowest cost. 			
	 Total Outturn Cost (TOC) within the budget allowance 			
	Delivery to the TOC or better whilst achieving other cost objectives.			
Time Performance	 Delivery of the sites by the dates for completion 			
	 All work completed in 2017 			
	Progressive completion to enable earliest possible delivery of the Project Benefits.			
Quality Outcomes	 The design aligns with the objectives for the local area to compliment and provide opportunities for enhancement and future economic uplift 			
	 The design considers and provides for a positive user experience utilising urban design principals to deliver the required urban design objectives. 			

3. Structure of this Plan

This Environmental Management Plan (EMP) outlines how we will achieve acceptable environmental outcomes on the Furlong Main Blackburn Heatherdale Level Crossing Removal Project (the Project) by the application of the CPB Contractors Environmental Management System (EMS).

The Furlong Main Blackburn Heatherdale Level Crossing Removal Project (the Project) includes the removal of level crossings at Main Road and Furlong Road in St Albans, Blackburn Road in Blackburn and Heatherdale Road in Mitcham, Victoria. These projects are being undertaken in accordance with the Project Alliance Agreement, a planning scheme amendment under the Planning and Environment Act 1987 via incorporated documents;

- Main Road, St Albans Level Crossing Removal Project, Incorporated Document May 2014
- Furlong Rd, St Albans Level Crossing Removal Project, Incorporated Document August 2015
- Level Crossing Removal Project Blackburn Road, Blackburn and Heatherdale Road, Mitcham, Incorporated Document December 2015.

Due to the individual approval documents each Level Crossing Removal Project will have its own Construction Environmental Management Plan (CEMP) form part of the EMP. Each CEMP will address the;

- Specific Approval Documents for each site
- Specific Environmental Aspects for each site
- Specific Environmental Controls for each site

The CEMP can be read alone for each specific level crossing removal project. However, they do form part of the EMP for the Furlong Main Blackburn Heatherdale Level Crossing Removal Project

The EMP (this plan) has the following structure:

Part A: Whole Project Overview	This section clearly defines: Purpose and Scope of the EMP Environmental Contract Requirements Overall Objectives and Targets Structure the Environmental Management System Summary of the Significant Environmental Hazards, specific client requirements, compliance requirements and project environmental performance targets
Part B: Whole Project Appendices	This section provides information supporting the EMP including: Environmental Policy Environmental Roles and Responsibilities MIRRA Schedule

The Construction Environmental Management Plans have the following structure;

Part A: Overview	This section clearly defines: Purpose and Scope of the CEMP CEMP specific Environmental Contract Requirements CEMP specific Objectives and Targets Structure the Environmental Management System CEMP specific summary of the Significant Environmental Hazards, specific client requirements, compliance requirements and project environmental performance targets
Part B: Implementation Plan	This section outlines in detail the key aspects for environmental management on the project including: Expectations How they will be met Responsibilities Associated deliverables

Part C: Environmental Sub-Plans	This section contains the CEMP specific Environmental Sub-Plans developed by the project to manage Significant Environmental Hazards and other potential major impacts upon the environment and community	
Part D: Appendices	This section provides information supporting the EMP including: Environmental Policy CEMP specific Environmental Risk Register Environmental Roles and Responsibilities CEMP specific Site Environment Plan MIRRA Schedule	

In addition to the Project Management Plan, other Project Plans that interface with the Environmental Management Plan include but not limited to:

- Construction Management Plan
- Engineering and Design Management Plan
- Quality Management Plan
- Safety and Health Management Plan
- Completion Management Plan

4. Plan Overview

4.1 Purpose and Scope

An Alliance comprising VicRoads, Public Transport Victoria (PTV), Metro Trains Melbourne (MTM), CPB Contractors, Aurecon and Hyder Consulting has been contracted by Level Crossing Removal Authority (LXRA) to provide deliver the Furlong Main Blackburn Heatherdale Level Crossing Removal Project (the Project). CPB Contractors has been appointed Principle Contractor in accordance with section 19.13 of the Project Alliance Agreement.

This Plan is established in accordance with 'The Way We Operate' framework and is the key document that integrates Environmental requirements and client construction requirements.

Implementation of the EMP will:

- Identify the environmental obligations attached to the tender / project and the hazards and risks associated with the works
- Assist in the prevention of unauthorised environmental harm
- Fulfil the Client's environmental requirements as defined in the Contract, including complying with relevant permits and approvals
- Comply with all relevant environmental legislation
- Minimise negative impacts on the community that relate to the Project's environmental impacts
- Identify and implement feasible opportunities to reduce the environmental impact of the Project that are beyond contractual and compliance requirements
- Fulfil CPB Contractors' EMS requirements enabling continued certification to ISO14001 and contribution to CPB Contractors' overall Business Plans.

The Alliance Manager, with advice and input from senior construction staff, is responsible for the Plan.

4.2 Environmental Contract Requirements

The following table sets out the minimum client requirements as defined in Project Alliance Agreement and shows where each requirement has been addressed within this Plan or the wider CPB Contractors Management System.

Table 1: Contract Requirements for Environmental Management

Contract Reference	Content requirements	Where addressed	Comments
19.17 (a)	The Participants are committed to achieving the highest standard of environmental practices in performing the Works.	2.3 Objectives and Targets	Objectives of each Sub- plans in Part C
19.17 (b)	 The Participants will proactively work to minimise the impact of the performance of the Works on the environment including by: providing appropriate work methods and equipment; providing and maintaining systems, methods and techniques of work, and Construction Plant, that have a minimal impact on the environment and do not expose the environment to any hazard that is within the Participants' control; developing and complying with procedures for dealing with environmental hazards or emergencies (or potential environmental hazards or emergencies) including procedures for interacting with the EPA or other relevant Government Agencies; complying with the Construction and Environmental Management Plan included in the Project Management System. 	Part C of this Document	
19.17 (c)	Without limiting clause 19.3(a), the Participants must comply with the EPBC Act Approval including any conditions or requirements under the EPBC Act Approval.	2. Flora & Fauna Management Plan	

4.3 Objectives and Targets

The Project has set the following environmental performance targets. These include current business plan environmental targets for the Business Unit and the whole of CPB Contractors:

Table 2: Leading indicators

Key Performance Indicator	Target	Time Frame	Actions to be Taken	Accountability
SHEQ observations	Four observations conducted per member of leadership team per month	Each month	Four observations to be performed by each member of the leadership team per month	Project leadership team
Completion of inspections	100 per cent of scheduled inspections of environmental controls occur	Each month	Inspections of environmental controls to be identified, scheduled and conducted	Superintendents

Table 3: Lagging Indicators

Key Performance Indicator	Target	Time Frame	Actions to be Taken	Accountability
Level 1, 2 & HPI environmental incidents	Zero	Ongoing	Implementation of the EMP	Alliance Manager
Number of actions taken by regulators and/or client	Zero	At all times	Implementation of the EMP	Alliance Manager
Area of land cleared or disturbed without authorisation	Zero ha	At all times	Implementation of the Fauna and Fauna Sub Plan	Alliance Manager
Number of unauthorised discharges	Zero	At all times	Implementation of Soil and Water Sub Plan	Alliance Manager
Damage to heritage items or places without relevant approvals	Zero	At all times	Implementation of Heritage Sub Plan	Alliance Manager
100% of all fuel use and GHG emissions generated by the project is captured and entered into JDE (NGER reporting requirement).	All use / emissions entered into JDE System	Monthly	Implementation of Energy Sub Plan	Environment Manager
% of waste reused or recycled	80% of waste generated [note waste types excluded from calculation must be defined]	12 months	Implementation of Waste Sub Plan	Environment Manager

4.4 Key Environmental Stakeholders

Key environmental stakeholders for the Project include:

Stakeholder Name	Contact Details
VicRoads	13 11 70
MTM	1800 800 007

Department of Environment, Land, Water and Planning (DELWP)	136 186
Department of Economic Development, Jobs, Transport and Resources (DEDJTR) (VIC)	(03) 9651 9999
Environment Protection Authority (EPA) (VIC)	1300 372 842
Heritage Victoria	(03) 9208 3333 (DTPLI)
Office of Aboriginal Affairs Victoria (OAAV)	1300 888 544 or http://www.dpc.vic.gov.au/index.php/aboriginal-affairs/aboriginal-affairs-overview
State Coroner's Office	(03) 8684 4444
Department of Environment (DE) (Commonwealth)	(02) 6274 1111
VicTrack	1300 8428 7225
Whitehorse City Council	(03) 9262 6333
Maroondah City Council	1300 882 233

5. Environmental Management System

5.1 System Overview

5.1.1 Governance documentation

The Environmental Management System (EMS) is based on the requirements of the CPB Management System and has been specifically tailored to ensure compliance with the Project Alliance Agreement additional Environmental requirements. The Project Management Plan provides more detail about 'The Way We Operate' and the process adopted to deliver against the Project Alliance Agreement overall requirements.

The CPB Contractors management system is certified to conform to:

• AS/NZS ISO 14001:2004 Environmental management systems – Requirements with guidance for use. Evidence of certification is included in Appendix A.

The CPB Management System has been developed and implemented to ensure a consistent approach to project delivery. The management system comprises the following components:

- A Policy is a statement of strategic intent and commitment and defines the minimum mandatory requirements that CPB Contractors expects all levels of the organisation to comply with.
- The Project Management Plan outlines how the Project will be managed and it is supported by a suite of functional management plans.
- Procedures and Work Instruction specify how to undertake and control specific activities.
 They also list accountable roles and the tools and knowledge to be used. Where appropriate and approved by the respective



Figure 1: CPB Contractors Management System

- Business Unit functional manager, project specific procedures may be produced to reflect specific project circumstances.
- Tools are preformatted documents such as forms and templates that are required to be completed as part of a Procedure.
- Knowledge documents are reference material to provide context, additional information or guidance to a Policy or Procedure.
- Business Applications are the software tools used to manage our business and support our operations.

5.1.2 Environmental Management Plans (EMPs)

Each project maintains an EMP (this document) that describes the actions to be taken by that project to comply with each Element and Expectation. The Project's EMP must demonstrate that:

- · Contractual environmental requirements are being fulfilled
- The Project is compliant with all relevant environmental legislation
- The effect of environmental impacts on the community is minimised.

5.1.3 Procedures, Knowledge and Tools

A procedure describes the steps to be undertaken to complete an activity, the accountable roles and the tools and knowledge to be used.

Tools are preformatted documents (forms and templates) used to collect specific data or information for a particular purpose.

Knowledge documents are reference material to provide context, additional information or guidance to a Policy or Procedure.

Business Applications are the software tools used to manage and support our operations.

5.2 Improvement

In addition to specifying the day-to-day environmental management of a project, each EMP details activities to be performed to deliver continual improvement in environmental performance.

Continual improvement is achieved through constant measurement and evaluation, audit and review of the effectiveness of EMP and adjustment and improvement, project environmental outcomes, and CPB Contractors EMS.

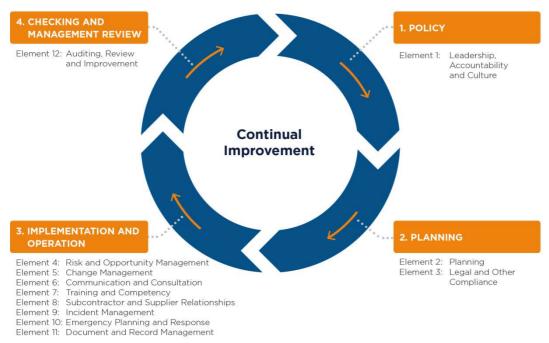


Figure 2 Continual Improvement Mechanism

5.3 Interactions with Other Management Plans

This EMP is part of an integrated set of project management plans. The table below sets out interactions of this EMP with the other management plans implemented on the **Error! No text of specified style in document.**. The specific linkages that exist between management plans are addressed thoroughly in Part B of this plan.

		ENVIRONMENTAL MANAGEMENT PLAN								
Element of EMP	Design	Construction	Safety	Risk	Commercial	HR	Community & Stakeholder			
Leadership, Accountability and Culture			•			√				
Planning			•		✓	•				
Legal and Other Compliance	✓	✓	•				•			
Risk Management and Controls	✓	✓	✓	✓		•				
Change Management	•	•	•	•	•	•	•			
Communication, Consultation and Participation			✓			✓	✓			
Training and Competency			•			✓				
Subcontractor and Supplier Relationships	•		•	•	✓					
Incident Management			✓				•			
Emergency Planning and Response			✓	•	•	•	•			
Document and Records Management	•	•		•	•	•	•			
Auditing, Review and Improvement			✓	•						

- Element (or subject) also addressed in other management plans
- ✓ Other plan directly interfaces with the Environmental Management Plan

6. Significant Environmental Hazards and Environmental Sub Plans

This EMP also includes Environmental Sub Plans for Significant Environmental Hazards (SEH), and Environmental Sub Plans for Other Environmental Hazards, with in the Construction Environmental Management Plans (CEMP's) for each site. As with all Environmental Hazards, SEHs have been identified through the review and analysis of environmental reports, contractual documents, community and legal compliance requirements relating to the Project and professional experience. Each of the Sub Plans in the CEMP's listed below will be regularly reviewed during construction as the project risks are reviewed.

Environmental Hazards (Aspect)	Associated Significant Environmental Impact (Risk)	Environmental Sub Plans (Part C)
Impact to heritage	Loss or damage to Heritage items/areas	Heritage Sub Plan
Impact to flora and/or fauna	Loss of or harm to flora or fauna	Flora and Fauna Management Plan
Impact to soil and water quality	Decrease in soil and water quality	Soil and Water Management Plan
Impact to community	Nuisance and detrimental health of community members	Noise Sub Plan
Impact to community	Nuisance to community and possible damage to private property	Vibration Sub Plan
Impact to soil, water, air quality	Decrease in soil, water and air quality	Contamination Sub Plan
Impact to soil, water, air quality	Decrease in soil, water and air quality	Acid Sulfate Soil Sub Plan
Impact on Natural Resources	Increase in pressure on natural resources and release of greenhouse gases	Energy Sub Plan
Impact to soil and water quality	Decrease in soil, water and air quality	Hazardous Substances Sub Plan
Impact on landfill and resources	Increased pressure on landfill operations	Waste Management Plan
Impact to air quality	Decease in air quality	Air Sub Plan

Appendix A: CPB Contractors Environment Policy



Environment Policy

Purpose

This Policy sets out the minimum mandatory requirements for the management of environmental risks and impacts from our construction activities.

Application

This Policy applies to all business entities controlled by the business, including alliances, joint ventures and consortia where the business exerts management control. It applies at all levels of the organisation including Corporate, Business Unit and Project.

Minimum Requirements

- Senior leaders must demonstrate a personal visible commitment to our SH&E Cultural Framework and ensure all workers understand the requirements of the Management System as it applies to the work they are undertaking, so that work is undertaken to minimise our environmental impact.
- Environment Management Plans (EMP) must be developed and implemented for each Project to outline how the project environmental risk will be managed and controlled.
- Environmental objectives, targets and key performance indicators must be established at all levels of the organisation, with performance against these monitored and analysed to provide a baseline for continual improvement.
- The Environment Procedures must be used to eliminate or minimise environmental risk from construction activities.
- Construction Area Plans and Work Packs must be developed and include an assessment of environmental risk and associated controls.
- Site Environment Plans must be developed for Work Packs where environmental risk dictates; these must be used to inform as content of Daily Pre Starts.
- As part of the risk management process, personnel and teams at the Project, Business
 Unit and Corporate level should seek to identify opportunities for improving efficiency in
 the use of natural resources, enhancing positive environmental impacts and driving
 innovation.
- All environmental incidents must be reported in accordance with the incident notification requirements. They must be thoroughly investigated and appropriate corrective action undertaken with the aim of preventing recurrence of the incident.

Title: Environment Policy

ID: MSID-7-12 Version: 1.0 Date Published: 12/11/2015
Management System - Uncontrolled Document when Printed



- Reporting of energy consumption, water use and waste generation, as well as reporting
 on initiatives and environmental achievements must be completed by projects and
 business units as requested.
- All levels of the organisation must be prepared to respond to an emergency and in the
 event of an emergency, plans and capabilities are in place to eliminate or minimise
 damage to the environment, preserve ongoing operations and our reputation.
- Effective communication, cooperation and consultation channels must be in place to consult with workers who may impact upon the environment.
- All project personnel responsible for environmental risk shall be appropriately trained and competent and understand their legal obligations with regard to environment management.

Appendix B: Environmental Roles and Responsibilities

Listed project-specific roles, after responsibilities in Part B have been assigned

Element 1: Leadership, Accountability and Culture														
1.1. Environmental accountabilities, roles and responsibilities for managers, staff, employees and subcontactors are clearly defined, documented and commission of the participation in environmental management. 1.2. Environmental leadership and commission is demonstrated through measurable participation in environmental management. 1.3. Environmental expectations are clearly defined with appropriate reward and disciplinary processes in jakee. 1.3. Environmental expectations are clearly defined with appropriate reward and disciplinary processes in jakee. 1.3. Environmental expectations are clearly defined with appropriate reward and disciplinary processes in jakee. 1.3. Environmental Sub-Plannage. 2.4. Despirate resources are provided to effectively implement the EMP 2.5. Environmental Sub-Plannage are provided to effectively implement the EMP 2.6. Basiness systems are defined and established 3.7. Relevant legal, contractual and other requirements are identified and maintained in a large and other obligations register 3.8. All necessary environmental approvals are obtained prior to commencing relevant works and surrendered on completion 3.9. Work is planned and executed to ensure compliance 3.0. All energy and greenhouse data are collected and entered into JDE 3.1. All processary and greenhouse data are collected and entered into JDE 3.1. All processary and greenhouse data are collected and entered into JDE 3.1. All processary and greenhouse data are collected and entered into JDE 3.1. Six and Opportunitive and provide a should be approved to ensure compliance and excellent and opportunitive and provide and implemented for identifying environmental risks and opportunities are implemented 3.1. Relation of the six have access to current versions of relevant personnel R C C C C C C C C C C C C C C C C C C			Alliance Manager	Project Environmental Rep.	Engineering Manager	Engineers	Construction Manager	Supervisors	Line Manager	P&C Manager	Commercial Manager	Comm & S'hold Manager	H&S Manager	Other positions
and subcontractors are clearly defined, documented and communicated 1.2. Environmental leadership and commitments is demonstrated through measurable participation in environmental imanagement 1.3. Environmental expectations are clearly defined with appropriate reward and disciplinary processes in place. 1.4. Planning 1.5. Adequate resources are provided to effectively implement the EMP 1.5. Replanning 1.6. Adequate resources are provided to effectively implement the EMP 1.7. Adequate resources are provided to effectively implement the EMP 1.8. Replanning 1.9. Adequate resources are provided to effectively implement the EMP 1.9. Replanning 1.9. Replanning 1.0.														
1.2. Environmental leadership and commitment is demonstrated through measurable participation in environmental management 1.3. Environmental expectations are clearly defined with appropriate reward and disciplinary processes in jace. Element 2: Planning 1.3. Environmental expectations are clearly defined with appropriate reward and disciplinary processes in jace. Element 2: Planning 2.1. Adequate resources are provided to effectively implement the EMP R C C C C C C C C C C C C C C C C C C	1.1.	, , , , , , , , , , , , , , , , , , , ,		C					C	R				
participation in environmental management 1. S. Environmental expectations are clearly defined with appropriate reward and disciplinary processes in place. 1. Adequate resources are provided to effectively implement the EMP 2. Business systems are defined and established 2. Business systems are defined and established Richard Spring and Market Resources are provided to effectively implement the EMP 2. Business systems are defined and established Richard Spring and Market Resources are provided to effectively implement the EMP 2. Business systems are defined and established Richard Spring and Market Resources are provided to effectively implement the EMP 2. Business systems are defined and established Richard Spring and Market Resources are provided to effectively implement and market Richard Spring and Spri	1.2.	·	R	С				С	С					
Element 2: Planning 2.1. Adequate resources are provided to effectively implement the EMP R C C R C C C C C C C C C C C C C C C C														
Element 2: Planning	1.3.		R	С					С					
2.1. Adequate resources are provided to effectively implement the EMP R C C C C C C C C C C C C C C C C C C	Flome													
2.2. Business systems are defined and established 2.3. Erwironmental Sub-Plans are prepared and maintained for Significant Environmental Hazards 3.1. Rejeat and Other Requirements 3.1. Rejeat and Other Requirements 3.1. Rejeat and other requirements are identified and maintained in a 1. Rejeat and other obligations register 3.1. Rejeat and other obligations register 3.2. All nearcys newtronmental approvals are obtained prior to commencing relevant works 3.3. Work is planned and executed to ensure compliance 3.4. Inspections, observations and monitoring are performed to ensure compliance is maintained 3.5. All non-compliances are reported as incidents 3.6. All energy and greenhouse data are collected and entered into JDE 3.7. Personne on the site these access to current versions of relevant legislation, standards and codes of practice 1. Systematic processes are defined and implemented for identifying environmental risks and opportunity Management 4.1. Systematic processes are defined and implemented for identifying environmental risks and opportunities at all stages of the Project 4.2. Identified risks and opportunities are analysed and evaluated according to agreed criteria and recorded in a risk register 4.3. Environmental controls appropriate to the level of risk are identified, documented and componential risks and controls are implemented 4.4. Feasible opportunities are implemented 4.5. Identified risks and controls are regularly reviewed. 4.6. Regular inspections and monitoring are conducted to check effectiveness of controls 5.1. Changes to planned operations that have potential environmental consequences are given the identified 6.2. Relationships with identified changes are assessed and controlled before changes are implemented 6.3. All noncropal and consultation for consultative for consultative for consultative for consultative f		<u> </u>	R			_					_			
2.3. Environmental Sub-Plans are prepared and maintained for Significant Environmental Hazards 1. Legal and Other Requirements 1. Legal and Other Requirements 2. Legal and Other Requirements are identified and maintained in a legal and other obligations register 3.1. Relevant legal, contractual and other requirements are identified and maintained in a legal and other obligations register 3.2. All necessary environmental approvals are obtained prior to commencing relevant works and surrendered on completion 3.3. Work is planned and executed to ensure compliance 3.4. Inspections, observations and monitoring are performed to ensure compliance is maintained 3.5. All non-compliances are reported as incidents maintained 3.6. All energy and greenhouse data are collected and entered into JDE 3.7. Personnel on the site have access to current versions of relevant legislation, standards and codes of practice 1. Legal and Other Requirements 3. Relevant legal and Other Requirements 3. Relevant legal and Charles										_				
Element 3: Legal and other Requirements		,												
3.1. Relevant legal, contractual and other requirements are identified and maintained in a C R R														
Legal and other obligations register	Eleme													
3.3. All necessary environmental approvals are obtained prior to commencing relevant works and surrendered on completion 3.4. Inspections, observations and monitoring are performed to ensure compliance is maintained 3.5. All non-compliances are reported as incidents 3.6. All energy and greenhouse data are collected and entered into IDE 3.7. Personnel on the site have access to current versions of relevant legislation, standards and codes of practice C		•	С	R										
and surrendered on completion 3.4. Inspections, observations and monitoring are performed to ensure compliance is maintained 3.5. All non-compliances are reported as incidents 3.6. All energy and greenhouse data are collected and entered into JDE 3.7. Personnel on the site have access to current versions of relevant legislation, standards and codes of practice Element 4: Risk and Opportunity Management	3 2			R						_				
3.3. Work is planned and executed to ensure compliance 3.4. Inspections, observations and monitoring are performed to ensure compliance is maintained 3.5. All non-compliances are reported as incidents 3.6. All non-compliances are reported as incidents 3.7. Personnel on the site have access to current versions of relevant legislation, standards and codes of practice	J.Z.		C	١,										
maintained 3.5. All non-compliances are reported as incidents 8. C R R R R R R R R R R R R R R R R R R	3.3.	<u>'</u>		С	С	С	R	С						
3.5. All non-compliances are reported as incidents 3.6. All negrey and greenhouse data are collected and entered into JDE 3.7. Personnel on the site have access to current versions of relevant legislation, standards and codes of practice Element 4: Risk and Opportunity Management	3.4.	· · · · · · · · · · · · · · · · · · ·		С		С		R						
3.6. All energy and greenhouse data are collected and entered into JDE 3.7. Personnel on the site have access to current versions of relevant legislation, standards and codes of practice C														
3.7. Personnel on the site have access to current versions of relevant legislation, standards and codes of practice Rement Risk and Opportunity Management Risk and Opportunity Management Risk and Opportunity Management Risk and Opportunities are analysed and evaluated according to agreed criteria and recorded in a risk register A.3. Environmental controls appropriate to the level of risk are identified, documented and implemented Risk and controls appropriate to the level of risk are identified, documented and Risk Risk and controls appropriate to the level of risk are identified, documented and Risk Risk and controls appropriate to the level of risk are identified, documented Risk Risk		, ,												
codes of practice Image: Risk and Opportunity Management Risk and Opportunity Management Risk and Opportunity Management Risk and Opportunities at all stages of the Project Risk and opportunities at all stages of the Project Risk and opportunities at all stages of the Project Risk and opportunities at all stages of the Project Risk and opportunities are analysed and evaluated according to agreed criteria Risk and corportunities are analysed and evaluated according to agreed criteria Risk and cerorded in a risk register Risk and cerorded in a risk register Risk and controls appropriate to the level of risk are identified, documented and implemented Risk and controls appropriate to the level of risk are identified, documented and Risk and controls appropriate to the level of risk are identified Risk and controls appropriate to the level of risk are identified Risk and controls appropriate to the level of risk are identified Risk and controls appropriate to the level of risk are identified Risk and controls appropriate to the level of risk are identified Risk and controls are conducted to check effectiveness of controls Risk and controls are regularly reviewed. Risk and controls are possible to planned operations that have potential environmental consequences are Risk and controls appropriate Risk and controls are regularly reviewed. Risk and controls are regula		<u> </u>	С								С			
Element 4: Risk and Opportunity Management R C C C C C C C C C C C C C C C C C C	3.7.	9 ,		C										R
4.1. Systematic processes are defined and implemented for identifying environmental risks and opportunities at all stages of the Project 4.2. Identified risks and opportunities are analysed and evaluated according to agreed criteria and recorded in a risk register 4.3. Environmental controls appropriate to the level of risk are identified, documented and consultation and communicated to all affected personnel and enquiries are effectively managed for identified. 8. C.	Eleme													
opportunities at all stages of the Project 4.2. Identified risks and opportunities are analysed and evaluated according to agreed criteria and recorded in a risk register 4.3. Environmental controls appropriate to the level of risk are identified, documented and implemented 4.4. Feasible opportunities are implemented 4.4. Feasible opportunities are implemented 4.5. Identified environmental risks and controls are communicated to all relevant personnel 4.6. Regular inspections and monitoring are conducted to check effectiveness of controls 4.7. Environmental risks and controls are regularly reviewed. 4.8. Identified environmental risks and controls are regularly reviewed. 4.9. Controls associated with identified changes are assessed and controlled before changes are implemented 5.1. Changes to planned operations that have potential environmental consequences are inherented 5.2. Risks associated with identified changes are assessed and controlled before changes are implemented 5.3. All changes with environmental consequences are authorised before they are implemented 5.4. Controls associated with change are communicated to all affected personnel 6.2. Relationships with environmental stakeholders are identified 6.3. Internal consultative forums are established with regular meetings scheduled, conducted, odocumented and communicated communicated 6.4. Environmental complaints and enquiries are recorded and responded to appropriately 6.5. The effectiveness of internal and external stakeholder engagement is evaluated and			R	С	С	С		С						
4.2. Identified risks and opportunities are analysed and evaluated according to agreed criteria and recorded in a risk register 4.3. Environmental controls appropriate to the level of risk are identified, documented and implemented 4.4. Feasible opportunities are implemented 4.5. Identified environmental risks and controls are communicated to all relevant personnel 4.6. Regular inspections and monitoring are conducted to check effectiveness of controls 4.7. Environmental risks and controls are regularly reviewed. 4.8. C C C C C C C C C C C C C C C C C C	4.1.													
4.3. Environmental controls appropriate to the level of risk are identified, documented and implemented 4.4. Feasible opportunities are implemented 4.5. Identified environmental risks and controls are communicated to all relevant personnel 4.6. Regular inspections and monitoring are conducted to check effectiveness of controls 4.7. Environmental risks and controls are regularly reviewed. 4.8. C C C C C C C C C C C C C C C C C C	4.2.	Identified risks and opportunities are analysed and evaluated according to agreed criteria	R	С		С								С
4.4. Feasible opportunities are implemented 4.5. Identified environmental risks and controls are communicated to all relevant personnel 4.6. Regular inspections and monitoring are conducted to check effectiveness of controls 4.7. Environmental risks and controls are regularly reviewed. 4.8. Regular inspections and monitoring are conducted to check effectiveness of controls 4.7. Environmental risks and controls are regularly reviewed. 4.8. Regular inspections and monitoring are conducted to check effectiveness of controls 4.8. C C C C C C C C C C C C C C C C C C	4.3.	Environmental controls appropriate to the level of risk are identified, documented and	С	С		С								R
4.6. Regular inspections and monitoring are conducted to check effectiveness of controls C R C C C C C C C C C C C C C C C C C	4.4.	·	R											С
4.7. Environmental risks and controls are regularly reviewed. Element 5: Change Management 5.1. Changes to planned operations that have potential environmental consequences are identified 5.2. Risks associated with identified changes are assessed and controlled before changes are implemented 5.3. All changes with environmental consequences are authorised before they are implemented 6.4. Controls associated with change are communicated to all affected personnel Communication and Consultation Communication and Consultation and Consultation Communication and Consultation and Consultation Communication and Consultation a	4.5.	., .	R	С		С		С		С			С	
Element 5: Change Management 5.1. Changes to planned operations that have potential environmental consequences are identified 5.2. Risks associated with identified changes are assessed and controlled before changes are implemented 6.3. All changes with environmental consequences are authorised before they are implemented 6.1. External environmental stakeholders are identified 6.2. Relationships with external stakeholders are effectively managed 6.3. Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated 6.4. Environmental complaints and enquiries are recorded and responded to appropriately 6.5. The effectiveness of internal and external stakeholder engagement is evaluated and 6.6. Changes to planned operations that have potential environmental consequences are authorised before they are implemented 8. C C C C C C C C C C C C C C C C C C C	4.6.	Regular inspections and monitoring are conducted to check effectiveness of controls	С	R		С		С						
5.1. Changes to planned operations that have potential environmental consequences are identified 5.2. Risks associated with identified changes are assessed and controlled before changes are implemented 5.3. All changes with environmental consequences are authorised before they are implemented 6.4. Controls associated with change are communicated to all affected personnel 6.1. External environmental stakeholders are identified 6.2. Relationships with external stakeholders are effectively managed 6.3. Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated 6.4. Environmental complaints and enquiries are recorded and responded to appropriately 6.5. The effectiveness of internal and external stakeholder engagement is evaluated and C C C C C C C C C C C C C C C C C C C			R	С		С								
identified 5.2. Risks associated with identified changes are assessed and controlled before changes are implemented 5.3. All changes with environmental consequences are authorised before they are implemented 7.4. Controls associated with change are communicated to all affected personnel 8. C C C C C C C C C C C C C C C C C C C						_								
implemented 5.3. All changes with environmental consequences are authorised before they are implemented R C C C C 5.4. Controls associated with change are communicated to all affected personnel C C R Element 6: Communication and Consultation C R 6.1. External environmental stakeholders are identified 6.2. Relationships with external stakeholders are effectively managed 6.3. Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated 6.4. Environmental complaints and enquiries are recorded and responded to appropriately C C C C C R R C C C C C C C C C C C		identified			С	С								
5.4. Controls associated with change are communicated to all affected personnel C	5.2.	· · · · · · · · · · · · · · · · · · ·	R	С				С						с
Element 6: Communication and Consultation C C Relationships with external stakeholders are identified 6.2. Relationships with external stakeholders are effectively managed R C C 6.3. Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated 6.4. Environmental complaints and enquiries are recorded and responded to appropriately C C C R C C C C C C C C C C C C C C			R		С		С	_						
6.1. External environmental stakeholders are identified 6.2. Relationships with external stakeholders are effectively managed 6.3. Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated 6.4. Environmental complaints and enquiries are recorded and responded to appropriately 6.5. The effectiveness of internal and external stakeholder engagement is evaluated and C R C C C C C C C C C C C								С						R
6.1. External environmental stakeholders are identified 6.2. Relationships with external stakeholders are effectively managed 6.3. Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated 6.4. Environmental complaints and enquiries are recorded and responded to appropriately 6.5. The effectiveness of internal and external stakeholder engagement is evaluated and C C C	Eleme	nt 6: Communication and Consultation										D		
6.2. Relationships with external stakeholders are effectively managed R C 6.3. Internal consultative forums are established with regular meetings scheduled, conducted, documented and communicated R C 6.4. Environmental complaints and enquiries are recorded and responded to appropriately C C 6.5. The effectiveness of internal and external stakeholder engagement is evaluated and R C	6.1	External environmental stakeholders are identified		C								ц		
6.3. Internal consultative forums are established with regular meetings scheduled, conducted, R C C C C C C C C C C C C C C C C C C				R								С		
documented and communicated 6.4. Environmental complaints and enquiries are recorded and responded to appropriately C C R 6.5. The effectiveness of internal and external stakeholder engagement is evaluated and R C C C			R										С	
6.5. The effectiveness of internal and external stakeholder engagement is evaluated and R C C C		documented and communicated												
improvea.	6.5.		R	С								С	С	
		improvea.												

Eleme	nt 7: Training and Competency					_	_			
7.1.	All personnel have completed an induction containing relevant environmental information before they are authorised to work on the Project		R			С			С	
7.2.	A training plan is developed and documented		R			С	\dashv	\neg	\neg	
7.3.	Personnel are trained and assessed according to the training plan	R	С			С	\dashv	\neg	\neg	
7.4.	Training records are maintained and accessible to relevant personnel.		С			R	\dashv	\neg	\dashv	
Eleme						\dashv	\dashv		\dashv	
			С	С			R			
8.1.	Selection processes ensure that subcontractors meet CPB Contractors' minimum environmental requirements									
8.2.	Planning requirements of all subcontractor work scopes are completed and communicated prior to commencing work		С	R			С			
8.3.	Compliance requirements for high risk environmental activities are identified and enforced		С	R			С			
8.4.	Subcontractor documentation is submitted and reviewed to meet Project requirements		R	С			С			
8.5.	Changes to the scope of work are managed as a Project change			С			R			
8.6.	Subcontractors actively participate in environmental management and training on the Project		С	С			R			С
8.7.	Subcontractors are reviewed to assess their performance and compliance with our minimum environmental requirements.		R	С	С					
Eleme	nt 9: Incident Management									
9.1.	All incidents are followed by appropriate response and notification	R	С	С	С			С		
9.2.	All incidents are entered and managed in Synergy	С	R				\exists			
9.3.	Incident investigations are conducted appropriate to the type of incident	R	С	С	С		\exists			
9.4.	All personnel conducting incident investigations are trained to competently perform the task	R								
9.5.	Corrective and preventive actions are taken after incidents and lessons are shared with other projects	R	С							
9.6.	High potential and repeat incidents are regularly reviewed by the project management team	С	R							
Eleme	nt 10: Emergency Planning and Response									
10.1.	Potential emergencies are identified using a formal risk assessment process	R	С							
10.2.	Emergency response plans and procedures are developed and regularly reviewed	R	С						С	
10.3.	Adequate resources are provided to effectively implement emergency response plans and procedures	R	С						С	
10.4.	Environmental emergency response drills are conducted	R	С						С	
10.5.	Employees, contractors and visitors are given appropriate emergency response training.		С			R			С	
Eleme	nt 11: Document and Record Management									
11.1.	Current versions of all relevant documents and records are available and controlled.	С	R							
11.2.	Relevant documents and records will be maintained using corporate business applications and systems	R								
Eleme	nt 12: Auditing, Review and Improvement									
12.1.	Environmental performance trends are identified and corrective actions are implemented as required	R	С							
12.2.	A monthly environmental report is produced and distributed	С	R			\top	\dashv		\neg	
12.3.	Regular management reviews are conducted to determine the continuing suitability, adequacy and effectiveness of the Environmental Management System	R	С				\top			С
12.4.	Audits are undertaken to ensure compliance with the requirements of the EMP	R	С				\neg			С
12.5.	All audits are undertaken by suitably qualified and experienced personnel					\top	\dashv		\neg	R

R = Responsible, **C** = Key Contributor

Appendix C: MIRRA Schedule

(Monitoring, Inspections, Reporting, Review, Audit) Schedule

Name	Detail	Frequency	By Whom	Resources
MONITORING				
Water Quality	Water quality parameters including pH, EC, temp, Turbidity	As required	Environment Advisor	Environmental Monitoring form
INSPECTIONS				
Site Inspection	Environmental zone inspections	Weekly	Environment Advisor	Weekly Environmental Inspection Checklist
REPORTING				
Environmental Report	Detail on Environmental achievements, monitoring results, incidents, audit outcomes	Monthly	Environment Advisor	As part of Monthly Project Report
REVIEW				
EMP Review	Review of sub plans and Appendices	Quarterly	Environment Advisor	EMP
Risk Register Review	Review risks in relation to changes to work activity onsite	Monthly	Environment Advisor	Risk Register
Site Env Plan	Review site environmental controls in relation to work activity onsite to ensure reflective of site conditions	Monthly	Environment Advisor	ТВС
AUDIT				
CPB Contractors Internal SHEQ Audit	Review of EMP compliance to CPB Contractors EMS/ ISO14001	As per BU SHEQ Audit schedule	SHEQ Team	ТВС
VicRoads Client Audit	Review of EMP compliance to CPB Contractors EMS/ ISO14001	Annually (FMBH Quarterly)	VicRoads Representative	ТВС