

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX C – REGULATORY REQUIREMENTS, POLICIES, GUIDELINES AND STANDARDS

Relevant Environmental Legislation

Relevant legislation	Relevance to project	Administering authority	Relevant approvals / consultation
Environmental Planning and Assessment Act, 1979	<p>Part 3A: HEA deemed Part 3A project.</p> <p>Part 4: Development consent</p> <p>Part 5: REF/EIS</p> <p>Note: Part 4 and 5 may only be relevant if additional works outside of the approved project are proposed. RTA maintenance activities are generally approved under Part 5.</p>	Department of Planning (DoP), Local Councils	<p>Approval for the CEMP</p> <p>Approval in accordance with Part 4 or Part 5 of the EP&A Act as relevant.</p>
Local Government Act, 1993	Installation of sewage treatment facilities.	LMCC and CCC	Both Councils shall be consulted prior to the installation of sewage treatment facilities, for example in rest areas, should they be constructed.
SEPP 55 Remediation of Land	Any development on land considered to be contaminated for which development consent is required.	DoP, Relevant Local Council	This is not applicable for this project unless contaminated land is uncovered. Depending on the category of remediation required, the maintenance contractors may be required to provide the Council with specific information.
Pollution prevention			
Protection of the Environment Operations Act 1997	<p>Pollution incident prevention and notification.</p> <p>Environmental Protection Licence</p>	DECCW	Notification of environmental incidents in accordance with POEO Act.
Road and Rail Transport (Dangerous Goods) Act 1997	Transportation dangerous goods by road or by rail.	DECCW and WorkCover	<p>s37 – general duty to ensure that dangerous goods are transported in a safe manner.</p> <p>A dangerous goods transportation licence is required when carrying bulk containers with a total capacity of 3000L. (e.g. 3 Intermediate Bulk Containers (IBCs) each with a capacity of 1000L may be transported without the need for a licence). Warning signs and record keeping requirements apply when transporting dangerous goods.</p>

Relevant legislation	Relevance to project	Administering authority	Relevant approvals / consultation
Environmentally Hazardous Chemicals Act, 1985	Usage of hazardous chemicals.	DECCW	s13 – Licences may be required for the manufacturing, processing, keeping, distributing, conveying, using, selling or disposing of an environmentally hazardous chemical or declared chemical waste (e.g. organochlorine pesticides)
Environmentally Hazardous Chemicals Regulation, 1999	Usage of hazardous chemicals.	DECCW	This Regulation sets fees for licences to carry out prescribed activities in relation to environmentally hazardous chemicals or declared chemical waste such as asbestos, and specifying the matters to be included in notices issued by the DECCW about applications for licences. Applies only if asbestos materials or asbestos contaminated soils are encountered during the project.
Pesticides Act, 1999	Usage of Pesticides	DECCW	Governs the use of pesticides in an environmentally satisfactory manner. s12 - and s13 prohibit the use of an unregistered pesticide without a permit. s14 - requires that you read or have read to you the label or permit for the pesticide. s15 - requires that you use the registered pesticide in accordance with instructions on the label. s16 - states the pesticide container must have the approved label attached. s17 - prohibits the use or possession of any restricted pesticides unless authorised by a certificate of competency or a pesticide control order under the Act.
Soil / land			
Soil Conservation Act, 1938	Prevention of soil erosion.	NSW Office of Water (formerly DWE)	No requirement for permits/approvals identified.

Relevant legislation	Relevance to project	Administering authority	Relevant approvals / consultation
Contaminated Land Management Amendment Act 2008	<p>Depending on the category of remediation required, the RTA may be required to provide the Council with specific information.</p> <p>Development consent may be required for contaminated land remediation work carried out.</p> <p>Duty to report contamination may be triggered</p>	DECCW	<p>s60 – duty to report contamination to DECCW is required if:</p> <ul style="list-style-type: none"> • Contamination exceeds guideline level on land • Contamination enters or may enter neighbouring land and exceeds guideline level • Contamination otherwise meets criteria in regulations
Flora and fauna protection			
National Parks and Wildlife Act, 1974		DECCW	Regulates the use of national parks and other areas administered by the NPWS including all licenses and certificates.
Threatened Species Conservation Act, 1995	EECs occur along the proposed route. Damage to threatened species, endangered ecological community or critical habitat is prohibited with the exception of works approved in accordance with the EP&A Act.	DECCW	No approvals are identified. Consultation shall be carried out with DECCW in accordance with EP&A Act approvals. Approvals may be required to remove vegetation in some areas should it be required.
Native Vegetation Act, 2003	Not applicable to approved projects under Part 5 or Part 3A of the EP&A Act.	DECCW	No approvals identified.

Relevant legislation	Relevance to project	Administering authority	Relevant approvals / consultation
Noxious Weeds Act, 1993	Noxious weeds occur along the proposed route.	Industry and Investment NSW (formerly DII)	<p>Consultation with local weeds authority. Potential relevant sections include:</p> <p>s13 – must control spread of noxious weeds onto adjoining land.</p> <p>s15 – must notify relevant control authority within 3 days of becoming aware that a notifiable weed (Class 1,2,or 5) is on land.</p> <p>s27 – must notify police and Dept of Agriculture of proposed action to control a “prohibited plant” as defined under the Drug Misuse and Trafficking Act 1985.</p> <p>s30 – must not scatter or cause to scatter notifiable weed material.</p>
Water Management Act 2000	Consultation shall be carried out with local representatives to determine relevant sections.	NSW Office of Water	<p>Approval is required to undertake water supply works, drainage works, or floodplain works.</p> <p>The Act applies when Water Sharing Plans have been gazetted that cover the project area or parts within.</p>
Water Act 1912	Consultation shall be carried out with local DWE representatives to determine relevant sections.	NSW Office of Water	<p>A licence or permit is required for construction or use of a “work” for certain purposes. The application for a licence is to include certain information on how and what quantity of water is to be extracted.</p> <p>Note: A “work” includes taking and using water from a dam, lock, reservoir, weir, regulator, flume, race, channel, cutting, well, excavation, tunnel, pipe, sewer, machinery or appliance.</p> <p>An approval is required for “controlled works” and may be granted with conditions attached.</p> <p>Note: A “controlled work” includes constructing any work located on the bank of a river or lake, or within a floodplain, or affecting the quantity of water flowing in a river or a lake.</p> <p>All licenses will remain in the control of the HEA Alliance.</p>

Relevant legislation	Relevance to project	Administering authority	Relevant approvals / consultation
Fisheries Management Act 1994 Fisheries Management Amendment Act 1997 (FMAA) Fisheries Management (General) Regulation 2002	<p>The project transverses many waterways and fish habitat localities that are regulated by NSW Fisheries. Depending on the location and activity consultation, notification and/or approval to undertake works may be required. Such work may include:</p> <ul style="list-style-type: none"> ▪ dredging or reclamation work. ▪ construction, alteration or modification a dam, weir or reservoir on a waterway. ▪ blocking of fish passage ▪ underwater blasting 	Industry and Investment NSW	<p>s192-220, s193- Notification of any proposal to remove or relocate snags. The Alliance is also required to have regard to any Habitat Protection Plan in exercising any of its functions.</p> <p>s 218 – Prior to construction, alteration or modification of a dam weir or reservoir on a waterway the Alliance is required to notify the Minister and incorporate a bypass or fish-way if requested from the DI&I NSW.</p> <p>s219 - It is an offence under the Act to block or potentially block the passage of fish - if this is likely then the Alliance shall consult DI&I NSW.</p> <p>s199 - Notification (in writing) re: proposed dredging and reclamation activities</p> <p>It is an offence to disturb or damage gravel beds known to be spawning areas for trout and/or salmon. Damage can include erosion causing sediment impacts to the bed of the stream. Damage may be authorised by an EPI, development consent or any other approval under the EP&A Act.</p> <p>FM(G)R 2002 - The object of the Regulation is to amend the Fisheries Management (General) Regulation 2002 as follows:</p> <p>(a) to prescribe work that involves the removal of certain material from water land as dredging work for the purposes of provisions of the Fisheries Management Act 1994 relating to the management of dredging and reclamation work so that a permit will be required to carry out such work.</p>
Noise and vibration			
Protection of the Environment Operations Act 1997	An Environmental Protection License (EPL) is required in accordance with Schedule 1 of the POEO Act. All activities onsite must be undertaken in accordance with the EPL.	NSW DECCW	Redundant on surrender of existing Project EPL.
Heritage			

Appendix C Regulatory requirements, policies, guidelines and standards

Relevant legislation	Relevance to project	Administering authority	Relevant approvals / consultation
Heritage Act, 1977	There are non-aboriginal sites identified along the project. Refer to CFEMP Volume 2 (HMSP) for further details.	NSW Heritage Council	<p>The following sections may apply:</p> <p>s132 -Notice to the Heritage Council is required to damage or deface buildings, or affect or move relics, places or trees, where an order has been gazetted under s130.</p> <p>s139 – an excavation permit</p> <p>s146 – notice of relic discovery to the Heritage Council</p>
National Parks and Wildlife Act, 1974	Both aboriginal sites and objects, and PADs are located along the route. Refer to CFEMP Volume 2 (HMSP) for further details.	DECCW	<p>s87 – A permit is required to excavate, move, remove or exhibit any Aboriginal object.</p> <p>s90 – A permit is required to destroy, deface, damage or desecrate or cause or permit the destruction, defacement, damage or desecration of an Aboriginal object or Aboriginal place.</p> <p>(Refer to Volume 2 HMSP for requirements relating to PADs along the alignment)</p>
General			
Waste Avoidance and Resource Recovery Act, 2001	Resource Management shall be undertaken in accordance with this legislation.	DECCW	The RTA Asset Maintenance Manager shall report on resource and waste management criteria as specified in the waste management plan. The RTA must report on the progress of implementing the NSW Government's Waste Reduction and Purchasing Policy.

Relevant legislation	Relevance to project	Administering authority	Relevant approvals / consultation
Protection of the Environment Operations (General) Regulations, 1998	<p>Provides details on everyday implementation of the POEO Act to control pollution of the environment including the following areas:</p> <ul style="list-style-type: none"> ▪ identifies scheduled activities, premises, and licence requirements, and situations where remedial notices and orders can be issued ▪ creates a framework for managing licence requirements ▪ identifies appropriate regulatory authorities to administer licences and pollution controls and issue notices. ▪ Applies to the management and disposal of waste from the works. 	DECCW	Notification of environmental incidents in accordance with EPL and POEO Act.
Protection of the Environment Operations (Waste) Regulation, 2005	<p>Provides for waste assessment and classification. It sets requirements for handling, storage, transport and disposal of wastes including reporting requirements.</p> <p>Applies to disposal of all wastes from the works.</p>	DECCW	Notification of environmental incidents in accordance with EPL and POEO Act. Application to DECCW for licence.
Rural Fire Regulation, 2002	<p>Provides details on everyday implementation of the <i>Rural Fires Act, 1997</i>.</p>	Rural Fire Services	See below.

Relevant legislation	Relevance to project	Administering authority	Relevant approvals / consultation
The Rural Fires Act, 1997	<p>The objects of this Act are to provide:</p> <ul style="list-style-type: none"> ▪ for the prevention, mitigation and suppression of bush and other fires in local government areas, (or parts of areas) and other parts of the State constituted as rural fire districts ▪ for the co-ordination of bush fire fighting and bush fire prevention throughout the State ▪ for the protection of persons from injury or death, and property from damage, arising from fires ▪ for the protection of the environment by requiring certain activities to be carried out having regard to the principles of ecologically sustainable development 	Rural Fire Services	<p>Applies in the event of bushfire restrictions or the occurrence of bushfires in the vicinity of the project.</p> <p>Under the <i>Rural Fires Act 1997</i> the Fire Danger Period normally runs from 1st October to 31st March but can be extended by the Rural Fires Commissioner. During Fire Danger Periods a permit from the Local RFS Control Centre is generally required to carry out burning for land clearing, creating a fire break or lighting fires presenting danger to any building (e.g. hot works).</p> <p>Total Fire Bans (TFB) are also declared by the Rural Fires Commissioner. These apply to selected fire weather zones. The declaration is made in the Government Gazette and announced on local radio and TV the day prior to the ban. Call 1800 679 737 for information on TFB currently in force or visit the RFS website.</p> <p>During TFB, permits are suspended as they are declared as NO BURN DAYS and no open flame is permitted to be lit, maintained or used unless an exemption applies. Note this includes Hot Works.</p> <p>Exemptions that are relevant to road construction and maintenance activities are: Works urgent in nature, bitumen road works, and exemptions provided by the RFS Commissioner.</p>

Other Statutory Obligations

The HEA CEMP aligns with a number of key documents, policies, procedures and plans. Those relevant are summarised below.

Key Documents

Document type	Document name
Environmental Assessments and Approvals	<ul style="list-style-type: none"> i. The original request for approval of the proposal, including: <ul style="list-style-type: none"> • Proposed Highway Link – F3 Freeway to Branxton, Environmental Impact Statement (EIS) (Connell Wagner, June 1995); • Proposed Highway Link – F3 Freeway to Branxton, Fauna Impact Statement (FIS) (Connell Wagner, January 1997) and accompanying documentation, Flora and Fauna Modification approval dated 19 August 2007 Report (Mount King Ecological Surveys, 1995), Fauna Survey Greta Deviation (Connell Wagner, 1996) and Herptofauna Survey (Richard Wells, 1995); • Additional Flora and Fauna Assessment (AFFA) (Connell Wagner, May 2001), to supplement the original FIS; • Representations Report (three volumes) (RTA, October 2001); • Supplementary Review of Environmental Factors for the Allandale to Illalong Section Comparison of Options (SREF) (Connell Wagner, August 2000); • Kurri Sand Swamp Woodland Recovery Assessment (Biosis Research, August 2001), a report commissioned jointly by the RTA and NPWS; • Additional Environmental and Engineering Assessment (Connell Wagner, May 2001); And • Compensatory Habitat Proposal and Candidate Areas – Stage 2 Report (Connell Wagner, September 2001); • the Minister for Planning's Conditions of Approval dated 7 November 2001;

Document type	Document name
	<p>ii. The staged construction modification request (MOD-10-1-2006-i), including:</p> <ul style="list-style-type: none"> • correspondence from the RTA to the Department, dated 20 December 2005, accompanied by F3 Freeway to Branxton Link – Modification to Permit Staged Construction (Acacia Environmental Planning Pty Ltd, September 2005); • the Minister for Planning's Modification Approval dated 31 July 2006;
	<p>iii. the alignment and ancillary infrastructure modification request (07_0033 Mod 1), including:</p> <ul style="list-style-type: none"> • correspondence from the RTA to the Department, dated 12 March 2007; • F3 Freeway to Branxton Link: Modification to the Approved Project Environmental Assessment (Acacia Environmental Planning Pty Ltd, March 2007); • F3 Freeway to Branxton Link: Threatened Species Assessment for Proposed Design Changes (Biosis Research, January 2007); • Noise Assessment: National Network, F3 to Branxton Link (Atkins Acoustics, February 2007); • Socioeconomic Analysis of the Proposed Tuckers Lane to Black Creek Modification (Centre for International Economics, January 2005); • F3 Freeway to Branxton Link: Submissions Report (Stuart J Hill Pty Ltd, June 2007); and • the Minister for Planning's Modification Approval dated 19 August 2007 • the Minister for Planning's Modification Approval dated 28 June 2010

Standards, Policies and Guidelines

During construction, the project will also need to undertake practices in accordance with a number of standards, government policies and guidelines, as identified in the following tables.

Relevant RTA Environmental Policies and Reference Documentation

RTA documentation

- Environmental Impact Assessment Policy, Guidelines and Procedures 2001
- Environmental Incident Classification and Management Procedure 2008
- Beyond the Pavement 2004
- Heritage Guidelines January 2004 and relevant updates
- Environmental Noise Management Manual 2004
- Landscape Guidelines
- Road Design Guide – Part 8 Erosion and Sedimentation, 1993
- Roadside Environment Strategic Plan, 1995
- Code of Practice for Water Management (Road Development and Management, 1999).
- Guidelines for the Management of Acid Sulfate Materials: Acid Sulfate Soils, Acid Sulfate Rock and Monosulfidic Black Ooze
- Code of Practice for Water Management – Road Development and Management 1999
- G34 – Environmental Protection (Maintenance Activities)
- G36 – Environmental Protection (Management System)
- G39 – Soil and Water Management (Erosion and Sedimentation Control)
- R44 – Earthworks
- R176 – Seed Collection
- R178 – Vegetation
- R179 – Landscaping

Relevant Standards

Australian and British Standards

- AS 1055.1, AS 1055.2 and AS 1055.3 Acoustics - Description and management of environmental noise;
- AS 2659.1 - Guide to the use of sound measuring equipment
- AS 2659 - Sound level meters
- AS 2072 Acoustics - Methods for Measurement of Road Traffic Noise
- AS 3580.10.1 1991 Deposited Matter - Gravimetric methods for insoluble solids
- AS 2992 1987 Ambient Air - guide for the siting of sampling units
- AS 2031 - Selection of containers and preservation of water samples for chemical and microbiological analysis
- AS 2187 Explosives - Storage, transport and use
- AS 1216 - Classification, hazard identification and information systems for dangerous goods
- AS 1940 - Storage and handling of flammable and combustible liquids
- AS 2508 - Safe storage and handling. Information cards for hazardous materials
- AS 3580.10.1 - Determination of Particulates - Deposited Matter - Gravimetric Method
- British Standard 6472 Guide to Evaluation of Human Exposure to Vibration in Buildings (1Hz to 80 Hz)

Relevant Environmental Guidelines

General guidelines

- Guideline for the preparation of environmental management plan – DIPNR – 2004
- Environmental Criteria for Road Traffic Noise EPA 1999
- ANZECC Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration 1990
- ANZECC Australian Guidelines for Water Quality Monitoring and Reporting, 2000
- ANZECC Australian Water Quality Guidelines for Fresh and Marine Waters, 2000
- Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings. (2003)

General guidelines

- Fish Passage Requirements for Waterway Crossings - Engineering Guidelines, 2002.
- Policy and Guidelines for Fish Friendly Waterway Crossings, 2003
- AWWA Standard Methods for the Examination of Water and Wastewater.
- Managing Urban Stormwater: Soils and Construction “The Blue Book”, Landcom, 2004
- Managing Urban Stormwater: Soils and Construction “The Blue Book” Volume 2D – Main road construction, Department of Environment and Climate Change, 2008
- Policy and Guidelines – Aquatic Habitat Management and Fish Conservation, NSW Fisheries 1998.
- Guidelines on the duty to report contamination under the Contaminated Land Management Act 1997
- Acid Sulphate Soils Manual (ASSMC 1998)
- Policy and Guidelines for Bridges, Roads, Causeways, Culverts and Similar Structures, NSW Fisheries Office of Conservation, June 1999
- Hazardous Industry Planning Advisory Paper No. 3 – Environmental Risk Impact Assessment Guidelines, June 1996, DUAP
- Waste Classification Guidelines 2008 (DECCW publication)
- Best Practice Waste Reduction Guidelines for the Construction and Demolition Industry (Tools for Practice), Natural Heritage Trust, 2000
- Bunding and Spill Management (EPA 2005)
- NSW Groundwater Policy Framework Document, 1997 (<http://www.water.nsw.gov.au/Water-Management/Law-and-Policy/Key-policies/default.aspx>)
- NSW Groundwater Quality Protection Policy, 1998 (<http://www.water.nsw.gov.au/Water-Management/Law-and-Policy/Key-policies/default.aspx>)
- NSW State Groundwater Dependent Ecosystem Policy, 2002 (<http://www.water.nsw.gov.au/Water-Management/Law-and-Policy/Key-policies/default.aspx>)
- NSW State Rivers and Estuaries Policy, 1993 (<http://www.water.nsw.gov.au/Water-Management/Law-and-Policy/Key-policies/default.aspx>)
- Guidelines for Controlled Activities, 2008 (<http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/Controlled-activities/default.aspx>)

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX D – ENVIRONMENTAL RISK REGISTER

RISK ASSESSMENT TABLE

Table D-1: Summary of environmental aspects and impacts

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
Environmental - general	Culture	Poor environmental culture leading to increased environmental incidents	4 - Major	D - Unlikely	Medium	Construction Environmental Management Plan Construction Noise and Vibration Management Sub Plan Soil and Water Management Sub Plan Construction Air Quality Management Sub Plan Historical Heritage Management Sub Plan Indigenous Heritage Management Sub Plan Waste Management and Re-Use Sub Plan Hazard and Risk Management Sub Plan Flora and Fauna Management Sub Plan Spoil Management Sub Plan
	Performance	Poor non-conformance systems	3 - Moderate	D - Unlikely	Medium	Construction Environmental Management Plan Construction Noise and Vibration Management Sub Plan Soil and Water Management Sub Plan Construction Air Quality Management Sub Plan Historical Heritage Management Sub Plan Indigenous Heritage Management Sub Plan Waste Management and Re-Use Sub Plan Hazard and Risk Management Sub Plan Flora and Fauna Management Sub Plan Spoil Management Sub Plan
	Performance	Issues not actioned	4 - Major	C - Possible	High	Construction Environmental Management Plan
	Performance	Issues are not identified	4 - Major	D - Unlikely	Medium	Construction Environmental Management Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
	Performance	Poor relationships with relevant Government Agencies and Councils.	3 - Moderate	C - Possible	Medium	Construction Environmental Management Plan Construction Noise and Vibration Management Sub Plan Soil and Water Management Sub Plan Construction Air Quality Management Sub Plan Historical Heritage Management Sub Plan Indigenous Heritage Management Sub Plan Waste Management and Re-Use Sub Plan Hazard and Risk Management Sub Plan Flora and Fauna Management Sub Plan Spoil Management Sub Plan Design Management Plan
	Performance	Breach of Environmental Protection Licence	4 - Major	C - Possible	High	Construction Noise and Vibration Management Sub Plan Soil and Water Management Sub Plan Construction Air Quality Management Sub Plan
	Performance	Working hour conditions not complied with.	3 - Moderate	C - Possible	Medium	Construction Environmental Management Plan Construction Noise and Vibration Management Sub Plan
	Performance	Failure to comply with Minister of Planning Conditions of Approval and applicable legislation.	3 - Moderate	C - Possible	Medium	Construction Environmental Management Plan
Noise, vibration and blasting	General	Exceedance (complaint) of construction noise limits within approved working hours	2 - Minor	B - Likely	Medium	Construction Noise and Vibration Management Sub Plan
	General	Structural damage due to vibration (tunnel + artefacts)	4 - Major	C - Possible	High	Construction Noise and Vibration Management Sub Plan
	General	Inadequate consideration of noise impacts from construction traffic	2 - Minor	C - Possible	Medium	Construction Noise and Vibration Management Sub Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
	Piling	Noise impacts on sensitive receivers during construction	2 - Minor	C - Possible	Medium	Construction Noise and Vibration Management Sub Plan
	Blasting	Exceedance of overpressure and vibration	3 - Moderate	C - Possible	Medium	Construction Noise and Vibration Management Sub Plan
	Saw cutting	Generating complaints due to out of hours work activities	2 - Minor	C - Possible	Medium	Construction Noise and Vibration Management Sub Plan
	Design/construction of compounds / batch plant	Inadequate design / location of site compounds / batch plants	3 - Moderate	D - Unlikely	Medium	Construction Environmental Management Plan Construction Noise and Vibration Management Sub Plan Design Management Plan
	Notifications	Failure to notify local community of noisy works resulting in complaints	2 - Minor	C - Possible	Medium	Construction Environmental Management Plan Construction Noise and Vibration Management Sub Plan
Aboriginal cultural heritage	Vegetation clearing. Removal, stockpiling and respreading of soil. Site establishment - site compounds, access points and access routes. Dismantling of existing structures. Adjustments of existing public utilities. Site revegetation.	Disturbance / destruction of identified Aboriginal objects and places (i.e. Minmi Creek)	4 - Major	C - Possible	High	Indigenous Heritage Management Sub Plan
		Disturbance / destruction of unidentified Aboriginal objects and places	3 - Moderate	D - Unlikely	Medium	Indigenous Heritage Management Sub Plan
		Poor relationships with Aboriginal communities	3 - Moderate	D - Unlikely	Medium	Indigenous Heritage Management Sub Plan
		Breach of approvals	3 - Moderate	D - Unlikely	Medium	Indigenous Heritage Management Sub Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
						Construction Environmental Management Plan
		Failure to notify appropriate authorities in case of Aboriginal relics disturbance	3 - Moderate	E - Rare	Medium	Indigenous Heritage Management Sub Plan Construction Environmental Management Plan
		Structural damage to Aboriginal heritage items (i.e. Minmi Creek)	4 - Major	C - Possible	High	Indigenous Heritage Management Sub Plan Construction Noise and Vibration Management Sub Plan
		Inadequate protection of identified Aboriginal sites	2 - Minor	D - Unlikely	Low	Indigenous Heritage Management Sub Plan
		Interference from dissatisfied groups	3 - Moderate	C - Possible	Medium	Community Involvement Plan
		D&C issues effecting Alliance	2 - Minor	D - Unlikely	Low	Construction Environmental Management Plan
Historical heritage	Vegetation clearing. Removal, stockpiling and respreading of soil. Site establishment - site compounds, access points and access routes. Dismantling of existing structures. Adjustments of existing public utilities. Site revegetation.	Disturbance / destruction of identified historical heritage objects and places	3 - Moderate	C - Possible	Medium	Historical Heritage Management Sub Plan
		Disturbance / destruction of unidentified historical heritage objects and places	2 - Minor	D - Unlikely	Low	Historical Heritage Management Sub Plan
		Breach of approvals	2 - Minor	D - Unlikely	Low	Historical Heritage Management Sub Plan
		Failure to obtain timely approvals/responses from Heritage Office	2 - Minor	D - Unlikely	Low	Historical Heritage Management Sub Plan Construction Environmental Management Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
		Failure to notify appropriate authorities in case of historical heritage relics disturbance	2 - Minor	D - Unlikely	Low	Historical Heritage Management Sub Plan Construction Environmental Management Plan
		Structural damage to historical heritage items	3 - Moderate	C - Possible	Medium	Historical Heritage Management Sub Plan Noise & Vibration Management Sub Plan
		Inadequate protection of identified historical heritage sites	2 - Minor	D - Unlikely	Low	Historical Heritage Management Sub Plan
Air quality	Vegetation clearing. Removal, stockpiling and re-spreading of soil. Site establishment - site compounds, access points and access routes. Dismantling of existing structures. Adjustments of existing public utilities. Site revegetation. Plant and equipment maintenance.	Impacts on adjacent properties from dust and emissions from heavy construction machinery & traffic	3 - Moderate	C - Possible	Medium	Construction Air Quality Management Sub Plan Spoil Management Sub plan
		Exceedance of dust deposition limits (EPL)	3 - Moderate	C - Possible	Medium	Construction Air Quality Management Sub Plan
		Reduced visibility / safety due to dust in air	2 - Minor	C - Possible	Medium	Construction Air Quality Management Sub Plan
		Poor stockpile management	2 - Minor	C - Possible	Medium	Construction Air Quality Management Sub Plan Spoil Management Sub Plan Soil & Water Management Sub Plan Landscape Management Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
		Health impacts (i.e. breathing or eye irritation) if elevated levels persist.	3 - Moderate	C - Possible	Medium	Safety Management Plan
		Inadequate dust suppression measures	2 - Minor	C - Possible	Medium	Construction Air Quality Management Sub Plan
		Poor maintenance of plant / equipment	2 - Minor	C - Possible	Medium	Construction Air Quality Management Sub Plan
		Batch plant / crushers dust emissions	3 - Moderate	B - Likely	High	Construction Air Quality Management Sub Plan
Flora and fauna	Vegetation clearing Site establishment - site compounds, access points and access routes. Removal, stockpiling and respreading of soil.	Clearing, removal and disturbance of threatened species or populations including riparian vegetation outside of approval. i.e. access tracks/ ancillary sites ..	4 - Major	C - Possible	High	Flora & Fauna Management Sub Plan
		Damage to vegetation or areas outside of designated construction sites and work compounds.	4 - Major	C - Possible	High	Flora & Fauna Management Sub Plan
		Sediments illegally entering waterways.	4 - Major	B - Likely	High	Flora & Fauna Management Sub Plan
		Death of animals during clearing.	2 - Minor	C - Possible	Medium	Flora & Fauna Management Sub Plan
		Loss and degradation of fauna habitat.	2 - Minor	B - Likely	Medium	Flora & Fauna Management Sub Plan
		Temporary blockage of fish passage during construction.	3 - Moderate	D - Unlikely	Medium	Flora & Fauna Management Sub Plan Soil & Water Management Sub Plan
		Encounter of unidentified threatened flora/fauna.	2 - Minor	C - Possible	Medium	Soil and Water Management Plan
	Site revegetation	Introduction and spreading of noxious weeds and feral fauna species.	2 - Minor	C - Possible	Medium	Flora & Fauna Management Sub Plan Spoil Management Sub Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
						Soil & Water Management Sub Plan
		Poor soil preparation for revegetation \ failure	4 - Major	B - Likely	High	Spoil Management Sub Plan Soil & Water Management Sub Plan
Waste	Vegetation clearing. Adjustments of existing public utilities. Removal, stockpiling and respreading of soil. Operation of site compound. Operation of asphalt and concrete batch plants. Plant and equipment maintenance. Vehicle wash down. Concreting activities. Dismantling of existing structures. Site revegetation.	Excess generation of waste during construction activities including building materials, excess unsuitable spoil material, vegetation material.	4 - Major	B - Likely	High	Waste Management & Re-Use Sub Plan Spoil Management Sub Plan
		Inappropriate management and storage of waste	3 - Moderate	D - Unlikely	Medium	Waste Management & Re-Use Sub Plan Spoil Management Sub Plan
		Inappropriate disposal of waste	3 - Moderate	D - Unlikely	Medium	Waste Management & Re-Use Sub Plan Spoil Management Sub Plan
		Failure to adopt waste hierarchy	2 - Minor	D - Unlikely	Low	Waste Management & Re-Use Sub Plan Construction Framework Environmental Management Plan
		Non compliance with legislation	2 - Minor	D - Unlikely	Low	Construction Environmental Management Plan Waste Management & Re-Use Sub Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
		Inappropriate spill and spill absorbent material management	2 - Minor	D - Unlikely	Low	Soil and Water Management Sub Plan Hazard and Risk Management Sub Plan
Soil and water	Vegetation clearing. Removal, stockpiling and respreading of soil. Site establishment - site compounds, access points and access routes. Adjustments of existing public utilities. Dismantling of existing structures. Operation of site compound.	Erosion and subsequent sedimentation leading to water contamination and fish kills.	3 - Moderate	B - Likely	High	Soil & Water Management Sub Plan Spoil management Sub Plan Hazard & Risk Management Sub Plan
		Inadequate provision of bunding leading to soil and water pollution	3 - Moderate	B - Likely	High	Soil & Water Management Sub Plan
		Unauthorised release of water particularly during heavy rain events.	3 - Moderate	B - Likely	High	Soil & Water Management Sub Plan
		Inadequate management of contaminated soils leading to water, soil and air pollution.	2 - Minor	D - Unlikely	Low	Soil & Water Management Sub Plan
		Water, soil and air pollution from inappropriate disposal of contaminated soils, surface water and/or groundwater.	2 - Minor	D - Unlikely	Low	Soil & Water Management Sub Plan
		Slow progressive revegetation leading to erosion.	3 - Moderate	B - Likely	High	Soil & Water Management Sub Plan Landscape Management Plan
		Poor construction works staging leading to erosion and sedimentation.	4 - Major	C - Possible	High	Construction Environmental Management Plan Soil & Water Management Sub Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
		Failure to separate clean and dirty water on site leading to water pollution.	3 - Moderate	C - Possible	Medium	Soil & Water Management Sub Plan
		Use of incorrect / ineffective flocculants leading to water pollution.	3 - Moderate	B - Likely	High	Soil & Water Management Sub Plan
		Potential disposal of contaminated groundwater from excavation works.	3 - Moderate	D - Unlikely	Medium	Soil & Water Management Sub Plan
		Mud tracking	2 - Minor	A - Almost Certain	High	Soil & Water Management Sub Plan Spoil Management Sub Plan
		Inadequate water resources	3 - Moderate	C - Possible	Medium	Soil & Water Management Sub Plan
	Management of erosion and sedimentation controls.	Inadequate ESC resources leading to poor management of erosion and sedimentation controls.	3 - Moderate	D - Unlikely	Medium	Soil & Water Management Sub Plan
	Plant and equipment maintenance.	Failure of plant / equipment leading to soil and water pollution	2 - Minor	C - Possible	Medium	Soil & Water Management Sub Plan Waste Management & Re-Use Sub Plan
	Vehicle wash down. Handling, storage and disposal of hazardous materials.	Accidental spills and leaks of oils, lubricants, fuels, chemicals, herbicides or other pollutants onsite or into nearby watercourses.	2 - Minor	C - Possible	Medium	Soil & Water Management Sub Plan
	Sediment basin construction	Slow sediment basin installation.	3 - Moderate	D - Unlikely	Medium	Soil & Water Management Sub Plan
		Insufficient clearing footprint to allow basin construction	4 - Major	B - Likely	High	Soil & Water Management Sub Plan
		Poor design and location of sediment basins.	3 - Moderate	C - Possible	Medium	Soil & Water Management Sub Plan
	Concreting activities.	Concrete wastes and washing out	3 - Moderate	D - Unlikely	Medium	Soil & Water Management Sub Plan

RISK ASSESSMENT TABLE

Category	Activities/ hazard	Impact/risk description	Risk (pre-control)			Reference to sub plan where required mitigation measures are documented
			Risk impact	Risk likelihood	Risk category	
		concrete mixers as well as slurry from saw cutting impacting upon adjacent water quality.				
	Batch plant construction.	Inadequate design / management of batch plant.	2 - Minor	D - Unlikely	Low	Soil & Water Management Sub Plan Design Management Plan
	Topsoils storage locations and management	Insufficient space for storage of topsoil	4 - Major	A - Almost Certain	Extreme	Soil & Water Management Sub Plan Spoil Management Sub Plan
		Poor vegetation establishment due to dispersive/sodic soils	3 - Moderate	B - Likely	High	Soil & Water Management Sub Plan Landscape Management Plan
		Insufficient space for sediment basin installation	3 - Moderate	B - Likely	High	Soil & Water Management Sub Plan

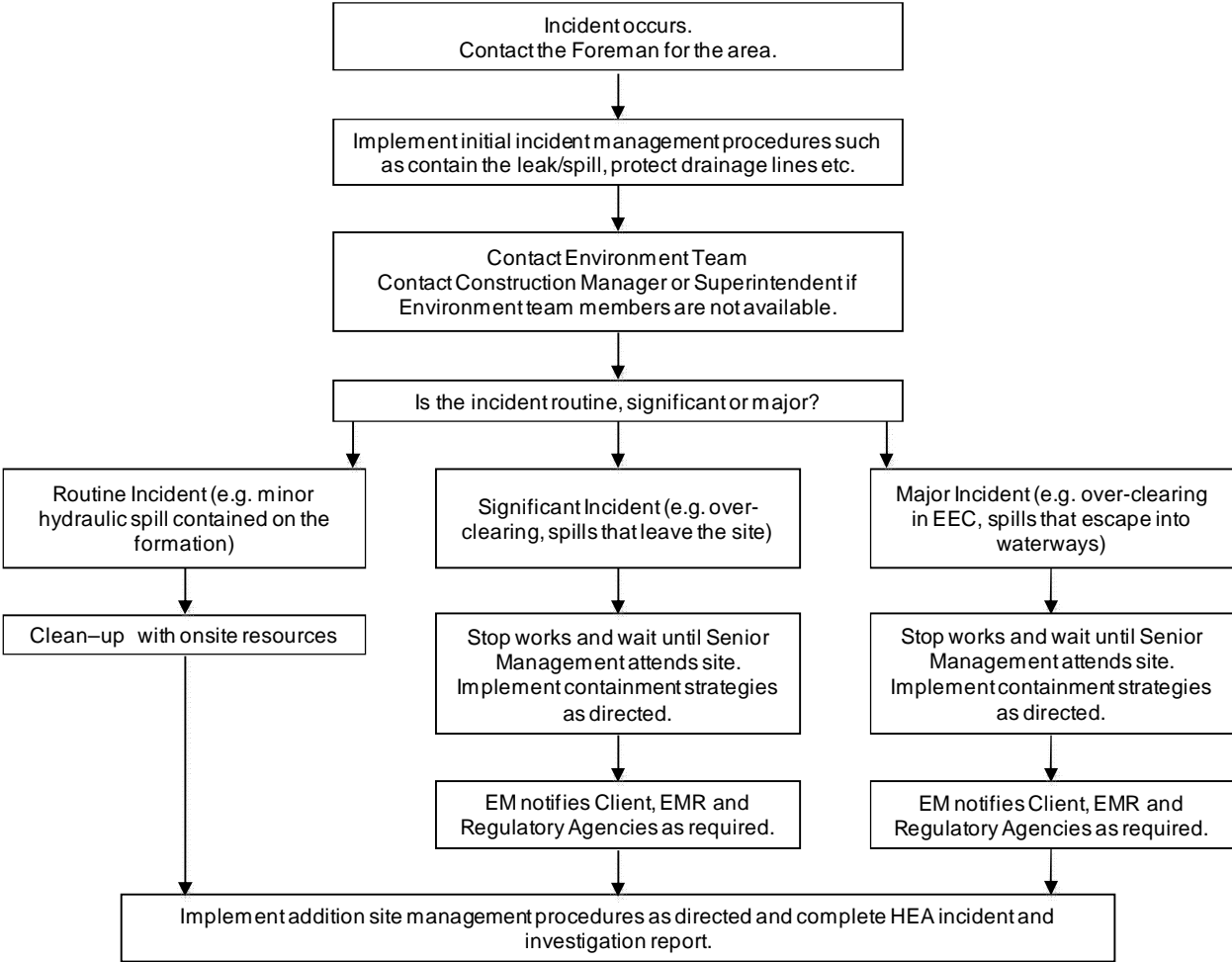
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

**APPENDIX E – EMERGENCY PROCEDURES AND
EMERGENCY CONTACTS**

EMERGENCY PROCEDURE FLOWCHART

1 INITIAL ENVIRONMENTAL INCIDENT RESPONSE

(see additional specific incident management flowcharts at for spills and ESCs at 3 and 4. below)



EMERGENCY PROCEDURE FLOWCHART**2 EMERGENCY CONTACT LIST**

Organisation	Name	Number/s	Other details
Emergency Controller (HEA)	TBA		
RTA	Tony Gant	0411 112 683	
Project Director	Peter Chatburn	0418233905	
Environmental Manager	Howard Chemney Tracey Doczy	0410 542 009 0439 300 118	Early Works Construction
Environmental Coordinator	TBA		
Community Liaison Manager	TBA		
NSW Police		000	
NSW Fire Brigade		000	
NSW Ambulance Service		000	
Hospital	John Hunter Hospital	02 4921 4960	Address: Lookout Road New Lambton NSW 2305
Rural Fire Services		000	
SES		132 500	
Poisons Information		131 126	
DECCW (EPA)	Rebecca Scrivener	4908 6830	
DECCW Pollution Line		131555	
NSW I&I (Fisheries)	Scott Carter	4916 3931 Mob: 0419 185 508	
Local contractor services (e.g. waste collection, spill clean-up)	TBD		
Jemena (Gas Utility)	Thomas Bourke	131909	
Department of Planning's Environmental Management Representative	Ken Holmes	0438046261	Address: PO Box 5487, West Chatswood, NSW 1515 Australia

EMERGENCY PROCEDURE FLOWCHART

3 ENVIRONMENTAL INCIDENT MANAGEMENT PROCEDURES FOR SPILLS

PRIOR TO ANY ACTION, IDENTIFY MATERIALS INVOLVED
& OBTAIN PERSONAL PROTECTIVE EQUIPMENT

	Action	Responsibilities	Comments
1	Stop further leak	Person causing/finding leak	If leak from oil drum, roll drum so that leak area is uppermost. If leak from pipe, close valve etc.
2	Inform supervisor	Supervisor/Person	Stop human and vehicular traffic and isolate area.
3	Determine the site of the leak	Environmental Manager/Construction Manager	For major leaks ring 1300 851 050 and notify superintendent. If spill has escaped offsite/intocreek/ring Environmental Manager
4	Form barrier around leak/spill	Foreman / Superintendent	Use foam barrier material in kit. Use soil/sand if kit not available.
5	Stop the spreading of leak	Foreman / Superintendent	Transfer fuel/oil from spill drum into another drum etc.
6	Put barrier around drains/outlets	Foreman / Superintendent	Seal drain grates by putting sand bags etc. around them.
7	Obtain oil spill kit * and apply oil absorbent on spill	Foreman / Superintendent	Use "absorbent W" or equivalent.
8	Clean up/remove absorbent material to bin **	Foreman / Superintendent	Use "Chem -Oil-A-Way" or equivalent for clean-up of area. Use brush/pan provided in kit.
9	Clean up hard surface by excavating contaminated soil	Foreman / Superintendent	Stockpile contaminated material in designated area
10	Clean up soft surface by excavating contaminated soil	Foreman / Superintendent	Stockpile contaminated material in designated area
11	Inform Environmental Manager and fill in Incident Log Form	Environmental Manager	Record incident and review procedures

* oil spill kit available at both compounds.
** bin located at Construction Compounds.

EMERGENCY PROCEDURE FLOWCHART

4 PROCEDURE FOR THE REMEDIATION OF SEDIMENT CONTROL DEVICES

	Action	Responsibilities	Comments
1.	Inform area supervisor of problem/ exact location and the magnitude.	Person causing/ discovering the problem	Assess whether the problem can be promptly rectified.
2.	If uncontrollable, notify sediment control crews.	Foremen/superintendents	State the magnitude of the problem and the materials required.
3.	Divert flow away from existing waterways.	Foremen/superintendents and available machinery	Stop vehicular traffic and construct an earth bund or diversion drain.
4.	Form a barrier around the affected area. Establish emergency berm (earth or sandbags) to trap sediment or reduce flow.	Emergency response unit	-
5.	Work on the restoration of original control device.	Foremen/superintendents /Operators	Stem the flow and replace damaged control device.
6.	Assess impact and devise remedial action for affected waterway and embankment.	Environmental Manager	Proceed with water quality monitoring.
7.	Apply buffering solutions/agents if required.	Emergency response unit	Monitor affects of this application
8.	Clean away sediment build-up deposits before leaving area.	Foremen/superintendents /Operators	Use available machinery.
9.	Record all stages of event on Environmental Incident Report form and investigate causes.	Environmental Manager/ Foremen/superintendents	Witness accounts/ photographs/ monitoring results
10.	Review remedial actions and find out if response process can be improved.	Environmental Manager/ Foremen/superintendents	Initiate change in the process if required.
11.	Review incident to determine if environmental system failure. Improve system if required.	Environmental Manager/ Foremen/superintendents	Initiate change in system if required.

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX F – EXAMPLE FORMS

Template Audit Report

Non-conformance Report

Environmental Training Attendance Record

Environmental Incident Report

Weekly Inspection Checklist

Summary Audit report

(note: audit templates relevant to RTA specifications such as G36, R178 shall be used during internal audits)

PROJECT NAME:	
AUDIT DATE:	

INTRODUCTION

1.1 PURPOSE:	
1.2 SCOPE:	
1.3 ORGANISATION:	
1.4 LOCATION	
1.5 PERSONS CONDUCTING AUDITS:	
1.6 PERSONS ATTENDING OPENING MEETING:	
1.7 PERSONS ATTENDING CLOSING MEETING:	

OVERALL RESULTS

2.1 SUMMARY:	
2.2 NC REPORTS:	

AUDIT DETAILS

RECOMMENDATIONS FOR IMPROVEMENT

ATTACHMENTS

The following audit records are attached for reference:

MANAGEMENT REVIEW AND COMMENT

Signature:	
Name:	
Role:	
Date:	

Non-conformance report

No:													
1. DETAILS (HOW AND WHY THE SYSTEM OR PRODUCT DOES NOT CONFORM?) To be completed by authorised HEA staff and issued to the organisation below.													
ORGANISATION:													
Address:	Attention:												
Location details:	<table border="1"> <tr> <th>SYSTEM</th> <th>PRODUCT AREA</th> </tr> <tr> <td><input type="checkbox"/> Administration</td> <td><input type="checkbox"/> Architectural</td> </tr> <tr> <td><input type="checkbox"/> Enviro</td> <td><input type="checkbox"/> Civil</td> </tr> <tr> <td><input type="checkbox"/> Quality</td> <td><input type="checkbox"/> Mech/Elec</td> </tr> <tr> <td><input type="checkbox"/> Safety</td> <td><input type="checkbox"/> Structural</td> </tr> <tr> <td><input type="checkbox"/> Other:</td> <td><input type="checkbox"/> Other:</td> </tr> </table>	SYSTEM	PRODUCT AREA	<input type="checkbox"/> Administration	<input type="checkbox"/> Architectural	<input type="checkbox"/> Enviro	<input type="checkbox"/> Civil	<input type="checkbox"/> Quality	<input type="checkbox"/> Mech/Elec	<input type="checkbox"/> Safety	<input type="checkbox"/> Structural	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
SYSTEM	PRODUCT AREA												
<input type="checkbox"/> Administration	<input type="checkbox"/> Architectural												
<input type="checkbox"/> Enviro	<input type="checkbox"/> Civil												
<input type="checkbox"/> Quality	<input type="checkbox"/> Mech/Elec												
<input type="checkbox"/> Safety	<input type="checkbox"/> Structural												
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:												
Description:													
Observed causes:													
ISSUED BY:													
Name:	Signature:												
Position/role:	Date:												
To be completed by those responsible for the non-conformance and submitted to the issuer:													
RECEIPT/ACCEPTANCE: To be signed and dated by the manager of the organisation responsible													
Name :	Signature:												
Position/role:	Date:												

2. DISPOSITION (FIX ACTIONS)		
DETAILS:	SYSTEM	PRODUCT
	<input type="checkbox"/> Implement proc. As documented	<input type="checkbox"/> Use as is concession
	<input type="checkbox"/> Revise Proc.	<input type="checkbox"/> Regrade/reuse
	<input type="checkbox"/> Doct New Proc	<input type="checkbox"/> Reject/replace
		<input type="checkbox"/> Rework/repair /retest

3. PROPOSED CORRECTIVE ACTIONS		
DETAILS:	SYSTEM	PRODUCT
	<input type="checkbox"/> Documents	<input type="checkbox"/> Design
	<input type="checkbox"/> Roles/respons.	<input type="checkbox"/> Materials
	<input type="checkbox"/> Training/ education	<input type="checkbox"/> Equipment or workplace
PROPOSED BY: To be signed and dated by the manager of the organisation responsible		
Name:	Signature:	
Position/role:	Date:	

4. REVIEW OF PROPOSED FIX AND CORRECTIVE ACTIONS To be completed by authorised HEA staff (and where required, the client/designer).	
REVIEW COMMENTS:	
HEA:	
Name:	Signature:
Position/role:	Date:

5. VERIFICATION OF COMPLETED ACTIONS AND CLOSE NCR Completed fix and corrective actions are to be verified/witnessed by all involved and the NCR closed by authorised HEA staff.	
VERIFICATION and CLOSE COMMENTS:	
HEA:	
Client:	
Designer:	
CLOSED BY:	
Name:	Signature:
Position/role:	Date:

Environmental Incident Form

This form is to be used to assist in the capture of initial incident information. Paper copies of this form are available on Incite and from the HEA Environment Staff. ALL COMPLETED FORMS MUST BE RETURNED TO ENVIRONMENT MANAGER WITHIN 2 WORKING DAYS OF INCIDENT.

1. Classifications						
Alliance <input type="checkbox"/> Subcontractor <input type="checkbox"/> Visitor <input type="checkbox"/> Public <input type="checkbox"/>		¹ RTA Incident Classification		² Thiess Incident Classification		
				Potential Higher Classification?	Environmental Incident Type (If applicable)	
2. Incident Details						
Incident Location		Date	Time	% Shift Worked: (circle) 25, 50, 75, 100, Journey, OT,	Incident immediately reported To: ³ DECC Notification Required: Yes <input type="checkbox"/> No	
3. People Involved						
Principal Person (s) Involved:				Employer:		
Name of Immediate Supervisor of Area:				Others Involved:		
4. Incident Description: What was being done? (Be specific)						
What happened? (Be specific)						
Workplace conditions?			Damage caused?		Expected Damage Cost AUD\$:	
Remediation actions carried out?						
Plant / Equipment involved?						
Plant ID 1:		Plant ID 2:		Generic Plant ID 1: Generic Plant ID 2:		
5. Contributing Factors:						
6. Actions to Prevent Recurrence (Short and Long Term)						
Action				By Who	By When	Completion Date
1.						
2.						
7. Additional Information						
Is another investigation report available? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, specify location:						
8. Additional Incident Notifications (Incident details will be automatically forwarded to corporate and business unit HS&E managers once entered into the database). Additional Recipients (CIRCLE AS APPROPRIATE): (e.g. ⁴ RTA , EMR, Alliance Manager)						
Incident Close-Out						
				Signed (Zone Manager) Date:		
				Signed (Environment Manager) Date:		

¹ Environmental incident to be classified in accordance with RTA Incident Management Procedures (April 2008)
See Table 1 below

² Environmental incident to be classified in accordance with Attachment 6.6 of Incident Notification Reporting and Investigation HEA-MP-GL-OHS-015 – See Table 2 below

³ Notify DECC in accordance with HEA-FM-GL-OHS-015. Consult HEA Environment Staff for further information.

⁴ RTA verbal notification is required within 2 hours of any incidents involving the DECC (written notification required in 24hrs)

Table I _ RTA Environmental Incident Classification Categories

Category	Incident type	Primary Legislative Requirements
Category 1	Material, odour or noise that travels beyond site boundary causing or potentially causing adverse impact to the environment that has occurred due to a lack of adequate and effective controls on site.	s.120 POEO Act – water pollution, sediment laden water, chemical/oil spill and sewage/septic overflow; s.129 POEO Act - offensive odour; s.126 POEO Act - dust exceeding reasonable levels without active management measures in place. s.139 POEO Act - offensive noise
	Unauthorised active discharge of waters from the site.	s.120 POEO Act
	Unauthorised damage or interference to threatened species or endangered ecological communities.	<i>NPW Act</i> particularly s.118A, s.118C and s.118D.
	Unauthorised damage, disturbance, destruction or works to heritage items.	<i>Heritage Act 1977</i> particularly s. 57, s.119, s.139 and s.156. <i>EPBC Act 1999</i> s.15A, B & C
	Unauthorised damage, disturbance or destruction to Aboriginal objects or places.	<i>NPW Act</i> particularly s.86 and s.90. <i>EPBC Act 1999</i> s.15A, B & C
	Failure to comply with a Licence/Approval condition.	<i>EP&A Act</i> particularly s.75D; <i>POEO Act</i> particularly s.64; <i>FM(G) Reg</i> particularly s.337A., <i>NPW Act</i> particularly s.90 and s.141.
	Works without required approval.	<i>EP&A Act</i> particularly s.75D and s.111.
	Material harm to the environment or persons as per Part 5.7 of POEO Act (including harm on site).	<i>POEO Act</i> particularly s.148.
Category 2	Spills that do not leave the site boundary and are cleaned up without material environmental harm or residual environmental impact.	<i>POEO Act</i> including s.120 and s.142A.
	Failure to implement component of Environment Management Plan that does not result in a Category 1 incident.	<i>EP&A Act</i> particularly s.111
Environmental Hazard	Issues that may lead to an incident or adverse environmental impact if not attended to.	
	An action, failure to act or a management issue that has the potential to cause or result in adverse environmental impact.	
Notifiable Events	Material travelling beyond site boundary, and where it can be demonstrated that the management control plan has been designed appropriately (in consultation with a soil consultant if required), the controls have been installed appropriately, are being maintained well, and the weather (rain, wind etc) event exceeds the design capacity of the controls.	
	A complaint from a Regulatory Agency	

CLASSIFICATIONS - THIESS

Note: For both "Health & Safety" and "Environment" the following definitions apply:

- Potential Class I – an incident that had the potential to result in a Class I incident
- Potential Class II – an incident that had the potential to result in a Class II incident

HEALTH AND SAFETY				
TYPE OF INCIDENT		CLASS III	CLASS II	CLASS I
		<p>Injury or potential injury to persons that has caused or is likely to result:</p> <ul style="list-style-type: none"> • In first aid or medical treatment but not involving any lost time for one day/shift or more. • Damage to plant and property less than \$10,000. 	<p>Injury to persons that has caused or is likely to cause:</p> <ul style="list-style-type: none"> • Serious injury (Lost Time Injury) where the person will resume normal duties • Damage or potential damage to plant or property in excess of \$10,000 but less than \$50,000. 	<p>Injury to persons that has caused or is likely to cause:</p> <ul style="list-style-type: none"> • Death or permanent disablement • Damage or potential damage to plant or property in excess of \$50,000.
ENVIRONMENT				
TYPE OF IMPACT		CLASS III	CLASS II	CLASS I
A	General environmental and social effects (to be used where other categories do not apply)	Pollution or degradation, which has short-term (less than 1 month) and reversible detrimental effects on the environment and/or community.	Pollution or degradation, which has persistent (greater than 3 months) but reversible detrimental effects on the environment and/or community.	Pollution or degradation, which has or may have irreversible detrimental effects on the environment and/or community.
B	Controlled & uncontrolled discharges to water	<p>Minor pollutant discharge to water. No impact on water resources for example,</p> <ul style="list-style-type: none"> • Discharge from sedimentation basin above allowable limits • Uncontrolled discharge or site drainage run-off water; • Placement of material in a location where it could potentially result in pollution. 	<p>Major or persistent discharge to water. Short-term impact on water resources for example,</p> <ul style="list-style-type: none"> • Oil spill escapes into storm water or watercourse; • Operations cause minor pollution of groundwater in localized area(s) • Uncontrolled discharge from sedimentation basin via emergency spillway above allowable limits 	<p>Major and persistent discharge of pollutant to water outside site or workplace. Major long-term impact on water resources for example,</p> <ul style="list-style-type: none"> • Acid drainage run-off from mining operations; • Tailings dam failure; • Extensive contamination / pollution of groundwater or water catchment areas.

Environmental Inspection Form

Environmental Inspection

Date of CFEMP inspection:-

Person/s inspecting:-

Weather:-

Issue	Yes / No	Comments
Air quality		
Are disturbed areas stabilised and/or is progressive revegetation applied?		
Are construction entry and exit points stabilised? Is there no evidence of vehicles tracking dirt onto public roads?		
Any plant/vehicles emitting excessive smoke exhaust?		
Noise and vibration		
If there were any noise complaints in the last week, were these responded to and are those areas now being managed to reduce the likelihood of further complaints?		
Has any out of hours work been proposed for this week, and if so has Community Relations advised residents and DECCW?		
Flora and fauna		
Are construction buffer zones around sensitive areas delineated? Are there any maintenance works required to this delineation (fencing /paraweb fencing etc.)?		
Are erosion and sediment controls adjacent to sensitive areas adequate and working effectively?		
Is the discharge of any waters (dewatering) taking place away from sensitive areas?		
Heritage		
Have all sensitive heritage locations been fenced off from construction activities?		
Soil and water		
Are stockpile areas and disturbed areas protected with sediment control structures?		
Is clean water being diverted around the site in stabilised drains, wherever possible?		
Are spill kits and booms in position and stocked?		
Are sediment basins empty and requiring any maintenance?		
Are fuels and chemicals stored in bunded areas?		
Spoil and fill		
Have all stockpile sites been checked for stable access routes and sediment controls measures?		
Are stockpiles managed for dust?		
Waste and reuse		
Is the waste register kept up to date?		

Are waste and recycling resources (re)used and bins emptied when needed?	
Is there evidence of acid sulfate soils or contaminated materials?	
Ancillary Activities	
Are environmental controls adequate at ancillary sites/activities	

Item No.	<i>Action Required</i>	Agreed Completion Date	Person Responsible	Actual Completion Date
Item No.	<i>Item Still requiring Action from Previous Inspection</i>	Required Completion Date	Person Responsible	Actual Completion Date

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX G – REFUELLING PROTOCOL

REFUELLING AND LIQUID STORAGE PROTOCOL

1 INTRODUCTION

The *Protection of the Environment Operations Act 1997 (POEO Act)* sets requirements for protecting the environment from pollution. In addition, the *Contaminated Land Management Act 1997* regulates the investigation and clean up of land contamination. The HEA Alliance and its contractors therefore have a legal obligation to ensure that fuel and chemical storage comply with the relevant legislation.



It's important to get refuelling right the first time!

2 YOU AND THE LAW

When using and storing liquid substances you should be aware of your obligations!

The POEO Act defines water pollution very broadly. 'Waters' can include creeks, rivers, oceans but also dry creek beds, dams, groundwater and stormwater channels. 'Pollution of waters' not only means placing any substance into 'waters' **but also placing any substance in a position where it is likely to 'fall, descend, be washed, be blown or percolate into any waters'**. (Section 120 POEO Act).

Relevant sections with regards to Fuel/Chemical use and storage under the POEO Act:

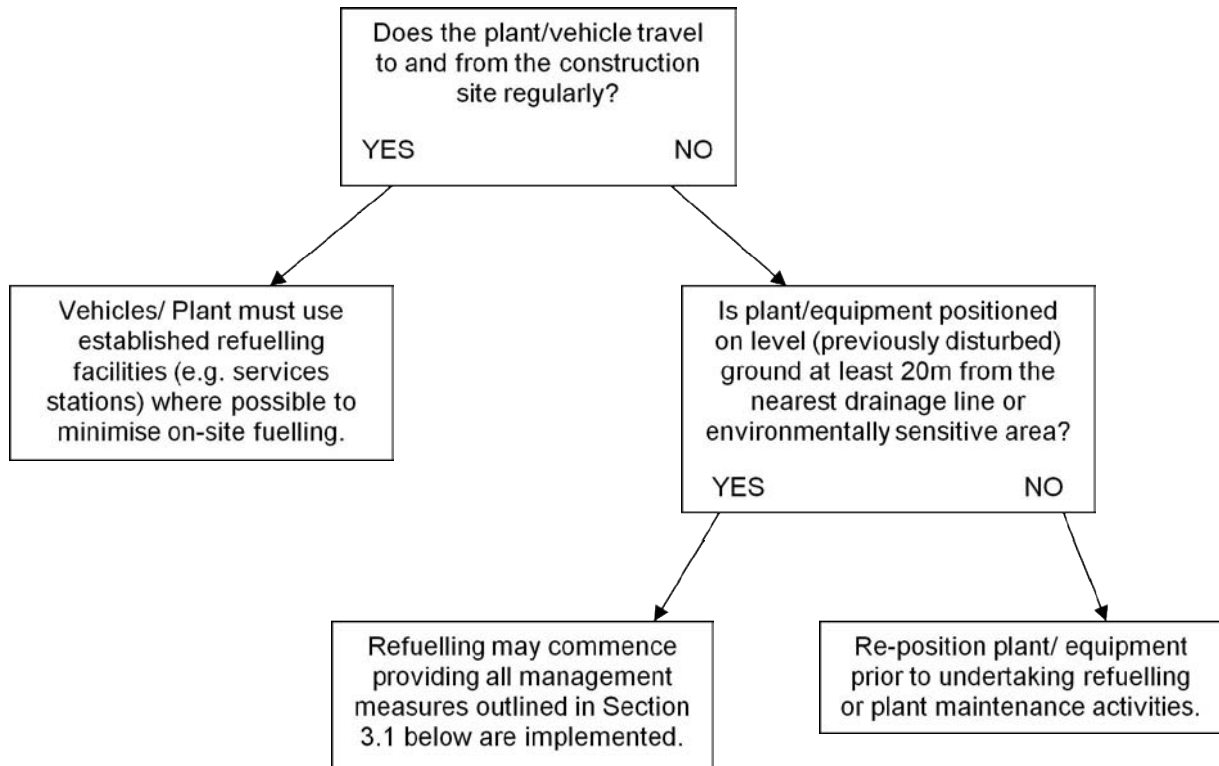
- **Section 116** - makes it an offence to allow a substance to leak, spill or otherwise escape (Whether or not from a container) in a manner that harms or is likely to harm the environment.
- **Section 142A:** Land Pollution - It is an offence to pollute land. Land pollution includes placing in or on or otherwise introducing into or onto the land (whether through act or omission) any substance that could degrade the land and cause actual or potential harm to the health of humans, animals or ecosystems.
- **Section 167** - requires the occupier of any premises to maintain and operate any pollution control equipment installed at the premises in a proper and efficient condition or manner.

Maximum penalties: for individuals: \$1,000,000 or 7years' imprisonment, or both, for an offence that is committed wilfully or \$500,000 or 4 years' imprisonment, or both, for an offence that is committed negligently. Maximum penalty for corporations: \$5,000,000 for an offence that is committed wilfully or \$2,000,000 for an offence that is committed negligently

REFUELLING AND LIQUID STORAGE PROTOCOL

3 REFUELLING

The following decision tree shall be implemented to determine adequate refuelling measures to prevent harm to the environment:



3.1 Refuelling Management Measures

3.1.1 Refuelling at site compound or workshop facility

Refuelling plant and equipment at either a site compound or workshop facility is preferred. If refuelling is carried out at a site compound or workshop facility, the following controls must be implemented:

- Adequate stormwater separation:
 - Bund the refuelling area to prevent stormwater from entering.
- If practical, locate the refuelling area in an undercover facility to prevent rain falling onto the refuelling area.
- Ensure adequate run-off treatment:
 - Direct all run-off from inside the bunded area into an oil separator.
- Ongoing management:
 - Ensure regular maintenance of the oil separator is carried out.
 - Ensure all refuelling is carried out within a bunded area.

REFUELLING AND LIQUID STORAGE PROTOCOL

3.1.2 REFUELLING ONSITE

Refuelling should always take place within the designated refuelling area/ workshop. If this is not possible (such as, plant cannot be readily taken off the works area), the following management strategies must be implemented:

1. Refuel on the level ground at least 20m from drainage lines, waterways and/or environmentally sensitive areas.
 - If refuelling on barges or pilling platforms is unavoidable then ensure hose, refuelling tank and machine refuelling inlet are bunded at all times.
 - If refuelling on level ground is not possible, always place a temporary bund (such as a gravel-filled sausage) downhill of the refuelling hose in a U-shape to trap any spilled liquid
2. Refuelling should always take place within the designated refuelling area.
3. **NEVER** refuel in vegetated areas (even roadside grasses).
4. **NEVER** leave the refuelling activity unattended.
5. **KNOW** where your spill kit is kept and **ENSURE** you know how to use it. Keep a spill kit on the refuelling truck.
6. All repair and maintenance work to plant and vehicles would be subjected to the same precautions as fuel storage.
7. Handling, storage and disposal of fuel, oil, and other chemicals will be undertaken in accordance with the Waste Guidelines (DECCW 2008) and AS1940 – 2004, the Storage and Handling of Flammable and Combustible Liquids.
8. Emergency Incident Procedures outlined in the CEMP (**Volume 1 Appendix E**) shall be implemented in the event of a spill or other environmental incident.

All refuelling operations shall be undertaken in accordance with HEA-PP-GL-OHS-038-00.

3.1.3 Transportation of Fuel

1. Transportation of fuel must only be carried out on established access pathways
2. Drivers must be licensed to transport fuels in accordance with the Dangerous Goods (Road and Rail Transportation Act 2008 and associated Regs.
3. Vehicles/Trucks used to transport fuels and chemicals must be maintained to prevent spillage of loads.
4. Any container used to transport fuel must be secured on the vehicle carrying the container.

4 STORAGE AND HANDLING

What type of chemicals should be stored in bunded areas?

Any liquid substance that has the potential to cause harm to the environment. You need to ensure that all liquids stored or used at your site are managed so that they do not enter the environment (unless permitted to do so by a licence, or by approval or agreement from the relevant authority).

Storage and handling must meet the requirements set out in the MSDS plus any other requirements such as Australian Standard 1940 “ The storage and safe handling of

REFUELLING AND LIQUID STORAGE PROTOCOL

flammable and combustible liquids". No subcontractor or Project personnel is to store any hazardous substance or dangerous good on the site outside of the designated storage areas.

1. Keep quantities of dangerous goods stored on site to a minimum.
2. Chemicals must be stored in the original containers or a container that has been checked for suitability.
3. Chemicals should be stored in secure designated areas.
4. Chemicals of any quantity shall not be stored in crib rooms, change rooms, ablutions etc. unless they are used in that area and storage requirements are met.
5. MSDS's are to be consulted for storage requirements and if necessary, further advice is to be obtained from the Chemwatch data base.
6. The compatibility of substances is to be verified through consulting the MSDS prior to storage.
7. The quantities of chemicals stored at the workplace are to be kept to a minimum
8. Storage areas must not be located within 20 metres of natural or built drainage lines, flood prone areas, or on slopes steeper than 1:10, or near vegetated areas.
9. Effective storage capacity is 25% of the total storage volume or 120% volume of the largest single container (whichever is greater).

5 GOOD SITE MANAGEMENT /END OF DAY MEASURES

- Frequently check the site for leaks?
- Frequently check the integrity of containers and secondary containment infrastructure
- Regularly maintain containment and secondary containment infrastructure(Dewatering)
- Train all personnel in incident response and spill management (Contact Environment Staff to arrange Training)
- Conduct environmental audits of your whole site
- Check whether any changes to your activity (for example, increased production, new products) have increased your risk of pollution
- Think about how you will improve the environmental performance of and the implementation of plans at your site over time
- Place all onsite fuels and chemicals in there correct areas and within secure storage sheds where possible
- Where necessary drip trays would be placed under standing machinery i.e. generators, compressors etc.

6 ADDITIONAL INFORMATION:

Minor Limits for the Storage of Flammable and Combustible Substances. (Extracted from AS1940:1993), Minor Limits for the Storage of Flammable and Combustible Substances. (Extracted from AS1940:1993)

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

**APPENDIX H – ENVIRONMENTAL CONSTRUCTION
METHOD STATEMENTS MATRIX**

ENVIRONMENT CONSTRUCTION METHOD STATEMENT MATRIX

1 INTRODUCTION

This Environment Construction Method Statement (ECMS) Matrix has been prepared by Hunter Expressway Alliance (HEA) for the activities included in Alliance Agreement, Scope of Works and Technical Criteria and associated appendices as part of the Hunter Expressway Alliance Project (Seahampton to Kurri Kurri). The ECMS Matrix provides the Environment Management Representative (EMR) with relevant information pertaining to the required scope of works to complete construction of the project.

For each major element of the project, an ECMS will be prepared and used by HEA to manage environmental impacts. The ECMSs include details of the activities required to complete that particular element of the project, the environmental tools used to aid in managing the works, statutory obligations and licences and community consultation and liaison strategies. This ECMSs will be reviewed and approved by the EMR prior to commencement of construction in the area covered by the ECMS. The dates given in the Matrix are indicative of the likely review timeframes for the EMR and follow the project programme.

ENVIRONMENT CONSTRUCTION METHOD STATEMENT MATRIX

2 SCOPE OF MATRIX

The ECMS Matrix is a document illustrating HEA's understanding of Condition of Approval 30. The matrix contains the following information:

- element of work (ECMS);
- scope of work required to fulfil the project goals;
- anticipated timeframe for the completion of the individual ECMSs;
- key environmental risks to be managed;
- predicted level of environmental risk;
- potential level of public interest.

The predicted levels of environmental risk and public interest listed in the ECMS Matrix are based on HEA's assessment of potential risk. These levels were developed after consideration of the scope of works and associated project activities. The levels of environmental risk are predicated upon the anticipated potential impacts without environmental control procedures. The risk levels are indicative only and will be reduced with the implementation of environmental controls.

The risk nomenclature indicated below is similar to that used in HEA's Risk Management Procedure. A legend for the risk ranking used in the ECMS Matrix is given below in Tables 1 and 2.

Table 1: Environmental Risk Assessment

1 = Very Low Risk	3 = Moderate Risk	5 = Extreme Risk
2 = Minor Risk	4 = High Risk	

Table 2: Potential level of Public Interest

1 = No interest	3 = Moderate level of interest	5 = Extreme level of interest
2 = Low level of interest	4 = High level of interest	

2.1 Critical activities

For the purposes of Minister's Condition of Approval 20, the following are considered to be critical construction activities and will therefore require the EMR to be present on-site.

- Initial clearing
- Initial works in the vicinity of Minmi Creek heritage items
- Initial works for the installation of cross drains at creeks
- Initial installation of piers in waterways for bridges
- Initial works for mine voids involving pumping of grout

ENVIRONMENT CONSTRUCTION METHOD STATEMENT MATRIX

Item	Scope of work	Target submission date	Target DoP/EMR approval date	Key environmental risks to be managed	Predicted level of enviro risk (1-5)	Potential level of public interest
1. General Construction	This construction method statement shall include key ERSED, ecology, waste, dust, heritage and noise controls that are common to all elements of the project.	1 June 2010	1 July 2010	<ul style="list-style-type: none"> • sedimentation and erosion • dust or noise emissions • management and disposal of wastes • damage to known or discovered heritage • disturbance to flora and fauna outside approved project boundary 	3	2
2. Clearing and Topsoil Management	<p>All ground disturbing activities have the potential to result in sedimentation of waterways and the surrounding environment unless adequately managed. Such works include clearing activities, site establishment, topsoil stripping, minor and major earthworks, and rehabilitation works. The CMS will include standard erosion and sedimentation techniques and procedures to be used to prevent unnecessary erosion of the project alignment, as well as, capture and treatment of sediment laden site water leaving the project alignment.</p> <p>Flora & fauna management procedures directly related to the clearing process, the establishment of clearing limit controls, and techniques will also be included.</p> <p>In order to ensure successful revegetation strategies management of topsoils across the HEA site will be paramount. In addition, due to the poor quality topsoils existing at the site, the management of</p>	7 July 2010	7 August 2010	<ul style="list-style-type: none"> • sedimentation and erosion • disturbance to flora and fauna outside approved project boundary • poor rehabilitation of native vegetation • unauthorised stockpiling &/or management of topsoils 	4	3

ENVIRONMENT CONSTRUCTION METHOD STATEMENT MATRIX

Item	Scope of work	Target submission date	Target DoP/EMR approval date	Key environmental risks to be managed	Predicted level of enviro risk (1-5)	Potential level of public interest
	available soils will be critical in influencing the final rehabilitation success of the project. The CMS will state management procedures required by the CEMP, relevant sub plans and other associated environmental documentation.					
3. Construction Site Compounds	The establishment of site compounds shall include installation of environmental controls, site buildings, plant/equipment delivery, utilities and services adjustments.	7 June 2010	15 June 2010	<ul style="list-style-type: none"> • sedimentation and erosion • harm to flora and fauna • damage to heritage sites • inadequate disposal and management of waste • air and noise impacts 	2	3
4. Concrete Production and Delivery (Batch plant)	Concrete will be required for the construction of the road pavement and associated structures. The works will involve the establishment of an onsite concrete batch plant and the production of structural concrete for the bridge and culvert structures in accordance with the requirements of the Alliance Agreement, Scope of Works and Technical Criteria, Conditions of Approval, and other environmental documentation.	1 July 2010	1 August 2010	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts • harm to flora and fauna • damage to heritage sites • inadequate disposal and management of wastes • air and noise impacts 	3	3
5. Access tracks for mine void treatment and viaducts	Access tracks will be required to enable the construction of key structures and mine void treatment. Where possible existing access tracks will be used, however these may require clearing and grading for use by heavy machinery. Access tracks for the viaducts will include steep sections which may require extra controls.	25 June 2010	25 July 2010	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts • harm to flora and fauna 	3	2

ENVIRONMENT CONSTRUCTION METHOD STATEMENT MATRIX

Item	Scope of work	Target submission date	Target DoP/EMR approval date	Key environmental risks to be managed	Predicted level of enviro risk (1-5)	Potential level of public interest
6. Treatment of mine voids	Treatment of old mine working will include establishment of working platforms, drilling and infilling of old mine workings with grout, management of gas emissions and management of potential surface and sub-surface water quality.	30 June 2010	30 July 2010	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts • harm to flora and fauna • damage to heritage sites • inadequate disposal and management of wastes • air and noise impacts 	4	3
7. Newcastle Interchange at the F3	Construction of the Newcastle interchange will include management of traffic, bridge construction, on and off ramp construction activities, drainage works including sedimentation basin construction and rehabilitation works. Water discharged from the site will be in accordance with a NSW DECCW operational licence.	1 August 2010	1 September 2010	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts • harm to flora and fauna • damage to heritage sites • inadequate disposal and management of wastes • air and noise impacts • traffic impacts • social impacts 	4	4
8. Temporary Waterway Crossings	Temporary waterway crossing shall be avoided where possible to reduce potential environmental impacts, however in areas where these cannot be avoided all works shall be undertaken in accordance with a CMS specific to the location.	7 June 2010	7 July 2010	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts • harm to flora and fauna 	5	3
9. Bridge structures over Wallis Creek Minmi Creek	Construction of bridge structures at these locations will include establishment of working areas/platforms, works near and over waterways, drainage, earthworks and paving activities.	15 August 2010	15 September 2010	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts • harm to flora and fauna 	4	3

ENVIRONMENT CONSTRUCTION METHOD STATEMENT MATRIX

Item	Scope of work	Target submission date	Target DoP/EMR approval date	Key environmental risks to be managed	Predicted level of enviro risk (1-5)	Potential level of public interest
and Surveyor Creek				<ul style="list-style-type: none"> • damage to heritage sites • inadequate disposal and management of waste • air quality • Aboriginal heritage issues associated with Minmi Creek. 		
10. Buchanan Interchange	Construction of Buchanan interchange will include management of traffic, bridge construction, on and off ramp construction activities, drainage works including sedimentation basin construction and rehabilitation works. Water discharged from the site will be in accordance with a NSW DECCW operational licence.	15 June 2010	15 July 2010	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts risks • harm to flora and fauna risks • damage to heritage sites • inadequate disposal and management of waste • air quality 	3	5
11. Viaducts in the Sugarloaf Ranges	Construction of the viaducts through the Sugarloaf Ranges will include, clearing, site establishment, establishment of bridge casting yards, pier construction, bridge construction, paving and finishing works.	1 February 2011	1 March 2011	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts • harm to flora and fauna • damage to heritage sites • inadequate disposal and management of waste • air quality 	3	4
12. Kurri Sands Swamp Woodland	Construction within the Kurri Kurri Sands Swamp Woodland shall include establishment of environmental controls, sedimentation controls, major	1 February 2011	1 March 2011	<ul style="list-style-type: none"> • sedimentation and erosion • water quality impacts • harm to flora and fauna 	4	3

ENVIRONMENT CONSTRUCTION METHOD STATEMENT MATRIX

Item	Scope of work	Target submission date	Target DoP/EMR approval date	Key environmental risks to be managed	Predicted level of enviro risk (1-5)	Potential level of public interest
	earthworks, drainage, paving, finishing works (barrier fencing, line-marking, etc) and batter rehabilitation works.			<ul style="list-style-type: none"> poor rehabilitation of vegetation. 		
13. Site Stabilisation and Rehabilitation Works & removal of significant ERSED (eg temporary basins)	<p>Progressive revegetation will include site stabilisation with fast growing cover crops, hydromulching and seeding. The CMS will summarise systems and procedures in place to ensure successful revegetation along the project including RTA specification requirements, processes of work (timeframes) and responsibilities.</p> <p>A process for the removal of redundant erosion and sedimentation controls shall be developed based on requirements outlined in the Soils and Water Management Sub Plan, Conditions of Approval and other relevant approval documentation.</p>	30 May 2011	Progressively throughout construction - potentially commencing June 2011	<ul style="list-style-type: none"> Sedimentation and erosion water quality impacts harm to flora and fauna poor rehabilitation of vegetation ongoing maintenance issues 	4	4

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX I – ANCILLARY ACTIVITIES/ FACILITIES

ANCILLARY FACILITIES

Proposed Ancillary Sites – at 16th July 2010.

	F3 Freeway Intersection	CH1400	Main Compound Site	Cameron Park	Buchanan Rest Areas	Daracon Quarry	The Brick Pit
Location/ Chainage	Site Office and Equipment Yard	Intersection with Stockrington Road Grouting Plant for mine treatment works.	Lot 32, 1416 George Booth Drive, Buchanan Ch 5300	Cameron Park Industrial Area	Ch 7600 and 7800	Off George Booth Drive near Ch 5300	Off alignment near Ch 5300
Proposed Facilities	Site Office and Equipment Yard	Grouting Plant	Site compound + storage facilities	Temporary Site Compound	Batch Plants	Storage facilities	Storage Area/ stockpile site/Batch Plants
Located more than 100 metres from a waterway ;	✓	✓	✓	✓	✓	✓	✓
Has ready access to road network	✓	✓	✓	✓	✓	✓	✓
Site does not cause exceedance of the maximum native vegetation clearing limit specified under CoA 60	✓	✓	✓	✓	✓	✓	✓
Located on relatively level land	✓	✓	✓	✓	✓	✓	✓
Separated from the nearest residences by at least 200 metres (or at least 250 metres for a temporary batching plant and stockpiling	✓	✓	✓	TBA ¹	✓	✓	✓

¹ To be assessed prior to commencement/operation. Note: Cameron Park is an existing commercial industrial estate.

ANCILLARY FACILITIES

	F3 Freeway Intersection	CH1400	Main Compound Site	Cameron Park	Buchanan Rest Areas	Daracon Quarry	The Brick Pit
sites);							
Located above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented;	TBA	✓	✓	✓	✓	✓	✓
Does not unreasonably affect the land use of adjacent properties	✓	✓	✓	✓	✓	✓	✓
Provides sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours; and	✓	✓	✓	✓	✓	✓	✓
Does not impact on heritage sites beyond those already impacted by the project.	✓	TBA	✓	✓	✓	✓	✓

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

APPENDIX J – AUDIT SCHEDULE

INTERNAL AUDIT SCHEDULE

2010												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Quality												
Safety									MS		E	
Environment									All Areas			All Areas
Design												
2011												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Quality												
Safety	B		MS/F3		E/V		B		MS/F3		E/V	
Environment			All Areas			All Areas			All Areas			All Areas
Industrial Relations								Subcontract (random selection)				Subcontract (random selection)
2012												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Quality												
Safety	P/B		F3		V		P					
Environment			All Areas			All Areas			All Areas			

LEGEND: F3 = Interchange, Bridges and Local Earthworks; V = Viaducts; B = Bridges from Viaducts West; E = Earthworks including drainage; P = Paving; MS = Mine Subsidence

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

**APPENDIX K – SUMMARY OF CONDITIONS OF APPROVAL
RELATING TO THE CEMP**

Conditions of Approval relevant to the CEMP

CoA No.	Condition of Approval	Responsibility	Where addressed
24	<p>Prior to the commencement of construction, or as otherwise agreed by the Director General, the proponent shall prepare and implement a Construction Environmental Management Plan (CEMP) in consultation with the DECCW, NSW I&I, relevant Councils, and all relevant utility/service providers. The CEMP shall outline the environmental management practices and procedures that are to be followed during construction and shall be prepared in accordance with the Guideline for the Preparation of Environmental Management Plans (DIPNR 2004).</p> <p>The CEMP shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. a description of all relevant activities to be undertaken during construction of the project including an indication of stages of construction, where relevant; ii. statutory and other obligations that the Proponent is required to fulfil during construction, including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies; iii. define the role, responsibility, authority, accountability and reporting of personnel relevant to compliance with the CEMP (including the EMR); iv. the Sub Plans required under this Approval; v. include a matrix of Construction Method Statements (CMS) required to construct the project, including an assessment of the predicted level of environmental and public risk and potential level of public interest associated with each CMS and indicative timeframes for completion; vi. details of how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts; and vii. complaints handling procedures during construction. <p>The CEMP for the project (or any stage of the project) shall be approved by the Director-General prior to the commencement of any construction work associated with the project (or stage as relevant). Construction works shall not commence until written approval has been received from the Director General.</p> <p>The CEMP shall be certified by the EMR as being in accordance with the Conditions of Approval and all undertakings made in the EIS and Representations Report prior to seeking approval of the Director-General.</p> <p>The CEMP shall be made publicly available after approval by the Director-General.</p>	Alliance	<p>This CEMP</p> <ul style="list-style-type: none"> i. Section 1.1, 3.1 & Appendix H ii. Section 3.1.4 iii. Section 3.3 iv. Volume 2 v. Appendix H vi. Section 4 vii. Section 3.9.2

CoA No.	Condition of Approval	Responsibility	Where addressed
51	<p>The Proponent shall prepare, in consultation with the Department and NPWS, a detailed Flora and Fauna Management Sub Plan. The Sub Plan shall be prepared prior to construction and shall be consistent with NPWS Concurrence Condition No. 15 regarding EMPs. The Sub Plan shall include but not be limited to:</p> <ul style="list-style-type: none"> i. all those matters identified in the NPWS's Concurrence Condition No. 15; ii. strategies for seed collection and revegetation; iii. a fauna risk assessment to identify: <ul style="list-style-type: none"> a. which fauna species need to be targeted for measures to ensure safe transverse crossing of the roadway; b. mitigation measures to be implemented; c. the likely effectiveness of proposed mitigation measures ie design and location; and d. further mitigation strategies. iv. identification of measures proposed to be taken to protect vegetated areas outside the direct impact zone, control impacts due to spillage, spread of debris and refuse, and movement and storage of materials and equipment. 	Alliance responsibility	Flora and Fauna Management Sub Plan

CoA No.	Condition of Approval	Responsibility	Where addressed
71	<p>A detailed Construction Noise and Vibration Management Sub Plan (NVMSM Construction) shall be prepared. The Sub Plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> i. identification of all potentially affected noise sensitive receivers; ii. an assessment of current background noise levels at the identified noise sensitive receivers; iii. identification of appropriate construction noise objectives; iv. identification of all significant noise and vibration generating activities, duration and times of operation; v. potential noise and vibration impacts from each activity and any likely cumulative noise impacts from concurrent activities; vi. details of all reasonable and feasible noise mitigation measures that will be implemented to achieve the adopted construction noise objectives; vii. the need for respite periods; viii. construction timetabling to minimise noise impacts; ix. noise and vibration monitoring, reporting and response procedures; x. complaints handling and monitoring system; xi. a pro-active and reactive strategy for dealing with complaints; xii. site contact person to follow-up complaints; xiii. procedures for notifying residents of construction activities likely to affect their noise and vibration amenity; xiv. contingency plans to be implemented in the event of non-compliances and/or noise complaints. <p>The plan shall be submitted to the EPA when applying for an Environment Protection Licence for the construction phase.</p>	Alliance responsibility	Construction Noise and Vibration Management Sub Plan
71A	<p>The Construction Noise and Vibration Management Sub Plan referred to under condition 71 of this approval shall include provision for the implementation of the recommendations detailed in Noise Assessment: National Network, F3 to Branxton Link (Atkins Acoustics, February 2007).</p>	Alliance responsibility	Construction Noise and Vibration Management Sub Plan
87	<p>A detailed Soil and Water Management Sub Plan shall be prepared in consultation with the DLWC, NSW Fisheries, and relevant Councils. The Sub Plan shall be prepared in accordance with the Department of Housing's guideline Managing Urban Stormwater - Soils and Construction and where appropriate, DLWC's Constructed Wetlands Manual. The Sub Plan shall be prepared prior to construction or operation. The section of the Sub Plan dealing with construction impacts shall be submitted to the EPA when applying for an Environment Protection Licence for the construction phase.</p>	Alliance responsibility	Soil and Water Management Sub Plan

CoA No.	Condition of Approval	Responsibility	Where addressed
88	<p>The Soil and Water Management Sub Plan shall contain, but not be limited to:</p> <ul style="list-style-type: none"> i. management of stormwater from the development on the quality of surface and groundwater; ii. details of short and long term measures to be employed to minimise soil erosion and the discharge of sediment to land and/or waters including the locations of suitably sized sedimentation basins; iii. management of the impacts of the development on watercourse crossings including Wallis/Surveyors Creeks, South Maitland Railway/Swamp Creek, Bishops Creek, and Black Creek; iv. management of the impacts of Wallis/Surveyors Creeks, South Maitland Railway/Swamp Creek, Bishops Creek, and Black Creek on the development; v. identification of all potential sources of water pollution and a detailed description of the remedial action to be taken or management systems to be implemented to minimise discharges of these pollutants from all sources within the subject site; vi. detailed description of water quality monitoring to be undertaken during the pre-construction, construction and operation stages of the proposal including identification of locations where monitoring would be carried out; vii. contingency plans for fuel and other spills; and viii. a program for reporting on the effectiveness of the sediment and erosion control system against performance goals. 	Alliance responsibility	Soil and Water Management Sub Plan
89	<p>The Soil and Water Management Sub Plan shall also incorporate detailed erosion and sedimentation controls including a strategy to manage the extent of exposed ground surface during construction and progressive site rehabilitation requirements (in accordance with Conditions of Approval Nos. 97 and 114). The Sub Plan shall be prepared to the satisfaction of DLWC and in consultation with the EPA and NSW Fisheries and sufficient to address the technical requirements for obtaining relevant EPA approvals/licences.</p>	Alliance responsibility	Soil and Water Management Sub Plan
110	<p>Prior to the commencement of construction, the Proponent shall prepare in consultation with the Aboriginal community groups, a Cultural Heritage Plan of Management for approval by the Director-General and in agreement with the Director-General of National Parks and Wildlife. The Plan shall encapsulate strategies, methods and outcomes for Aboriginal cultural heritage values.</p>	RTA	Cultural Heritage Plan of Management (separate)

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CoA No.	Condition of Approval	Responsibility	Where addressed
111	<p>The Cultural Heritage Plan of Management shall:</p> <ul style="list-style-type: none"> i. identify the Aboriginal cultural and archaeological variables and criteria; ii. assess those areas already being considered for their compensatory habitat values, to determine their value for Aboriginal cultural heritage; iii. consider the issues raised by the Aboriginal communities during the consultation process; and iv. identify areas (other than those identified in (ii) above) for consideration as off-sets, consistent with the outcomes of the Aboriginal Cultural Heritage Plan of Management. 	RTA	Cultural Heritage Plan of Management (separate)
114	<p>A specific Construction Air Quality Sub Plan shall be prepared in consultation with the EPA. The Sub Plan shall provide details of all dust control measures to be implemented during the construction stage, sufficient to address the technical requirements for any EPA approvals/licences. The Sub Plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> i. pro-active measures to reduce dust from stockpiles and cleared areas and other exposed surfaces; and ii. progressive revegetation strategy for exposed surfaces in accordance with Conditions of Approval Nos. 89 and 97. 	Alliance responsibility	Air Quality Sub Plan
117	<p>The Proponent shall prepare and implement a Hazards and Risk Management Sub Plan. This Sub Plan shall include, but not be limited to the following:</p> <ul style="list-style-type: none"> i. details of the hazards and risks associated with the proposal; and ii. pro-active and reactive mitigation measures including contingency plans to be implemented in the event of a pollution incident. 	Alliance responsibility	Hazards and Risk Management Sub Plan

CoA No.	Condition of Approval	Responsibility	Where addressed
118	<p>The Proponent shall prepare and implement an On-Site Refuelling Protocol to manage on-site refuelling of vehicles during the construction. The Protocol shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. a decision-making algorithm to determine whether on-site or off-site refuelling is appropriate in a given situation; ii. arrangements for the transport of diesel to the refuelling site, including vehicle types, volumes, movement times and routes where relevant; iii. procedures for refuelling to address the potential for spills, collisions with refuelling vehicles or other hazardous incidents; and iv. procedures to be followed in the event of a diesel spill, including containment and clean-up measures. <p>The On-Site Refuelling Protocol shall be submitted for the approval of the Director-General prior to the commencement of any refuelling activity, or within such period otherwise agreed by the Director-General. Should the Proponent decide not to undertake any on-site refuelling activity during construction, the Proponent may satisfy this condition by certifying in writing, to the Director-General, that such refuelling activities will not be conducted.</p>	Alliance responsibility	Appendix G On-Site Refuelling Protocol
122	<p>The Proponent shall prepare a Spoil Management Sub Plan. The Sub Plan shall identify how spoil would be handled, stockpiled, reused and disposed. The Sub Plan shall be prepared:</p> <ul style="list-style-type: none"> i. in consultation with the EPA and the relevant Councils; ii. prior to construction; and iii. for all relevant sites. 	Alliance responsibility	Spoil Management Sub Plan

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CoA No.	Condition of Approval	Responsibility	Where addressed
124	<p>A detailed Waste Management and Reuse Sub Plan shall be prepared. The Sub Plan shall address the management of wastes during construction in accordance with Government's Waste Reduction and Purchasing Policy. It shall be prepared prior to construction, and shall identify requirements for:</p> <ul style="list-style-type: none"> i. waste avoidance; ii. reduction; iii. reuse; and iv. recycling; <p>and details of requirements for:</p> <ul style="list-style-type: none"> v. handling; vi. stockpiling; vii. disposal of wastes: specifically contaminated soil or water, concrete, demolition material, cleared vegetation, oils, grease, lubricants, sanitary wastes, timber, glass, metal, etc.; viii. implementation of energy conservation best practice; and ix. identifying any site for final disposal of any material and any remedial works required at the disposal site before accepting the material. 	Alliance responsibility	Waste Management and Reuse Sub Plan
126	<p>A detailed Utility Services Sub Plan shall be prepared in consultation with the relevant service providers (eg. Transgrid, Agility Services, Telstra). The Sub Plan shall identify the services potentially affected by construction activities and discuss requirements for diversion, protection and/or support. The Sub Plan shall be prepared in consultation with the relevant service provider(s).</p>	RTA to be responsible for condition 126 to the extent only for the Services that RTA is relocating.	Utility Services Sub Plan