

Attachment 1

EIS Guideline Cross Reference

Environmental Impact Statement Guideline Cross Reference

EIS Chapter Number	Title	Chapter summary	EIS Guideline Section	EIS Guideline Requirement	EIS Section
1	Introduction	Background, project history, project proponent, project location and tenure, legislative context, report structure and report conventions.	3.2 Description of project	Land requirements, land tenure.	1.4 Project location and tenure
			3.2.1 Project description and design	Project location.	1.4 Project location and tenure
2	Legislative Framework	Description of the legislative framework for environmental assessment and approval of the project.	3.2 Description of project	Relevant Northern Territory and Australian Government and international and national legislation, strategies and policies.	2 Legislative framework
			6 Existing environment, potential impacts and management	Comprehensive list of legislative obligations.	2 Legislative framework
3	Project rationale	Rationale for the project and project alternatives.	3.1 Project objectives and benefits	Explanation of objectives.	3.1 Project objectives
				Explanation of benefits.	3.3 Socio-economic benefits of the project
				Justification for the project.	3.3 Socio-economic benefits of the project
			4 Alternatives	Detail alternative project options.	3.4 Alternatives
4	Environmental and social setting	Contextual description of the environment and socio-economic setting of the project.	6 Existing environment, potential impacts and management	Detailed description of the existing environmental condition of the site.	4 Environmental and social setting
5	Project description.	Detailed description of the project and its components.	3.2.1 Project Description and Design	Ore reserves and mine life.	5.2 Project schedule
			3.2.1 Project description and design	Design of open pits.	5.3.2 Resource estimates
				Design of waste rock storages.	5.5 Mining process
				Proposed area of disturbance.	5.6 Waste rock storage
				Description of mining methods and timetable.	5.4 Project components
					5.2.2 Mining schedule
					5.5 Mining process
				Future extensions to mine operation.	5.1 Project overview
					5.2.3 Future exploration and expansion
				Infrastructure requirements.	5.4 Project components
					5.5 Mining process
					5.7 Treatment process
					5.8.1 Surface water management
					5.8.3 Borefield
					5.9 Transport infrastructure
					5.10 Ore storage and transport to market
					5.11 Other mine infrastructure
			3.2.1 Project description and design	Infrastructure requirements.	5.12 Plant and machinery requirements
				Water requirements	5.8.2 Water use
			3.2.1 Project description and design	Borrow pits.	5.11.1 Borrow pits
				Employment opportunities.	5.14 Workforce
			3.2.2 Construction phase	Construction timing.	5.2.1 Construction schedule
				Construction methods and materials.	5.5 Mining process
					5.6 Waste rock storage
					5.8.3 Borefield
					5.9.1 Access road
					5.9.2 Haul roads and other site roads.
					5.9.3 Aerodrome

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

EIS Chapter Number	Title	Chapter summary	EIS Guideline Section	EIS Guideline Requirement	EIS Section
5	Project description	Detailed description of the project and its components.	3.2.2 Construction phase	Construction methods and materials.	5.10.1 Tennant Creek
				Construction equipment.	5.11 Other mine infrastructure
				Personnel requirements.	5.12 Plant and machinery requirements.
5	Project description	Detailed description of the project and its components.	3.2.3 Operational phase		5.14 Workforce
				Drilling and blasting requirements.	5.5 Mining process
			3.2.4 Waste rock management	Chemicals and other hazardous substances.	5.13.1 Waste and hazardous material generation
				Describe waste rock characterisation and management.	5.3.3 Deposit Geochemistry
			3.2.5 Crushing and screening		5.7 Waste rock storage
				Detail on process.	5.7 Treatment process
			3.2.6 Waste management	Detail on waste management.	5.7 Treatment process
			3.2.7 Exploration and future development	Outline potential for additional mining development and exploration.	5.13 Waste management
			9 Attachment A: Requirements for mining, construction and bush camps		5.1 Project overview
				Describe compliance with requirements.	5.2.3 Future exploration and expansion
			10 Attachment C: Guidelines for preventing mosquito breeding sites associated with mining sites		5.4 Project components
				Outline compliance with guidelines.	5.11.6 Accommodation camp
6	Existing environment, potential impacts and management	Description of the existing environment, identification of the potential issues (risks), description of the proposed avoidance, mitigation and management measures and assessments of the residual impacts.	6.2.1 Flora and fauna	Impacts upon native flora and fauna species and communities are minimised and mitigated as much as possible.	5.4 Project components
6	Existing environment, potential impacts and management	Description of the existing environment, identification of the potential issues (risks), description of the proposed avoidance, mitigation and management measures and assessments of the residual impacts.	6.2.2 Landform, geology and soils		6.7 Flora
				Manage and mitigate the risk of soil erosion on site and ensure sediment is prevented from entering into any surrounding waterways.	Attachment 5G Flora management plan
			6.3.1 Air quality and noise		6.8 Fauna
				Management and mitigation measures to control air emissions and noise are sufficient to not impact the nearby Wonarah Community and users of the Barkly Highway.	Attachment 5H Fauna management plan
			6.3.2 Greenhouse gas emissions	Adopt management measures to reduce greenhouse gas emissions.	6.5 Land resources
			6.4 Impacts to groundwater	Manage the extraction and quality of groundwater so that it complies with relevant standards and guidelines and	Attachment 5J Sediment and erosion control plan
6	Existing environment, potential impacts and management	Description of the existing environment, identification of the potential issues (risks), description of the proposed avoidance, mitigation and management measures and assessments of the	6.5 Impacts to surface water	Manage surface water onsite and moving offsite as a result of mining operations so that it complies with relevant standards and	6.10 Surface Water
			6.7 Traffic and transport of ore	Assess the risk from transport related activities and demonstrate how risk management will mitigate or eliminate risks.	Attachment 5J Sediment and erosion control plan
			6.8.1 Cultural heritage	Describe impacts and management and mitigation measures for cultural heritage.	6.10 Surface water
					Attachment 6J Sediment and erosion control plan
					6.13 Traffic and transport of ore
					6.12 Indigenous and non-indigenous cultural heritage
					Attachment 5F Cultural heritage management plan

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

EIS Chapter Number	Title	Chapter summary	EIS Guideline Section	EIS Guideline Requirement	EIS Section
6	Existing environment, potential impacts and management	Description of the existing environment, identification of the potential issues (risks), description of the proposed avoidance, mitigation and management measures and assessments of the	6.8.2 Socio-economics	Outline the overall economic benefits of the project.	6.11 Socio-economic Appendix 4 Socio-economic Baseline and Impact Assessment
			10 Attachment B: Greenhouse gas emissions and climate change	Outline how requirements of guideline are met.	6.3 Greenhouse gas emissions
7	Hazard and risk assessment	An analysis of the risk and hazards to humans and facilities at the site.	5.1 Risks and hazards to humans and facilities	Assessment of risks to people, nearby facilities, and the environment.	7 Hazards and risks to humans and facilities
8	Mine closure and rehabilitation	Conceptual mine closure and rehabilitation plan.	6.6 Rehabilitation and decommissioning	Proponent will outline a time scale for rehabilitation and decommissioning of the project for determination of compliance	8 Mine closure and rehabilitation Appendix 5 Mine closure and rehabilitation plan
9	Environmental management	Description of the environmental management system and environmental objectives that will be adopted for the project.	7 Project environmental management	Specific safeguards and controls that will be employed to prevent, manage and monitor environmental impacts are to be	9 Environmental management Attachment 5 Environmental management plans
				Define the management structure and its relationship to the environmental management of the site.	9.3 Responsibility
			10 Attachment C: Guidelines for preventing mosquito breeding sites associated with mining sites	Outline compliance with guidelines.	Attachment AT001.11 Mosquito management plan
10	Public involvement and consultation	Description of stakeholder consultation to date, and that proposed for the future.	8 Public involvement and consultation	Demonstrate how public concerns were identified, and influenced the design and delivery of the project, outline negotiations and discussions with local government, the NT Government and Federal government.	10 Public involvement and consultation
				A stakeholder consultation plan should be included.	10.5 Ongoing consultation plan Attachment 5K Stakeholder consultation plan
11	Conclusion	Conclusion summarising the salient aspects of the EIS document.			
12	References	Bibliographic details of each reference used in the EIS.	2.2 Format and Style	All sources must be appropriately referenced.	12 References
13	Glossary	Explanation of abbreviations and technical terms used in the EIS.	2.2 Format and Style	The EIS should include a list of abbreviations, a glossary of terms to define technical terms, acronyms and abbreviations, and colloquialisms.	13 Glossary
14	Study team	Details of the study team involved in the preparation of the EIS.	2.2 Format and Style	The names of, and work done by, the persons involved in preparing the EIS;	14 Study Team

Attachment 2

Section 46 Cross Reference

Section 46 Requirements for the *Aboriginal Land Rights (Northern Territory) Act 1976*

Section 46 of the Act sets out the information required to be provided to the Land Council and traditional Aboriginal owners in order to grant a mining interest on Aboriginal land, as well as the process by which the mining interest will be granted. The following table only summarises the information required to be provided to the Land Council and traditional Aboriginal owners and identifies the Minemakers documents that contain or will contain this information.

Summary of subsection of the Act	Information required	Statutory approval document containing the information	Extent of compliance with the requirements
1(a) Comprehensive proposal in relation to the mining works that are proposed to be carried out on the land.	Anticipated mine life	EIS, Section 5.1	Full compliance.
	Production capacity and scale of operation	EIS, Section 5.1	
	Proposed mining techniques	EIS, Section 5.5	
	Infrastructure requirements	EIS, Sections 5.9, 5.10 and 5.11	
	Proposed vehicular access to and within the mineral lease	EIS, Section 5.9	
	Details on other proposed mineral lease access requirements	EIS, Section 5.9	
	Anticipated construction and operational workforce	EIS, Section 5.14	
	Potential social impacts	EIS, Section 6.11 and Appendix 4 - Socio-economic Baseline and Impact Assessment	
	Water, timber and other requirements to be obtained from the affected land	EIS, Chapter 6	
	Potential impacts within and outside the mineral lease	EIS, Chapter 6	

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Summary of subsection of the Act	Information required	Statutory approval document containing the information	Extent of compliance with the requirements
1(a) Comprehensive proposal in relation to the mining works that are proposed to be carried out on the land.	Proposed impact avoidance, mitigation and management measures	EIS, Chapter 6	Full compliance.
	Rehabilitation measures	EIS, Chapter 8 and Appendix 5 - Mine Closure and Rehabilitation Plan	Full compliance.
	Terms and conditions relating to payments	Negotiated outside the EIS process	Not in compliance at this stage of project, negotiations continuing.
1(b) Miner's representatives	Name, position and qualifications of representatives, not exceeding three persons	EIS, Section 14.1	Full compliance.
2. Provision of section 46 statement to the Minister	All information in relation to the requirements is to be provided to the Minister	EIS provided to the Northern Territory Government and Central Land Council	As Section 46 not legally required, no statement has been provided to the Federal Minister, but can be provided on request.
4. Land Council will not agree to terms and conditions unless there has been consultation and the terms and conditions are reasonable	Details of consultation with the traditional owners of the land concerning the terms and conditions of mining interest.	EIS, Chapter 10 and Attachment 6 - Stakeholder Consultation Records	Full compliance. Negotiations continuing.
	Details of consultation with any other Aboriginal community or group that might be affected by the grant of the mining interest.	EIS, Chapter 10 and Attachment 6 - Stakeholder Consultation Records	EIS, Chapter 10 and Attachment 6 - Stakeholder Consultation Records

Attachment 3

Uranium Assays

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Wonarah Phosphate Project - Uranium Assay Results

Project	Prospect	Drill Hole ID	Depth From	Depth To	Easting	Northing	Uranium (ppm)
Wonarah	Arruwurra	WNDD026	14.05	14.75	640389	7775374	10.5
Wonarah	Arruwurra	WNDD026	14.75	15	640389	7775374	9.5
Wonarah	Arruwurra	WNDD026	15	16	640389	7775374	5
Wonarah	Arruwurra	WNDD026	16	17	640389	7775374	4.5
Wonarah	Arruwurra	WNDD026	17	17.6	640389	7775374	7.5
Wonarah	Arruwurra	WNDD026	17.6	18.4	640389	7775374	8.5
Wonarah	Arruwurra	WNDD028	13.2	14	640609	7776169	19
Wonarah	Arruwurra	WNDD028	14	14.9	640609	7776169	17
Wonarah	Arruwurra	WNDD029	12.5	13	640604	7775659	10
Wonarah	Arruwurra	WNDD029	13	13.9	640604	7775659	9
Wonarah	Arruwurra	WNDD030	20.8	21.3	640597	7775192	14
Wonarah	Arruwurra	WNDD035	20.9	22	639559	7774654	10
Wonarah	Arruwurra	WNDD035	22	23	639559	7774654	10
Wonarah	Arruwurra	WNDD035	23	23.4	639559	7774654	13
Wonarah	Arruwurra	WNDD036	21	22	639557	7774650	12
Wonarah	Arruwurra	WNDD036	22	23	639557	7774650	18
Wonarah	Arruwurra	WNDD036	23	23.7	639557	7774650	12
Wonarah	Arruwurra	WNDD038	11.8	12	640609	7774197	16
Wonarah	Arruwurra	WNDD038	12	13	640609	7774197	30
Wonarah	Arruwurra	WNDD038	13	14	640609	7774197	27
Wonarah	Arruwurra	WNRC012	3	4	640086	7774668	8
Wonarah	Arruwurra	WNRC012	4	5	640086	7774668	9.5
Wonarah	Arruwurra	WNRC012	5	6	640086	7774668	9.5
Wonarah	Arruwurra	WNRC012	6	7	640086	7774668	12
Wonarah	Arruwurra	WNRC012	7	8	640086	7774668	6.5
Wonarah	Arruwurra	WNRC012	8	9	640086	7774668	6
Wonarah	Arruwurra	WNRC012	9	10	640086	7774668	14
Wonarah	Arruwurra	WNRC012	10	11	640086	7774668	8.5
Wonarah	Arruwurra	WNRC012	11	12	640086	7774668	13.5
Wonarah	Arruwurra	WNRC012	12	13	640086	7774668	11.5
Wonarah	Arruwurra	WNRC012	13	14	640086	7774668	7
Wonarah	Arruwurra	WNRC012	14	15	640086	7774668	11
Wonarah	Arruwurra	WNRC012	15	16	640086	7774668	15.5
Wonarah	Arruwurra	WNRC012	16	17	640086	7774668	1.5
Wonarah	Arruwurra	WNRC090	3	4	640605	7775192	3.8
Wonarah	Arruwurra	WNRC090	4	5	640605	7775192	3.7
Wonarah	Arruwurra	WNRC090	5	6	640605	7775192	4.1
Wonarah	Arruwurra	WNRC090	6	7	640605	7775192	6
Wonarah	Arruwurra	WNRC090	7	8	640605	7775192	5.5
Wonarah	Arruwurra	WNRC090	8	9	640605	7775192	5.5
Wonarah	Arruwurra	WNRC090	9	10	640605	7775192	5
Wonarah	Arruwurra	WNRC090	10	11	640605	7775192	5.5
Wonarah	Arruwurra	WNRC090	11	12	640605	7775192	16
Wonarah	Arruwurra	WNRC090	12	13	640605	7775192	20
Wonarah	Arruwurra	WNRC090	13	14	640605	7775192	22
Wonarah	Arruwurra	WNRC090	14	15	640605	7775192	21.5
Wonarah	Arruwurra	WNRC090	15	16	640605	7775192	12.5
Wonarah	Arruwurra	WNRC090	16	17	640605	7775192	9.5
Wonarah	Arruwurra	WNRC090	17	18	640605	7775192	5.5
Wonarah	Arruwurra	WNRC090	18	19	640605	7775192	8.5
Wonarah	Arruwurra	WNRC090	19	20	640605	7775192	7.5
Wonarah	Arruwurra	WNRC090	20	21	640605	7775192	10.5
Wonarah	Arruwurra	WNRC090	21	22	640605	7775192	12

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Project	Prospect	Drill Hole ID	Depth From	Depth To	Easting	Northing	Uranium (ppm)
Wonarah	Arruwurra	WNRC090	22	23	640605	7775192	6.5
Wonarah	Arruwurra	WNRC090	23	24	640605	7775192	2.2
Wonarah	Arruwurra	WNRC090	24	25	640605	7775192	1.4
Wonarah	Arruwurra	WNRC090	25	26	640605	7775192	1.4
Wonarah	Arruwurra	WNRC094	3	4	639571	7774650	1.9
Wonarah	Arruwurra	WNRC094	4	5	639571	7774650	2
Wonarah	Arruwurra	WNRC094	5	6	639571	7774650	2.7
Wonarah	Arruwurra	WNRC094	6	7	639571	7774650	3.7
Wonarah	Arruwurra	WNRC094	8	9	639571	7774650	5
Wonarah	Arruwurra	WNRC094	9	10	639571	7774650	8
Wonarah	Arruwurra	WNRC094	10	11	639571	7774650	3.2
Wonarah	Arruwurra	WNRC094	11	12	639571	7774650	2.4
Wonarah	Arruwurra	WNRC094	12	13	639571	7774650	2.9
Wonarah	Arruwurra	WNRC094	13	14	639571	7774650	2.8
Wonarah	Arruwurra	WNRC094	14	15	639571	7774650	5
Wonarah	Arruwurra	WNRC094	15	16	639571	7774650	8
Wonarah	Arruwurra	WNRC094	16	17	639571	7774650	5
Wonarah	Arruwurra	WNRC094	17	18	639571	7774650	14
Wonarah	Arruwurra	WNRC094	18	19	639571	7774650	9.5
Wonarah	Arruwurra	WNRC094	19	20	639571	7774650	9
Wonarah	Arruwurra	WNRC094	20	21	639571	7774650	3.6
Wonarah	Arruwurra	WNRC094	21	22	639571	7774650	8
Wonarah	Arruwurra	WNRC094	22	23	639571	7774650	6
Wonarah	Arruwurra	WNRC094	23	24	639571	7774650	6.5
Wonarah	Arruwurra	WNRC094	24	25	639571	7774650	6.5
Wonarah	Arruwurra	WNRC094	25	26	639571	7774650	1.7
Wonarah	Arruwurra	WNRC094	26	27	639571	7774650	2.8
Wonarah	Arruwurra	WNRC095	2	3	639525	7774176	2.4
Wonarah	Arruwurra	WNRC095	3	4	639525	7774176	1.4
Wonarah	Arruwurra	WNRC095	4	5	639525	7774176	3.1
Wonarah	Arruwurra	WNRC095	5	6	639525	7774176	3.4
Wonarah	Arruwurra	WNRC095	6	7	639525	7774176	5.5
Wonarah	Arruwurra	WNRC095	7	8	639525	7774176	7
Wonarah	Arruwurra	WNRC095	8	9	639525	7774176	6.5
Wonarah	Arruwurra	WNRC095	9	10	639525	7774176	6.5
Wonarah	Arruwurra	WNRC095	10	11	639525	7774176	5.5
Wonarah	Arruwurra	WNRC095	11	12	639525	7774176	4.8
Wonarah	Arruwurra	WNRC095	12	13	639525	7774176	3.4
Wonarah	Arruwurra	WNRC095	13	14	639525	7774176	16.5
Wonarah	Arruwurra	WNRC095	14	15	639525	7774176	19.5
Wonarah	Arruwurra	WNRC095	15	16	639525	7774176	37
Wonarah	Arruwurra	WNRC095	16	17	639525	7774176	50
Wonarah	Arruwurra	WNRC095	17	18	639525	7774176	50
Wonarah	Arruwurra	WNRC095	18	19	639525	7774176	49
Wonarah	Arruwurra	WNRC095	19	20	639525	7774176	36
Wonarah	Arruwurra	WNRC095	20	21	639525	7774176	26
Wonarah	Arruwurra	WNRC095	21	22	639525	7774176	22
Wonarah	Arruwurra	WNRC095	22	23	639525	7774176	14.5
Wonarah	Arruwurra	WNRC095	23	24	639525	7774176	9.5
Wonarah	Arruwurra	WNRC095	24	25	639525	7774176	7.5
Wonarah	Arruwurra	WNRC095	25	26	639525	7774176	19
Wonarah	Arruwurra	WNRC095	26	27	639525	7774176	4.1
Wonarah	Arruwurra	WNRC095	27	28	639525	7774176	1.4
Wonarah	Arruwurra	WNRC095	28	29	639525	7774176	1

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Project	Prospect	Drill Hole ID	Depth From	Depth To	Easting	Northing	Uranium (ppm)
Wonarah	Arruwurra	WNRC097	4	5	639108	7773657	1
Wonarah	Arruwurra	WNRC097	5	6	639108	7773657	1.6
Wonarah	Arruwurra	WNRC097	6	7	639108	7773657	2.1
Wonarah	Arruwurra	WNRC097	7	8	639108	7773657	2.6
Wonarah	Arruwurra	WNRC097	8	9	639108	7773657	3.5
Wonarah	Arruwurra	WNRC097	9	10	639108	7773657	7
Wonarah	Arruwurra	WNRC097	10	11	639108	7773657	10.5
Wonarah	Arruwurra	WNRC097	11	12	639108	7773657	4.1
Wonarah	Arruwurra	WNRC097	12	13	639108	7773657	6.5
Wonarah	Arruwurra	WNRC097	13	14	639108	7773657	5.5
Wonarah	Arruwurra	WNRC097	14	15	639108	7773657	8.5
Wonarah	Arruwurra	WNRC097	15	16	639108	7773657	7
Wonarah	Arruwurra	WNRC097	16	17	639108	7773657	5.5
Wonarah	Arruwurra	WNRC097	17	18	639108	7773657	15.5
Wonarah	Arruwurra	WNRC097	18	19	639108	7773657	24
Wonarah	Arruwurra	WNRC097	19	20	639108	7773657	29.5
Wonarah	Arruwurra	WNRC097	20	21	639108	7773657	28.5
Wonarah	Arruwurra	WNRC097	21	22	639108	7773657	22
Wonarah	Arruwurra	WNRC097	22	23	639108	7773657	28
Wonarah	Arruwurra	WNRC097	23	24	639108	7773657	28.5
Wonarah	Arruwurra	WNRC097	24	25	639108	7773657	19
Wonarah	Arruwurra	WNRC097	25	26	639108	7773657	15.5
Wonarah	Arruwurra	WNRC097	26	27	639108	7773657	16.5
Wonarah	Arruwurra	WNRC097	27	28	639108	7773657	22.5
Wonarah	Arruwurra	WNRC097	28	29	639108	7773657	10
Wonarah	Arruwurra	WNRC097	29	30	639108	7773657	5
Wonarah	Arruwurra	WNRC108	1	2	641200	7775692	1.8
Wonarah	Arruwurra	WNRC108	2	3	641200	7775692	1.6
Wonarah	Arruwurra	WNRC108	3	4	641200	7775692	1.9
Wonarah	Arruwurra	WNRC108	4	5	641200	7775692	2.5
Wonarah	Arruwurra	WNRC108	5	6	641200	7775692	3.7
Wonarah	Arruwurra	WNRC108	6	7	641200	7775692	5.5
Wonarah	Arruwurra	WNRC108	7	8	641200	7775692	3.9
Wonarah	Arruwurra	WNRC108	8	9	641200	7775692	3.4
Wonarah	Arruwurra	WNRC108	9	10	641200	7775692	4.3
Wonarah	Arruwurra	WNRC108	10	11	641200	7775692	8.5
Wonarah	Arruwurra	WNRC108	11	12	641200	7775692	12.5
Wonarah	Arruwurra	WNRC108	12	13	641200	7775692	15.5
Wonarah	Arruwurra	WNRC108	13	14	641200	7775692	6
Wonarah	Arruwurra	WNRC108	14	15	641200	7775692	7.5
Wonarah	Arruwurra	WNRC108	15	16	641200	7775692	8
Wonarah	Arruwurra	WNRC108	16	17	641200	7775692	2.3
Wonarah	Arruwurra	WNRC108	17	18	641200	7775692	1.8
Wonarah	Arruwurra	WNRC108	18	19	641200	7775692	1.2
Wonarah	Main Zone	WNDD016	36	36.5	653127	7786791	26
Wonarah	Main Zone	WNDD016	36.5	37.9	653127	7786791	36
Wonarah	Main Zone	WNDD016	37.9	39.5	653127	7786791	29
Wonarah	Main Zone	WNDD018	25	26	650632	7786177	22
Wonarah	Main Zone	WNDD018	26	27	650632	7786177	20
Wonarah	Main Zone	WNDD018	28	29	650632	7786177	21
Wonarah	Main Zone	WNDD018	29	30	650632	7786177	21
Wonarah	Main Zone	WNDD018	30	31	650632	7786177	23
Wonarah	Main Zone	WNDD018	31	32	650632	7786177	29
Wonarah	Main Zone	WNRC279	30	31	654993	7790498	60

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Project	Prospect	Drill Hole ID	Depth From	Depth To	Easting	Northing	Uranium (ppm)
Wonarah	Main Zone	WNRC279	31	32	654993	7790498	47.5
Wonarah	Main Zone	WNRC279	32	33	654993	7790498	33
Wonarah	Main Zone	WNRC279	33	34	654993	7790498	33.5
Wonarah	Main Zone	WNRC279	34	35	654993	7790498	35
Wonarah	Main Zone	WNRC279	35	36	654993	7790498	26
Wonarah	Main Zone	WNRC279	36	37	654993	7790498	23
Wonarah	Main Zone	WNRC279	37	38	654993	7790498	9.5
Wonarah	Main Zone	WNRC295	36	37	655249	7790255	38.5
Wonarah	Main Zone	WNRC295	37	38	655249	7790255	47.5
Wonarah	Main Zone	WNRC295	38	39	655249	7790255	55
Wonarah	Main Zone	WNRC295	39	40	655249	7790255	46
Wonarah	Main Zone	WNRC295	40	41	655249	7790255	21.5
Wonarah	Main Zone	WNRC298	30	31	655250	7789747	22
Wonarah	Main Zone	WNRC298	31	32	655250	7789747	29
Wonarah	Main Zone	WNRC298	32	33	655250	7789747	55
Wonarah	Main Zone	WNRC298	33	34	655250	7789747	43.5
Wonarah	Main Zone	WNRC298	37	38	655250	7789747	23.5
Wonarah	Main Zone	WNRC298	38	39	655250	7789747	43
Wonarah	Main Zone	WNRC298	39	40	655250	7789747	17.5
Wonarah	Main Zone	WNRC298	45	46	655250	7789747	10.5
Wonarah	Main Zone	WNRC298	46	47	655250	7789747	12
Wonarah	Main Zone	WNRC298	47	48	655250	7789747	11
Wonarah	Main Zone	WNRC327	35	36	655500	7792502	5
Wonarah	Main Zone	WNRC327	36	37	655500	7792502	29
Wonarah	Main Zone	WNRC327	37	38	655500	7792502	38
Wonarah	Main Zone	WNRC327	38	39	655500	7792502	27
Wonarah	Main Zone	WNRC327	39	40	655500	7792502	18.5
Wonarah	Main Zone	WNRC327	40	41	655500	7792502	19
Wonarah	Main Zone	WNRC327	41	42	655500	7792502	23.5
Wonarah	Main Zone	WNRC327	42	43	655500	7792502	12.5
Wonarah	Main Zone	WNRC327	43	44	655500	7792502	8.5
Wonarah	Main Zone	WNRC330	39	40	655782	7792001	38
Wonarah	Main Zone	WNRC330	40	41	655782	7792001	30.5
Wonarah	Main Zone	WNRC330	41	42	655782	7792001	31.5
Wonarah	Main Zone	WNRC330	42	43	655782	7792001	26.5
Wonarah	Main Zone	WNRC330	43	44	655782	7792001	26
Wonarah	Main Zone	WNRC330	44	45	655782	7792001	33.5
Wonarah	Main Zone	WNRC330	45	46	655782	7792001	10
Wonarah	Main Zone	WNRC338	29	30	652497	7786504	14
Wonarah	Main Zone	WNRC338	30	31	652497	7786504	47.5
Wonarah	Main Zone	WNRC338	31	32	652497	7786504	40
Wonarah	Main Zone	WNRC338	32	33	652497	7786504	50
Wonarah	Main Zone	WNRC338	33	34	652497	7786504	60
Wonarah	Main Zone	WNRC338	34	35	652497	7786504	41.5
Wonarah	Main Zone	WNRC338	35	36	652497	7786504	12
Wonarah	Main Zone	WNRC345	38	39	652998	7786749	23
Wonarah	Main Zone	WNRC345	39	40	652998	7786749	28
Wonarah	Main Zone	WNRC345	40	41	652998	7786749	37
Wonarah	Main Zone	WNRC345	41	42	652998	7786749	42
Wonarah	Main Zone	WNRC345	42	43	652998	7786749	39
Wonarah	Main Zone	WNRC345	43	44	652998	7786749	24
Wonarah	Main Zone	WNRC346	29	30	652752	7786747	75
Wonarah	Main Zone	WNRC346	30	31	652752	7786747	55
Wonarah	Main Zone	WNRC346	31	32	652752	7786747	47

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Project	Prospect	Drill Hole ID	Depth From	Depth To	Easting	Northing	Uranium (ppm)
Wonarah	Main Zone	WNRC346	32	33	652752	7786747	34
Wonarah	Main Zone	WNRC346	33	34	652752	7786747	26.5
Wonarah	Main Zone	WNRC346	34	35	652752	7786747	30
Wonarah	Main Zone	WNRC346	35	36	652752	7786747	40
Wonarah	Main Zone	WNRC346	36	37	652752	7786747	34
Wonarah	Main Zone	WNRC346	37	38	652752	7786747	12
Wonarah	Main Zone	WNRC407	39	40	655747	7790502	29
Wonarah	Main Zone	WNRC407	40	41	655747	7790502	37.5
Wonarah	Main Zone	WNRC407	41	42	655747	7790502	30.5
Wonarah	Main Zone	WNRC407	42	43	655747	7790502	17.5
Wonarah	Main Zone	WNRC407	43	44	655747	7790502	17.5
Wonarah	Main Zone	WNRC408	33	34	655499	7790498	33.5
Wonarah	Main Zone	WNRC408	34	35	655499	7790498	34.5
Wonarah	Main Zone	WNRC408	35	36	655499	7790498	25
Wonarah	Main Zone	WNRC408	36	37	655499	7790498	24
Wonarah	Main Zone	WNRC408	37	38	655499	7790498	17.5
Wonarah	Main Zone	WNRC408	38	39	655499	7790498	30
Wonarah	Main Zone	WNRC408	39	40	655499	7790498	21.5
Wonarah	Main Zone	WNRC408	40	41	655499	7790498	25
Wonarah	Main Zone	WNRC408	41	42	655499	7790498	20.5
Wonarah	Main Zone	WNRC408	42	43	655499	7790498	19.5
Wonarah	Main Zone	WNRC408	43	44	655499	7790498	22
Wonarah	Main Zone	WNRC408	44	45	655499	7790498	9.5
Wonarah	Main Zone	WNRC408	45	46	655499	7790498	22
Wonarah	Main Zone	WNRC408	46	47	655499	7790498	16
Wonarah	Main Zone	WNRC408	47	48	655499	7790498	14
Wonarah	Main Zone	WNRC418	32	33	654758	7791011	28.5
Wonarah	Main Zone	WNRC418	33	34	654758	7791011	36.5
Wonarah	Main Zone	WNRC418	34	35	654758	7791011	30.5
Wonarah	Main Zone	WNRC418	35	36	654758	7791011	27.5
Wonarah	Main Zone	WNRC418	36	37	654758	7791011	21.5
Wonarah	Main Zone	WNRC432	40	41	655498	7791753	16.5
Wonarah	Main Zone	WNRC432	41	42	655498	7791753	22.5
Wonarah	Main Zone	WNRC432	42	43	655498	7791753	30
Wonarah	Main Zone	WNRC432	43	44	655498	7791753	32
Wonarah	Main Zone	WNRC432	44	45	655498	7791753	11
Wonarah	Main Zone	WNRC477	45	46	655500	7791253	22.5
Wonarah	Main Zone	WNRC477	46	47	655500	7791253	32
Wonarah	Main Zone	WNRC477	47	48	655500	7791253	42
Wonarah	Main Zone	WNRC477	48	49	655500	7791253	44
Wonarah	Main Zone	WNRC477	49	50	655500	7791253	55
Wonarah	Main Zone	WNRC477	50	51	655500	7791253	38.5
Wonarah	Main Zone	WNRC477	51	52	655500	7791253	36.5
Wonarah	Main Zone	WNRC477	52	53	655500	7791253	29
Wonarah	Main Zone	WNRC477	53	54	655500	7791253	13.5
Wonarah	Main Zone	WNRC534	40	41	656502	7792003	29.5
Wonarah	Main Zone	WNRC534	41	42	656502	7792003	33
Wonarah	Main Zone	WNRC534	42	43	656502	7792003	21.5
Wonarah	Main Zone	WNRC534	43	44	656502	7792003	22.5
Wonarah	Main Zone	WNRC534	44	45	656502	7792003	21
Wonarah	Main Zone	WNRC534	45	46	656502	7792003	31.5
Wonarah	Main Zone	WNRC534	46	47	656502	7792003	25.5
Wonarah	Main Zone	WNRC534	47	48	656502	7792003	15
Wonarah	Main Zone	WNRC534	48	49	656502	7792003	7.5

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Project	Prospect	Drill Hole ID	Depth From	Depth To	Easting	Northing	Uranium (ppm)
Wonarah	Main Zone	WNRC534	49	50	656502	7792003	13.5
Wonarah	Main Zone	WNRC534	50	51	656502	7792003	15.5
Wonarah	Main Zone	WNRC534	51	52	656502	7792003	8.5
Wonarah	Main Zone	WNRC534	52	53	656502	7792003	7.5
Wonarah	Main Zone	WNRC534	53	54	656502	7792003	14
Wonarah	Main Zone	WNRC534	54	55	656502	7792003	7
Wonarah	Main Zone	WNRC534	55	56	656502	7792003	5.5
Wonarah	Main Zone	WNRC534	56	57	656502	7792003	12
Wonarah	Main Zone	WNRC534	57	58	656502	7792003	20
Wonarah	Main Zone	WNRC534	58	59	656502	7792003	16
Wonarah	Main Zone	WNRC534	59	60	656502	7792003	4.9
Wonarah	Main Zone	WNRC534	60	61	656502	7792003	3.4
Wonarah	Main Zone	WNRC667	32	33	654001	7790999	24
Wonarah	Main Zone	WNRC667	33	34	654001	7790999	10.5
Wonarah	Main Zone	WNRC667	34	35	654001	7790999	12.5
Wonarah	Main Zone	WNRC667	35	36	654001	7790999	14
Wonarah	Main Zone	WNRC667	36	37	654001	7790999	14
Wonarah	Main Zone	WNRC667	37	38	654001	7790999	14
Wonarah	Main Zone	WNRC667	38	39	654001	7790999	14.5
Wonarah	Main Zone	WNRC667	39	40	654001	7790999	16.5
Wonarah	Main Zone	WNRC667	40	41	654001	7790999	19.5
Wonarah	Main Zone	WNRC667	41	42	654001	7790999	20
Wonarah	Main Zone	WNRC667	42	43	654001	7790999	8

Attachment 4

Dustbloc © Specifications



TECHNICAL INFORMATION DUSTBLOC

DustBloc is a combination of bitumen emulsion and Cooe's FT50 additive. The FT50 additive enables the bitumen to easily mix with all water types (soft, hard, bore or salt water) at dilutions that allow DustBloc to soak into the ground. When the water and additive evaporate a thin coating of bitumen is left on the particles. No special application equipment is required.

DustBloc is safe to users and the environment. All ingredients of DustBloc are non-toxic and the product is non-hazardous according to the criteria of Worksafe Australia.

CHARACTERISTICS:

DustBloc can be readily diluted with water. Most applications are between 40:1 and 80:1, however the product can be diluted to any level and one client has found that 120:1 suits their requirements.

The two most important characteristics of DustBloc are that it can be diluted to these levels that allow it to soak into a road surface rather than sitting on top of the surface. Secondly, when the water evaporates taking the additive with it, the remaining bitumen will not mix with water again. This means the product does not wash back out and gradually builds up in the surface material.

This creates two effects. Firstly it binds the road together stopping any dust and secondly when the surface is broken up by traffic creating some dust, the particles are heavier and less likely to become airborne.

ADVANTAGES:

- Sites using DustBloc are showing water savings between 60% and 90%
- Improved road condition especially during wet periods
- Increased safety due to improved roads and less watering
- Environmentally safe
- The emulsion is designed so that it can be used easily through conventional water trucks and spraying equipment

ENVIRONMENTAL ADVANTAGES:

- Safe to users and the environment.
- All ingredients are non-toxic.
- DustBloc is classified as non-hazardous according to Worksafe Australia.
- DustBloc contains water and is further diluted with water during use.
- Hydrocarbon Leach tests conducted on the treated areas showed zero leaching.
- Reduced water usage and as a consequence less truck usage.

METHODS OF USE:

DustBloc is supplied in 20L, 200L and 1000L containers or in bulk tankers.

Most applications are between 40:1 and 80:1 dilution in water. On very compacted surfaces two coats are recommended when starting the dust control process to "prime" the area. Areas where there is very loose uncompacted material will require greater dilution and more frequent applications to wet all of the material so it can be compacted. The product will not work if compaction can't be achieved. It will form a layer on the surface that will be broken by traffic.

Repeat applications are required to achieve a suitable level of dust control.

The diluted product should be sprayed at a rate of 1lt. diluted product to 2-4 m² surface area. Thus, 1lt. of supplied DustBloc will provide coverage for 80-160 m² surface area when diluted with water.

The dilution of DustBloc with water takes place in the spray tanker, with water being added first.

SAFETY:

GENERAL

Cooee DustBloc is a suspension of finely divided bitumen particles in water. There is no evidence to suggest serious health hazards associated with its use. DustBloc is non-flammable and is applied and transported at room temperature.

SAFE HANDLING

Contact with the skin should be avoided by the use of protective clothing, suitable gloves and rubber boots. When the product dries it is pure bitumen so if contact is made with skin, wash immediately with cold water to remove before it sets. Solvents should not be used for the removal of residual material from the skin since they may themselves cause irritation. General hand cleaners will remove the product if necessary.

Eyes should be protected from splashes of DustBloc droplets by the wearing of suitable safety glasses or goggles. Where the eyes are accidentally splashed with emulsion they should be irrigated thoroughly with cold water and medical advice sought.

STORAGE:

BULK STORAGE

Clients with medium to high usage of DustBloc can be provided with storage and pumping facilities. Attached photo showing DustBloc storage tanks and pump at a mine site.



Smaller quantities are delivered in 1000 litre IBC containers and 205 litre drums.

CLEANING:

SPRAY TRUCK - Pumps, spray bars and jets should be flushed out with clean water immediately at the end of the DustBloc application. The water truck is refilled with clean water and sprayed onto a suitable area.

HAND-OPERATED MACHINES - Breaks in spraying should be accompanied by flushing of the spray with water to prevent blockage.

It must be remembered the end product is bitumen and as much as the product is easily rinsed from inside the truck and pumps it is harder to remove from the exterior of the truck where it has been exposed to air and set.

Even though the product presents no danger, all steps should be taken to avoid spillage on the outside of the water truck.

For further information see MSDS Data Sheet available at www.dustbloc.info.

Attachment 5

Environmental Management Plan

Attachment 5A

Air Quality Management Plan

No: EIS-AQ	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Air Quality Management Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	.

1. Issues

Air quality management issues associated with the project include:

- Dust generation from vehicle travel on unsealed roads.
- Particulate matter from the handling and transport of ore and waste.
- Movement of dust across the Barkly Highway.
- Localised temporary changes in air quality due to exhaust fumes from vehicles, plant and generators.
- Requirement by the Northern Territory Government to minimise greenhouse gas emissions and to ensure they are kept as low as practicable.

Emissions of combustion products such as carbon monoxide, nitrogen dioxide and sulfur dioxide from the burning of fuels (mostly diesel) and from blasting are too small and too widely dispersed to impact air quality, other than in the immediate vicinity of their discharge.

2. Objectives

The objectives of air quality management are to minimise:

- Atmospheric emissions, including dust and odour.
- Greenhouse gas emissions.
- Creation of safety hazards from air emissions.

3. Recommendations and Commitments

This management plan addresses the issues identified during planning and design of the project:

- Adopt a best practice approach to dust control for mines in Australia.
- Undertake annual reporting of greenhouse gas emissions.
- Adopt predicted greenhouse gas emission estimates as initial emission targets.

- Develop a dust monitoring program, including PM_{2.5} and PM₁₀ to prove that dust management practices are effective.
- Make the results of monitoring publicly available and document them in the annual mine plan review, for appropriate action, including continuation, cessation or modification of the program.

4. Responsibilities

The Minemakers Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors are responsible for compliance with this document, and for ensuring others do likewise.

5. Definitions

Ore – a mineral or mixture of minerals containing an element or compound in sufficient amounts for its extraction to be profitable.

PM₁₀ – the fraction of dust with a particle size of 10 µm or less; a health indicator for the fine particles of respirable dust capable of being inhaled into the lungs.

PM_{2.5} – the fraction of dust with a particle size of 2.5 µm or less; a health indicator for the very fine particles of respirable dust capable of deep penetration into the lungs and alveoli.

Stockpile – a pile used to store material (such as low-grade ore) for future use.

Best practice – a process, technique, or use of technology, equipment or resource that has a proven record of success.

Emission – a discharge of a substance (e.g., dust) into the environment.

Total suspended solids (TSS) – a common measure used to determine suspended solids concentrations in a waterbody and expressed in terms of mass per unit of volume (e.g., milligrams per litre).

6. Performance Standards

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

6.1 Legislation, Guidelines and Codes

- National Environment Protection Measure for Diesel Vehicle Emissions (NEPC, 2001) – relevant in terms of maintaining diesel-operated vehicles in good working order.
- National Greenhouse Strategy; Strategic Framework for Advancing Australia's Greenhouse Response (AGO, 1998) – specifically states that the minerals and mineral processing industries should pursue best practice environmental management to reduce greenhouse gas emissions.

- Final Impact Statement for Ambient Air Quality National Environment Protection Measure. National Environment Protection Council Service Corporation (NEPC, 1998 and NEPC 2003).
- Guidelines for separation distances (EPA, 2007).
- Guidelines for controlling dust (NRETAS, Undated).

6.2 Associated Plans and Procedures

- Fire Management Plan.
- Stakeholder Consultation Plan.

7. Procedures

7.1 Air Quality Management

To avoid generating dust Minemakers will:

- Incorporate the consideration of dust generation and meteorological conditions during the mine planning stage, e.g. locate accommodation upwind of the mining operations or at sufficient distance downwind so as to mitigate any potential dust impact.
- Minimise the extent of vegetation clearing, reducing the amount exposed areas susceptible to wind erosion.
- Use progressive clearing techniques to minimise the amount of bare ground.
- Cover products during transport.
- Rehabilitate final surfaces progressively during the project.
- Use signage and markings to ensure traffic is kept to official roadways where dust suppression techniques are in use. Off road driving will be prohibited.
- Restrict site access to necessary site vehicles only.
- Manage stockpiles and material storage to avoid dust generation, including such measures as:
 - Positioning the stockpiles lengthways to the predominant wind direction.
 - Minimising the slope of the upwind surfaces.
 - Fencing or berming stockpiles to prevent unauthorised access.
 - Stockpile coarser material on the outer slopes of stored material to prevent wind blown dust.

Where complete avoidance of dust generation is not possible Minemakers will implement the following measures to minimise the amounts of dust generated:

- Spray water or the dust suppressants dustbloc® on trafficked areas and other dust generating areas. Minemakers will keep daily records of:
 - The operational hours of mining equipment.
 - The operational hours of all water trucks.
 - The amount of water and dust suppressant used.
 - The numbers of water trucks in operation.
 - Time any mining operations ceased due to inappropriate meteorological conditions.

- Use speed limits on roads used by mine traffic to reduce vehicle dust.
- Limiting parking of vehicles to designated parking areas to minimise soil disturbance.
- Limit load sizes of haul trucks ensuring material is not above the level of the vehicle sidewalls.

Haulage contractors will be required to implement measures to minimise product leakage from haul trucks.

The movement of dust from the mine site onto the Barkly Highway has the potential to degrade the road surface during rain events or visibility during dry periods. To reduce the amount of dust carried on vehicles from site onto the Barkly Highway, Minemakers will implement the following measures:

- Harden road areas at the site access point using such means as grates, gravel pads or paving.
- Compacting the soil at site access points.
- Washing vehicle wheels using drive through wheel washing bays to remove any soils from wheels.
- Sweeping tracked soil regularly from the site entrance.

Further measures to reduce the movement of airborne dust across the Barkly Highway include:

- Designing and planning the mining operations to take into consideration the prevailing winds until the pit is at a sufficient depth that dust is not likely to move off site.
- Planting suitable screening vegetation along the Mineral Lease boundary adjacent to the Barkly Highway to minimise dust movement off site.
- Timing mining operations to take into consideration the prevailing wind direction and time of year, e.g. minimise top soil removal during dry periods.
- Pre-watering areas to be cleared when dust is expected to be of concern to users of the Barkly Highway.

Airborne dust and mud on the highway has the potential to become a safety hazard to motorists. In the event that airborne dust poses a real danger to traffic on the Barkly Highway Minemakers will discontinue the dust generating operations until conditions are more favourable (e.g., change in wind direction or speed).

On-site fugitive dust poses a potential health and safety risk for mine related traffic. Minemakers will implement the following measures to minimise the potential risk for mine drivers:

- Drivers will be informed of prevailing weather conditions and potential dust risks daily prior to beginning work.
- All haul road drivers will be in radio contact and updated regularly of dust conditions. Further, drivers will provide ongoing updates when dust poses a traffic hazard.
- Overtaking outside of designated overtaking area will be prohibited.
- Turning vehicles outside of designated turning areas will be prohibited.
- All small vehicle drivers will be trained in the appropriate techniques for passing haul trucks.

Project equipment, machinery and vehicles will meet exhaust air quality standards in the normal manner for all vehicles sold in Australia and will comply with all Northern Territory regulations. Vehicles and machinery will be fitted with the appropriate emission control equipment, and maintained and serviced frequently.

7.2 Greenhouse Gas Emissions

Minemakers will employ measures that incorporate best practices for reducing greenhouse gas emissions during project construction and operations. To reduce greenhouse gas emissions Minemakers will:

- Where appropriate, establish measurable greenhouse emission targets that reflect ongoing improvement.
- Calculate greenhouse emissions from energy consumption (e.g., diesel and electricity) and compare to target emissions.
- Identify and assess economically viable opportunities for improvement.
- Develop and apply policies and procedures for efficient mine operation.
- Minimise haul distances.
- Consider use of alternative fuels (e.g., bio-diesel).

8. Monitoring and Reporting

8.1 General

Minemakers will:

- Review and modify as required the monitoring program described herein after 6 months of data has been obtained, and at regular intervals thereafter.
- Report results (and interpretation thereof) in the annual Mining Management Plan (other than for variations as described below).

8.2 Detailed

Monitoring of dust emissions will incorporate:

- Baseline dust sampling for PM_{2.5}, PM₁₀ and total suspended particulates. On the basis of the results from this sampling, design and implement an ongoing dust monitoring program.
- A weather station that measures wind speed, wind direction, temperature, humidity and rainfall. The Wonarah weather station is currently located within the project area.
- Monthly monitoring at eight dust deposition gauges located within (or close to) the Mineral Lease area.
- Further dust deposition gauges positioned north of the Barkly Highway to monitor the movement of fugitive dust cross the highway.

- Real time dust monitoring gauges will be employed for the first 12 months of the project operations to establish the timing and amount of dust moving across the Barkly Highway. Monitoring will then occur as required.

In addition to this:

- Public motorist notifications will be registered along with the current meteorological conditions and operation activities. This data will then be used to manage the timing of operation activities in the event a correlation is determined.
- The use of dust suppression techniques will be recorded in daily log books in order for Minemakers to gauge the effectiveness of suppression techniques against monitoring data.
- Minemakers will undertake additional nuisance air quality monitoring by complaint.
- Minemakers will undertake air quality monitoring in relation to staff and contractors as part of the project's occupational health and safety system.
- Prepare annual reports outlining the details of improvement programs designed to reduce total greenhouse gas emissions and improve efficiency.

9. References

- AGO. 1998. The National greenhouse strategy: strategic framework for advancing Australia's greenhouse response. Australian Greenhouse Office, Canberra, Australian Capital Territory.
- EPA. 2007. Guidelines for separation distances. Environmental Protection Agency, Adelaide, South Australia.
- NEPC. 1998. (Ambient Air Quality) Measure: amended. National Environmental Protection Council, Canberra, Australian Capital Territory.
- NEPC. 2001. National Environment Protection (Diesel Vehicle Emissions) Measure. National Environmental Protection Council, Canberra, Australian Capital Territory.
- NEPC. 2003. (Ambient Air Quality) Measure. National Environmental Protection Council, Canberra, Australian Capital Territory.
- NRETAS. undated. Guidelines for controlling dust. Environment, Heritage and the Arts Division, Northern Territory Government, Palmerston, Northern Territory.

Attachment 5B

Waste Management Plan

No: EIS-WM	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Waste Management Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	.

1. Issues

During the project, domestic and industrial wastes such as waste oils, packaging, drums and general refuse will be generated. Hazardous materials (mainly hydrocarbons and explosives) require specific transport, storage, handling and disposal procedures. Waste material and hazardous materials may pose significant health, environmental and aesthetic risks if not appropriately managed.

Hazardous materials and waste management issues associated with the project include:

- Contamination of soil and water (including groundwater).
- Health risks to workers and the public.
- Adverse effects on flora and fauna.
- Inefficient resource use.

2. Objectives

The objectives of waste management are to:

- Avoid the contamination of soil and water (including groundwater).
- Minimise potential risks to workers and the public.
- Minimise adverse effects on flora and fauna.
- Minimise impacts to visual amenity.
- Ensure that all wastes, including hazardous material, solid putrescibles and biodegradable, and inert wastes are managed safely and in an environmentally appropriate manner.
- Promote efficient use and conservation of resources, reduce the need for waste treatment facilities and reduce the requirement of raw materials.

3. Responsibilities

The Minemakers Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors, are responsible for compliance with this document, and for ensuring others do likewise.

4. Performance Standards

The waste management plan is consistent with the following standard hierarchy of waste minimisation principles:

1. Avoid.
2. Minimise.
3. Reuse.
4. Recycle/reclaim.
5. Treat.
6. Dispose.

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

4.1 Legislation, Guidelines and Codes

Commonwealth

- *Occupational Health and Safety Act 2000* and associated regulations.

Northern Territory

- *Dangerous Goods Act* and associated regulations.
- *Waste Management and Pollution Control Act* and associated regulations.
- *Water Act* and associated regulations.
- *Workplace Health and Safety Act* and associated regulations.

Australian Standards

- *AS 1940-2004* : The storage and handling of flammable and combustible liquids (AS 1940:2004).
- *AS/NZS 4452:1997* : The storage and handling of toxic substances (AS 4452:1997).

4.2 Associated Plans and Procedures

- Emergency Response Plan.
- Stakeholder Consultation Plan.

5. Procedures

5.1 General Waste Management

Minemakers will:

- Maintain records of all wastes managed on site or sent to an off-site treatment, recycling, storage or disposal facility. Concerning the latter, the following information will be required:
 - Waste generator facility name and address.
 - Date of shipment for recycling, treatment or disposal.
 - Type of waste.
 - Quantity of waste.
 - Method of recycle, treatment or disposal.
 - Description of waste, including restricted characteristics.
 - Transporter name and address.
 - Name of recycling, treatment, storage or disposal facility accepting waste.
 - Where available, record receipt of waste from waste facility.
- Implement additional specific measures such as ensuring that:
 - Waste storage areas are well signed and delineated.
 - Licensed contractors dispose of waste off site when suppliers cannot remove waste.

In addition to the measures described above, Minemakers will implement a range of management measures for the various solid wastes that will be generated on site (Table 1).

Table 1 Solid waste management procedures

Waste Type	Minimise	Reuse/ Recycle	Treatment/ Destruction
Putrescible/ biodegradable litter	Minimise over- ordering		Transported to on site putrescible waste disposal facility.
Packaging, paper, plastic, recyclable cans, containers, glass	Purchase in bulk	Separate white paper and PET – HPDE, glass, plastic, cans	Collect at designated points, transfer to administration area then remove off site by licensed contractor.
Scrap steel	Minimise over- ordering	Collect for recycling	Store at designated site.

In addition to the general waste minimisation techniques outlined above Minemakers will:

- Ensure a high level of staff employee and contractor awareness of the waste management plan.
- Incorporate waste and hazardous materials management into site induction programs and training.
- Ensure that all employees and contractors operate in accordance with Minemakers procedures for waste and hazardous materials management.
- Promote a high standard of housekeeping, thereby minimising litter and vermin infestation.

- Develop and implement a recycling and waste minimisation program that will be regularly (e.g., biannually) reviewed during the lifetime of the operation. This will include consideration of the following:
 - Ordering supplies in bulk and selecting suppliers who have return policies in place for unused goods.
 - Minimising waste generation.
 - Segregating main waste types into dedicated receptacles for disposal, reuse or recycling (e.g., food waste, plastics, aluminium, timber, paper).
 - Reusing materials or equipment where feasible.
 - Taking recyclable material to a suitable waste transfer station.
 - Taking non-recyclable waste to a suitable landfill.

5.2 Hazardous Materials Management

Minemakers will:

- Maintain records of all hazardous wastes managed on site or sent to an off-site treatment, recycling, storage or disposal facility. For off-site recycling, treatment, storage and disposal, record the same information as described above for general waste.
- Ensure that all contractors operate in accordance with Minemakers procedures for:
 - Transportation.
 - Storage and handling.
 - Recycling and disposal.
 - Incident reporting for all spills.
- Implement other specific measures such as:
 - Collect hydrocarbon wastes, engine coolants, grease and used absorbent materials within separate receptacles and transfer to a central on site bunded storage facility for off-site disposal by a registered contractor.
 - Wherever possible, return all hazardous wastes and packaging to the supplier for recycling or disposal. Where this cannot occur, dispose of used containers and drums, and batteries, off site by a registered contractor.
 - Remediate hydrocarbon contaminated soils in the specified bio-remediation pads.
 - Locate material safety data sheets (MSDSs) for all materials used in the project on site and in a readily accessible location.
 - Maintain a Chemical Register on site.
 - Ensure that containers/tanks to be used for storage are suitably labelled, compatible with the material to be stored, and tested/inspected for leakages prior to use and periodically during use.
 - Construct bunding to meet appropriate Australian standards (AS 1940:2004 and AS 4452:1997) and regularly inspect bunds to ensure their good condition.

- Locate vessels containing controlled wastes or dangerous goods in excess of 250 L in a bunded facility. Hold vessels containing controlled wastes or dangerous goods of 250 L or less that are not located in a bunded facility on spill trays of appropriate capacity to contain and recover spills.
- Undertake fuel transfers in designated area that have appropriate collection drainage and spill response kits.
- Supply portable spill kits and a supply of absorbent material at key areas on site (e.g., workshops, storehouse) and place trays containing absorbent material under local work areas when an oil spill is unavoidable, e.g., removing hydraulic hoses, replacing filters.
- In the event of a hazardous material spill, implement the following spill response plan:
 - Stop work and contain the spill.
 - Implement clean-up and remediation procedures. Treat and dispose of spilt substance, contaminated materials and debris in accordance with MSDS requirements, relevant guidelines and waste management procedures.
 - Ensure that the General Manager Projects Development reports the spill containment to DNRETAS in accordance with legislative requirements.
 - If necessary, implement the emergency response plan.
- Develop a waste minimisation program that includes alternatives and front-end purchasing decisions.
- Identify the needs and storage requirements for emergency containment of materials.
- Ensure that operators and contractors are suitably trained in transport, handling, storage, spill and disposal requirements.
- Implement a recording system to reconcile hydrocarbon usage against stock and minimum/maximum storage requirements.

6. Monitoring and Reporting

Minemakers will:

- Review and modify as required the waste management plan described herein after six months and at regular intervals thereafter.
- Report the review findings in the annual mining management plan (MMP).

Attachment 5C

Fire Management Plan

No: EIS-FM	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Fire Management Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

Project construction and operations activities may lead to fire ignition within the project area or the surrounding vegetation. Sources of fire ignition may include:

- 'Hot work' (e.g., metal grinding, oxyacetylene cutting or welding).
- Vehicles.
- Static electricity.
- Inappropriate handling or storage of combustible substances.
- Discarding lit tobacco products, matches or other burning material.
- Mechanical malfunction in project facilities, vehicles or machinery.
- Explosion of the magazine.
- Vegetation coming into contact with overhead powerlines.
- Sparks caused by lightning.

The project also needs to be protected from bushfire that originates from surrounding vegetation, regardless of source.

2. Objectives

The objectives of fire management are to:

- Minimise fire risk.
- Protect the public and personnel.
- Protect property and minimise property damage or loss.
- Protect flora and fauna and minimise damage or loss.
- Prevent the spread of fire in the event of ignition.
- Provide adequate response in the event of an ignition.

3. Recommendations and Commitments

This management plan addresses the impacts identified in the EIS:

- Prepare a detailed fire management plan in consultation with key stakeholders.
- Include specific implementation measures in the fire management plan to protect fire-sensitive vegetation.

4. Responsibilities

The Minemakers Australia Pty Ltd (Minemakers) Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors, are responsible for compliance with this document, and for ensuring others do likewise.

5. Definitions

Controlled Burn – controlled application of fire under specified environmental conditions to a predetermined area, often used to reduce fuel loads.

6. Performance Standards

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

6.1 Legislation, Guidelines and Codes

Northern Territory

- *Northern Territory Bushfires Act.*
- *Northern Territory Bushfire Regulations.*

6.2 Associated Plans and Procedures

- Emergency Response Plan.
- Flora Management Plan.
- Fauna Management Plan
- Stakeholder Consultation Plan.

7. Procedures

7.1. Planning and Preparation

Minemakers will:

- Induct personnel in fire prevention and response.
- Enforce a total fire ban within the project area, unless prescribed burning is deemed necessary, in which case it will occur in a controlled regulated environment in consultation with the Central Land Council (CLC) and Bushfires NT.
- Consult with Bushfires NT on the timing of prescribed burning and placement of fire breaks (Bushfires NT are available to assist on such consultations (pers. comm. Bethel, 2009)).
- Discuss with Traditional Owners and the CLC opportunities for patch burning for the benefit of local biodiversity; however, the priority will always be for the health and safety of personnel and protection of property.
- Provide relevant information on project operating practices to fire authorities.

- Implement specific measures such as:
 - Fire sensitive vegetation will be protected during the dry season from fire as far as is practicable.
 - Maintain a full trailer-mounted fire-fighting tanker on-site at all times.
 - Provide and maintain appropriate fire-fighting equipment, including fire extinguishers, water knapsacks and rake hoes at strategic project locations. Fire extinguishers will be provided in all project-related vehicles. All equipment will be compatible with that of local fire authorities.
 - Not undertake 'hot work' (e.g., welding) on days of declared 'Total Fire Ban' without a permit.
 - When undertaking 'hot work', ensure that spark guards are used, the immediate area is clear of flammable materials (excepting vegetation) and fire extinguishers are on hand. Develop a 'hot work' procedure and ensure compliance.
 - Construct 50 m radius fire breaks around sensitive areas, such as the explosives magazine.
 - Park vehicles in a cleared car park on-site and not over tall groundcover vegetation.
 - Keep vehicles clean, e.g., clear grasses from belly-plates.
 - Fit chainsaws used for vegetation clearance with spark arresters.
 - Ensure all flammable materials are clearly marked and stored appropriately with fire-fighting equipment.
 - Use diesel-fuelled vehicles when practicable.
 - Not discard any lit tobacco products, matches or any other burning material into vegetated areas.
 - Clear and maintain vegetation under overhead power lines to a height considered safe for the continued operation of the power line in the event of a fire.

7.2 During the Fire Season

Minemakers will:

- Monitor and record fire danger ratings on a weekly basis during the fire season and comply with all relevant statutory requirements and permits.
- Liaise with the Bushfires NT during the fire season regarding fire risk, danger ratings, preparedness and fire control.
- In the event of a fire during a fire danger period, ensure that at least one employee stays with the fire (without endangering themselves) until it is completely extinguished or the relevant authorities take over responsibility.

7.3 Response Management

Minemakers will:

- Establish fire evacuation procedures and an emergency assembly area.
- Provide emergency contact numbers in the site office in an easily accessible area (i.e., noticeboard). Contacts will include the local fire brigade, local police station, medical centre, SES).
- Report all uncontrolled fire to the Resident Manager, who will report it to the relevant authorities.

8. Monitoring and Reporting

Minemakers will:

- Review and modify as required the fire management plan described herein after six months, and at regular intervals thereafter.
- Report the review findings in the annual Mining Management Plan (MMP).
- Report all uncontrolled fires.

9. References

Bethel, K. Bushfires NT, Department of Natural Resources, Environment and the Arts, Tennant Creek. Telephone Conversation. 26 June 2009.

Attachment 5D

Emergency Response Plan

No: EIS-ERP	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Emergency Response Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

Accidents and incidents may occur during mining, crushing and screening, and transport activities. The risk of certain events having significant consequences requires the preparation of an Emergency Response Plan (ERP).

2. Objectives

The objective of emergency response planning is to ensure that a prompt and appropriate response is made to unplanned incidents where life, property or significant environmental or social values are threatened during construction and operations.

3. Recommendations and Commitments

This management plan addresses the potential impacts and risks identified during the planning stages of the project, and in particular those identified during the preliminary hazard and risk assessment. Minemakers Australia Pty Ltd (Minemakers) has committed to preparing a site-specific ERP for the project in consultation with key stakeholders

4. Responsibilities

The Minemakers Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors, are responsible for compliance with this document, and for ensuring others do likewise.

5. Definitions

Hazard – an agent or situation capable of potentially injuring or compromising the health and safety of a person or causing damage to plant or premises.

Incident – an event on-site that has the potential to cause a significant adverse effect on:

- The safety or health of a person.
- The environment on or off the mining site.
- The plant or equipment on a mining site.

6. Performance Standards

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

6.1 Legislation, Guidelines and Codes

Australian Government

- *Occupational Health and Safety Act 2000.*

Northern Territory

- *Mining Management Act.*
- *Workplace Health and Safety Act.*
- 'Hazard identification and Risk Assessment' – DRDPIFR Advisory Note.
- 'Notification of a Serious Accident' – DRDPIFR Advisory Note.

6.2 Associated Plans and Procedures

- Fire Management Plan.
- Stakeholder Consultation Plan.

7. Procedures

To ensure that this management plan complements the emergency response procedures of DRDPIFR and other relevant agencies, Minemakers will consult with relevant authorities regarding:

- On-site emergency procedures.
- Special risks and appropriate procedures to minimise those risks.
- Commercial ambulance and medical services.

7.1 Emergency Management

Minemakers will:

- Demonstrate clear commitment and leadership by management through policy, participation, communication and allocation of resources (personnel, time, facilities and finances).
- Clearly define roles and responsibilities for personnel involved in the emergency response.
- Provide a current, written, project-specific plan, i.e., a detailed operating emergency response plan that addresses, among other matters: communication to employees, contractors and the public; and, where appropriate, the recovery needs of the community after an emergency.
- Develop a cyclone response plan.
- Ensure that facilities allocated to emergency response are maintained in working order (e.g., phone, facsimile, CB radios, satellite phone, and fire tanks).

- Ensure that all personnel wear personal protective equipment (PPE) at all times while on site, as required. The level of PPE equipment for each person will be dependent on the location and nature of the activity being undertaken.
- Induct all personnel in emergency response procedures.
- Restrict access to site, other than to the administration/reception area.
- Develop, conduct and maintain a training program, addressing operating procedures, emergency and safety procedures, regulatory compliance requirements and communication responsibilities, designed to improve the proficiency of emergency response of all employees and contractors.
- Identify emergency authorities and, where relevant, provide tours of the project area for them to promote emergency preparedness, by having current knowledge of facility operation and relevant emergency response planning information.
- Conduct emergency exercise sessions with emergency authorities and others where appropriate, to test the workability of the emergency response plan.

7.2 Unplanned Incident

Minemakers will:

- Identify all hazards and risks of an unplanned incident (i.e., conduct a detailed hazard and risk analysis).
- Develop an assessment process, which is periodically reviewed and updated, of potential risks from an accidental release or other emergencies to employees and contractors, and initiate actions to reduce significant risks.
- Review this assessment quarterly and update as necessary, and display in the site office.
Credible emergencies that may potentially occur at the project site include:
 - Accidental spill of hydrocarbons or chemicals while being transported, stored or used.
 - Accidental detonation of explosives while being transported, stored or used.
 - Lightning or fire that damages facilities or the surrounding environment.
 - Injury to personnel.
 - Vehicle accident.
 - Gale-force wind or rainfall, including cyclones, that causes extreme flooding or destruction of facilities.
- Respond to the emergency in accordance with the detailed operating emergency response plan. Emergency response will be prioritised according to the following hierarchy:
 - Protection and rescue of human life.
 - Minimisation of the area impacted by the incident.
 - Protection of the environment, plant and property.
 - Rendering the area safe in which the emergency has occurred.
 - Restoration of all disrupted services.
 - Decontamination and rehabilitation of the incident scene and surrounding area.

- Immediately contact the General Manager Projects Development and other relevant personnel as provided for in the detailed emergency response plan, and provide details of the emergency such as:
 - Nature of the emergency (e.g., injury, fire, fall).
 - Location.
 - How it may have occurred.
 - Current status (e.g., who is injured, where the fire has spread to).
 - What may be needed to stop/control the emergency.
- Complete an incident/accident report as required.

8. Monitoring and Reporting

Minemakers will:

- Review and modify as required the emergency response plan described herein after six months and at regular intervals thereafter.
- Report the review findings in the annual mining management plan (MMP).

Attachment 5E

Groundwater Management Plan

No: EIS-GW	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Groundwater Management Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

Potential groundwater issues associated with the project are changes in water availability, degraded groundwater quality or sedimentation in streams in (and downstream of) the project area that may result from:

- Discharge of groundwater produced from mine dewatering (and/or groundwater interception).
- Discharge of direct rainfall that has accumulated in the pit.

Groundwater use will also create a cone of groundwater depression that may:

- Reduce groundwater availability for other users.
- Reduce baseflows to surface waters.
- Reduce groundwater near environmentally sensitive areas (i.e., Kerringnew Swamp).

2. Objectives

The objectives of groundwater management are to:

- Minimise the impacts of groundwater use on the surrounding groundwater users.
- Minimise the impacts of groundwater use on the environmentally sensitive areas.
- Minimise the impacts of pit dewatering on the surrounding environment.

3. Responsibilities

Minemakers' Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors are responsible for compliance with this document, and for ensuring others do likewise.

4. Definitions

Aquifer – a water-bearing layer of sediment or rock.

Bore – a well, usually less than 20 cm diameter, sunk into the ground and from which water is pumped.

Dewater – to remove water from (e.g., a mine pit or an aquifer).

Groundwater – water naturally stored beneath the surface of the earth, which saturates the pores and fractures of sand, gravel and rock formations.

Monitoring – systematic sampling and, if appropriate, sample analysis to record changes over time caused by impacts associated with development such as mining.

Runoff – that portion of precipitation (rain, hail and snow) that flows from a specific area as water.

Seepage – subsurface movement of water.

Surface Water – all water flowing over, or contained on, a landscape (e.g., runoff, streams, lakes).

5. Performance Standards

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

5.1 Legislation, Guidelines and Codes

This groundwater management plan considers the relevant aspects of the following legislation, policies, guidelines and codes:

- Northern Territory *Water Act*.
- Groundwater quality objectives to be established by the NT Environment Protection Agency (EPA).
- Australian and New Zealand guidelines for fresh and marine water quality (ANZECC/ARMCANZ, 2000).
- Best practice environmental management in mining: Water management (DEH, 1999).
- Minesite water management handbook (MCA, 1997).

5.2 Associated Plans and Procedures

- Flora Management Plan.
- Mine Closure and Rehabilitation Plan.
- Stakeholder Consultation Plan.

6. Procedures

6.1 Pit dewatering

The management of ground and surface water seepage into pits is as follows:

- Pit dewatering will adhere to the following hierarchy (listed in order of preference):
 1. Pumping from pit sumps.

2. Pumping from in-pit bores (in the unlikely event that large inflows of groundwater occur, or the quality of the water pumped from the pit is poor).
 3. Pumping from interception bores around the perimeter of the pit (if additional groundwater interception is required, which is considered unlikely).
- Monitor groundwater at the point of significant ingress to the pit if major inflows are encountered (to allow segregation and separate management of groundwater inflows of differing quality). Discharged water will be managed in accordance with the surface water management plan.
 - Consider control measures such as grouting in the unlikely event inflows of low quality groundwater prove problematic (and seek the advice of an experienced hydrogeologist on such matters).

6.2 Reduced Groundwater Availability

Groundwater drawdown will be monitored and any significant changes to groundwater availability for third party users will trigger a review of this management plan and new management measures will be implemented.

The environmentally sensitive area at Kerringnew swamp is not reliant on groundwater (GRM, 2009). Nevertheless, groundwater drawdown near the Kerringnew Swamp will be monitored. Should a link between the swamp and the underlying groundwater be shown, any significant changes to groundwater availability for environmentally sensitive areas will trigger a review of this management plan and new management measures will be implemented.

6.3 Reduced Groundwater Quality

Groundwater quality will be monitored regularly and any significant changes to groundwater quality will trigger a review of this management plan and new management measures will be implemented.

6.4 Monitoring

Regular monitoring will be implemented for each of the management measures. The recommended monitoring schedule for the; Arruwurra production bores, northern borefield and monitoring bores; and pit dewatering is presented in Table 6.1.

Table 6.1 Groundwater monitoring schedule

Monitoring Site	Parameter	Frequency	Comments
Arruwurra and Camp Area			
Production Bores	Groundwater level depth.	Monthly	
	Cumulative pumping volume.	Monthly	
	EC, temperature and pH.	Monthly	Measured in the field using a calibrated hand-held meter.

Table 6.1 Groundwater monitoring schedule (cont'd)

Monitoring Site	Parameter	Frequency	Comments
Northern Borefield			
Production Bores	Groundwater level depth.	Monthly	
	Cumulative pumping volume.	Monthly	
	EC, temperature and pH.	Monthly	Measured in the field using a calibrated hand-held meter.
	Water quality laboratory analysis.	Annual	Analytes: pH, TDS, EC, major ions, NO ₃ and Fe.
Monitoring Bores	Groundwater level depth	Monthly	
Regional Sites			
Environmental monitoring bore (WNEM001)	Groundwater level depth.	Monthly	
Nearby stock bores	Groundwater level depth.	Monthly	
Pit dewatering			
Operational pits	The quantity and quantity of groundwater inflow removed from pits. The period of time during which pumps are operating to remove groundwater inflow.	As necessary	

7. References

- ANZECC/ARMCANZ. 2000. Australian and New Zealand water quality guidelines for fresh and marine water quality. October. Australian and New Zealand Environment and Conservation Council and Agricultural and Resources Management Council of Australia and New Zealand.
- DEWHA. 1999. Best practice environmental management in mining - water management. Commonwealth of Australia. Canberra.
- GRM. 2009. Hydrogeological and water supply investigations: Wonarah phosphate project. October An report by Groundwater Resources Management for Minemaker Pty Ltd.
- MCA. 1997. Minesite water management handbook. Minerals Council of Australia. Australian Capital Territory.

Attachment 5F

Cultural Heritage Management Plan

No: EIS-CH	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Cultural Heritage Management Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

Land disturbance will be an inevitable consequence of the Wonarah Phosphate Project. Areas will be modified to accommodate the various components such as the crushing and screening plants, haul roads, pits, stockpiles and administration facilities. This activity has the potential to impact upon cultural heritage sites while ongoing disturbance to sites may also occur through unregulated vehicle access, or unauthorised interference with cultural materials.

Key cultural heritage issues include:

- Disturbance to sites of cultural heritage significance.
- Disturbance to sites of archaeological significance.
- Unauthorised access to cultural exclusion zones.

Minemakers will obtain a consent to destroy permit from Heritage Conservation Services under the *Heritage Conservation Act* for all archaeological material within the Mineral Lease area. Surveys indicate that material within the Mineral Lease area is generally of low archaeological significance, with only one site of moderate significance known, which lies outside of the Mineral Lease area. The consent to destroy permit will detail any conditions that must be followed.

Minemakers will obtain authority certificates from the Aboriginal Areas Protection Authority under the *Northern Territory Aboriginal Sacred Sites Act* prior to commencing construction and operation activities. This authority certificate will detail any conditions that must be followed, such as prohibiting entry into sacred site exclusion zones.

This management plan details general measures Minemakers will follow during construction and operation of the project to minimise potential impacts to matters of cultural heritage and/or archaeological significance.

2. Objectives

The objectives of cultural heritage management are to:

- Develop an awareness of the importance of cultural heritage within the workforce.
- Minimise disturbance and damage to sites of cultural heritage or archaeological significance.
- Prevent unauthorised access into cultural exclusion zones.
- Ensure the development and maintenance of a cultural heritage database.

3. Responsibilities

The Minemakers Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors are responsible for compliance with this document, and for ensuring others do likewise.

4. Definitions

Disturbed ground – an area of ground that has been disturbed by construction or operations activities for the project.

Ground disturbance – any activity that causes ground to be disturbed, i.e., excavating, trenching, traversing, or clearing ground to provide access for construction or operation of the project.

Vegetation clearing - the removal, destruction or lopping of vegetation.

5. Performance Standards

5.1 Legislation, Guidelines and Codes

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

5.1.1 Legislation

Commonwealth

- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984.*
- *Australian Heritage Council (Consequential and Transitional Provisions) Act 2003.*
- *Environment and Heritage Legislation Amendment Act (No. 1) 2003.*
- *Heritage Act 1975.*
- *Native Title Act 1993.*

Northern Territory

- *Aboriginal Land Act.*
- *Heritage Conservation Ac.*
- *Northern Territory Aboriginal Sacred Sites Act.*

5.1.2 Associated Plans and Procedures

- Fire Management Plan.
- Mine Closure and Rehabilitation Plan.
- Stakeholder Consultation Plan.
- Surface Water Management Plan.

6. Procedures

6.1 Cultural Exclusion Zones and Archaeological Sites

Access to cultural exclusion zones and disturbance to archaeological sites without prior approval will not be permitted. To ensure no unauthorised access or disturbance to these sites Minemakers will:

- Maintain spatial data relating to all cultural heritage sites and cultural heritage survey coverage within the project area and surrounds as part of a cultural heritage database.
- Ensure that all personnel are familiar with the presence of the cultural exclusion zones and the restriction on access to these areas. This will be addressed in inductions for all staff.
- Prohibit off-road movements within the project area.

6.2 Planning and Preparation

Prior to the clearing of land Minemakers will assess:

- Whether the ground disturbance is necessary.
- If existing disturbed ground can be used instead.
- How access and traffic to the location will be managed to minimise disturbance.
- The cultural heritage database.

The results of this assessment will be used by Minemakers to plan the ground disturbing activities, and any internal conditions of approval for this.

6.3 Salvage

Site salvage may be necessary if disturbance to archaeological sites is an unavoidable consequence of the proposed ground disturbance. Where disturbance involves sites or objects of Aboriginal archaeological significance this will be completed under the conditions of approval under the Heritage Conservation Act.

6.4 Ground Disturbance

Upon approval of ground disturbance, the following will be implemented:

- All works will only take place within the areas approved for ground disturbance.
- All personnel will observe access restrictions to sites of cultural heritage significance.
- Ground disturbance will not occur within any areas fenced for protection.
- Vehicles will stay on established tracks or designated right of ways.
- If previously unrecorded archaeological material not covered by the consent to destroy permit is discovered during ground disturbance, all works will cease and procedures in Section 6.5 will be followed.
- No items of cultural or archaeological material will be removed or interfered with by any unauthorised person.

- If Minemakers or its contractors disturb or interfere with a site of cultural heritage or archaeological significance without prior consent, an incident report form will be completed.

6.5 Discovery of Cultural Heritage or Archaeological Material

Personnel who discover or believe they have discovered cultural heritage or archaeological material in areas not covered by consent to disturb permits will:

- Cease work immediately and establish a 50 m buffer around the site. No work will be carried out within this 50 m buffer until a cultural heritage or archaeological assessment has been undertaken and appropriate management measures have been implemented.
- Notify Minemakers of the discovery and its location.
- In no circumstances remove the material from the location or interfere with it in any way.
- If cultural heritage material is suspected to be Aboriginal origin, the Central Land Council (CLC) will be notified.
- If the material is discovered during ground disturbance, work will not recommence in the affected area until appropriate management strategies have been implemented. These strategies will be based on the nature of the material, requirements of the CLC and legislative obligations.
- Should skeletal material be discovered, an assessment as to whether the material is human will be required by a qualified archaeologist, physical anthropologist or forensic specialist. If the remains are human, the police need to be advised immediately. If the remains are of Aboriginal origin, contact will also be made with the CLC.
- After an adequate assessment has been undertaken and the relevant measures followed, work with machinery will recommence.

7. Monitoring Procedures

Inspection of known cultural heritage or archaeological sites will occur quarterly during the first year of development and annually every year thereafter. Inspections will assess the preservation and integrity of structures and the effectiveness of current management techniques and will be carried out in the presence of a Traditional Owner and the CLC that can speak for the sites or objects.

Attachment 5G

Flora Management Plan

No: EIS-Flora	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Flora Management Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

Flora issues associated with the construction and operation of the project include:

- Removal of a large area of vegetation.
- Changes to vegetation surrounding the proposed mine due to dust deposition.
- Changes to abundance of significant species by removal or other indirect impacts.
- Introduction and/or spread of weed species by project-related vehicles and equipment (especially earthmoving equipment).

2. Objectives

The objectives of flora management are to:

- Minimise impacts to flora during operation of the project.
- Promote and maintain stable vegetation cover during rehabilitation.
- Minimise and control weed invasion.

3. Responsibilities

The Minemakers Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors are responsible for compliance with this document, and for ensuring others do likewise.

4. Definitions

Disturbed ground – an area of ground that has been disturbed by construction or operations activities for the project.

Environmental weed – a plant, which, because of its characteristics and location, is causing economic, ecological, physical or aesthetic problems.

Ground disturbance – any activity that causes ground to be disturbed i.e., excavating, trenching, traversing, or clearing ground to provide access for construction or operation of the project.

Noxious weed – an environmental weed that has been nominated under relevant legislation to be a declared or noxious weed.

Pathogen – a disease-producing organism e.g., bacterium or fungus.

Vegetation clearing - the removal, destruction or lopping of vegetation.

5. Performance Standards

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

5.1 Legislation, Guidelines and Codes

Commonwealth

- *Environment Protection and Biodiversity Conservation Act.*

Northern Territory

- *Bushfires Act.*
- *Environmental Offences and Penalties Act.*
- *National Environment Protection Council (Northern Territory) Act.*
- *Territory Parks and Wildlife Conservation Act.*
- *Weed Management Act.*

5.2 Associated Plans and Procedures

- Fire Management Plan.
- Mine Closure and Rehabilitation Plan.
- Stakeholder Consultation Plan.
- Surface Water Management Plan.

6. Procedures

6.1 Vegetation Clearing

6.1.1 Planning and Preparation

Minemakers will use the following planning and preparation measures:

- The project will be designed to minimise vegetation loss due to project infrastructure layout.
- The project will be designed to minimise and avoid unintended changes in the structure and condition of areas which contain flora of significance, including:
 - Minimising vegetation clearing in ephemeral land systems and areas subject to inundation.
 - Monitoring low lying area for the presence of *Sporobolu latzii* within the project area (excluding cultural exclusion zones, which cannot be entered and surveyed). If the presence of *S. latzii* is detected, then procedures outlined in Section 7 will be followed.

- Culturally significant trees include those having a diameter greater than 12.5 cm at breast height or taller than 1.5 m. Minemakers will avoid large stands of these trees where practicable in the first instance. The Central Land Council will be consulted on all vegetation clearance.
- Where practical a 50 m vegetation buffer will be maintained around drainage lines extending from the outer edge of the seepage zone.
- All relevant Minemakers and contractor personnel will be inducted in the vegetation clearing management procedures before commencing activities in the project area.
- Where possible, previously disturbed and modified areas will be used in preference to undisturbed areas.
- The Resident Manager (or delegate) will keep up to date maps detailing the location of:
 - Known populations of threatened flora species.
 - Known populations of weed species.
 - Cultural exclusion zones to be avoided during project construction and operation.

6.1.2 Vegetation Clearing Procedures

Minemakers will follow specific procedures to minimise any impacts associated with the clearing of vegetation:

- Vegetation clearing will be undertaken progressively immediately prior to use to minimise the amount of disturbed ground at any one time.
- Where the layout of project infrastructure permits, vegetation will be retained as a first preference within the project area.

When clearing vegetation:

- All zones of avoidance will be clearly marked with flagging tape prior to commencing vegetation clearing. Vegetation in these zones must not be cleared under any circumstances.
- Culturally significant trees not to be cleared will be marked for retention with flagging tape.
- Construction equipment, material stockpiles and other infrastructure will be placed on cleared land rather than in areas of native vegetation where possible.
- Logs and other habitat features along road verges will be retained where possible.
- Preliminary rehabilitation activities will be commenced promptly and progressively as works are completed to stabilise soils and minimise periods of exposed disturbed ground.
- Cleared vegetation will be stockpiled within or placed on top of topsoil stockpiles to assist in the rehabilitation process, prevent erosion of stockpiles and to provide habitat for fauna.
- Cleared vegetation will not be burnt to reduce nutrient loss from the environment.

6.2 Weed Control

6.2.1 Planning and Preparation

Minemakers will use planning and preparation procedures to minimise the potential for the introduction or spread of weed species:

- All Minemakers and contractor personnel will be inducted in the weed control management procedures before commencing activities in the project area.
- All Minemakers and contractor personnel will be made aware of the location and extent of declared noxious and environmental weed species in areas to be disturbed during construction, specifically:
 - Buffel grass (*Cenchrus ciliaris*).
 - Kapok bush (*Aerva javanica*).
 - Mesquite (*Prosopis limensis*).
 - Olive hymanachne (*Hymenachne amplexicaulis*).
 - Parkinsonia (*Parkinsonia aculeate*).
- Where possible, activity will be planned to minimise the movement of plant and equipment between areas of known noxious weed infestations.

6.2.2 Precautionary Procedures

Minemakers will follow precautionary procedures to minimise the potential for weed introduction or spread:

- Access to the project area will be restricted via the use of a security gate to prevent entry of unauthorised vehicles to the area.
- All non-construction vehicles will keep to designated access tracks and work areas at all times.
- A 'clean vehicles' policy will be maintained whereby vehicles will be washed down if they leave designated roads, access tracks or work areas.
- Vehicles, plant and equipment that work in areas off formed roads will be visually inspected for clumps of soil or vegetative material before leaving the project area. If present, material will be removed by using a high-pressure/low-volume water spray unit.
- Hard-stand and road base material will be sourced from borrow pits within the project area. Material sourced from outside the project area will be generally avoided but, if necessary, will be free of visual signs of weed infestation.

6.2.3 Washdown Procedures

Washdown procedures will minimise the potential for the introduction of new weed species:

- Vehicles, plant and equipment (particularly tyres, wheel arches and undercarriages) will be washed down if there are signs of soil or mud on the vehicle when leaving an area of known weed infestation.
- The details of the washdown will be recorded in a Washdown Register, to be retained with the vehicle, item of plant, or equipment. The Washdown Register will be maintained by the party undertaking the works. Any contractor-maintained register will be available for inspection by Minemakers.

6.2.4 Weed Control Procedures

A suitably qualified weed control contractor will be engaged to treat weed infestations during the appropriate season:

- Weeds will be treated with target-specific, non-persistent (i.e., biodegradable) herbicides.
- Weeds manually removed from the project area will be stored in sealed plastic bags and disposed of to landfill with other general waste.

7. *Sporobolus latzii*

The only recorded specimen of *S. latzii* was collected in the ephemeral lake community to the north of the Arruwurra deposit. It is important that Minemakers construction or operational activities do not disturb the habitat or communities of *S. latzii*. There is potential for *S. latzii* to occur in other low lying areas of the project area and Minemakers will monitor these areas for plant presence. All field personnel will be made aware of the importance of *S. latzii* and will be:

- Briefed on the conservation significance of *Sporobolus latzii*.
- Provided with a description of the plant.
- Made familiar with any designated 'no-go' areas.
- Required to report any discovery of *S. latzii*.

8. Monitoring and Reporting

8.1 General

Minemakers will:

- Review and modify as required the monitoring program described herein after 6 months of data has been obtained, and at regular intervals thereafter.
- Report results (and interpretation thereof) in the annual MMP (other than for variations as described below).

8.2 Detailed

Ongoing vegetation monitoring will be conducted to allow identification of any impacts of mine construction and operations on native flora. Monitoring will be conducted in vegetation communities identified during the baseline survey and any new areas as considered appropriate (e.g., along roadsides or wet areas).

Methods and Frequency

Monitoring sites will be visually inspected and photographed to allow assessment of:

- Changes in the abundance, composition or condition of vegetation communities, particularly threatened vegetation communities.
- Ongoing impacts to flora as a result of project-related activities.
- Increases in the density and distribution of known weed infestations.
- Introduction of new weed species.
- Accumulation of litter.

Transects will be used to allow the comparison of quantitative data on shrub numbers in the different vegetation communities, and between near-mine and control sites.

Vegetation monitoring will be timed as follows:

- Biennially during construction and operations, during the wet and dry season.
- Post-closure as per mine closure and rehabilitation plan.

Monitoring will be conducted prior to, during and following disturbance. Vegetation monitoring will be designed to target the identification of the presence or absence of species of conservation significance and to monitor the health of vegetation communities in terms of vegetation structure (e.g., all strata intact), plant condition, level of disturbance (individual species or whole community), presence or absence of weeds and accumulation of litter.

Weed Monitoring

Minemakers will ensure that all vehicles and plant brought to the mine are visually inspected to check they are free of seeds and other plant material. Areas with a high potential for or susceptibility to invasion by weeds, such as along roadsides, recently cleared areas and permanently wet areas (such as sewage ponds and drains during the wet season), will be monitored annually or after disturbance events.

Monitoring for weeds will include:

- Inspecting for weed outbreaks during the wet season and recording the size of infestations and the control treatment applied.
- Inspecting for weeds after significant germination events and recording of level of weed invasion.

Vegetation Clearance Monitoring

All areas to be cleared for project purposes will be documented and a clearance permit will be obtained, recording the area and nature of the vegetation cleared. Each area cleared will be inspected to ensure that clearance is conducted in accordance with the conditions of the exploration agreement and mining planning agreement.

Attachment 5H

Fauna Management Plan

No: EIS-Fauna	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Fauna Management Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

Fauna issues associated with the construction and operations of the project include:

- Increased fauna mortality due to increased traffic associated with the project.
- Changes to habitat surrounding the mine due to vegetation clearance and disturbance.
- Fire management practices having impacts on vegetation, flora and fauna biodiversity and habitats.
- Introduction and/or spread of feral animals in and around the project area.

2. Objectives

The objectives of fauna management are to:

- Minimise impacts to fauna during the construction and operation of the project.
- Minimise and control pest animal populations.

3. Responsibilities

The Minemakers Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors are responsible for compliance with this document, and for ensuring others do likewise.

4. Performance Standards

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

4.1 Legislation, Guidelines and Codes

Commonwealth

- *Environment Protection and Biodiversity Conservation Act 1999.*

Northern Territory

- *Environmental Offences and Penalties Act.*
- *National Environment Protection Council (Northern Territory) Act.*
- *Territory Parks and Wildlife Conservation Act.*

4.2 Associated Plans and Procedures

- Fire Management Plan.
- Flora Management Plan.

5. Procedures

5.1 Habitat Clearing – Fauna Management

5.1.1 Planning and Preparation

Minemakers will:

- Design the project to minimise habitat loss due to project infrastructure layout.
- Ensure all relevant Minemakers and contractor personnel are inducted in the vegetation clearing management procedures before commencing activities in the project area.
- Ensure all relevant Minemakers and contractor personnel are aware of the location and extent of habitat types to be avoided during construction.
- Where possible, use previously disturbed and modified areas in preference to undisturbed areas.
- Ensure the Environment Manager keeps up to date maps detailing the location of exclusion zones to be avoided during project construction and operation.

5.1.2 Vegetation Clearing Procedures

Vegetation clearing procedures are outlined in the flora management plan.

5.1.3 Fauna Protection Procedures

To protect fauna in the project area Minemakers will employ the following procedures:

- Undertake a pre-clearance survey to detect the presence of any fauna species of listed conservation significance in the immediate area to be cleared, specifically:
 - Bilby (*Macrotis lagotis*).
 - Mulgara (*Dasycercus cristicauda*).
 - Australian bustard (*Ardeotis australis*).
 - Northern nailtail wallaby (*Onychogalea unguifera*).
- In the event that these species are present, the potential for trapping and relocation of individuals prior to clearance will be discussed with NRETAS.
- All personnel will be forbidden from bringing pets into the project area.
- All personnel will be forbidden from feeding or harassing wildlife.

- All personnel will be forbidden from hunting (or taking equipment for that purpose) into the project area.
- With the exception of authorised feral animal control contractors, personnel will be forbidden from taking firearms into the project area.
- Animals found in the project area that are trapped or disoriented will be captured and released into nearby habitat. Animals considered dangerous or difficult to handle will be handled by an appropriately trained and experienced person.
- All surface water storage areas will be fenced to prevent access by fauna to minimise potential increase in current feral populations and attraction of native fauna.
- All water storage areas, including pipes and containers, will be monitored for leaks to prevent access to subsequent plant growth by grazing fauna.

5.2 Feral Animal Control

5.2.1 Planning and Preparation

Minemakers will employ the following as part of the feral animal control program:

- All Minemakers and contractor personnel will be inducted in the feral animal control management procedures before commencing activities in the project area.
- Specific attention will be given to the control of:
 - Fox (*Vulpes vulpes*).
 - Feral cat (*Felis catus*).
- The precautionary procedures outlined below will also minimise the likelihood of wild dogs moving into the project area and surrounds.
- Although the dingo is considered native within the Northern Territory there is the potential for local populations to increase as a consequence of the project, as such Minemakers will implement specific management procedures for the dingo.

5.2.2 Precautionary Procedures

Minemakers will employ the following precautionary procedures:

- The project area, including administration, camp and ablution buildings, will be maintained in accordance with good industry housekeeping practices to discourage vermin.
- Refuse disposal areas and other infrastructure will be designed and operated in a manner that will minimise the attraction of feral animals as a result of an increased availability of food resources.
- Surface water storage areas will be fenced to prevent access by feral animals, e.g. foxes, cats, camels and donkeys.
- Water pipes and storage containers will be monitored for leaks to prevent vegetation growth attracting feral grazers to the area.
- Separating food from normal waste and burning in a separate location.

- The effectiveness of the feral population control techniques will be monitored and reviewed regularly. Where control measures are ineffective Minemakers will consult with NRETAS about new management techniques.

5.2.3 Control Procedures

Fox (*Vulpes vulpes*) and Cat (*Felis catus*)

For the control of fox and cat populations Minemakers will employ the following control procedures:

- Baiting, trapping and shooting will be investigated for the most appropriate means of controlling feral cat and fox populations in the project area.
- A suitably experienced and qualified contractor will be used for any feral cat and fox population control program.
- Management of foxes and cats will begin prior to project construction to minimise their presence in the project area prior to operations therefore minimising the likelihood of spread after operations begin.
- Minemakers will collaborate with the Wunara community to control foxes and feral cats within the community to reduce the likelihood of new individuals moving into the project area.
- Accommodations, office and other infrastructure will be kept tidy and free of debris to minimise the availability of den sites for foxes and cats.
- Use broad scale control measures, e.g. aerial baiting, in collaboration with the Traditional Owners, to reduce regional populations of foxes and cats and therefore reducing the likelihood of new individuals moving into the project area and benefiting biodiversity on a regional scale.

Dingo (*Canis Lupus*)

The dingo is afforded the protection of a native species under Territory Parks and Wildlife Conservation Act, therefore killing of dingoes is prohibited without a permit. Dingo populations will be managed using preventative procedures, including:

- Undertaking inductions for all workers on site about not feeding or interacting with dingoes.
- Separating food from normal waste and burning in a separate location.
- Installing predator-proof fencing around all food waste (e.g., packaging) areas.
- Installing dingo proof bins.
- Maintaining clean work and camp sites.
- Minimising access to artificial water sources.
- Monitoring dingo movements and behaviour.

Dingo management techniques will also minimise the likelihood of domesticated dogs moving into the project area. Minemakers will collaborate with the Wunara community on the management of individual dogs that do move into the project area.

6. Monitoring and Reporting

6.1 General

Minemakers will:

- Review and modify as required the monitoring program described herein after 6 months of data has been obtained, and at regular intervals thereafter.
- Report results (and interpretation thereof) in the annual MMP, other than for variations as described below.

6.2 Detailed

Fauna monitoring will be conducted to allow identification of potential impacts of mining operations to fauna. Fauna monitoring sites will be located in selected sites surveyed during the baseline characterisation of the project area.

Methods and Frequency

Fauna monitoring will involve fauna surveys and targeted counts for threatened species at selected sites to allow assessment of:

- Changes in the abundance, composition or condition of fauna species, particularly threatened species.
- Ongoing impacts to fauna as a result of project-related activities.
- Success of rehabilitation and/or relocation activities for threatened species.
- Increases in the density and distribution of pest animals.
- Introduction of new pest animal species.
- Diversity and health of any waterbirds present in the project area.

Survey methods may include visual observations, spotlighting, bird census transects, trapping and active searching.

Fauna monitoring will include:

- Adding to the inventory developed as part of the baseline surveys of fauna species for each of the surveyed habitat types.
- Conducting a biannual survey each wet and dry season for the presence of species of conservation significance.
- Regularly inspecting potential 'fauna traps' such as temporary trenches and borrow pits required during construction.
- Inspecting water bodies located within the Mineral Lease weekly for wetland bird species.
- Recording animal deaths that occur as a direct result of project activities.
- Monitoring the success of control techniques in reducing environmental impacts due to pest animals in the project area.

Monitoring will be conducted prior to, during and following disturbance. The number of sites to be sampled during monitoring will be calculated to allow for valid statistical comparisons between control and impact sites.

Attachment 5I

Mosquito Management Plan

No: EIS-BI	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Mosquito Management Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

The construction and operation of the Wonarah Phosphate Project may give rise to opportunities for an increase in the abundance of biting insects and related diseases, potentially impacting on the health of workers and residents of the nearby the Wunara community and pastoralists. Factors requiring management under this plan include areas of water storage or pooling including:

- Borrow pits.
- Water tanks.
- Sewage systems.
- Pit floors.
- Road drainage areas.

2. Objectives

The objective of biting insect management is to:

- Reduce the abundance of biting insects during the construction and operation phase of the project.
- Eliminate the potential for the introduction of new mosquito species and the reintroduction of eliminated mosquito species as a result of the project.
- Reduce the potential for the spread of mosquito borne diseases to mine workers and members of the Wunara community and surrounding pastoralists.

3. Responsibilities

The Minemakers Australia Pty Ltd (Minemakers) Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors, are responsible for compliance with this document, and for ensuring others do likewise.

4. Performance Standards

4.1 Legislation, Guidelines and Codes

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

Legislation

There is currently no legislation pertaining to the monitoring and control of biting insects. Minemakers will, however, adhere to the Northern Territory Government's guidelines, outlined below.

Guidelines

- Guidelines for preventing mosquito breeding sites associated with mining sites (Whelan and Warchot, 2005).
- The prevention of mosquito breeding in sewage treatment facilities (Whelan, 1997).

4.2 Associated Plans and Procedures

- Surface Water Management Plan.

5 Planning and Preparation

Minemakers will ensure:

- All personnel are inducted on the risks associated with biting insects, how to prevent bites and how to treat them. This will include insect repellent, appropriate clothing and other personal protective equipment being made readily available to all personnel.
- Appropriately qualified and experienced personnel survey the project area at least once in the wet season and once in the dry season to detect any mosquito breeding sites.
- Sewage treatment facilities, other wastewater storage facilities and artificial ponding are periodically checked for mosquito larvae.
- Accommodation for personnel is situated away from potential mosquito breeding sites and are insect screened.

5.1 Procedures

Minemakers will ensure:

- Project areas are managed to minimise pooling of water so as to prevent the formation of mosquito breeding sites, including:
 - Rehabilitation of disturbed areas.
 - Engineering and installation of suitable stormwater drainage.

- Engineering of water impoundments likely to retain water for longer than seven days to minimise the potential growth of semi-aquatic reeds that can provide mosquito breeding sites.
- Management of surface water drainage, such as along the sides of access roads.
- The final surface of the waste rock storages is contoured to prevent water pooling.
- Storm water drainage within the project area is managed to minimise potential mosquito breeding sites, such as along access roads and in open unlined stormwater drains.
- Sewage treatment is managed in accordance with the guidelines outlined in Whelan (1997).
- Advice is sought from Northern Territory authorities if problematic mosquito breeding is detected within the project area or biting insects become pests.
- In the event that mosquito breeding sites are detected, mosquito larval control is used in consultation with relevant authorities.
- Any container capable of holding water, e.g., tyres, drums and tanks, is either stored under cover, provided with drainage holes, emptied on a weekly basis or disposed of in an appropriate landfill site to prevent the formation of mosquito breeding sites.
- All buildings are either be fitted with mosquito-proof insect screening or, if sealed, are air-conditioned.

6 Monitoring and Reporting

The abundance of adult mosquitoes will be initially measured once a month for a period of 12 months. This initial monitoring period will provide baseline information on the seasonal distribution of the mosquito species present and the potential impact on of mosquito borne disease on mine site personnel and Wunara community and surrounding pastoralists. The monitoring and control of mosquito populations will continue as required for the life of the mine.

This plan will be reviewed and modified as required along with the monitoring program described herein after six months of data has been obtained, and at regular intervals thereafter.

Results of the monitoring will be reported in the annual Mining Management Plan (MMP).

7. References

Whelan P. 1997. The prevention of mosquito breeding in sewage treatment facilities. A report for the Department of Health and Families, Northern Territory.

Whelan, P. and Warchot, A. 2005. Guidelines for preventing mosquito breeding sites associated with mining sites. A report for the Department of Health and Families, Northern Territory.

Attachment 5J

Erosion and Sediment Control Plan

No: EIS-ESCP	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Erosion and Sediment Control Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

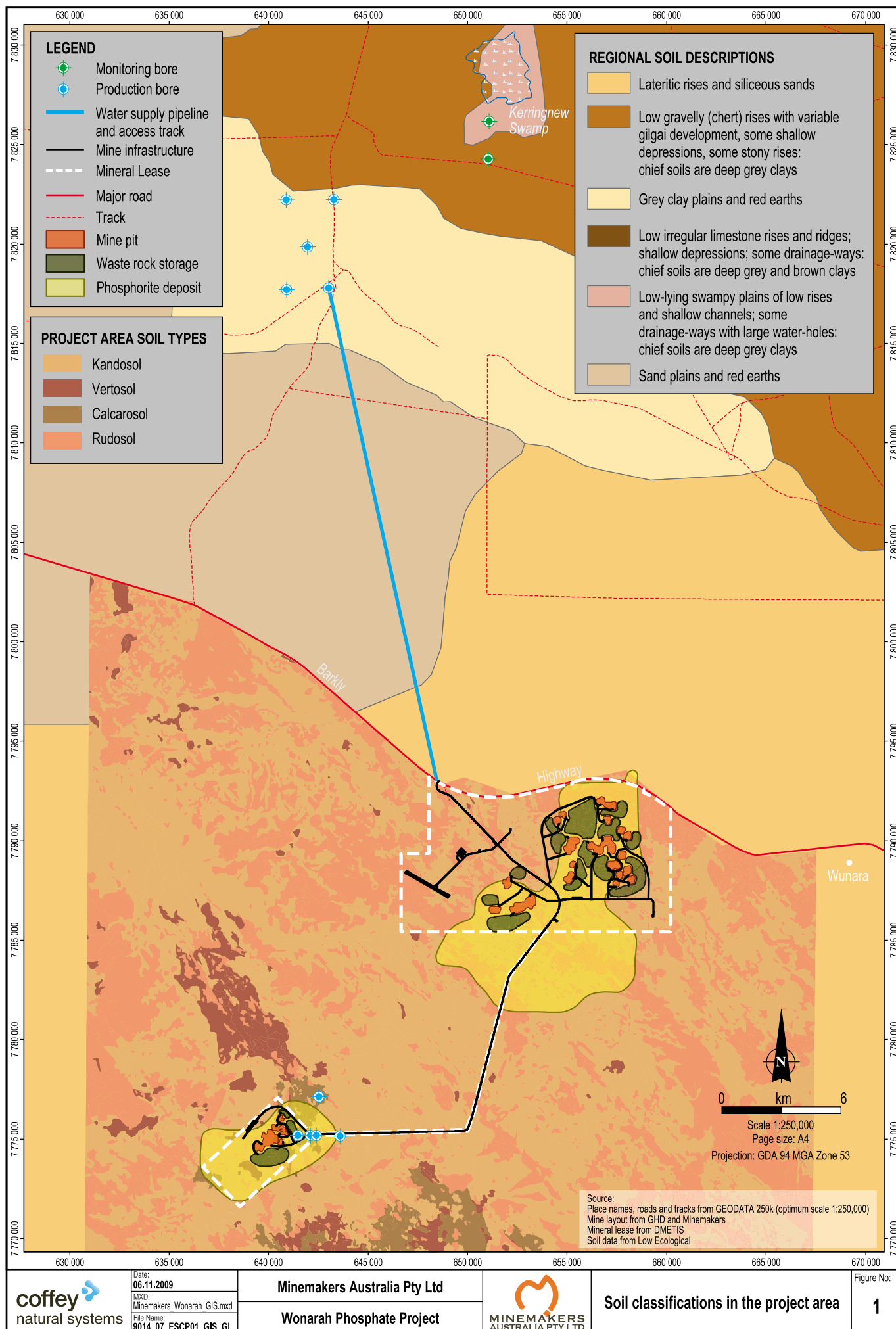
The erodibility of soils in the project area was assessed as having a low potential for erosion. Deep soils (mostly Rudosols with loose rock aggregations) on sloping terrains overlain by deep clayey sands, e.g., such as those found in the northeast corner of the project area (Figure 1), were assessed as being potentially susceptible to erosion. No dispersive soils and no acid sulfate soils have been identified in the project area. Given this, sediment and erosion issues associated with the site include:

- Movement of soils during the construction and operational periods of the project.
- Movement of soil from the project area.
- Reduction in soil quality due to erosion.
- Fugitive sediment in stormwater runoff impacting on downstream ecosystems.
- Altered drainage and flow regimes within the Barkly Surface Water Management Area impacting on downstream ecosystems.
- Surface water contamination impacting on downstream ecosystems and users of groundwater.

2. Objectives

The objectives for erosion and sediment control and management are to:

- Minimise topsoil loss, dust generation, soil inversion, soil subsidence, soil compaction, soil contamination, runoff sedimentation and contamination of waterways during construction.
- Maximise the likelihood of successful rehabilitation.
- Minimise changes to streamflow, alteration of habitat, or pollution of waterways.



3. Responsibilities

The Minemakers Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors are responsible for compliance with this document, and for ensuring others do likewise. The contact details for the Resident Manager can be found in Table 3.1.

Table 3.1 Contact details for the Wonarah Phosphate Project

Title	Resident Manager – Wonarah Phosphate Project
Organisation	Minemakers Australia Pty Ltd
Postal address	PO Box 1704, West Perth WA 6872
Telephone	+61 8 9264 7000
Email	frontdesk@minemakers.com.au

4. Definitions

ARI – Average recurrence interval.

Catchment – the entire land area from which water (e.g., rainfall) drains to a specific water course or waterbody.

Disturbed ground – an area of ground that has been disturbed by construction or operations activities for the project.

Erosion – the wearing away of the land surface (whether natural or artificial).

Freeboard – the vertical distance between the top of the water container and the full supply level on the container.

Ground disturbance – any activity that causes ground to be disturbed, i.e., excavating, trenching, traversing, or clearing ground to provide access for construction or operation of the project.

Monitoring – systematic sampling and, if appropriate, sample analysis to record changes over time caused by impacts associated with development such as mining.

Runoff – that portion of precipitation (rain, hail and snow) that flows from a specific area as water.

Surface Water – all water flowing over, or contained on, a landscape (e.g., runoff, streams, lakes).

Vegetation clearing - the removal, destruction or lopping of vegetation.

5. Performance Standards

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

5.1 Legislation, Guidelines and Codes

Northern Territory

- *Soil Conservation and Land Utilisation Act.*
- *Environmental Offences and Penalties Act.*
- *National Environment Protection Council (Northern Territory) Act.*
- *Territory Parks and Wildlife Conservation Act.*
- *Waste Management and Pollution Control Act.*
- *Water Act.*

5.2 Associated Plans and Procedures

- Fire Management Plan.
- Flora Management Plan.
- Mine Closure and Rehabilitation Plan.
- Waste Management Plan.

6. Drainage and Land Management

Site surface water management will be based on the principle of diverting clean surface water runoff away from disturbed areas, and intercepting runoff from disturbed areas and directing it through sediment control structures prior to discharge to the downstream environment.

The various project facilities will be segregated as follows for the management of stormwater:

- Treatment facilities.
- Non processing facilities.
- Hazardous material storage areas.
- Disturbed areas.
- Undisturbed areas.

6.1 General Sediment and Erosion Control Measures

6.1.1 Initial Ground Disturbance

To reduce the likelihood of erosion and sediment movement during initial ground clearing Minemakers will:

- Clearly identify and mark the designated work site, i.e., the area of proposed ground disturbance including the area of vegetation to be cleared and the area required for stripping of topsoil, excavation and stockpiling of topsoil, spoil and clearing residue. The area of land required for the designated work site will be determined by the requirements of the work to be completed.

- Topsoil (top 100 mm) and subsoil (up to 300 mm in depth) will be stripped and stockpiled separately for use in rehabilitation. Topsoil will be stored in stockpiles less than 2 m high and away from drainage areas.

6.1.2 Vegetation Clearing Procedures

Measures to minimise any impacts associated with the clearing of vegetation include:

- Vegetation clearing will be undertaken progressively immediately prior to use to minimise the amount of disturbed ground at any one time.
- Where the layout of project infrastructure permits, vegetation will be retained as a first preference within the project area.
- When clearing vegetation:
 - All zones of avoidance will be clearly marked with flagging tape prior to commencing vegetation clearing.
 - Construction equipment, material stockpiles and other infrastructure will be placed on cleared land rather than in areas of native vegetation.
- Preliminary rehabilitation activities will be commenced promptly and progressively as works are completed to stabilise soils and minimise periods of exposed disturbed ground.
- Cleared vegetation will be stockpiled within or placed on top of topsoil stockpiles to assist in the rehabilitation process, prevent erosion of stockpiles and to provide habitat for fauna.
- Cleared vegetation will not be burnt to reduce nutrient loss from the environment.

6.1.3 Site Access

The movement of vehicles on and off site has the potential to track soil off-site. To minimise soil movement off-site Minemakers will:

- Harden road areas at the site access point using such means bitumen for the first 200 m.
- Compact the soil along site access roads.
- Wash vehicle wheels leaving the site using drive through wheel washing bays to remove any soils from wheels.
- Regularly sweep tracked soil from the site entrance.

6.1.4 General Erosion Control Measures

As general erosion control measures Minemakers will:

- Install diversion drains and/or berms and/or sediment barriers (e.g., geotextile silt fences) up-slope of disturbed areas to direct clean stormwater run-off away from the site.
- Strip and temporarily stockpile topsoil in areas that will be disturbed or compacted, or where excavation will take place in the future to minimise the area of disturbance.

- Locate stockpiles:
 - Within the designated work area.
 - Outside drainage lines.
 - Out of the way of traffic or maintenance activity.
- Install breaks in topsoil and subsoil stockpile windrows at least every 100 m or at strategic locations to allow runoff, vehicles or wildlife to pass through.
- Install erosion controls to protect topsoil and subsoil stockpiles from erosion.
- Discharge any trench or excavation water to land through energy dissipating structures and sediment ponds and minimise runoff to drainage lines and watercourses.

Sediment Runoff

To minimise the risk of sediment runoff adversely affecting receiving water environments, the following measures will be implemented:

- Disturbed areas will be rehabilitated progressively when no longer required for mining.
- Rain falling within crushing and screening areas will be collected within bunded slabs and where practicable, returned to the process by means of drains, launders, sumps and pumps.
- Runoff from non process areas (e.g., roads, roofs, yards, run of mine (ROM) area) will be captured in open drains. The drains will report to a sedimentation pond, before either being reused or, if suitable, released off-site.
- Non process area drains reporting to a sedimentation pond will be sized for the peak of the 10 year ARI event as a minimum. Open drains will have a minimum freeboard of 500 mm and flow velocities along such drains will be limited to minimise erosion and the generation of sediment.
- Non process drains capturing runoff from areas likely to be impacted by hydrocarbons, e.g., fuel storage and dispensing areas, truck wash and workshops, will be captured in open drains that report to an oily water separator (OWS) located upstream of the sedimentation pond.
- To minimise runoff from pits, mining will occur from upper levels and/or stockpiled material will be processed following significant rainfall events. In-pit stage sumps will be used to settle out sediment from collected runoff prior to pumping to surface for re-use or discharge off-site.
- Runoff from the waste rock stockpiles is likely to generate sediment-laden stormwater. The stockpiles will be bunded to contain this water and to separate it from clean runoff from the surrounding catchment. The runoff from the stockpiles will be collected in diversion channels and directed through sediment traps prior to discharging to the natural environment.
- Sedimentation ponds will be constructed at the Arruwurra and Main Zone areas to allow separate treatment of potentially high sediment runoff from waste rock stockpile areas and potential oily water from the mine services areas.
- Sedimentation ponds will have emergency spillways/outlets in order to safely pass flow volumes greater than 10 year ARI magnitude around the ponds and off-site.
- Sediment accumulated in sedimentation traps will be removed periodically and disposed of in an active waste rock stockpile.

Surface Flow and Flood

Flood diversion measures (including constructed berms, strategically placed waste rock storages, stockpiles and above-grade haul roads) will be used at the southeastern perimeter of the Arruwurra pit to minimise the risk of infiltration of this pit during stormwater runoff (and subsequent alteration of surface water flow in this vicinity) and will be designed to withstand a 100 year ARI event.

To avoid flooding of the Arruwurra pits and infrastructure (and subsequent alteration of surface flow regimes in these areas), two upstream catchment diversion ditches will be used at the following locations:

- Immediately upstream of the Arruwurra mine services area and non-direct shipping ore stockpile, which will discharge to the north of the flood protection berm alignment.
- Two sections along the northeast side of the proposed airstrip facility with both high points of the drains on either side of the airstrip terminal facility. The northern drain will divert runoff towards the north-western corner of the airstrip, while the southern drain will drain to the southeastern corner of the airstrip.

Water Contamination

To prevent downstream contamination Minemakers will:

- Capture surface drainage from areas susceptible to hydrocarbon spillage (such as fuel storage and dispensing areas, truck wash areas and workshops) in open drains that report to an OWS upstream of a sedimentation pond.
- Bund all chemical, oil and other hazardous material storage areas in accordance with the relevant codes and standards (see Waste Management Plan). Water collected within the bunds will be assessed prior to release. If the quality of the collected water is suitable, then the area will be drained to the closest non-process drain that reports to a sedimentation pond. Water collected within the bunds that is assessed and is found to be impacted will be collected and disposed of to a waste water treatment plant.
- To minimise the potential for oil leaks into watercourses, install OWSs at four facilities as a minimum, including:
 - Arruwurra fuel storage and workshops.
 - Main Zone fuel storage and workshops.
 - Airstrip fuel storage.
 - Vehicle washdown and tyre wash areas.
- Place the OWSs upstream of sedimentation pond inlets that receive water from the above four sites given that they will receive runoff from workshops, fuel storage, and bowsters.

Minemakers will net the water storages or use passive deterrent devices if the water storages and sedimentation ponds are shown to contain toxic levels of contaminants (such as metals and hydrocarbons) and are attracting fauna.

6.2 Drainage Design

6.2.1 Open Drain Construction

Design aspects that will be considered when designing open drains include:

- Open drains will be constructed in a parabolic or trapezoid shape with batters less than 1(V):4(H).
- Consideration of low flow drainage and substrate. Given the sandy substrate lack of drainage for low flow events is not likely to be of concern. However, for other soils types concrete inverts will be considered during the design phase.
- Design of any concrete inverts to reduce the likelihood of erosion of material adjacent to the invert.
- Channel erosion control protection in the form of appropriate drop structures, rock check dams, rock-lined channels or concrete-lined channels.
- All open drains will have a minimum 500 mm freeboard.

6.2.2 Culvert Installation

The minimum culvert diameter will be 450 mm. Culverts and underground stormwater pipes will be installed at slopes that will provide self-cleansing minimum velocities of 0.7 m/s for one-third depth of full-flow wherever possible.

6.2.3 Hardstand Area Drainage

Hardstand area drainage will be designed with a minimum surface grade of 0.5% in open yard areas and a minimum grade of 2% for a distance of 25 m away from structures.

6.2.4 Diversion Ditches

Two upstream catchment diversion ditches will be located at the following locations:

- Arruwurra upstream catchment diversion ditch – will be constructed immediately upstream of the proposed Arruwurra mine services area in order to divert runoff from a 3.94 km² undisturbed catchment. The diversion ditch will be 3.4 km long and will collect runoff along its length, with a 10 year ARI peak flow at its outlet of approximately 10 m³/s, which will be discharged to the north of the proposed flood protection berm alignment.
- Airstrip upstream catchment diversion ditch – two sections of diversion ditching will be constructed along the northeast side of the proposed airstrip facility to divert runoff from the 3.33 km² undisturbed upstream catchment that may otherwise report to the runway. The high point of both drains will be on either side of the airstrip terminal facility. The northern drain will divert runoff over about 2 km towards the northwestern corner of the airstrip, while the southern drain will extend about 1 km to the southeastern corner of the airstrip. The 10 year ARI peak flows at the northern and southern outlets will be approximately 4.5 and 2.5 m³/s respectively.

Table 8.1 summarises the design parameters for the diversion ditches discussed above.

Table 8.1: Diversion ditch preliminary design parameters for 10 year ARI event

Parameter	Arruwurra	Airstrip North	Airstrip South
Length (m)	3,420	2,000	1,000
Side Slopes (H:V)	2:1	2:1	2:1
Manning's Roughness "n"	0.035	0.035	0.035
Flow Depth (m)	1.4	0.9	0.7
Free-board (m)	0.5	0.5	0.5
Total Ditch Depth (m)	1.9	1.4	1.2
Average Channel Slope (%)	0.25	0.25	0.20
10 Year ARI Peak Flow (m ³ /s)	10	4.5	2.5
Base Width (m)	3.0	3.0	3.0
Maximum Earthworks Cut (m ² /lin m)	12.40	7.95	6.00

Completion of works

In areas to be rehabilitated, backfilled trenches or excavations will be managed to match the original soil profile by:

- Initiating rehabilitation procedures in accordance with the requirements of the Mine Closure and Rehabilitation Plan.
- Treating weed infestations in soil and clearing residue stockpiles before respreading these materials.
- Replacing and compacting subsoil to as near as possible (75 to 85%) to the in-situ density of surrounding soils to minimise the risk of subsidence.
- Spreading and shaping topsoil to match the surrounding contours to a depth of at least 5 to 10 cm.
- Installing and maintaining erosion control structures (e.g., silt fences) until areas are stable.

7. Monitoring

7.1 Erosion Control

The integrity of flow diversion and bunding techniques will be inspected on a regular basis; downstream environments (i.e., flora and fauna) will be monitored at regular intervals as per the flora management plan and fauna management plan.

The stability of the landform in the project area (e.g., pit walls, batters, and waste rock storages) will be routinely monitored as part of construction and operation activities. Landform changes will be monitored through the mine closure and rehabilitation plan to ensure that progressive rehabilitation is meeting closure criteria.

Photo monitoring points will be established adjacent to proposed pit locations and photographic data will be collected on an annual basis once mining of the pit commences. Once rehabilitation commences, photographic data will be collected on a six monthly basis to ensure seasonal variation is captured.

7.2 Surface Water Quality

Ongoing surface water quality monitoring will be conducted to allow identification of any impacts of mine construction and operations on downstream ecosystems. Monitoring will be conducted in accordance with the relevant standards and guidelines.

Ongoing monitoring will include:

- Event-driven water quality sampling and monitoring of project water storages (i.e., sedimentation ponds) and downstream ephemeral streams, with a focus on locally-defined water quality objectives.
- Inspection of flow diversion and flood protection techniques, with particular attention given to those protecting the susceptible Arruwurra mine site.

Sites will be sampled at least once during or immediately after a heavy rain event. The parameters to be sampled during this high-flow event will be:

- In situ sampling – pH, temperature, conductivity, turbidity, dissolved oxygen.
- General: conductivity, major ions (F, Ca, Mg, K, Na, Cl, SO₄), alkalinity and total suspended solids (TSS).
- Unfiltered metals.
- Filtered (<0.45 µm) metals.

Attachment 5K

Stakeholder Management Plan

No: EIS-SEP	Issue: v2	Date: November 2009
Key Process: Construction, Commissioning and Operations		
Title: Stakeholder Consultation Plan		
Authorised by:	Minemakers Australia Pty Ltd General Manager Projects Development	

1. Issues

Potential issues associated with the project in regards to stakeholder engagement, or lack thereof, are primarily that the project will not gain a 'social license to operate', i.e., that Minemakers may not establish a reputation as a responsible mining company and that the project may not have the broad acceptance of its stakeholders.

A stakeholder is defined as a group or individual that may have an interest in the project or may be affected in any way by the project.

2. Objectives

The principal objectives of stakeholder consultation are to:

- Identify relevant stakeholders.
- Provide appropriate opportunities for involving and communicating with relevant stakeholders.
- Provide a means for recording all initiatives in which consultation is undertaken, issues raised and responses to these issues provided to stakeholders.
- Reduce the potential for stakeholder disaffection, which can result from a misunderstanding of the project, and, particularly for local communities, either a real or perceived exclusion from involvement in the project.

3. Responsibilities

Minemakers' Resident Manager is responsible for this document and its implementation. All staff, including Minemakers' contractors, are responsible for compliance with this document, and for ensuring others do likewise.

4. Performance Standards

The legislation, guidelines and codes listed in this section may be subject to revision during the life of the Wonarah Phosphate Project. Where this occurs, the reference is relevant to the latest version of the document.

4.1 Legislation, Guidelines and Codes

This stakeholder engagement plan considers the relevant aspects of the following guidelines and codes:

- Principle 10 of the Mineral Councils of Australia's Enduring Value: The Australian Mineral Industry Framework for Sustainable Development. That is to 'Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders' (MCA, 2005).
- Community Engagement and Development booklet of the Leading Practice Sustainable Development Program for the Mining Industry (DITR, 2006a).
- Working with Indigenous Communities booklet of the Leading Practice Sustainable Development Program for the Mining Industry (DITR, 2006b).
- Stakeholder Engagement: A good practice handbook for companies doing business in emerging markets (International Finance Corporation, 2007)

5. Consultation

5.1 Stakeholders

The following stakeholders have been identified for the project (this list is in no particular order):

- The Wunara community and the Traditional Owners.
- Central and Northern land councils.
- Northern Territory government departments, including:
 - Department of Chief Minister.
 - Department of Natural Resources, Environment, the Arts and Sport.
 - Department of Regional Development, Primary Industry, Fisheries and Resources.
 - Department of Planning and Infrastructure.
- Surrounding pastoralists.
- Tennant Creek community.
- Barkly Shire Council.
- Northern Territory Government Ministers and opposition.
- Darwin Port Corporation.
- Northern Territory branch of Minerals Council of Australia.
- Environmental non-government organisations (NGOs) (e.g., the Environment Centre Northern Territory (ECNT)).
- Special interest groups (e.g., Cattleman's Association).
- General public.
- Contractors and suppliers.
- Financiers.
- Shareholders.
- Customers.
- Australian Government; including Department of Environment, Water, Heritage and the Arts.
- Media (regional, state and national).
- Other communities (e.g., Mount Isa)

5.2 Strategy

The strategy for stakeholder engagement is to:

- Manage the expectations of those who are likely to benefit from the project.
- Continue to develop the relationship with the Traditional Owners, the Central Land Council (CLC) and Northern Land Council (NLC).
- Acknowledge that often the best decision making comes when people who are 'expert' in the local area (i.e., local stakeholders) are involved; this often brings great benefits in design, construction and production of the project, for the company as well as the community.
- Provide an avenue for stakeholder input during operations that ensures stakeholders views, issues and complaints are given due care and attention.

5.3 Consultation Methods

5.3.1 Project Briefings

Key stakeholders including elected federal and territory representatives, government agencies, regulatory authorities and peak industry groups will receive regular briefings on the project to keep them informed about its progress.

Meetings will be held with these stakeholders to listen to, understand and address their concerns and issues. Minemakers will respond to requests in person.

5.3.2 One-on-One Meetings with Traditional Owners and CLC

The CLC is the central point for negotiations between Minemakers and Traditional Owners. Direct communication with Traditional Owners will first be approved by the CLC.

Consultation will include both directly and indirectly affected Traditional Owners and the CLC, will be inclusive of both men and women of various ages, and those with an interest who feel they may be affected. This will include the executive of the CLC, the Tennant Creek regional representatives of the CLC, the local Traditional Owners (i.e., the Wunara community) and neighbouring Indigenous communities. 'On country' meetings will continue to be arranged through the CLC throughout the life of the mine, as required or requested; Traditional Owner representatives present at on country meeting will be able to speak for the country and if not present, their views will also be sought.

5.3.3 One-on-One Meetings with Surrounding Pastoralists

Consultation with surrounding pastoralists will be undertaken initially on a one-on-one basis and then in a manner determined once their preferred method of consultation during the project is known. Landowners will also be included in broader community consultation programs.

Minemakers will be responsible for ensuring landowners and occupiers are kept informed and that their requests for information and meetings are followed up expediently.

5.3.4 Website

A dedicated page on the Minemakers website has been established for the project and project related information. The website will be updated as required and will include information relating to general project details, answers to frequently asked questions, project updates, contact details and advice on opportunities for stakeholders to become involved in the project. The website content will be reviewed and revised regularly to include current information, including upcoming consultation events and the outcomes of consultation.

5.4 Documentation

5.4.1 Consultation Database

The consultation database established by Minemakers will continue to be updated throughout the life of the mine. The consultation database will record:

- When consultation occurred.
- The form of consultation (e.g., face to face, telephone, meeting and newsletter release).
- The stakeholder group or organisations involved in the consultation.
- Who participated or number of participants.
- The issues discussed.
- Commitments made by Minemakers.

5.4.1 Documenting Consultation

The information obtained from all forms of ongoing consultation will be documented, and minutes and responses referenced, in the consultation database.

5.5 Monitoring

Monitoring for consultation will primarily consist of maintaining the consultation database and ensuring that no complaints, enquires or other contact from stakeholders goes unaddressed.

6. References

- DITR. 2006a. Community Engagement and Development booklet. Leading Practice Sustainable Development Program for the Mining Industry Booklet Series. Department of Industry, Tourism and Resources. October 2006.
- DITR. 2006b. Working with Indigenous Communities booklet. Leading Practice Sustainable Development Program for the Mining Industry Booklet Series. Department of Industry, Tourism and Resources. October 2006.
- International Finance Corporation. 2007. Stakeholder Engagement: A good practice handbook for companies doing business in emerging markets. International Finance Corporation. USA.
- MCA. 2005. Enduring Value: The Australian Minerals Industry Framework for Sustainable Development; Guidance for Implementation. Minerals Council of Australia. Australian Capital Territory.

Attachment 6

Stakeholder Consultation to Date

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Wonarah Phosphate Project Stakeholder Consultation Records

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
4 May 2007	Email	AH	Central Land Council (CLC)	JAS	Proposed on-country meeting	None
13 July 2007	Face to face	AD,AH,RMc	Northern Territory Department of Regional Development, Primary Industry, Fisheries and Resources (DRDPIFR)	Various	Company introduction presentation	Well received. Tenement rationalisation discussed.
25 July 2007	Face to face	AH	CLC/Traditional Owners (TOs)	Various	First on-country meeting Wonara	Some scepticism to renewed exploration and possible mining activities
11 January 2008	Letter	AH	CLC	JAS	Copied initial drilling Mine Management Plan (MMP) application	None
6 February 2008	Email	AH	CLC	JAS	2008 Exploration proposal	None
12 February 2008	Phone	AH	CLC	JAS	Discussion re process for approval	New CLC approvals process
18 February 2008	Phone	AH	CLC	JAS	Sacred Site clearance application	None
4 March 2008	Phone	AH	Alexandria Station	RP	Enquiry re access preparation for Wonarah	None
	Phone	AH	Myuma P/L	SS,CS	Enquiry re access preparation for Wonarah	None
	Face to face	AH	Watkins Group Mount Isa	PW	Enquiry re access preparation for Wonarah	None
	Face to face	AH	Camooweal Police	RK	Enquiry re access preparation for Wonarah	None
5 March 2008	Face to face	AH	CLC/TOs	Various	to discuss 2008 work program	Track required along south boundary of EZ3
6 March 2008	Face to face	AH	Barkly Roadhouse	TM	Introduction and accomodation possibilities	Accomodation available for forthcoming drilling program

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
6 March 2008	Phone	AH	Alroy Station	BC	Enquiry re access preparation for Wonarah	None
	Phone	AH	Epanarra Station		Enquiry re access preparation for Wonarah	None
	Face to face	AH	Avon Downs Station	BW	Enquiry re access preparation for Wonarah	None
	Face to face	AH	Soudan Station	JG,AG	Enquiry re access preparation for Wonarah	None
	Phone	AH	Phillips Earthmoving	JP	Enquiry re access preparation for Wonarah	Is available
17 March 2008	Phone	AH	Avon Downs Station	BW	Enquiry re access preparation for Wonarah	Grader available but no low-loader
26 March 2008	Letter	AH	CLC	JAS	Sacred Site clearance approval	None
28 March 2008	Letter	AH	CLC	AH	Received draft CLC Exploration Agreements	None
2 April 2008	Phone	AH	Wunara community	WW,KM	Confirmed employment Ward and Marshall	None
17 April 2008	Email	AH	CLC	JAS	Drilling progress report	Confirmed EZ3 track dozed and dozing works at Community
18 April 2008	Face to face	Coffey	Soudan Station	AG	Weather station training	None
4 May 2008	Phone	AH	Alroy Station	SB	Introduction and discussion re activities	Supportive
26 May 2008	Face to face	AD,AH,RMc	DRDPIFR	Various	Project up-date	None
	Face to face	AD,AH	Chief Minister (DCM)	BOG,BC	Project up-date	None
27 May 2008	Face to face	AD,AH	Northern Land Council (NLC), Darwin Port Corporation (DPC),	Various	Project up-date	None
28 May 2008	Face to face	AD,AH	Minister for Central Australia, Barkly Shire Council	Various	Project up-date	None

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
30 May 2008	Face to face	AH,AD,ROS,AW	CLC	JAS,AH	Alice Springs meeting re draft Agreements	None
12 June 2008	Email	AH	CLC	JAS	Drilling progress report	None
	Email	AH	Sports power Mount Isa/ TO Edna Punch	Jeff	Confirmed order for 25 sets of footy gear for Arruwurra Warriors	None
5 August 2008	Email	AH	CLC	JAS	Additional works proposal including water search, camp sites etc.	None
26 August 2008	Face to face	AD, NB, AH	DRDPIFR	Steve Tatzenko, Christine Fawcett, Ian Scrimgeour, John Dunster	Low uranium levels in phosphate, check for other contaminants, EPBC Act, cut-off grade 15%, storage requirements at Darwin Port, Department of Natural Resources, Environment, The Arts and Sport (DNRETAS) role in approvals process, confirmation of Major Project Status.	Confirm that there are no other elements of concern in rock phosphate.
28 August 2008	Face to face	AD, NB, AH	Department of Planning and Infrastructure (DPI) Road Network	Ken Grattan	Passing opportunities on Barkly Highway, fairly flat and straight, so should not be an issue. Seal width is nominally 7m in places, policy is now 8m to provide some edge seal. Pavement age - some sections date back to 1970. Road is Federally funded. There would potentially be adverse community reaction if we were to truck through Tennant Creek.	Global Port Solutions hub is located to the north of town thereby avoiding any potential issues with trucking through town.

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
28 August 2008	Face to face	AD, NB	Department of the Chief Minister & DPC	Brian O'Gallagher, Jeff Stewart, Garry Scanlon	Current capacity of the Port, Port Master Plan Study, article for Territory Quarterly	Agreed to assist with article for Territory Quarterly
29 August 2008	Face to face	NB	DPC & Department of the Chief Minister	Mark Dyer, Jeff Stewart	Potential for cross contamination of products using shiploader, availability of additional land for storage shed.	None
29 August 2008	Face to face	NB	NT Resources Council (NTRC)	Scott Perkins	Membership, Council policy/strategy, Port capacity	Agreed to join NTRC.
1 September 2008	Face to face	AH	Soudan Station	AG	Delivered satellite photo, gps etc	None
2 September 2008	Face to face	AH	CLC/TOS/NLC	Various	On-country meeting Wunara to discuss 2008/09 programs, bulk sampling, examples of typical mining ops, employment, NLC-CLC jurisdictions	Large TO turn-out, noticeable level of support
4 September 2008	Face to face	AD, NB Plus Bill Gibbins and Derek Houreau of Global Port Solution	Chief Minister	Paul Henderson, Brian O'Gallagher, Charlie Phillips	Project outline, regional training centres	NT Government commitment to regional training hub in Tennant Creek
7 October 2008	Face to face	AD, NB, AH	Tennant Creek Shire Council, DPI, Department of Local Government and Housing (DLGH)	Bonnie Kappler-Thompson, Wayne Hoban, John Bertram, Jerry McArthy	Barkly Highway, Warrego Road, overmass trucks, release of land for a village, training hub for Tennant Creek, Tennant Creek Office for Minemakers	Committed to get truck drivers to call in any deterioration in road conditions so that it can be repaired promptly before condition becomes hazardous.
7 October 2008	Face to face	AD, NB, AH	Jualikari Remote Employment Services (JRES)	Trevor Munkton, Colin Nielson, Ken Peats, Tony Miles	Training capacity, rehabilitation services, possible partnership with Group Training NT	To consider JRES as a potential service provider

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
7 October 2008	Face to face	AD, NB, AH	Tennant Creek Native Title Group	Francine McArthur	Cross Cultural Awareness training, community development with particular reference to Wunara Community	None
7 October 2008	Face to face	AD, NB, AH	Prospect	Richard Dodd	Company history, 12 year joint venture with Julalikari	None
9 October 2008	Face to face	AD, NB, AH, (BBY Reps: Andrew Sullivan, Jeremy Dunlop, Rod Skellet)	DRDPIFR	Steve Tatzenko, Brain O'Gallagher, Richard Jackson, Richard Sellers, Denise Turnbull, Gillian Jan, Christine Fawcett	Project update, mineral lease process, Notice of Intent (NOI), MMP	Maintain contact with DRDPIFR to keep them up to date with project
9 October 2008	Face to face	AD, NB, AH, (BBY Reps: Andrew Sullivan, Jeremy Dunlop, Rod Skellet)	DPC	Robert Ritchie, Shenal Basnayake, Terry O'Connell	Port capacity, development plans, capital commitments and future capital requirements	Each party committed to keep the other informed of progress
20 October 2008	Face to face	AD, NB	Northern Territory Government Treasurer and Ports Minister	Delia Lawrie, Richard Jackson	Project briefing, Port Master Plan	None
20 October 2008	Face to face	NB	DPC	Robert Ritchie	Port Master Plan, overland conveyor, land for storage shed, contract structure for use of port facilities, environmental approvals for storage shed	Continue discussions with a view to signing an MOU for use of port facilities

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
21 October 2008	Face to face	NB, Tara Haliday CNS	DRDPIFR	Gillian Jan	Tenure, NOI, public environmental report (PER)/ environmental impact assessment (EIS) process, Aboriginal Areas Protection Authority (AAPA), MMP, waste dump and tailing storage facility design considerations, chain of custody for product, submission of draft documents	Agreed to only submit NOI in final form. Include MSDS in the NOI
21 October 2008	Face to face	NB, Tara Haliday CNS	DNRETAS	Wendy Hutchison	Staged approvals process, options in NOI acceptable but must be specific in PER/ EIS, AAPA, EPBC Act Referral, product chain of custody	Submission of EPBC Act referral as early as possible.
****	Face to face	AH	Wunara Community	Traditional Owners plus CLC		
25 November 2008	Telephone call	NB	DRDPIFR	Gillan Jan	Project can be staged with each stage requiring separate approval. Tonnages would require assessment under the Environmental Assessment Act (EAA).	None
25 November 2008	Telephone call	NB	DNRETAS	Wendy Hutchison	Would require indicative information on future stages of staged development.	Email Wendy with outline of what we're proposing and ask what the process is?
2 December 2008	Face to face	AH	CLC	JAS,HH	Alice Springs meeting re employment opportunities	HH to facilitate TO employment
5 December 2008	Telephone call	NB	CLC	Julie-Ann Stoll	Program of works between now and May 2009, NOI process, Wunara Community houses and generator	Email program of work between now and May 2009 to CLC

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
9 December 2008	Telephone call	NB	Office of Chief Minister	Richard Jackson	Expresion of interest (EOI) for logistics, DPC/ Global Port Solution	Meeting scheduled for Thursday 11 December
9 December 2008	Telephone call	NB	DPI Road Network	Greg Neate	Road Reserve Corridor width along Barkly Highway. Restrictions on infrastructure within Road Reserves. Process to place infrastructure within road reserve	Formalise query in email to Greg.
11 December 2008	Face to face	NB	Office of Chief Minister	Richard Jackson	Progress with GPS title at Tennant Creek, allocation of space within the Port for Minemakers storage shed, timeline for tender process	Provide copy of EOI letter for logistics contract. Keep Chief Mininsters Office updated with progress.
19 December 2008	Phone	AH	TO Kim Punch		Queensland families not happy with level of cultural/heritage consultation	Referred to CLC
22 December 2008	Email	AH	CLC	JAS	Discussion re Kim Punch's phonecall	JAS to follow-up
	Phone	AH	Wunara Community	WW	Funeral arrangements for Wunara community member	None
27 January 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Progress of Port Master Plan	None
12 February 2009	Face to face	AD, NB	CLC	David Ross, Julie-Ann Stoll, James Nuggent, Harold Howard, Will	Project update, plans for meetings, employment opportunities, skills audit, social impact study, royalty, community development, establishment of a wet mess on site, possible visit by Traditional Owners to	Attend on-country meeting in March, include Traditional Owners in social impact study try to arrange a visit to Phosphate Hill for the Traditional Owners.
25 February 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Trial mining/ bulk sample	None

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
26 February 2009	Telephone call	NB	CLC	Julie-Ann Stoll	Trial mining/ bulk sample, meeting on Friday	None
3 March 2009	Face to face	NB, Tara Haliday CNS	DRDPIFR	Gillian Jan, Christine Fawcett	Mineral Lease process and timing, access to water off-site, road reserves, buffer zones	To keep department advised of progress
3 March 2009	Face to face	NB, Tara Haliday CNS	DNRETAS	Sally-Anne Stohmayr, Alistair McKenzie, Michael Browne	Project scope, NOI/ PER/ EIS process, risk assessment and risk management	To keep department advised of progress
4 March 2009	Face to face	NB	DRDPIFR	Steve Tatzenko	Section 23.1(c), MMP	None
4 March 2009	Face to face	NB	Office of Chief Minister	Brian O'Gallagher, Richard Jackson	Project update, public meeting in Tennant Creek	To keep them advised of plans for Tennant Creek meeting
4 March 2009	Face to face	NB	NTWorksafe	Graeme Bevan	Introduction and project briefing	None
6 March 2009	Face to face	NB	CLC	Julie-Ann Stoll	NOI progress, infrastructure development ahead of mining approvals, social impact study, AAPA clearance certificate, archeaological survey.	Provide CLC with draft of social impact scope, CLC to arrange archaeological survey
10 March 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Water supply in Darwin	None
12 March 2009	Telephone call	NB	CLC	Julie-Ann Stoll	Arrangements for on-country meeting	Presentation on large sheets of paper, provide copies of presentation and annual reports
16 March 2009	Face to face	NB, BH	Northern Territory Industry CapabilityNetwork (NTICN)	Mike Franks, Charmaine Barrett	Role of NTICN, briefing on Wonarah Project	Minemakers to provide a sepcification and NTICN will match potential suppliers with our needs. Minemakers to provide a brief project description

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
16 March 2009	Face to face	NB, BH	DPC	Robert Ritchie, Michael Nesbitt, Terry O'Connor	Port performance, capacity, Master Plan, dust, environmental management plan, contractual arrangements with DPC, shed volumes, heads of agreement (HOA)	Provide a copy of NOI to DPC
17 March 2009	Face to face	NB, BH	DRDPIFR	Steve Tatzenko	Conditions applying to Sec 23.1(c) bulk sample	Letter to Director of Titles seeking Sec 23.1(c) approval
19 March 2009	Face to face	NB	Traditional Owners/ CLC	Approx 70 Traditional Owners, Julie-Ann Stoll, James Nuggent, Harold Howard	Presentation of project progress, development proposals, NOI timing and process, possible visit to Phosphate Hill, differences between Wonarah and Phosphate Hill, training quotas	Committed to employment, training and contracting opportunities
24 March 2009	Face to face	NB	Senate Committee in to Agriculture and Related Industries	Senator the Hon Bill Heffernan, Senator Kerry O'Brien, Senator Christine Milne, Senator Fiona Nash, Senator the Hon Ian Macdonald	The Wonarah Project and the need for infrastructure	None
25 March 2009	Telephone call	NB	CLC	James Nuggent	Appearance of Traditional Owner royalty in Minemakers presentations, committee structure for managing on-going relationship	Remove reference to Traditional Owner royalty amounts/ percentages in presentations
25 March 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Mineral Lease advertising period, arrangements for site visit	Arrange for Richard Jackson to visit site

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
27 March 2009	Telephone call	NB	DPC	Michael Nesbitt	HOA, dust, commercial terms	Review HOA
1 April 2009	Telephone call	NB	DRDPIFR	Steve Tatzenko	Early development of infrastructure, water supply, MMP	None
1 April 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Australian Tourism Export Council (ATEC) feasibility study for rail spur to Wonarah, Major Projects	Consider possibility of presenting to Major Projects Group if visit to Darwin coincides with MPG meeting
17 April 2009	Telephone call	NB	CLC	Julie-Ann Stoll	NOI, Timing of next meeting, socio-economic study, ATEC conceptual rail routes, archaeological survey	Keep informed
23 April 2009	Face to face	NB	DPI Road Network	Ernie Wanka, Ken Grattan, Geoff Horni	Project update, sealing within road reserves, innovative vehicles, operational issues, intersections with highway, route suitability, FreightLink yard south of Tennant Creek, Minemakers stance on maintenance contribution, water exploration and or borefield within road reserves	Minemakers to formalise in writing its position on road maintenance contribution
23 April 2009	Face to face	NB, Dan Moriarty CNS	DNRETAS	Sally-Anne Stohmayr, Alistair McKenzie, Michael Browne, Paul Purdon	Progress with decision on NOI, PER vs EIS, key issues, EPBC Act referral, AAPA, consultation with government agencies	DNRETAS to provide guidance on products suitable for dust suppression
23 April 2009	Face to face	NB	Office of Chief Minister	Brian O'Gallagher, Richard Jackson	Project update and timeline	Provide a copy of Gantt chart to Richard

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
29 April 2009	Face to face	AD, NB, AH, BH, Rebecca Powlett CNS	DPI	Bonnie Kappler-Thompson, Ray Smith	Project update, locations for a village within Tennant Creek, access to services, Exceptional Development Permit	Make lease application over Lot 2134 in the town of Tennant Creek. Minemakers requested copy of Barkly Region Land Tenure map.
29 April 2009	Face to face	AD, NB, AH, BH, Rebecca Powlett CNS	Public Meeting Tennant Creek	Total of 79 members of local community attended	Presentation on the project provided by AD & NB including a Q & A session. Issues discussed include rehabilitation, final voids, transport of ore, training and employment, Indigenous employment opportunities.	Provided details on where to get further information.
30 April 2009	Face to face	AD, NB, AH, BH	DPC	Robert Ritchie, Michael Nesbitt, Terry O'Connor	HOA, timing for construction	
1 May 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Feedback on meeting with DPC	None
4 May 2009	Telephone call	NB	Traditional Owner	Gordon Haynes	Wants to meet to put proposal to Minemakers regarding haulage from mine to Tennant Creek	Agreed to meet at a later date
5 May 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Proposed meeting with Chief Minister, Land Development Council (LDC) land availability adjacent to Port, contact for LDC	Minemakers to provide a copy of its presentation to the Chief Minister in PDF format. NB to contact John Coleman at LDC
5 May 2009	Telephone call	NB	LDC	John Coleman	Arrange meeting	Meet in Darwin on 7 May
5 May 2009	Telephone call	NB	DPC	Michael Nesbitt	Meeting on Thursday, Vopak terminal and potential rail siding	Meet in Darwin on 7 May

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
6 May 2009	Telephone call	NB	CLC	Julie-Ann Stoll	Sacred site clearance form	Download clearance form for site include shape files of Mineral Lease Application with application
7 May 2009	Face to face	AD, NB	LDC	John Coleman	Availability of lots adjacent to port and rail, development process, other agencies involved, other clients potentially impacted, leasing arrangements	Minemakers to contact Ron Dickison of Vopak to discuss our proposals with him
7 May 2009	Face to face	AD, NB	CLP	Mike Delosa, Kezia Purick	Briefing on project	None
7 May 2009	Face to face	AD, NB	Chief Minister	Paul Henderson, Brian O'Gallagher, Karl Hampton	Briefing on project, EIS, regional development, employment and training opportunities	Keep informed
7 May 2009	Face to face	AD, NB	DPI Road Network	Ernie Wanka, Brian O'Gallagher	Drilling within Road Reserves, conditions of any consent	Minemakers to submit a proposal to DPI with respect to its proposed exploration activities
26 May 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Publication of EIS Guidelines, HOA with Port	Minemakers to advise when HOA with Port signed.
2 June 2009	Telephone call	NB	NTICN	Charmaine Barrett	Project Gateway on NTICN website	None
8 June 2009	Email	AH	Alroy Station	SB	Water exploration proposals	None
9 June 2009	Phone	AH	Alexandria Station	RP	Water exploration proposals	Email details
16 June 2009	Email	AH	Alexandria Station	RP	Water exploration details	Forward to Northern Australia Pastoral Company (NAPCO) head office
	Email	AH	Alroy Station	SB	Water exploration details	None
	Email/letter	AH	FSL World Holdings	DC	Water exploration on EL26054, 26055	None

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
16 June 2009	Telephone call	NB	CLC	Julie-Ann Stoll	Agenda for meeting on 25 June, progress with archaeological/ heritage report, AAPA clearance certificate, Paul Case business advisor to Arruwurra Aboriginal Corporation, geotech test pits, bulk sample	Attend meeting on 25 June
17 June 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Project update	Keep informed
17 June 2009	Letter	AH	Alroy Station	SB	S182 notification	None
18 June 2009	Telephone call	NB	CLC	Julie-Ann Stoll	Arrangements for Tennant Creek meeting, costs for meeting	Agreed to meet costs as proposed
19 June 2009	Email/letter	AH	FSL World Holdings	KL-P	Water exploration details	None
24 June 2009	Telephone call	NB	DPI	Chris O'Grady	Managing construction projects for Department of Education. Wondered if there might be synergy between our village constructions and his projects.	None
25 June 2009	Face to face	AH, NB	Traditional Owners/ CLC	Development Review Committee comprised of 16 Traditional Owners plus CLC representatives Julie-Ann Stoll, Harold Howard, James Nuggent, Paul Case	Social impact study, issues with CDE Capital, water drilling north of highway, contracting, employment and training opportunities, project update, Minemakers' proposed management plan for control of alcohol on site, possible charter flight origins and routes, Mining Agreement	MAK: Place EIS Guidelines on Minemakers website, raise issues with CDE Capital, provide copies of site infrastructure layout on plans with contours and on aerial photography. CLC: to provide draft copy of Mining Agreement

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
29 June 2009	Telephone call	NB	Traditional Owners	Paul Case	Feedback on his meeting with Traditional Owners after Minemakers departure, new company to be set up as umbrella for all community business ventures with exception of Gordon Haynes who will put forward a proposal in his own right.	Provide a scope of work for haulage component of logistics chain, provide a scope of work for Mining & Civil work packages
30 June 2009	Phone	AH	Alroy Station	SB	Water exploration discussion	SB gives verbal ok
2 July 2009	Email	AH	FSL World Holdings	KL-P	Water hole collars	None
9 July 2009	Face to face	NB, PR, Tara Halliday CNS	DRDPIFR	Gillian Jan, Alan Holland, Brian Baker	Process for grant of Mineral Lease, water search north of highway, MMP requirements and format, security assessment tool, infrastructure required by Traditional Owners to remain at mine closure	Submit MMP in preferred format. Calculate security using departments tool
9 July 2009	Face to face	NB, PR, Tara Halliday CNS	DNRETAS	Sally-Anne Strohmayr, Paul Purdon	EIS processing timeframes, submission of EIS without groundwater studies completed, public comment on NOI (only one and concerned with transport)	Minemakers to formalise in writing its enquiry regarding submission of incomplete EIS, i.e., minus complete groundwater section
9 July 2009	Face to face	NB, PR	Office of Chief Minister	Brian O'Gallagher, Richard Jackson, Mike Burgess	Update on project progress, impact of EIS timeframes on project start up	Minemakers to write to Office of Chief Minister outlining its concerns over EIS processing time, in particular the impact of non-statutory timeframes, include Gantt Chart

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
9 July 2009	Face to face	NB, PR, Tara Halliday CNS	Port Bulk Users Group	Ross Sawers, Mick Wilkes, Ian Wright	Briefing on one anothers projects, mitigating risk, rationalisation of monitoring, sharing of existing data, OH & S	To attend future meetings of the group
10 July 2009	Email/letter	AH	Alroy Station	SB	Agreement re water search	None
	Phone/Email	AH	Alexandria Station	RP	Follow-up on draft Agreement	None
13 July 2009	Letter	AH,RMc	AAPA	DD	Recorded Sacred Sites on EL26054,26055	No sites in area of proposed drilling
14 July 2009	Telephone call	NB	Traditional Owners	Paul Case	Meeting with Traditional Owners and CDE Capital in Mount Isa	Keep informed
15 July 2009	Face to face	NB, PR	Traditional Owners	Paul Case	Opportunities for Traditional Owners contracting, propopsed structure for Arruwurra enterprises, re-investment of profits in community, model for engagement of Traditional Owners in Mining and Civil works	Keep informed
16 July 2009	Face to face	NB, PR	NTWorksafe	Graeme Bevan	Project update, bulk sample, risk assessment guidelines	Provide Graeme with a copy of Risk Assessment when submitted to department
16 July 2009	Face to face	NB, PR	NTICN, Public Meeting - Alice Springs	Approx 70 members of Alice Springs business community	Presentation on the project provided by NB including a Q & A session and available post presentation to discuss specific enquiries	Follow up enquiries by various businesses who expressed interest

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
17 July 2009	Face to face	NB, PR	NTICN, Public Meeting - Tennant Creek	Approx 40 members of Alice Springs business community	Presentation on the project provided by NB including a Q & A session and available post presentation to discuss specific enquiries	Follow up enquiries by various businesses who expressed interest
18 July 2009	Email	AH	Alexandria Station	RP	Response to queries	None
22 July 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	Feedback on Traditional Owner meeting in Mount Isa with CDE Capital	To consider their views in moving forward with Mining and Civil contract
22 July 2009	Telephone call	NB	CLC	Harold Howard	Feedback on Traditional Owner meeting in Mount Isa with CDE Capital	To consider feedback in moving forward with Mining and Civil contract
22 July 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	Feedback on Traditional Owner meeting in Mount Isa with CDE Capital	To consider feedback in moving forward with Mining and Civil contract
22 July 2009	Telephone call	NB	CLC	Julie-Ann Stoll	CLC proposed that meeting scheduled for August be postponed until September	Agreeded to re-scheduled date for on-country meeting
23 July 2009	Telephone call	NB	Traditional Owners	Marilyn Lewter	CDE Capital	To consider feedback in moving forward with Mining and Civil contract
23 July 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	CDE Capital	To consider feedback in moving forward with Mining and Civil contract
23 July 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	Gordon's proposal on road haulage, seeking an extension of time	Minemakers will agree to extension once it recieves Gordon's letter
7 August 2009	Telephone call	NB	Office of Chief Minister	Richard Jackson	Project update, next Major Projects Group meeting	Keep informed
10 August 2009	Letter	AH.NB	Alexandria Station	NA	Signed agreement with NAPCO	None

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
11 August 2009	Telephone call	NB	CLC	Julie-Ann Stoll	Minemakers requested an electronic copy of archaeological survey, clearance certificate, AAPA contact with CLC	CLC agreed to provide an electronic copy of report ASAP, and a copy of clearance certificate once a typo has been corrected. CLC will assist AAPA.
11 August 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	Arrangements for meeting with Gordon and G & S Transport in Townsville	Attend meeting in Townsville on 18 August
12 August 2009	Email	AH	Alroy Station	BC	Water exploration OK	Referral from SB
13 August 2009	Telephone call	NB	DRDPIFR	Gillian Jan	Annual re-calculation of bond for forthcoming 12 months work	None
13 August 2009	Telephone call	NB	Traditional Owners	Paul Case	Attendance of pre-qualified Mining & Civil contractors at September on-country meeting, Gordon Haynes proposal	Minemakers will consider request to have contractors attend September meeting
18 August 2009	Face to face	NB, PR	Traditional Owners	Gordon Haynes, Tim St John, John Bilato, Frank Bilato of G & S Transport	Opportunity to meet parties who would be involved in road haulage contract if First Australian Haulage Contracting were successful in securing contract and to explore capabilities and nature of partnership	Meeting will assist in informing decision on proposal once received
21 August 2009	Telephone call	NB	DPC	Michael Nesbitt	Proposed Port Devopment, eliminating bottle necks, longer term development, bulk sample	Provide DPC with representative sample from bulk sample
25 August 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	Gordon sought feedback on last weeks meeting, positive impression of G & S Transport	Minemakers will make assessment on receipt of proposal

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
25 August 2009	Telephone call	NB	AAPA	Andrew Allan	Processing of our application, contact with CLC	Procede with application
26 August 2009	Letter	AH	Alexandria Station	RP	Query re rig access	Referred to GRM
3 September 2009	Telephone call	NB	CLC	Julie-Ann Stoll	Arrangements for meeting on 25 September, need for better infrastructure at Wunara Community	Attend meeting on 25 September
8 September 2009	Telephone call	NB	Traditional Owners	Tim St John	Confirming receipt of First Australian Haulage Contracting's proposal	Confirmed
8 September 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	Approach by Greyhound coachlines	Agreed that Gordon may forward NB's contact details to Greyhound
24 September 2009	Face to face	NB, PR	CLC	Julie-Ann Stoll, James Nuggent, Paul Case	Brief inspection of the Exploration camp, agenda and timings for tomorrow's meeting at the community	To attend meeting on time tomorrow
25 September 2009	Face to face	NB, PR	Traditional Owners / CLC	Approx 60 Traditional Owners plus CLC Julie-Ann Stoll, James Nuggent, Paul Case	First Australian Haulage Contracting proposal, project progress and expected timeline, Mining & Civil contracts incorporating Traditional Owner aspirations into contracts	CLC through Paul Case to provide a template of their ideal model for engagement of Traditional Owners by Civil & Mining Contractor. Minemakers will incorporate this in tender documents and use it as one of its assessment criteria for tenders. Minemakers will nominate First Australian Haulage Contracting as the Traditional Owners' representative to be provided with a role within the logistics chain

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
30 September 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	Advising that he will be spending next week at Wunara and will be meeting with Paul Richardson	None
5 October 2009	Telephone call	NB	Traditional Owners	Gordon Haynes	Re-confirming nature of inclusion in logistics contract	Minemakers will nominate First Australian Haulage Contracting as the Traditional Owners' representative to be provided with a role within the logistics chain. Tenderers will be required to negotiate role with Gordon
9 October 2009	Telephone call	NB	DPC	Michael Nesbitt	Provision of passing loops in Adelaide - Darwin Railway	None
13 October 2009	Face to face	NB, BH, Dan Moriarty CNS	DPC/ LDC/ Vopak	Michael Nesbitt, John Connell, Corey Rogers, Richard Jackson	Alternatives for phosphate storage shed, implications potential impacts on other port users	DPC to discuss an alternative to use an area of the Common User Area in the short term. LDC to provide costing for a holding lease on Sec 5720. Minemakers to request geotechnical data from former potential port user
14 October 2009	Face to face	NB, BH, Dan Moriarty CNS	Environment Centre NT (ECNT)	Dr Stuart Blanch, Melaine Bradley	Project outline, principle environmental investigations and findings, Traditional Owner engagement	Consider ECNT key areas of interest in the EIS
10 November 2009	Face to face	AD, NB, PR, Rebecca Powlett CNS, Dan Moriarty CNS, Tara Halliday	DNRETAS, DRDPFR, DCM, DPI Road Network	14 government officers that will be involved in assessment of the EIS.	Project schedule, major findings of the EIS.	None

Minemakers Australia Pty Ltd
Wonarah Phosphate Project

Date	Meeting Type	Minemakers Representatives	Organisation	Organisation Representatives	Issues Discussed	Commitments Given
12 November 2009	Face to face	NB, Dan Moriarty CNS	Barkly Roadhouse	Andrew & Tom Mayne (with Sally- ann Strohmayer and Michael Browne from DNRETAS)	Discussed potential noise issues due to the transport of ore to Tennent Creek.	Neither Andrew or Tom consider noise to be in issue and do not require Minemakers to do anything about it. Minemakers offered that if noise does become a problem, Minemakers will take necessary mitigation measures to address it such as tree planting along the highway or construction of a bund or other noise screening.