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Minister for the Environment;
Racing and Gaming

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Statement No.

000718

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**GWINDINUP MINERAL SANDS MINE
SHIRE OF CAPEL**

Proposal: The construction and operation of a mineral sands mine at Gwindinup, located within the Shire of Capel, approximately 25 kilometres south-south-east of Bunbury and between two and ten kilometres south of the town of Boyanup, as documented in schedule 1 of this statement.

Proponent: Cable Sands (WA) Pty Ltd

Proponent Address: PO Box 133, BUNBURY WA 6231

Assessment Number: 1259

Report of the Environmental Protection Authority: Bulletin 1185

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

1 Implementation

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions and procedures of this statement.

2 Proponent Commitments

2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.

Published on

05 APR 2006

3 Proponent Nomination and Contact Details

- 3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

- 4-1 The proponent shall substantially commence the proposal within five years of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

5 Compliance Audit and Performance Review

- 5-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environment which address:

1. the status of implementation of the proposal as defined in schedule 1 of this statement;
2. evidence of compliance with the conditions and commitments; and
3. the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environment is empowered to monitor the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

5-2 The proponent shall make all compliance reports publicly available on request.

6 Fauna - Western Ringtail Possum (*Pseudocheirus occidentalis*)

- 6-1 Prior to any ground-disturbing activities, the proponent shall conduct a site survey to identify the presence and abundance of Western Ringtail Possums located within the Gwindinup North and Gwindinup South mining areas, to the requirements of the Minister for the Environment on advice of the Department of Conservation and Land Management.
- 6-2 Should the survey referred to in condition 6-1 identify the presence of Western Ringtail Possums the proponent shall prior to ground disturbing activities, relocate the population of Western Ringtail Possums, to another suitable habitat, or provide other suitable habitat, to the requirements of the Minister for the Environment on advice of the Department of Conservation and Land Management.

7 Groundwater Extraction from the Leederville Aquifer

- 7-1 The proponent shall not carry out mining activity or other ground-disturbing activity which intersects, or dewater from, the Leederville geological formation, unless the proponent has demonstrated to the satisfaction of the Minister for the Environment that the activity will not unreasonably interfere with existing established use of the resource.

8 Integrated Mining and Rehabilitation Plan

- 8-1 The proponent shall carry out rehabilitation in accordance with an Integrated Mining and Rehabilitation Plan prepared to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, the Department of Conservation and Land Management and the Department of Industry and Resources.

The objectives of this Plan are:

- to ensure that rehabilitation and closure planning are considered as an integral part of mine planning, development and operation; and
- to ensure that rehabilitation and closure are subsequently carried out successfully.

The areas to be rehabilitated are shown on figure 2 and figure 3 of schedule 1.

This Plan shall include the following:

1. Re-introduction of native vegetation in all rehabilitation areas using native plant species of local provenance;
2. Preparation of an ecological baseline for vegetation coverage which includes high-resolution mapping (showing geographic coordinates) and assessment prior to clearing;
3. Collection of baseline information on the pre-mining soil profiles;
4. Collection of baseline information on the hydrology of the Gwindinup North site, including surface expressions of the groundwater (paluslope wetlands) and Gynudup Brook, before mining;
5. Collection of baseline information on the hydrology of the Gwindinup South site before mining;
6. Preparation of plans for re-establishing soil and hydrological conditions comparable to those which existed before mining, for both the Gwindinup North and Gwindinup South sites; procedures for soil profile restoration; restoration of hydrogeological characteristics; revegetation (including Priority Flora); and dieback and weed control;
7. Specific rehabilitation criteria to be achieved for the re-establishment of vegetation comparable to the pre-mining vegetation type for each area, including criteria for the re-establishment of all Priority species and any other species of particular conservation significance, such as undescribed species of flora;
8. Objectives, requirements and framework for stakeholder consultation and reporting;
9. Protection of remnant vegetation on the mining lease areas from mining and non-mining impacts;
10. A final land use/landform plan;
11. A strategy which integrates the mining and rehabilitation schedules and requirements;
12. A program to monitor rehabilitation success and to compare with criteria to be achieved;
13. Contingency measures in the event that expected performance is not achieved; and
14. Internal review, audit and continual improvement.

8-2 The proponent shall make the Integrated Mining and Rehabilitation Plan required by condition 8-1 publicly available.

9 Vegetation Conservation

- 9-1 The proponent shall protect remnant native vegetation, classified as being in “good” or better condition, within the project area and which is not proposed to be disturbed by mining and associated activities, from other potentially threatening processes, such as grazing and fire, through the establishment of Managed Protection Areas, to the requirements of the Minister for the Environment on advice of the Department of Industry and Resources and the Department of Conservation and Land Management.

10 Groundwater

- 10-1 Prior to any ground-disturbing activities and during mining, the proponent shall monitor groundwater in accordance with a Groundwater Monitoring and Management Plan prepared in consultation with adjoining and nearby landowners and to the requirements of the Minister for the Environment on advice of the Department of Environment and the Department of Conservation and Land Management.

The objectives of this Plan are:

- to take management action to avoid impacts upon native vegetation adjacent to the Gwindinup North and Gwindinup South mining areas;
- to manage impacts on local water supplies; and
- to monitor groundwater levels.

This Plan shall:

1. include baseline data on native vegetation health prior to mining or groundwater extraction;
 2. define locations for groundwater monitoring stations;
 3. define trigger levels for management actions to be taken in the event that impacts on groundwater are likely to affect native vegetation;
 4. define management actions (contingency measures) to be implemented in the event that unacceptable impacts on native vegetation occur as a result of groundwater drawdown;
 5. define management actions (contingency measures) to be implemented in the event that unacceptable impacts on local water supplies occur as a result of groundwater drawdown; and to establish procedures for landowners to report any interruptions to their water supplies, and for the timely resolution as to whether this has been caused by mining operations, along with the timely reinstatement of a similar capacity water supply; and
 6. be subject to independent technical review prior to finalisation.
- 10-2 The proponent shall make the Groundwater Monitoring and Management Plan required by condition 10-1 publicly available.

11 Fencing - Gwindinup North

- 11-1 Within six months following the completion of mining, the proponent shall install fencing around the entire perimeter of the native vegetation at the Gwindinup North site.

The precise area to be fenced and the type of fencing shall be to the requirements of the Minister for the Environment on advice of the Department of Conservation and Land Management.

The fenced area shall include:

1. remnant vegetation in good or better condition or possessing habitat or linkage values;
2. all areas to be rehabilitated and reclaimed to native vegetation;
3. the area of Gynudup Brook on the proponent's property;
4. the paluslope wetland; and
5. the area containing the vegetation unit "Tree mallee of *Eucalyptus decipiens* over an Open Shrubland of mixed species over a Grassland in sand", as identified in figure 3D of the Addendum to the Consultative Environmental Review (See figure 5).

12 Fencing - Gwindinup South

- 12-1 Within six months following the completion of mining, the proponent shall install fencing around the perimeter of the Conservation Covenant Area as shown on figure MO3B of the Addendum to the Consultative Environmental Review (See figure 4).

The precise area to be fenced and the type of fencing shall be to the requirements of the Minister for the Environment on advice of the Department of Conservation and Land Management.

- 12-2 Within six months following the completion of mining, the proponent shall install fencing around the perimeter of the rehabilitation/reclamation areas outlined in figure RO3F of the Addendum to the Consultative Environmental Review (See figure 3).

The precise area to be fenced and the type of fencing shall be to the requirements of the Minister for the Environment on advice of the Department of Conservation and Land Management.

Procedures

1. Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environment for the preparation of written notice to the proponent.
2. The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment.
3. Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment.

Notes

1. The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.
2. The proponent is required to apply for a Works Approval and Licence for this project under the provisions of Part V of the *Environmental Protection Act 1986*.
3. The proponent is required to apply for a permit to alter the bed and banks of Gynudup Brook and a licence to take water from the Superficial and Yarragadee aquifers for this project under the provisions of the *Rights in Water and Irrigation Act 1914*.

**HON MARK MCGOWAN MLA
MINISTER FOR THE ENVIRONMENT;
RACING AND GAMING**

05 APR 2006

Schedule 1

The Proposal (Assessment No. 1259)

The proposal is to mine mineral sands at Gwindinup, located within the Shire of Capel, approximately 25 kilometres south south-east of Bunbury and between 2 and 10 kilometres south of the town of Boyanup. The proposal includes the clearing of native vegetation and pasture covering two orebodies, Gwindinup North and Gwindinup South; mining and processing of the heavy minerals within these two ore bodies; and rehabilitation of all areas disturbed.

The processing of the heavy minerals will require the operation of a processing plant; truck haulage of minerals products offsite; and the generation of storage facilities for tailings, overburden, fines, topsoil and process water.

The proponent will also place a conservation covenant on the title of a lot containing 16 hectares of the Cartis Vegetation complex (See figure 1).

The key proposal characteristics are shown in table 1.

Table 1 – Key Proposal Characteristics

Element	Total	Gwindinup North	Gwindinup South
Mining period (approximate months)	75 (consecutive)	42 (Oct '05 to Mar '09)	39 (Oct '08 to Jul '11)
Ore body (tonnes) approximate	9,812,500	5,100,000	4,712,000
Heavy Mineral Concentrate production (tonnes) approximate	912,500	490,000	422,500
Overburden (bank cubic metres) approximate	13,125,000	6,300,000	6,825,000
Depth of mine (metres) approximate	-	26	28
Estimated mine footprint (hectares) maximum	361	185	176
Native vegetation cleared (hectares) maximum	24.5	16	8.5
Cleared native vegetation rehabilitated (hectares) minimum	15	15	8.5
Native vegetation reclaimed (hectares) minimum	45	40	5
Total native vegetation rehabilitated + reclaimed (hectares) minimum	60	55	13.5

Area in conservation covenants (minimum)	16 hectares of Cartis vegetation at Gwindinup South and the area around Gynudup Brook and the paluslope wetland at Gwindinup North.
Operating hours	24 hours per day for 7 days per week (maximum)
Mining rate (tonnes per year) approximate	2,000,000 for each plant operating 24 hours per day for 7 days per week
Heavy Mineral Concentrate Production (tonnes per year) approximate	240,000 (maximum) for each plant operating 24 hours per day for 7 days per week
Number of separation plants	1
Water supply source	Production bore in Yarragadee aquifer
Water usage (ML/year)	1,500 (approximate)
Fuel storage (kL)	100 for each plant (approximate)
Fuel usage (kL/year)	2,300 (approximate)
Heavy Mineral Concentrate haulage (trucks/day)	10 on average
Haulage times	7:00 am to 8:00 pm Monday to Saturday, 9:00 am to 8:00 pm Sundays and public holidays.
Haulage days	7 days per week
Power supply	Western Power grid 22kV

Key

ML – Mega litres

kL – Kilo litres

Figures (attached)

Figure 1 Location Plan.

Figure 2 Baseline vegetation descriptions, mine layout and rehabilitation plan for Gwindinup North (Revised May 05).

Figure 3 Baseline vegetation descriptions, mine layout and rehabilitation plan for Gwindinup South.

Figure 4 Gwindinup South mine site layout (Feb. 05).

Figure 5 Vegetation associations.

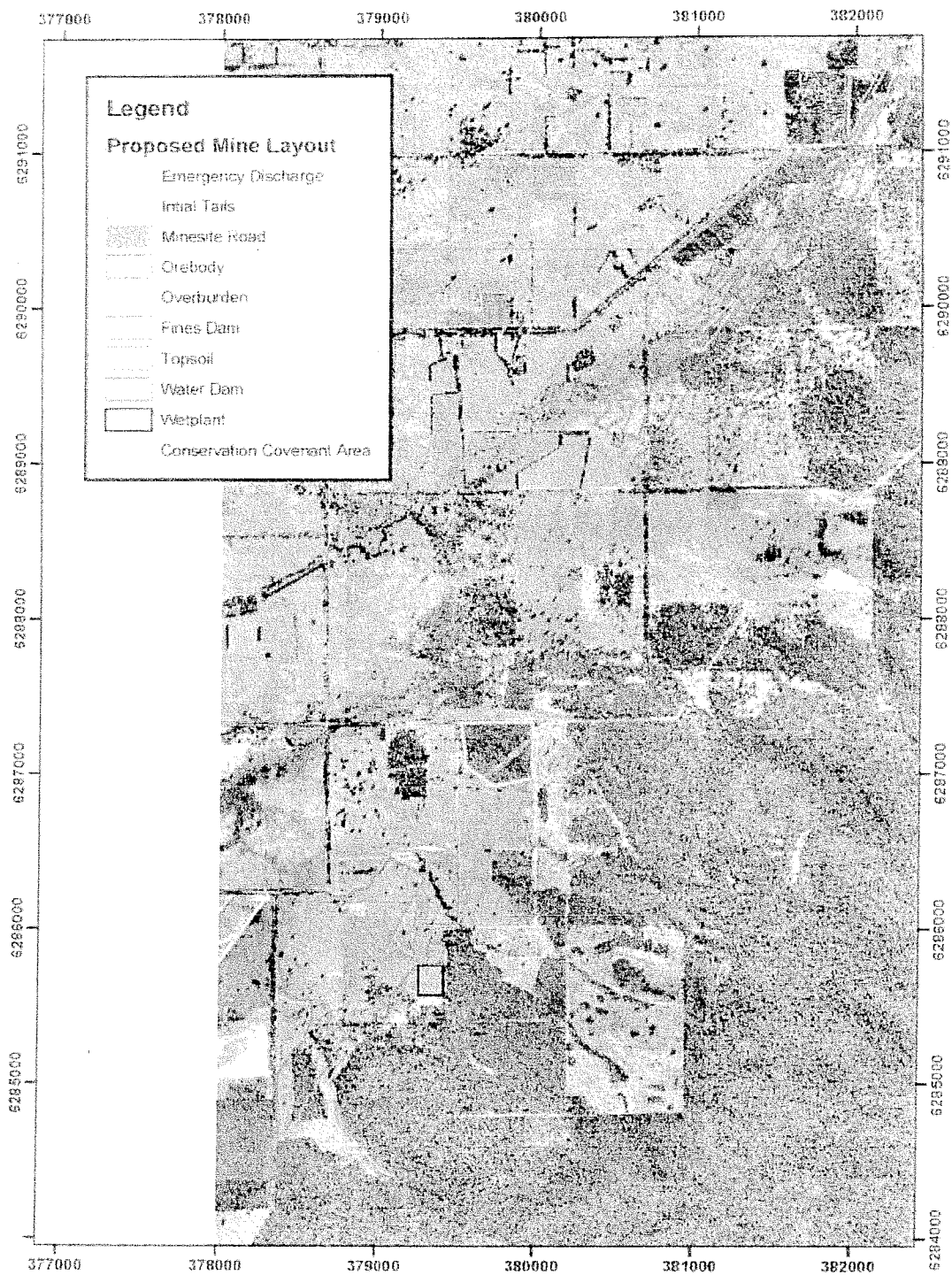


FIG MO3.
Gwindup mine site layout (Feb 2005)

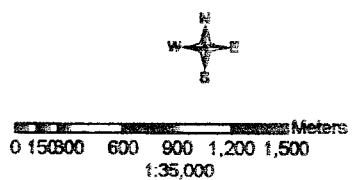


FIGURE 1 – Location plan.

Drawn: Todd Griffin

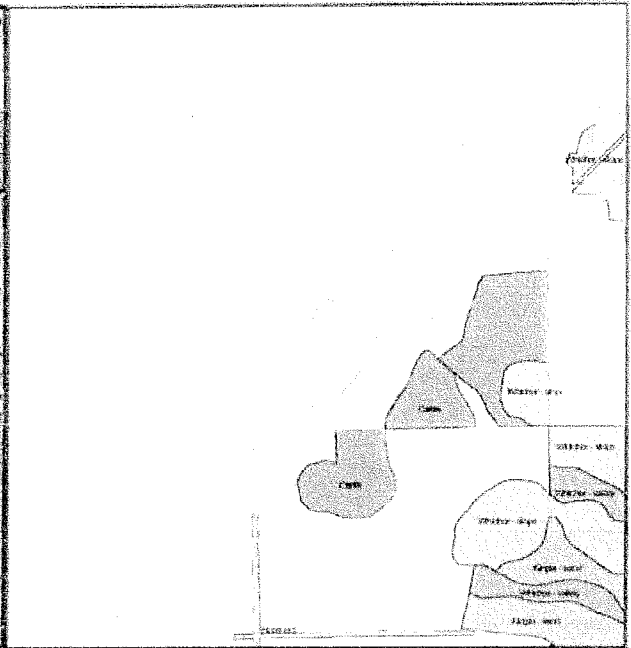


Figure R02F. Vegetation Complexes for Gwindrup North, from BEC 2003.

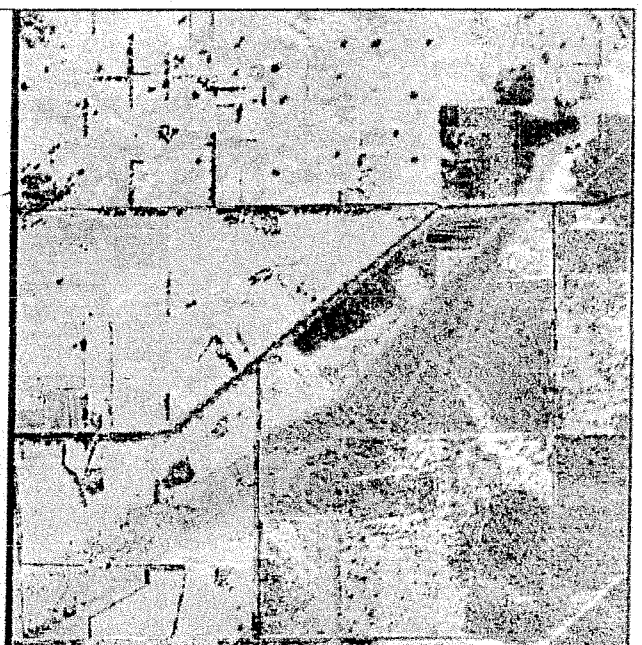


Figure R02H: Digitally-rectified image of the post-mining landscape, with the 43 ha of proposed native vegetation reclamation outlined in blue.

A hand-drawn diagram of a triangle. A horizontal line segment at the bottom is labeled "1 km". A vertical line segment extends from the top vertex of the triangle down to the midpoint of the base.



Figure R03E Gwindinup South post-mining conceptual landscape plan. Undisturbed native vegetation (green) and rehabilitated native vegetation (blue outline) over the shaded mine plan (yellow).



Figure R03F Digitally-rectified image of the post-mining landscape, with the native vegetation rehabilitation/reclamation areas outlined.

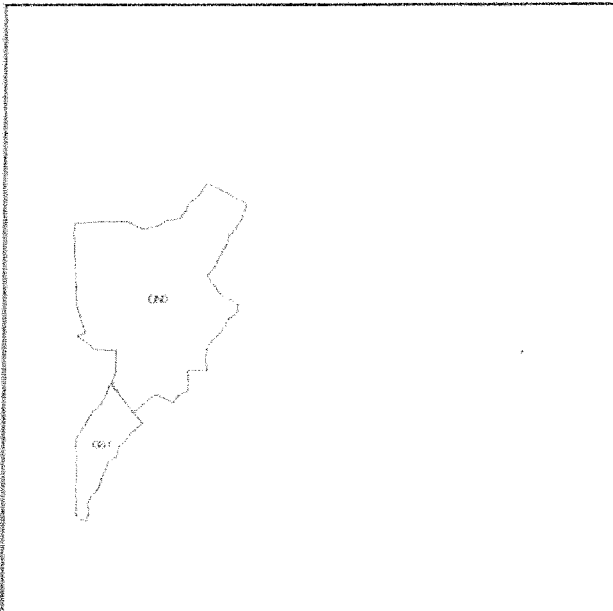


Figure R03G Target soil profiles, as described in the MRP and CER Supplement, for restoration of the mined area, Gwindinup South.



Figure R03H Pre-mining drainage map of Gwindinup South and surrounds.

Figure R03 (Continued) Baseline vegetation descriptions, mine layout and rehabilitation plan for Gwindinup South

FIGURE 3

Proponent's Environmental Management Commitments

January 2006

**GWINDINUP MINERAL SANDS MINE
SHIRE OF CAPEL**

(Assessment No. 1259)

Cable Sands (WA) Pty Ltd

Proponent's Environmental Management Commitments -- January 2006

GWINDINUP MINERAL SANDS MINE, SHIRE OF CAPEL (Assessment No. 1259)

Note: The term "commitment" as used in this schedule includes the entire row of the table and its six separate parts as follows:

- a commitment number;
- a commitment topic;
- the objective of the commitment;
- the 'action' to be undertaken by the proponent;
- the timing requirements of the commitment; and
- the body/agency to provide technical advice to the Department of Environment.

No.	Topic	Objective	Action	Timing	Advice
1	Vegetation Conservation	To minimise impacts from the implementation of the proposal on local vegetation and flora	Formally protect 16 hectares of Cartis vegetation on Lot 3829 on Plan 159575, Wellington Location 3829 by installing a conservation covenant on the title of the property and fencing the perimeter to exclude stock.	Within 18 months following receipt of Ministerial Approval for mining.	CALM
2	Environmental Management and Monitoring	To minimise environmental impacts from the development and operation of the proposal.	Prepare an Environmental Management and Monitoring Program (EMMP) which addresses the following: <ul style="list-style-type: none"> • management of dust; • management of fauna, including pest control; • management of greenhouse gases to minimise emissions and intensity; and • management of visual amenity of nearby sensitive locations. Implement the Environmental Management and Monitoring Program.	Prior to any ground-disturbing activities	DoIR CALM
3				During Development, Mining Operation and Decommissioning	DoIR
4			Make the Environmental Management and Monitoring Program publicly available.	During Development, Mining Operation and Decommissioning.	

5	Water Resources Management	To minimise impacts from the development and operation of the proposal on local surface and ground water resources	<p>Prepare a Water Resources Management Plan (WRMP) which addresses the following:</p> <ul style="list-style-type: none"> • definition of resource • identification of surrounding resource users; • detailed assessment of the local groundwater and surface water hydrology, using base-line data; • identification and assessment of risks to water users and water-dependent ecosystems (including remnant vegetation); • management options (avoid/minimise/mitigate) for the identified risks; • a monitoring, review and reporting program; and • contingency plans, including complaint response procedures. <p>Implement the Water Resources Management Plan.</p> <p>Make the Water Resources Management Plan publicly available.</p>	<p>Prior to any ground-disturbing activities</p>	Local Stakeholders.
6				During Mining Operation	
7				During Development, Mining Operation and Decommissioning	
8	Water Resources Management (Dispute resolution)	To resolve disputes or differences between users of local water supplies and the proponent regarding impacts from the development and operation of the proposal on local surface and ground water resources.	<p>Resolve a dispute or difference with users of local water supplies in a process which includes the following key elements:</p> <ul style="list-style-type: none"> • If a dispute or difference between users of local water supplies and the proponent arises, any party may give the other written notice of the dispute or difference, adequately identifying and providing details. • The parties will then confer to resolve the dispute or difference, or agree on methods of doing so. • If the dispute or difference is not resolved, the parties will agree to settle the dispute or difference by expert determination administered by the Australian Commercial Disputes Centre Ltd. • The expert determination will be final and binding on the parties involved. • The proponent will meet reasonable costs as determined by the "expert". 	During Development, Mining Operation and Decommissioning	

9	Decommissioning	To minimise impacts during and following closure	<p>Prepare a Decommissioning Plan which includes the following elements:</p> <ul style="list-style-type: none"> • stakeholder consultation; • end users; • removal or, if appropriate, retention of mining infrastructure; • identification of contaminated sites, including notification to relevant statutory authorities; • rehabilitation; • management of conservation areas; and • care and maintenance. <p>Implement the Decommissioning Plan.</p>	At least 6 months prior to full Decommissioning.	CALM DoIR CS&LC
10			Make the Decommissioning Plan publicly available.	Decommissioning	CALM
11			Place a covenant over the areas to be fenced in accordance with Condition 11, acknowledging that portions of these areas may be used as offsets for other projects.	Decommissioning	CALM
12	Covenant	To protect important areas of native vegetation, wetlands and ecological linkages.		Within 12 months following the completion of mining.	CALM

Abbreviations

DoIR - Department of Industry & Resources
CALM - Department of Conservation & Land Management
CS&LC - Commissioner of Soil & Land Conservation

**Figures from the Addendum
to the
Consultative Environmental Review (2005)**

**GWINDINUP MINERAL SANDS MINE
SHIRE OF CAPEL**

(Assessment No. 1259)

Cable Sands (WA) Pty Ltd

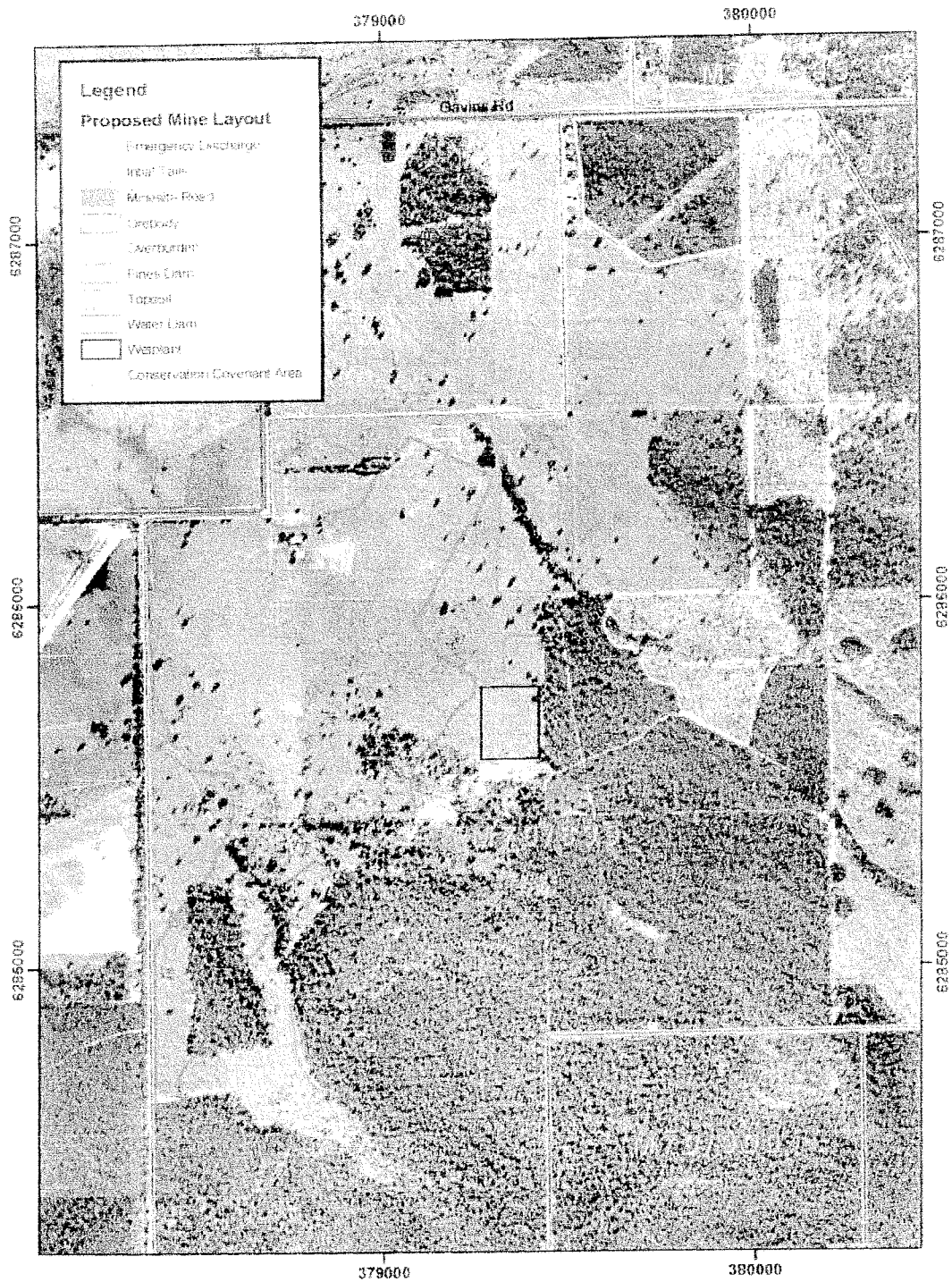
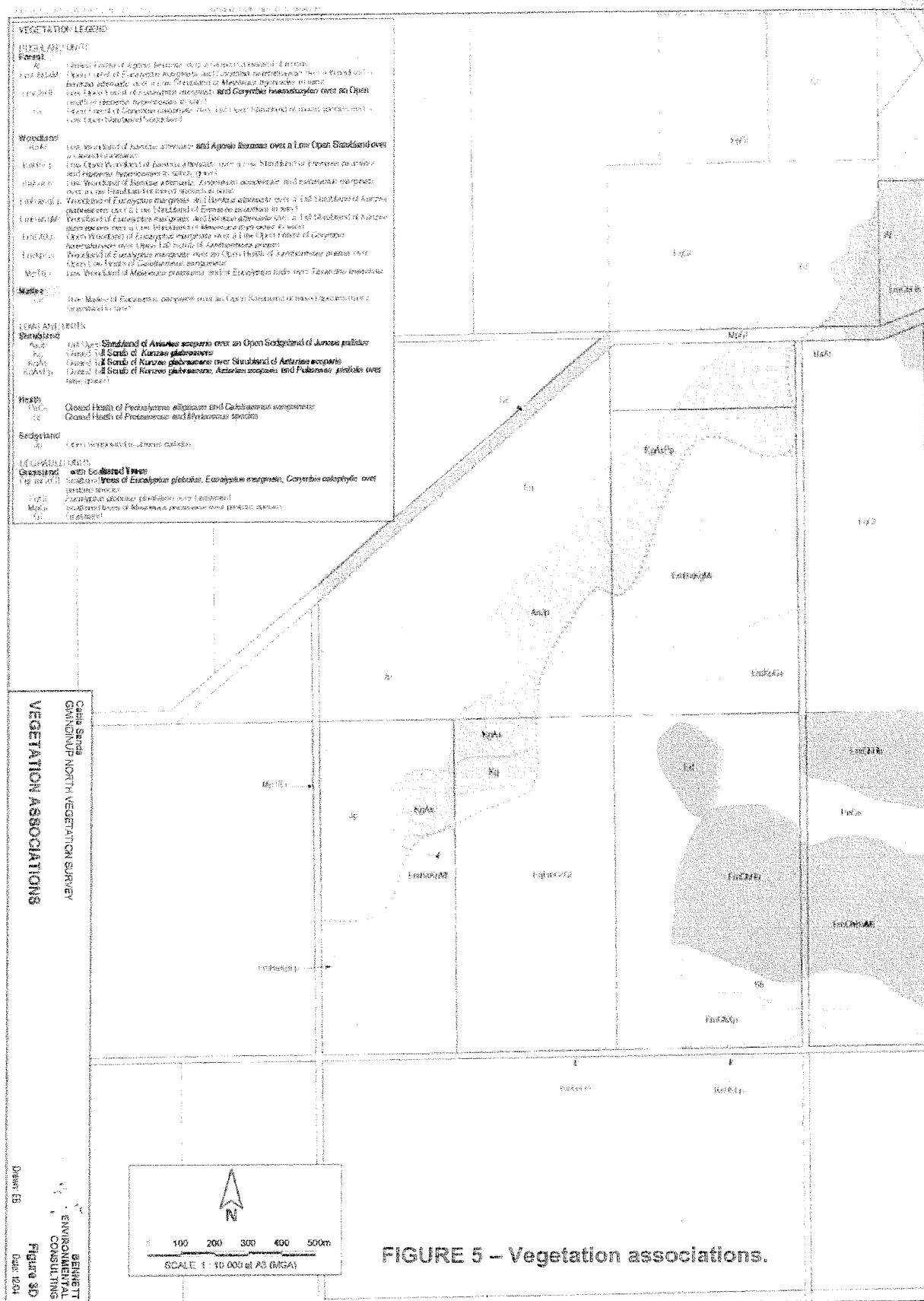


FIG MO3B
Gwindinup South mine site layout (Feb 2005)

FIGURE 4

Source: Fort Gwin



Attachment 1 to Statement 718

Change to Proposal

Proposal: Gwindinup Mineral Sands Mine, Shire of Capel

Proponent: Cable Sands (WA) Pty Ltd

Change: Clear an additional 4.3 hectares of native vegetation, increase the mine footprint, increase the amount of ore mined and change the mining period.

Key Proposal Characteristics of original Proposal:

Element	Total	Gwindinup North	Gwindinup South
Mining period (approximate months)	75 (consecutive)	42 (Oct 05 to Mar 09)	39 (Oct 08 to Jul 11)
Ore body (tonnes) approximate	9,812,500	5,100,000	4,712,000
Heavy Mineral Concentrate production (tonnes) approximate	912,500	490,000	422,500
Overburden (bank cubic metres) approximate	13,125,000	6,300,000	6,825,000
Depth of mine (metres) approximate	-	26	28
Estimated mine footprint (hectares) maximum	361	185	176
Native Vegetation cleared (hectares) maximum	24.5	16	8.5
Cleared native vegetation rehabilitated (hectares) minimum	15	15	8.5
Native vegetation reclaimed (hectares) minimum	45	40	5
Total native vegetation rehabilitated + reclaimed (hectares) minimum	60	55	13.5
Area in conservation covenants	16 hectares of Cartis vegetation at Gwindinup South and the area around Gwindinup Brook and the paluslope wetland at Gwindinup North		
Operating hours	24 hours per day for 7 days per week (maximum)		
Mining rate (tonnes per year) approximate	2,000,000 for each plant operating 24 hours per day for 7 days per week		
Heavy Mineral Concentrate Production (tonnes per year) approximate	240,000 (maximum) for each plant operating 24 hours per day for 7 days per week		
Number of separation plants	1		
Water supply source	Production bore in Yarragadee aquifer		
Water usage (ML/year)	1,500 (approximate)		
Fuel storage (kL)	100 for each plant (approximate)		
Fuel usage (kL/year)	2,300 (approximate)		
Heavy Mineral Concentrate haulage (trucks/day)	10 on average		
Haulage times	7.00am to 8.00pm Monday to Saturday 9.00am to 8.00pm Sundays and public holidays		
Haulage days	7 days per week		
Power supply	Western Power grid 22kV		

Key Proposal Characteristics of changed Proposal:

Element	Total	Gwindinup North	Gwindinup South
Mining period (approximate months)	75 (consecutive)	46 (Mar 08 to Dec 11)	39 (Mar 11 to May 14)
Ore body (tonnes) approximate	10,973,499	6,261,499	4,712,000
Estimated mine footprint (hectares) maximum	415	239	176
Native Vegetation cleared (hectares) maximum	28.8	20.3	8.5
Cleared native vegetation rehabilitated (hectares) minimum	28.5	20	8.5
Cleared pasture rehabilitated to native vegetation (hectares) minimum	50	45	5
Area in conservation covenants	16 hectares of Cartis vegetation at Gwindinup South and the area around Gwindinup Brook and the paluslope wetland at Gwindinup North		
Operating hours	24 hours per day for 7 days per week (maximum)		
Mining rate (tonnes per year) approximate	2,000,000 for each plant operating 24 hours per day for 7 days per week		
Number of separation plants	1		
Water supply source	Production bore in Yarragadee aquifer		
Water usage (ML/year)	1,500 (approximate)		
Fuel storage (kL)	100 for each plant (approximate)		
Fuel usage (kL/year)	2,300 (approximate)		
Heavy Mineral Concentrate haulage (trucks/day)	10 on average		
Haulage times	7.00am to 8.00pm Monday to Saturday 9.00am to 8.00pm Sundays and public holidays		
Haulage days	7 days per week		
Power supply	Western Power grid 22kV		

Figures (Attached)

Figure 6 – Gwindinup North mine site: Comparison of original mine plan and revised mine plan

Dr Paul Vogel
CHAIRMAN
 Environmental Protection Authority
 under delegated authority

Approval date: 8.4.09

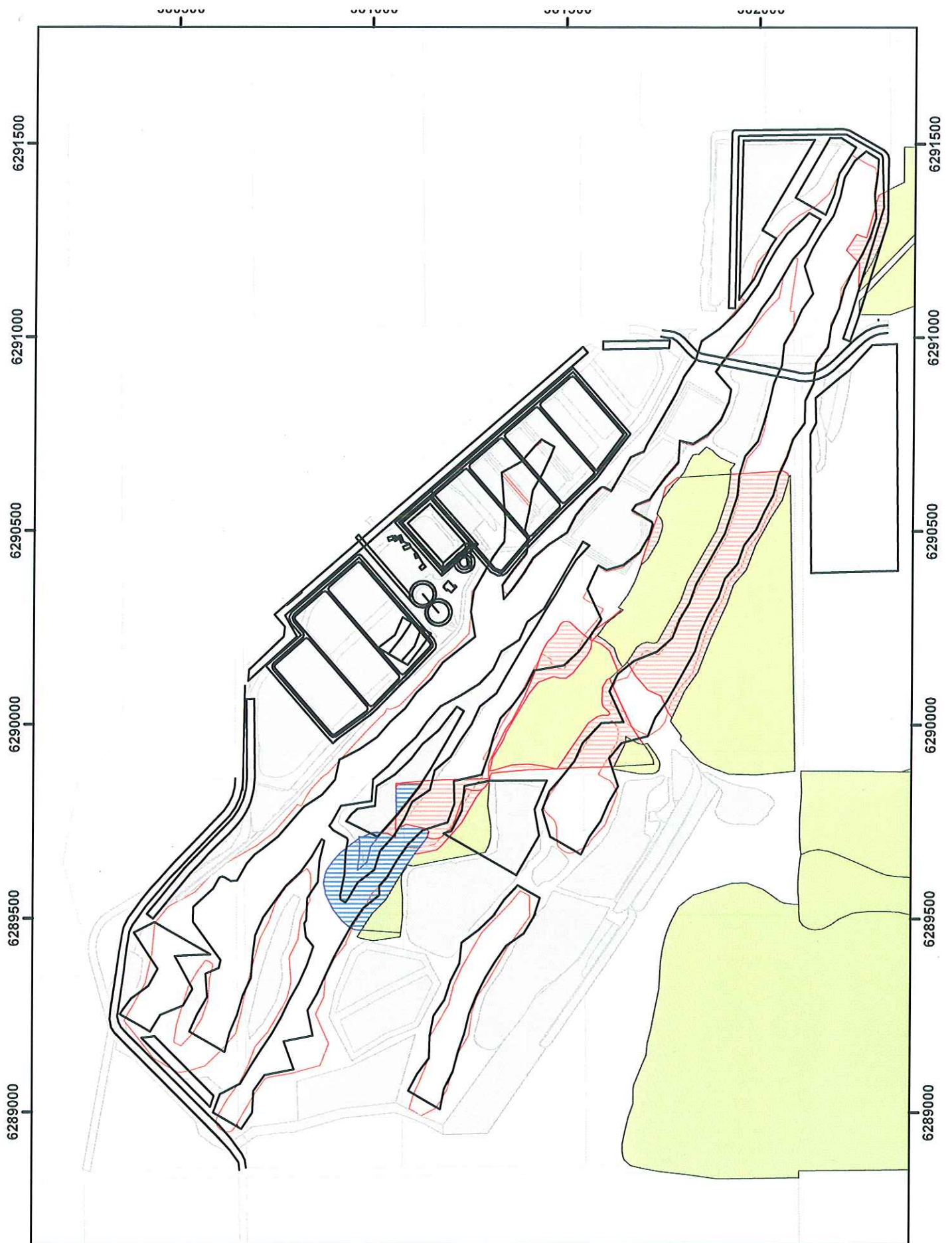


Figure 6: Gwindinup North Minesite
Revised mine plan

- | | |
|----------------------|--|
| — Original Mineplan | Additional Clearing approved by s45C amendment |
| Revised mine plan | Remnant Native Vegetation |
| Revised Orebody | Cleared Native Vegetation |
| Cadastral Boundaries | |

0 125 250 500
Meters



Datum: GDA 94 Zone 50

Date: 25/3/09

Version:



Attachment 2 to Ministerial Statement 718

Change to Proposal

Proposal: Gwindinup Mineral Sands Mine, Shire of Capel

Proponent: Cable Sands (WA) Pty Ltd

Change: Increase the mine footprint, increase the amount of ore mined and change the mining period

Key Characteristics Table:

<u>Element</u>	<u>Description of proposal</u>			<u>Description of approved change to Proposal</u>		
	Total	Gwindinup North	Gwindinup South	Total	Gwindinup North	Gwindinup South
Mining period (approximate months)	75 (consecutive)	46 (Mar 08 to Dec 11)	39 (Mar 11 to May 14)	75 (consecutive)	55 (Mar 08 to Sep 12)	39 (Mar 12 to May 15)
Ore body (tonnes) approximate	10,973,499	6,261,499	4,712,000	11,704,556	6,992,556	4,712,000
Estimated mine footprint (hectares) maximum	415	239	176	417	240.4	176
Native Vegetation cleared (hectares) maximum	28.8	20.3	8.5	28.8	20.3	8.5
Cleared native vegetation rehabilitated (hectares) minimum	28.5	20	8.5	28.5	20	8.5
Cleared pasture rehabilitated to native vegetation (hectares) minimum	50	45	5	50	45	5
Area in conservation covenants	16 hectares of Cartis vegetation at Gwindinup South and the area around Gwindinup Brook and the paluslope wetland at Gwindinup North					
Operating hours	24 hours per day for 7 days per week (maximum)					
Mining rate (tonnes per year) approximate	2,000,000 for each plant operating 24 hours per day for 7 days per week					
Number of separation plants	1					
Water supply source	Production bore in Yarragadee aquifer					
Water usage (ML/year)	1,500 (approximate)					
Fuel storage (kL)	100 for each plant (approximate)					
Fuel usage (kL/year)	2,300 (approximate)					
Heavy Mineral Concentrate haulage (trucks/day)	10 on average					
Haulage times	7.00am to 8.00pm Monday to Saturday 9.00am to 8.00pm Sundays and public holidays					
Haulage days	7 days per week					
Power supply	Western Power grid 22kV					

Note: Text in bold in the key characteristics table, indicates change/s to the proposal.

Figure 2: Post-mining land use (revised October 2011)

Figure 6: Gwindinup North Mine site: Revised mine plan (updated 19/9/2011)

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority

Approval date: 24 November 2011

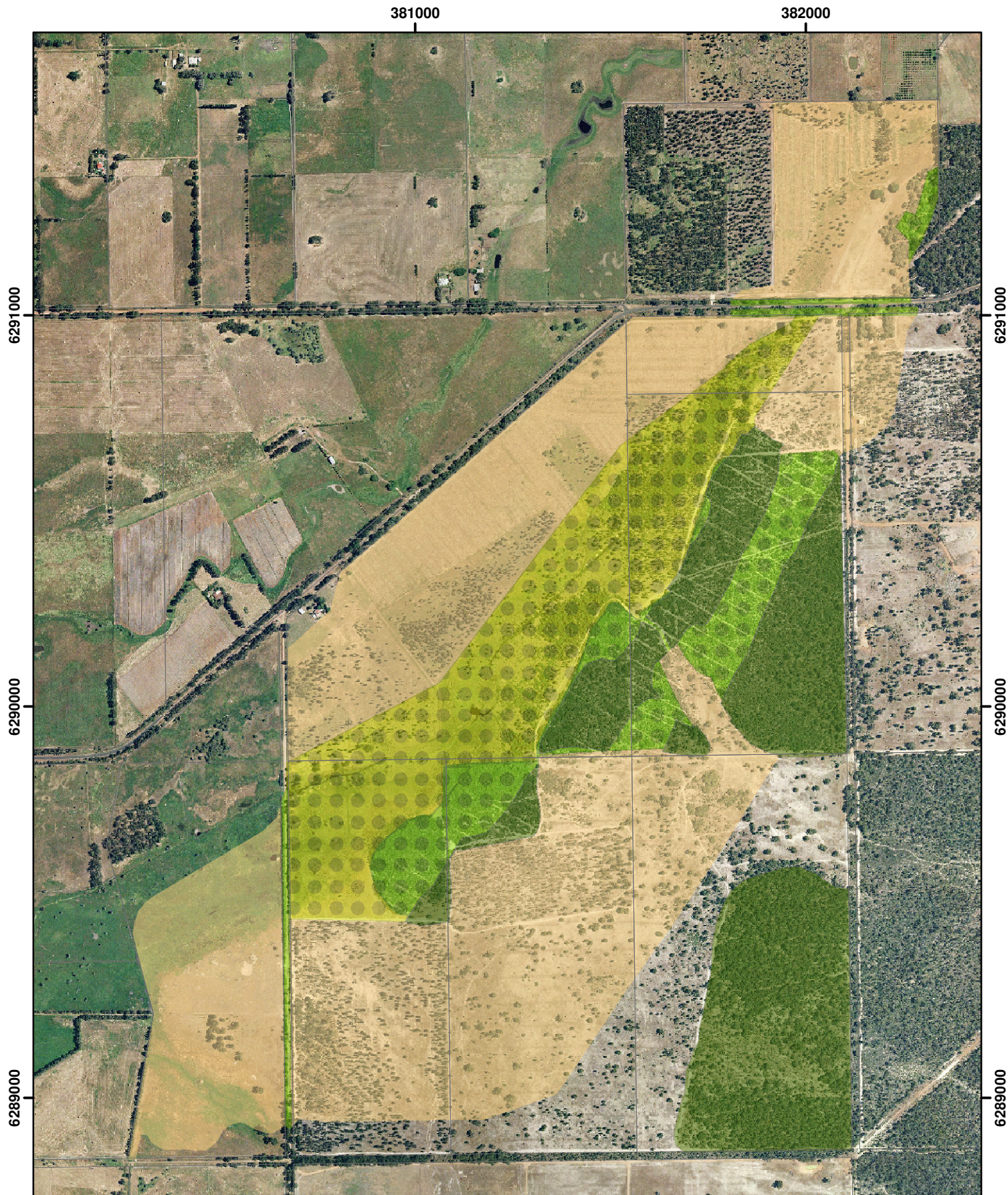
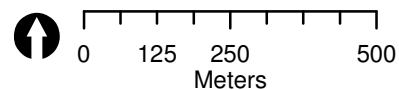


Figure 2
Post-mining land use (Revised October 2011)

- | | |
|--|--|
| Rehabilitated pasture | Rehabilitated native vegetation |
| Reclaimed native vegetation | Undisturbed native vegetation |



Datum: GDA 1994 MGAZone 50
Date: 5/10/2010

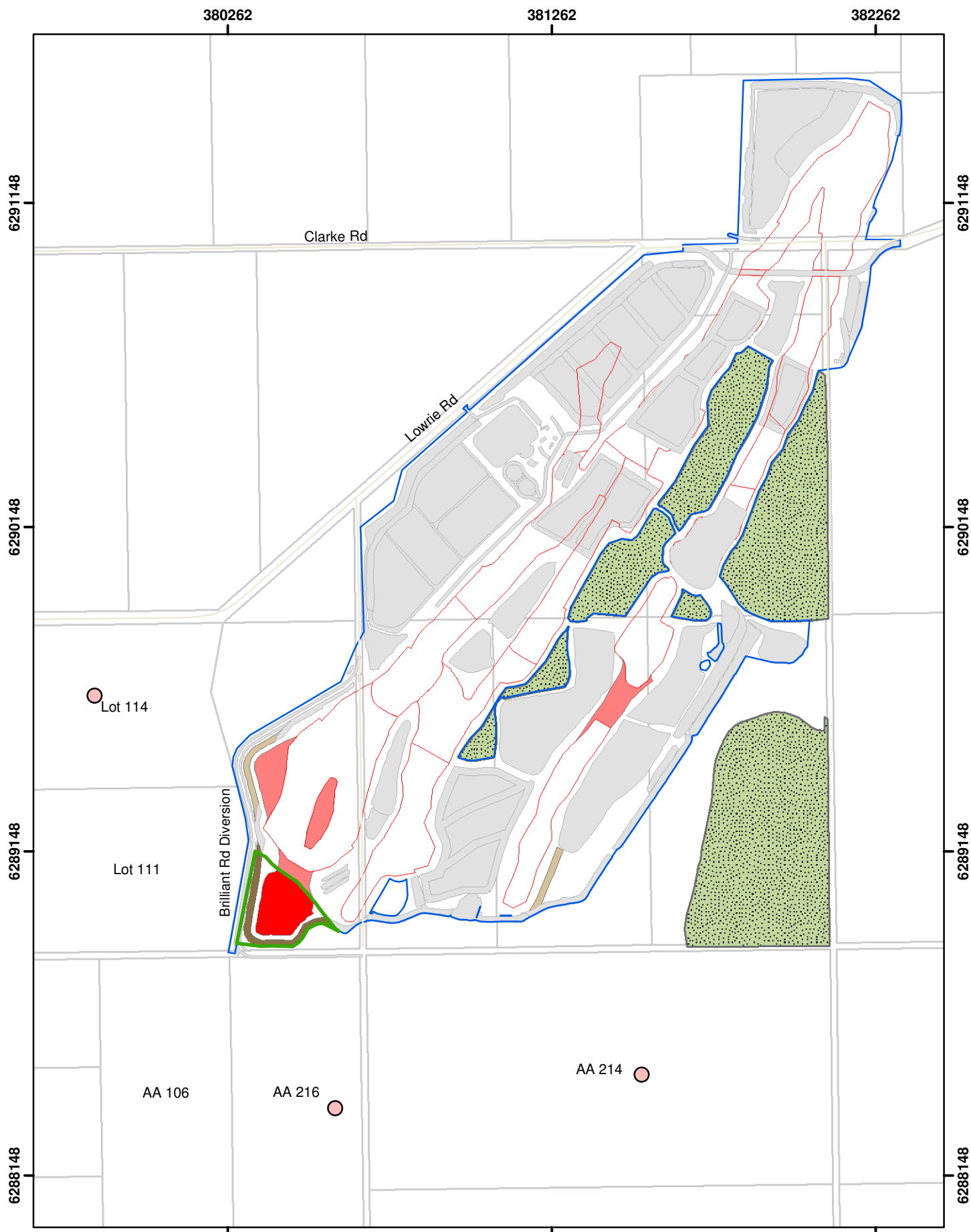
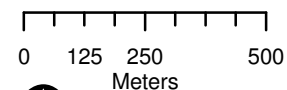


Figure 6:
Gwindinup North Minesite - Revised mine plan (updated 19/9/2011)



Datum: GDA 94 MGA Zone 50
Date: 19/09/2011
Drawn: DH

- Identified Sensitive Premises
- Remnant Native Vegetation
- Existing Infrastructure
- Existing mine pit
- Extent of existing disturbance
- New disturbance approved by s45C amendment
- Expansion of pit on existing disturbance approved by s45C amendment
- Expansion of pit on new disturbance approved by s45C amendment
- Topsoil stockpile on existing disturbance approved by s45C amendment
- Topsoil stockpile on new disturbance approved by s45C amendment



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