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Published on: 11 January 2013

Statement No: 925

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

**NAMMULDI-SILVERGRASS EXPANSION**

**Proposal:** The proposal includes the existing Nammuldi-Silvergrass Iron Ore Project and the proposed expansion, located approximately 60 kilometres north-west of the town of Tom Price, Shire of Ashburton, in the Pilbara region.

The proposal is further documented in Schedule 1 of this statement.

**Proponent:** Hamersley Iron Pty. Limited  
Australian Company Number: 004 558 276

**Proponent Address:** Level 22  
152-158 St George's Terrace  
PERTH WA 6000

**Assessment Number:** 1842

**Previous Assessment Number:** 1247

**Report of the Environmental Protection Authority Number:** 1457

**Previous Report of the Environmental Protection Authority Number:** 997

**Previous Statement Number:** 558 (Published 28 November 2000)

The implementation conditions of this Statement supersede the implementation conditions of Statement 558 in accordance with section 45B of the *Environmental Protection Act 1986*. The proposal referred to in the above report of the Environmental Protection Authority may be implemented. The implementation of this proposal is subject to the following implementation conditions and procedures, unless specifically stated otherwise within this statement, and Schedule 1 details definitions of terms and phrases used in the implementation conditions and procedures.

## **1 Proposal Implementation**

- 1-1 When implementing the proposal, the proponent shall not exceed the authorised extent of the proposal as defined in Column 3 of Table 2 in Schedule 1, unless amendments to the proposal and the authorised extent of the proposal have been approved under the EP Act.

## **2 Contact Details**

- 2-1 The proponent shall notify the CEO of any change of its name, physical address or postal address for the serving of notices or other correspondence within 28 days of such change. Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State.

## **3 Time Limit for Proposal Implementation**

- 3-1 The proponent shall not commence implementation of the proposal after the expiration of five years from the date of this statement, and any commencement, within this five-year period, must be substantial.
- 3-2 Any commencement of implementation of the proposal, within five years from the date of this statement, must be demonstrated as substantial by providing the CEO with written evidence, on or before the expiration of five years from the date of this statement.

## **4 Compliance Reporting**

- 4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO.
- 4-2 The proponent shall submit to the CEO the compliance assessment plan required by Condition 4-1 at least six months prior to the first compliance assessment report required by Condition 4-6, or prior to implementation, whichever is sooner.

The compliance assessment plan shall indicate:

- (1) the frequency of compliance reporting;
  - (2) the approach and timing of compliance assessments;
  - (3) the retention of compliance assessments;
  - (4) the method of reporting of potential non-compliances and corrective actions taken;
  - (5) the table of contents of compliance assessment reports; and
  - (6) public availability of compliance assessment reports.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by Condition 4-1.
- 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by Condition 4-1 and shall make those reports available when requested by the CEO.

- 4-5 The proponent shall advise the CEO of any potential non-compliance within seven days of that non-compliance being known.
- 4-6 The proponent shall submit to the CEO a compliance assessment report by 30 April each year addressing compliance in the previous calendar year. The first compliance assessment report shall be submitted by 30 April 2014 addressing compliance for the period from the date of issue of this statement, notwithstanding that the first reporting period may be less than / more than 12 months.

The compliance assessment report shall:

- (1) be endorsed by the proponent's Managing Director / General Manager / Chief Executive Officer or a person delegated to sign on the Managing Director's / General Manager's / Chief Executive Officer's behalf;
- (2) include a statement as to whether the proponent has complied with the conditions;
- (3) identify all potential non-compliances and describe corrective and preventative actions taken;
- (4) be made publicly available in accordance with the approved compliance assessment plan; and
- (5) indicate any proposed changes to the compliance assessment plan required by Condition 4-1.

## **5 Public Availability of Data**

- 5-1 Subject to Condition 5-2, within a reasonable time period approved by the CEO of the issue of this statement and for the remainder of the life of the proposal the proponent shall make publicly available, in a manner approved by the CEO, all validated environmental data (including sampling design, sampling methodologies, empirical data and derived information products (e.g. maps)) relevant to the assessment of this proposal and implementation of this statement.
- 5-2 If any data referred to in Condition 5-1 contains particulars of:
- (1) a secret formula or process; or
  - (2) confidential commercially sensitive information;

the proponent may submit a request for approval from the CEO to not make this data publically available. In making such a request the proponent shall provide the CEO with an explanation and reasons why the data should not be made publically available.

## **6 Vegetation**

- 6-1 The proponent shall ensure that dewatering and discharge do not cause long term impacts on the health and abundance of groundwater-dependent vegetation communities in Duck and Caves creeks beyond the approved clearing envelope as shown in Figure 3 and delineated by the coordinates specified in Schedule 2.

- 6-2 To verify that Condition 6-1 is being met, the proponent shall develop a Groundwater Dependent Vegetation Monitoring and Management Plan to the satisfaction of the CEO.

The Groundwater Dependent Vegetation Monitoring and Management Plan shall include:

- (1) identification of potential vegetation impact monitoring and control sites between the discharge points and the confluence of Duck Creek and the Ashburton River;
  - (2) the design of a survey to acquire baseline data, including health and abundance parameters;
  - (3) definition of health and abundance parameters;
  - (4) definition of environmental parameters to be monitored, including groundwater drawdown along Caves Creek;
  - (5) definition of monitoring frequency and timing;
  - (6) identification of criteria to measure decline in health;
  - (7) definition of trigger levels for 'no irreversible impact'; and
  - (8) details of management actions and strategies to be implemented should the 'no irreversible impact' trigger levels be exceeded.
- 6-3 The proponent shall implement the Groundwater Dependent Vegetation Monitoring and Management Plan required by Condition 6-2 prior to the start of dewatering until advised otherwise by the CEO.
- 6-4 Prior to the commencement of dewatering, the proponent shall implement the baseline monitoring survey, required by Condition 6-2(2) for all sites identified in Condition 6-2(1) and submit the results to the CEO.
- 6-5 In the event that monitoring required by Condition 6-3 indicates that a trigger level required by Condition 6-2(7) has been exceeded, the proponent shall provide a report to the CEO within 21 days of the exceedance being identified which:
- (1) describes the decline or change;
  - (2) provides information which allows determination of the likely root cause of the decline or change; and
  - (3) if considered likely to be the result of activities undertaken in implementing the proposal, describe which management actions will be implemented and the associated timelines to remediate the decline or change.
- 6-6 The proponent shall implement the actions identified in Condition 6-5(3) until the CEO determines that the remedial actions may cease.

## **7 Discharge of Water to Duck Creek**

- 7-1 The proponent shall ensure that the discharge of surplus water from the Nammuldi or Silvergrass sites as a result of mining does not cause long term impacts on the environmental and conservation values of Duck Creek.
- 7-2 To verify that Condition 7-1 is being met, the proponent shall develop a high level environmental and conservation values statement for Duck Creek to the satisfaction of the CEO in consultation with the DEC and the DoW.
- 7-3 The proponent shall ensure that any water discharged to Duck Creek does not exceed whichever is greater of the following:
- (1) the default trigger for the protection of marine and freshwater ecosystems as per the Australian and New Zealand Environmental and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (ANZECC/ARMCANZ (2000)) *Australian Water Quality Guidelines for Fresh and Marine Waters* and its updates;
  - (2) baseline levels of the receiving environment determined pursuant to Condition 7-4; or
  - (3) other criteria agreed with the DEC and the DoW.
- 7-4 Prior to discharging water from the Nammuldi or Silvergrass sites, the proponent shall develop a Water Discharge Monitoring and Management Plan in consultation with the DEC and the DoW to the satisfaction of the CEO to ensure that the environmental and conservation values associated with Duck Creek and any downstream ecosystems are maintained. This plan shall:
- (1) when implemented, identify the water quality baseline levels of the western boundary of the proposal, within Duck Creek and downstream of the water discharge points for the criteria measured under the Australian and New Zealand Environmental and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (ANZECC/ARMCANZ (2000)) *Australian Water Quality Guidelines for Fresh and Marine Waters* and its updates;
  - (2) describe the water discharge program;
  - (3) when implemented, monitor to demonstrate whether Conditions 7-1 and 7-3 are being met;
  - (4) when implemented, manage the implementation of the proposal to meet the requirements of Conditions 7-1 and 7-3; and
  - (5) detail management actions and strategies to be implemented should the monitoring required by Condition 7-4(3) indicate that Condition 7-1 may not be met.

- 7-5 The proponent shall implement the Water Discharge Monitoring and Management Plan from the commencement of discharge of excess water from the Nammuldi or Silvergrass sites.

## **8 Water Quality and Quantity (Irrigated Agriculture Area)**

- 8-1 The proponent shall ensure that any irrigation water runoff from the agricultural pivot cells does not exceed whichever is greater of the following:
- (1) the default trigger for the protection of marine and freshwater ecosystems as per the Australian and New Zealand Environmental and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (ANZECC/ARMCANZ (2000)) *Australian Water Quality Guidelines for Fresh and Marine Waters* and its updates; or
  - (2) baseline levels of the receiving environment for the criteria measured under the Australian and New Zealand Environmental and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand (ANZECC/ARMCANZ (2000)) *Australian Water Quality Guidelines for Fresh and Marine Waters* and its updates.
- 8-2 The proponent shall ensure that changes to hydrological regime, specifically soil saturation, related to the establishment of irrigated pivot cells do not adversely affect the environment beyond a 30 metre buffer around the agricultural pivot cells.
- 8-3 The proponent shall ensure that irrigation water quality is consistent with the requirements for irrigation water as per the Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand 2000, *Australian Water Quality Guidelines for Fresh and Marine Waters* and its updates, or take such other in situ measures as approved by the CEO, to prevent the accumulation of toxicants within the soil profile, and to prevent the degradation of soil structure due to sodicity and excessive salinity.
- 8-4 The proponent shall monitor the changes to the hydrological regime, specifically soil saturation, as well as the quality of any run-off from the agricultural pivot cells which enters surface water within the boundary of the proposal area to ensure that the requirements of Conditions 8-1 and 8-2 are met. This monitoring is to be carried out using methods detailed in the Nutrient and Irrigation Management Plan which forms part of the Agriculture Environmental Management Plan, June 2012, and any subsequent approved revisions, prepared for this proposal and to the satisfaction of the CEO.
- 8-5 The proponent shall commence the water quality and soil saturation monitoring required by Condition 8-4 at least one month prior to the commencement of irrigation.
- 8-6 In the event that monitoring required by Condition 8-4 indicates that the requirements of Conditions 8-1 and 8-2 are not being met:
- (1) the proponent shall report such findings to the CEO within 21 days of the decline in water quality being identified;

- (2) the proponent shall provide evidence to the CEO which allows determination of the cause of the decline in water quality;
- (3) if a decline in water quality is determined by the CEO to be a result of activities undertaken in implementing the proposal, the proponent shall submit to the CEO actions to be taken to remediate the decline in water quality within 21 days of the determination being made; and
- (4) the proponent shall implement the actions to remediate the decline in water quality required by Condition 8-6(3) upon approval of the CEO and shall continue to implement such actions until such time as the CEO determines that the remedial actions may cease.

## **9 Management of Introduced Crop Species**

- 9-1 The proponent shall demonstrate that the selected crop species does not have the potential to become an invasive weed.
- 9-2 To verify that the requirements of condition 9-1 are being met, prior to cultivation, the proponent shall prepare a report to the satisfaction of the CEO on advice of the DEC which:
  - (1) identifies crop species considered for the Irrigated Agriculture Area shown in Figure 1.
  - (2) provides evidence based on at least two surveys (one conducted during the wet season and one during the dry season), in a similar environment, that the selected crop species does not have the potential to become invasive; and
  - (3) proposes the crop species to be cultivated.
- 9-3 The proponent shall only plant the selected crop species following receipt of a notice in writing from the CEO that the crop species is acceptable.
- 9-4 Prior to cultivation, the proponent shall develop a monitoring and management plan to the satisfaction of the CEO to ensure that the acceptable crop species approved in Condition 9-3 does not spread beyond a 30 metre buffer surrounding the agricultural pivot cells.

The Plan shall include:

- (1) the location of monitoring sites, monitoring methodology and frequency of monitoring to demonstrate that the acceptable crop species approved in Condition 9-3 has not spread.
- (2) proposed management measures to prevent the propagation and spread of the acceptable crop species approved in Condition 9-3 beyond a 30 metre buffer surrounding the pivot cells.
- (3) identification of criteria to measure invasive spread of crop species; and
- (4) identification of trigger levels and management actions to be implemented should the criteria identified in Condition 9-4(3) be exceeded.

- 9-5 The proponent shall implement the monitoring and management plan required by Condition 9-4 and any subsequent revisions approved by the CEO within the Irrigated Agriculture Area shown in Figure 1 prior to crop propagules arriving on site.
- 9-6 In the event that the results of monitoring required by Condition 9-5 show that over five consecutive years there has been no spread of crop species beyond the indirect impact areas, the proponent may revise the frequency of monitoring required by Condition 9-5, as approved by the CEO.
- 9-7 In the event that monitoring required by Condition 9-5 indicates that the requirements of Conditions 9-1 and 9-4 are not being met:
- (1) the proponent shall report such findings to the CEO within 21 days of the spread of crop species being identified;
  - (2) the proponent shall provide evidence to the CEO which allows determination of the cause of the spread of crop species;
  - (3) if determined by the CEO to be a result of activities undertaken in implementing the proposal, the proponent shall submit to the CEO within 21 days of the determination being made, actions to be taken to remediate the spread of crop species; and
  - (4) the proponent shall implement the actions required by Condition 9-7(3) to control and eradicate the spread of crop species upon approval of the CEO and shall continue to implement such actions until such time as the CEO determines that the remedial actions may cease.

## **10 Closure, Decommissioning and Rehabilitation**

- 10-1 Within six months following commissioning of the first Silvergrass pit or a new Nammuldi pit, whichever occurs first, the proponent shall prepare a Closure, Decommissioning and Rehabilitation Plan in accordance with the *Guidelines for Preparing Mine Closure Plans*, June 2011 and any updates, to the requirements of the CEO on advice of the Department of Mines and Petroleum.
- 10-2 The Closure, Decommissioning and Rehabilitation Plan required by Condition 10-1 shall ensure that closure planning and rehabilitation are carried out in a coordinated, progressive manner and are integrated with development planning, consistent with current best practice, and the agreed land uses.
- 10-3 The Closure, Decommissioning and Rehabilitation Plan required by Condition 10-1 shall set out procedures to:
- (1) manage long-term hydrogeological impacts of mining the Marra Mamba and Bedded Brockman iron deposits;
  - (2) model the long-term hydrological impacts, particularly the water levels and quality both in the pit void and downstream of waste material landforms;
  - (3) identify pits to be backfilled;
  - (4) manage over the long-term the surface water systems affected by the open pits;



- (5) progressively rehabilitate all disturbed areas to a standard suitable for the agreed end land use(s), with consideration and incorporation of:
    - (a) the characteristics of the pre-mining ecosystems within the project area (through research and baseline surveys);
    - (b) the performance of previously rehabilitated areas within the mining lease;
    - (c) the performance of rehabilitation areas at the proponent's other operations in the Pilbara; and
    - (d) best practice rehabilitation techniques used elsewhere in the mining industry;
  - (6) develop and identify completion criteria;
  - (7) monitor rehabilitation to assess the performance of all rehabilitated areas against the completion criteria;
  - (8) report on the rehabilitation and monitoring results;
  - (9) develop management strategies and/or contingency measures in the event that operational experience and/or monitoring identify any significant environmental impact as a result of the proposal;
  - (10) manage and monitor mineral waste including physical characteristics and acid or neutral metalliferous drainage using national and international standards and updates; and
  - (11) close the mine in a manner which does not result in unacceptable liability to the State.
- 10-4 Within 12 months following commissioning of the first Silvergrass pit or a new Nammuldi pit, whichever occurs first, the proponent shall implement the Closure, Decommissioning and Rehabilitation Plan required by Condition 10-1 and any subsequent approved revisions until otherwise agreed by the CEO.

## **11 Residual Impacts and Risk Management Measures**

- 11-1 The proponent shall contribute funds for the clearing of "good to excellent" condition native vegetation, riparian vegetation within Area 1a (delineated in Figure 3) and Priority Ecological Communities within Area 1a (delineated in Figure 3) to fund the strategic regional conservation initiative for the Pilbara.
- 11-2 The proponent's contribution to the strategic regional conservation initiative identified in Condition 11-1 shall be paid biennially, the first payment due two years after ground disturbance. The amount of funding will be made on the following basis and in accordance with the approved Impact Reconciliation Procedure required by Condition 11-3:
  - \$750 AUD (excluding GST) per hectare of "good to excellent" condition native vegetation cleared within the area delineated in Figure 2 as Area 1, up to a maximum of 6,308 ha; and
  - \$1,500 AUD (excluding GST) per hectare of Priority Ecological Community and riparian vegetation cleared within the area delineated in Figure 3 as Area 1a.

- 11-3 Prior to ground-disturbing activities, the proponent shall prepare an Impact Reconciliation Procedure to the satisfaction of the CEO.
- 11-4 The Impact Reconciliation Procedure required pursuant to Condition 11-3 shall:
- (1) include details of a methodology to identify clearing;
  - (2) include a methodology for calculating the amount of clearing undertaken during each biennial time period; and
  - (3) state dates for the commencement of the biennial time period and for the submission of results of the Impact Reconciliation Procedure, to the satisfaction of the CEO.
- 11-5 The real value of contributions described in condition 11-2 will be maintained through indexation to the Perth Consumer Price Index (CPI), with the first adjustment to be applied to the first contribution.

[Signed 11 January 2013]

**HON BILL MARMION MLA  
MINISTER FOR ENVIRONMENT; WATER**

Table 1: Summary of the Proposal

<b>Proposal Title</b>	NAMMULDI-SILVERGRASS EXPANSION
<b>Short Description</b>	<p>This proposal is an expansion of the original Nammuldi-Silvergrass Iron Ore Project of November 2000, located approximately 60 kilometres north-west of the town of Tom Price, Shire of Ashburton, in the Pilbara.</p> <p>The production rate will be increased to approximately 45 million tonnes per year over a project life of 17 to 20 years by widening and deepening Marra Mamba pits at both Nammuldi and Silvergrass mine sites, and mining bedded Brockman ore at Nammuldi. Mining will be both above and below the water table. There will be accompanying increases in the capacity, and relocation of processing facilities and transport infrastructure, and an increase in dewatering to access ore below the water table.</p> <p>Surplus water management will include transfer of water from dewatering to approximately 2,500 hectares of pastoral land for irrigated agriculture. There will also be approximately 3,900 hectares of vegetation cleared for mine pits, waste dumps and associated infrastructure and facilities.</p>

Table 2: Location and authorised extent of physical and operational elements

Column 1	Column 2	Column 3
Physical Element	Location	Authorised Extent
Open cut Marra Mamba mine pits plus Bedded Brockman pits	Nammuldi area (see Figure 1)	Mining up to 225 metres below the water table
Open cut Marra Mamba mine pits	Silvergrass area (see Figure 1)	<p>Mining up to 150 metres below the watertable</p> <p>All pits to be backfilled above the post-mining water table levels</p>
Existing approval for mine, waste dumps, and associated infrastructure	See Figure 1 and geographic coordinates in Schedule 2	Clearing of up to 2,000 hectares of native vegetation within the development footprint

Mine, waste dumps, waste fines storage facility, and associated infrastructure	See Figure 1 and geographic coordinates in Schedule 2	Clearing of up to 3,900 hectares of native vegetation within the development footprint
Irrigated agriculture area	See Figure 1 and geographic coordinates in Schedule 2	Clearing of up to 2,500 hectares of native vegetation within the development footprint
Dewatering	Nammuldi area (see Figure 1):  Silvergrass area (see Figure 1):	Abstraction of no more than 51 gigalitres per annum  Abstraction of no more than 68 gigalitres per annum
Management of surplus water	Project area and surrounding areas (see Figure 1)	<ul style="list-style-type: none"> <li>• transfer for offsite use</li> <li>• transfer to the Irrigated Agriculture Area</li> <li>• periodic discharge to Duck Creek</li> </ul>
Diversion of Caves Creek	Silvergrass area (see Figure 3)	Permanent realignment of up to a 3 kilometre length of Caves Creek

**Table 3: Abbreviations**

Abbreviation	Term
CEO	The Chief Executive Officer of the department of the Public Service of the State responsible for the administration of section 48 of the <i>Environmental Protection Act 1986</i> , or his Delegate.
DoW	Department of Water
DEC	Department of Environment and Conservation
EP Act	<i>Environmental Protection Act 1986</i>
ha	Hectares

### Figures (attached)

- Figure 1 Proposed Layout  
Figure 2 Proposed Clearing  
Figure 3 Proposed Clearing Detail (Silvergrass)

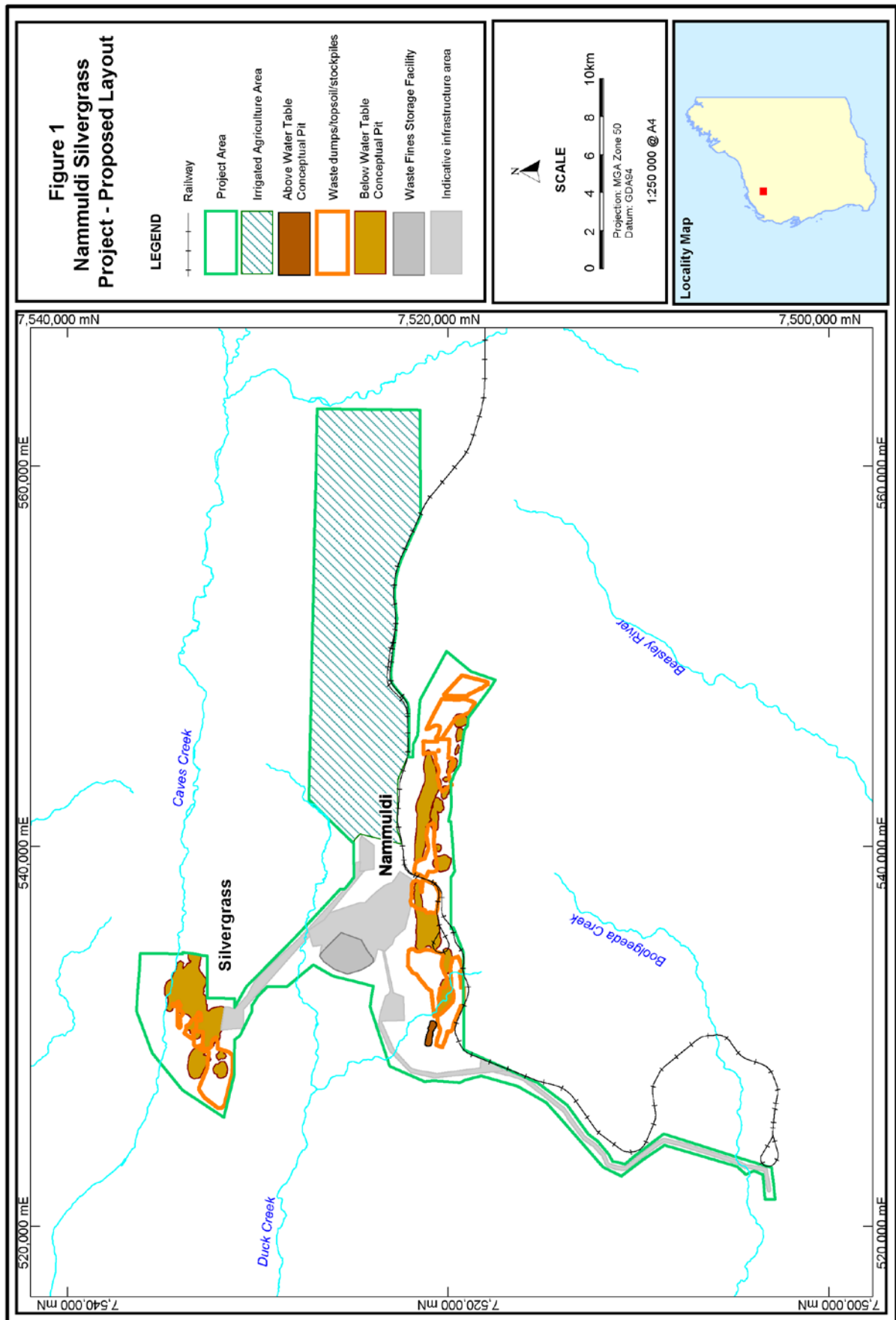


Figure 1 Proposed Layout

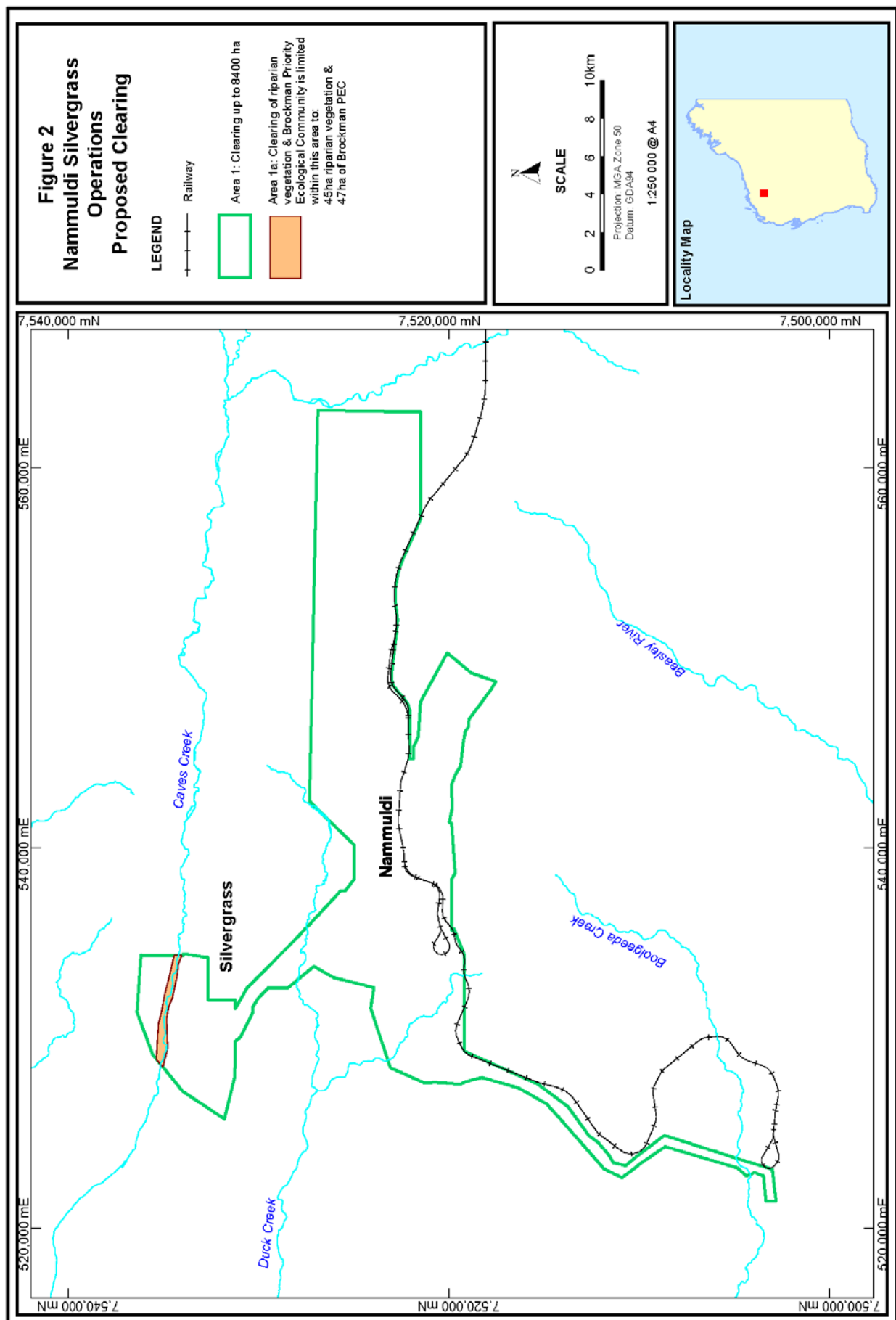


Figure 2 Proposed Clearing

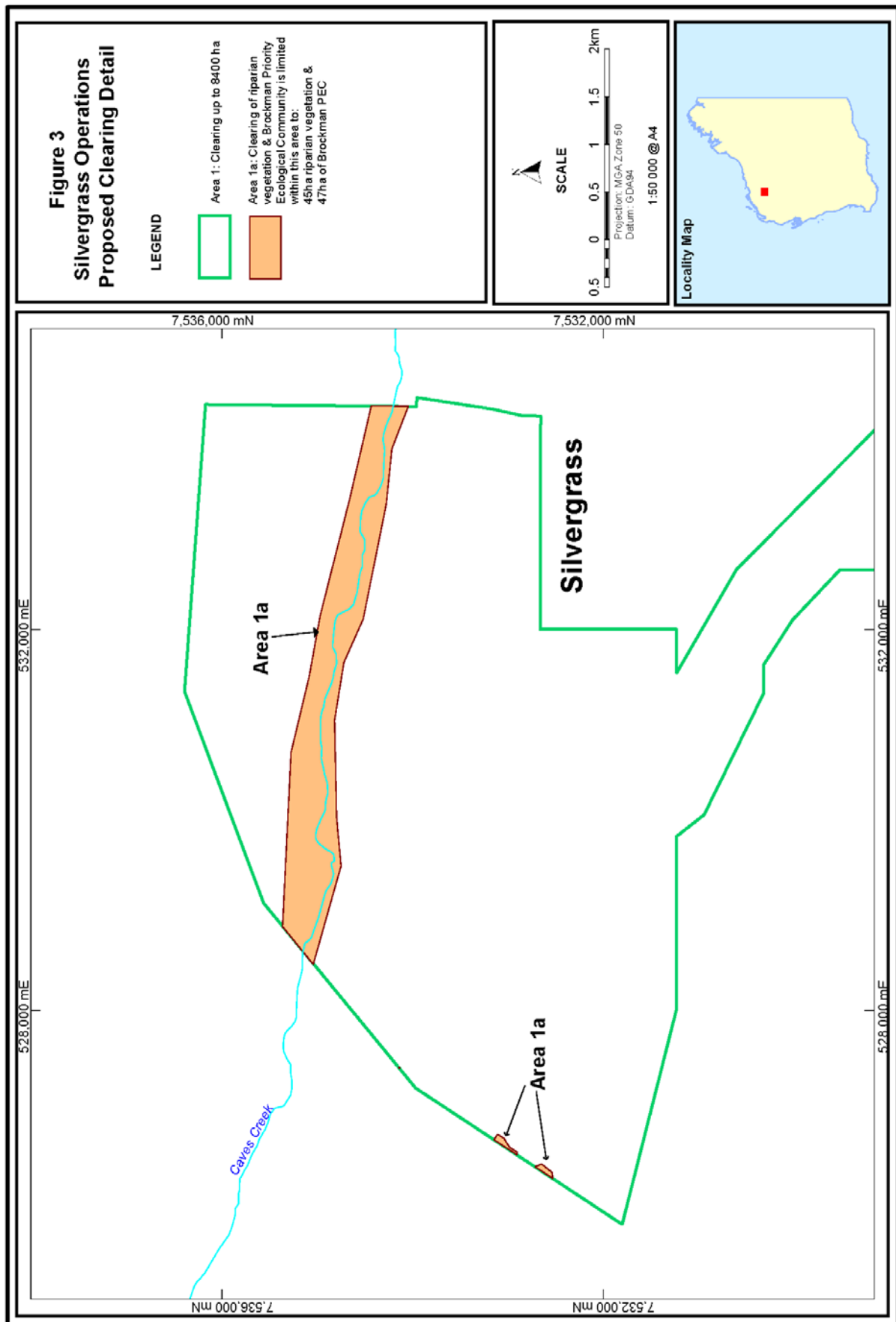


Figure 3 Proposed Clearing Detail (Silvergrass)

## Nammuldi-Silvergrass Expansion Project

### **Area 1** **(Proposal Area)**

***Prepared 15 November 2012***

Co-ordinates defining *Area 1* are prescribed below, noting that the correct recreation of the boundary requires the sequential connection of the co-ordinates as per its co-ordinate number.

All co-ordinates are listed in Map Grid of Australia Zone 50 (MGA Zone 50), datum of Geodetic Datum of Australia 1994 (GDA94).

<b>Coordinate No.</b>	<b>Easting</b>	<b>Northing</b>
1	533175.291	7526060.70
2	533771.861	7527087.304
3	532624.625	7528481.56
4	532626.81	7529518.129
5	532098.277	7530014.988
6	531622.302	7530318.547
7	531332.559	7530317.967
8	530052.697	7530944.329
9	529825.26	7531233.03
10	528000.29	7531236.55
11	525752.794	7531801.595
12	527183.663	7533968.014
13	529124.462	7535567.308
14	531350.007	7536394.28
15	534348.353	7536178.434
16	534343.48	7533961.705



17	534431.949	7533949.078
18	534315.625	7533174.735
19	534247.655	7532870.607
20	534241.742	7532658.09
21	532001.668	7532662.969
22	531998.733	7531228.831
23	531543.851	7531229.711
24	532629.094	7530604.568
25	535115.827	7528141.99
26	536250.067	7527084.695
27	537747.702	7525688.379
28	537747.15	7525462.325
29	537864.059	7525365.575
30	538221.459	7525083.252
31	538391.15	7524949.609
32	540151.976	7524975.094
33	541484.587	7526330.668
34	542469.726	7527332.784
35	548158.122	7527212.649
36	563021.009	7526879.567
37	562945.584	7521478.206
38	557342.418	7521461.189
39	555260.136	7522399.178
40	554751.788	7522588.18
41	554269.472	7522713.854
42	553810.459	7522782.68

43	553476.222	7522811.815
44	553209.782	7522812.714
45	552877.103	7522800.587
46	552290.749	7522734.62
47	552008.445	7522686.57
48	551703.942	7522708.656
49	551149.475	7522776.672
50	550434.676	7522860.765
51	549466.3	7522967.083
52	549101.15	7523008.964
53	548802.634	7522998.836
54	548556.388	7522941.488
55	548350.531	7522785.33
56	548305.706	7522751.327
57	547826.812	7522331.072
58	547544.516	7522133.972
59	547209.677	7522067.516
60	546092.686	7522065.126
61	545037.68	7522061.597
62	544774.407	7522082.233
63	544696.071	7522094.69
64	544688.106	7521876.435
65	545341.317	7521852.8
66	545828.135	7521618.287
67	547707.61	7521497.982
68	550263.888	7520081.79

69	549202.631	7518826.636
70	548757.273	7517535.458
71	548308.287	7517809.093
72	546770.561	7518944.362
73	546350.08	7518992.422
74	546157.87	7519142.591
75	545431.048	7519262.727
76	544297.146	7519394.13
77	543923.46	7519624.093
78	543367.715	7519854.057
79	542067.271	7519839.37
80	541334.925	7519989.329
81	541280.395	7519857.386
82	539430.316	7519731.252
83	538685.477	7519665.175
84	538354.679	7519851.357
85	536042.511	7519851.387
86	535646.068	7519857.396
87	535742.173	7519731.252
88	534395.544	7519197.79
89	529296.949	7519178.624
90	527573.444	7515312.561
91	526381.532	7513733.262
92	524851.903	7512630.747
93	524494.322	7512153.974
94	523828.833	7511577.881

95	523431.531	7511379.232
96	523282.537	7510713.737
97	523739.439	7510177.376
98	524869.969	7508690.859
99	523556.621	7504562.759
100	523103.751	7503015.934
101	521435.064	7502807.346
102	521435.064	7503343.707
103	522746.178	7503482.769
104	522934.901	7503929.738
105	522746.178	7504366.769
106	523173.28	7504833.604
107	524295.671	7508637.82
108	523530.853	7509760.201
109	522650.345	7510913.596
110	523113.25	7511854.265
111	525831.047	7514229.071
112	526488.794	7514809.223
113	527378.075	7516348.03
114	527916.982	7518263.44
115	527722.512	7519096.551
116	527569.675	7519394.98
117	527624.791	7520137.619
118	527681.283	7520764.601
119	527638.536	7521253.162
120	528438.532	7523067.043

121	531561.538	7524109.2
122	532645.578	7523953.102
123	532852.375	7524775.855
124	533175.291	7526060.703

END OF COORDINATE LISTING

## Nammuldi-Silvergrass Expansion Project

### **Area 1a**

*(Area of limited permissible PEC/Riparian vegetation clearing)*

***Prepared 15 November 2012***

Co-ordinates defining *Area 1a* are prescribed below, noting that the correct recreation of the boundary requires the sequential connection of the co-ordinates as per its co-ordinate number.

All co-ordinates are listed in Map Grid of Australia Zone 50 (MGA Zone 50), datum of Geodetic Datum of Australia 1994 (GDA94).

<b>Coordinate No.</b>	<b>Easting</b>	<b>Northing</b>	<b>Area</b>
1	528879.272	7535366.109	Area 1
2	530707.813	7535276.337	Area 1
3	531506.324	7535087.346	Area 1
4	532139.464	7534973.949	Area 1
5	533382.113	7534662.102	Area 1
6	534350.72	7534435.309	Area 1
7	534345.995	7534047.867	Area 1
8	533897.124	7534217.963	Area 1
9	533315.965	7534279.38	Area 1
10	532111.115	7534520.351	Area 1
11	531652.795	7534723.52	Area 1
12	531048.012	7534822.75	Area 1
13	530022.707	7534799.125	Area 1
14	529517.138	7534751.874	Area 1
15	528482.383	7535044.815	Area 1
16	528879.272	7535366.109	Area 1

1	526652.375	7533138.643	Area 2
2	526698.601	7533108.589	Area 2
3	526653.529	7533042.712	Area 2
4	526562.223	7532981.455	Area 2
5	526511.362	7532905.17	Area 2
6	526485.495	7532908.919	Area 2
7	526643.123	7533147.891	Area 2
8	526652.375	7533138.643	Area 2
1	526356.489	7532717.938	Area 3
2	526388.854	7532647.432	Area 3
3	526298.702	7532537.635	Area 3
4	526233.972	7532530.696	Area 3
5	526356.489	7532717.938	Area 3
1	527389.281	7534137.419	Area 4
2	527402.812	7534148.287	Area 4
3	527402.59	7534142.298	Area 4
4	527395.498	7534136.979	Area 4
5	527389.726	7534135.42	Area 4
6	527389.281	7534137.419	Area 4

END OF COORDINATE LISTING

## Schedule 2

### Notes

The following notes are provided for information and do not form a part of the implementation conditions of the statement:

- The proponent for the time being nominated by the Minister for Environment under section 38(6) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal unless and until that nomination has been revoked and another person is nominated.
- If the person nominated by the Minister, ceases to have responsibility for the proposal, that person is required to provide written notice to the Environmental Protection Authority of its intention to relinquish responsibility for the proposal and the name of the person to whom responsibility for the proposal will pass or has passed. The Minister for Environment may revoke a nomination made under section 38(6) of the *Environmental Protection Act 1986* and nominate another person.
- To initiate a change of proponent, the nominated proponent and proposed proponent are required to complete and submit *Post Assessment Form 1 – Application to Change Nominated Proponent*.
- The General Manager of the Office of the Environmental Protection Authority was the Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the *Environmental Protection Act 1986* at the time the statement was signed by the Minister for Environment.



## Attachment 1 to Ministerial Statement 925

### Change to proposal approved under section 45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedules 1 and 2 of Ministerial Statement 925

**Proposal:** Nammuldi-Silvergrass Expansion

**Proponent:** Hamersley Iron Pty. Limited

#### Changes:

- Above water table extensions to authorised Pits 11-13 at Nammuldi and Pit 1 at Silvergrass;
- Additional clearing of 400ha of native vegetation for pits and dumps;
- Retention of the existing (original) processing plant at Nammuldi;
- Removal of the limit on production; and
- Expansion of the development envelope.

**Table 1: Summary of the Proposal**

Proposal Title	Nammuldi-Silvergrass Expansion
Short Description	<p>The proposal is an expansion of the original Nammuldi-Silvergrass Iron Ore Project of November 2000, located approximately 60 kilometres north-west of the town of Tom Price, Shire of Ashburton, in the Pilbara.</p> <p>The project includes widening and deepening Marra Mamba pits at both Nammuldi and Silvergrass mine sites, and mining Brockman ore at Nammuldi. Mining will be both above and below the water table.</p> <p>There will be accompanying increases in the capacity of processing facilities and transport infrastructure, and an increase in dewatering to access ore below the water table.</p> <p>Surplus water management will include transfer of water from dewatering to approximately 2,500 hectares of pastoral land for irrigated agriculture. There will also be approximately 4,300 hectares of vegetation cleared for mine pits, waste dumps and associated infrastructure and facilities.</p>

**Table 2: Location and authorised extent of physical and operational elements**

Column 1	Column 2	Column 3	Column 4
Element	Location	Authorised Extent	Previously Authorised Extent
Open cut Marra Mamba mine pits and Brockman Pits	Nammuldi area (see Figure 1)	Mining up to 225 metres below the water table	Mining up to 225 metres below the water table
Open cut Marra Mamba mine pits	Silvergrass area (see Figure 1)	Mining up to 150 metres below the water table. All pits to be backfilled above the post-mining water table levels.	Mining up to 150 metres below the water table. All pits to be backfilled above the post-mining water table levels
Existing approval for mine, waste dumps, and associated infrastructure	See Figure 1 and geographic coordinates in Schedule 2	Clearing of up to 2,000 hectares of native vegetation within the development footprint.	Clearing of up to 2,000 hectares of native vegetation within the development footprint

Column 1 Element	Column 2 Location	Column 3 Authorised Extent	Column 4 Previously Authorised Extent
Mine, waste dumps, waste fines storage facility, and associated infrastructure	See Figure 1 and geographic coordinates in Schedule 2	<b>Clearing of up to 4,300 ha of native vegetation within the development envelope.</b>	Clearing of up to 3,900 hectares of native vegetation within the development footprint
Irrigated agriculture area	See Figure 1 and geographic coordinates in Schedule 2	Clearing of up to 2,500 ha of native vegetation within the development <b>envelope.</b>	Clearing of up to 2,500 hectares of native vegetation within the development footprint
Dewatering	Nammuldi area (see Figure 1)  Silvergrass area (see Figure 1)	Abstraction of no more than 51 GL/annum  Abstraction of no more than 68 GL/annum	Abstraction of no more than 51 gegalitres per annum  Abstraction of no more than 68 gegalitres per annum
Management of surplus water	Project area and surrounding areas (see Figure 1)	<ul style="list-style-type: none"> <li>• Transfer for offsite use</li> <li>• Transfer to the Irrigated Agriculture Area</li> <li>• Periodic discharge to Duck Creek</li> </ul>	<ul style="list-style-type: none"> <li>• Transfer for offsite use</li> <li>• Transfer to the Irrigated Agriculture Area</li> <li>• Periodic discharge to Duck Creek</li> </ul>
Diversion of Caves Creek	Silvergrass area (see Figure 3)	Permanent realignment of up to a 3 km length of Caves Creek.	Permanent realignment of up to a 3 kilometre length of Caves Creek

Note: Text in **bold** in Table 2 indicates a change to the proposal.

**Table 3: Abbreviations**

Abbreviation	Term
CEO	The Chief Executive Officer of the department of the Public Service of the State responsible for the administration of section 48 of <i>the Environmental Protection Act 1986</i> , or his Delegate
DoW	Department of Water
DEC	Department of Environment and Conservation
EP Act	<i>Environmental Protection Act 1986</i>
ha	hectare
km	kilometre
GL	gegalitre

**Figures - all previous Figures are replaced by the following:**

Figure 1 Nammuldi Silvergrass Project - Proposed Layout;

Figure 2 Nammuldi Silvergrass Operations Proposed Clearing; and

Figure 3 Silvergrass Operations Proposed Clearing Detail

[Signed 17 June 2015]

**Dr Paul Vogel**

CHAIRMAN

Environmental Protection Authority  
under delegated authority

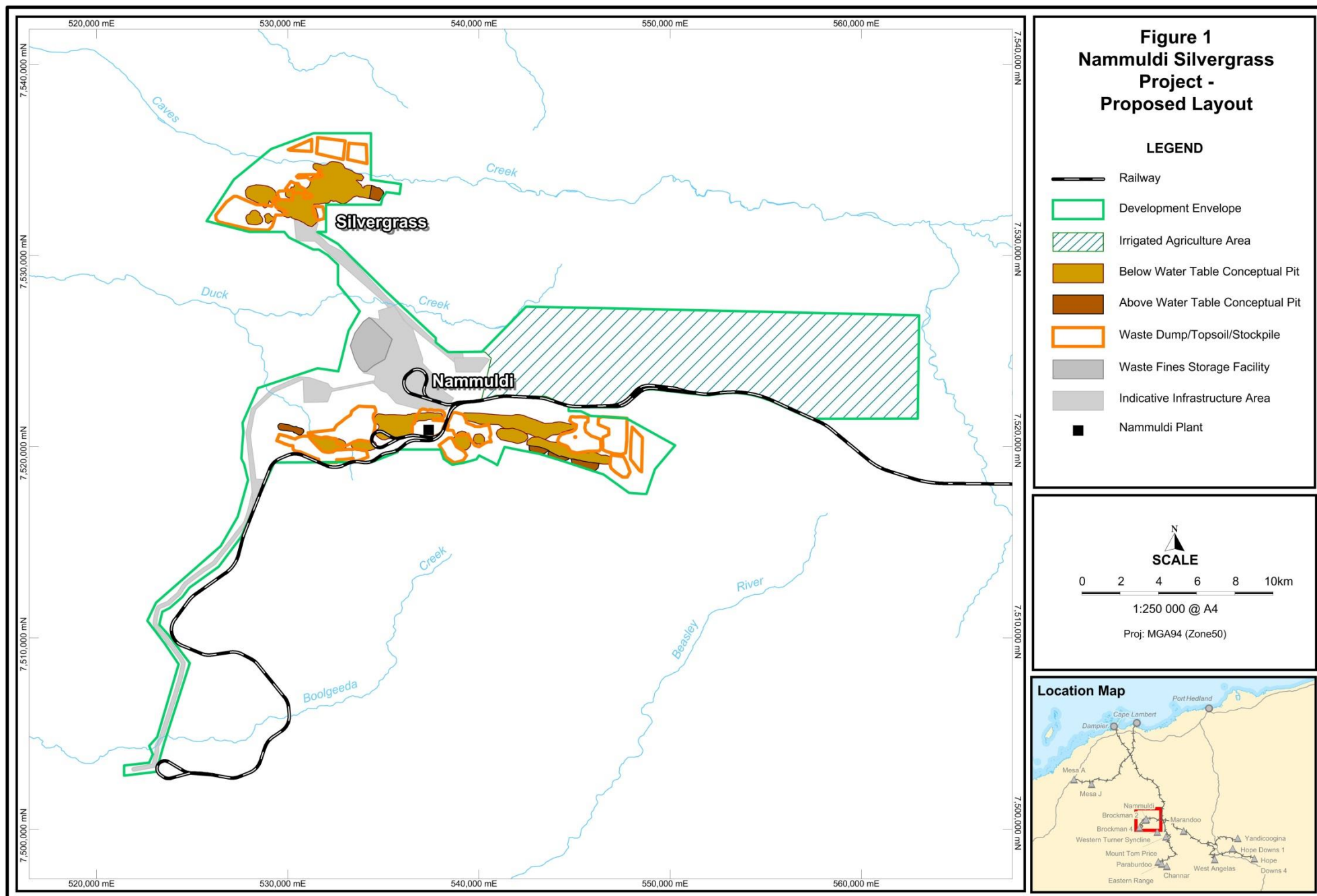


Figure 1: Nammuldi Silvergrass Project - Proposed Layout

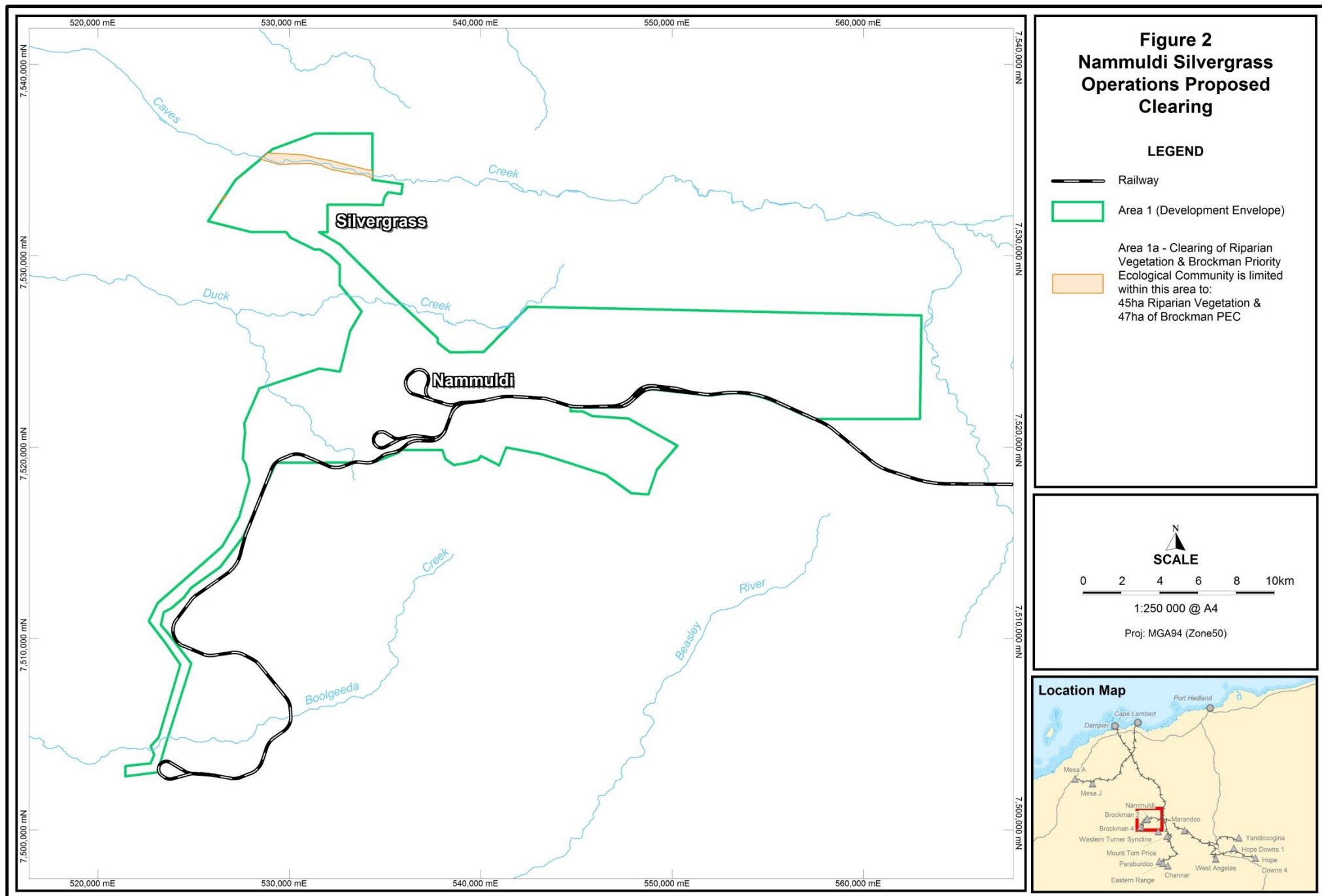


Figure 2: Nammuldi Silvergrass Operations Proposed Clearing

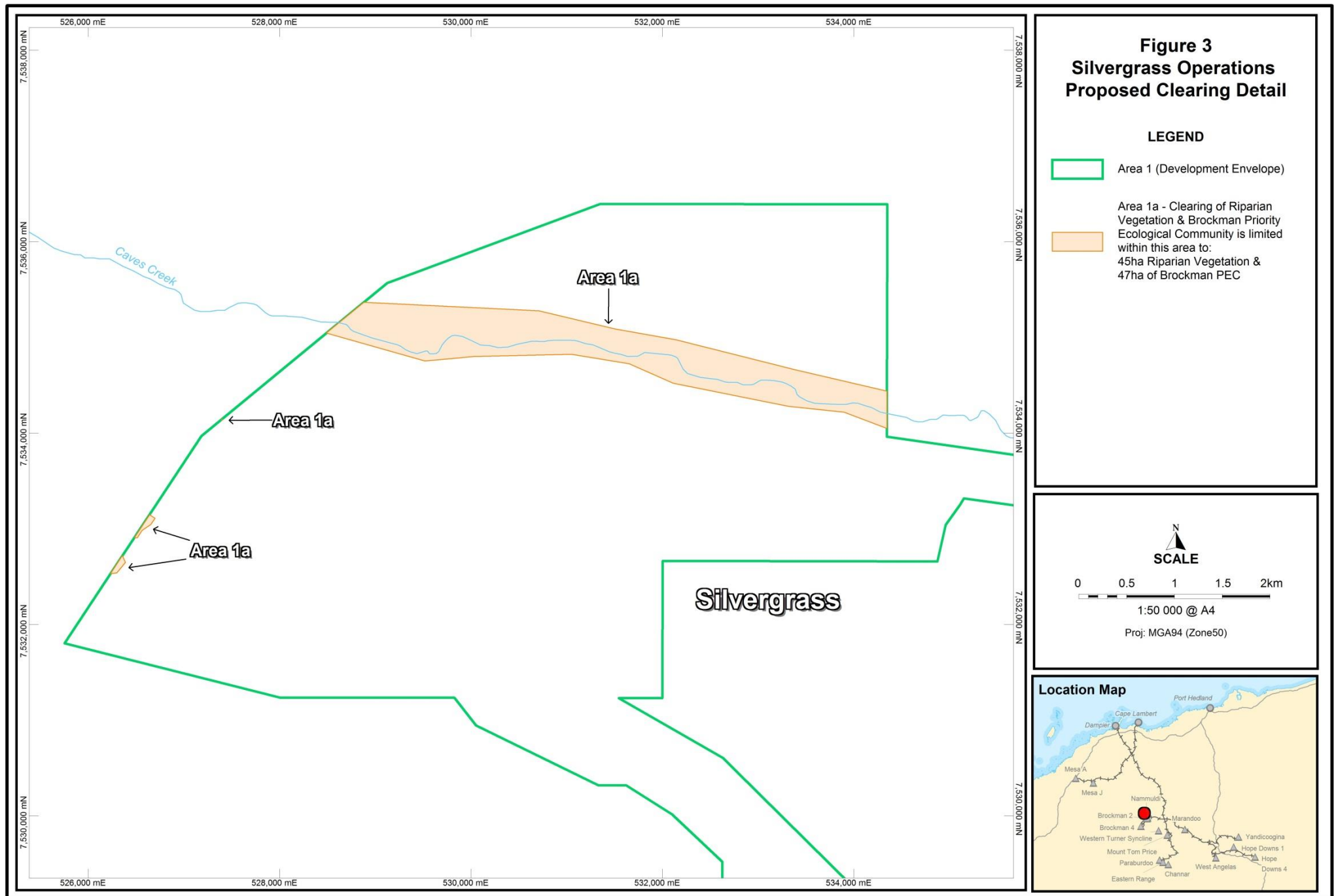


Figure 3: Silvergrass Operations Proposed Clearing Detail

This Schedule 2 replaces the previous Schedule 2.

All co-ordinates are in metres and are listed in Map Grid of Australia Zone 50 (MGA Zone 50), datum of Geocentric Datum of Australia 1994 (GDA94)

Table 1: Area 1 – Development Envelope (MGA Zone 50)

Coordinate No	Easting	Northing
1	563021.009	7526879.567
2	548158.122	7527212.649
3	542469.7263	7527332.784
4	541484.587	7526330.668
5	540151.9761	7524975.094
6	538391.1503	7524949.609
7	538221.4591	7525083.252
8	537864.0594	7525365.575
9	537747.1499	7525462.325
10	537747.7023	7525688.379
11	536250.0674	7527084.695
12	535115.8267	7528141.99
13	532629.0945	7530604.568
14	531543.8507	7531229.711
15	531998.7327	7531228.831
16	532001.6682	7532662.969
17	534241.7425	7532658.09
18	534871.189	7532656.721
19	534959.0815	7533038.753
20	535105.3133	7533245.921
21	535147.969	7533315.996
22	535850.4655	7533218.686
23	535924.6286	7533736.021
24	534431.9494	7533949.078
25	534343.4797	7533961.705
26	534348.8148	7536388.941
27	531349.9496	7536394.34
28	531351.3514	7536394.24
29	531350.0074	7536394.28
30	529124.4622	7535567.308
31	527183.6626	7533968.014
32	525752.7942	7531801.595
33	528000.2898	7531236.55
34	529825.26	7531233.03
35	530052.6969	7530944.329
36	531332.5592	7530317.967
37	531622.3016	7530318.547
38	532098.2765	7530014.988
39	532626.8104	7529518.129
40	532624.6252	7528481.56
41	533771.8613	7527087.304
42	533175.291	7526060.703
43	532852.3755	7524775.855
44	532645.5779	7523953.102

Coordinate No	Easting	Northing
45	531561.538	7524109.2
46	528438.5317	7523067.043
47	527638.5364	7521253.162
48	527681.2828	7520764.601
49	527624.7905	7520137.619
50	527569.6753	7519394.98
51	527722.512	7519096.551
52	527916.982	7518263.44
53	527378.0749	7516348.03
54	526488.7935	7514809.223
55	525831.0473	7514229.071
56	523113.25	7511854.265
57	522650.3448	7510913.596
58	523530.8525	7509760.201
59	524295.6711	7508637.82
60	523173.2797	7504833.604
61	522746.178	7504366.769
62	522934.9006	7503929.738
63	522746.178	7503482.769
64	521435.064	7503343.707
65	521435.064	7502807.346
66	523103.7508	7503015.934
67	523556.6208	7504562.759
68	524869.9694	7508690.859
69	523739.4394	7510177.376
70	523282.5372	7510713.737
71	523431.5313	7511379.232
72	523828.8326	7511577.881
73	524494.3217	7512153.974
74	524851.9027	7512630.747
75	526381.5316	7513733.262
76	527573.4437	7515312.561
77	529296.9488	7519178.624
78	534395.544	7519197.79
79	535742.1728	7519731.252
80	535646.0675	7519857.396
81	536042.5112	7519851.387
82	537989.4293	7519851.357
83	538153.2247	7519373.274
84	538599.8526	7519060.628
85	539173.9201	7519157.888
86	539868.0222	7519343.95
87	540004.9692	7519543.96
88	540773.3912	7519153.749

Coordinate No	Easting	Northing
89	540954.4287	7519046.671
90	541280.3952	7519857.386
91	541334.925	7519989.329
92	542102.5883	7519839.829
93	543155.1786	7519634.561
94	544357.0186	7519258.888
95	546522.5588	7518557.79
96	547855.8541	7517591.937
97	548602.7956	7517545.137
98	548757.2156	7517535.488
99	548757.2733	7517535.458
100	548757.2815	7517535.488
101	549202.6313	7518826.636
102	550263.888	7520081.79
103	547707.6103	7521497.982
104	545828.135	7521618.287
105	545341.3168	7521852.8
106	544688.1058	7521876.435
107	544696.0713	7522094.69
108	544774.4068	7522082.233
109	545037.6801	7522061.597
110	546092.6864	7522065.126
111	547209.6767	7522067.516

Coordinate No	Easting	Northing
112	547544.5157	7522133.972
113	547826.8122	7522331.072
114	548305.7061	7522751.327
115	548350.5305	7522785.33
116	548556.388	7522941.488
117	548802.6337	7522998.836
118	549101.1497	7523008.964
119	549466.3004	7522967.083
120	550434.6759	7522860.765
121	551149.4752	7522776.672
122	551703.9422	7522708.656
123	552008.4448	7522686.57
124	552290.7495	7522734.62
125	552877.1032	7522800.587
126	553209.7818	7522812.714
127	553476.2215	7522811.815
128	553810.4586	7522782.68
129	554269.4718	7522713.854
130	554751.7877	7522588.18
131	555260.1357	7522399.178
132	557342.4176	7521461.189
133	562945.5842	7521478.206
134	563021.009	7526879.567

**Table 2: Area 1a – Areas of limited permissible PEC/Riparian vegetation clearing (MGA Zone 50) as shown in Figure 3**

Coordinate No	Easting	Northing
Area 1 - 1	534344.5022	7534436.768
Area 1 - 2	533382.1132	7534662.102
Area 1 - 3	532139.4645	7534973.949
Area 1 - 4	531506.3238	7535087.346
Area 1 - 5	530707.8128	7535276.337
Area 1 - 6	528880.2533	7535366.059
Area 1 - 7	528488.3613	7535043.125
Area 1 - 8	529517.1376	7534751.874
Area 1 - 9	530022.7068	7534799.125
Area 1 - 10	531048.0116	7534822.75
Area 1 - 11	531652.7948	7534723.52
Area 1 - 12	532111.1153	7534520.351
Area 1 - 13	533315.9651	7534279.38
Area 1 - 14	533897.1239	7534217.963
Area 1 - 15	534343.6446	7534048.757
Area 1 - 16	534344.5022	7534436.768
Area 2 - 1	526652.3746	7533138.643
Area 2 - 2	526698.6008	7533108.589

Coordinate No	Easting	Northing
Area 2 - 3	526653.529	7533042.712
Area 2 - 4	526562.2228	7532981.455
Area 2 - 5	526511.3624	7532905.17
Area 2 - 6	526485.4952	7532908.919
Area 2 - 7	526643.1228	7533147.891
Area 2 - 8	526652.3746	7533138.643
Area 3 - 1	526356.489	7532717.938
Area 3 - 2	526388.8539	7532647.432
Area 3 - 3	526298.7021	7532537.635
Area 3 - 4	526233.9722	7532530.696
Area 3 - 5	526356.489	7532717.938
Area 4 - 1	527389.281	7534137.419
Area 4 - 2	527402.8124	7534148.287
Area 4 - 3	527402.5898	7534142.298
Area 4 - 4	527395.4983	7534136.979
Area 4 - 5	527389.7262	7534135.42
Area 4 - 6	527389.281	7534137.419

## **ATTACHMENT 2 TO STATEMENT 925**

### **NOTICE OF CHANGES TO IMPLEMENTATION CONDITIONS**

(section 46C of the *Environmental Protection Act 1986*)

#### **NAMMULDI-SILVERGRASS EXPANSION PROJECT**

Pursuant to section 46C(1)(a) of the *Environmental Protection Act 1986*, the implementation conditions applying to the above proposal are changed in accordance with this Notice. I consider these changes to be of a minor nature and desirable in order to standardise implementation conditions applying to different proposals.

[Signed 10 July 2015]

**HON ALBERT JACOB MLA**  
**MINISTER FOR ENVIRONMENT; HERITAGE**

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#### **1. Changes to Condition 11**

Condition 11 is deleted, and replaced with:

##### **11 Residual Impacts and Risk Management Measures**

- 11-1 The proponent shall contribute funds for the clearing of “good to excellent” condition native vegetation, riparian vegetation within Area 1a (delineated in Figure 3) and Priority Ecological Communities within Area 1a (delineated in Figure 3), calculated pursuant to condition 11-2. This funding shall be provided to a government-established conservation offset fund or an alternative offset arrangement providing an equivalent outcome as determined by the Minister.
- 11-2 The proponent’s contribution to the initiative identified in condition 11-1 shall be paid biennially, the first payment due two years after ground disturbance. The amount of funding will be made on the following basis in accordance with the approved Impact Reconciliation Procedure required by condition 11-5:
- \$750 AUD (excluding GST) per hectare of “good to excellent” condition native vegetation cleared within the delineated Figure 2 as Area 1; and



- \$1500 AUD (excluding GST) per hectare of Priority Ecological Community and riparian vegetation cleared within the area delineated in Figure 3 as Area 1a.

- 11-3 The clearing of native vegetation previously authorised under Statement 558 is exempt from the requirement to offset under condition 11-1.
- 11-4 The real value of contributions described in condition 11-2 will be maintained through indexation to the Perth Consumer Price Index (CPI), with the first adjustment to be applied to the first contribution.
- 11-5 The proponent shall prepare and submit an Impact Reconciliation Procedure to the satisfaction of the CEO.
- 11-6 The Impact Reconciliation Procedure required pursuant to Condition 11-5 shall:
- (1) Include a methodology to identify clearing of “good to excellent” condition native vegetation, riparian vegetation within Area 1a (delineated in Figure 3) and Priority Ecological Communities within Area 1a (delineated in Figure 3);
  - (2) Require the proponent to submit spatial data identifying areas of “good to excellent” condition native vegetation that has been cleared;
  - (3) Include a methodology for calculating the amount of clearing undertaken during each biennial time period; and
  - (4) State dates for the commencement of the biennial time period and for the submission of results of the Impact Reconciliation Procedure, to the satisfaction of the CEO.