

**DETERMINATION OF A DEVELOPMENT APPLICATION  
FOR STATE SIGNIFICANT, DESIGNATED AND INTEGRATED DEVELOPMENT  
PURSUANT TO SECTION 80 OF THE  
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979**

I, the Minister for Infrastructure and Planning, pursuant to section 80 of the *Environmental Planning and Assessment Act 1979* ("the Act") determine the development application ("the Application") referred to in Schedule 1 by granting consent subject to the conditions set out in Schedule 2.

The reason for the imposition of conditions is to:

- a) minimise any adverse environmental impacts associated with the development;
- b) provide a mechanism for staging of the development with predictive and confirmatory performance verification pre- and post commencement of each phase of the development;
- c) ensure effective on-going environmental management and monitoring.

Craig Knowles MP  
**Minister for Infrastructure and Planning  
Minister for Natural Resources**

Sydney, 11 November, 2003

File No. S00/01119

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**SCHEDULE 1**

**Application made by:** Macquarie Generation ("the Applicant");

**To:** The Minister administering the *Environmental Planning and Assessment Act 1979* (at the time of lodgement, the Minister for Planning);

**In respect of:** Land described as Lots 2, 3, 4 and 5 DP 1043561, Lot 15 DP 258020, Lots 1 and 2 DP 813606, Lots 141 and 142 DP 605461, Lot 2 DP 46729, Road Reserves of Old Maitland Road, Old Punt Road, Tomago Road, and the bed of the Hunter River

**For the following:** Construction, operation and subsequent decommissioning of a gas-fired power station and associated infrastructure in up to three stages ("the development"), as described in *Environmental Impact Statement, Tomago Gas Fired Power Station* (three volumes) prepared by URS Australia Pty Ltd and dated May 2002;

<b>Development Application:</b>	Integrated DA No. 165-05-2002-i, lodged with the Department of Planning on 6 June 2002, accompanied by <i>Environmental Impact Statement, Tomago Gas Fired Power Station</i> (three volumes) prepared by URS Australia Pty Ltd and dated May 2002;
<b>State Significant Development</b>	Under Section 76A(7) of the Act, the development is classified as State Significant development by virtue of a declaration made by the Minister for Urban Affairs and Planning on 7 September 2001;
<b>Operation of Consent</b>	Pursuant to section 83 of the <i>Environmental Planning and Assessment Act 1979</i> , this consent does not operate until 28 days after the Applicant has been notified of the determination of the development application, or from the determination of an appeal made to the Land and Environment Court under section 97 or 98 of the <i>Environmental Planning and Assessment Act 1979</i> , whichever is the later, unless the determination of such an appeal is to refuse development consent.
<b>Lapse of Consent</b>	Pursuant to sections 95 of the <i>Environmental Planning and Assessment Act 1979</i> , this development consent is liable to lapse five years after the date from which the consent operates, unless the use of any land, building or work the subject of the consent is physically commenced before the date on which the consent would otherwise lapse.
<b>Appeal Rights</b>	If the Applicant is dissatisfied with this determination, section 97 of the <i>Environmental Planning and Assessment Act 1979</i> grants it a right of appeal to the Land and Environment Court, which is exercisable within 12 months of receiving notice of this determination. If an objector is dissatisfied with this determination, section 98 of the Act grants him, her or it a right of appeal to the Land and Environment Court, which is exercisable within 28 days of receiving notice of this determination.
<b>BCA Classification:</b>	Classes 5 and 8.

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## **SCHEDULE 2**

In this consent, except in so far as the context or subject-matter otherwise indicates or requires, the following terms have the meanings indicated:

Act	<i>Environmental Planning and Assessment Act, 1979</i>
AEMR	Annual Environmental Management Report
Applicant	Macquarie Generation
BCA	Building Code of Australia
Council	Port Stephens Shire Council
DEC	Department of Environment and Conservation (created in September 2003 following the merger of the former Environment Protection Authority and National Parks and Wildlife Service)
demolition	any activity associated with the removal of any structure present on the site prior to the operation of this consent
Department	NSW Department of Infrastructure, Planning and Natural Resources
development	the development to which this consent applies, the scope of which is described in the documents listed under condition 1.2 of this consent
Director-General	Director-General of the NSW Department of Infrastructure, Planning and Natural Resources, or delegate
DIPNR	Department of Infrastructure Planning and Natural Resources
dust	any solid material that may become suspended in air
EIS	<i>Environmental Impact Statement, Tomago Gas Fired Power Station</i> (three volumes) prepared by URS Australia Pty Ltd and dated May 2002
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act, 1997</i>
Minister	Minister for Infrastructure and Planning, or delegate
NEM	National Electricity Market
phase 1	construction and operation of an open cycle gas turbine up to a capacity of 260MW, a gas pipeline and associated infrastructure, as described in chapter 4 of the EIS
phase 2	construction and operation of an additional open cycle gas turbine up to a capacity of 260MW and associated infrastructure, as described in chapter 4 of the EIS
phase 3	conversion of open cycle gas turbines to a combined cycle gas turbine configuration up to a capacity of 790MW, a wastewater pipeline and associated infrastructure, as described in chapter 4 of the EIS
Principal Certifying Authority	the Minister or an accredited certifier, appointed under section 109E of the Act, to issue a Part 4A Certificate as provided under section 109C of the Act
Regulation	<i>Environmental Planning and Assessment Regulation, 2000</i>
POEO Act	<i>Protection of the Environment Operations Act, 1997</i>
site	the land to which this consent applies

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## 1. GENERAL

### Obligation to Minimise Harm to the Environment

- 1.1 <sup>1</sup>The Applicant shall implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction, commissioning, operation and where relevant, the decommissioning of the development.

### Scope of Development

- 1.2 <sup>2 3</sup>The Applicant shall carry out the development generally in accordance with:
- a) Development Application No. 165-05-2002-i, lodged with the Department of Planning on 6 June 2002;
  - b) *Environmental Impact Statement, Tomago Gas Fired Power Station* (three volumes) prepared by URS Australia Pty Ltd and dated May 2002;
  - c) additional information supplied by memorandum from URS Australia Pty Ltd to the Department, dated 18 July 2002, in relation to: noise; hydrology and surface water; soils, geology and hydrogeology; and flora and fauna;
  - d) additional information supplied by memorandum from URS Australia Pty Ltd to the Department, dated 1 August 2002, in relation to potential soil contamination;
  - e) additional information supplied by memorandum from URS Australia Pty Ltd to the Department, dated 1 August 2002, in relation to acid sulfate soil management;
  - f) additional information supplied by memorandum from URS Australia Pty Ltd to the Department, dated 5 August 2002, in relation to groundwater impacts;
  - g) additional information supplied by memorandum from URS Australia Pty Ltd to the Department, dated 2 September 2002, in relation to air quality impacts;
  - h) additional information supplied by letter from URS Australia Pty Ltd to the Department, dated 3 September 2002, and accompanied by *Macquarie Generation – Tomago CCGT Preliminary Hazard Analysis*, prepared by QUEST Consulting Engineers Pty Ltd and dated 19 August 2002;
  - i) additional information supplied by letter from URS Australia Pty Ltd to the Department, dated 16 September 2002, in relation to matters raised by: the NSW National Parks and Wildlife Service; Hunter Water Corporation; Port Stephens Council; and the Ministry of Energy and Utilities;
  - j) additional information supplied by letter from URS Australia Pty Ltd to the Department, dated 8 January 2003, in relation to cadastral information for gas and wastewater pipeline routes, and accompanied by: TGPL-01 (Revision 4); TGPL-02 (Revision 3); TGPL-03 (Revision 4); TGPL-04 (Revision 1); TGPL-05 (Revision 1); TGPL-06 (Revision 1); TGPL-07 (Revision 1); and TGPL-08 (Revision 1);
  - k) additional information supplied by letter from URS Australia Pty Ltd to the Department, dated 7 February 2003, in relation to air quality impacts and black start capability;
  - l) additional information supplied by letter from URS Australia Pty Ltd to the Department, dated 17 February 2003, in relation to assessment of aviation safety issues, and accompanied by *A Report from Katestone Environmental to Macquarie Generation – Assessment of Aviation Safety Issues Associated with the Tomago Power Station*, prepared by Katestone Environmental Pty Ltd and dated February 2003;
  - m) additional information supplied by letter from URS Australia Pty Ltd to the Department, dated 20 February 2003, in relation to the assessment of the potential for smog generation impacts, and accompanied by *CSIRO Investigation Report ET/IR 580R – Impact of Emissions from the Proposed Tomago Power*

<sup>1</sup> Incorporates an DEC General Term of Approval (1.2)

<sup>2</sup> Incorporates an DEC General Term of Approval (1.1)

<sup>3</sup> Incorporates a DIPNR General Term of Approval (1.1)

*Station on Photochemical Smog in the Greater Sydney Region*, prepared by M Cope, M Azzi and W Lilley and dated February 2003; and

n) the conditions of this consent.

1.3 In the event of an inconsistency between:

- a) the conditions of this consent and any document listed from condition 1.2a) to 1.2m) inclusive, the conditions of this consent shall prevail to the extent of the inconsistency; and
- b) any document listed from condition 1.2a) to 1.2m) inclusive, and any other document listed from condition 1.2a) to 1.2m) inclusive, the most recent document shall prevail to the extent of the inconsistency.

### **Staging of Development**

1.4 Nothing in this consent prevents the Applicant from undertaking the development in a single stage, or any combination of the three discrete stages identified as options in those documents specified under condition 1.2 of this consent

#### ***Phase Two Commencement***

1.5 Prior to the commencement of construction of phase 2 of the development, the Applicant shall submit the following for the approval of the Director-General:

- a) confirmation of the final design generating capacity of the turbine to be installed as part of phase 2 of the development;
- b) a demonstration that, based on extrapolation of relevant monitoring data established during operation of phase 1 of the development, progression to phase 2 of the development would not cause air quality impacts above those predicted in the documents listed under condition 1.2 of this consent, or the air quality criteria specified under this consent. If air quality impacts above these levels are predicted, the Applicant shall submit an updated air quality assessment for phase 2 of the development to the satisfaction of the Director-General and in accordance with *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA, 2001); and
- c) an updated Construction and Demolition Environmental Management Plan (refer to condition 7.2 of this consent) to reflect the inclusion of phase 2 works.

Construction of phase 2 of the development shall not commence until the Applicant has received the Director-General's written approval of the above documents and addressed any requirements of the Director-General that may form part of that approval.

1.6 Notwithstanding condition 1.5 of this consent, the Applicant may seek the Director-General's approval to relieve all requirements of condition 1.5, if construction of phase 2 of the development is commenced concurrently with phase 1 of the development, and the Construction and Demolition Environmental Management Plan (refer to condition 7.2 of this consent) relates to both phase 1 and phase 2 works.

#### ***Phase Three Commencement***

1.7 Prior to the commencement of construction of phase 3 of the development, the Applicant shall submit the following for the approval of the Director-General:

- a) written confirmation from the operator of the aluminium smelter at Tomago, that it is prepared to accept wastewater generated by the development, or documentation to the satisfaction of the Director-General to demonstrate that an appropriate disposal method for wastewater has been established, including evidence of any licences, permits or consents that may be required for that disposal method prior to its construction and/ or implementation;
- b) detailed design information in relation to the wastewater pipeline from the development to the aluminium smelter at Tomago;

- c) a demonstration that, based on extrapolation of relevant monitoring data established during operation of phases 1 and 2 of the development, progression to phase 3 of the development would not cause air quality impacts above those predicted in the documents listed under condition 1.2 of this consent, or the air quality criteria specified under this consent. If air quality impacts above these levels are predicted, the Applicant shall submit an updated air quality assessment for phase 3 of the development to the satisfaction of the Director-General and in accordance with *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA, 2001); and
- d) an updated Construction and Demolition Environmental Management Plan (refer to condition 7.2 of this consent) to reflect the inclusion of phase 3 works.

Construction of phase 3 of the development shall not commence until the Applicant has received the Director-General's written approval of the above documents and addressed any requirements of the Director-General that may form part of that approval.

- 1.8 Notwithstanding condition 1.7 of this consent, the Applicant may seek the Director-General's approval to relieve all requirements of condition 1.7, if construction of phase 3 of the development is commenced concurrently with phase 1 or phase 2 of the development, and the following have been met:
- a) the documents referred to under condition 1.7 a) and b) have been submitted to and approved by the Director-General; and
  - b) the Construction and Demolition Environmental Management Plan (refer to condition 7.2 of this consent) for phase 1 and/ or phase 2 also relates to phase 3 of the development.

### **Restrictions to Fuel Consumption**

- 1.9 The Applicant shall ensure that fuels consumed by the development for the generation of electricity are restricted to:
- a) natural gas, as the principal fuel for the development, to be supplied to the site by gas pipeline;
  - b) kerosene, as an emergency back-up fuel in the event of a disruption to the supply of natural gas to the site; and
  - c) low-sulfur diesel, containing no greater than 0.05 wt% (500 ppm) sulfur, as an emergency back-up fuel in the event of a disruption to the supply of natural gas to the site.
- 1.10 The Applicant shall not utilise liquid fuels (kerosene or low-sulfur diesel) to fire the development on any more than 240 hours (cumulative total) in any twelve-month period, without the prior written approval of the DEC and the Director-General.

Note: To be granted approval from the Director-General under condition 1.10 of this consent, the Applicant would need to adequately demonstrate an emergency situation that would preclude the use of natural gas, and a critical need for the operation of the development. Operation of the development outside the scope of condition 1.10 of this consent on an on-going basis would need to be the subject of a separate planning and assessment process in accordance with the provisions of the *Environmental Planning and Assessment Act 1979*.

### **Acquisition of Land and Land Management**

- 1.11 Prior to the commencement of construction of any component of the development, the Applicant shall acquire an easement for public purpose over Crown land, being the bed of the Hunter River, for the purpose of laying a gas pipeline as part of the development. Acquisition of the easement shall be undertaken in accordance with the *Crown Lands*

Act 1989 and the *Land Acquisition (Just Terms Compensation) Act 1991*, and shall meet the requirements of the Department. The Applicant shall be responsible for all native title rights or interests in the Crown land to be acquired, in accordance with relevant NSW and Commonwealth legislation.

- 1.12 The Applicant shall acquire the land parcel to the south-west of the site, described as Lot 2 DP 1043561, prior to the operation of the development. This land shall be retained by the Applicant for the life of the development. Acquisition of the land shall be undertaken in accordance with the *Land Acquisition (Just Terms Compensation) Act 1991*.

Note: Condition 1.12 of this consent requires acquisition of land as a risk mitigating measure.

- 1.13 <sup>4</sup>The Applicant shall not impact upon or occupy any Crown Land. Separate approval must be obtained from the Department before the use or occupation of any Crown Land.

### Provision of Documents

- 1.14 Where practicable, the Applicant shall provide all documents and reports required to be submitted to the Director-General under this consent in an appropriate electronic format. Provision of documents and reports to other parties, as required under this consent, shall be in a format acceptable to those parties and shall aim to minimise resource consumption.
- 1.15 Nothing in this consent prevents the Applicant from combining reporting requirements under this consent with identical or similar reporting requirements for submission to another relevant party.

Note: the purpose of conditions 1.14 and 1.15 is to provide for minimisation of resource utilisation (particularly paper) associated with administration of this consent.

### Statutory Requirements

- 1.16 The Applicant shall ensure that all licences, permits and approvals are obtained and kept up-to-date as required throughout the life of the development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals.
- 1.17 <sup>5</sup>The Applicant shall apply for and obtain a Part 3A Permit under the *Rivers and Foreshores Improvement Act 1948* prior to the commencement of any works within 40 metres of protected waters. The Permit shall be subject to the following administrative provisions:
- a) the Permit will be granted for twelve months from the date of formal approval of the Permit and can be renewed on an annual basis. Any application for renewal of the Permit shall be lodged no later than one month prior to the expiry date of the Permit;
  - b) the Permit shall not be transferable to any party other than the party holding the benefit of this consent, and shall not allow works at any location not within the scope of this consent. The location and nature of any works described in this consent and the Permit shall not be altered;

<sup>4</sup> Incorporates a DIPNR General Term of Approval (4.1)

<sup>5</sup> Incorporates DIPNR General Terms of Approval (1.2, 1.3, 1.4, 1.5 and 1.6)



- c) a copy of the Permit shall be kept on-site at all times and be made available for inspection by Department representatives upon request;
- d) the Applicant shall notify the Department within seven days of any change in site management, land ownership or land occupation from those details specified in the Permit;
- e) the Permit shall not give the Applicant the right to occupy any land without the land owner's consent or relieve the Applicant of any obligation that may exist to also obtain permission from local government or any other authorities that may have some form of control over the site of the works and/ or other proposed activity.

1.18 Prior to the commencement of construction of phase 1 of the development, the Applicant shall obtain a Section 50 Certificate from the Hunter Water Corporation.

### **Dispute Resolution**

1.19 In the event that a dispute arises between the Applicant and Council or the Applicant and a public authority other than the Department, in relation to a specification or requirement applicable under this consent, the matter shall be referred by either party to the Director-General, or if not resolved, to the Minister, whose determination of the dispute shall be final and binding on all parties. For the purpose of this condition, "public authority" has the same meaning as provided under section 4 of the Act.

Note: Section 121 of the *Environmental Planning and Assessment Act 1979* provides mechanisms for resolution of disputes between the Department, the Director-General, councils and public authorities.

## **2. COMPLIANCE**

2.1 The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.

2.2 <sup>6</sup>The Applicant shall be responsible for environmental impacts resulting from the actions of all persons on the site, including contractors, subcontractors and visitors.

2.3 Prior to each of the events listed from a) to j) below, or within such period otherwise agreed by the Director-General, the Applicant shall certify in writing to the satisfaction of the Director-General, that it has complied with all conditions of this consent applicable prior to that event.

- a) commencement of any physical works on the land the subject of this consent;
- b) commencement of construction of phase 1 of the development;
- c) commencement of the first commissioning of phase 1 of the development;
- d) commencement of the first operation of phase 1 of the development;
- e) commencement of construction of phase 2 of the development;
- f) commencement of the first commissioning of phase 2 of the development;
- g) commencement of the first operation of phase 2 of the development;
- h) commencement of construction of phase 3 of the development;
- i) commencement of the first commissioning of phase 3 of the development; and
- j) commencement of the first operation of phase 3 of the development.

2.4 Notwithstanding condition 2.3 of this consent, the Director-General may require an update report on compliance with all, or any part, of the conditions of this consent. Any such update shall meet the requirements of the Director-General and be submitted within such period as the Director-General may require.

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<sup>6</sup> Incorporates a DIPNR General Term of Approval (1.12)

- 2.5 The Applicant shall meet the requirements of the Director-General in respect of the implementation of any measure necessary to ensure compliance with the conditions of this consent, and general consistency with the documents listed under condition 1.2 of this consent. The Director-General may direct that such a measure be implemented in response to the information contained within any report, plan, correspondence or other document submitted in accordance with the conditions of this consent, within such time as the Director-General may require.

**3. DEMOLITION, CONSTRUCTION AND PART 4A CERTIFICATION**

- 3.1 In relation to the construction and occupation of the development, the Applicant shall provide to the Director-General and Council with the following:
- a) written notification of the appointment of a Principal Certifying Authority to be received at least two working days prior to the commencement of construction;
  - b) copies of all Construction Certificates issued for the development;
  - c) written notification of the intention to commence construction work, to be received at least two working days prior to the commencement of construction. In the event that more than one Construction Certificate is issued, notification shall be provided prior to the commencement of construction the subject of each Certificate;
  - d) copies of all Occupation Certificates issued for the development; and
  - e) written notification of the intention to occupy the development, to be received at least two working days prior to occupation. In the event that more than one Occupation Certificate is issued, notification shall be provided prior to the occupation the subject of each Certificate.
- 3.2 Prior to the commencement of any construction or demolition work associated with the development, the Applicant shall erect signs at the construction/ demolition site and in a prominent position at the site boundary where the sign can be viewed from the nearest public place. The sign shall indicate:
- a) the name, address and telephone number of the Principal Certifying Authority;
  - b) the name of the person in charge of the construction/ demolition site and telephone number at which that person may be contacted outside working hours; and
  - c) a statement that unauthorised entry to the construction/ demolition site is prohibited.

The signs shall be maintained for the duration of demolition/ construction works, and shall be removed as soon as practicable after the conclusion of the demolition/ construction works.

**Demolition**

- 3.3 The Applicant shall ensure that all structures existing on the site prior to operation of this consent, and permitted to be demolished under this consent, are demolished strictly in accordance with *Australian Standard 2601-1991: The Demolition of Structures*, as in force at 1 July 1993.

## 4. ENVIRONMENTAL PERFORMANCE

### Air Quality Impacts

#### ***Monitoring and Discharge Points***

- 4.1 <sup>7</sup>For the purposes of this consent, air monitoring/ air discharge points shall be identified as provided in Table 1 below.

**Table 1 - Identification of Air Monitoring and Discharge Points**

Monitoring/ Discharge Point Identifier	Monitoring/ Discharge Point Description
1	Gas turbine north
2	Gas turbine south
3	Heat recovery steam generator north
4	Heat recovery steam generator south
5	Black start generator

Note: Due to the staging of the development, all of the monitoring/ discharge points identified under condition 4.1 of this consent may not be relevant for a particular development stage.

#### ***Odour***

- 4.2 <sup>8</sup>The Applicant shall design, construct, operate and maintain the development to prevent the emission of any offensive odour from the site that is attributable to the operation of the development. For the purpose of this condition, “offensive odour” has the same meaning as defined under the *Protection of the Environment Operations Act 1997*.

Note: Section 129 of the *Protection of the Environment Operations Act 1997* provides that the Applicant must not cause or permit the emission of any offensive odour from the site, but provides a defence if the emission is identified in the relevant Environment Protection Licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of the Licence directed at minimising odour.

#### ***Dust Emissions***

- 4.3 <sup>9</sup>The Applicant shall design, construct, commission, operate and maintain the development in a manner that minimises dust emissions from the site. All activities undertaken on the site shall be carried out in a manner that minimises the generation of dust, or emission of dust from the site, including wind-blown and traffic-generated dust.

#### ***Discharge Limits***

- 4.4 <sup>10</sup>The Applicant shall design, construct, commission, operate and maintain the development to ensure that at the monitoring/ discharge points indicated in Table 2 below (refer to condition 4.1 of this consent), the concentration of each pollutant listed for that point does not exceed the maximum allowable discharge concentration limit specified. Limits apply to the operation of the development using the fuel specified (where relevant) and at the reference conditions indicated.

**Table 2 - Maximum Allowable Discharge Concentration Limits (Air)**

<sup>7</sup> Incorporates an DEC General Term of Approval (2.8)

<sup>8</sup> Incorporates an DEC General Term of Approval (2.7)

<sup>9</sup> Incorporates DEC General Terms of Approval (2.1 and 2.2)

<sup>10</sup> Incorporates an DEC General Term of Approval (2.9)

Monitoring/ Discharge Points	Pollutant	Maximum Discharge Concentration Limit (mgm <sup>-3</sup> )	Reference Conditions
1, 2, 3 and 4	Nitrogen dioxide (as NO <sub>2</sub> ), or nitric oxide (NO), or both (as NO <sub>2</sub> )	51	Burning natural gas dry, 273K, 101.3 kPa, 15% O <sub>2</sub>
		150	Burning liquid fuel dry, 273K, 101.3 kPa, 15% O <sub>2</sub>
5	Nitrogen dioxide (as NO <sub>2</sub> ), or nitric oxide (NO), or both (as NO <sub>2</sub> )	2,000	dry, 273K, 101.3 kPa, 7% O <sub>2</sub>
	Solid particles	100	dry, 273K, 101.3 kPa, 7% O <sub>2</sub>

### **Manufacturers' Performance Guarantees**

- 4.5 <sup>11</sup>The Applicant shall submit to the satisfaction of the DEC, manufacturers' performance guarantees for all fuel-burning equipment and the diesel generator for the development. The guarantees shall be provided to the DEC prior to the installation of the relevant equipment, and shall clearly demonstrate that the equipment, when operating at design loads, will comply with the emissions concentrations specified under condition 4.4 of this consent. The Applicant shall notify the Director-General of the DEC's satisfaction with the guarantees if and when the DEC indicates such a position.

### **Soil and Water Impacts**

- 4.6 <sup>12 13</sup>Except as may be expressly provided by an Environment Protection Licence for the development, the Applicant shall comply with section 120 of the *Protection of the Environment Operations Act 1997*, which prohibits the pollution of waters.
- 4.7 <sup>14</sup>The Applicant shall ensure that all works associated with the development are undertaken in a manner that does not damage or interfere in any way with:
- vegetation outside the area of the works;
  - the stability of adjacent or nearby watercourse banks or beds; and
  - the quality of water in any watercourse.
- 4.8 <sup>15</sup>The Applicant shall ensure that all materials displaced during site preparation and construction are stabilised or relocated and made secure so that these materials will not detrimentally affect any watercourse or riparian area.
- 4.9 <sup>16</sup>The Applicant shall ensure that all tidal structures are designed and constructed to prevent scour of adjoining beds and banks, and undercutting of the structures. All tidal structures shall be designed and constructed to meet the requirements of NSW Fisheries and the Waterways Authority.

<sup>11</sup> Incorporates an DEC General Term of Approval (2.13)

<sup>12</sup> Incorporates an DEC General Term of Approval (3.1)

<sup>13</sup> Incorporates a DIPNR General Term of Approval (1.15)

<sup>14</sup> Incorporates a DIPNR General Term of Approval (1.7)

<sup>15</sup> Incorporates a DIPNR General Term of Approval (1.8)

<sup>16</sup> Incorporates DIPNR General Terms of Approval (2.1 and 2.2)

### ***Acid Sulfate Soils***

- 4.10 <sup>17</sup>Prior to the commencement of site preparation works, the Applicant shall undertake acid sulfate soil testing for areas of the site to be disturbed during site preparation and construction. Acid sulfate soil testing shall be consistent with the DEC's Environmental Guideline *Assessing and Managing Acid Sulfate Soil* and the Acid Sulfate Soil Management Advisory Committee (ASSMAC) document *Acid Sulfate Soil Manual*. All results of testing for acid sulfate soils shall be submitted to the Director-General.

Should testing indicate that any potential or actual acid sulfate soils may be disturbed during site preparation works or the construction of the development, the Applicant shall prepare an Acid Sulfate Soil Management Plan (refer to condition 7.5).

### **Hazards and Risk Impacts**

- 4.11 The Applicant shall not utilise any class 1 dangerous goods (explosives) as part of site preparation or construction works for the development.

### ***Bunding and Spill Management***

- 4.12 The Applicant shall store and handle all combustible liquids and dangerous goods (as defined by the Australian Dangerous Goods Code) strictly in accordance with:
- a) all relevant Australian Standards;
  - b) a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
  - c) the DEC's Environment Protection Manual Technical Bulletin *Bunding and Spill Management*.

In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.

### ***Aviation Hazards***

- 4.13 At least six months prior to the commencement of commissioning of phase 1 of the development, the Applicant shall consult with AirServices Australia and the RAAF AIS to include an appropriate warning notice in pilot documents. The warning notice shall be generally consistent with the following:

"Pilots may experience turbulence in the vicinity of the power station 6.5NM west-south-west of AD"

### **Noise Impacts**

#### ***Construction Noise***

- 4.14 <sup>18</sup>The Applicant shall only undertake site preparation and construction activities associated with the development (including phase 1, phase 2 and phase 3 construction works) that would generate an audible noise at the site boundary between the following hours:
- a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
  - b) 7:00 am to 1:00 pm on Saturdays; and
  - c) at no time on Sundays or public holidays.

This condition does not apply in the event of a direction from police or other relevant authority for safety reasons.

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<sup>17</sup> Incorporates a DIPNR General Term of Approval (3.1)

<sup>18</sup> Incorporates a DEC General Terms of Approval (4.4 and 4.5)

- 4.15 <sup>19</sup>The hours of construction activities specified under condition 4.14 of this consent may be varied with the prior written approval of the Director-General. Any request to alter the hours of construction specified under condition 4.14 shall be:
- considered on a case-by-case basis;
  - accompanied by details of the nature and need for activities to be conducted during the varied construction hours; and
  - accompanied by written evidence of the DEC's agreement with the proposed variation in construction times, after providing any information necessary for the DEC to reasonably determine that activities undertaken during the varied construction hours will not adversely impact on the acoustic amenity of receptors in the vicinity of the site.
- 4.16 <sup>20</sup>The Applicant shall ensure that all site preparation and construction activities associated with the development do not generate a sound pressure level ( $L_{A10(15 \text{ minute})}$ ) greater than 20 dB(A) above background noise levels ( $L_{A90(15 \text{ minute})}$ ). For the purpose of this condition, construction noise shall be determined at the locations and under the conditions specified for operational noise, as provided in conditions 4.18 to 4.20 of this consent.
- 4.17 <sup>21</sup>Notwithstanding conditions 4.14 to 4.16 of this consent, the Director-General or the DEC may require the Applicant to alter site preparation or construction activities associated with the development (including variation of construction hours or methods, or the application of additional mitigation measures) to address any reasonable complaint made in relation to acoustic amenity impacts generated by these activities. The Applicant shall alter site preparation or construction activities consistent with the requirements of the Director-General or the DEC to address such a reasonable complaint within such time as the Director-General or the DEC may require.

### **Operation Noise**

- 4.18 <sup>22</sup>The Applicant shall design, construct, operate and maintain the development to ensure that the noise contributions from the development to the background acoustic environment do not exceed the maximum allowable noise contributions specified in Table 3, at those locations and during those periods indicated. The maximum allowable noise contributions apply under:
- wind speeds up to  $3 \text{ ms}^{-1}$  (measured at 10 metres above ground level); or
  - temperature inversion conditions up to  $3^{\circ}\text{C}$  per 100 metres and wind speeds up to  $2 \text{ ms}^{-1}$  (measured at 10 metres above ground level).

**Table 3 - Maximum Allowable Noise Contribution**

Location	Day 7:00am to 6:00pm Monday to Saturday 8:00am to 6:00pm Sundays and Public Holidays		Evening 6:00pm to 10:00pm on any day		Night 10:00pm to 7:00am Monday to Saturday 10:00pm to 8:00am Sundays and Public Holidays	
	$L_{Aeq(15 \text{ minute})}$	$L_{Aeq(day)}$	$L_{Aeq(15 \text{ minute})}$	$L_{Aeq(evening)}$	$L_{Aeq(15 \text{ minute})}$	$L_{Aeq(night)}$
1 Punt Road	47	-	47	-	47	-
3 Tomago Road (florist)	38	-	38	-	38	-
Residence west of site, Pacific Highway, north of RZM Pty Ltd	44	44	44	44	42	42

<sup>19</sup> Incorporates an DEC General Term of Approval (4.5)

<sup>20</sup> Incorporates an DEC General Term of Approval (4.6)

<sup>21</sup> Incorporates an DEC General Term of Approval (4.7)

<sup>22</sup> Incorporates DEC General Terms of Approval (4.1 and 4.3)

### **Measurement of Noise Impacts**

- 4.19 <sup>23</sup>For the purpose of assessment of noise contributions specified under conditions 4.16 and 4.18 of this consent, noise from development shall be
- a) measured at the most affected point on or within the receptor site boundary; or
  - b) if this point is more than 30 metres from a residence (rural situations), then within 30 metres of the residence.

Assessment of noise contributions shall be subject to the modification factors detailed in Section 4 of the *New South Wales Industrial Noise Policy* (EPA, 2000).

- 4.20 <sup>24</sup>Notwithstanding condition 4.19 of this consent, should direct measurement of noise from the site be impractical, the Applicant may employ an alternative noise assessment method deemed acceptable by the DEC (refer to Section 11 of the *New South Wales Industrial Noise Policy* (EPA, 2000)). Details of such an alternative noise assessment method accepted by the DEC shall be submitted to the Director-General prior to the implementation of the assessment method.

### **Traffic and Transport**

- 4.21 The Applicant shall not construct or utilise any direct access point to the site from the Pacific Highway (SH10).
- 4.22 Prior to the commencement of construction of phase 1 of the development, the Applicant shall consult with the Roads and Traffic Authority in relation to the removal of the licensed access points (A and B) to the site from the Pacific Highway (SH10).
- 4.23 Prior to the commencement of construction works at the Old Punt Road – Pacific Highway intersection, the Applicant shall consult with the Roads and Traffic Authority in relation to any requirements it may have regarding such works.

### **Waste Generation and Management**

- 4.24 <sup>25</sup>The Applicant shall not receive at the site waste for storage, treatment, processing or reprocessing or disposal.
- 4.25 <sup>26</sup>The Applicant shall store and dispose all hazardous and industrial waste (as defined by *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (EPA, 1999)) that may be generated on the site in a manner that minimises the impacts of the waste on the environment, including appropriate segregation for storage and separate disposal by a waste transporter licensed by the DEC.

Note: the EIS for the development indicates that limited quantities of hazardous wastes, including materials such as waste oils, solvents and ethylene glycol may be generated by the development.

### **Flora, Fauna and Visual Amenity Impacts**

#### **Koalas**

- 4.26 The Applicant shall ensure that prior to the commencement of vegetation clearing associated with the development, and prior to each phase of the development, where relevant, a survey of all vegetation to be cleared is completed by an independent, qualified ecologist approved by the Director-General. The survey shall identify all trees to be removed that are listed in the *Port Stephens Comprehensive Koala Plan of*

<sup>23</sup> Incorporates an DEC General Term of Approval (4.2)

<sup>24</sup> Incorporates an DEC General Term of Approval (4.2)

<sup>25</sup> Incorporates an DEC General Term of Approval (5.1)

<sup>26</sup> Incorporates an DEC General Term of Approval (5.2)

*Management (CKPoM) and State Environmental Planning Policy No. 44 – Koala Habitat Protection*, including the following species:

- a) Swamp Mahogany (*Eucalyptus robusta*);
- b) Parramatta Red Gum (*Eucalyptus parramattensis*);
- c) Forest Red Gum (*Eucalyptus tereticornis*);
- d) Tallowwood (*Eucalyptus microcorys*);
- e) Grey Gum (*Eucalyptus punctata*);
- f) Ribbon or Manna Gum (*Eucalyptus viminalis*);
- g) River Red Gum (*Eucalyptus camaldulensis*);
- h) Broad Leaved Scribbly Gum (*Eucalyptus haemastoma*);
- i) Scribbly Gum (*Eucalyptus signata*);
- j) White Box (*Eucalyptus albens*);
- k) Bimble Box or Poplar Box (*Eucalyptus populnea*);
- l) Swamp Mahogany (*Eucalyptus robusta*).

Results of this survey shall be provided to the Director-General and shall be used in the development of the Landscape Management Plan referred to under condition 7.7d) of this consent.

- 4.27 The Applicant shall ensure that all trees removed from the site meeting the requirements of condition 4.26 of this consent are replaced with more than one tree for every tree removed. Revegetation, including species selection, location and management shall be undertaken in accordance with the Landscape Management Plan approved by the Director-General under condition 7.7d) of this consent. Nothing in this consent precludes the requirements of the condition being met with the planting of new trees off-site at an appropriate location, to be established with Council, the Australian Koala Foundation and the National Parks and Wildlife Service, and agreed by the Director-General (for example, enhancement of off-site habitat corridors).
- 4.28 The Applicant shall undertake all reasonable measures to prevent, and shall not knowingly permit, a dog to enter the site.
- 4.29 The Applicant shall implement measures on the site, including signage and speed-reducing infrastructure, to ensure all vehicles travelling on the site do not exceed a maximum velocity of 40 kilometres per hour.
- 4.30 The Applicant shall develop, in consultation with the National Parks and Wildlife Service, Council and the Australian Koala Foundation, appropriate measures to be installed/ implemented to prevent drowning of koalas in relevant water storage and retention structures on the site, including the “natural evaporation pond” and “detention pond” indicated in Figure 3a of the EIS. These measures shall be installed/ implemented prior to the commencement of commissioning of phase 1 of the development.
- 4.31 The Applicant shall develop, in consultation with the National Parks and Wildlife Service, Council and the Australian Koala Foundation, appropriate fencing for the site that would not prevent the free movement of koalas across the site (except for the high voltage (HV) switchyard and machinery), and would be consistent with the requirements of condition 4.28 of this consent.

Note: conditions 4.26 to 4.31 of this consent are imposed to ensure consistency of the development with the requirements and guidance outlined in <i>Port Stephens Council Comprehensive Koala Plan of Management (CKPoM)</i> .
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### **Lighting**

- 4.32 The Applicant must ensure that all external lighting associated with the development is mounted, screened, and directed in such a manner so as not to create a nuisance to



surrounding properties or roadways. The lighting must be the minimum level of illumination necessary and shall comply with *AS4282(INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting*.

### **Advertising**

- 4.33 This consent does not permit the display of any advertisement, or the erection of any advertising structure, on the site. This condition does not apply to any advertisement or structure that cannot be seen from the nearest public place, nor any signage specified elsewhere in this consent (refer to condition 3.2).

### **Heritage**

- 4.34 The Applicant shall invite the Worimi Local Aboriginal Land Council (LALC) to have a representative present at site preparation and construction works for the development, should the LALC wish. Site preparation and construction works for which the LALC has expressed an interest in being present shall not be conducted without the oversight of the LALC representative.

## **5. ENVIRONMENTAL MONITORING AND AUDITING**

- 5.1 <sup>27</sup>The Applicant shall undertake all monitoring, including recording and reporting of monitoring results, as required under this consent and as may be specified in an Environment Protection Licence for the development.

### **Air Quality Monitoring**

#### **Discharges to Atmosphere**

- 5.2 <sup>28</sup>The Applicant shall determine the pollutant concentrations and emission parameters specified in Table 4 below, at monitoring/ discharge points 1, 2, 3 and 4 (as defined under condition 4.1 of this consent and located strictly in accordance with test method TM-1), and employing the sampling and analysis methods specified. Monitoring shall be undertaken annually after commissioning of the plant and equipment relevant to the respective monitoring/ discharge point. For the purpose of this condition, "post commissioning" means within 90 days of commencing normal operations and during a period when the development is operating under stable conditions and design loads.

**Table 4 – Pollutant and Parameter Monitoring (Air)**

<b>Pollutant/ Parameter</b>	<b>Method</b>	<b>Units of Measure</b>
Nitrogen dioxide (NO <sub>2</sub> ) or nitric oxide (NO) or both	CEM-2	mgm <sup>-3</sup>
velocity	TM-2	ms <sup>-1</sup>
volumetric flowrate	TM-2	m <sup>3</sup> s <sup>-1</sup>
moisture	TM-22	%
dry gas density	TM-23	kgm <sup>-3</sup>
molecular weight of stack gases	TM-23	g.gmol <sup>-1</sup>
Carbon monoxide	TM-24	%
oxygen	TM-25	%

### **Auditing**

- 5.3 Twelve months after the commencement of operation of phase 1 of the development, or within such period otherwise agreed by the Director-General, the Applicant shall commission an independent, qualified person or team to undertake a Hazard Audit of the development. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. A **Hazard Audit Report** shall be submitted for the approval of the Director-General no later than one month after the

<sup>27</sup> Incorporates DEC General Terms of Approval (6.1 and 6.2)

<sup>28</sup> Incorporates DEC General Terms of Approval (2.10 and 2.11)

completion of the Audit. Further Hazard Audits shall be undertaken every three years, or as otherwise agreed or required by the Director-General. Hazard Audits shall be carried out in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 5 - Hazard Audit Guidelines*.

- 5.4 Twelve months after the commencement of operation of phase 1 of the development, and every three years thereafter, or as otherwise agreed or required by the Director-General, the Applicant shall commission an independent, qualified person or team to undertake an Environmental Audit of the development. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. An **Environmental Audit Report** shall be submitted for the approval of the Director-General within one month of the completion of the Audit. The Audit shall:
- a) be carried out in accordance with *ISO 14010 - Guidelines and General Principles for Environmental Auditing* and *ISO 14011 - Procedures for Environmental Auditing*;
  - b) assess compliance with the requirements of this consent, and other licences and approvals that apply to the development;
  - c) assess the environmental performance of the development against the predictions made and conclusions drawn in the documents referred to under condition 1.2 of this consent; and
  - d) review the effectiveness of the environmental management of the development, including any environmental impact mitigation works.

The Director-General may require the Applicant to undertake works to address the findings or recommendations presented in the Report. Any such works shall be completed within such time as the Director-General may require.

Note: if the preparation and submission of a Hazard Audit Report and an Environmental Audit Report are required at the same time, the requirements of condition 5.3 and 5.4 of this consent may be satisfied with a single report prepared by a single independent person or team approved by the Director-General.

## 6. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

- 6.1 Subject to confidentiality, the Applicant shall make all documents required under this consent available for public inspection on request.

### Complaints Procedure

- 6.2 <sup>29</sup>Prior to the commencement of construction of the development, the Applicant shall ensure that the following are available for community complaints:
- a) a 24-hour, toll-free telephone number on which complaints about the development may be registered;
  - b) a postal address to which written complaints may be sent; and
  - c) an email address to which electronic complaints may be transmitted.

The telephone number, the postal address and the email address shall be advertised on at least one occasion prior to the commencement of construction of the development, through a medium approved by the Director-General. These details shall also be provided on the Applicant's internet site, should one exist.

- 6.3 The Applicant shall record details of all complaints received through the means listed under condition 6.2 of this consent in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:
- a) the date and time, where relevant, of the complaint;

<sup>29</sup> Incorporates an DEC General Term of Approval (7.1)

- b) the means by which the complaint was made (telephone, mail or email);
- c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
- d) the nature of the complaint;
- e) any action(s) taken by the Applicant in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the Director-General upon request.

## 7. ENVIRONMENTAL MANAGEMENT

### Environmental Representative

- 7.1 Prior to the commencement of construction of the development, the Applicant shall nominate a suitably qualified and experienced Environmental Representative(s). The Applicant shall employ the Environmental Representative(s) on a full-time basis during the construction, commissioning and operation of the development. The Environmental Representative shall be:
- a) the primary contact point in relation to the environmental performance of the development;
  - b) responsible for all Management Plans and Monitoring Programs required under this consent;
  - c) responsible for considering and advising on matters specified in the conditions of this consent, and all other licences and approvals related to the environmental performance and impacts of the development;
  - d) responsible for receiving and responding to complaints in accordance with condition 6.3 of this consent; and
  - e) given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.

The Applicant shall notify the Director-General of the name and contact details of the Environmental Representative upon appointment, and any changes to that appointment that may occur from time to time.

### Construction and Demolition Environmental Management Plan

- 7.2 The Applicant shall prepare and implement a **Construction and Demolition Environmental Management Plan** to outline environmental management practices and procedures to be followed during the site preparation, construction and commissioning of phase 1 of the development. The Plan shall include, but not necessarily be limited to:
- a) a description of all activities to be undertaken on the site during site preparation, construction and commissioning of phase 1 of the development, including an indication of stages of construction, where relevant;
  - b) statutory and other obligations that the Applicant is required to fulfil during site preparation, construction and commissioning of phase 1 of the development, including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
  - c) details of how the environmental performance of the site preparation and construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan:

- i) measures to monitor and manage dust emissions;
- ii) measures to monitor and minimise soil erosion and the discharge of sediment and other pollutants to lands and/ or waters during construction and demolition activities. These measures shall be in accordance with the Regional Erosion and Sediment Control Policy and Code of Practice adopted by Council;
- iii) measures to monitor and manage any contaminated soils/ materials encountered during construction and demolition;
- iv) measures to monitor and manage any groundwater encountered during construction and demolition;
- v) measures to monitor and control noise emissions during construction, commissioning and demolition;
- vi) measures to monitor and control air emissions during construction, commissioning and demolition, and to ensure that air emissions are both minimised and in compliance with the requirements of this consent and the Environment Protection Licence for the site;
- d) a description of the roles and responsibilities for all relevant employees involved in the construction of the development;
- e) the Management Plans listed under condition 7.4 of this consent; and
- f) complaints handling procedures during construction and demolition.

The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of any site preparation, construction or demolition works associated with the development, or within such period otherwise agreed by the Director-General. Site preparation, construction and demolition works shall not commence until written approval has been received from the Director-General.

7.3 The Applicant may seek the Director-General's approval to stage submission of the Construction and Demolition Environmental Management Plan referred to under condition 7.2 of this consent, consistent with the staging of site preparation, construction and demolition works, or with the locations of such works.

7.4 As part of the Construction and Demolition Environmental Management Plan for the development, required under condition 7.2 of this consent, the Applicant shall prepare and implement the following Management Plans:

- a) a **Fire Safety Study** for the development, covering all aspects detailed in the Department's publication *Hazardous Industry Planning Advisory Paper No. 2 - Fire Safety Guidelines* and the New South Wales Government's *Best Practice Guidelines for Contaminated Water Retention and Treatment Systems*. The Study shall include a strict maintenance schedule for essential services and other safety measures. The Study shall be submitted for the approval of the Commissioner of the NSW Fire Brigades prior to inclusion in the Construction and Demolition Environmental Management Plan;
- b) a **Hazard and Operability Study (HAZOP)** for the development chaired by an independent, qualified person or team. The independent person or team shall be approved by the Director-General. The Study shall be carried out in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 8 - HAZOP Guidelines*;
- c) a **Final Hazard Analysis** for the development, prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis*;
- d) a **Construction and Demolition Safety Study** for the development, prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 7 - Construction Safety Study Guidelines*;
- e) an **Erosion and Sedimentation Management Plan** to detail measures to minimise erosion during site preparation, construction and demolition works

associated with the development. The Plan shall include, but not necessarily be limited to:

- i) results of investigations into soils associated with the site, in particular the stability of the soil and its susceptibility to erosion;
- ii) details of erosion, sediment and pollution control measures and practices to be implemented during construction of the development;
- iii) demonstration that erosion and sediment control measures will conform with, or exceed, the relevant requirements of the Regional Erosion and Sediment Control Policy and Code of Practice adopted by Council;
- iv) design specifications for diversionary works, banks and sediment basins;
- v) an erosion monitoring program during construction and demolition works associated with the development; and
- vi) measures to address erosion, should it occur, and to rehabilitate/ stabilise disturbed areas of the site.

7.5 <sup>30</sup>The Applicant shall prepare and implement an **Acid Sulfate Soil Management Plan** to detail measures to be implemented in relation to the management and handling of any potential or actual acid sulfate soils identified in accordance with condition 4.10 of this consent. The Plan shall be prepared in accordance with guidance provided in *Acid Sulfate Soil Manual* (Acid Sulfate Soil Management Advisory Committee, 1998) and to meet the requirements of the Director General. The Acid Sulfate Soil Management Plan need only be prepared should potential or actual acid sulfate soils be identified on the site. The Acid Sulfate Soil Management Plan, should such a Plan be required, shall be submitted for the approval of the Director-General no later than one month prior to the commencement of site preparation works, or within such period otherwise agreed by the Director-General.

#### **Operation Environmental Management Plan**

7.6 The Applicant shall prepare and implement an **Operation Environmental Management Plan** to detail an environmental management framework, practices and procedures to be followed during phase 1 of the operation of the development. The Plan shall include, but not necessarily be limited to:

- i) identification of all statutory and other obligations that the Applicant is required to fulfil in relation to operation of phase 1 of the development, including all consents, licences, approvals and consultations;
- ii) a description of the roles and responsibilities for all relevant employees involved in the operation of the development;
- iii) overall environmental policies and principles to be applied to the operation of the development;
- iv) standards and performance measures to be applied to the development, and a means by which environmental performance can be periodically reviewed and improved, where appropriate;
- v) management policies to ensure that environmental performance goals are met and to comply with the conditions of this consent;
- vi) the Management Plans listed under condition 7.7 of this consent;
- vii) the environmental monitoring requirements outlined under conditions 5.1 to 5.4 of this consent, inclusive.

The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of operation of phase 1 of the development, or within such period otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General.

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<sup>30</sup> Incorporates a DIPNR General Term of Approval

7.7 As part of the Operation Environmental Management Plan for the development, required under condition 7.6 of this consent, the Applicant shall prepare and implement the following Management Plans:

- a) an **Air Quality Management Plan** to outline measures to minimise impacts from the development on local and regional air quality. The Plan shall include, but not necessarily be limited to:
  - i) identification of all major sources of particulate and gaseous air pollutants that may be emitted from the development, being both point-source and diffuse emissions, including identification of the major components and quantities of these emissions;
  - ii) monitoring for gaseous and particulate emissions from the development, in accordance with any requirements of the DEC;
  - iii) procedures for the minimisation of gaseous and particulate emissions from the development;
  - iv) specific procedures for the management of generating efficiency and the minimisation of greenhouse gas emissions per unit of electricity generated;
  - v) procedures aimed at maximising the efficiency of the start-up and shut-down cycles for the development;
  - vi) protocols for regular maintenance of process equipment to minimise the potential for leaks and fugitive emissions; and
  - vii) a contingency plan should an incident, process upset or other initiating factor lead to elevated air quality impacts, whether above normal operating conditions or environmental performance goals/ limits.
- b) an **Emergency Plan** for the development. The Plan shall be prepared in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines* by an independent, qualified person or team approved by the Director-General;
- c) a **Safety Management System**, covering all operations at the development. The System shall clearly specify all safety-related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to safety procedures. The System shall be developed in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 9 - Safety Management*.
- d) a **Landscape Management Plan** to outline measures to ensure appropriate development and maintenance of landscaping on the site. The Plan shall include, but not necessarily be limited to:
  - i) details of all landscaping to be undertaken on the site with specific reference to revegetation with species to enhance koala habitat and habitat corridors;
  - ii) maximisation of flora species endemic to the locality in landscaping the site, with specific focus on those species listed under condition 4.26 of this consent;
  - iii) results of consultation with Council, the Australian Koala Foundation and the National Parks and Wildlife Service to determine measures to maximise the benefits of site landscaping to local koala populations;
  - iv) details of car parking and measures to prevent vehicle encroachment onto landscaped areas; and
  - v) a program to ensure that all landscaped areas on the site are maintained in a tidy, healthy state.

7.8 At least one month prior to the operation of phase 2 and phase 3 of the development, the Applicant shall update and submit for the approval of the Director-General, the Operation Environmental Management Plan referred to under condition 7.6 of this consent. Operation of phase 2 and phase 3, respectively, shall not commence until the Director-General has approved the updated Plans.

## 8. ENVIRONMENTAL REPORTING

### Incident Reporting

- 8.1 The Applicant shall notify the DEC and the Director-General of any incident with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable after the occurrence of the incident ("initial notification"). The Applicant shall provide written details ("written report") of the incident to the DEC and the Director-General within seven days of the date on which the incident occurred.
- 8.2 The Applicant shall meet the requirements of the Director-General to address the cause or impact of any incident, as it relates to this consent, reported in accordance with condition 8.1 of this consent, within such period as the Director-General may require.

Note: Condition 8.2 of this consent does not limit or preclude the DEC from requiring any action to address the cause or impact of any incident, in the context of the DEC's statutory role in relation to the development.

- 8.3 In addition to the notification requirements specified under condition 8.1 of this consent, the Applicant shall notify the Hunter Water Corporation of any pollution incident occurring on or associated with the site with actual or potential impacts on the groundwater quality of the Tomago Sand Beds.

### Annual Performance Reporting

- 8.4 The Applicant shall, throughout the life of the development, prepare and submit for the approval of the Director-General, an **Annual Environmental Management Report** (AEMR). The AEMR shall review the performance of the development against the Operation Environmental Management Plan (refer to condition 7.6 of this consent), the conditions of this consent and other licences and approvals relating to the development. The AEMR shall include, but not necessarily be limited to:
- a) details of compliance with the conditions of this consent;
  - b) a copy of the Complaints Register (refer to condition 6.3 of this consent) for the preceding twelve-month period (exclusive of personal details), and details of how these complaints were address and resolved;
  - c) identification of any circumstances in which the environmental impacts and performance of the development during the year have not been generally consistent with the environmental impacts and performance predicted in the documents listed under condition 1.2 of this consent, with details of additional mitigation measures applied to the development to address recurrence of these circumstances ;
  - d) results of all environmental monitoring required under this consent and other approvals, including interpretations and discussion by a suitably qualified person; and
  - e) a list of all occasions in the preceding twelve-month period when environmental performance goals for the development have not been achieved, indicating the reason for failure to meet the goals and the action taken to prevent recurrence of that type of incident.

The Applicant shall submit a copy of the AEMR to the Director-General every year, with the first AEMR to be submitted no later than twelve months after the commencement of operation of the development. The Director-General may require the Applicant to address certain matters in relation to the environmental performance of the development in response to review of the Annual Environmental Report. Any action required to be undertaken shall be completed within such period as the Director-General may require.