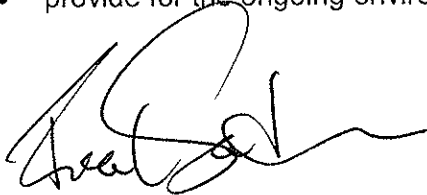


Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

I, the Minister for Planning, approve the project referred to in Schedule 1, subject to the conditions in Schedule 2. These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



Frank Sartor MP
Minister for Planning

Sydney

26 June

2008

File No: S06/00712

SCHEDULE 1

Application No:	06_238
Proponent:	Eraring Energy
Approval Authority:	Minister for Planning
Project:	<p>Capacity increase and performance improvements at the existing Eraring power station, comprising:</p> <ul style="list-style-type: none">• replacement/ upgrade of plant components such that the nominal capacity of each turbine is increased from 660 megawatts to 750 megawatts;• construction and operation of up to a 920 megalitre cooling water attemperation reservoir with associated infrastructure to manage cooling water temperatures and permit extended operation of the power station; and• ancillary works and activities associated with these improvements.
Major Project:	<p>On 11 September 2006, the Minister for Planning formed the opinion pursuant to clause 6 of <i>State Environmental Planning Policy (Major Projects) 2005</i> that the proposal is for the purpose of development described in Schedule 1 to that Policy (clause 24(a) "Development for the purpose of an electricity generation facility that has a capital investment value of more than \$30 million for coal-fired generation). The proposal is thus declared to be a project to which Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> applies.</p>

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SCHEDULE 2

Act, the	<i>Environmental Planning and Assessment Act, 1979</i>
Conditions of Approval	The Minister's conditions of approval for the project
Council	Lake Macquarie City Council
DECC	Department of Environment and Climate Change
Department, the	Department of Planning
Director-General, the	Director-General of the Department of Planning (or delegate)
DPI	Department of Primary Industries
EA	<i>Environmental Assessment – Eraring Energy Capacity Increase and Attenuation Reservoir, Rocky Point Road, Eraring NSW</i> (two volumes), dated 11 May 2007, and prepared by HLA-Envirosciences Pty Ltd
EPA	Environment Protection Authority as part of the Department of Environment and Climate Change
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act 1997</i>
Minister, the	Minister for Planning.
Proponent	Eraring Energy
Site	The land to which this approval applies

1. ADMINISTRATIVE CONDITIONS

Terms of Project Approval

- 1.1 The Proponent shall carry out the project generally in accordance with:
- Major Project Application 06_238;
 - Environmental Assessment – Eraring Energy Capacity Increase and Attenuation Reservoir, Rocky Point Road, Eraring NSW* (two volumes), dated 11 May 2007, and prepared by HLA-Envirosciences Pty Ltd;
 - Eraring Energy Capacity Increase and Attenuation Reservoir, Eraring Power Station, Rocky Point Road, Eraring – Final Submissions Report*, dated 7 December 2007, and prepared by ENSR Australia Pty Limited; and
 - the conditions of this approval.
- 1.2 In the event of an inconsistency between:
- the conditions of this approval and any document listed from condition 1.1a) to 1.1c) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
 - any document listed from condition 1.1a) to 1.1c) inclusive, and any other document listed from condition 1.1a) to 1.1c) inclusive, the most recent document shall prevail to the extent of the inconsistency.
- 1.3 The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of:
- any reports, plans or correspondence that are submitted in accordance with this approval; and
 - the implementation of any actions or measures contained in these reports, plans or correspondence.

Project Components

- 1.4 For the purpose of this approval, the project comprises two components:
- the power station upgrade, including all works associated with the increase in capacity of the four existing generating units and performance improvements within the generating infrastructure (the upgraded power station); and
 - the attenuation reservoir, including all associated works (the attenuation reservoir).

Limits of Approval

- 1.5 This project approval shall lapse five years after the date on which it is granted, unless the works subject of this approval are physically commenced on or before that time.

2. SPECIFIC ENVIRONMENTAL CONDITIONS

Air Quality Impacts

Dust Generation

- 2.1 The Proponent shall construct the project in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Proponent shall identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

Odour

- 2.2 The Proponent shall not permit any offensive odour, as defined under section 129 of the *Protection of the Environment Operations Act 1997*, to be emitted beyond the boundary of the site.

Monitoring and Discharge Points

- 2.3 For the purposes of this approval, 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 Location
11	Boiler 1 discharge to stack as shown on site plan ER328067A
12	Boiler 2 discharge to stack as shown on site plan ER328067A
13	Boiler 3 discharge to stack as shown on site plan ER328067A
14	Boiler 4 discharge to stack as shown on site plan ER328067A
15	Ambient air monitoring station at Marks Point Primary School
16	Ambient air monitoring station at Dora Creek
18	Depositional dust monitoring at not less than six sites located within one kilometre of coal handling operations, having regard to seasonal wind conditions and the location(s) of any sensitive receptor(s).

Discharge Limits

- 2.4 The Proponent shall design, construct, operate and maintain the upgraded power station to ensure that at monitoring/ discharge points 11, 12, 13 and 14 (as defined under condition 2.3 of this approval), the concentration of each pollutant listed in Table 2 is not exceeded.

Table 2 - Maximum Allowable Discharge Concentration Limits (Air)

Pollutant	100 Percentile limit (mgm ⁻³)	Reference conditions
Cadmium	0.2	dry, 273 K, 101.3 kPa, and 7% O ₂
Chlorine	200	
Mercury	0.2	
Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both (as NO ₂)	1100	
Hydrogen chloride	100	
Solid particles	50	
Sulfuric acid mist (H ₂ SO ₄) or sulfur trioxide (SO ₃), or both, as (SO ₃)	100	
Total fluoride	50	
Total of Sb, As, Cd, Pb, Hg, Be, Cr, Co, Mn, Ni, Se, Sn and V	1	

Noise and Vibration Impacts

Construction Noise

- 2.5 The Proponent shall only undertake construction activities associated with the project, other than blasting (refer to condition 2.7), that would generate an audible noise at any residential premises during the following hours:
- 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
 - 8:00 am to 1:00 pm on Saturdays; and
 - 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.

- 2.6 The hours of construction activities specified under condition 2.5 of this approval may be varied with the prior written approval of the Director-General. Any request to alter the hours of construction specified under condition 2.5 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 DECC's agreement with the proposed variation in construction times, after providing any information necessary for the DECC 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.

Blasting Limits

- 2.7 Blasting associated with the project shall only be undertaken between 9:00 am and 5:00 pm on Mondays to Fridays.
- 2.8 The Proponent shall ensure that airblast overpressure generated by blasting associated with the project does not exceed the criteria specified in Table 3 when measured at the most affected residence or other sensitive receiver. Error margins associated with any monitoring equipment used to monitor compliance with this condition shall not be taken into account in determining whether overpressure criteria have been met.

Table 3 - Airblast Overpressure Criteria

Airblast Overpressure (dB(Lin Peak))	Allowable Exceedance
115	5% of total number of blasts over a 12 month period
120	Never

- 2.9 The Proponent shall ensure that ground vibration generated by blasting associated with the project does not exceed the criteria specified in Table 4 when measured at the most affected residence or other sensitive receiver. Error margins associated with any monitoring equipment used to monitor compliance with this condition shall not be taken into account in determining whether vibration criteria have been met.

Table 4 – Peak Particle Velocity Criteria

Peak Particle Velocity (mm s^{-1})	Allowable Exceedance
5	5% of total number of blasts over a 12 month period
10	Never

Operation Noise

- 2.10 The Proponent shall design, construct, operate and maintain the project to ensure that the noise contributions from the project to the background acoustic environment do not exceed the maximum allowable noise contributions specified in Table 5, at those locations and during those periods indicated. The maximum allowable noise contributions apply under:
- wind speeds up to 3 ms^{-1} (measured at 10 metres above ground level); or
 - temperature inversion conditions of up to $3^\circ\text{C}/100$ metres and wind speeds up to 2 ms^{-1} (measured at 10 metres above ground level).

Table 5 - Maximum Allowable Noise Contributions

Location	Day 7:00am to 6:00pm Mondays to Saturdays 8:00am to 6:00pm Sundays and public holidays	Evening 6:00pm to 10:00pm on any day	Night 10:00pm to 7:00am Mondays to Saturdays 10:00pm to 8:00am Sundays and public holidays	
	$L_{Aeq}(15 \text{ minute})$	$L_{Aeq}(15 \text{ minute})$	$L_{Aeq}(15 \text{ minute})$	$L_{A1}(1 \text{ minute})$
50 Border Street	44	44	44	50
8A Border Street	37	37	37	50
Point Piper Road	36	36	36	50
During School Use				
	External $L_{Aeq}(\text{period})$		Internal $L_{Aeq}(\text{period})$	
Eraring Primary School	45		35	

- 2.11 For the purpose of assessment of noise contributions specified under condition 2.10 of this approval, noise from the project shall be:
- in the case of $L_{Aeq}(15 \text{ minute})$ and $L_{Aeq}(\text{period})$ criteria, at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary;
 - in the case of $L_{Aeq}(1 \text{ minute})$ criteria, one metre from the dwelling façade; and

- c) subject to the modification factors provided in Section 4 of the *New South Wales Industrial Noise Policy* (EPA, 2000), where applicable.

Notwithstanding, should direct measurement of noise from the project be impractical, the Proponent may employ an alternative noise assessment method deemed acceptable by the DECC (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 DECC shall be submitted to the Director-General prior to the implementation of the assessment method.

Soil and Water Quality Impacts

- 2.12 Except as may be expressively provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the *Protection of the Environment Operations Act 1997* which prohibits the pollution of waters.
- 2.13 Soil and water management controls shall be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities, in accordance with Landcom's *Managing Urban Stormwater: Soils and Conservation*.

Groundwater

- 2.14 The Proponent shall design and construct the attenuation reservoir in a manner that does not intercept underlying groundwater.
- 2.15 Prior to the commencement of construction of the attenuation reservoir, the Proponent shall submit final design details, construction methods and schedules to the DWE and Director-General.
- 2.16 The attenuation reservoir shall be lined with at least 0.75 metres of clay to achieve a permeability no greater than $1 \times 10^{-9} \text{ ms}^{-1}$, or an equivalent lining agreed by the Director-General.
- 2.17 All seepage collected by the piped underdrainage system associated with the attenuation reservoir shall be returned to the reservoir or the salt water intake canal, and not directly discharged to the environment.

Process Water

- 2.18 The Proponent shall design, construct, operate and maintain the project to ensure that the rate of discharge of water from the cooling water outlet canal to Myuna Bay does not exceed 11,000 megalitres per day.
- 2.19 The Proponent shall design, construct, operate and maintain the project to ensure that the temperature water discharged from the cooling water outlet canal to Myuna Bay never exceeds 37.5°C. This condition does not apply in the event that the Proponent is direct, pursuant to the National Electricity Rules, to maintain, increase or be available to increase power generation for system security.
- 2.20 Notwithstanding condition 2.19 of this approval, the Proponent shall develop and implement a **Thermal Load Strategy** with the aim of minimising the frequency and duration of discharges of water from the cooling water outlet canal to Myuna Bay in excess of 35°C. The Strategy shall include, but not necessarily be limited to:
- a) consideration of ambient, generating and market conditions that may lead to discharges in excess of 35°C;
 - b) a proactive strategy to minimise or avoid circumstances within the Proponent's control that lead to discharges in excess of 35°C; and
 - c) a reactive strategy to return discharges to below 35°C as rapidly as possible following exceedance of this temperature.

The Proponent shall submit a copy of the Strategy to the Director-General prior to operation of the project.

Ecological Impacts

- 2.21 The Proponent shall provide a compensatory habitat package consisting of no fewer than two hectares of compensatory habitat for each hectare of terrestrial vegetation removed as part of the attemperation reservoir. Specifications for the compensatory habitat, including location, composition, quality and management of the habitat, shall be determined in consultation with the DECC and subject to the approval of the Director-General, having regard to:
- a) provision of biodiversity outcomes at least equivalent to those lost;
 - b) potential for off-set areas to connect with and complement other areas of conservation value, particularly with respect to habitat corridors and connectivity;
 - c) the draft *Lower Hunter Regional Conservation Plan* (DECC, 2006);
 - d) the Lake Macquarie *Tetratheca juncea* Management Plan (as amended 2001); and
 - e) potential coordination, connection and interaction with compensatory habitat provided in pursuance of the requirements of Concept Plan approval 05_0138 (Upgrade of the ash disposal facility at the Eraring Power Station) granted on 14 December 2006.

The program for funding or works associated with the compensatory habitat package shall be set out in the package to the satisfaction of the Director-General prior to the relevant vegetation clearing.

- 2.22 As soon as practicable after the completion of construction works, the Proponent shall stabilise and rehabilitate disturbed areas associated with the attemperation reservoir and borrow pit using locally endemic native species.

Traffic and Transport Impacts

- 2.23 All access to the site in relation to the project shall only be via the grade separated interchange at the intersection of Wangi Road and Rocky Point Road.
- 2.24 Prior to undertaking any blasting or cut/ fill activities with the potential to affect the condition of Wangi Road, the Proponent shall submit to the satisfaction of the RTA and Council, a geotechnical report on the likely impacts of those activities on the condition of Wangi Road. The report shall detail any mitigation measures to be applied to protect the condition of Wangi Road, and how the Proponent will ensure that works are undertaken to the satisfaction of the RTA and Council.

Heritage Impacts

- 2.25 In undertaking the project, the Proponent shall not destroy, modify or otherwise physically affect items EE2, EE6 and EE9 as identified in Appendix C of the document referred to under condition 1.1b) of this approval.
- 2.26 The Proponent is permitted to destroy items EE1, EE3, EE4, EE5, EE7 and EE8 as identified in Appendix C of the document referred to under condition 1.1b) of this approval. Prior to the destruction of these items, the Proponent shall engage an independent, qualified heritage expert to prepare an archival recording of these items in accordance with NSW Heritage Office guidelines. Destruction of these items shall not commence until the Director-General is satisfied with the archival recordings and the recordings have been lodged with the Lake Macquarie City Library, or other repository agreed by the Director-General.

Hazards and Risk Impacts

- 2.27 Prior to the commencement of construction of the power station upgrade, the Proponent shall prepare and submit for the approval of the Director-General, the following studies:
- a) a **Fire Safety Study** for the power station upgrade, 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 submission to the Director-General;

- b) a **Hazard and Operability Study (HAZOP)** for the power station upgrade, 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*. The HAZOP report shall be accompanied by a program for the implementation of all recommendations made in the HAZOP report. If the Proponent intends to defer the implementation of a recommendation, justification must be included.
- c) a **Final Hazard Analysis** prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis*; and
- d) a **Construction Safety Study** for the project, prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 7 - Construction Safety Study Guidelines*. The commissioning portion of the Study may be submitted two months prior to commissioning the project. In particular, risks during the construction period from and to the existing plant should be considered as part of this study.

2.28 Prior to the commencement of commissioning of the power station upgrade, the Proponent shall prepare and submit for the approval of the Director-General the following studies:

- a) an **Emergency Plan** for the project. The Plan shall be prepared in accordance with the Department's publication *Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines*. The plan shall include detailed procedures for the safety of all people outside of the development who may be at risk from the project; and
- b) a **Safety Management System**, covering all operations at the project and any associated transport activities involving hazardous materials. 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*.

2.29 The Proponent may satisfy condition 2.28 of this approval by demonstrating to the satisfaction of the Director-General that an existing equivalent documentation has been appropriately updated to reflect the power station upgrade.

3. ENVIRONMENTAL MONITORING AND AUDITING

Air Quality Monitoring

3.1 The Proponent shall determine the pollutant concentrations specified in Table 6 below at monitoring/ discharge point 15 (as defined under condition 2.3 of this approval). Monitoring shall be undertaken during operation of the project, at the frequency indicated in the Table, unless otherwise agreed by the DECC.

Table 6 – Periodic Pollutant and Parameter Monitoring (Air)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both (as NO ₂)	pphm	AM-12	Continuously
Sulfur dioxide	pphm	AM-20	

3.2 The Proponent shall determine the pollutant concentrations specified in Table 7 below at monitoring/ discharge point 16 (as defined under condition 2.3 of this approval). Monitoring shall be undertaken during operation of the project, at the frequency indicated in the Table, unless otherwise agreed by the DECC.

Table 7 – Periodic Pollutant and Parameter Monitoring (Air)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Total fluoride	µgm ⁻³	AM-8	Continuously
Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both (as NO ₂)	pphm	AM-12	
Sulfur dioxide	pphm	AM-20	

- 3.3 The Proponent shall determine the pollutant concentrations specified in Table 8 below at monitoring/ discharge point 18 (as defined under condition 2.3 of this approval). Monitoring shall be undertaken during operation of the project, at the frequency indicated in the Table, unless otherwise agreed by the DECC.

Table 8 – Periodic Pollutant and Parameter Monitoring (Air)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Solid particulates – deposited matter	gm ⁻² per month	AM-19	Continuously

- 3.4 The Proponent shall determine the pollutant concentrations and emission parameters specified in Table 9 below at monitoring/ discharge points 11, 12, 13 and 14 (as defined under condition 2.3 of this approval). Monitoring shall be undertaken during operation of the project, at the frequency indicated in the Table, unless otherwise agreed by the DECC.

Table 9 – Periodic Pollutant and Parameter Monitoring (Air)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Nitrogen dioxide (NO ₂) or nitric oxide (NO), or both (as NO ₂)	gm ⁻³	CEM-2	Continuously
Sulfur dioxide	mgm ⁻³	CEM-2	
Smoke	% opacity	CEM-1	
Carbon dioxide	%	TM-24	Annually
Carbon monoxide	mgm ⁻³	TM-32	
Chlorine	mgm ⁻³	TM-7	
Hydrogen chloride	mgm ⁻³	TM-8	
Copper	mgm ⁻³	TM-12, TM-13 and TM-14	
Mercury	mgm ⁻³	TM-14	
Cadmium	mgm ⁻³	TM-14	
Solid particles	mgm ⁻³	TM-15	
Sulfuric acid mist (H ₂ SO ₄) or sulfur trioxide (SO ₃), or both, as (SO ₃)	mgm ⁻³	TM-3	
Total fluoride	mgm ⁻³	TM-9	
Total of Sb, As, Cd, Pb, Hg, Be, Cr, Co, Mn, Ni, Se, Sn and V	mgm ⁻³	TM-12, TM-13 and TM-14	
Dry gas density	kgm ⁻³	TM-23	
Moisture	%	TM-22	
Molecular weight of stack gases	g.gmol ⁻¹	TM-23	
Temperature	°C	TM-2	
Velocity	ms ⁻¹	TM-2	
Volatile organic compounds	ppm	TM-34	
Volumetric flowrate	m ³ s ⁻¹	TM-2	

Noise Performance Auditing

- 3.5 Within 90 days of the completion of the power station upgrade works, or as may be agreed by the Director-General, and during a period in which the project is operating under design loads and normal operating conditions, the Proponent shall undertake a program to confirm the noise emission performance of the upgraded power station. The program shall meet the requirements of the DECC, and shall include, but not necessarily be limited to:
- noise monitoring, consistent with the guidelines provided in the *New South Wales Industrial Noise Policy* (EPA, 2000), to assess compliance with condition 2.10 of this approval;
 - methodologies, locations and frequencies for noise monitoring;
 - identification of monitoring sites at which pre- and post-project noise levels can be ascertained; and
 - details of any complaints relating to noise impacts.

A report providing the results of the program shall be submitted to the Director-General and the DECC with 28 days of completion of the testing required under a).

- 3.6 In the event that the program undertaken to satisfy condition 3.5 of the approval indicates that the operation of the upgraded power station, under design loads and normal operating conditions, will lead to greater noise impacts than permitted under condition 2.10 of this approval, then the Proponent shall provide details of remedial measures to be implemented to reduce noise impacts to levels required by that condition. Details of the remedial measures and a timetable for implementation shall be submitted to the Director-General for approval within such period as the Director-General may require, and be accompanied by evidence that the DECC is satisfied that the remedial measures are acceptable.

Groundwater Monitoring

- 3.7 Prior to the commencement of filling of the attemperation reservoir, the Proponent shall prepare and implement a **Groundwater Monitoring Program** to monitor the impacts of the reservoir on local groundwater quality and hydrology. The Program shall be developed in consultation with and to the satisfaction of the DWE, and shall include, but not necessarily be limited to:
- a) locations of monitoring bores, both up and down gradient of the reservoir;
 - b) parameters and pollutants to be monitored, including procedures and protocols for sampling and testing;
 - c) a schedule for periodic monitoring of groundwater quality, depth and flow, at an initial frequency of no less than once every six months;
 - d) details of a background survey to establish groundwater quality, depth and flow prior to the commencement of construction of the reservoir;
 - e) details of groundwater quality limits that would indicate impacts from the reservoir, particularly as a result of seepage, and a contingency plan in the event that impacts are identified; and
 - f) provisions for periodic auditing and reporting of results to the DWE and the Director-General.

The Proponent shall submit a copy of the Program to the Director-General prior to its implementation.

- 3.8 Prior to the commencement of operation of the attemperation reservoir, the Proponent shall prepare an **Aquatic Ecological Monitoring Program** to monitor the impacts of the project on the ecology of ecosystems of Myuna Bay. The Program shall be developed in consultation with the DECC and the DPI, and shall include, but not necessarily be limited to:
- a) a sampling, data collection and assessment regime to establish baseline ecological health, with particular reference to seagrasses, and for ongoing monitoring of ecological health during construction and operation of the project;
 - b) criteria against which the impact of the project on the ecological health of Myuna Bay will be assessed;
 - c) water quality monitoring in the context of potential ecological impacts;
 - d) mitigation measures to be implemented in the event that reduced ecological health is identified with reference to established assessment criteria, including a timetable for implementation; and
 - e) provision for the identification and establishment of compensatory habitat measures in the event that monitoring indicates a deterioration or destruction of seagrass habitat.

4. COMPLIANCE MONITORING AND TRACKING

Compliance Tracking Program

- 4.1 The Proponent shall develop and implement a **Compliance Tracking Program** to track compliance with the requirements of this approval. The Program shall include, but not necessarily limited to:
- a) provisions for periodic review of the compliance status of the project and each of its components;
 - b) provisions for periodic reporting of compliance status to the Director-General;
 - c) a program for independent environmental auditing of the proposal, in accordance with *ISO 19011:2002 - Guidelines for Quality and/ or Environmental Management Systems Auditing*; and

- d) mechanisms for rectifying any non-compliance identified during environmental auditing or review of compliance.

5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

Provision of Electronic Information

- 5.1 Prior to the commence of the project, the Proponent shall establish and maintain a new website, or dedicated pages within its existing website for the provision of electronic information associated with the project. The Proponent shall publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to:
- a) information on the project, each of its components and the current implementation status of each component and stages;
 - b) a copy of this approval;
 - c) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the project;
 - d) a copy of each monitoring program and each environmental management plan required under this approval;
 - e) details of the outcomes of reviews and audits of the proposal and each of its components undertaken in accordance with the Compliance Tracking Program referred to under condition 4.1; and
 - f) details of a contact point(s) to which community complaints or inquiries may be directed, including a telephone number, a postal address and an email address.

6. ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

- 6.1 The Proponent shall prepare and implement a **Construction Environmental Management Plan(s)** for the power station upgrade and attenuation reservoir to outline environmental management practices and procedures to be followed during construction of each part of the project. The Plan(s) shall be consistent with *Guideline for the Preparation of Environmental Management Plans* (DIPNR, 2004) and shall include, but not necessarily be limited to:
- a) a description of all activities to be undertaken on the site during construction including an indication of stages of construction, where relevant;
 - b) statutory and other obligations that the Proponent is required to fulfil during construction including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
 - c) details of how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts. 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 activities;
 - iii) measures to monitor and control noise emissions during construction works;
 - d) a description of the roles and responsibilities for all relevant employees involved in the construction of the project;
 - e) the additional studies listed under condition 6.2 of this approval; and
 - f) complaints handling procedures during construction.

The Plan(s) shall be submitted for the approval of the Director-General no later than one month prior to the commencement of any construction works associated with the part of the project to which the Plan(s) applies, or within such period otherwise agreed by the Director-General. Construction works shall not commence until written approval has been received from the Director-General.

- 6.2 As part of the Construction Environmental Management Plan(s) for the project, required under condition 6.1 of this approval, the Proponent shall prepare and implement the following:
- a) a **Traffic Management Protocol** to outline management of traffic conflicts that may be generated during construction of the project. The Plan shall address the requirements of Council and the Roads and Traffic Authority and shall include, but not necessarily be limited to:

- i) details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads;
 - ii) detailed consideration of measures to be employed to ensure traffic volume, acoustic and amenity impacts along the heavy vehicle routes are minimised;
 - iii) detailed consideration of alternative routes (where necessary);
 - iv) provisions for the management of potential blasting impacts and disruptions to traffic, particularly on Wangi Road;
 - v) demonstration that all statutory responsibilities with regard to road traffic impacts have been complied with.
- b) a **Construction Noise Management Plan** to detail how construction noise and vibration impacts would be minimised and managed, including, but not necessarily limited to:
- i) details of construction activities and a schedule for construction works;
 - ii) identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly residential areas;
 - iii) a detailed description of what actions and measures would be implemented to ensure that these works would comply with the relevant noise and vibration criteria/guidelines;
 - iv) procedures for notifying residents of construction activities that are likely to effect their noise and vibration amenity, as well as procedures for dealing with and responding to noise complaints; and
 - v) a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken and how the results of this monitoring would be recorded.

Operation Environmental Management

6.3 The Proponent shall prepare and implement an **Operation Environmental Management Plan** to detail an environmental management framework, practices and procedures to be followed during operation of the project. The Plan shall be consistent with *Guideline for the Preparation of Environmental Management Plans* (DIPNR, 2004) and shall include, but not necessarily be limited to:

- a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to operation of the project, including all approvals, licences, approvals and consultations;
- b) a description of the roles and responsibilities for all relevant employees involved in the operation of the project;
- c) overall environmental policies and principles to be applied to the operation of the project;
- d) standards and performance measures to be applied to the project, and a means by which environmental performance can be periodically reviewed and improved, where appropriate;
- e) management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval; and
- f) the additional studies listed under condition 6.4 of this approval.

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

6.4 As part of the Operation Environmental Management Plan for the project, required under condition 6.3 of this approval, the Proponent shall prepare and implement the following Management Plans:

- a) a **Reservoir Management Plan** to outline how the attenuation reservoir will be managed to minimise potential impacts on the surrounding environment. The Plan shall include, but not necessarily be limited to:
 - i) management of the timing of emptying and filling the reservoir to minimise stratification;
 - ii) management of inputs to the reservoir from Bonnell's Bay following rainfall events;
 - iii) water quality monitoring, including water quality at the surface and the bottom of the reservoir, and algal levels during high rainfall periods; and

- iv) water quality monitoring for nutrient and sediment levels in the outlet canal during reservoir discharge.
- b) a **Noise Management Plan** to detail measures to mitigate and manage noise during operation of the project. The Plan shall include, but not necessarily be limited to:
 - i) procedures to ensure that all reasonable and feasible noise mitigation measures are applied during operation of the project;
 - ii) procedures to generate suitable documentation for annual environmental auditing, that demonstrates that the noise limits and noise goals specified under this approval, or best practice noise control operations, are being met;
 - iii) identification of all relevant receivers and the applicable criteria at those receivers commensurate with the noise limits and noise goals specified under this approval;
 - iv) identification of activities that will be carried out in relation to the project and the associated noise sources;
 - v) procedures for periodic consideration of noise impacts at the relevant receivers against the noise limits and noise goals specified under this approval;
 - vi) details of all management methods and procedures that will be implemented to control individual and overall noise emissions from the site during operation;
 - vii) project of reactive and pro-active strategies for dealing promptly with any noise complaints, including documentation of a fast response (eg within one hour), the completed action on a complaint and feedback from the complainant (eg within 24 hours); and
 - viii) noise monitoring and reporting procedures.

6.5 The Proponent may satisfy conditions 6.3 and 6.4 of this approval by demonstrating to the satisfaction of the Director-General that existing, equivalent documentation has been appropriately updated to reflect the project.

7. ENVIRONMENTAL REPORTING

Incident Reporting

- 7.1 The Proponent shall notify the Director-General of any incident with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable and within 24 hours after the occurrence of the incident. The Proponent shall provide full written details of the incident to the Director-General within seven days of the date on which the incident occurred.
 - 7.2 The Proponent shall meet the requirements of the Director-General to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition 7.1 of this approval, within such period as the Director-General may require.
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