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 2007 File No: 9043050

SCHEDULE 1

Application No:	06_0159
Proponent:	Visy Pulp and Paper Pty Ltd
Approval Authority:	Minister for Planning
Land:	Lots 5, 12, 14, 19, 42, 57, 61, 62, 63, 64, 76, 84, 91, 92, 93, 94, 103, 105, 106, 107, 115, 116, 117, 118, 119, 138 in DP No. 757228; Lots 211, 219, 220, 221, 222, 223, 224, 229, 230 and 235 in DP No. 757252; Lot 1 in DP No. 832090; Lot 4 in DP No. 1004478; Lot 1 in DP No. 1082770; Lots 102 and 103 in DP No. 1035564; Lot 7002 in DP No. 96829 and Lot 1 DP 27482; 436 Gadara Road, Tumut, Tumut local government area
Project:	Visy Tumut Mill Expansion to increase Paper Manufacturing Capacity
Concept Approval:	The project is all components other than the use of non-standard fuels in the Multi-fuel Boiler of the approved concept plan for the Visy Tumut Mill Expansion (06_0159)
Major Project:	The project is part of the Visy Tumut Mill Expansion, which is DECClared a Major Project under section 75B(1)(a) of the *Environmental Planning and Assessment Act 1979*, because it

is development of a kind described in clause 4(b) of Schedule 1 to *State Environmental Planning Policy (Major Projects) 2005*

KEY TO CONDITIONS

SCHEDULE 2

Act, the	*Environmental Planning and Assessment Act, 1979*
Conditions of Approval	The Minister's conditions of approval for the project.
Council	Tumut Shire 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).
Director-General's Approval	A written approval from the Director-General (or delegate). Where the Director-General's Approval is required under a condition the Director-General will endeavour to provide a response within one month of receiving an approval request. The Director-General may ask for additional information if the approval request is considered incomplete. When further information is requested the time taken for the Proponent to respond in writing will be added to the one month period.
Director-General's Report	The report provided to the Minister by the Director-General of the Department under section 75I of the EP&A Act.
DPI	Department of Primary Industries
Dust	Any solid material that may become suspended in air or deposited
DWE	Department of Water and Energy
EA	*Visy Pulp and Paper Proposed Mill Expansion, Tumut NSW, Final Environmental Assessment,* prepared by Visy Pulp and Paper Pty Ltd and dated January 2007
EPA	Environment Protection Authority as part of the Department of Environment and Conservation
EPL	Environment Protection Licence issued under the *Protection of the Environment Operations Act, 1997*
Minister, the	Minister for Planning
NSW Health	Department of Health
PAHs	Polycyclic Aromatic Hydrocarbons
Phase 1	The construction and operation of the first of two groups of process components of the proposal.
Phase 2	The construction and operation of the second of two groups of process components of the proposal.
Proponent	Visy Pulp and Paper Pty Ltd
Publicly Available	Available for inspection by a member of the general public (for example available on an internet site or at a display centre).
RTA	Roads and Traffic Authority
Site	Land to which Major Projects Application 06_0159 applies.
Submissions Report	*Visy Pulp & Paper Proposed Mill Expansion, Tumut NSW, Submissions Report*, prepared by Visy Pulp and Paper Pty Ltd and dated March 2007

1. ADMINISTRATIVE CONDITIONS

Terms of Approval

1.1 The Proponent shall carry out the project generally in accordance with the:

a) Major Projects Application 06_0159;
b) *Visy Pulp and Paper Proposed Mill Expansion, Tumut NSW, Final Environmental Assessment,* prepared by Visy Pulp and Paper Pty Ltd and dated January 2007;
c) *Visy Pulp & Paper Proposed Mill Expansion, Tumut NSW, Submissions Report,* prepared by Visy Pulp and Paper Pty Ltd and dated March 2007;
d) the concept approval granted with respect to the Visy Tumut Mill Expansion (06_0159);
e) the *Statement of Commitments* prepared by Visy Pulp and Paper Pty Ltd dated 18 April 2007; and
f) the conditions of this approval.

1.2 In the event of an inconsistency between:

a) the conditions of this approval and any document listed from condition 1.1a) and 1.1f)inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and
b) any document listed from condition 1.1a) and 1.1f) inclusive, and any other document listed from condition 1.1a) and 1.1f) inclusive, the most recent document shall prevail to the extent of the inconsistency.

1.3 Notwithstanding condition 1.2, if there is any inconsistency between this project approval and the concept approval for the Visy Tumut Mill Expansion, the concept approval shall prevail to the extent of the inconsistency.

1.4 The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of:

a) any reports, plans or correspondence that are submitted in accordance with this approval; and
b) the implementation of any actions or measures contained in these reports, plans or correspondence.

Statutory Requirements

1.5 The Proponent shall ensure that all licences, permits and approvals are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure that a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.

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 conduct all operations and activities on the site, including start-up and shut-down, in a manner that 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.

Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises 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 a licence directed at minimising odour.

2.3 The Proponent shall install and operate odour collection and reduction systems for all relevant new plant. This shall include incorporating new plant into the existing NCG Collection System and Condensate Treatment System.

2.4 The Proponent shall install and operate vapour compression evaporators for both new and existing plant to reduce the level of chemical oxygen demand in clean condensate. The vapour compression evaporators must be operated such that chemical oxygen demand in the clear condensate is reduced to 50 % of existing levels.

2.5 Prior to the commencement of construction, the Proponent shall submit to the satisfaction of the Director-General, a detailed report on the proposed use of vapour compression evaporators. The report shall be prepared in consultation with the DECC and shall demonstrate how the vapour compression evaporator system will reduce chemical oxygen demand in clean condensate to at least 50% of existing levels.

2.6 Prior to the commencement of operation, the Proponent shall submit to the satisfaction of the Director-General, a detailed report on all feasible and reasonable mitigation measures to reduce adverse odour impacts arising from startup and shutdown activities. The report is to be prepared in consultation with the DECC and shall include but not necessarily be limited to:

a) investigations into the timing and sequencing of plant activities such that adverse odour impacts are minimised; and
b) the effect of prevailing weather conditions on plant activities in regard to adverse odour impacts.

Best Available Techniques

2.7 The Proponent shall utilise Best Available Techniques in accordance with the European Commission *Reference Document On Best Available Techniques in the Pulp and Paper Industry* (2001) for all combustion sources and air emission control equipment associated with the project.

Manufacturer's Performance Guarantee

2.8 Prior to the installation of any equipment associated with the project that discharges to air, the Proponent shall submit manufacturer's performance guarantees for that equipment to the DECC. The documentation shall demonstrate to the DECC's satisfaction that the equipment, when operating at design load will comply with the air discharge limits specified under condition 2.10 of this approval.

Monitoring and Discharge Points

2.9 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	Monitoring/ Discharge Point Location
Main Stack 2	Main Stack 2
Recovery Boiler 2	In the discharge duct downstream of Recovery Boiler 2 and before the junction with Main Stack 2
Natural Gas Boiler	In the discharge duct downstream of Natural Gas Boiler Electro-static Precipitator and before the junction with Main Stack 2
Multi-fuel Boiler	In the discharge duct downstream of the Multi-Fuel Boiler after the fabric filters and before the junction

	with the Main Stack
Lime Kiln 2	Lime Kiln 2 discharge duct before the junction with the Main Stack
Gas Turbine	In the discharge stack from the Gas Turbine

Discharge Limits

2.10 The Proponent shall design, construct, operate and maintain the project to ensure that for each stack discharge point, the concentration of each pollutant listed in Table 2 to Table 5 inclusive is not exceeded. This condition only applies to the operation of the project, and to avoid any doubt, does not apply during start-up or shut-down. Reference conditions for in-stack concentrations described in this condition shall be reported to the reference conditions specified within Schedule 5 Part 3 of the *Protection of the Environment Operations (Clean Air) Regulation 2002*, except for emissions from the Main Stack 2, Natural Gas Boiler and Multi-Fuel Boiler where the applicable reference conditions are Dry, 273 °K, 101.3 kPa, 8 % O_2.

Table 2 - Maximum Allowable Discharge Concentration Limits (Main Stack 2)

Pollutant	100 Percentile limit (mgm^{-3})
Cadmium	0.5
Chlorine	100
Mercury	0.5
Nitrogen Oxides	400
Hydrogen Chloride**	50
Sulfur Dioxide**	250
Total Solid Particulates	50
Sulfuric acid mist and sulfur trioxide (as SO_3)	20
Opacity*	20
TCDD (equivalent)*	0.1
Hydrogen Fluoride	20
Type 1 and Type 2 Substances (in aggregate)	1
TRS (as H_2S)	2

* Note: The unit of measure for Opacity is %Opacity and for TCDD (equivalent) it is ng/m^3.
** Note: is the maximum allowable discharge concentration limit for the multi-fuel boiler operating on standard fuels only.

Note: Discharge limits for HCl and SO_2 will be subject to review as part of the project application for the multi-fuel boiler (non-standard fuels) component.

Table 3 - Maximum Allowable Discharge Concentration Limits (Natural Gas Boiler)

Pollutant	100 Percentile limit (mgm^{-3})
Nitrogen Oxides	100
Solid Particulates	30
Carbon Monoxide	120
Type 1 and Type 2 Substances (in aggregate)	0.5

Table 4 - Maximum Allowable Discharge Concentration Limits (Multi-fuel Boiler)

Pollutant	100 Percentile limit (mgm^{-3})
Cadmium	0.06
Mercury	0.06
Hydrogen Chloride	90
Dioxins & Furnans*	0.1
Nitrogen Oxides	300

Solid Particulates	26
Carbon Monoxide	120
Type 1 and Type 2 Substances (in aggregate)	1

* Note: The unit of measure for Dioxins & Furans is ng/m^3.

Table 5 - Maximum Allowable Discharge Concentration Limits (Gas Turbine)

Pollutant	100 Percentile limit (mgm^{-3})
Nitrogen Oxides	70
Solid Particulates	10
Carbon Monoxide	20

2.11 Averaging periods applicable for pollutants emitted from the discharge points described in condition 2.9 are listed in Table 6 unless otherwise specified by the DECC.

Table 6 – Averaging Periods

Pollutant	Averaging Period
TRS (as H_2S)	1 hour
SO2	1 hour
HCl	1 hour
Nitrogen Oxides (as NO_2)	1 hour
Opacity	6 minutes
All other pollutants	As per test methods specified in condition 3.1

Noise Impacts

Vibration Impacts

2.12 The Proponent shall ensure that the vibration resulting from construction and operation of the project does not exceed the evaluation criteria presented in British Standard BS6472 for low probability of adverse comment, at any affected residential dwelling.

Construction Noise

2.13 The Proponent shall only undertake construction activities associated with the project that would generate an audible noise at any residential premises during the following hours:

a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
b) 8:00 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.

2.14 The hours of construction activities specified under condition 2.13 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 2.13 shall be:

a) considered on a case-by-case basis;
b) accompanied by details of the nature and need for activities to be conducted during the varied construction hours; and
c) 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.

Operation Noise

2.15 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 7, 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), and under temperature inversion conditions of up to 3 °C/ 100 metres and wind speeds up to 2ms^{-1}.

Table 7 - Maximum Allowable Noise Contribution

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	
	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	L_{Amax}
Pleasant View*	40	40	40	45
Deep Creek*	39	39	39	45
Reka* & Glengarry*	36	36	36	45
Any other residence	35	35	35	45

* Note: Residence names are those described in Appendix N of the EA.

2.16 For the purpose of assessment of noise contributions specified under condition 2.15 of this approval, noise from the project shall be:

a) at any point within the residential boundary, or at any point within 30 metres of the dwelling where the dwelling is more than

b) 30 metres from the boundary; 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 EPA (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 EPA shall be submitted to the Director-General prior to the implementation of the assessment method.

Soil and Water Quality Impacts

2.17 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.

2.18 The project shall be designed and employ surface water management techniques such that existing run-off volumes along creeks and drainage lines from the site are maintained at similar levels post-construction.

2.19 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.*

Acid Sulfate Soils

2.20 Prior to the commencement of site preparation works, the Proponent 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 DECC's Environmental Guideline *Assessing and Managing Acid Sulfate Soil* and the Acid Sulfate Soil Management Advisory Committee (ASSMAC) document *Acid Sulfate Soil Manual.*

Should testing indicate that any potential or actual acid sulfate soils may be disturbed during site preparation works or the construction of the project, the Proponent shall prepare an Acid Sulfate Soil Management Plan (refer to condition 5.2).

Waste Generation and Management

2.21 All waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.

2.22 The Proponent shall maximise the treatment, reuse and/ or recycling on the site of any waste oils, excavated soils, slurries, dusts and sludges associated with the project, to minimise the need for treatment or disposal of those materials outside the mill facility.

2.23 The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*, if such a licence is required in relation to that waste.

2.24 The Proponent shall ensure that all liquid and / or non-liquid waste generated and / or stored on the site is assessed and classified in accordance with *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (DECC, 2004), or any future guideline that may supersede that document.

Wastewater Management

2.25 The Proponent shall undertake effluent irrigation on the existing and expanded areas identified in the EA in a manner that ensures the long term sustainability of this activity. Mitigation and management practices are to be determined in consultation with DPI and shall include, but not be limited to:

a) the use of crops that will reduce soil salinity levels;
b) measures to maintain crop biodiversity such as cropping patterns based on 1, 2, 3 and 4 years of Lucerne rotation under different paddocks;
c) the provision of subsurface drainage under low-lying areas which receive effluent; and
d) the use of best practise ameliorative measures where soil improvement is determined to be necessary.

2.26 The Proponent shall not make unavailable to receive effluent those lands identified in the EA for the purpose of contingency land for the irrigation of effluent.

2.27 The winter storage dam extension shall be constructed with a 600 mm thick remoulded, recompacted clay liner with a permeability of less than 1×10^{-9} m/s and shall not exceed a total water volume of approximately 900ML.

2.28 Discharge of treated wastewater from the project into Sandy Creek or any of its tributaries shall only occur as permitted by the DECC and in accordance with the DECC's *Environmental Guidelines: Use of Effluent by Irrigation (2004)*. Discharge information shall be recorded to the satisfaction of the DECC and shall include discharge volume, duration of discharge and flow conditions of Sandy Creek or any of its tributaries at the time of discharge.

Hazards and Risk

2.29 The Proponent shall demolish all relevant structures strictly in accordance with *AS 2601-1991: The Demolition of Structures*, as in force at 1 July 1993.

Aviation Hazards

2.30 Prior to the commencement of construction, the Proponent shall consult with the Civil Aviation Safety Authority in relation to any modifications to instruments or procedures required at the Tumut Aerodrome, or other airports where relevant, as a result of any air plume associated with the project. At the request of the Civil Aviation Safety Authority, the Proponent shall fund any such modifications to the satisfaction of the Director-General.

Bunding and Spill Management

2.31 The Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:

a) all relevant Australian Standards;
b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
c) the EPA'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.

Pre-Construction Hazards Studies

2.32 At least one month prior to the commencement of construction of the project, the Proponent shall prepare and submit for the approval of the Director-General, the following studies:

a) an updated **Fire Safety Study** for the mill site including the expansion project, 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 approval to the Commissioner of the NSW Rural Fire Service prior to submission to the Director-General; and
b) 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.* Specific consideration must be given to the interaction of construction work with existing plant and operations. The commissioning portion of the Study may be submitted two months prior to commissioning the project.

Pre-Commissioning Hazards Studies

2.33 At least two months prior to the commencement of commissioning of the project the Proponent shall prepare and submit for the approval of the Director-General the following studies:

a) an updated **Emergency Plan** for mill operations including the expansion 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) an updated **Safety Management System**, covering all operations at the site including the expansion 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.*

Traffic Impacts

2.34 The Proponent shall ensure that the sweep path of the largest vehicle entering and exiting the site and manoeuvrability through the site is accordance with *AS 2890.2-2002 Parking facilities - Off-street commercial vehicle facilities* and to the satisfaction of Council.

2.35 The Proponent shall install traffic calming measures on internal roads and ensure that all internal roads are appropriately marked and signposted so as to assist safe vehicular movement throughout the plant.

2.36 The Proponent shall maximise the use of B-doubles and backloading, and where possible the use of super b-doubles, so as to reduce the number of heavy vehicle movements from site.

2.37 The Proponent shall ensure that there will be no night-time (10pm to 7am) semi-trailer, super B-Double or B-Double movements to and from the plant via the Snowy Mountains Highway through Adelong or to and from the plant via MR 280 north of Adelong.

2.38 The Proponent shall, subject to appropriate road safety, ensure that all trucks associated with the project must:
a) utilise air bag suspension;
b) minimise the use of exhaust brakes at night in residential areas; and
c) be operated in a manner so as to reduce adverse noise impacts.

2.39 Prior to the commencement of construction, the Proponent shall discuss the implementation of the road safety measures such as road speed reductions, driveway traffic vision mirrors and increased signage with Council. The Proponent shall supply any relevant information as required by Council to determine the need and suitability of such measures. Council may then make representation of such matters to the Local Traffic Committee to recommend consideration by the RTA.

2.40 The Proponent shall stagger start and finish times for construction teams as far as practicable such that the traffic impact on the intersection of Snowy Mountain Highway and Bachelor's Valley Way is minimised.

Housing

2.41 Prior to the commencement of construction the Proponent shall prepare and implement a **Workforce Housing Strategy**. The Strategy is to be developed in consultation with the Department of Housing and Council and shall be submitted to the Director-General for approval. The Strategy shall include, but is not necessarily limited to a program for monitoring the supply and affordability of rental accommodation during the construction stage and contingency measures to be implemented in the event of a shortfall in affordable rental accommodation.

Visual Amenity Impacts

2.42 The Proponent shall ensure that all external lighting associated with the project is mounted, screened, and directed in such a manner so as not to create a nuisance to the surrounding environment, properties and roadway. The lighting shall be the minimum level of illumination necessary and shall comply with *AS 4282(INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting.*

Land Acquisition

2.43 The Proponent shall, at the request of the landowner for the land listed as Lot 4 DP 793196, negotiate an option to purchase this land.

2.44 Independent valuation of the land shall commence at the request of the landowner. The landowner may request up to three independent valuations which shall be funded by the Proponent.

2.45 The acquisition price shall take into account and provide payment for:
a) the current market value of the land as if it was unaffected by the existing mill and this project;
b) reasonable compensation to the landowner for disturbance allowance and relocation costs within the Gundagai, Tumbarumba or Gundagai local government areas;
c) the landowner's reasonable costs for obtaining legal advice and expert opinion for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired.

2.46 The landowner and the Proponent shall negotiate the terms of any option to purchase in good faith within six months of the offer to purchase being received by the landowner or,

alternatively, any other form of agreement acceptable to both parties. In the event of a dispute over the valuation or terms of purchase of the landowner's property which is unresolved after twelve months of the offer being received, either party may refer the matter to the Director-General for resolution. The Director-General's determination of any such dispute shall be final and binding on the parties. Any valuation or survey assessment required by the Director-General to resolve this matter shall be funded by the Proponent.

3. ENVIRONMENTAL MONITORING AND AUDITING

Air Quality Monitoring

3.1 The Proponent shall determine the pollutant concentrations and emission parameters specified in Table 8 to Table 13 inclusive below, at each of the discharge points (established in strict accordance with the requirements of test method TM-1 as specified in *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DECC, 2007)). Monitoring shall be undertaken during operation of the project, at the frequency indicated in the tables, unless otherwise agreed by the DECC.

Table 8 – Periodic Pollutant and Parameter Monitoring (Main Stack 2)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Cadmium	mgm^{-3}	TM-12, TM-13, TM-14	Annually
Chlorine	mgm^{-3}	TM-7, TM-8	Annually
Chromium	mgm^{-3}	OM-4	Annually
Flow	Nm^3/s	CEM-6	Continuous
Hazardous substances	mgm^{-3}	TM-12, TM-13, TM-14	Annually
Hydrogen chloride	mgm^{-3}	TM-8	Continuous
Hydrogen fluoride	mgm^{-3}	TM-9	Annually
Mercury	mgm^{-3}	TM-12, TM-13, TM-14	Annually
Moisture	%	TM-22	Continuous
Nitrogen oxides	mgm^{-3}	CEM-2	Continuous
Opacity	% Opacity	CEM-1	Continuous
Oxygen (O2)	%	CEM-3	Continuous
Sulfuric acid mist and sulfuric trioxide (as SO3)	mgm^{-3}	TM-3	Annually
Sulphur dioxide	mgm^{-3}	CEM-2	Continuous
TCDD (equivalent)	ngm^{-3}	TM-18	Annually
TRS (as H2S)	mgm^{-3}	CEM-5	Continuous
Temperature	°C	TM-2	Continuous
Total Solid Particles	mgm^{-3}	TM-15	Quarterly

Table 9 – Periodic Pollutant and Parameter Monitoring (Recovery Boiler)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Carbon Monoxide	mgm^{-3}	CEM-4	Continuous
Flow	Nm^3/s	CEM-6	Continuous
Moisture	%	TM-22	Continuous
Nitrogen oxides	mgm^{-3}	CEM-2	Continuous
Opacity	% Opacity	CEM-1	Continuous
Oxygen (O_2)	%	CEM-3	Continuous
Temperature	°C	TM-2	Continuous
Total Solid Particles	mgm^{-3}	TM-15	Quarterly
Volatile Organic Compounds	mgm^{-3}	CEM-8	Continuous

Table 10 – Periodic Pollutant and Parameter Monitoring (Natural Gas Boiler)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Carbon Monoxide	mgm^{-3}	CEM-4	Continuous

Flow	Nm^3/s	CEM-6	Continuous
Moisture	%	TM-22	Continuous
Nitrogen oxides	mgm^{-3}	CEM-2	Continuous
Oxygen (O_2)	%	CEM-3	Continuous
Temperature	°C	Other approved method 1	Continuous
Total Solid Particles	mgm^{-3}	TM-15	Quarterly

Table 11 – Periodic Pollutant and Parameter Monitoring (Multi-Fuel Boiler)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Cadmium	mgm^{-3}	TM-12, TM-13, TM-14	Quarterly
Carbon Monoxide	mgm^{-3}	CEM-4	Continuous
Chromium	mgm^{-3}	OM-4	Quarterly
Flow	Nm^3/s	CEM-6	Continuous
Hazardous substances	mgm^{-3}	TM-12, TM-13, TM-14	Quarterly
Mercury	mgm^{-3}	TM-12, TM-13, TM-14	Quarterly
Moisture	%	TM-22	Continuous
Nitrogen oxides	mgm^{-3}	CEM-2	Continuous
Opacity	% Opacity	CEM-1	Continuous
Oxygen (O_2)	%	CEM-3	Continuous
TCDD (equivalent)	mgm^{-3}	TM-18	Quarterly
Temperature	°C	Other approved method 1	Continuous
Total Solid Particles	mgm^{-3}	TM-15	Quarterly

Table 12 – Periodic Pollutant and Parameter Monitoring (Lime Kiln 2)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Carbon Monoxide	mgm^{-3}	CEM-4	Continuous
Moisture	%	TM-22	Continuous
Nitrogen oxides	mgm^{-3}	CEM-2	Continuous
Opacity	% Opacity	CEM-1	Continuous
Oxygen (O_2)	%	CEM-3	Continuous
Temperature	°C	TM-2	Continuous
Total Solid Particles	mgm^{-3}	TM-15	Quarterly

Table 13 – Periodic Pollutant and Parameter Monitoring (Gas Turbine)

Pollutant/ Parameter	Units of Measure	Method	Frequency
Carbon Monoxide	mgm^{-3}	TM-32	Quarterly
Moisture	%	TM-22	Quarterly
Nitrogen oxides	mgm^{-3}	TM-11	Quarterly
Oxygen (O_2)	%	TM-25	Quarterly
Temperature	°C	TM-2	Continuous
Total Solid Particles	mgm^{-3}	TM-15	Quarterly

Air Quality Performance Verification

3.2 Within 90 days of the commencement of each phase of the project, 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 air emission performance of the project. The program shall include, but not necessarily be limited to:

a) point source emission sampling and analysis subject to the requirements listed under condition 3.1;

b) a comprehensive air quality impact assessment, using actual air emission data collected under a). The assessment shall be undertaken strictly in accordance with the methods outlined in *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2005);
c) a comparison of the results of the air quality impact assessment required under b) above, and the predicted air quality impacts detailed in the documents listed under condition 1.1 of this approval;
d) a comparison of the results of the air quality impact assessment required under b) above, and the impact assessment criteria detailed in *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DECC, 2007); and
e) details of any entries in the Complaints Register (condition 4.3 of this approval) relating to air quality impacts.

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

3.3 In the event that the program undertaken to satisfy condition 3.2 of this approval indicates that the operation of the project, under design loads and normal operating conditions, will lead to:
a) greater point source emissions or ground-level concentrations of air pollutants than predicted in the documents listed under condition 1.1 of this approval; or
b) greater point source emissions or ground-level concentrations of air pollutants than the impact assessment criteria detailed in *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DECC, 2007);

then the Proponent shall provide details of remedial measures to be implemented to reduce point source emissions or ground-level concentrations of air pollutants to no greater than that predicted in the documents listed under condition 1.1 of this approval and to meet the impact assessment criteria detailed in *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (DECC, 2007). 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.

Odour Performance Verification

3.4 Within 90 days of the commencement of each phase of the project and every year thereafter, or as may be agreed by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake odour performance monitoring. The independent person or team shall be approved by the Director-General prior to the commencement of monitoring. The monitoring program shall occur during a period in which the project is operating under design loads and normal operating conditions. The program shall include, but not necessarily be limited to:
a) point and area source emission sampling and analysis subject to the requirements listed under condition 3.1;
b) a comprehensive odour assessment, using actual air emission data collected under a). The assessment shall be undertaken strictly in accordance with the methods outlined in *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA, 2005) and *Technical Notes: Assessment and Management of Odour from Stationary Sources in NSW* (EPA, 2006);
c) a comparison of the results of the odour impact assessment required under b) above, with the predicted odour impacts detailed in the documents listed under condition 1.1 of this approval and previous odour performance assessments undertaken to satisfy this condition;
d) a comparison of the results of the odour assessment required under b) above, and the impact assessment criteria detailed in *Technical Framework – Assessment and Management of Odour from Stationary Sources in NSW* (DECC, 2006) and *Technical*

Notes: Assessment and Management of Odour from Stationary Sources in NSW (EPA, 2006); and

e) details of any entries in the Complaints Register (condition 4.3 of this approval) relating to odour impacts.

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

3.5 In the event that the program undertaken to satisfy condition 3.4 of the approval indicates that the operation of the project, under design loads and normal operating conditions, will lead to greater odour impacts than that predicted in the documentation listed under condition 1.1 of this approval, then the Proponent shall provide details of remedial measures to be implemented to reduce odour 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.

Revised Health Impact Assessment

3.6 Within 12 months of the commencement of operation of each phase of the project, the Proponent shall undertake a revised Human Health Impact Assessment using actual air emission data collected. Specific attention must be given to emissions of nitrogen dioxide, sulphur dioxide and chlorine gas. Emissions of PAHs must be included in this assessment unless it can be demonstrated that PAH emission levels are below detection limits.

The revised Human Health Impact Assessment shall be submitted to the Director-General and NSW Health within three months of commencement of emission data collection.

Noise Monitoring

3.7 Within 90 days of the commencement of each phase of the project, 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 project. The program shall meet the requirements of the DECC, and shall include, but not necessarily be limited to:

a) noise monitoring, consistent with the guidelines provided in the *New South Wales Industrial Noise Policy* (EPA, 2000), to assess compliance with condition 2.15 of this approval;

b) methodologies, locations and frequencies for noise monitoring (including at sites assessed in the EA);

c) identification of monitoring sites at which pre- and post-project noise levels can be ascertained; and

d) details of any entries in the Complaints Register (condition 4.3 of this approval) 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).

3.8 In the event that the program undertaken to satisfy condition 3.7 of the approval indicates that the operation of the project, under design loads and normal operating conditions, will lead to greater noise impacts than permitted under condition 2.15 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.

Traffic Noise

3.9 Within 12 months of commencement of operation of the first phase of the project, the Proponent will have conducted four quarterly noise monitoring assessments at all the locations identified in Appendix O of the EA. Traffic noise monitoring results will be compared with the predicted traffic noise impacts detailed in the documents listed under condition 1.1 and the DECC's *Environmental Criteria for Road and Traffic Noise* (1999). In the event that the monitoring program indicates that the traffic noise associated with the project will lead to an exceedance of traffic noise criteria and greater noise impacts than that predicted in the documentation listed under condition 1.1, then the Proponent shall provide details of mitigation measures to be implemented to reduce traffic noise impacts. Details of the mitigation 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 mitigation measures are acceptable.

A report providing the results of the traffic noise monitoring shall be submitted to the Director-General and the DECC with 28 days of completion of the testing.

Soil Monitoring

3.10 Prior to the commencement of the first phase of the project, the Proponent shall prepare and implement a **Soil Monitoring Program** to monitor the soil health of areas affected by effluent irrigation. The soil monitoring program shall be undertaken to the satisfaction of DPI and shall be conducted within 12 months of operation and every 12 months thereafter, unless otherwise agreed to by the Director-General. The soil monitoring program shall include, but not necessarily limited to:

a) installation of soil moisture probes for daily soil moisture monitoring;
b) calibration of existing soil moisture probes to ensure spatial coverage of hydrogeological conditions of effluent irrigation areas;
c) determination of appropriate soil sampling locations in new irrigation areas ensuring spatial coverage of hydrogeological conditions; and
d) soil sampling consistent with the DECC's *Environmental Guidelines for the Utilisation of Treated Effluent by Irrigation* (2004) undertaken twice a year, before and after the irrigation season.

3.11 In the event that the soil monitoring program described in condition 3.10 indicates that effluent irrigation is having an adverse impact on the sustainable use of soils within the irrigation area, then the Proponent must undertake soil amelioration measures in consultation with DPI such that the adverse impacts are effectively mitigated.

Water Monitoring

3.12 Prior to the commencement of the first phase of the project, the Proponent shall prepare and implement a **Surface and Groundwater Monitoring Program**. The program shall be undertaken to the satisfaction of DECC and shall include but not necessarily be limited to the identification of monitoring locations, frequency and parameters for the monitoring of groundwater impacts associated with effluent irrigation. The program will give consideration to the positioning of groundwater monitoring locations adjacent to the drainage line downstream of the irrigation areas specified in the EA and between the irrigation areas referred to in the EA as CP6, CP7 and CP8.

Hazard Compliance

3.13 Within 90 days of the commencement of operation of each phase of the project, or as may be agreed by the Director-General, the Proponent shall submit a report detailing compliance with conditions 2.32 and 2.33 of this approval. The report shall include, but not necessarily be limited to:

a) dates of study, plan or system completion, and commencement of construction and commissioning;

b) actions taken or proposed to implement recommendations made in the studies, plans or systems; and
c) responses to each requirement that may be requested by the Director-General in respect to the implementation of any measures arising from recommendations of the studies or reports described by conditions 2.32 and 2.33.

Auditing

3.14 Twelve months after the commencement of operation of the first phase of the project, or within such period otherwise agreed by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake a Hazard Audit of the project. 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 completion of the Audit. Further Hazard Audit of the expansion shall be included in the Hazard Audit required of the existing plant, 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*. The hazard audit report shall be accompanied by a program for the implementation of all recommendations made in the hazard audit report. It the Proponent intends to defer the implementation of a recommendation, justification must be included.

3.15 Within 12 months of the commencement of the first phase of the project, the Proponent shall undertake an Odour Audit of the project. The Odour Audit must include a leak detection and repair program, as outlined in the USEPA Maximum Achievable Control Technology Rules, for the entire foul gas and foul condensate collection systems. The **Odour Audit Report** shall be submitted to the satisfaction of the DECC no later than one month after the completion of the Audit. Further Odour Audits shall include the existing plant and shall be undertaken annually, or as otherwise agreed or required by the Director-General.

3.16 Twelve months after the commencement of operation of the first phase of the project, and every three years thereafter, or as otherwise agreed or required by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake an Environmental Audit of the project. 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 19011:2002 - Guidelines for Quality and/ or Environmental Management Systems Auditing*;
b) assess compliance with the requirements of this approval, and other licences and approvals that apply to the project;
c) assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition 1.1 of this approval; and
d) review the effectiveness of the environmental management of the project, including any environmental impact mitigation works.

The Director-General may require the Proponent 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. The Environmental Audit Report shall be made available for public inspection on request.

Further Environmental Audit Reports of the project shall be included in the Environmental Audit Reports for the existing plant. 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 3.14 and 3.16 of this approval may be satisfied with a single report prepared by a single independent person or team approved by the Director-General.

4. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

4.1 The Proponent shall continue to participate with the Community Consultative Committee. Subject to confidentiality, the Proponent shall submit all documents required under this approval to the Community Consultative Committee and make available such documents for public inspection on request.

Complaints Procedure

4.2 Prior to the commencement of construction of the project, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction and operation):

a) a telephone number on which complaints about construction and operational activities at the site 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 displayed on a sign near the entrance to the site, in a position that is clearly visible to the public, and which clearly indicates the purposes of the sign.

4.3 The Proponent shall record details of all complaints received through the means listed under condition 4.2 of this approval 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;
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 Proponent in relation to the complaint, including any follow-up contact with the complainant; and
f) if no action was taken by the Proponent 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.

5. ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

5.1 The Proponent shall prepare and implement a **Construction Environmental Management Plan** to outline environmental management practices and procedures to be followed during construction 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) 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;

iv) measures to minimise and manage impacts on native ecology, including minimisation of vegetation clearing, methods for vegetation clearing and soil disturbance, topsoil, seed and vegetative material re-use initiatives to be employed, and measures and monitoring to be undertaken to control weed spread and feral pests;
v) measures to monitor and control air emissions during construction to ensure that air emissions are both minimised and in compliance with the requirements of this approval 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 project;
e) the additional studies listed under condition 5.2 of this approval; and
f) complaints handling procedures during construction.

The Plan 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 project, 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.

5.2 As part of the Construction Environmental Management Plan for the project, required under condition 5.1 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) demonstration that all statutory responsibilities with regard to road traffic impacts have been complied with;

b) a **Construction Noise Management Plan** that shall include, but not necessarily be limited to:
   i) identification of the specific activities that will be carried out and associated noise sources at the premises and access routes;
   ii) identification of all potentially affected sensitive receivers;
   iii) the construction noise and vibration objectives identified in the EA;
   iv) assessment of potential noise and vibration from the proposed construction methods (including construction traffic) against the objectives identified in the EA;
   v) where the objectives are predicted to be exceeded an analysis of feasible and reasonable noise mitigation measures that can be implemented to reduce construction noise impacts;
   vi) description of management methods and procedures and specific noise mitigation treatments that will be implemented to control noise and vibration during construction;
   vii) procedures for notifying residents of construction activities that are likely to effect their noise and vibration amenity; and
   viii) measures to monitor noise performance.

c) 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 2.20 of this approval. 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

5.3 The Proponent shall update the existing **Operation Environmental Management Plan** to detail an environmental management framework, practices and procedures to be followed during operation of the project and existing plant. 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;
f) the additional studies listed under condition 5.4 of this approval; and
g) the environmental monitoring requirements outlined under conditions 3.1 to 3.16 of this approval, 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 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.

5.4 As part of the Operation Environmental Management Plan for the project, required under condition 5.3 of this approval, the Proponent shall prepare and implement the following Management Plans:

a) an updated **Air Quality Management Plan** to outline measures to minimise impacts from the project and existing plant 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 project, 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 project, in accordance with any requirements of the DECC;
    iii) procedures for the minimisation of gaseous and particulate emissions from the project;
    iv) pro-active and reactive management and response mechanisms for particulates, odour and gaseous emissions, with specific reference to measures to be implemented and actions to be taken to minimise and prevent potential elevated air quality and odour impacts on surrounding land uses as a consequence of meteorological conditions, upsets within the project, or the mode of operation of the project at any time;
    v) specific procedures for the management of generating efficiency and the minimisation of greenhouse gas emissions per unit of electricity generated;
    vi) procedures aimed at maximising the efficiency of the start-up and shut-down cycles for the project;
    vii) provision for regular review of air quality monitoring data, with comparison of monitoring data with that assumed and predicted in the documents listed under

condition 1.1 of this approval, including verification of air quality modelling and predictions, as may be relevant;

viii) Plans for regular maintenance of process equipment to minimise the potential for leaks and fugitive emissions; and

ix) 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 updated **Water Management Plan** to outline measures that will be employed to manage water on the site, to minimise soil erosion and the discharge of sediments and other pollutants to lands and/ or waters throughout the life of the project. The Plan shall consolidate the existing Surface Water Management Plan, Wastewater Management Plan and the Groundwater Monitoring Plan. The Plan shall be based on best environmental practice and shall address the requirements of the Department, DECC and Council. The Plan shall include, but not necessarily be limited to:

i) consideration of all reasonable and feasible options to avoid discharge to ground and/or ambient waters including methods to minimise the volume of contaminated water and effluent generated, recycling and reusing water and effluent;

ii) identification of clean and dirty water areas on site maps for different stages of the project and identification of criteria for nomination of areas as clean or dirty;

iii) details of water management measures to be implemented for clean and dirty waters;

iv) calculations for a water balance for all waters generated on the site including potential volumes of groundwater, stormwater and process water for treatment on-site or off-site, proposed discharges, recycling or reuse;

v) details of the remedial actions to be taken by the Proponent and site operators in response to an exceedance of concentration limits or other performance criteria for the on-site or ambient water management controls;

vi) characterisation of wastewater qualities and quantities for reuse on-site shall be characterised and irrigation management practices specified;

vii) specification of wastewater reuse areas shall be specified on site maps for the existing plant and the project, including contingency land;

viii) contingency plans in the event that that areas of land used for effluent irrigation become unavailable;

ix) specific details shall be provided in relation to the times, locations, volumes and qualities of water to be irrigated, including how the quality of water to be used for irrigation will be assessed;

x) specific details regarding the groundwater monitoring program including monitoring procedures, locations, frequency and parameters;

xi) a detailed description of measures to mitigate adverse groundwater impacts and trigger conditions for their implementation;

c) an updated **Noise Management Plan** to detail measures to mitigate and manage noise during the operation of the existing plant and the project. The Plan shall be formed in consultation with the DECC and shall include, but not necessarily be limited to:

i) procedures to ensure that best management practice and best available technology economically achievable is being considered and implemented;

ii) procedures to generate suitable documentation for annual environmental auditing, that demonstrates that the noise limits and noise goals specified under this approval 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) 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.

d) an updated **Traffic Management Plan** to detail measures to mitigate and manage traffic impacts during the operation of the existing plant and project. The Plan shall meet the requirements of the RTA and Council and shall include, but not necessarily be limited to:

i) a driver education program to ensure that noisy heavy vehicle practises are not unnecessarily used near sensitive receivers and that route curfews are respected;

ii) best noise practise in the selection and maintenance of heavy vehicle fleets;

iii) movement scheduling where practicable to reduce impacts during sensitive time periods;

iv) specific measures for ensuring that all heavy vehicle operators associated with the existing plant and project implement the Traffic Management Plan, including the use of penalties for breaches of the Plan;

v) specific measures for minimising noise impacts at identified sensitive areas, including a program for the implementation of all feasible and reasonable mitigation measures at the Steunkal and Beale residences;

vi) a system for identifying and ensuring conformance with the Plan, including conformance monitoring, procedures for implementing and monitoring corrective and preventative action, and penalties for breaches of the Plan; and

vii) a continual improvement process for assessing Plan effectiveness and implementing improvements to the Plan.

e) a **Soil Management Plan** to detail measures to mitigate and manage adverse impacts on soil in areas affected by effluent irrigation associated with the project, including the existing plant. The Plan shall be based on best environmental practice and shall be developed in consultation with the DPI. The plan shall include, but not necessarily be limited to:

i) a detailed identification of soil types and properties within each irrigation area ;

ii) a monitoring regime for assessing soil health;

iii) a detailed description of conditions that would trigger the implementation of soil amelioration measures; and

iv) methodologies for soil improvement that are considered feasible and reasonable.
