

Project Approval

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

I approve the project referred to in Schedule 1, subject to the conditions set out in Schedules 2 to 4.

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

SCHEDULE 1

Application No:	06_0303
Proponent:	Tooheys Pty Ltd
Approval Authority:	Minister for Planning
Land:	Part Lot 10 DP 1008367, 29 Nyrang Street, Lidcombe.
Project:	Upgrade and continued use of the Tooheys Brewery.

Mod 1 2009

Cogeneration Facility

DEFINITIONS

BCA	Building Code of Australia
Council	Auburn Council
Day	Day is defined as the period from 7.00am to 6.00pm on Monday to Saturday, and 8.00am to 6.00pm on Sundays and public holidays
DECCW	Department of Environment, Climate Change and Water
Department	Department of Planning
Director-General	Director-General of the Department (or delegate)
EA	Environmental Assessment of the <i>Upgrade of Tooheys Brewery</i> , prepared by Arup, and dated 27 March 2007
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning & Assessment Regulation 2000</i>
Minister	Minister for Planning
Evening	Evening is defined as the period from 6.00pm to 10.00pm
Night	Night is defined as the period from 10.00pm to 7.00am on Monday to Saturday, and 10.00pm to 8.00am on Sundays and Public Holidays
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Project	Upgrade of Tooheys Brewery, Lidcombe
Proponent	Tooheys Pty Ltd
RTA	Roads and Traffic Authority
Site	Land to which application applies
Statement of Commitments	The Proponent's commitments in Appendix B
Upgrade	Includes the proposed works described in Appendix C

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction and/or operation of the project.

Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
 - a) EA
 - b) Revised site plan contained in Appendix A;
 - c) Statement of Commitments in Appendix B;
 - d) Modification application 08_0163_Mod 1 and supporting document titled *Tooheys Brewery Lidcombe - Cogeneration Facility - Part 3A Modification - Environmental Assessment*, prepared by ARUP, September 2009; and
 - e) Conditions of this approval.
3. If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of any inconsistency.
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, strategies, programmes or correspondence that are submitted in accordance with this approval; and
 - b) the implementation of any actions or measures contained in these reports, plans, strategies, programmes or correspondence.

Limits on Approval

5. The Proponent shall not produce more than 3.3 million hectolitres of beer per annum.
6. There is to be no direct sale or display of goods on the site to the general public.

Surrender of Existing Development Consents

7. Prior to the commencement of any construction activities associated with the upgrade, the Proponent shall surrender all existing development consents for the site in accordance with Clause 97 of the *Environmental Planning and Assessment Regulation 2000*.

Management Plans/Monitoring Programs

8. With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.

Structural Adequacy

9. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

Demolition

10. The Proponent shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

Protection of Public Infrastructure

11. Prior to commencement of construction of the upgrade, the Proponent shall:
 - a) prepare a dilapidation report of the public infrastructure in the vicinity of the site (including roads, gutters, footpaths, etc) in consultation with Council; and
 - b) submit a copy of this report to the Director-General.

12. The Proponent shall:
- a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
 - b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Compliance Report

13. Prior to commissioning of the upgrade, the Proponent shall submit work as executed plans to the Department for all development associated with the project. These plans must be prepared by a suitably qualified and experienced expert, and must include plans showing the work as executed plans laid over the approved plans to demonstrate that the development has been carried out in accordance with the approved plans.

Operation of Plant and Equipment

14. The Proponent shall ensure that all plant and equipment used on the site is maintained and operated in an efficient manner, and in accordance with relevant Australian Standards.
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SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Noise Limits

15. The Proponent shall ensure that noise from operation of the project does not exceed the noise limits presented in Table 1.

Table 1: Project Noise Limits dB(A)

Day	Evening	Night	Location
L _{Aeq} (period)			L _{A1} (1 minute) or L _{A max}
50	50	50	65
At any residence or other noise sensitive receiver			

Notes:

- a) To determine compliance with the L_{Aeq} (period) noise level limits in the above table, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling where the dwelling (rural situations) is more than 30 metres from the boundary. To determine compliance with the L_{A1} (1 minute) noise level limits in the above table, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- b) The noise emission limits identified in the above table apply under all meteorological conditions:
- c) The noise limits do not apply if the Proponent has an agreement with the relevant owner of lands within these locations to generate higher noise levels and the Proponent has advised the Department in writing of the terms of this agreement.

Hours of Operation

16. The Proponent shall comply with the following hours of operation:

Table 2: Hours of Operation

Activity	Day	Time
Construction	Monday – Friday	7:00am to 6:00pm
	Saturday	8:00am to 1:00pm
	Sunday and Public Holidays	Nil
Operation	All days	Any time

Notes:

- Construction activities may be conducted outside the hours in Table 2 provided that the activities are not audible at any residence beyond the boundary of the site.

Operating Conditions

17. The Proponent shall ensure that:
- a) Noise from reversing alarms are minimised at all times;
 - b) During night time hours of 10.00pm to 7.00am, the eastern roller shutter door of the racking cellar is closed;
 - c) During night time hours of 10.00pm to 7.00am, the southern roller shutter door of the racking cellar is closed and only open when a truck leaves the cellar, and closed immediately once the truck has left;
 - d) All trucks enter the racking cellar via the western ramp, not the southern roller door, at all times;
 - e) The northern most racks are to be utilised at all times; and
 - f) The use of rubber pads should be investigated to minimise the impact when kegs are first dropped.
18. A public address system or sound amplifying equipment shall only be used in the event of emergencies.

Construction Noise Management

19. Remove.

20. The Proponent shall notify residents adjacent the site of activities likely to affect their noise and vibration amenity. Notification shall be provided on a bi-monthly basis for the periods of construction likely to affect residents. The notification should include detail of the proposed works, timeframes, hours of activity and give a 24 hour complaints line telephone number to ensure all community issues are appropriately addressed.

Noise Monitoring

21. The Proponent shall prepare and implement a Noise Monitoring Programme for the project, to the satisfaction of the **DECCW** and the Director-General. The Noise Monitoring Programme shall be submitted to the Director-General prior to commencing construction, and must include a noise monitoring protocol for evaluating compliance with the project noise limits in Table 1.
- 21a. Within 90 days of the commencement of operation of the cogeneration facility on the site, the Proponent shall carry out a Noise Audit of the project to the satisfaction of the Director-General. This audit shall:
- a) be undertaken by a suitably qualified and experienced person whose appointment has been endorsed by the Director-General;
 - b) be carried out during a period in which the project is operating at normal capacity;
 - c) assess whether the project is complying with the relevant noise impact assessment criteria in this approval;
 - d) provide details of any complaints received on the noise impacts of the project, and any action taken to respond to these complaints; and
 - e) identify additional measures that could be implemented to ensure compliance should any non-compliance be detected.

AIR QUALITY

Air Quality Criteria

22. The Proponent shall design, construct and operate the project in a manner that minimises dust emissions.
- 22a. **The Proponent must operate the cogeneration facility in a manner which complies with the air emission limit conditions specified in EPL No. 1167, issued under the POEO Act.**

Design Requirements

23. The Proponent shall ensure that the:
- a) stack conforms with the specifications described in the EA, and is at least 25 metres high and has a maximum stack diameter of 0.9 metres;
 - b) stack emission point on site:
 - conforms with the general requirements in the US EPA's *Guidelines for Determination of Good Engineering Practice Stack Height*; and
 - contains sampling ports that conform with the TM-1 specifications in *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (August 2005)*.
 - c) boiler conforms with the specifications for flue gas exit temperature included in the Statement of Commitments in Appendix B.
 - d) **design and construction of the cogeneration facility includes an air emissions sampling position that complies with the Test Method TM-1, as specified in the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales, published by the DECCW.**

ODOUR

24. The Proponent shall design and operate the upgrade to comply with Section 129 of the *Protection of the Environment Operations Act, 1997*.

Notes:

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

SOIL AND WATER

Discharge Limits

25. Except as may be expressly provided in an EPL for the project, the Proponent shall comply with section 120 of the *Protection of the Environment Operations Act 1997*.

Wastewater Discharge

26. All waste water from cooling towers shall be discharged to sewer under a trade waste agreement with Sydney Water.

Flooding

27. The Proponent shall ensure that all buildings constructed are above the 1 in 100 year flood level of Haslams Creek.

Bunding

28. All chemicals, fuels and oils shall be stored in appropriately banded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund. The bund(s) shall be designed and installed in accordance with:
- the requirements of all relevant Australian Standards; and
 - the **DECCW's** *Environmental Protection Manual Technical Bulletin Bunding and Spill Management*.

Rainwater Tanks

29. The Proponent shall assess the feasibility of installing rainwater tanks on site for collection of water for reuse for irrigation and washing down. The Proponent shall report to the Director-General on the results of the assessment within three months of the date of this approval.

Riparian Vegetation

30. During the life of the project, the Proponent shall plant and maintain a revegetated corridor along the western boundary of the site adjacent to Haslams Creek. Revegetation works shall be completed prior to commencement of operation of the upgraded brewery.

Remediation

31. Prior to construction on land identified as contaminated, the Proponent shall remediate the soil and groundwater to a level suitable for the continued industrial use of the site.
32. Any unanticipated contaminated soil uncovered should be managed in accordance with the *Contaminated Land Management Act 1997* and the **DECCW** notified immediately.

Soil and Water Management Plan

33. The Proponent shall prepare and implement a Soil and Water Management Plan for the site to the satisfaction of the Director-General. The plan must:
- be prepared by a suitably qualified expert approved by the Director-General;
 - be submitted to the Director-General for approval prior to commencement of construction;
 - include:
 - an **Erosion and Sediment Control Plan** for the construction works that has been prepared in accordance with Landcom's publications *Soil and Water Management for Urban Development and the Managing Urban Stormwater – Soils and Construction*;
 - an **Acid Sulphate Soil Management Plan** that has been prepared in accordance with *Acid Sulphate Soils Manual*, Acid Sulphate Soils Management Advisory Committee, 1998;
 - a revised **Stormwater Management Scheme** for the site that has been prepared generally in accordance with the *Managing Urban Stormwater: Council Handbook (DECC)*;
 - a **Spill Containment Action Plan** detailing procedures for ensuring a first flush system for diversion of liquid spills to trade waste;
 - a **Remediation Action Plan** that has been approved by an accredited site auditor and has been prepared in consultation with the **DECCW**; and
 - a **Groundwater Monitoring Programme** prepared in consultation with the **DECCW**.

TRANSPORT

Operating Conditions

34. The Proponent shall ensure that:
- the new internal road network and parking on site complies with Australian Standards AS 2890.1:2004 and AS 2890.2:2002;
 - all vehicles enter and exit the site in a forward direction and all deliveries occur within designated loading areas;
 - all company and/or commercial vehicles associated with the use of the premises shall be parked within the confines of the site at all times; and
 - site related vehicles do not queue on any public roads.

Traffic Management Plan

35. The Proponent shall prepare and implement a Traffic Management Plan, to the satisfaction of the Director-General. The Plan shall be submitted to the Director-General prior to construction commencing and must include:
- a) a description of the access and parking arrangements for the site during construction and operation;
 - b) the measures that would be implemented to minimise the use of Nyrang Street, particularly for heavy vehicles;
 - c) a driver code of conduct (including a truck route management plan) for vehicles travelling to and from the site during construction and operation;
 - d) procedures for identifying non-compliances and implementing corrective and preventative action; and
 - e) Procedures for notifying residents of construction traffic routes and potential disruptions to routes and access.

HAZARDS

Pre-construction

36. Prior to construction of the cogeneration facility the Proponent shall prepare and implement a Construction Hazard Plan to the satisfaction of the Director-General. The plan must:
- a) be prepared by a suitably qualified independent person approved by the Director-General;
 - b) be submitted for approval prior to the commencement of construction; and
 - c) include a:
 - Fire Safety Study:
A Fire Safety Study for the proposed project. This study shall cover the relevant aspects of the Department of Planning's Hazardous Industry Planning Advisory Paper No. 2, 'Fire Safety Study Guidelines' and the New South Wales Government's 'Best Practice Guidelines for Contaminated Water Retention and Treatment Systems'. The study shall meet the requirements of the NSW Fire Brigades. An update of the existing Fire Safety Study for the site will be acceptable.
 - Final Hazards Analysis:
A Final Hazard Analysis of the proposed project, consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 6, 'Guidelines for Hazard Analysis'. The Preliminary Hazard Analysis may be accepted as a Final Hazard Analysis if no changes have occurred.
 - Construction Safety Study:
A Construction Safety Study, consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 7, 'Construction Safety Study Guidelines'.

Pre-Commissioning

37. Prior to commissioning of the cogeneration facility, the Proponent shall prepare and implement an Operational Hazard Plan for the site to the satisfaction of the Director-General. The plan must:
- a) be prepared by a suitably qualified independent person approved by the Director-General;
 - b) be submitted for approval prior to the commencement of commissioning; and
 - c) include a:
 - Emergency Plan
An Emergency Plan is to be prepared in accordance with Department of Planning's *Hazardous Industry Planning Advisory Paper No. 1 – Industry Emergency Planning Guidelines*. An update of the existing Emergency Plan for the site including the cogeneration facility will be acceptable.
 - Safety Management System
An update of the Safety Management System for the site including the cogeneration facility will be acceptable.

Pre-startup Compliance

- 37a The Applicant shall submit to the Director-General a Compliance Report detailing compliance with condition 36 and 37 one month prior to the commencement of operation of the cogeneration facility.

WASTE MANAGEMENT

38. The Proponent shall ensure that all waste generated on the site during construction and operation of the development is classified in accordance with the DECCW's Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes and disposed of to a facility that may lawfully accept the waste.
39. For the life of the project, the Proponent shall:
- a) monitor the amount of waste generated by the project;
 - b) investigate ways to minimise waste generated by the project; and
 - c) implement reasonable and feasible measures to minimise waste generated by the project, to the satisfaction of the Director-General.

VISUAL

40. No advertising signs shall be erected on the land without the prior written approval of the Director-General.

GREENHOUSE GAS

Energy Savings Action Plan

41. The Proponent shall prepare and implement an Energy Savings Action Plan for the project to the satisfaction of the Director-General. This plan must be prepared in accordance with the requirements and guidelines of the **DECCW**, and be submitted to the Director-General for approval.
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SCHEDULE 4 ENVIRONMENTAL MANAGEMENT AND MONITORING

ENVIRONMENTAL MANAGEMENT STRATEGY

42. The Proponent shall prepare and implement a **revised** Environmental Management Strategy for the project, to the satisfaction of the Director-General. This strategy shall be submitted to the Director-General prior to construction **of the cogeneration plant** and must:
- a) provide the strategic context for environmental management of the project;
 - b) identify the statutory and other obligations that apply to the project;
 - c) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project; and
 - d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the construction, operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance;
 - report on monitoring results; and
 - respond to emergencies.

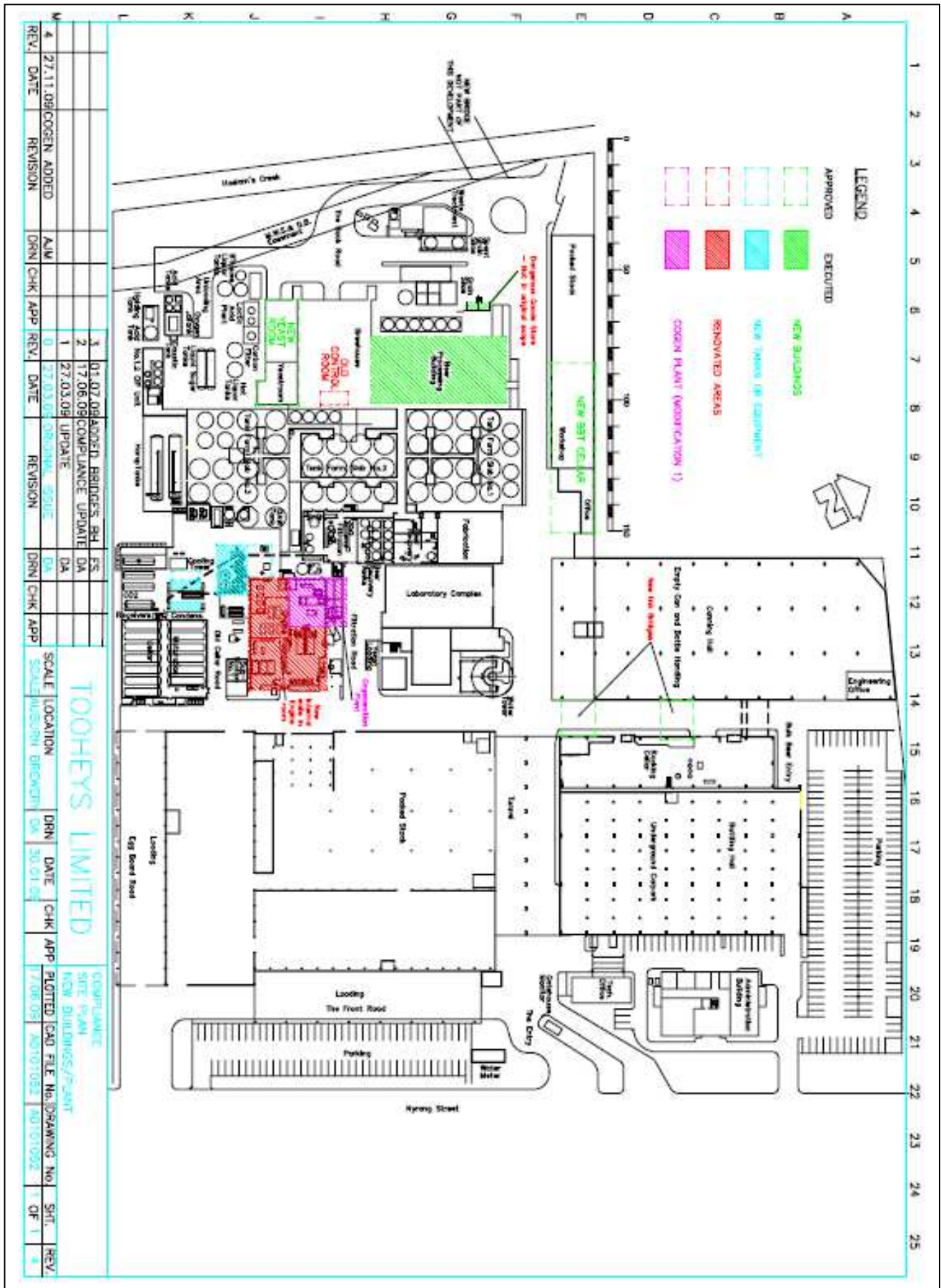
INDEPENDENT ENVIRONMENTAL AUDIT

43. Within two years of this approval, and every three years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- a) be carried out by a suitably qualified, experienced and independent audit team, whose appointment has been endorsed by the Director-General;
 - b) assess the environmental performance of the project;
 - c) assess whether the project is complying with the conditions of both this approval and the EPL for the project;
 - d) review the adequacy of any strategy/plan/programme required under this approval, and if necessary, recommend measures or actions to improve the environmental performance, and or any strategy/plan/programme required under this approval; and
 - e) include a Hazard Audit in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 5 – Hazard Audit Guidelines*.
44. Within two months of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, with a response to any recommendations contained in the audit report.

INCIDENT REPORTING

45. Within seven days of detecting an exceedance of the limits/performance criteria in this approval, or an incident causing (or threatening to cause) material harm to the environment, the Proponent shall report the exceedance/incident to the Department, and any relevant agency. The report must:
- a) Describe the date, time, and nature of the exceedance/incident;
 - b) Identify the cause (or likely cause) of the exceedance/incident;
 - c) Describe what action has been taken to date; and
 - d) Describe the proposed measures to address the exceedance/incident.

APPENDIX A: SITE PLAN



APPENDIX B
STATEMENT OF COMMITMENTS

Environmental Management or Mitigation Measure		Phase
1	Scope and Compliance	
1.1	Tooheys will carry out the upgrade in general accordance with this Environmental Assessment, including the Statement of Commitments.	All
1.2	<p>Tooheys will, in writing, provide a Statement of Compliance to the Director-General of the Department of Planning (D-G), the Department of Environment and Climate Change and Auburn Council, one week prior to the start of construction activities at the site. This Statement of Compliance will include:</p> <ul style="list-style-type: none"> a) details of how the Commitments required to be addressed before construction were complied with; b) the time when each relevant Commitment was complied with, including dates of submissions of any required reports and/or approval dates; and c) details of any approvals or licences required to be issued by relevant Government Departments before construction commences. 	Pre-Construction
2	Staging	
2.1	<p>Tooheys will carry out the project in two discrete stages.</p> <p>Stage 1 includes the new Beer Processing Area building and the upgrades to utility plant, including new gas fired boilers, and refrigeration plant.</p> <p>Stage 2 is for the new Bright Beer Tank cellar and the upgrades to the Yeast Room.</p>	All
3	Environmental Management	
3.1	<p>Tooheys will prepare a Construction Environmental Management Plan (CEMP) for each construction stage. The approval of the D-G will be obtained for the CEMP before Construction commences or within any other time agreed to by the D-G.</p> <p>The CEMP will include the relevant components listed in the Statement of Commitments.</p>	Pre-Construction
3.2	<p>Tooheys will submit to the D-G an Operational Environmental Management Plan (OEMP) or provide details of any existing system to meet the environmental management requirements for the operation of the upgrade.</p> <p>The approval of the D-G for the OEMP or alternative management system will be obtained before operation commences or within any other time agreed to by the D-G.</p>	Pre-Operation

Environmental Management or Mitigation Measure		Phase
4	Communication and Consultation	
4.1	<p>Tooheys will continue to be responsive to the community's expectations and requests. In particular, Tooheys will:</p> <ul style="list-style-type: none"> a) continue to maintain a complaints register for the site; b) follow up each complaint received by identifying the cause of the issue at the brewery and taking appropriate action; and c) respond to the complainant in a timely and efficient manner regarding the cause of the complaint and how the issue has been resolved. 	All
5	Hazard and Risk	
5.1	Tooheys will prepare and submit to the D-G a Construction Safety Plan to address potential conflict between construction and demolition works regarding the potential to cause a hazardous event.	Pre-Construction
5.2	Tooheys will update the site Emergency Response Plan and Safety Management Systems to include the issues associated with the proposed site changes.	Pre-Operation
5.3	Tooheys will perform and submit to the D-G a Hazard and Operability Study (HAZOP) on all modified process equipment, storage and handling systems.	Pre-Construction
5.4	Tooheys will ensure the area around the LPG tank is kept free from dry vegetation and wooden pallets.	Pre-Operation
5.5	Tooheys will install deadman valves on the remaining ammonia oil pot drain valves where such valves are not installed.	Pre-Operation
5.6	Tooheys will review the storage and pumping systems for the CIP chemicals against the requirements of AS3780 and perform a risk assessment on any deviations from the requirements to determine if further controls are necessary.	Pre-Operation

Environmental Management or Mitigation Measure		Phase
6	Contamination	
6.1	<p>Tooheys will prepare and submit to the D-G a Site Management Plan as part of the CEMP. The Site Management Plan will prescribe procedures for:</p> <ul style="list-style-type: none"> a) spoils management including stockpiling and disposal to a licensed landfill in accordance with NSW EPA <i>Environmental Guidelines: Assessment, classification and management of liquid and non-liquid wastes</i>; b) minimising potential for groundwater accumulating in excavation pits; c) on site treatment and/or disposal of groundwater accumulating in excavation pits in accordance with the requirements of Sydney Water and/or NSW EPA <i>Environmental Guidelines: Assessment, classification and management of liquid and non-liquid wastes</i>; and d) identification and management of unanticipated contaminated soil uncovered during construction. 	Pre-Construction
6.2	Tooheys will decommission the refuelling UST, including excavation and off-site disposal of the UST, associated pipe work and contaminated soil and validation sampling of the excavation pit.	During Stage 2 Construction of BBT
6.3	<p>Tooheys will prepare and submit to the D-G an Acid Sulfate Soils (ASS) Management Plan in accordance with <i>Acid Sulfate Soils Manual (Acid Sulfate Soils Advisory Committee, 1998)</i> as part of the CEMP prescribing:</p> <ul style="list-style-type: none"> a) requirements for sampling and analysis at the locations where excavations are proposed; and b) management and disposal requirements for excavated ASS materials. 	Pre-Construction
6.4	Tooheys will ensure that appropriate storage and labelling requirements for dangerous goods, fuels and other potential contaminants to be used during construction.	During Construction
6.5	Tooheys will ensure that incident response procedures are in place for construction including training and provision of equipment such as spill kits.	During Construction
6.6	Tooheys will decommission the six former boiler USTs in situ, including removal of residual water and fuel and refilling with inert material in accordance with WorkCover practices.	During Construction
6.7	Tooheys will undertake a programme of groundwater monitoring in the groundwater well adjacent the refuelling UST following its removal to monitor attenuation of hydrocarbon contamination.	Post Construction and on-going
6.8	Tooheys will undertake a programme of groundwater monitoring of the network of boundary monitoring wells with contingency plans for processes/actions to be implemented if contaminated groundwater is found to be migrating off site in the future.	Post Construction and on-going

	Environmental Management or Mitigation Measure	Phase
7	Air Quality	
7.1	<p>Tooheys will:</p> <ul style="list-style-type: none"> a) limit access and haul roads to permanent paved areas where possible; b) stabilise temporary designated haul roads with road base or watering and water exposed soil and excavations; c) minimise requirement for and duration of soil stockpiles and the duration of open excavations; d) ensure vehicles, plant and equipment are adequately maintained so as to minimise air quality impacts from exhaust; e) ensure vehicles entering and leaving the site are to be free of excessive mud by utilising a truck wash, dry brushing area or shake down strip; f) ensure all trucks have canopies secured over the load and their tailgates closed on entering and leaving the site; g) manage the site to reduce the requirements for stockpiling, minimise the stockpiling of soil; and minimise the duration of open excavations; and h) implement measures to reduce the potential for dust generation at locations of known contamination and ensure adequate dispersion of volatile organic compounds during excavation at locations of known contamination. 	Construction
7.2	<p>Boilers and stack will ensure adequate dispersion of air pollutants, including:</p> <ul style="list-style-type: none"> a) compliance with boiler manufacturers specifications; b) minimum stack height of 25 m; and c) each stack source to have an internal diameter of no more than 0.9 m. 	Design and Operation

	Environmental Management or Mitigation Measure	Phase
8	Noise and Vibration	
8.1	<p>Tooheys will prepare a Construction Noise Management Plan as part of the CEMP. The Plan will:</p> <ul style="list-style-type: none"> a) identify noisy activities associated with the construction works; b) detail programming associated with noisy activities; and c) detail reasonable and feasible measures proposed to minimise potential noise impacts to neighbours during construction activities, including, where appropriate: <ul style="list-style-type: none"> • acoustic monitoring if complaints are received; • obtaining acoustic test certificates for machinery, noisy plant and machinery brought on to the site; • fitting silencers to plant including residential grade mufflers to the exhausts of noisy items of plant; • regular maintenance of plant to prevent plant from becoming noisy due to poor maintenance, such as blowing exhausts and loose and rattling components etc; and • ensuring machinery is turned off when not in use, and machine enclosures are kept closed. 	Pre-Construction
8.2	Tooheys will limit construction hours for all construction activities that are audible at nearby residences to between 7:00 am and 6:00 pm, Monday to Friday.	Construction
8.3	<p>Tooheys will prepare an Operational Noise Management Report detailing the noise mitigation measures that have been recently implemented, or are proposed to be implemented to minimise noise from the brewery site.</p> <p>The Report will include details of how the upgrade has been incorporated into the site-wide noise management system.</p> <p>Tooheys will submit the Report to the D-G within 3 months of the commencement of operation of the upgraded brewery.</p>	Operation

Environmental Management or Mitigation Measure		Phase
9	Flooding	
9.1	Tooheys will not store equipment or materials or place temporary buildings within 10 m of the eastern edge of the Haslams Creek concrete channel structure.	Construction
9.2	Tooheys will ensure that building floor levels are set at 500 mm above the 1 in 100 year flood levels. This flood level will be finalised once the distribution centre development and Haslams Creek Bridge replacement has been finalised.	Design
10	Stormwater	
10.1	Tooheys will prepare an Erosion and Sediment Control Plan as part of the CEMP. The Plan will: <ul style="list-style-type: none"> a) identify the construction activities that could cause soil erosion or discharge sediment or water pollutants from the site; b) describe management methods to minimise soil erosion or discharge of sediment or water pollutants from the site including a strategy to minimise the area of bare surfaces during construction; c) be prepared in accordance with Landcom's <i>Managing Urban Stormwater – Soils and Construction</i>, 4th Edition, March 2004, and any additional requirements of Auburn Council's <i>Stormwater Development Control Plan</i>, June 2005; and d) tie-in with the Acid Sulfate Soil Management Plan set out in 6.3. 	Pre-construction
10.2	Where feasible all drainage and site grading design will be undertaken with in accordance with Auburn Council's <i>Stormwater Drainage Development Control Plan</i> , June 2002.	Design

Environmental Management or Mitigation Measure		Phase
11	Traffic	
11.1	<p>Tooheys will prepare a Construction Traffic Management Plan as part of the CEMP. The Plan will include:</p> <ul style="list-style-type: none"> a) details of the amount, type and frequency of heavy vehicles associated with construction; b) identification of all public roads to be used by construction traffic and measures to be employed to ensure construction traffic uses identified roads; c) site access arrangements, including measures to prevent construction vehicles queuing on public roads; and d) Construction staging issues associated with ongoing brewery operational traffic (during construction) and traffic associated with the construction and operation of the adjacent distribution centre. 	Pre-construction
11.2	<p>Heavy vehicle traffic associated with construction will be required to use the Percy Street access where possible.</p> <p>When the distribution centre construction works restrict the use of this access, the following routes will be used to access the site:</p> <ul style="list-style-type: none"> a) Nyrang Street north to directly access Parramatta Road; or b) Nyrang Street south, with a right turn into Booreal Road for westerly access, or left turn into Olympic Drive for southerly access. 	During Construction
12	Heritage	
12.1	<p>All contractors on the site will be made aware of the potential to uncover Indigenous or non-Indigenous artefacts during construction and of their obligations under Commitment 11.2.</p> <p>Measures to ensure this will be included in the CEMP.</p>	Pre-construction
12.2	<p>Tooheys will ensure that if an Indigenous or non-Indigenous artefact is discovered during construction activities then construction work in the vicinity of the artefact will be immediately stopped, and the appropriate authority will be contacted to determine the appropriate course of action in relation to the artefact.</p> <p>In the case of an Indigenous artefact the appropriate authorities will be the DoP and the DEC. In the case of a non-Indigenous artefact the appropriate authorities are the DoP and the NSW Heritage Council.</p>	Construction

Environmental Management or Mitigation Measure		Phase
13	Waste Management	
13.1	<p>Tooheys will prepare a Construction Waste Management Plan as part of the CEMP. The Plan will address the management of wastes during construction works including:</p> <ul style="list-style-type: none"> a) the application of the waste minimisation hierarchy principles of avoid/reduce/re-use/recycle/dispose regarding demolition and construction wastes; and b) details of mechanisms to ensure waste is managed, handled, transported and disposed of in accordance with the DEC's <i>Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes</i>, June 2004. 	Pre-construction
13.2	<p>Tooheys will prepare an Operational Waste Management Plan. The Plan will:</p> <ul style="list-style-type: none"> a) identify the type, characterisation and quantity of all wastes associated with the upgraded brewery; b) details of mechanisms to ensure waste is managed, handled, transported and disposed of in accordance with the DEC's <i>Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes</i>, June 2004. 	Pre-Operation
14	Ecologically Sustainable Development (ESD)	
14.1	<p>Tooheys will incorporate the principals of ESD into the detailed design of the buildings to:</p> <ul style="list-style-type: none"> a) promote the reduction of greenhouse gasses by adopting energy efficiency throughout all internal areas; and b) minimise the use of water at the upgrade by incorporating additional water storage and re-use opportunities (where feasible) into the design. 	Pre-Construction
14.2	Tooheys will ensure compliance with Section J of the BCA.	

APPENDIX C
UPGRADE – DESCRIPTION OF WORKS

Aspect	Description
Existing Brewery	Continued use of existing buildings and plant
Stage 1 Upgrade Construction 16 months: September 2007 - end of 2008.	Construction a new beer processing building , 13 metres in height, including: <ul style="list-style-type: none"> • Relocation of filtration plant, installation of two new filter lines and replacement of kieselguhr filters; • Decommissioning and relocation of control room 1, and refurbishment of the area into offices and meeting rooms; • Installation of a small laboratory; and • Modification of the wall on northern façade of the brewhouse to allow integration with the new Beer Processing Building.
	Upgrade of utility services within the existing utilities building including: <ul style="list-style-type: none"> • Decommissioning of existing natural gas boilers and 50m stack (stack to be retained in-situ); • Installation of two x 12.5MW high efficiency natural gas boilers; • Installation of 25m stack to discharge air emissions from the new boilers; • Downscaling existing ammonia refrigeration plant and decommissioning part of the ammonia storage reticulation system; • Removal of 8 existing ammonia condensers and replacement with 2 new condensers; • Installation of new water treatment plant, including a new deaerator and new water cooling tower (existing water storage tower would remain in-situ); and • Installation of new air compressor and new air adsorption drying plant.
	Ancillary works including internal road realignment to allow integration with the Bevchain distribution centre
Stage 2 Upgrade Construction timetable not yet set.	Extension of the first floor of the yeast storage area and propagation plant to enable: <ul style="list-style-type: none"> • Installation of 4 new yeast storage tanks; • Removal of existing yeast propagation plants and replacement with 2 x two-stage propagation plants; and • Removal of existing corridors within the tank farm and installation of new bunds beneath the fermentation and maturation tanks.
	Construction of a new Bright Beer Tank (BBT) Cellar including: <ul style="list-style-type: none"> • Removal of underground fuel storage tank at the site of the new cellar; • Installation of a new BBT cellar as a single storey building and installation of new BBTs to 16 metres high; • Decommissioning of 3 existing BBT cellars over time; • Reduction of total storage volume by approximately 16%; and • Construction of 2 new link bridges between elevated floor levels of Cellar 1 and Cellar 3.
Development Consents	Surrender existing development consents issued by Auburn Council Operate the upgraded brewery under a single Part 3A approval.
Production	3.3 million hectolitres of beer per annum (same as existing plant)
Capital Value	\$70 million
Jobs	Reduction of 10 full-time brewery technicians and 20 full-time equivalent casual brewery technicians (on an annual basis). Currently employs over 200 staff.