Notice of Modification

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

As delegate of the Minister for Planning under the delegation dated 10 November 2014, I modify the conditions of the project approval referred to in Schedule 1, subject to the conditions in Schedule 2.

Chris Wilson
Executive Director
Infrastructure and Industry Assessments

Sydney 17 December 2014

SCHEDULE 1

Application Number:	08_0129
Proponent:	Orica Australia Pty Ltd
Approval Authority:	Minister for Planning
Land:	15 Greenleaf Road, Lot 3 in DP 234288, Kooragang Island, Newcastle
Project:	Orica Ammonium Nitrate Expansion Project

SCHEDULE 2

DEFINITIONS

1. Delete the following definitions:

   Director-General
   Documents
   Existing Operations
   Submissions Report

2. Insert new meanings for the following definitions:

Council	The City of Newcastle Council
Department	Department of Planning and Environment
EA	Environmental Assessment titled *Proposed Ammonium Nitrate Facility Expansion Environmental Assessment*, dated 1 June 2009, and the associated response to submissions titled *Proposed Ammonium Nitrate Facility Expansion Submissions Report*, dated 26 August 2009, prepared by AECOM Pty Ltd
Minister	Minister for Planning (or delegate)
Project	The development as described in the EA, EA (MOD 1) and EA (MOD 2) for the expansion of the existing ammonium nitrate manufacturing facility on the Project site, comprising modifications and upgrades to existing plants and infrastructure and the development of additional plants (NAP4 and NAP3) and associated infrastructure, as generally depicted in blue on the plan in

	Appendix A to enable an increase in production capacity from 500,000tpa to 750,000tpa
Statement of Commitments	The Proponent's consolidated Statement of Commitments for the Project dated 13 October 2014

3. Insert the following new definitions:

Construction	The construction of the Project, including the demolition of buildings and/or structures, or the carrying out of works including excavation works and the erection of other infrastructure covered by this consent
EA (MOD 1)	Environmental Assessment titled *Kooragang Island Facility Uprate Modification Request,* dated 20 April 2011, and the associated response to submissions titled *Response to Submissions: Orica Modification 1*, dated 22 July 2011, prepared by AECOM
EA (MOD 2)	Environmental Assessment titled *Kooragang Island Modification Request Environmental Assessment* dated 13 November 2013, and the associated response to submissions titled *Response to Submissions Report* dated 10 February 2014, prepared by AECOM
Final Operations	The operation of the Initial Operations and the Project in its end state, once all approved plants and infrastructure have been constructed and commissioned, as generally depicted on the plan in Appendix B
Hazard Studies	The hazard-related studies required by Conditions 19 to 26 of this approval
HWC	Hunter Water Corporation
Initial Operations	The operation of the ammonium nitrate manufacturing facility in the form that existed when the Project was approved, comprising an Ammonia Plant, NAPs 1, 2 and 3 and ANP 1 and 2 and associated infrastructure, as generally depicted in red on the plan in Appendix A with an approved production capacity of up to 500,000tpa of ammonium nitrate product
MOD 1	The development as described in the EA (MOD 1), for modifications to the approved layout on the Project site and design amendments to ANP 3 and NAP 4 and associated plant and infrastructure
MOD 2	The development as described in the EA (MOD 2), for the installation of 2 ammonia flares and 1 nitrates flare and the relocation and expansion of the approved Nitric Acid tank on the Project site
NPC	Newcastle Port Corporation
Operation	The operation of the Project but does not include commissioning trials of equipment or temporary use of parts of the site during construction
Post Approval Documents	Any study, report, plan, strategy, program, audit or correspondence required by this approval
Preliminary Hazard Analysis	*'Orica Mining Services Report for Kooragang Island Facility Uprate Preliminary Hazard Analysis'* dated May 2009 prepared by GHD, as updated by the: • Preliminary Hazard Analysis titled *'Orica Mining Services Report for Kooragang Island Uprate PHA MOD1 Report'* dated March 2012, prepared by GHD; and • Preliminary Hazard Analysis titled '*Orica Mining Services Kooragang Island Uprate PHA MOD 2, Rev1"* dated May 2014 *prepared* by GHD, and including Appendix VIII *"Nitric Acid Tank PHA, Rev C"* dated May 2014, prepared by Pinnacle Risk Management
Proposed IPL AN Facility	The development proposed by State Significant Development Application SSD-4986, for the construction and operation of an ammonia import and ammonium nitrate manufacturing facility including a NAP and an ANP and associated plants and infrastructure at 39 Heron Road on Kooragang Island with a production capacity of up to 350,000tpa of ammonium nitrate product
RAP	Remediation Action Plan
RM	Roads and Maritime
Secretary	Secretary of the Department (or nominee)
Staging Plan	The Staging Plan for the Project dated 13 October 2014, prepared by the Proponent
Statement of Commitments	The Statement of Commitments for the Project dated 13 October 2014, prepared by the Proponent

4. Throughout the consent instrument, replace all references to:
   - Director-General with Secretary; and
   - Existing Operations with Initial Operations.

SCHEDULE 2
ADMINISTRATIVE CONDITIONS

Terms of Approval

5. Replace Conditions 2b) to 2f) with the following:
   b) EA (MOD 1);
   c) EA (MOD 2);
   d) site layout plans (Appendices A and B);
   e) Statement of Commitments for the Project (Appendix C); and
   f) Conditions of this approval.

6. Replace the words 'documents' with 'plans and documentation' in Condition 3.

7. Replace the words 'reports, plans, strategies, programs, reviews, audits or correspondence' with 'Post Approval Documents' in Conditions 4a) and 4b).

8. Replace Condition 7 with new Conditions 7A to 7F as follows:

Project Staging

7A. Unless otherwise agreed to in writing by the Secretary, the Proponent shall stage the carrying out of the Project generally in accordance with the approved Staging Plan.

7B. Prior to the commencement of construction of the next Project stage following the commencement of operation of Phase 1 or within an alternative timeframe agreed to in writing by the Secretary, the Proponent shall prepare a Staging Report for the Project to the satisfaction of the Secretary. The Report shall:
   a) summarise the scope and sequence of development that will be carried out under each Project stage;
   b) include plans and a description of the nature, duration and likely timing of development that will be carried out as part of each Project stage;
   c) demonstrate how the conditions of this approval are being complied with as each Project stage is progressively constructed, commissioned and becomes operational;
   d) report on the status of all post approval documents including which of these documents will be staged and/or combined (see Condition 10); and
   e) include triggers for reviewing and updating the Staging Report, including the triggers referred to in Condition 9.

7C. The Proponent shall review and if necessary update and submit a revised Staging Report for the Project which has been prepared to the satisfaction of the Secretary (or advise the Secretary in writing that no changes to the Staging Report are required):
   a) no later than 2 months prior to the commencement of construction, commissioning and operation of development within each Project stage;
   b) within 3 months of any modifications to this approval; and/or
   c) when directed to do so by the Secretary.

   Notes:
   - *These conditions do not relate to staged development within the meaning of Section 83B of the EP&A Act and are only required to be complied with at the time and to the extent that they are relevant to the specific stage(s).*
   - *Where post approval documents and/or hazard studies have approval to be staged and/or combined under Condition 10, then each approved document and/or study must clearly describe the specific stage to which the document or study applies, the relationship of this stage to any future stages and the trigger for updating these documents or studies.*

Staged Submission of Post-Approval Documents and Hazard Studies

7D. With the written approval of the Secretary, the Proponent is permitted to:
   a) submit any Post Approval Document on a progressive basis; and/or
   b) combine any Post Approval Document required by this approval.

7E. With the written approval of the Secretary, the Proponent is also permitted to progressively submit and/or combine certain hazard studies provided that the scope of these studies has been agreed to by the Secretary and that they are linked to and form part of the Staging Report required by Condition 8.

   Notes:

- *While any post-approval documents and/or hazard studies may be submitted on a progressive basis, the Proponent must ensure that operations being carried out on the Project site are covered by approved post-approval documents and/or hazard studies at all times.*
- *Until they are replaced by equivalent approved post-approval documents and/or hazard studies required under the terms of this approval, the Proponent must continue to implement all existing post-approval documents and/or hazard studies for the Initial Operations.*
- *There must be a clear relationship between the approved post-approval documents and/or hazard studies to be combined.*

Minor Design Variations

7F. At the written request of the Proponent, the Secretary may approve in writing, minor design variations to the approved project plans referred to in Condition 2 in relation to ancillary infrastructure but only if the Secretary considers the variations to be minor.

SCHEDULE 3
SPECIFIC ENVIRONMENTAL CONDITIONS

HAZARDS

9. Replace the words 'of the Project' with 'of each Project stage' when referring to the timing requirements of hazard studies required at the Pre-Construction (Condition 14), Pre-Commissioning (Condition 15), Pre-Start-up (Condition 16) and Post-Start-up (Condition 17).

10. Replace Condition 14c) with the following:

    c) A Final Hazard Analysis of the Project, consistent with the Department of Planning's *Hazardous Industry Planning Advisory Paper No. 6, 'Guidelines for Hazard Analysis'*. The Final Hazard Analysis shall:
    - report on the implementation of the recommendations of the Preliminary Hazard Analysis;
    - re-evaluate and reconfirm the relevant data and assumptions from the Preliminary Hazard Analysis;
    - re-evaluate and reconfirm all control measures for prevention and mitigation of incidents; and
    - evaluate all relevant findings and recommendations from the official investigation report(s), as available, relating to the accident at West, Texas in April 2013.

11. Replace Conditions 15b) and 15c) with the following:

    b) **Emergency Plan** – The Proponent's Emergency Plan and detailed procedures shall be updated to include the Project and must be maintained for the life of the Project. The plan shall include detailed procedures for the safety of all people outside of the facility who may be at risk from the Project. The Plan shall be consistent with the Department of Planning's *Hazardous Industry Planning Advisory Paper No. 1, 'Industry Emergency Planning Guidelines'*.

    c) **Safety Management System** – The Proponent's Safety Management System shall be updated to include the Project and must be maintained for the life of the Project. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. The procedures shall ensure that the testing frequencies of all safety critical equipment and systems are consistent with the frequencies applied in the fault tree analyses undertaken in the Preliminary Hazard Analysis/Final Hazard Analysis. Records shall be kept on-site and shall be available for inspection by the Secretary upon request. The Safety Management System shall be developed in accordance with the Department of Planning's *Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'*.

12. Replace the word Operations with Final Operations in Condition 18.

13. Replace Condition 20 with the following:

Hazard Audit

20. 12 months after the commencement of operations of Phase 1 of the Project and every 3 years thereafter, or at such intervals as the Secretary may agree, the Proponent shall carry out a comprehensive Hazard Audit of the Initial Operations and the Project and within 1 month of each audit submit a report to the Secretary. The:
    a) audit(s) shall be carried out at the Proponent's expense by a qualified person or team, independent of the Project, approved by the Secretary prior to commencement of each audit. Hazard Audits shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines'.

b) audit(s) report must be accompanied by a program for the implementation of all recommendations made in the audit report, as well as any outstanding recommendations from previous hazard audit reports (if applicable). If the Proponent intends to defer the implementation of a recommendation, reasons must be documented.

c) first site hazard audit report and all subsequent reports shall cover the entire facility and include all Project stages that are in operation at the time of the hazard audit and shall (in addition to the general requirements detailed in Department of Planning's Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines'):
   - evaluate all relevant findings and recommendations from the official investigation report(s), as available, relating to the accident at West, Texas in April 2013. If necessary, the hazard audit report shall make appropriate recommendations to address any shortfalls; and
   - report on the findings of the audit in relation to compliance with the current version of AS 4326 and the relevant provisions of the current version of the *SAFEX International Good Practice Guide: Storage of Solid Technical Grade Ammonium Nitrate*.

14. Insert new Condition 20A after Condition 20 as follows:

Further Requirements

20A. The Proponent shall comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the hazard studies submitted in respect of conditions 14 to 20 inclusive, within such time as the Secretary may agree.

15. Insert new Condition 21A after Condition 21 as follows:

Ammonia and Nitrate Flares

21A. The Proponent shall ensure that the ammonia and nitrate flares are operated in a proper and efficient manner in accordance with the requirements of the EPL for the premises.

16. Replace Condition 23 with the following:

Air Quality Verification Study

23. The Proponent shall carry out an Air Quality Verification Study for each relevant stage of the Project to the satisfaction of the Secretary and the EPA. The study shall:
   a) be prepared by a suitably qualified expert whose appointment has been agreed to in writing by the Secretary;
   b) be based on a minimum of 12 months of monitoring data and be completed during the initial 18 months of operation or as otherwise agreed to in writing by the Secretary;
   c) include a verification of actual monitored emissions performance against the assumptions adopted within the EIS, including:
      - point source pollutant concentrations;
      - point source pollutant mass emission rates; and
      - point source emission parameters as relevant to plume dispersion.
   d) confirm, through direct measurement, that applicable EPL air emission limits are being complied with; and
   e) confirm, using reasonable means, the effectiveness of the implemented emission controls in minimising air quality impacts.

17. Insert new Conditions 27A to 27C after Condition 27 as follows:

Air Quality Management Plan

27A. The Proponent shall prepare and implement an Air Quality Management Plan for the Project to the satisfaction of the Secretary. The plan shall:
   a) be prepared by a suitably qualified and experienced expert whose appointment has been agreed to in writing by the Secretary;
   b) be approved by the Secretary (see Conditions 49A and 49B for scope and timing and Condition 49C for management plan requirements);
   c) describe the measures that will be implemented to minimise the potential risks to adverse air quality in the regional air-shed including:
      - reasonable and feasible measures being employed on the Project site;
      - plant and equipment being maintained to ensure that it is in good order;
      - how the air quality impacts of the Project will be minimised and managed; and
      - identification of the likely nature and timing of Project-related activities and works that could generate potential elevated air emissions and a description of the mitigation

measures that will be implemented to ensure compliance with the relevant conditions of this approval and the EPL.

27B. The Proponent shall consult with the operators of the proposed IPL AN facility adjacent to the Project Site, with the objective of developing an Air Quality Risk Management Strategy suitable for incorporation into the Air Quality Management Plan. The objective of this strategy is to minimise the potential for cumulative air quality impacts from any air emissions from the Project and the proposed IPL facility. This strategy is expected to include protocols for the communication and planning of planned non-routine operations such as plant start-up, shutdown and commissioning events between the Project and the proposed IPL facility.

27C. The Proponent shall provide evidence to the Secretary that it has made genuine and reasonable attempts to consult with the operators of the proposed IPL facility in order to develop a suitable Air Quality Risk Management Strategy for both it and the proposed IPL facility to follow.

Note: Conditions 27B and 27C only apply if SSD-4986 is approved and if the proposed IPL AN facility becomes operational.

18. Add the following note to Condition 30:

Note: Ammonia flaring events are excluded from the noise limits and levels referred to in conditions 30 and 31.

19. Replace Conditions 32 and 32a), 32b) and 34h) with the following:

32. The Proponent shall prepare and implement a Noise and Vibration Management Plan for the Project to the satisfaction of the Secretary. The Plan shall:
    a) be prepared by a suitably qualified and experienced expert whose appointment has been agreed to in writing by the Secretary;
    b) be approved by the Secretary (see Conditions 49A and 49B for scope and timing and Condition 49C for management plan requirements);
    h) describe the measures that will be implemented to prevent and minimise potential adverse noise and vibration impacts from the Project, including:
        - reasonable and feasible measures being employed on the Project site;
        - plant and equipment being maintained to ensure that it is in good order;
        - how potential noise and vibration impacts will be minimised and managed; and
        - identification of the likely nature and timing of Project-related activities and works that could generate potential elevated noise emissions and a description of the mitigation measures that will be implemented to ensure compliance with the relevant conditions of this approval and the EPL.

20. Insert new Condition 32A after Condition 32 as follows:

Ports Precinct Noise Management

32A. The Proponent shall use its best endeavours to participate in the development and implementation of a precinct-wide noise map for the Port of Newcastle should one be developed to the satisfaction of the Secretary.

Note: The aim of a noise map is to establish an efficient, equitable and cumulative noise management, monitoring and reporting framework across the precinct.

21. Insert new Condition 33A after Condition 33 as follows:

33A. Construction works outside of the work hours identified in Table 2 above may be undertaken in the following circumstances:
    a) works (excluding piling) that generates airborne noise that is inaudible at any residence beyond the boundary of the Project site or is no more than 5 dB(A) above rating background level at any residence in accordance with the Interim Construction Noise Guideline (DEC, 2009);
    b) works that are consistent with the Proponent's existing maintenance procedures and are in accordance with the existing EPL;
    c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons;
    d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or
    e) exceptional circumstances with the written agreement of the Secretary.

22. Insert new Conditions 48A and 48B after Condition 48 as follows:

SITE SECURITY

48A. The Proponent shall ensure that:
a) the site is secured by a perimeter fence and security gates; and
b) the perimeter fence and security gates are under surveillance at all times.

AVIATION SAFETY

48B. The Proponent must obtain all necessary approvals from the Air Base Command Post of RAAF Base in Williamstown and the Directorate of External Land Planning within the Defence Support Group of the Department of Defence for the erection of all structures that constitute transient/temporary or permanent obstructions in accordance with the *Operation of cranes and tall structures in the vicinity of Newcastle Airport* (Department of Defence, 2013).

SCHEDULE 4
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

23. Replace Condition 49 with new Conditions 49A to 49D as follows:

ENVIRONMENTAL MANAGEMENT

Construction Environment Management Plan

49A. The Proponent shall prepare and implement a Construction Environmental Management Plan for the construction of the Project to the satisfaction of the Secretary. The Plan must:
a) be prepared by a suitably qualified and experienced expert or team of experts;
b) be submitted to the Secretary for approval no later than 4 weeks prior to the commencement of each construction stage of the Project, or within an alternative timeframe agreed to in writing by the Secretary (see Condition 49C for management plan requirements);
c) identify the statutory licences, permits and approval/consents that apply to the Project;
d) include a copy of all relevant management plans and monitoring programs required by this approval;
e) incorporate all relevant management and mitigation measures outlined in Appendix C of this approval;
f) outline all environmental management practices and procedures to be followed during construction and demolition works associated with the Project;
g) describe all activities to be undertaken on the site during construction of the Project, including a clear indication of construction stages;
h) detail how the environmental performance of the construction of the Project will be monitored, and what actions will be taken to address identified adverse environmental impacts and issues, including (but not limited to):
- Air Quality (see Conditions 21 to 27C);
- Noise and Vibration (see Conditions 30 to 33A);
- Transport (see Conditions 34 to 36);
- Soil and Water (see Conditions 37 to 44);
- Visual (see Conditions 45 and 46);
- Waste (see Conditions 47 and 48);
- Site Security (see Condition 48A); and
- Aviation Safety (see Condition 48B).

i) describe the roles and responsibilities for all relevant employees involved in construction and demolition works associated with the Project;
j) include arrangements for community consultation at key stages of the Project;
k) include a complaints handling procedure during construction; and,
l) include appropriate procedures to allow the regular review of the requirements of each plan to ensure that they are effective and allow for adaptive management to address contingencies that may arise over the life of the Project.

The approval of a Construction Environmental Management Plan does not relieve the Proponent of any requirement associated with this approval. If there is an inconsistency with an approved Construction Environmental Management Plan and the conditions of this approval, the requirements of this approval prevail.

Operational Environmental Management Plan

49B. The Proponent shall prepare and implement a Construction Environmental Management Plan for the construction of the Project. This Plan must:

a) be submitted to and approved by the Secretary prior to the commencement of operation of each stage of the Project (see Condition 49C for management plan requirements);
b) provide the strategic framework for environmental management of the Project;
c) identify the statutory licences, permits and approval/consents that apply to the Project;
d) include a copy of all relevant management plans and monitoring programs under this Project;
e) consolidate all relevant management and mitigation measures for the Initial Operations that will continue to be implemented the Project site together with those outlined in Appendix C of this consent;
f) outline all environmental management practices and procedures that will followed during the operation of the Project, including those that will continue to be implemented by the Proponent in respect of the Initial Operations (see Conditions 7 and 8);
g) include a description of all activities to be carried on the site during the operation of the Project;
h) detail how the environmental performance of the operation of the Project will be monitored, and what actions will be taken to address identified adverse environmental impacts, including (but not limited to):
    - Air Quality (see Conditions 21 to 27C);
    - Noise and Vibration (see Conditions 30 to 33A);
    - Transport (see Conditions 34 to 36);
    - Soil and Water (see Conditions 37 to 44);
    - Visual (see Conditions 45 and 46);
    - Waste (see Conditions 47 and 48);
    - Site Security (see Condition 48A); and
    - Aviation Safety (see Condition 48B).
i) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Project;
j) describe the procedures that will be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the Project, including information on and notification during flare activation and operation;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the Project;
    - respond to any non-compliance; and
    - respond to emergencies; and
k) include:
    - copies of any strategies, plans and programs approved under the conditions of this approval; and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.

Management Plan Requirements

49C. The Proponent shall ensure that Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include:
a) detailed baseline data;
b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria; and
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Project or any management measures;
c) a description of the measures that will be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
d) a program to monitor and report on the:
    - impacts and environmental performance of the Project; and
    - effectiveness of any management measures (see (c above);
e) a contingency plan to manage any unpredicted impacts and their consequences;
f) a program to investigate and implement ways to improve the environmental performance of the Project over time;
g) a protocol for managing and reporting any:
    - incidents;
    - complaints (including a complaints register);
    - non-compliances with statutory requirements; and
    - exceedence/s of the impact assessment criteria and/or performance criteria; and
h) a protocol for periodic review of the plan.

Notes:
- *This condition only applies to management plans that are submitted from 30 November 2014 onwards.*

- *The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*

Revision of Strategies, Plans & Programs

49D. Within 3 months of the submission of an:
a) Annual Environmental Management Report under Condition 50;
b) Incident Report under Conditions 51A and 51B;
c) any modifications to this approval,
the Proponent shall review, and if necessary revise all post approval documents required under this approval to the satisfaction of the Secretary.

Note: This is to ensure the post approval documents are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the Project.

24. Replace Condition 51 with new conditions 51A to 51C as follows:

Incident Reporting

51A. The Proponent shall notify the Secretary and any other relevant agencies of any incident or potential incident with actual or potential significant off-site impacts on people or the biophysical environment associated with the facility immediately after the Proponent becomes aware of the incident.

51B. Within 7 days of the date of this incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.

Flare Activation Reporting

51C. Within 7 days of a flare activation, the Proponent shall provide the Secretary and any relevant agencies with a flare activation investigation report, which shall include as a minimum:
a) date and time the activation occurred;
b) duration of the flare activation;
c) the flowrate to the flare during activation;
d) the operating temperature of the flare during activation; and
e) actions identified to prevent the occurrence of a future activation.

25. Replace Condition 52 with the following:

AUDITING

Independent Environmental Audit

52. 2 years after the commencement of operations of Phase 1 of the Project, and every 3 years thereafter, or at such intervals as the Secretary may agree, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the Project and within 1 month of each audit submit a report to the Secretary. This audit must:
a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Secretary;
b) assess the environmental performance of the Project, and its effects on the surrounding environment;
c) assess whether the Project is complying with the relevant standards, performance measures, and statutory requirements;
d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,
e) recommend measures or actions to improve the environmental performance of the Project, and/or any strategy/plan/program required under this approval.

Note: The audit team must include experts in the field of noise and air quality.

26. Replace Condition 53 with the following:

ACCESS TO INFORMATION

53. The Proponent shall, unless otherwise agreed to in writing by the Secretary:
a) make the following information publicly available on its website:
- the EA, EA (MOD 1) and EA (MOD 2);
- current statutory approvals for the Project;
- all approved post approval documents;

- a summary of the monitoring results of the Project, which have been reported in accordance with the conditions of this approval;
- copies of any annual reviews (over the last 5 years);
- any independent environmental audit, and the Proponent's response to the recommendations in any audit; and
- any other matter required by the Secretary; and

b) keep this information up-to-date.

27. Replace Appendix A with the following:

APPENDIX A
SITE LAYOUT PLANS OF THE INITIAL OPERATIONS AND THE PROJECT

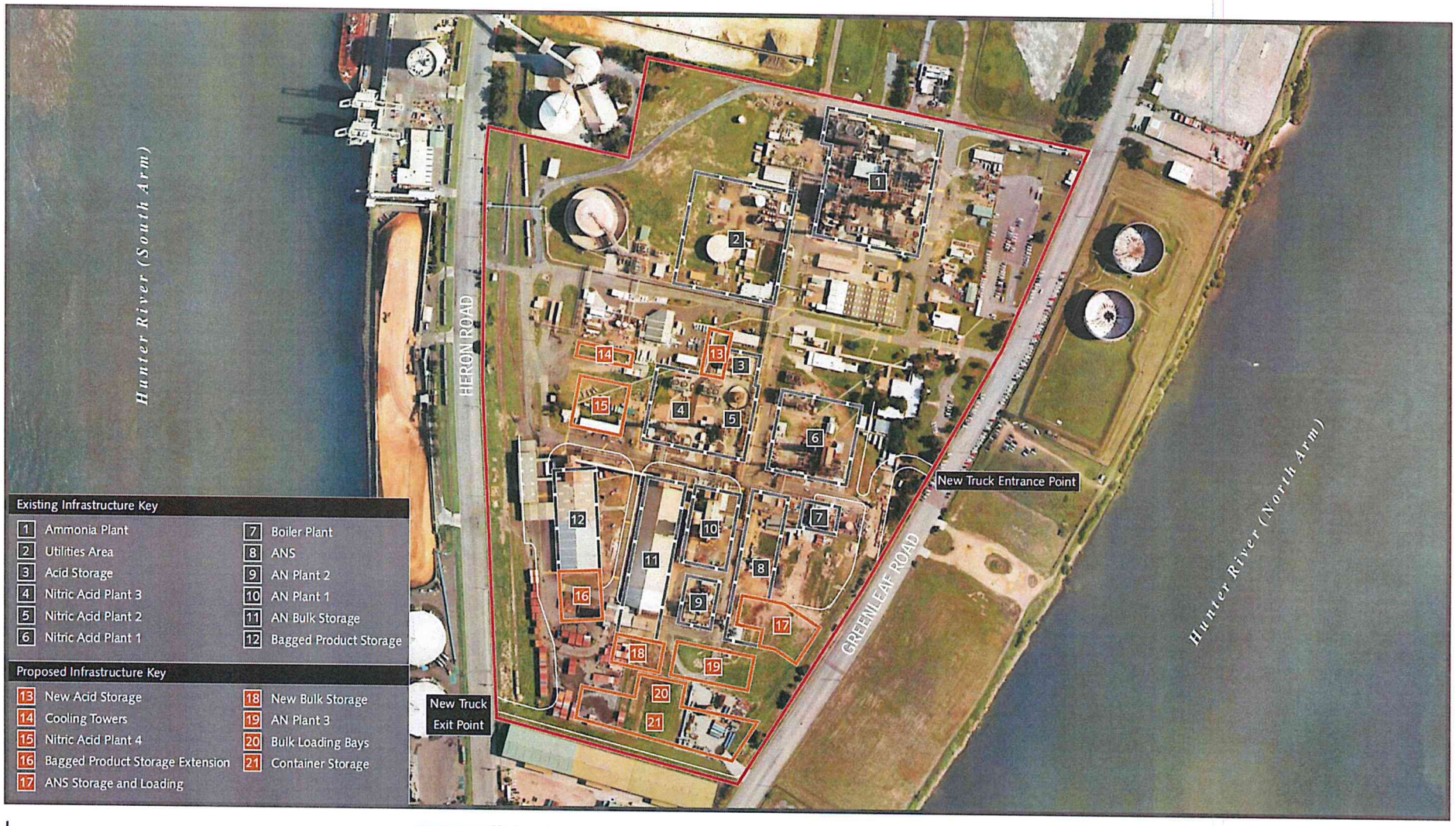

Figure 1.2 | **Proposed Site Layout**
Orica Australia Pty Ltd
Environmental Assessment
Proposed Ammonium Nitrate Facility Expansion
Greenleaf Road, Kooragang Island

APPENDIX B
SITE LAYOUT PLANS OF THE FINAL OPERATIONS

Existing Infrastructure Key

1 Ammonia Plant	5 Nitric Acid Plant 2	9 AN Plant 2
2 Utilities Area	6 Nitric Acid Plant 1	10 AN Plant 1
3 Acid Storage (Dilution infrastructure will be contained in the Tank 1 bund)	7 Boiler Plant	11 AN Bulk Storage
4 Nitric Acid Plant 3	8 ANS	12 Bagged Product Storage

Infrastructure Key (1 - 16)

1 New demin water system	5 New NA storage	9 Cooling water supply pumps	13 New NAP4 plant
2 New ammonia storage nitrate pumps	6 New pipe rack	10 New cooling water treatment skids	14 Ammonia compressor
3 New instrument air compressor and dryer	7 11kV trident switchroom	11 New cooling towers	15 Contaminated condensate tank
4 Extension to No.2 11kV substation	8 New boiler	12 New NAP4/AN3 switchroom and transformer	16 Clean process condensate tank

Infrastructure Key (17 - 32)

17 New No.6 ammonia bullet	21 New workshop	25 New concentrator plant	29 New bag store
18 New emergency generator and switchroom	22 New entry security gate	26 New ANS/WANS loadout	30 New AN road bulk loadout and weighbridges
19 New control room	23 New office	27 New first flush pi	31 2x 1.05/1.2t bag lines and 1x 25/40kg bag line
20 New entry	24 New weighbridge	28 New dispatch office and amenities	32 Switchroom

Infrastructure Key (33 - 38)

33 Transformers	39 New FEL workshop and forklift parking	45 Proposed Recycled Water Tank (consistent with existing site approvals)
34 Container bag loading area	40 Transtank	
35 New bulk store	41 Proposed AN# plant	
36 New weighbridge	42 New container storage	
37 New office	43 Nitrogen tie in	
38 New exit security gate	44 New ammonia plant nitrates pump	

Key

- Site boundary
- Existing infrastructure location
- OBL Stage 1A
- OBL Stage 1B
- OBL Stage 2
- NAP4 & ANS
- AN3

Note:
Information derived from Hatch EMA plan HEN2561-0000-00-014-0012 (05/04/2011)

0 100 200m

APPENDIX C
STATEMENT OF COMMITMENTS FOR THE PROJECT

Issue	Commitment	Timing
General	Orica will prepare and implement the following management plans for the project: • A Construction Environmental Management Plan (CEMP) and • Operational Environmental Management Plan (OEMP).	Construction and Operation
Community Consultation	Orica will continue to consult with community through the implementation of the project through: • Phone number • Regular briefings to community via the Reference Group • Information on project Web Page	Construction and Operation
Odour and Air Quality	Orica will incorporate engineering measures into its plant design to ensure it minimises the impact of the proposed expansion on air quality, including: • Catalytic NOx Abatement to reduce NOx in the tail gas of the Nitric Acid Plant No. 4 to a 99 percentile concentration limit of 150ppm NOx. • Air scrubbing and recirculation technology on the new AN Plant No.3 Prill Tower to minimise particulate emissions from the new tower based on a 100 percentile concentration limit for TSP's of 20 mg/m3. • Installation of a Refrigeration Purge Gas Scrubber on the Ammonia Plant to reduce NOx emissions from the Ammonia Plant to a 100 percentile concentration of 250 mg/Nm3 NOx • Scrubbing of ammonia emissions from the Nitric Acid Plant No.4 and Ammonium Nitrate Plant No. 3 during normal plant operation.	Detailed Design
Odour and Air Quality	As part of its improvement plans for its existing operations, Orica will also continue to investigate options to further reduce particulate and PM_{10} emissions from the existing AN Plant No.1 Prill Tower	Ongoing
	Within the CEMP, Orica will include measures to control dust during construction.	Construction
Greenhouse Gas	Orica is committed to the maximum practical GHG reduction for its existing and expanded facility as part of its company sustainability goals. Through the course of the expansion project, it is Orica's intention to install N_2O abatement technology on the proposed new nitric acid plant (NAP4) and retrofit technology to the existing nitric acid plants. Such technology is expected to reduce N_2O emissions from nitric acid production by at least 65%.	Detailed Design
Noise and Vibration	Noise and vibration would be managed during construction and form part of the CEMP. The CEMP would include a monitoring program, mitigation options and management practices.	Construction
	As part of the expansion project Orica will design new plant and equipment to result in boundary noise at existing residential properties to be 10dB(A) less than current operations incorporating design measures to minimise the noise impact of new plant.	Design and Operation
	Orica will continue to work with EPA to implement the programme to reduce noise emissions from the existing plant based on the existing PRP in the site EPL.	Ongoing

Issue	Commitment	Timing
Hazard and Risk	Orica will implement the following hazard and risk reduction measures by the completion of the Project to reduce the risk profile associated with its operations at Kooragang island. • Reconfigure bulk ammonium nitrate storage arrangements through storage segregation to reduce the risk associated with the onsite bulk storage. • Reconfigure packaged ammonium nitrate storage arrangements including the withdrawal of timber pallets currently used in the store, to further reduce the likelihood of fires in storage areas. • Implement additional ammonia detection and isolation systems to reduce the potential quantity released in an ammonia leak.	Detailed Design
	Orica will undertake a Hazard Analysis of the expanded operations 3 years after completion of the Project to update the hazard analysis contained in the PHA and subsequent FHA.	Operation
Parking	Orica will ensure the provision of adequate parking during the construction phase of the Project.	Construction
	Orica will ensure the provision of adequate car park facilities for additional staff anticipated for the expanded facility.	Operation
Transport	Orica will ensure that the movement of oversized loads to the site during the construction phase are undertaken in accordance with the standard procedures documented by the RTA and appropriate approval from the RTA.	Construction
	Orica will ensure that the detailed design of the new access points will be undertaken in accordance with the relevant standards and guidelines to cater for B-Doubles.	Detailed Design
Surface Water Quality	The CEMP will include requirements for the management of erosion and sedimentation during the construction of the Project.	Construction
	Orica will incorporate measures into the plant design to minimise the generation of contaminated stormwater runoff in the catchments such as bunding, roofing, first flush systems etc. where appropriate.	Detailed Design
Effluent	Orica will ensure effluent recovery measures are integrated into the new plant design, including the use of equipment to minimise water consumption, such as water-limiting devices on ANP3 washdown systems and hoses, mist eliminator pads on Cooling Towers to minimise loss of water droplets from the cooling tower system, and recycling liquid streams within site processes where possible.	Detailed Design
Resource Implications	Orica will also implement design measures to improve the efficiency of resource use including • Consideration of water efficiency and recycling in design of new plant • Modification to the Ammonia Plant with a resultant improvement in gas efficiency • Implementation of steam driven compressor trains versus electrical drives where appropriate (i.e. Ammonia Plant modification) • Consideration of optimising energy recovery into a usable form in the Nitric Acid Plant design	Detailed Design

Issue	Commitment	Timing
Soils and Groundwater	Orica will incorporate into the design of the proposal appropriate use of sealed areas, bunding and double containment to minimise the potential for failures that could result in soil and groundwater contamination. All process areas and tanks will be bunded in accordance with relevant Orica and Australian Standards. Plant areas will be classified according to risks to soil and appropriately sealed. The use of underground piping and pits will be minimised and, where unavoidable, secondary containment will be provided for systems that could impact on the environment in the event of a loss of containment	Detailed Design
	The CEMP will detail the measures to be implemented to address potential impacts to soil and groundwater during construction including: • A requirement that all excavated soils be tested to identify whether there are contaminants present in the soil. • Require soil testing to be conducted on excavated soils to determine the presence of acid sulphate soils (ASS) or other contaminants. All construction activities and works will be in accordance with "Managing Urban Stormwater; Soils and Construction" (Landcom, 2004).	Construction
Visual Amenity	Orica will consider vegetation/screening options along the eastern boundary that can be implemented and maintained in accordance with the onsite Security Plan for the Facility.	Operation
Flora and Fauna	The CEMP will include requirements to ensure that sedimentation and erosion from the construction activities are minimised to prevent potential impacts to nearby water bodies and habitat.	Construction
Heritage	The CEMP will include the following requirement in relation to heritage considerations: • Any Aboriginal objects that are uncovered during the remediation works should be left undamaged and *in situ*. Construction works should cease and an assessment be conducted by a qualified archaeologist in consultation with Aboriginal stakeholders and the DECC for direction as to its preservation, historical recording and / or removal if such items are uncovered.	Operation
Waste	Orica will develop a Waste Management Plan for the new plant detailing the means by which Orica will manage recyclable and waste materials at the site. This will include: • Recycling of solid and liquid waste materials where possible. • Classification of all non-recyclable wastes in accordance with DECCS guidelines for waste classification and disposed of to an approved waste disposal facilities by licenced contractors. • Monitoring of recycling and waste disposal systems to assess the overall effectiveness of the plan.	Operation

APPENDIX D
STATEMENT OF COMMITMENTS FOR MOD 2

Aspect	Mitigation measure
Air Quality and Odour	- All construction works will be undertaken in accordance with Conditions 25 and 26 of the Project Approval. - Operational air quality verification will be undertaken for the proposed modification in accordance with Condition 23 of the Project Approval. - Ongoing operational air quality monitoring would be undertaken in accordance with Condition 22 of the Project Approval.
Noise and Vibration	- All construction works will be undertaken during hours as specified by Condition 33 of the Project Approval; - All reasonable and feasible construction noise mitigation measures will be implemented during construction to minimise noise impacts; - The final pump specification will comply with a Sound Power Level of 82dB(A) at 1m; and - Maintenance and testing of the flare will be limited to standard working hours.
Hazards and Risk	- A Layers of Protection Analysis (or similar) will be implemented for the nitric acid tank level instrumentation to determine the required level of reliability to reduce the risk of tank overflow to an acceptable level; - A Layers of Protection Analysis (or similar) will be undertaken during the design phase of the project to ensure the risk of liquid releases to the environment is acceptable; - A HAZOP study and a construction safety study will be undertaken in relation to the proposed modification; and - The existing safety management system, including the emergency response plan will be updated.
Visual	- All lighting design will be undertaken in accordance with *AS 4282(INT)-Control of Obtrusive Effects of Outdoor Lighting* pursuant to Condition 46 of the Project Approval; - The existing landscaping and vegetation screens of the Orica site will be subject to ongoing upkeep to maintain the effectiveness of the vegetated screen in accordance with the Landscape Plan prepares under Condition 45 of the Project Approval; and - All infrastructure will be maintained to a high standard and appearance with a focus on the external skin of the nitric acid tank.
Soils and water	- In accordance with Condition 44 of the Project Approval, a Construction Sediment and Erosion Control plan will be prepared in accordance with the 'Managing Urban Stormwater; Soils and Construction' (Landcom, 2004).
Greenhouse Gas	- Construction plant and equipment not be left idling for prolonged periods and will where feasible be turned off.
Transport	- Orica will ensure that the movement of oversized loads to the site during the construction phase is undertaken in accordance with the standard procedures documented by the Roads and maritime Services (RMS) and with appropriate approval from the RMS. - In accordance with Condition 36 of the Project Approval a Construction Traffic Management Plan will be prepared for the construction of both the nitric acid tanks and ammonia flares.

Aspect	Mitigation measure
Waste	- Construction waste will be managed in accordance with the waste hierarchy and the conditions of the Project Approval. - The Operational Waste Management Plan prepared under Condition 48 of the Project Approval will be updated to incorporate potential waste streams from the proposed modification.
Flora and fauna	- Sediment and erosion controls will be implemented to control runoff into, and ecological impact to, nearby water bodies. - Other potential impacts to flora and fauna will be managed through the implementation of the mitigation measures specified in the 2009 EA where applicable.
Heritage	- Any indigenous or on-indigenous objects that are uncovered during the remediation works should be left undamaged and in situ. Construction works should cease and an assessment be conducted by a qualified archaeologist in consultation with Aboriginal stakeholders and the OEH for direction as to its preservation, historical recording and / or removal if such items are uncovered.

Issue	Commitment	Timing
Hazard and Risk (MOD2)	Orica when developing the FHA will update during each relevant stage, will: • Confirm that the final design of the Nitric Acid tank ensures that the drainage path and ultimate drainage location for a spill from the tank will, as far as practicable, be retained on site. • Clarify the data and intent of Table AI-6 in the Preliminary Hazard Analysis. • Address the final design of the Nitric Acid tank overfill protection system (based on the findings of the SIL analysis), and its implications for the risk analysis. • Confirm the ground level radiation limits from the flares based on the final design. • Validate the failure analysis of the automatic isolation associate with major ammonia pipelines as detailed in the MOD 2 PHA. • Rationalise pressurised liquid ammonia storage and piping systems to reduce inventories and simplify isolation to minimise the potential quantity of ammonia released in an ammonia leak as detailed in the MOD 2 PHA. These measures will be in place by the completion of the Project.	Detailed Design