

APPENDIX A:

CONDITIONS OF APPROVAL

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning and Infrastructure under delegation from the Minister dated 14 September 2011, the Planning Assessment Commission of New South Wales (the Commission) approves the development application referred to in Schedule A, subject to the conditions specified in Schedules A to D.

These conditions are required to:

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

Member of the Commission

Member of the Commission

Member of the Commission

Sydney

2013

SCHEDULE A

Application No:

SSD 5544

Applicant:

Caltex Refineries (NSW) Pty Ltd

Consent Authority:

Minister for Planning & Infrastructure

Land:

2 Solander Street, Kurnell

Lot 56, DP 908	Lot 79, DP 8135	Lot D, DP 361103
Lot 57, DP 908	Part Lot 122, DP 8135	Part Lot F, DP 361103
Lot 62, DP 908	Part Lot 123, DP 8135	Lot G, DP 361103
Part Lot 11, DP 7632	Part Lot 124, DP 8135	Lot J, DP 362655
Part Lot 12, DP 7632	Part Lot 125, DP 8135	Lot K, DP 362655
Lot 189, DP 7632	Lot 48, DP 9564	Lot H, DP 362655
Lot 190, DP 7632	Lot 77, DP 9564	Lot 570, DP 752064
Lot 43, DP 8135	Lot 78, DP 9564	Lot 24, DP 776328
Lot 44, DP 8135	Lot 81, DP 9564	Lot 1, DP 1044690
Lot 45, DP 8135	Part Lot 1, DP 215818	Lot 25, DP 776328
Lot 46, DP 8135	Part Lot 2, DP 215818	Lot 283, DP 752064
Part Lot 77, DP 8135	Lot 1, DP 215819	Lot 1, DP 132055
Lot 78, DP 8135	Lot B, DP 338897	

Development:

Conversion of the existing Kurnell Refinery to a finished product import and distribution terminal.

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DEFINITIONS

Applicant	Caltex Refineries (NSW) Pty Ltd, or its successor
BCA	Building Code of Australia
Blue Book Volume 1	<i>Managing Urban Stormwater: Soils and Construction Volume 1 4th Edition (Landcom 2004)</i>
Construction	The demolition of buildings and/or structures, or the carrying out of works including excavation works, conversion works, the erection of other infrastructure and/or commissioning works covered by this consent.
Council	Sutherland Shire Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Infrastructure
Development	The development as described in the EIS and RTS, and as generally depicted in Appendix A, being for the conversion of the existing Kurnell Refinery to a finished product import and distribution terminal.
Director-General	Director-General of the Department (or nominee)
EIS	Environmental Impact Statement titled <i>Kurnell Refinery Conversion</i> , prepared by URS Australia Pty Ltd, dated May 2013, as modified by the Response to Submissions report.
EMP	Environment Management Plan
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning & Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning & Assessment Regulation 2000</i>
EPL	Environmental Protection Licence
EFRT	External Floating Roof Tank
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build
Heritage	Encompasses both Aboriginal and historic heritage including sites that predate European settlement, and a shared history since European settlement
Heritage Item	An item as defined under the <i>Heritage Act 1977</i> , and assessed as being of local, State and/ or National heritage significance, and/or an Aboriginal Object or Aboriginal Place as defined under the <i>National Parks and Wildlife Act 1974</i>
Incident	An incident causing or threatening material harm to the environment, and/or an exceedance of the limits or performance criteria in this consent
Land	In general, the definition of land is consistent with the definition in the EP&A Act
LGA	Local government area
Material harm to the environment	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning and Infrastructure (or nominee)
Mitigation	Activities associated with reducing the impacts of the Project
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NOW	NSW Office of Water in the Department of Primary Industries
OEH	Office of Environment and Heritage
Operation	Means the operation of the Development once the construction works have been fully completed and the Site has reached its end state terminal operations, but does not include commissioning trials of equipment or temporary use of parts of the Development during construction.

PHA	Preliminary Hazard Analysis
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned Land	Land not owned by the Proponent or where a private agreement does not exist between the Proponent and the land owner
Refined Product	Gasoline (Unleaded Petrol, Premium Unleaded Petrol, and Super Premium Unleaded Petrol), Diesel, Jet Fuel and Fuel Oil.
Reasonable	Reasonable relates to the application of judgment in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements.
RMS	Roads and Maritime Services
RTS	Response to Submissions report with the title " <i>Response to Submissions - Kurnell Refinery Conversion</i> " prepared by URS Australia Pty Ltd and dated September 2013.
Sensitive Receiver	Residence, education institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church) and children's day care facility.
Site	The land listed in Schedule A, and as depicted in Appendix A

SCHEDULE B

ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

- B1. The Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the development.

TERMS OF CONSENT

- B2. The Applicant shall carry out the Development generally in accordance with the:
- (a) EIS;
 - (b) RTS;
 - (c) site layout plans and drawings in the EIS (see Appendix A); and
 - (d) conditions of this Consent.
- B3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this Consent shall prevail to the extent of any inconsistency.
- B4. The Applicant 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 consent; and
 - (b) the implementation of any actions or measures contained within these reports, plans or correspondence.
- B5. Subject to confidentiality, the Applicant shall make all documents required under this consent available for public inspection on request.

LIMITS OF CONSENT

- B6. The Applicant shall not store in excess of 925 megalitres (ML) of refined product on the Site at any one time, unless otherwise agreed to in writing by the Director-General.
- B7. The construction works associated with the Development shall not extend beyond five (5) years from the date of approval.

LAPSE OF CONSENT

- B8. This consent shall lapse five years from the date of this consent unless any part of the Project is physically commenced (within the meaning of section 95 of the EP&A Act) on or before that day, in accordance with any consent or development consent, on the Land to which the consent relates.

SURRENDER OF EXISTING DEVELOPMENT CONSENTS

- B9. Within six (6) months of ceasing refining operations, or as otherwise agreed in writing by the Director-General, the Applicant shall surrender all existing development consents for the site listed in Appendix B in accordance with Clause 97 of the EP&A Regulation.
- B10. Within six (6) months of the issue of a Compliance Certificate or Occupation Certificate for the following development consents, or as otherwise agreed in writing by the Director-General, the Applicant shall surrender the following consents in accordance with Clause 97 of the EP&A Regulation.
- (a) DA 13/0195 – Stormwater Drainage Upgrade; and
 - (b) DA 12/0238 – Construction of a switch room.
- B11. Nothing in this consent alters or modifies the following development consents:
- (a) SSD 5353 – Port and Berthing Works;
 - (b) DA 13/0335 – Construction and operation of a Bio-Pile Pilot Trial to treat Hydrocarbon impacted soils;
 - (c) DA 09/840 – Jet Fuel Remediation;
 - (d) DA 11/1090 – Remediation of Limestone Pits; and,
 - (e) MP 11/0004 – Caltex Jet Fuel Pipeline Upgrade Project.

STATUTORY REQUIREMENTS

- B12. The Applicant shall ensure that all licences, permits and approval/consents are obtained as required by law and maintained as required throughout the life of the Development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approval/consents.

AMENDED ENVIRONMENT PROTECTION LICENCE (EPL) REQUIREMENT

- B13. Prior to the commencement of construction, the Applicant must apply to the EPA to vary the Environment Protection Licence (EPL) for the Kurnell Refinery (Licence No. 837) to permit the Development.

STRUCTURAL ADEQUACY

- B14. The Applicant 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 Applicant is required to obtain construction and occupation certificates for the proposed building works.

DEMOLITION

- B15. The Applicant shall ensure that all demolition work associated with the Development is carried out in accordance with *Australian Standard AS 2601:2001: The Demolition of Structures*, or its latest version.

OPERATION OF PLANT AND EQUIPMENT

- B16. The Applicant shall ensure that all plant and equipment used for the Development is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

PROTECTION OF PUBLIC INFRASTRUCTURE

- B17. Prior to the commencement of construction, the Applicant shall:
- (a) prepare a dilapidation report of the public infrastructure in the vicinity of the site (including roads, gutters and footpaths); and
 - (b) submit a copy of this report to the Director-General and Council.
- B18. The Applicant 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.

STAGED SUBMISSION OF PLANS OR PROGRAMS

- B19. With the approval of the Director-General, the Applicant may:
- (a) submit any strategy, plan or program required by this consent on a progressive basis; and/or
 - (b) combine any strategy, plan or program required by this consent.

Notes:

- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program shall clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages and the trigger for updating the strategy, plan or program.*
- *There must be a clear relationship between the strategy, plan or program that are to be combined.*

DISPUTE RESOLUTION

- B20. In the event that a dispute arises between the Applicant and Council or a public authority other than the Department, in relation to a specification or requirement applicable under this consent, the matter must be referred by either party to the Director-General, or if not resolved, to the Minister, whose determination of the dispute shall be final and binding to all parties. For the purpose of this condition, 'public authority' has the same meaning as provided under Section 4 of the Act.

COMPLIANCE

- B21. The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.
- B22. The Applicant shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.

SCHEDULE C

ENVIRONMENTAL PERFORMANCE AND MANAGEMENT

HAZARDS AND RISKS

Terms of Approval

C1. The Applicant shall:

- (a) carry out the Development in accordance with the PHA;
- (b) implement all control measures proposed in the PHA;
- (c) implement all actions proposed by Caltex in response to the recommendations from the Buncefield incident investigation report (Kurnell Buncefield Review - Final, submitted to the Department May 2013);
- (d) implement all proposed actions listed in Caltex's response to the Department's requests for additional information and clarifications (Caltex Response to D&I Queries of Caltex Submitted QRA – August 2013).

Commissioning

C2. The Applicant shall commission the Development in accordance with Table 1 below:

Table 1: Development Commissioning

System Description	Estimated Commencement of Commissioning	Estimated Commencement of Operation of System
Jet	1 March 2014	1 June 2014
Diesel	1 April 2014	1 July 2014
Gasoline	1 May 2014	1 August 2014
Slop	1 May 2014	1 August 2014

Pre-construction

C3. At least one month prior to the commencement of construction of the Development (except for construction of those preliminary works that are outside the scope of the hazard studies), or within such further period as the Director-General may agree, the Applicant shall prepare, in consultation with WorkCover NSW, and submit for the approval of the Director-General, the studies set out under subsections (a) to (d) (the pre-construction studies) of this Condition. Construction, other than for preliminary works, shall not commence until approval has been given by the Director-General and, with respect to the Fire Safety Study, approval has also been given by Fire and Rescue NSW.

(a) Construction Safety Study

A Construction Safety Study, consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 7, 'Construction Safety'. For developments in which the construction period exceeds six (6) months, the commissioning portion of the Construction Safety Study may be submitted two months prior to the commencement of commissioning.

(b) Fire Safety Study

A Fire Safety Study for the Development. 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 also be submitted for approval to Fire and Rescue NSW.

(c) Hazard and Operability Study/s

A Hazard and Operability Study/s for the Development, chaired by an independent qualified person. The study/s shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'.

The study report/s must be accompanied by a program for the implementation of all recommendations made in the report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.

(d) Final Hazard Analysis

A Final Hazard Analysis of the Development, consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'.

The FHA shall re-evaluate and confirm all relevant data and assumptions from the Preliminary Hazard Analysis.

Pre-commissioning

- C4. The Applicant shall develop, in consultation with WorkCover NSW, and implement the plans and systems set out under subsections (a) to (b) of this Condition. No later than two months prior to the refinery process units shutting down, or within such further period as the Director-General may agree, the Applicant shall submit, for the approval of the Director-General, documentation describing those plans and systems.

(a) Emergency Plan

A comprehensive Emergency Plan and detailed emergency procedures for the Development. This plan shall include consideration of the safety of all people outside of the Development who may be at risk from the Development. The plan shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'.

(b) Safety Management System

A document setting out a comprehensive Safety Management System, covering all on-site operations and associated transport activities involving hazardous materials. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records shall be kept on-site and shall be available for inspection by the Director-General upon request. The Safety Management System shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'.

An inspection, testing and preventive maintenance program should be developed, implemented and maintained to ensure the reliability and availability of the key safety critical equipment is, at a minimum, consistent with the data estimated in the PHA.

- C5. Prior to the commencement of commissioning the first asset within each system (see Condition C2), the Applicant shall submit a Pre-Commissioning Plan and Pre-Startup Safety Review Checklists to the Director-General.

Pre-Startup

C6. Pre-Startup Compliance Report

One month prior to the commencement of operation of the first asset in each of the four systems (see Condition C2), the Applicant shall submit to the Director-General, a report detailing compliance with Conditions C3, C4 and C5 of this consent. The report shall be prepared in consultation with WorkCover NSW, and shall include:

- (a) dates of study/plan/system submission, approval, commencement of construction and commissioning;
- (b) actions taken or proposed, to implement the recommendations and safety-related control measures in the studies/plans/systems; and
- (c) responses to each requirement imposed by the Director-General under Condition C7 of this consent.

Note: Compliance with Condition C4 may not be achievable until after such time as the documentation describing the plans and systems required under that condition have been developed. A subsequent report may therefore be required to be prepared and submitted after the documentation required by Condition C4 has been developed.

Post-Startup

C7. Post-Startup Compliance Report

Three months after the refinery process units shut down, the Applicant shall submit to the Director-General, a report that has been prepared in consultation with WorkCover NSW verifying that:

- (a) the Emergency Plan required under Condition C4(a) is effectively in place and that at least one emergency exercise has been conducted; and
- (b) the Safety Management System required under Condition C4(b) has been fully implemented and that records required by the system are being kept.

The report shall be prepared in consultation with WorkCover NSW.

Ongoing

C8. Hazard Audit

Twelve months after all four systems being fully operational and every three years thereafter, or at such intervals as the Director-General may agree, the Applicant shall carry out a comprehensive Hazard Audit of the Development and within one month of each audit submit a report to the Director-General.

The audits shall be carried out at the Applicant's expense by a qualified person or team, independent of the Development, approved by the Director-General 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' (HIPAP No. 5).

The audit reports shall, in addition to the requirements provided in HIPAP No 5:

- (a) verify implementation of all actions proposed by Caltex in response to the recommendations from the Buncefield incident investigation report (*Kurnell Buncefield Review - Final*, submitted to the Department May 2013).
- (b) verify implementation of all actions listed in Caltex's response to the Department's requests for additional information and clarifications (*Caltex Response to DP&I Queries of Caltex Submitted QRA – August 2013*).
- (c) confirm that the throughput and storage quantities of potentially hazardous materials are consistent with the PHA.
- (d) verify that an inspection, testing and preventative maintenance program has been developed, implemented and maintained to ensure the reliability and availability of the key safety critical equipment.
- (e) verify implementation of any measures arising from the reports submitted in respect of Conditions C2 to C5 of this consent.

The audit report must be accompanied by a program for the implementation of all recommendations made in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.

C9. Further Requirements

The Applicant shall comply with all reasonable requirements of the Director-General in respect of the implementation of any measures arising from the reports submitted in respect of Conditions C1 to C8 of this consent inclusive, within such time as the Director-General may agree.

SOIL AND WATER

Discharge of Water

- C10. The Development shall comply with section 120 of the *Protection of the Environment Operations Act 1997*, which prohibits the pollution of waters, except as expressly provided in an EPL.

Erosion and Sediment Control

- C11. During the construction of the Development, the Applicant shall implement suitable erosion and sediment control measures on-site, in accordance with the relevant requirements in the latest version of the Managing Urban Stormwater: Soils and Construction Guideline and the relevant Management and Mitigation measures contained within Appendix C of this consent.

Water Management Plan

- C12. The Applicant shall prepare and implement a Water Management Plan for construction works and site operations to the satisfaction of the Director-General. The plan(s) must:
- (a) be prepared in consultation with the EPA;
 - (b) be approved by the Director-General (refer to Conditions D1 and D2 for timing);
 - (c) In addition to the standard requirements for management plans (see Condition D3), this plan must include a Surface Water Management Plan, that:
 - includes a description of the water management system on site, including the:
 - stormwater system; and,
 - oily water / wastewater system.
 - includes plans for the above two components of the systems; and
 - demonstrates compliance with any requirements of the EPL and/or the EPA.

Groundwater

C13. In the event that groundwater is intersected during construction the Applicant shall:

- (a) obtain the necessary water licences or approvals from NOW;
- (b) develop a Groundwater Management Plan for the testing, dewatering, storage, movement and treatment of any groundwater in consultation with the NOW, to the satisfaction of the Director-General.

Acid Sulphate Soils (ASS) Management Plan

C14. If Acid Sulfate Soils (ASS) are encountered during construction, the Applicant shall take steps to prevent further oxidation of exposed ASS, and will cease all excavation work until an ASS Management Plan is prepared for the Development to the satisfaction of the Director-General. This Plan must:

- (a) be prepared in consultation with the EPA and Council by a suitably qualified and experienced expert;
- (b) be approved by the Director-General prior to the continuation of any excavation works;
- (c) outline the investigations that have been undertaken to test for the presence of ASS in accordance with the NSW State Government's *Acid Sulphate Soils Manual* (ASSMAC 1998);
- (d) detail the protocols to be put in place and followed;
- (e) detail how the ASS will be tested, handled and stockpiled;
- (f) detail measures to prevent erosion and sedimentation of ASS; and, if necessary
- (g) outline how the ASS will be disposed of off-site (e.g. at a licensed facility).

Contamination Management

C15. The Applicant shall prepare and implement a Contamination Management Plan for the construction works. The Plan shall:

- (a) be prepared in consultation with the EPA and NSW Health;
- (b) be to the satisfaction of the Director-General (refer to Condition D1 for timing);
- (c) outline measures for managing potentially contaminated soil and groundwater, including soil testing, classification, handling, storing and disposal;
- (d) detail the measures that will be employed to prevent erosion and sedimentation of contaminated soil;
- (e) detail measures for periodically testing surface water run-off that may accumulate during excavation works for elevated levels of contamination, with any water that is found to have elevated levels of contaminants being disposed of via the on-site Wastewater Treatment Plant.
- (f) detail measures for managing asbestos encountered during works, including disturbances of soil and release of asbestos into the air;
- (g) outline how all contaminated soil and associated waste material would be managed in accordance with the *Protection of the Environment Operations Act 1997* and associated regulations and characterised in accordance with the EPA's *Waste Classification Guidelines*;
- (h) detail how the storage, disposal and transport of asbestos waste would be undertaken in accordance with the *Protection of the Environment Operations (Waste) Regulations*; and
- (i) assess any likely impact on existing remediation projects and, if any impacts are identified, provide details as to the measures that shall be taken to reduce or avoid that impact.

NOISE AND VIBRATION

Construction Noise Limits

C16. The Applicant shall ensure that the construction noise generated by the Development does not exceed the criteria defined in Table 2 below.

Table 2: Construction Noise Criteria(dB(A))

Location	Day	Evening
	L _{Aeq} (15 min)	L _{Aeq} (15 min)
R2 – 30D Cook Street	45	40
At any other residence or other noise sensitive receiver	50	45

Notes:

- To identify a residential receiver location, refer to Appendix F of the EIS.
- Noise generated by the Development is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

Operational Noise Limits

- C17. The Applicant shall ensure that the operational noise generated by the Development does not exceed the Criteria for residential receivers are summarised in Table 3 below:

Table 3: Operational Noise Limits dB(A)

Location	Day	Evening	Night	
	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Amax}
At any private residential receiver	60	50	50	55

Notes:

- To identify a residential receiver location, refer to Appendix F of the EIS.
- Noise generated by the Development is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.
- These criteria have been developed for this specific Development, however it is recognised that the site is zoned for heavy industrial purposes and that ultimately the amenity of the area should be controlled by the criteria contained in Table 2.1 of the Industrial Noise Policy.

Hours of Construction and Operation

- C18. With the exception of works identified in conditions C18 and C19, the Applicant shall comply with the hours detailed in Table 4.

Table 4: Construction & Operation Hours

Activity	Day	Time
Construction	Monday – Sunday	7:00am to 10:00pm
Operation	Monday – Sunday	24 hours

- C19. High noise generating construction works shall be confined to less sensitive times of the day, and shall not be undertaken outside of the hours 7:00am and 6:00pm Monday to Saturday.
- C20. Construction works outside of the work hours identified in condition C17 above may, with the exception of works identified in condition C18, be undertaken in the following circumstances:
- works that are inaudible at nearest sensitive land receivers;
 - works that are consistent with Caltex's existing maintenance procedures and are in accordance with the existing EPL;
 - works agreed to in writing by the EPA or the Department;
 - for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or
 - where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

Operating Conditions

- C21. The Applicant shall:

- implement all reasonable and feasible noise management and mitigation measures to prevent and minimise operational, low frequency and traffic noise generated by the proposal;
- minimise the noise impacts of the development during adverse meteorological conditions when noise criteria do not apply;
- maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant that may generate offensive noise is not used operationally until fully repaired; and
- regularly assess noise monitoring data and relocate, modify and/or stop operations to ensure compliance with the relevant conditions of this consent.

Noise Management Plan

C22. The Applicant shall prepare and implement a Noise Management Plan for construction works and site operations. The plan(s) shall:

- (a) be prepared and implemented by a suitably qualified and experienced person, in consultation with the EPA;
- (b) be approved by the Director-General (refer to Conditions D1 and D2 for timing);
- (c) describe the measures that will be implemented to minimise noise from the construction and operation of the development including:
 - all reasonable and feasible measures being employed on site;
 - maintain equipment to ensure that it is in good order;
 - traffic noise is effectively managed; and
 - the noise impacts of the development are minimised during any meteorological conditions when the noise criteria in this consent do not apply;
 - identification of high noise generating construction activities, including proposed times when these works will be carried out (including respite periods if required) and mitigation measures to minimise adverse impacts from these activities;
 - compliance with the relevant conditions of this consent.
- (d) includes a noise monitoring program that:
 - shall be carried out until otherwise agreed to in writing by the Director-General;
 - is capable of evaluating the performance of the Development; and,
 - includes a protocol for determining exceedances of the relevant conditions of this consent and responding to complaints.

Construction Vibration

C23. The Applicant shall aim to achieve the following construction vibration goals:

- (a) for structural damage, the vibration limits set out in the *German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures*; and
- (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006).

AIR QUALITY MANAGEMENT

Dust Generation During Construction

C24. The Applicant shall carry out all reasonable and feasible measures to minimise dust generated during construction works.

C25. During Construction of the Development, the Applicant shall ensure that:

- (a) all trucks entering or leaving the site have their loads covered;
- (b) trucks associated with the Development do not track dirt onto the public road network; and
- (c) any dirt on public roads as a result of the development is promptly removed.

Offensive Odour

C26. The Applicant shall not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the POEO Act.

Operating Conditions

C27. The Applicant shall:

- (a) implement all reasonable and feasible dust and odour mitigation measures to prevent and minimise odour and dust emissions from operations;
- (b) prevent and minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events;
- (c) minimise any visible off-site air pollution; and
- (d) minimise surface disturbance of the site, other than as permitted under this consent.

Air Quality Management Plan

- C28. The Applicant shall prepare and implement an Air Quality Management Plan for the proposed construction works. The plan shall:
- (a) be prepared and implemented by a suitably qualified and experienced expert in consultation with the EPA and NSW Health;
 - (b) be approved by the Director-General prior (refer to Condition D1 for timing);
 - (c) describe the measures that would be implemented on site to ensure:
 - i. the control of air quality and odour impacts of the Development;
 - ii. that these controls remain effective over time;
 - iii. that all reasonable and feasible air quality management practice is employed;
 - iv. the air quality impacts are minimised during adverse meteorological conditions and extraordinary events; and
 - v. compliance with the relevant conditions of this consent.
 - (d) describes the air quality & odour management system;
 - (e) includes an air quality monitoring program that:
 - i. is capable of evaluating the performance of the proposal;
 - ii. includes a protocol for determining any exceedances of the relevant conditions of consent and responding to complaints;
 - iii. adequately supports the air quality management system; and
 - iv. evaluates and reports on the effectiveness of the air quality management system.

Air Quality Verification

- C29. The Applicant shall carry out an air quality verification study for the development. The study shall:
- (a) be prepared by a suitably qualified expert;
 - (b) be completed within 24 months of the commencement of operations, or as otherwise agreed to by the Director-General;
 - (c) be based on the average of emissions over a continuous 12 month period after commencement of operations, taking into account the throughput and type of fuel;
 - (d) include a validation of the accuracy of the modelling predictions in the EIS;
 - (e) verify that compliance with any limits or conditions in the EPL are achieved;
 - (f) verify, using reasonable means, the effectiveness of any emission control measures that have been implemented to minimise air quality impacts; and
 - (g) demonstrate compliance with the relevant regulatory criteria.

HERITAGE MANAGEMENT

Archival Record

- C30. The Applicant shall commission an appropriately qualified heritage expert to undertake an archival photographic recording of the existing fabric and operation of the Kurnell Refinery while the plant is still operational and during the decommissioning process. The recording should include a range of media and shall be undertaken in accordance with the current Heritage Council Guidelines on Photographic Recording of Heritage Items Using Film or Digital Capture (2006).

The archival recording shall be submitted to the Heritage Council of NSW, Sutherland Shire Library and the NSW State Library within 12 months of the closure of the refinery and prior to the removal or demolition of any existing elements.

Heritage Management Strategy

- C31. The Applicant shall prepare and implement a Heritage Management Strategy for the Australian Oil Refinery site prior to shut-down of the refinery plant. The Strategy must:
- (a) be prepared by a suitably qualified person in consultation with Council and the Heritage Council of NSW;
 - (b) be submitted to the Director-General for approval at least 2 months prior to the shut-down of the refinery plant;
 - (c) review the heritage significance of the Australian Oil Refinery site; and
 - (d) set out a framework to minimise or mitigate the loss of heritage value during the decommissioning process, and for the ongoing management of the Site's heritage during present and future works.

Other Heritage Management and Mitigation Measures

C32. The Applicant shall, prior to shut-down of the refinery:

- (a) form an in-house team to manage documentation and interpretation of the history of the refinery, including the production of a colour book;
- (b) liaise with the Mitchell Library to prepare a photographic record of the site and people associated with the refinery for inclusion in the library's archives; and
- (c) engage a professional photographer to prepare a photographic exhibition of the refinery. The location(s) and duration of the exhibition shall be to the satisfaction of Council and the NSW Heritage Council.

Potential for Discovery of Aboriginal and Non-Aboriginal Heritage Objects

C33. If during the course of construction the Applicant becomes aware of any previously unidentified heritage object(s), all work likely to affect the object(s) shall cease immediately and the Heritage Council of New South Wales shall be notified immediately in accordance with section 146 of the *Heritage Act 1977*. Relevant works shall not recommence until written authorisation from the Heritage Council of NSW is received by the Applicant.

C34. If during the course of construction the Applicant becomes aware of any previously unidentified Aboriginal object(s), all work likely to affect the object(s) shall cease immediately and the OEI informed in accordance with section 89A of the *National Parks and Wildlife Act 1974*. Relevant works shall not recommence until written authorisation from OEI is received by the Applicant.

ENERGY EFFICIENCY AND GREENHOUSE GAS EMISSIONS

Managing Energy Efficiency & Greenhouse Gas Emissions

C35. The Applicant shall implement all reasonable and feasible measures to minimise:

- (a) energy use; and
- (b) greenhouse gas emissions;

during construction and operations, to the satisfaction of the Director-General.

TRANSPORT AND ACCESS

Traffic Management Plan

C36. The Applicant shall prepare and implement a Traffic Management Plan for construction and operations, to the satisfaction of the Director-General. The plan must:

- (a) be prepared in consultation with Council and implemented by a suitably qualified and experienced person;
- (b) be approved by the Director-General (Refer to Conditions D1 and D2 for timing);
- (c) detail the measures that would be implemented to ensure road safety and network efficiency during construction and operation including (but not limited to):
 - installation of signage and implementation of maximum speeds limits on internal roads; and
 - final details of the proposed traffic control measures;
 - details for the rationalisation of the entry and exit to the Site, particularly if the weigh station is no longer required, to improve the management of traffic and parking for members of the general public in this area;
- (d) include a plan showing the route to be used by heavy vehicles during construction and operation;
- (e) detail the access and parking arrangements for the site during construction and operation;
- (f) include a Driver Code of Conduct that details the traffic management measures to be implemented during construction and operation to:
 - minimise the impacts of the development on the local and regional road network;
 - minimise conflicts with other road users; and
 - ensure truck drivers use specified routes.
- (g) describe the measures that will be implemented to ensure:
 - the nominated heavy vehicle route is used;
 - drivers adhere to the code of conduct; and
 - compliance with the relevant conditions of this consent.
- (h) include a program to monitor the effectiveness of these measures; and

- (i) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.

Car Parking

- C37. The Applicant shall provide sufficient parking facilities on-site for construction and operational personnel, and heavy vehicles, to ensure that construction and operational traffic associated with the Development do not utilise public and residential streets or public parking facilities for parking.

WASTE MANAGEMENT

Waste Management On-Site

- C38. The Applicant shall
- (a) minimise the waste generated on site; and
 - (b) ensure that the waste generated by the development is appropriately stored, handled and disposed of, to the satisfaction of the Director-General.
- C39. The Applicant shall ensure that any waste generated on the site during construction is classified in accordance with the EPA's Waste Classification Guidelines and disposed of to a facility that may lawfully accept the waste.

Waste Management Plan

- C40. The Applicant shall prepare and implement a Waste Management Plan for the construction works and site operations to the satisfaction of the Director-General. This Plan shall:
- (a) be prepared in consultation with the EPA;
 - (b) be approved by the Director-General (refer to timing in Conditions D1 and D2);
 - (c) detail the type and quantity of waste to be generated by construction and operational phases of the development;
 - (d) detail the materials to be reused or recycled, either on or off site; and
 - (e) detail the procedures for handling, storage, collection of recycling and disposal of waste.

Waste Received from Off-Site

- C41. The Applicant 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.

BIODIVERSITY & ECOLOGY

Biodiversity Management Plan

- C42. The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with the Council;
 - (b) be approved by the Director-General (Refer to Conditions D1 and D2 for timing);
 - (c) include measures to be taken to minimise impacts on flora and fauna;
 - (d) include a program with timeframes for implementation of the relevant recommendations contained in the Ecology Impact Assessment in Appendix I of the EIS, and the Management and Mitigation Measures contained in Chapter 19 of the EIS to minimise impacts on flora and fauna and maintain the biodiversity value of the site and surrounding environment.

Pest, Vermin & Noxious Weed Management

- C43. The Applicant shall:
- (a) implement suitable measures to manage pests, vermin and declared noxious weeds on site;
 - (b) measures to be taken to prevent the spread of any identified noxious/exotic weeds off site; and

- (c) inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in surrounding area.

Note: For the purposes of this condition, noxious weeds are those species subject to an order declared under the Noxious Weed Act 1993.

Protection of Marton Park Wetland

- C44. To ensure that the measures implemented to protect Marton Park Wetland from sedimentation, erosion and possible contaminants related to the stormwater drainage upgrade works approved by Sutherland Shire Council (DA 13/0195), are successful, monitoring of Marton Park Wetland must be undertaken after completion of the stormwater upgrade works, until otherwise agreed with Council, to ensure there are no detrimental impacts on the wetland. Caltex is to prepare a monitoring plan and submit it to Council for approval prior to completion of stormwater drainage upgrade works.

VISUAL

Lighting

- C45. The Applicant shall ensure that the lighting associated with the development:
- (a) complies with the latest version of AS 4282(INT) – *Control of Obtrusive Effects of Outdoor Lighting*; and
 - (b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.

Signage and Fencing

- C46. The Applicant shall not install any advertising signs on site without the written Consent of the Director-General.

SITE SECURITY

Site Security

- C47. The Applicant shall ensure that:
- (a) site fencing and security gates are installed to the satisfaction of the Director-General; and
 - (b) the security gates on site are locked whenever the site is unattended.

SCHEDULE D

ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Construction Environment Management Plan

D1. The Applicant shall prepare and implement a Construction Environmental Management Plan for the Development to the satisfaction of the Director-General. The Plan must:

- (a) be prepared in consultation with Sutherland Shire Council and the EPA;
- (b) be submitted to the Director-General for approval no later than four (4) weeks prior to the commencement of construction or demolition, or within such period otherwise agreed by the Director-General;
- (c) identify the statutory Consents that apply to the Development;
- (d) consolidate all relevant management plans and monitoring programs required in the conditions of this Consent;
- (e) outline all environmental management practices and procedures to be followed during construction and demolition works associated with the Development;
- (f) describe all activities to be undertaken on the site during construction of the Development, including a clear indication of construction stages;
- (g) incorporate all relevant management and mitigation measures contained in the EIS and RTS;
- (h) detail 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) Human Health and Ecological Risk management - which shall be mitigated and managed in accordance with Section 6.2 of the *"Human Health and Ecological Qualitative Risk Assessment"* report prepared by URS, dated 28 February 2013 and the relevant Management and Mitigation Measures contained in Appendix C of this consent;
 - (ii) Biodiversity management (See Condition 42);
 - (iii) Pest, Vermin & Noxious Weed management (See Condition C43);
 - (iv) Soils and Erosion management (See Condition C11);
 - (v) Contamination management (See Condition C15);
 - (vi) Noise and Vibration management (See Condition C22);
 - (vii) Air Quality management (See Condition C28);
 - (viii) Stormwater and Wastewater management (See Condition C12);
 - (ix) Traffic management (See Condition C36);
 - (x) Heritage management (Aboriginal and non-Aboriginal) (See Condition 33 & 34);
 - (xi) Waste and Resource management (See Condition C40);
 - (xii) Groundwater management, including measures which are consistent with the relevant Management and Mitigation Measures contained in Appendix C of this consent;
 - (xiii) Acid Sulfate Soils management – if required (See Condition C14);
 - (xiv) Emergency (including spill) management;
 - (xv) means for assessing (and where identified) for managing interactions and cumulative impacts from the concurrent construction of other development works in the area should these coincide with the Development (e.g. the Caltex Ports and Berthing upgrade, remediation projects);
- (i) describe the roles and responsibilities for all relevant employees involved in construction and demolition works associated with the Development;
- (j) include arrangements for community consultation, including consultation with the NSW Department of Education and local schools at key stages of the development that may affect school operations, to identify issues and mitigate impacts throughout the course of the Development.
- (k) Include a complaints handling procedure during construction and demolition and operation; 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 development.

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

Note: construction of the Development shall not commence until written Consent of this plan has been received from the Director-General.

Operational Environmental Management Plan

- D2. The Applicant shall prepare and implement an Operational Environmental Management Plan for the project to the satisfaction of the Director-General. This Plan must:
- (a) be approved by the Director-General prior to the commencement of operations;
 - (b) provide the strategic framework for environmental management of the Development;
 - (c) identify the statutory approvals that apply to the Development;
 - (d) include a copy of all relevant management plans and monitoring programs relevant under this consent, including:
 - (i) Water Management Plan (See Condition C12);
 - (ii) Noise Management Plan (See Condition C22);
 - (iii) Traffic Management Plan (See Condition C36);
 - (iv) Waste Management Plan (See Condition C40);
 - (v) Biodiversity Management Plan (See Condition 42); and,
 - (vi) Pest, Vermin & Noxious Weed Management (See Condition C43).
 - (e) outline all environmental management practices and procedures to be followed during operation;
 - (f) describe all activities to be undertaken on the site during operation;
 - (g) 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;
 - (h) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
 - (i) 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;
 - 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
 - (j) include:
 - copies of any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring required to be carried out under the conditions of this consent.

Management Plan Requirements

- D3. The Applicant shall ensure that the Management Plans required under this consent 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 development 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 development; 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 development over time;
 - (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
 - (h) a protocol for periodic review of the plan.

Note: The Director-General may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Annual Review

- D4. By 31 December 2014 and annually thereafter, or as otherwise agreed in writing by the Director-General, the Applicant shall review the environmental performance of the Development to the satisfaction of the Director-General. This review must:
- (a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against:
 - the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the EIS;
 - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the Development;
 - (e) identify any discrepancies between the predicted and actual impacts of the Development, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the Development.

Revision of Strategies, Plans & Programs

- D5. Within 3 months of the submission of an:
- (a) annual review under Condition D4 of this schedule;
 - (b) incident report under Condition D6 of this schedule;
 - (c) audit report under Condition D8 of this schedule; and
 - (d) any modifications to this consent,
- the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Director-General.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.

REPORTING

Incident Reporting

- D6. The Applicant shall notify the Director-General 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 development as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of this incident, the Applicant shall provide the Director-General and any relevant agencies with a detailed report on the incident.

INDEPENDENT ENVIRONMENTAL AUDIT

- D7. Within a year of the date of this consent, and every 3 years thereafter, unless the Director-General directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water License (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of any approved strategy, plan or program required under these approvals; and
 - (e) recommend measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.

- D8. Within 3 months of commissioning this audit, or as otherwise agreed by the Director-General, the Applicant shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

D9. The Applicant shall, to the satisfaction of the Director-General:

- (a) make the following information publicly available on its website:
 - the EIS;
 - current statutory approvals for the Development;
 - approved strategies, plans or programs;
 - a summary of the monitoring results of the Development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
 - a complaints register, updated on a quarterly basis;
 - copies of any annual reviews (over the last 5 years);
 - any independent environmental audit, and the Applicant's response to the recommendations in any audit; and
 - any other matter required by the Director-General; and
- (b) keep this information up-to-date,

Note: This requirement does not require any confidential information to be made available to the public.

APPENDIX A - PLANS



Figure 1: The Site and Development Area.

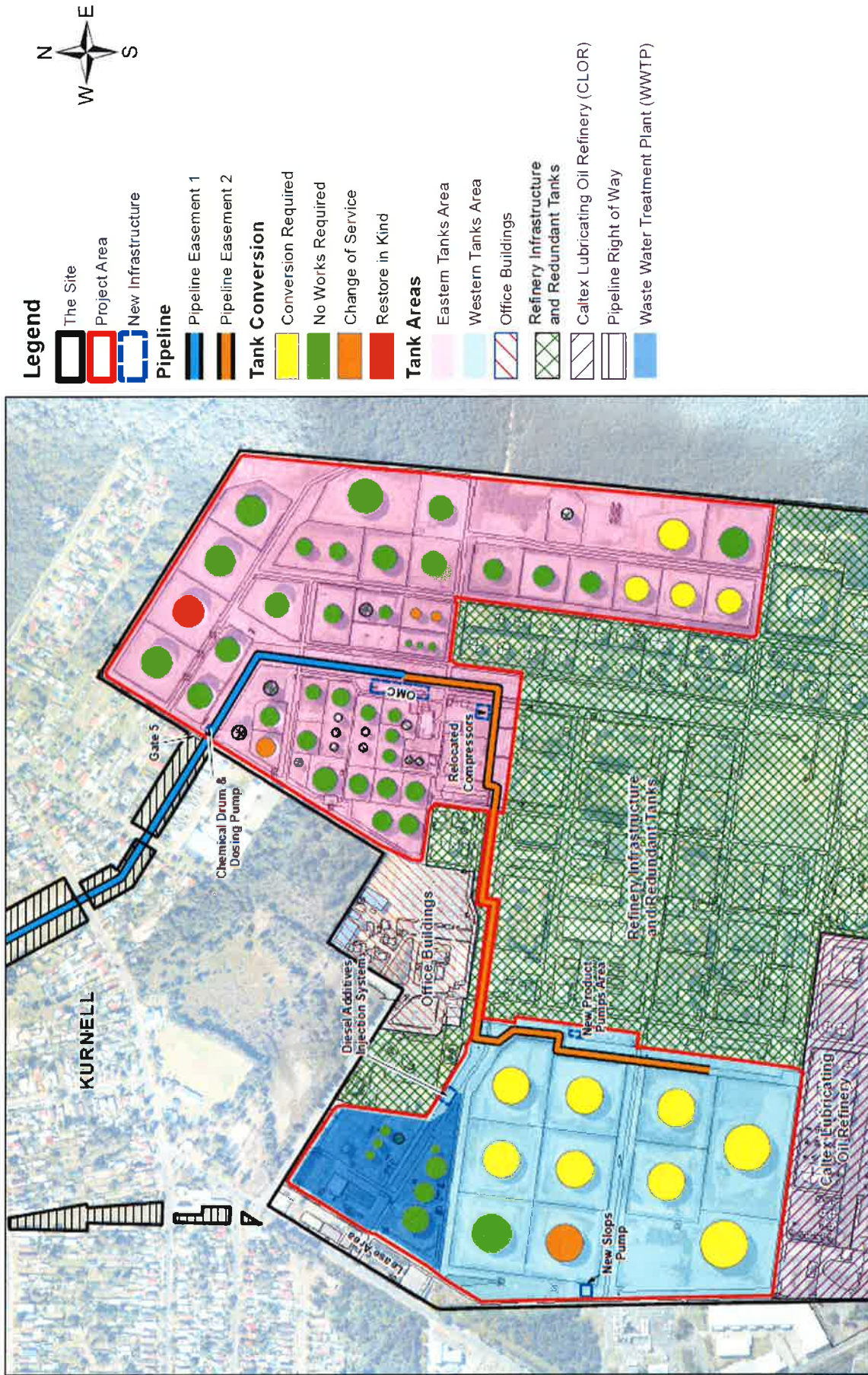


Figure 2 – Proposed Development

**APPENDIX B -
CONSENTS TO BE SURRENDERED**

DA #	Description
DA13/0727	Demolition of Transfer Pump House
DA12/0111	Demolition of CLOR Satellite Control Building
DA12/0635	Construction of Boundary Fence
DA12/0880	Replacement of an existing Motor Control Centre
DA11/1135	Remediation of Service Station
DA10/0999	Modification to existing Jet Fuel Facilities
DA10/0690	Demolition of existing structures and construction of new temporary contractor facilities
DA10/0272	New Substation Building
DA09/0835	Erection of two (2) new two (2) storey buildings and one (1) single storey building and relocation of an existing building to be used for office and amenities.
MA10/0171	Modification to approved consent
MA10/0007	Modification to DA09/0840
DA09/0480	Extend operating hours of existing lab
MA 07/0310	Amendment to Development consent
P3A 06/0160	Crude Storage Tank
MA 06/0429	Amendment to DA06/0873
DA06/0873	Diesel Storage Tank
DA06/0917	Construction of an LPG Odorant Hut
DA06/1490	Electricity Substation
DA05/0241	Bitumen Storage Tank
DA05/1443	Ancillary Development to Carbon Black Plant
DA04/0554	Decommissioning and Dismantling of the Stand-by Flare
DA30_2_2004	Clean Fuels Project
MOD-120-8-2005-i	Clean Fuels MOD 1
MOD-112-9-2006-i	Clean Fuels MOD 2
MOD 30-2-2004-i	Clean Fuels MOD 3
MOD 30-2-2004-i	Clean Fuels MOD 4
DA02/2151	Furnace Replacement
DA01/2696	Replacement Electrical Substation
DA01/2482	Demolition of Redundant Plant
DA01/2019	Stormwater Pipeline
DA 99/1816	Storage Tanks – Ampol
DA 99/0452	Extensions to existing switch room
DA 99/0266	Advertising
DA 98/0053	Secondary water treatment facilities
DA 94/1497	Provision of a new fire water system
DA 93/849	Installation of facilities for the production, storage and tanker loading of propylene rich Liquid Petroleum Gas (LPG) material
DA 91/0088	Addition to shop
DA 139/79	Construction of two storage tanks

APPENDIX C - MANAGEMENT AND MITIGATION MEASURES

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
General				
A1	Caltex would carry out the proposed works in accordance with the EIS and the approval conditions.	✓	✓	✓
A2	Caltex would implement reasonable and practicable measures to avoid, or minimise impacts to the environment that may arise as a result of the Project.	✓	✓	✓
A3	Caltex would ensure that the Project contractor prepares and implements a Construction Environmental Management Plan (CEMP) to manage any Project impacts. This would be reviewed and approved by a Caltex Environmental Management Representative (EMR).		✓	
A4	Caltex would appoint an EMR to monitor the implementation of all required environmental mitigation and management measures. The EMR would ensure that all measures were being effectively applied during the proposed works and that the work would be carried out in accordance with the CEMP and all environmental approvals and legislative conditions.		✓	
A5	Caltex and the various works' contractor personnel would undergo training in accordance with the CEMP and currently implemented environmental and safety measures agreed as part of the Project approval.		✓	
A6	Caltex would provide Sutherland Shire Council the opportunity to review and comment on the CEMP prior to the commencement of conversion works.		✓	
Hazard and Risk				
B1	A program of routine testing, inspection and maintenance would be developed for each new piece of equipment or function of instrumentation to be added to the preventative maintenance program already established for existing plant and equipment.		✓	✓
B2	The recommendations of the Fire Safety Study would be implemented for the design and operation of the terminal.	✓	✓	
B3	The Process Hazard Analysis Recommendations would be implemented for the design and operation of the terminal.	✓	✓	
B4	The spill response plan for the Site would be updated for the proposed terminal.		✓	
B5	Caltex would review hardware protection in place and proposed to ensure the risk of filling low flash point material into tanks designed for high flash point usage is minimised. Particular attention to human factors issues at manifolds.	✓	✓	
B6	Caltex would determine need for additional means of communication, e.g. for lone worker on the proposed terminal.		✓	

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
B7	Caltex would review the procedures used for potentially hazardous manual operation to ensure they are appropriate and sufficient for any increased frequency of use.		✓	
Soils Groundwater and Contamination				
C1	A Soils and Erosion Management Plan would be developed as part of the CEMP to manage the excavation, testing, stockpiling, reuse and rehabilitation of soils. This plan would outline: • the areas where soil disturbance is likely; • soil testing procedures; • soil handling procedures; • locations where soil would be stockpiled on-site for either removal, treatment or reuse; • procedures to reduce erosion and the spread of dust; • restricting traffic to defined roads or tracks where necessary; and • the rehabilitation of bare soil following completion of the construction works.		✓	
C2	All materials would be stockpiled in accordance with 'The Blue Book' Managing Urban Stormwater - Soils and Construction Volume 1 and 2 (Landcom, 2004). Principal controls would include the following: • silt fences would be installed around stockpiles to reduce erosion and protect vegetation or Site infrastructure as necessary; • silt and sediment traps would be installed across stormwater drains in proximity to excavation areas; • stockpiles would be restricted to cleared areas and not impact any vegetation; • stockpiles would be placed on impermeable sheeting; • stockpiles would be covered and wetted down in order to reduce dust creation; and • stockpiles would not be located in close proximity to any stormwater drainage systems.		✓	
C3	The Soils and Erosion Management Plan would also outline the inspection program for any erosion control structures and bunded areas.		✓	
C4	Excavated soils would be tested for both contaminants and odour using standard practices (e.g. soil vapour and soil sampling etc.).		✓	
C5	Clean materials would be separated from contaminated materials for reuse as backfill where required.		✓	
C6	A Contamination Management Plan would form part of the CEMP for the Project. This plan would outline measures for testing, classifying, handling, storing and managing contaminated soils and contaminated groundwater that may be encountered.		✓	

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
C7	Suspected contaminated materials would be assessed and classified in accordance with EPL requirements and NSW (2009) <i>Waste Classification Guidelines: Part 1: Classifying Waste</i> , batched, further tested (where required) and disposed by a licenced contractor.		✓	
C8	Disposal of any contaminated soils or groundwater would be in accordance with EPL requirements and NSW DECCW's <i>Waste Classification Guidelines</i> and the Contamination Management Plan (CMP) for the Project. Contaminated materials would be sent to appropriately licensed facilities in accordance with the <i>Contaminated Land Management Act 1997</i> .		✓	
C9	If Acid Sulfate Soils (ASS) are encountered during construction, an ASS Management Plan would be prepared in accordance with the ASS Manual (ASS Management Advisory Committee 1998).		✓	
C10	A Groundwater Management Plan (GWMP) would be developed and included within the CEMP. This plan would outline the measures that would be used to manage the testing, dewatering, storage, movement and treatment of any groundwater intercepted during the construction phase. Measures would include: - the use of appropriate drip trays and interception techniques for any construction specific liquids stored on the Site; - bunding of any fuel or chemical storage area at the construction Site; - regular inspection of construction equipment to ensure any leaks are minimised and rectified; - management of vehicles leaving the Site to reduce soil on roads, production of dust and the introduction of contamination to the groundwater and/or stormwater system; - appropriate and timely disposal of any contaminated soil, water or waste generated during construction; - regular inspection of erosion control structures and bunded areas; and - regular inspection and testing of containment areas, drainage lines and process pipe work.		✓	
C11	Any runoff that may accumulate in excavations would be periodically tested for elevated levels of contamination. Water that is found to have elevated levels of contaminants would be collected and sent to the on-site Wastewater Treatment Plant in accordance with the established refinery wastewater management procedures.		✓	
C12	Runoff entering any excavations would be limited by using bunds or similar structures as required.		✓	
C13	Construction workers would be instructed in appropriate health and safety and handling protocols for minimising human contact with contaminated soils and groundwater.		✓	

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
C14	During the cleaning of the crude and finished fuel tanks, measures would be implemented in line with Caltex's existing Turnaround and Inspection process to contain and collect any potentially contaminating material for appropriate disposal to the on-site wastewater treatment plant, landfarm or appropriate off-site disposal facilities. This process would be detailed within the CEMP.		✓	
C15	Permits would be required to work in the areas where potential soil and groundwater contamination exists. The work permit includes requirements such as monitoring and PPE. No unauthorised entry into these areas is permitted, without a permit.		✓	
C16	Appropriate inspection, assessment, maintenance and repair programmes that would be implemented as part of the operation of the Project. These safeguards would be incorporated into the updated management plans for the proposed terminal. The Project would be appropriately licenced under the <i>Protection of the Environment Operations Act 1997</i> and would be managed in accordance with EPL requirements.			✓
Human Health and Ecological Risk				
D1	Construction personnel would be made aware of the potential presence of Non Aqueous Phase Liquids (NAPL) and would be shown how to identify its presence. The CEMP would include management measures to appropriately deal with any NAPL found on Site.		✓	
D2	Construction staff would be inducted and provided with training prior to working with potentially contaminated soil as part of the Project, to prevent unnecessary disturbance (e.g. dust generation, asbestos fibre liberation, contaminant mobility and volatilisation).		✓	
D3	The location of potentially contaminated areas would be noted in the CEMP and provided to construction personnel involved in soil excavation and handling. The CEMP would also identify the type of contamination found in each area. Where necessary, safety training and appropriate PPE would be provided.		✓	✓
D4	Caltex would continue to monitor groundwater quality in areas that are known to contain impacts to ensure that significant mobilisation of COPC from groundwater to surface water is not occurring.		✓	✓
Surface Water, Wastewater and Flooding				

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
E1	The Construction Environmental Management Plan (CEMP) for the Project would include a Soil and Erosion Management Plan. This plan would include the following measures: • All materials would be stockpiled in accordance with 'The Blue Book' Managing Urban Stormwater – Soils and Construction Volume 1 and 2 (Landcom, 2004); • Silt fences would be installed around stockpiles to reduce erosion and the movement of suspended solids as necessary; • Soil stockpiles and any polluted materials would be stored in designated areas which are not in close proximity to any stormwater drainage systems; • Erosion control structures, bunded areas, containment areas, drainage lines and interception measures would be subject to regular inspection; • Clean materials would be separated from contaminated materials; and Soil erosion and sedimentation devices would remain in place until the disturbed ground surface is restored. These devices would also capture any gross pollutants.		✓	
E2	Caltex would continue to implement the measures within the Stormwater Management Plan for the Site. This plan has been produced in response to Environment Protection Licence No. 837, PRP U24.1: Stormwater Catchment and Management Plan. The SMP has committed Caltex to implementing a Stormwater Management Strategy and completing a number of stormwater management measures in a staged manner. Measures include: • Ongoing maintenance of the existing stormwater system; • Implementation of a number of projects to improve the infrastructure, reduce the potential for the refinery to flood, and prevent contaminated stormwater leaving the refinery premises; • Working with the NSW Office of Environment and Heritage (OEH), NSW EPA and Sutherland Shire Council to divert to flow of stormwater from the National Park away from the Site's stormwater system to the Sutherland Shire Council's stormwater infrastructure; • Carrying out stormwater flow monitoring; and • Updating the Site's stormwater system performance model to account for the changes to the stormwater system infrastructure that can then be used as a tool to assess future modifications, as necessary. This work would be completed in consultation with NSW EPA.	✓	✓	✓

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
E3	Discharges from the Wastewater Treatment Plant would be within existing EPL limits during construction and operation. Any required change to this Oily Water Management System would be discussed and agreed with NSW EPA.	✓	✓	
E4	The measures and processes currently in place at the Site to prevent any loss of contaminant would be maintained throughout the construction and operation phases of the Project. All bunds on tanks which are retained in service would meet the capacity requirements of Australian Standard AS1940 during the operation of the Project.		✓	✓
E5	Improvements to monitoring would be initiated to ensure that if a loss of containment into a bund occurs it is detected early and contingency actions can be taken promptly. The measures for tanks containing low flash materials include: - explosive vapour detectors within the bunds; - triple infrared scanners on tank roofs; and - CCTV in conjunction with infrared cameras as a confirmation for alarms. All tanks on-site would be subject to: - an automated high level shut off system; and - continuance of a comprehensive inspection/repair program.		✓	
E6	That Caltex undertakes a flood study, commencing within 3 months of completion of demolition works, that assesses potential flood risks from the Site to the Kurnell township, with a particular emphasis on the impacts from surface water entering the Site from land to the east and south of the Site and whether current diversion methods are appropriate. Caltex is to remain in consultation with Sutherland Shire Council throughout the flooding investigation works to identify a mutually acceptable solution to potential flood risks along the north eastern boundary of the Site. The timing and form of consultation is to be mutually agreed by both parties (Caltex and Sutherland Shire Council) and outlined within a written document to be produced by Caltex prior to commencement of the flood study. It shall include regular reporting updates and milestone meetings, for example, at the Scope of Works, concept design, at the issuing of the draft report to discuss results and any recommendations as a result of the study.			✓
Noise and Vibration				
F1	The CEMP for the Project would include a Noise Management Plan (NMP). The NMP would outline: - the locations of noise sensitive receptors; - construction noise monitoring procedures; and - construction equipment maintenance to ensure good working order.		✓	

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
F2	Low-noise plant and equipment would be selected, where practicable, in order to minimise potential for noise and vibration. All equipment would be regularly checked to ensure that the mufflers and other noise reduction equipment are working correctly.		✓	
F3	Community consultation with local residents would be undertaken to assist in the alleviation of community concerns. A complaints register is maintained and managed in line with the existing feedback process at the Site.		✓	✓
F4	Any noise complaint(s) would be investigated immediately. Reasonable and feasible measures would be implemented to reduce noise impacts.		✓	✓
F5	Construction equipment would be located to reduce noise emission to sensitive receptors, where practicable.		✓	
F6	The majority of the conversion works for the Project would typically be completed between 7.00am to 10.00pm seven days a week. Some works consistent with Caltex's existing day-to-day operational and maintenance procedures would occur over a 24 hour period as regulated by the Environmental Protection Licence (No. 837) (EPL) for the Site.		✓	
F7	Construction staff and contractors would undergo training in environmental noise issues including: • minimising the use of horn signals and maintaining a low volume. Alternative methods of communication should be considered; • avoiding any unnecessary noise when carrying out manual operations and when operating plant; and • switching off any equipment not in use for extended periods during construction work.		✓	
F8	Should any unexpected construction activities occur which could potentially generate significant noise not described in this report, monitoring would be undertaken to ensure construction noise emission levels do not exceed EPL limits.		✓	
Air Quality and Odour				
G1	Dust emissions from the construction phase of the Project would be monitored by construction staff. A designated worker would continuously monitor downwind emissions to the community or local residents and call a halt to activities if sensitive receptors are likely to be affected by airborne particulate matter. Should significant impacts be likely, appropriate measures would be taken to mitigate any adverse air quality effects.		✓	

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
G2	Within the refinery, construction vehicles would only travel on designated roads and would be limited to a maximum speed of 10 km/hr in construction areas, and 25 km/hr elsewhere.		✓	
G3	Where there is the potential for dust or odour generation, trucks carrying spoil loads would be covered and all tailgates would be securely fastened. Vehicles would not be loaded higher than the sides and tailboard.		✓	
G4	Construction activities would be limited during high wind events if sensitive receptors are likely to be significantly impacted.		✓	
G5	Construction plant would be maintained and operated in line with the manufacturer's specifications in order to minimise the emission of air pollutants and offensive odours. Plant and construction vehicles would be turned off when not in use.		✓	
G6	Stockpiled material would be assessed for the potential for causing odorous or particulate emissions. If air pollutants and offensive odours are likely, controls would be put into place to manage any adverse affects.		✓	
G7	All concrete cutting and coring would to be undertaken using "wet tools".		✓	
G8	An odour reduction program would be implemented in accordance with the existing EPL.			✓
G9	The guidepoles on the EFRTs in gasolise service would be fitted with sleeves.		✓	✓
G10	Caltex's Leak Detection and Repair (LDAR) Program would continue in accordance with the Environment Protection Licence.		✓	✓
Greenhouse Gas				
H1	Equipment would be inspected and maintained to ensure efficient running, minimising Green House Gas (GHG) production, and so it is appropriately sized for the task in hand.	✓	✓	
H2	Local supplies and/or facilities would be utilised to minimise vehicle kilometres travelled (where reasonable and feasible).	✓	✓	
H3	Energy efficiency opportunities would be identified and implemented (where reasonable and feasible) during construction and operation of the Project.	✓	✓	✓
Traffic and Transport				
I1	Local Authorities and Kurnell residents would be informed of any Project related work which would affect the road network.		✓	

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
I2	A Traffic Management Plan would be developed for the construction phase. The Traffic Management Plan would comply with all relevant Regulations and By-Laws and in particular address safe access and egress to the public road network. The Transport Management Plan would include: • hours of permitted vehicle activity; • designated routes for construction traffic and defined access points to the Site; • designated areas within the Site for truck turning movements, parking, loading and unloading to allow heavy vehicles to enter and leave the Site in a forward direction; • sequence for implementing traffic management measures should these be required; and • procedures and/or principles for construction vehicle speed limits and the safe operation of construction vehicles.		✓	
Waste Management				
J1	The Project would be integrated into existing resource efficiency, waste management and handling, emergency response and preparedness plans for the existing Kurnell Refinery.	✓	✓	✓
J2	Construction and Operation Waste and Resource Management Plans (WRMP) would be compiled prior to the each phase commencing.	✓		
J3	The WRMPs would: • identify requirements consistent with the waste and resource hierarchy; • ensure resourcing efficiency is delivered through the design and responsible construction and operational practices; • provide consistent clear direction on waste and resource handling, storage, stockpiling, use and reuse management measures (consistent with current management practices relating to Caltex's Kurnell Waste Management System); • identify disposal and management routes consistent with current management practices as adapted for the Project; • set out clear requirements for meeting legislative and regulatory requirements; • define requirements to support Caltex's sustainable procurement objectives through effective, design, construction, operation and procurement; and • set out processes for disposal, including on-site transfer, management and the necessary associated approvals.	✓	✓	✓
J4	The WRMPs would incorporate the requirements of the waste and resource hierarchy and cleaner production initiatives.	✓	✓	✓

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
J5	The WRMPs would include a process for auditing, monitoring and reporting, which would include regular inspections off-site activities and the waste management area(s). The WRMPs would be subject to regular auditing and a system would be used to record and report the types, volumes and management measures for all waste and resource arising from/used for the works.	✓	✓	✓
J6	Works-generated waste would be segregated at source and stored in accordance with current Site practices. Site management practices would potentially need adapting to consider additional storage requirements. Regardless, all waste would be stored in suitable containers and designated waste management areas.		✓	✓
J7	Caltex's existing procedures for the disposal of sewage, grey water, hazardous materials, general waste and recyclable materials would be adopted for the Project (and modified if required). This would include using licensed contractors to remove and transport waste from the Site.		✓	✓
Heritage				
K1	An archival photographic record of the existing fabric and operations of the Kurnell Refinery would be prepared while the plant is still operational, and during the decommissioning process. The recording would be undertaken in accordance with the Heritage Council guidelines on <i>Photographic Recording of Heritage Items Using Film or Digital Capture</i> (2006). The archival recording would be maintained for the appreciation of present and future generations. To this end, the recording would be lodged with Sutherland Shire Library and the NSW State Library.	✓		
K2	A Heritage Management Strategy would be prepared for the Australian Oil Refinery prior to shut-down of the refinery plant, to provide Caltex with a basic framework for the ongoing management of the Site's heritage during present and future works. The Strategy would include a review of the heritage significance of the overall Site. The review would clarify the extent and relative heritage value of the place by identifying key elements of industrial and built heritage as well as social values of the refinery, and the relative contribution of these elements to the overall significance of the Site. Recommendations would also address the future assessment and management of memorabilia and other significant items of moveable heritage maintained on-site.	✓		
K3	If any further heritage items were discovered throughout the Project, work would cease until an assessment is carried out by a qualified heritage professional.	✓	✓	

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
Ecology				
Management of Weeds				
L1	A Biodiversity and Weed Management Plan (BWMP) would be prepared in order to limit and control the spread of noxious weeds within the Site. It would include the following: - wash down procedures to reduce the spread of weeds via vehicles and machinery; - measures to target potential new weed outbreaks including soil stockpiles and any other disturbed areas; - outline monitoring programs for noxious and problematic weeds on sites and in the surrounding areas; - measures for strict stockpiling control to help eradicate all noxious weeds as per NSW DPI specifications for SSLGA; - include a list of 'frog-friendly' and 'wetland friendly' herbicides such as Roundup Biactive or Weedmaster DUO for the control of noxious weeds; and ensure that only amphibian friendly herbicides are used; - wash down protocols for construction vehicles and machinery to prevent the spread of root-rot fungus (<i>Phytophthora cinnamomi</i>); and - all personnel undertaking routine management activities of any noxious weeds should be appropriately trained and all contractors should hold the necessary permits and licenses.	✓	✓	✓
Restriction of Access to Existing Vegetated Areas				
L2	A BWMP would be prepared in order to limit potential impacts to existing vegetation outside of the area of proposed works, but within the Site It would include the following: - existing vegetation on Site would be clearly marked on all Site plans and construction diagrams, with clear indications of no-go zones within all vegetated areas; - existing vegetation would be clearly signposted and fenced off prior to the commencement of construction activities, and should remain fenced off until the completion of works; and - absolutely all works would be limited to the defined construction footprint.	✓	✓	

Item	Mitigation and Management Measures	Implementation of Mitigation Measures		
		Design	Implementation	Operation
Ecology- Fauna Management				
L3	To minimise the potential for impacts to native fauna species, the BWMP would be developed and include following measures: • if any frogs are found within the Project Area, works would cease until frogs have been relocated to areas outside the area of impact; • if any threatened frogs e.g. Green and Golden Bell Frog or Wallum Froglet are identified within the Site, works would cease and active searching should be undertaken by a qualified zoologist experienced in the identification and management of the Green and Golden Bell Frog and Wallum Froglet; • all trenches would be inspected prior to works each morning. Any frogs that become trapped within trenches would be assessed by a suitably qualified ecologist or veterinarian and then released into the nearest suitable habitat if uninjured; • identification sheets would be provided to all construction workers on Site for the two threatened frog species predicted to occur within the Site; • wash down protocols to prevent the spread of Amphibian Chytrid Disease (chytridiomycosis) would be implemented at relevant work areas. Protocols would be consistent with OEH guidelines (DECC, 2008b). • 'frog-friendly' and 'wetland friendly' herbicides such as Roundup Biactive or Weedmaster DUO would be used for the control of noxious weeds; and • if fauna are found to be utilising the Site, or a nest, den or roost is found, work in the immediate area is to stop and the animals are to be allowed to move off freely, or relocated by an authorised person to an area outside the construction footprint.	✓	✓	✓