

Notice of Modification

Section 96(2) of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, under delegation executed on 14 September 2011, we the Planning Assessment Commission of New South Wales (the Commission) hereby approve the modification of the development application referred to in Schedule 1, subject to the conditions outlined in Schedule 2.



Joe Woodward
Member of the Commission

Sydney

10 August 2015

SCHEDULE 1

Application No:	SSD 5544
Applicant:	Caltex Refineries (NSW) Pty Ltd
Consent Authority	Minister for Planning
Development:	Conversion of the existing Kurnell Refinery to a finished product import and distribution terminal
Modification:	Demolition and removal of redundant process refinery units, tanks, pipeways/pipelines and infrastructure

SCHEDULE 2

1. In Schedule A, before the words "2 Solander Street, Kurnell" insert the words "Caltex Terminal" and after the words "Lot B, DP 338897", insert the new paragraphs:

Continental Carbon Pipeline – Lot 2, DP 215818
Silver Beach – Lot 3, DP 1665618
Kurnell Wharf – Lot 456, DP 1413279

2. In the definitions delete the definitions for Construction, Department, Development, Director-General and Minister, and insert the following definitions in alphabetical order:

Construction	The carrying out of works including minor excavation works, conversion works, the erection of other infrastructure and/or commissioning works covered by this consent
Department	Department of Planning and Environment
Demolition	The excavation and removal of redundant refinery processing units, tanks, pipeways/pipelines and other infrastructure, covered by this consent
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, including the demolition of redundant infrastructure as described in MOD 1 and its accompanying SEE
Eastern ROW	Eastern Right of Way, which contains various pipelines that run between Kurnell Wharf and the Caltex Terminal

ENM	Excavated Natural Materials
HRA	Hazard Risk Analysis titled <i>Hazard and Risk Analysis of the proposed Caltex Kurnell Refinery Demolition Works</i> (HRA), prepared by Planager Pty Ltd dated November 2014 and enclosed in Appendix B of the SEE
Minister	Minister for Planning, or delegate
MOD 1	Modification application to SSD 5544 for demolition works, as described in the SEE and as generally depicted in Appendix A, being the demolition and removal of redundant tanks, pipelines and infrastructure
NEPM	National Environment Protection (Assessment of Site Contamination)
Secretary	Secretary of the Department, or nominee
SEE	Statement of Environmental Effects titled <i>Kurnell Refinery Demolition</i> , prepared by URS Australia Pty Ltd, dated November 2014, as modified by the Response to Submission report titled <i>Kurnell Refinery Demolition Response to Submissions</i> prepared by URS Australia, dated March 2015
Western ROW	Western Right of Way, which contains the Cooling Water Outlet Pipeline that runs between the Caltex Terminal and Botany Bay.
VENM	Virgin excavated natural materials
VOC	Volatile organic compounds

3. Delete all occurrences of the word "Director-General" and replace with the word "Secretary".
4. In condition B2, delete the second occurrence of the word "and" in condition (c) and delete condition (d) and replace with the following:
 - (d) MOD 1; and
 - (e) conditions of this consent.

5. Insert condition B7A after condition B7:

B7A. The demolition works associated with the development shall not extend beyond three (3) years from the date of consent of MOD 1.

6. Insert new conditions B13A after condition B13:

B13A. The Applicant shall apply to the EPA to vary the EPL if additional scheduled activities are required to be undertaken as result of the demolition works.

7. Delete condition B15.
8. Insert condition B16A, after condition B16;

COOLING WATER OUTLET PIPELINE REMOVAL

B16A. The cooling water outlet pipeline shall be removed from beneath Silver Beach north of Prince Charles Parade and up to 20 metres seaward from the low tide mark in Botany Bay as shown in Appendix A of this consent.

9. Insert condition B17A after condition B17:

B17A. Prior to the commencement of demolition works, 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 Secretary and Council.

10. Insert condition C1A, after condition C1:

C1A. The Applicant shall implement the recommendations in section 6 of the document titled *Hazard and Risk Analysis of the proposed Caltex Kurnell Refinery Demolition Works* (HRA), prepared by Planager Pty Ltd and enclosed in Appendix B of the SEE.

11. Insert condition C1B, after condition C1A:

Demolition

C1B. The Applicant shall ensure that relevant 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 and the requirements of the *Work Health and Safety Regulation 2011*.

12. Insert condition C1C after condition C1B:

C1C. The Applicant shall ensure that major demolition works as defined under the *Work Health and Safety Regulation 2011* are undertaken by licensed demolition experts.

13. Insert condition C3A, after condition C3:

Pre-Demolition

C3A. At least one month prior to the commencement of demolition works (except for those preliminary works that are outside the scope of the hazard studies), or within such further period as the Secretary may agree, the Applicant shall prepare and submit for the approval of Secretary the studies set out under subsections (a) to (b). Demolition, other than of preliminary works, shall not commence until approval has been given by the Secretary.

(a) FIRE WATER SYSTEM REVIEW

A review of the Firewater System to detail which parts of the system will be removed and/or retained. This review shall include a list of measures that will be implemented to ensure that the firefighting capabilities of the Caltex Terminal will not be compromised during or as a result of the demolition works.

(b) DEMOLITION SAFETY STUDY

The study shall report on the status of implementation of the recommendations outlined in the HRA for the demolition works, enclosed as Appendix B of the SEE. The study shall include examples of the hazards control plans developed for high risk activities and task based risk assessments of the process safety related hazards.

14. Insert condition C4A, after condition C4:

C4A. No later than one month prior to the commencement of the demolition works, or within such a further period as the Secretary may agree, the Applicant shall submit for the approval of the Secretary an updated Emergency Plan and detailed emergency procedures. The plan shall be in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 1, 'Industry Emergency Planning Guidelines' and shall provide information of the emergency arrangements during the demolition works.

15. Insert condition C7A, after condition C7:

C7A. Fire Safety Study Review

One month prior to the completion of demolition works, or within such further period as the Secretary may agree, the Applicant shall submit for the approval of the Secretary, a revised Fire Safety Study for the Caltex Terminal. This study shall cover the relevant aspects of the Department'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 to NSW Fire and Rescue for approval.

16. Insert condition C9A, after condition C9:

Fire Risk Management During Demolition

C9A. The Applicant shall:

- (a) ensure the emergency procedures detailed in condition C4A, address and mitigate, as far as reasonably practical, the consequences of potential fire and hazmat incidents during demolition works and the potential health risks to firefighters undertaking emergency operations in relation to foreseeable fire/hazmat scenarios;
- (b) ensure two copies of the emergency procedures detailed in condition (a) above are located at the demolition areas;
- (c) ensure appropriate first aid firefighting equipment is provided on site;
- (d) ensure that plant operators and demolition contractors are trained to undertake first aid firefighting in the event of an incident; and
- (e) ensure that comprehensive and specific risk control measures are developed and implemented for Scenario 5 detailed in Table 3, Section 4 of the HAZDEM. The control measures developed must incorporate comprehensive training of demolition contractors in regard to the requirements for the control of ignition sources at the site.

17. In condition C11, delete the word “of” after the word “construction” and insert instead the words “and demolition works associated with”.

18. Insert condition C11A, after condition C11:

Imported Soil

C11A. The Applicant shall:

- (a) ensure that only VENM or any other material approved in writing by the EPA is used as fill in the Eastern ROW and Western ROW;
- (b) ensure that the material used as backfill for Silver Beach is of similar grain size and colour characteristics;
- (c) be permitted to use only VENM or any other material that meets all of the conditions of a Resource Recovery Order issued by the EPA under the *Protection of the Environment Operations (Waste) Regulation 2014* for use in the Caltex Terminal.
- (d) ensure that any VENM or other materials used by the Applicant are fit for purpose and are only used as specified by the relevant Resource Recovery Exemption issued by the EPA.
- (e) keep accurate records of the volume and type of fill to be used; and
- (f) make these records available to the Department upon request.

19. Insert condition C11B after C11A:

C11B. During demolition works, the Applicant shall implement suitable erosion and sediment control measures for managing temporary stockpiles, in accordance with the relevant requirements in the latest version of the *Managing Urban Stormwater: Soils and Construction – Volume 1* and the relevant Management and Mitigation measures contained within Appendix C of this consent.

20. Insert condition C12A after condition C12:

C12A. The Applicant shall update and implement the Soil and Water Management Plan for the demolition works to the satisfaction of the Secretary. This plan is to update the plan approved under condition C12 and shall also:

- (a) be submitted to the Secretary for approval (See condition D1A for timing);

- (b) include a description of soil and water issues associated with the demolition works;
- (c) include measures for managing soils that are excavated and stockpiled on site including erosion and sediment control measures for stockpiles and disturbed areas;
- (d) include details of water management and monitoring requirements during demolition works; and
- (e) include procedures for corrective action in the event that potential contaminants of concern are identified in the groundwater from the quarterly groundwater monitoring program.

21. In condition C13 insert the words “and demolition works” after the word “construction”.

22. In condition C14, insert the words “and demolition works” after the word “construction”.

23. Insert condition C15A after C15:

- C15A. The Applicant shall update and implement the Contamination Management Plan for the demolition works to the satisfaction of the Secretary. This plan is to update the plan approved under condition C15 and shall also:
- (a) be submitted to the Secretary for approval (See condition D1A for timing);
 - (b) detail measures for the identification and monitoring of potentially contaminated soils and groundwater including the use of excavation visual and olfactory indicators; and
 - (c) include measures for managing potentially contaminated soils and groundwater during ground disturbance and excavation works;

24. Insert condition C15B, after condition C15A:

Asbestos Management

- C15B. The Applicant shall ensure that any asbestos encountered during the demolition works is monitored, handled, transported and disposed of by appropriately qualified and licensed contractors in accordance with the requirements of WorkCover and relevant guidelines, including:
- (a) *Work Health and Safety Regulation 2011*;
 - (b) *Model Code of Practice – How to Manage and Control Asbestos in the Workplace, 2011 Safe Work Australia*;
 - (c) *Model Code of Practice – How to Safely Remove Asbestos, 2011 Safe Work Australia*; and
 - (d) *Protection of the Environment Operations (Waste) Regulation 2005*.

25. Delete condition C16 and replace with the following:

- 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
	LAeq (15 min)	LAeq (15min)
R2–30D Cook Street	46	40
At any other residence or other noise sensitive receiver	50	45

26. Delete condition C18 and replace with the following:

- C18. With the exception of works identified in conditions C19 and C20, the Applicant shall comply with the hours detailed in Table 4.

Table 4: Construction, Demolition & Operation Hours

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

27. Delete condition C19 and replace with the following:

- C19. High noise generating construction and demolition works, including the pipeline removal works within the Eastern and Western Right of Ways, shall be confined to less sensitive times of the day, and shall not be undertaken on Sundays or public holidays or outside of the hours 7:00am and 6:00pm Monday to Saturday.

28. In condition C20, delete the word “C17” and replace with the word “C18” and delete the words “with the exception of works identified in condition C18” after the word “may,”.

29. Insert C22A, after condition C22:

- C22A. The Applicant shall update and implement the Noise Management Plan for the demolition works to the satisfaction of the Secretary. This plan is to update the plan approved under condition C22 and shall also:
- (a) be approved by the Secretary (refer to conditions D1A and D2 for timing);
 - (b) outline the procedures for the notification of all potentially affected persons at least one week prior to and during high noise generating works;
 - (c) implement reasonable and feasible noise and vibration management and mitigation measures during the demolition activities within the Caltex Terminal;
 - (d) implement reasonable and feasible noise and vibration monitoring and management measures during removal of the pipelines from the Eastern and Western ROW to minimise noise and vibration impacts generated by the pipeline removal works; and
 - (e) include strategies for monitoring vibration impacts on buildings with medium to high heritage significance proposed to be retained within the Caltex Terminal.

30. In condition C23, insert the words “and demolition” after the word “construction”.

31. In condition C24, insert the words “and demolition” after the words “construction”.

32. In condition C25, delete the words “of the development” and insert instead the words “and demolition works”.

33. Insert condition C28A after condition C28:

- C28A. The Applicant shall update and implement the Air Quality Management Plan for the demolition works to the satisfaction of the Secretary. This plan is to update the plan approved under condition C28 and shall also:
- (a) be approved by the Secretary (refer to conditions D1a and D2 for timing);
 - (b) outline procedures for VOC, odour and dust deposition monitoring and suppression methods during excavation works and where potential hydrocarbon contamination is present; and
 - (c) include dust suppression measures and procedures for dust monitoring during operation of the concrete crusher.

34. Insert C31A, after condition 31:

C31A. The Applicant shall:

- (a) continue to implement the Heritage Management Strategy prior to and during the demolition works; and
- (b) implement the recommendations stated in Chapter 4 and 5 of the document titled: *Caltex Kurnell Refinery Demolition: Heritage Impact Statement by Australian Museum Consulting for URS Australia Pty Ltd, October 2014.*

35. Insert condition C32A, after condition 32:

C32A. Within two months of its scheduled demolition, the Applicant shall undertake a final review of the adaptive reuse capabilities of highly significant buildings which are proposed to be demolished as per the recommendations of the Heritage Management Strategy.

36. Insert condition 32B, after condition 32A:

C32B. Within two months of its scheduled demolition, the Applicant shall complete appropriate archival records of items to be demolished as per the recommendations of the Heritage Management Strategy and other initiatives supported by the Heritage Division of the OEH.

37. Insert condition 32C, after condition 32B:

C32C. The Applicant shall implement the recommendations in section 5.2 of the document titled *Caltex Kurnell Refinery Demolition: Heritage Impact Assessment*, prepared by Australian Museum Consulting and enclosed in Appendix F of the SEE, for the pipeline removal works on Silver Beach to the satisfaction of Council.

38. In condition C33, insert the words “and demolition” after the word “construction”.

39. In condition C34, insert the words “and demolition” after the word “construction”.

40. In condition C35, delete the words “during construction and operations” and insert instead the words “throughout the life of the development”.

41. Insert condition C36A after condition C36:

C36A. The Applicant shall update and implement the Traffic Management Plan for the demolition works to the satisfaction of the Secretary. This plan is to update the plan approved under condition C36 and shall also:

- (a) be prepared in consultation with Council;
- (b) be approved by the Secretary (refer to conditions D1A for timing);
- (c) include the designated routes for demolition traffic to the demolition areas within the site;
- (d) include details of traffic management arrangements for the cooling water outlet and intake pipeline removal works within the road reserves; and
- (e) outline the procedures for the notification of all potentially affected persons prior to and during the pipeline removal works within the road reserves.

42. Insert condition C36B after condition C36A:

C36B. The Applicant shall ensure that the pipeline removal works along the road reserves on Captain Cook Drive, Prince Charles Parade and Cook Street are undertaken in consultation with Council and do not take place during public events or public holidays in Kurnell.

43. In condition C37, after the word “construction”, insert the word “, demolition”.

44. Insert C37A, after condition C37:

C37A. Within 18 months after commencement of the demolition works, the Applicant shall:

- (a) complete a review, in consultation with Council, of the Cook Street approach to the Caltex Terminal site considering issues relating to signage, car parking arrangements, vehicle flows and the future of the weighbridge; and
- (b) include a timetable of implementation of the findings of this review.

Note: The implementations of the findings of this review may require further approval under the EP&A Act.

45. In condition C39, after the word “construction”, insert the word “demolition”.

46. Insert condition C39A, after condition C39:

C39A. The Applicant shall ensure that all hazardous materials identified in the structures to be demolished are removed prior to demolition where it is safe and practical to do so.

47. Insert condition C39B, after condition C39A:

C39B. The Applicant shall ensure that the reuse of any materials (including soil, scrap metal or building materials) on site must be fit for purpose and must not result in any adverse impacts to the environment.

48. Insert condition C39C, after condition C39B:

C39C. Where it is safe and practical to do so, the Applicant should as far as practicable sort all waste materials generated during demolition works to maximise opportunities for the beneficial reuse and recycling of such waste materials.

49. Insert condition C40A, after condition C40:

Demolition Waste and Resource Management Plan

C40A. The Applicant shall prepare and implement a Demolition Waste and Resource Management Plan for the demolition works to the satisfaction of the Secretary. This plan is to update the plan approved under condition C40 and shall also:

- (a) be prepared in consultation with the EPA;
- (b) be approved by the Secretary (refer to condition D1a for timing);
- (c) outline the measures for the removal, storage and disposal of all waste materials generated during the demolition works; and
- (d) outline the waste reuse and recovery strategy for the demolition works.

50. Insert condition C41A, after condition C41:

C41A. The Applicant shall ensure that the removal of the cooling water outlet pipeline 20 metres seaward from the low tide mark in Botany Bay is carried out in a manner that minimises the potential for disturbance and/or spread of *Caulerpa taxifolia*.

51. Insert condition C43A, after condition C43:

C43A. The Applicant shall update and implement the Biodiversity and Weed Management Plan for the demolition works to the satisfaction of the Secretary. This plan is to consolidate the plans approved under conditions C42 and C43 and shall also:

- (a) be prepared in consultation with the OEH;
- (b) be approved by the Secretary (Refer to condition D1A for timing); and

- (c) include details of pre-clearing inspections and frog exclusion measures to be undertaken prior to excavation along the Continental Carbon Pipeway Right of Way.

52. Insert condition C43B, after condition C43A:

Continental Carbon Pipeline

C43B. Within three months after the removal of the Continental Carbon Pipeline, the Applicant shall prepare a strategy, in consultation with the OEH, for the active management of the former pipeline route including a program for weed management and removal as outlined in Management and Mitigation Measure K6 in Appendix C of this consent. The Applicant shall have commenced implementation of this strategy six months after the removal of the Continental Carbon Pipeline.

53. Insert condition C43C, after C43B:

Cooling Water Outlet Management Plan

C43C. The Applicant shall prepare and implement a Cooling Water Outlet Management Plan for the demolition works. The plan must:

- (a) be prepared in consultation with Council;
- (b) be approved by the Secretary (see condition D1A for timing);
- (c) include details of the timing and excavation program for pipeline removal, demolition methods, details of stockpiling, removal or reuse of excavated materials and the use of imported soils;
- (d) outline the measures to be taken to minimise potential marine ecology impacts including measures to:
 - minimise sediment plumes particularly during backfilling activities;
 - minimise the potential for hydrocarbon contamination from the pipeline;
 - minimise disturbance and impact on any seagrass communities; and
 - maintain machinery and equipment; and
 - exclude people and animals from the works both landward and seaward;
- (e) include details of the odour suppression measures during the pipeline removal works; and
- (f) include details of the works on Silver Beach including:
 - measures to minimise impacts to the affected sand dunes on Silver Beach including dune erosion and damage to vegetation; and
 - strategies for stabilising and restoring the affected sand dunes including exclusion measures and revegetation strategies.

54. In condition D1(b), delete the words “or demolition” after the word “construction”.

55. In condition D1, delete the Note after the words “this development consent prevail” and insert a new paragraph as follows: “Construction of the development shall not commence until written consent of this plan has been received from the Secretary”.

56. Insert condition D1A, after D1:

Demolition Environmental Management Plan

D1A. The Applicant shall prepare and implement a Demolition Environmental Management Plan for the demolition works to the satisfaction of the Secretary. This plan must:

- (a) be prepared in consultation with Council, EPA and NSW Health;
- (b) be submitted to the Secretary for approval no later than four (4) weeks prior to the commencement of the demolition works, or within such period otherwise agreed by the Secretary;
- (c) identify the statutory approvals and 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 demolition works associated with the development;
- (f) describe all activities to be undertaken on the site during demolition works associated with the development, including a clear indication of demolition stages;
- (g) incorporate all relevant management and mitigation measures contained in the SEE;
- (h) detail how the environmental performance of the demolition works will be monitored, and what actions will be taken to address potentially adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan:
 - i. Biodiversity and weed management(See Condition C43A);
 - ii. Soils and water management (See Condition C12A);
 - iii. Contamination management (See Condition C15A);
 - iv. Noise and vibration management (See Condition C22A);
 - v. Air quality management (See Condition C28A);
 - vi. Stormwater and wastewater management (See Condition C12A);
 - vii. Traffic management (See Condition C36A);
 - viii. Demolition waste and resource management (See Condition C40A);
 - ix. Groundwater management, including measures which are consistent with the relevant Management and Mitigation Measures contained in Appendix C of this consent;
 - x. Acid sulfate soils management (See Condition C14);
 - xi. Heritage management strategy (See Condition C31);
 - xii. Cooling water outlet management (see Condition C42B);
 - xiii. pipeline removal works on Kurnell Wharf, including details of the timing and program of works, demolition and removal techniques, and the measures to manage traffic and access to the wharf.
 - xiv. means for assessing (and where identified) for managing interactions and cumulative impacts from the concurrent construction of other development works within the site 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 the demolition works associated with the Development;
- (j) include details of a community notification protocol to notify potentially affected persons (including the local community and surrounding industries) of works which are likely to cause significant adverse impacts to the environment;
- (k) include a complaints handling procedure; 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 issues that may arise over the life of the development.

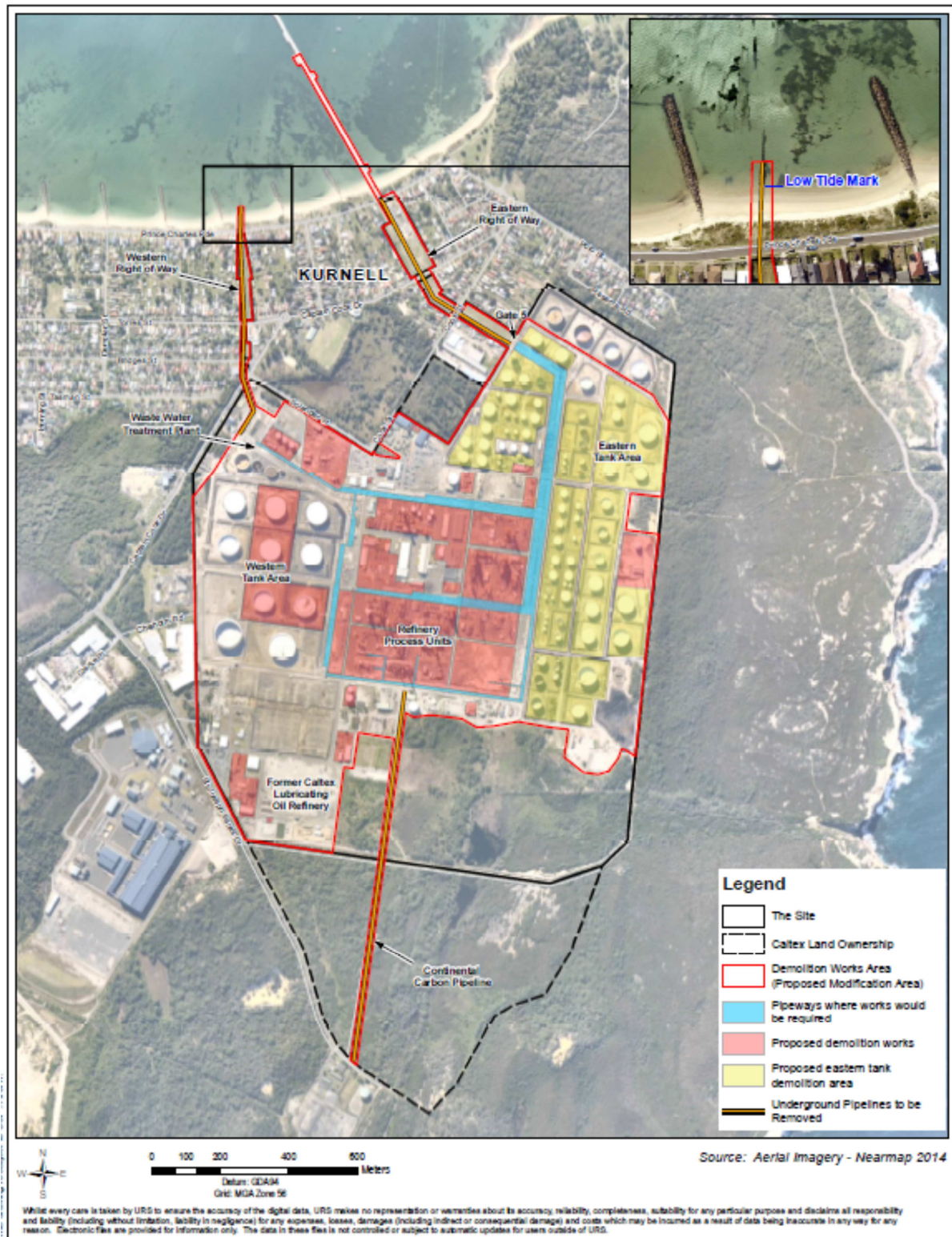
The approval of a Demolition Environmental Management Plan does not relieve the Applicant of any requirement associated with this development consent. If there is an inconsistency with an approved Demolition Environmental Management Plan and the conditions of this development consent, the requirements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

Demolition works shall not commence until written approval of this plan has been received from the Secretary.

- 57. In condition D9(a), insert a new bullet point with the words “SEE and MOD 1” after the word “EIS”.
- 58. In Appendix A, insert new figure with the title “Figure 3: Proposed demolition works” as shown in Attachment A of this modifying instrument.
- 59. In Appendix C, delete Management and Mitigation Measures and insert instead “Management and Mitigation Measures” as shown in Attachment B of this modifying instrument.

ATTACHMENT A

Proposed Demolition Works



CALTEX
REFINERIES
AUSTRALIA PTY LTD

KURNELL REFINERY
CONVERSION MODIFICATION

PROPOSED
DEMOLITION WORKS

Figure 3: Proposed demolition works

**ATTACHMENT B
STATEMENT OF COMMITMENTS**

Appendix C – Consolidated Management and Mitigation Measures

The table below contains a consolidated set of mitigation and management measures for the conversion works, demolition works and operation of the Kurnell Terminal, and confirms the stage at which each measure would be implemented. The following acronyms have been used to describe each stage:

- CD – Conversion Design
- Con – Conversion
- Op – Operation
- DD – Demolition Design
- Dem- Demolition

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
General						
A1	Caltex would carry out the proposed works in accordance with the EIS, the SEE 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) for the conversion works and a Demolition Environmental Management Plan (DEMP) for the demolition works to manage any Project impacts. This would be reviewed and approved by a Caltex Environmental Management Representative (EMR). Elements of these plans may be shared as required.		✓			✓
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, the DEMP and all environmental approvals and legislative conditions.		✓			✓
A5	Caltex and the various works' contractor personnel would undergo training in accordance with the CEMP, the DEMP 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.		✓			
A7	Prior to the demolition works commencing for a particular structure or group of structures, Caltex would develop a specific demolition management plan (DMP) for each structure or group of structures to be demolished. The DMPs would be made available to the					✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	appropriate regulators prior to being implemented if requested. The DMPs for the two concrete stacks (power plant and common stacks) and for the tall complex structures (two catalytic cracker units (plants 4 and 34)) would be provided to the EPA for comment ahead of the demolition works for these structures taking place.					
A8	Caltex would provide a draft of the DEMP and SWMP to NSW DPI for review and comment prior to finalising.				✓	
A9	Caltex would provide NSW Health with a copy of the DEMP and Asbestos Management Plan (AMP) for review and comment prior to finalising.				✓	
A10	Caltex would provide NSW OEH with a copy of the Biodiversity and Weed Management Plan (BWMP) for review and comment prior to finalising.				✓	
Hazards 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.		✓			
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.		✓			
B8	The bullet pointed measures listed in Section 8.7 of the SEE would be implemented to ensure that the conclusions of Appendix C Hazards and Risks Assessment of the SEE remain valid.				✓	✓
Soils, Groundwater and Contamination						
C1	A Soils and Erosion Management Plan would be developed as part of the Construction Environmental Management Plan (CEMP) to manage the excavation,		✓			

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	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' <i>Managing Urban Stormwater - Soils and Construction Volume 1 and 2</i> (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; - stockpiles would not be located in close proximity to any stormwater drainage systems; - Caltex would not stockpile in areas that are prone to flooding as identified in Figure 4-10 of Appendix D of the SEE; and - Stockpile locations and erosion and sediment control requirements associated with the Project would be reviewed by a suitably qualified person to ensure that the recommended measures achieve the environmental outcomes for the Site.		✓			✓
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		✓			

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	groundwater.					
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.		✓			✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
C13	Construction/demolition workers would be instructed in appropriate health and safety and handling protocols for minimising human contact with contaminated soils and groundwater.		✓			✓
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.		✓	✓		
C17	A Contamination Management Plan would be developed to outline measures for monitoring, handling, storing and managing contaminated soils and contaminated groundwater. It would include the following: - During excavation visual and olfactory indicators of impact would be monitored. Where there is potential for volatile organic contaminants (based on known ground conditions) or where hydrocarbons are seen or smelt during excavations, soils would be inspected for hydrocarbon impacts using a PID and/or testing. Excavated soils would not be used for backfill if they are impacted at levels exceeding commercial/industrial as defined by Schedule B1 Guidelines, <i>Investigation Levels for Soil and Groundwater, National Environment Protection Measure (Assessment of Site Contamination) Amendment Measure 2013</i>. - All excavations would be sampled for asbestos. Asbestos assessment would be undertaken in accordance with Schedule B1 Guidelines, <i>Investigation Levels for Soil and Groundwater, National Environment Protection Measure (Assessment of Site Contamination) Amendment</i>					✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	<i>Measure 2013.</i> - Asbestos impacted soil would be removed from the Site as soon as practicable. If these soils need to be temporarily stockpiled they would be stored at a defined location at the former CLOR site, covered and labelled as asbestos waste. Asbestos impacted soil would be classified in accordance with NSW EPA guidelines for transport and disposal at a licensed landfill (and in accordance with the Site waste management system and the Demolition Waste and Resource Management Plan (DWRMP) for the demolition works). The excavation, transport and disposal of asbestos impacted soil would be undertaken by a licenced contractor and comply with NSW WorkCover requirements. - Hydrocarbon impacted soil would not be temporarily stockpiled adjacent to the excavation. If these soils need to be temporarily stockpiled they would be stored at a defined location at the former CLOR site. - Excavated soils would be separated into stockpiles according to odours, staining and other environmental indicators. Soils that are potentially contaminated (following visual and olfactory inspection and or use of monitoring equipment) would be placed on impermeable sheeting into uniquely identified stockpiles and appropriately bunded and managed. The bunds would be impermeable and of sufficient capacity to ensure that runoff from these stockpiles is contained prior to being sent to the WWTP. - Where no contamination issues are identified, excavated material would be used as backfill to bring the excavated area back to grade as soon as practicable. If required, certified VENM, ENM or appropriated remediated material would be used to provide additional backfill material. - If excavated material cannot be re-used or managed on-site then it would be removed off-site as waste to an appropriately licensed facility. - Further, excavated material; would be classified in accordance with EPL condition O5.1 which requires "any liquid and/or non-liquid waste generated and/or stored [at the Site] is assessed and classified in accordance with the NSW (2009) <i>Waste Classification Guidelines: Part 1: Classifying Waste</i>, batched and further tested (where required, for example Toxicity Characteristics Leaching Procedure (TCLP) testing)". - The method of disposal or reuse would be in line with the materials' classification in accordance with specifications set out in a DWRMP.					

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	Where soils are reused on Site (i.e. are not considered to be impacted at levels exceeding commercial/industrial as defined by Schedule B1 Guidelines, <i>Investigation Levels for Soil and Groundwater, National Environment Protection Measure (Assessment of Site Contamination) Amendment Measure 2013</i>) a record would be kept (in the Waste Management Database) of where these soils are reused, the volumes reused; the type and levels of contaminants present in the soils and the soil classification.					
C18	The Soil and Water Management Plan would outline management measures for any soils that are excavated or stored on-site during the demolition works and water management requirements. It would identify: - the areas where soil disturbance is likely; - how excavations would be staged so that the length of time that excavations are left open and temporary stockpiles are required is minimised; - locations where soil would be stockpiled on-site for either removal, treatment or reuse; - that if additional backfill material is required, only certified VENM, ENM or appropriated remediated material would be used; - procedures to reduce erosion and the spread of dust; - restricting traffic to defined roads or tracks where necessary; - measures to protect excavations from increased stormwater runoff (e.g. by using bunds or similar structures where required); - measures to manage the storage of demolition specific liquids at the Site and the appropriate bunding or containment of demolition related fuel or chemical storage areas; - demolition equipment is maintained and operated in a proper and efficient condition to reduce the likelihood of spills or leaks; - measures to manage vehicles leaving the Site to reduce soil on roads, production of dust and the introduction of contamination to the groundwater and/or stormwater system; - measures for the dewatering, storage, movement and treatment of groundwater encountered in excavations. Dewatered groundwater would be collected and sent to the on-site Wastewater Treatment Plant in accordance with the established Site wastewater management procedures, unless it is tested and is of suitable quality to be directed to stormwater; - procedures for dewatering, including the need to liaise with NOW to ensure the necessary water					✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	licences are obtained, if required; and how the rehabilitation of bare soil would be managed across the Site once areas are returned to grade.					
C19	The Soil and Water Management Plan would also: - be developed in accordance with <i>'The Blue Book' Managing Urban Stormwater – Soils and Construction Volume 1 and 2</i> (Landcom, 2004); - outline the inspection program for erosion control structures and bunded areas; - continue the existing groundwater monitoring program; and - include a plan for corrective action should an unexpected increase in COPC be observed in the groundwater monitoring					✓
C20	An Asbestos Management Plan would be developed in accordance with the relevant guidelines. Caltex would utilise existing registers, procedures and plans in place for the Site for the preparation of an Asbestos Management Plan.					✓
Human Health and Ecological Risk						
D1	Construction/demolition 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/DEMP would include management measures to appropriately deal with any NAPL found on Site.		✓		✓	
D2	Construction/demolition 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/DEMP and provided to construction/demolition personnel involved in soil excavation and handling. The CEMP/DEMP 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.		✓	✓	✓	✓
Waste Management						
E1	The Project would be integrated into existing resource efficiency, waste management and handling, emergency response and preparedness plans for the existing Site.	✓	✓	✓	✓	✓
E2	Construction and Operation Waste and Resource	✓			✓	

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	Management Plans (WRMP) and Demolition Waste and Resource Management Plans (DWRMP) would be compiled prior to the each phase commencing.					
E3	The WRMPs and DWRMP would: - identify requirements consistent with the waste and resource hierarchy; - ensure resourcing efficiency is delivered through the design and responsible construction, demolition 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.	✓	✓	✓	✓	✓
E4	The WRMP and DWRMP would incorporate the requirements of the waste and resource hierarchy and cleaner production initiatives.	✓	✓	✓	✓	✓
E5	The WRMP and DWRMP would include a process for auditing, monitoring and reporting, which would include regular inspections off-site activities and the waste management area(s). The WRMP and DWRMP 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.	✓	✓	✓	✓	✓
E6	Project-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.		✓	✓		✓
E7	Caltex's existing procedures for the disposal of sewage, greywater, 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.		✓	✓	✓	✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
E8	A Waste Register would be prepared, used and maintained by the Demolition Contractor to track all wastes generated from demolition works. The Demolition Contractor would retain waste receipts to indicate evidence of waste disposal. The database would also be used to track all materials reused at the premises including its reuse location, type of waste and classification.				✓	✓
E9	Stockpiled wastes would be: - appropriately segregated to avoid mixing and contamination; - clearly labelled; - contained in bunded areas and if necessary on an appropriate lining; - less than 5m in height; and - located >40m away from any sensitive receivers, heritage, ecological areas and watercourses.				✓	✓
E10	Materials to be re-used would be analysed to ensure material is not contaminated and re-use is appropriate.				✓	✓
E11	An Asbestos Management Plan would be prepared and implemented in accordance with relevant legislative and other requirements. This plan would outline proposed methods of managing asbestos waste by the contractor.				✓	✓
E12	The Site's existing Asbestos Waste Register would be amended as appropriate, implemented and maintained to track asbestos wastes generated during demolition works.				✓	✓
E13	If stored on-site, asbestos wastes would be located away from operational areas and properly sealed and contained to minimise human exposure and clearly labelled. Signage and barriers/fencing would be installed to ensure all employees, contractors and visitors would keep away from the area at all times.					✓
E14	The removal and disposal of asbestos wastes would be undertaken by a licenced asbestos contractor.					✓
E15	A Decontamination Area would be provided on-site for all authorised personnel handling asbestos.				✓	✓
E16	All liquid and non-liquid wastes generated from demolition works would be assessed, classified and managed. Wastes would be disposed of at an appropriately licenced facility.					✓
Surface Water, Wastewater and Flooding						
F1	The Construction Environmental Management Plan (CEMP) for the Project would include a Soil and Erosion Management Plan. This plan would include the		✓			

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	following measures: - All materials would be stockpiled in accordance with '<i>The Blue Book' Managing Urban Stormwater – Soils and Construction Volume 1 and 2</i> (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.					
F2	A Soils and Water Management Plan would be developed as a sub plan to the DEMP. Measures to be included in the plan and implemented during the demolition works to protect stormwater quality would include: - Stormwater or groundwater ponded in excavations would be sent to the WWTP, unless it is tested and is of suitable quality to be directed to stormwater; - Stormwater that is captured in the bunds around the contaminated soil stockpiles would be collected and sent to the WWTP; - Silt fencing and/or alternate sediment control measures would be installed around soil stockpiles and disturbed areas or areas where dust suppression is being undertaken; - Regular inspection would be undertaken of soil stockpiles/excavation areas, including following rainfall events; - Regular inspections would be undertaken of stormwater drains down hydraulic gradient of disturbed areas; - If stormwater quality is impacted during the demolition works in areas that have been disturbed, water would be diverted to the intermediate sewer system; and - During the demolition works, following notable but prolonged rainfall events (over three days) or following heavy rainfall events over a shorter timescale, water sampling would be completed at the stormwater retention basin to ensure that the quality of the water is of an appropriate standard to be discharged from the Site. Water that is not of an appropriate quality would be either treated in					✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	situ or directed to the WWTP.					
F3	Caltex would continue to implement the measures within the Stormwater Management Plan (SMP) 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.	✓	✓	✓	✓	✓
F4	Discharges from the Wastewater Treatment Plant would be within existing EPL limits during demolition, construction and operation. Any required change to this Oily Water Management System would be discussed and agreed with NSW EPA.	✓	✓			✓
F5	The measures and processes currently in place at the Site to prevent any loss of contaminant would be maintained throughout the demolition, construction and operation phases of the Project. All bunds on tanks which are retained in service would meet the capacity requirements of <i>Australian Standard AS1940</i> during the operation of the Project.	✓	✓			✓
F6	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:			✓		

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	- 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.					
F7	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 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 recommendations as a result of the study.			✓		✓
F8	The following measures would be employed during and following the demolition of the refinery process units and associated infrastructure: - Appropriate bunding and controls would be put in place to prevent stormwater runoff from the demolition works area entering the stormwater system. - Following the completion of the demolition works and removal of redundant infrastructure, the former refinery process area would be regraded. The regrading would aim to ensure that water does not pool in this area. - As part of the regrading works, the surface material in this area would meet the commercial/industrial criteria as defined by Schedule B1 Guidelines, <i>Investigation Levels for Soil and Groundwater, National Environment Protection Measure (Assessment of Site Contamination) Amendment Measure 2013</i>. A crushed aggregate made from clean concrete and asphalt from the demolition works would also be spread across the surface to help reduce soil erosion. - Stormwater runoff collected in the stormwater system would be subject to the controls within this system (such as the oily water separators) prior to being discharged.					✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
Noise and Vibration						
G1	The CEMP/DEMP for the Project would include a Noise and Vibration Management Plan (NVMP). The NVMP would outline: • The locations of noise sensitive receptors; • Construction noise monitoring procedures; and • Construction equipment maintenance to ensure good working order.		✓			✓
G2	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.		✓			✓
G3	Community consultation with local residents would be undertaken to assist in the alleviation of community concerns. Prior to the proposed demolition works commencing within the Eastern and Western Right of Ways, at Silver Beach, on the Wharf or prior to particularly loud demolition works occurring on the main terminal site, potentially affected residents within Kurnell would be notified in advance. Should complaints be received, the complaints register would continue to be maintained and managed in line with the existing feedback process at the Site.		✓	✓		✓
G4	Any noise complaint(s) would be investigated immediately. Reasonable and feasible measures would to be implemented to reduce noise impacts.		✓	✓		✓
G5	Construction/demolition equipment would be located to reduce noise emission to sensitive receptors, where practicable.		✓			✓
G6	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.		✓			✓
G7	Construction/Demolition 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.		✓			✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	ensuring works occur within approved hours.					
G8	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.		✓			
G9	Pipeline removal works would be confined to 7.00 am to 6.00 pm Monday to Saturday as per Condition C19 (for SSD 5544).					✓
G10	Demolition works near 30D Cook Street (i.e. within 500m) would be confined to 7.00am to 6.00 pm Monday to Saturday as per Condition C19.					✓
G11	Demolition noise monitoring would be undertaken when necessary to ensure compliance with demolition noise criteria.					✓
G12	Caltex would ensure that the noise generated by the demolition works does not exceed the criteria defined in Table 2 (from Condition of Consent C16 of SSD 5544) unless the reasonable and feasible noise mitigation strategies outlined within the DNVMP have been implemented. Reasonable and feasible noise mitigation strategies would include appropriate respite periods during particularly noisy or prolonged activities.					✓
G13	The DNVMP would describe where demolition noise limits from Table 2 (from Condition of Consent C16 of SSD 5544) are likely to be exceeded and what reasonable and feasible noise mitigation would be employed to minimise noise.					✓
G14	To help ensure that the structures on Site that are to be retained with high or medium heritage significance are protected from potential vibration impacts, the DNVMP would also - Utilise Appendix H Heritage Impact Assessment to identify the medium to high heritage significance buildings to be retained; - Identify where works to demolish redundant structures are occurring within 20 m of a medium to high significance heritage building and the requirement to undertake vibration monitoring and management for these buildings to protect their integrity; and - Outline general monitoring and management measures to monitor vibration and manage buildings					✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
Air Quality and Odour						
H1	Dust emissions from the construction phase of the Project and during the demolition works would be monitored by construction/demolition staff. Visual inspections would be completed by demolition staff during the works. Demolition staff would also complete dust deposition monitoring during the demolition works (as per AS/NZS 3580) in appropriate locations on the Site boundary and in Kurnell. Staff would also monitor dust (PM ₁₀) levels using the on site real time ambient air quality monitoring station. When required, during activities likely to cause high dust levels or adverse weather conditions etc., a designated worker would continuously monitor downwind emissions to the community or local residents, using the methods described above, 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 adverse air quality impacts.		✓			✓
H2	Within the refinery, vehicles would only travel on designated roads where possible and would be limited to a maximum speed of 10 km/hr in offroad areas, and 25 km/hr elsewhere.		✓			✓
H3	Where there is the potential for dust or odour generation from 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.		✓			✓
H4	Construction and potentially dust generating demolition activities would be limited during high wind events if sensitive receivers are likely to be significantly impacted.		✓			✓
H5	All 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.		✓			✓
H6	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 adverse impacts.		✓			✓
H7	All concrete cutting and coring would to be undertaken using "wet tools".		✓			✓
H8	An odour reduction program would be implemented in accordance with the existing EPL.		✓	✓		
H9	The guidepoles on the EFRTs in gasoline service would be fitted with sleeves.		✓	✓		

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
H10	Caltex's Leak Detection and Repair (LDAR) Program would continue in accordance with the Environment Protection Licence.		✓	✓		
H11	All reasonable and feasible measures would be implemented to minimise dust and odour emissions during the demolition works					✓
H12	VOC and Odour Monitoring would be undertaken by demolition workers (i.e. visual and olfactory monitoring) and monitoring equipment during excavation activities where potential hydrocarbon contamination is present. Contractors would notify the Caltex Environment Specialist of any significant odours identified during demolition.					✓
H13	Soils or concrete with significant hydrocarbon staining or obvious hydrocarbon odours would be transported to the former CLOR area and stored appropriately. Stockpiles of contaminated soil stored on-site would be managed to prevent odorous VOC emissions and windblown particulate emissions.					✓
H14	Excavation would be staged to manage potential VOC and odour emissions. Where practical, excavations would not commence prior to 8am nor after 4pm as weather conditions at these times are generally conducive to adverse odour air quality situations from fugitive emissions.					✓
H15	In unfavourable weather conditions (e.g. dry and windy conditions) or where dust sources are present near sensitive receivers, water sprays would be used to dampen down soils prior to excavation, handling and/or loading/unloading materials. All exposed surfaces (from recent excavations) and stockpiles (of excavated material) would also be watered, sprayed or covered where required, to minimise nuisance dust and odours.					✓
H16	During adverse meteorological conditions and extraordinary events, such as events where elevated background dust is present, additional mitigation measures would be considered to prevent and minimise air quality impacts from demolition works. These measures would include, but not be limited to implementing the following during high wind events (e.g. > 8m/s hourly average): - Reducing working surface area - Commencing excavation during favourable wind conditions - Increase wetting agents for exposed surfaces - Increase covering of exposed surface areas.					✓
H17	Surface disturbance would be minimised. Exposed ground would be rehabilitated as soon as practicable.					✓
H18	Real-time dust monitoring would be undertaken during the operation of the concrete crusher. Details of this monitoring (and associated response actions) would be					✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	incorporated into the AQMP for the demolition works.					
H19	During crushing, a number of dust suppression measures would be implemented. These could include regular watering of stockpiles, dust curtains and other measures as appropriate.					✓
H20	Where biological matter is present within cooling water inlet pipework, the pipework would be removed as soon as possible. This would help to minimise the potential for odour issues associated with the degradation and then exposure of the biological matter.					✓
H21	Where visible dust emissions are observed appropriate management actions would be implemented to prevent impact.					✓
H22	In the event of an odour complaint, an evaluation would be undertaken to confirm if the demolition works are the source of the odours. If the demolition works are confirmed as a potential ongoing odour source additional mitigation measures would be implemented which could include the use of water sprays to suppress odours and, if necessary, the use of odour suppressants. Off-site olfactory observations and VOC monitoring using equipment would also be undertaken if necessary. In the event of ongoing odour issues, excavation activities would be stopped and if necessary the excavation covered or backfilled.					✓
H23	In line with Caltex's existing procedure, following a complaint and its subsequent investigation, feedback regarding the source and nature of the complaint would be provided to the affected community members.					✓
H24	Dust deposition monitoring would be undertaken during the demolition works (as per AS/NZS 3580). This would include monitoring points in appropriate locations on the Site boundary and in Kurnell.					✓
H25	The on-site real time ambient air quality monitoring station would continue to operate throughout the demolition works. This station continuously monitors for PM ₁₀ , wind direction and speed, temperature and humidity and rainfall.					✓
H26	A summary of the air quality monitoring data for the demolition works would be provided to the community during Caltex's quarterly community meeting.					✓
Transport and Access						
I1	Local Authorities and Kurnell residents would be informed of any Project related work which would affect the road network.		✓			✓
I2	A Traffic Management Plan would be developed for the construction/demolition phase. The Traffic Management Plan would comply with all relevant		✓			✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	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 and demolition traffic and defined access points to the Site and demolition works area; • duration of works; • permitted demolition vehicle types; • designated areas within the Site and demolition works area for truck turning movements, parking, loading and unloading to allow heavy vehicles to enter and leave the Site and demolition works area in a forward direction; • sequence for implementing traffic management measures should these be required; and • procedures and/or principles for construction and demolition vehicle speed limits and the safe operation of construction and demolition vehicles.					
I3	Works to remove pipelines from under the road reserves in Kurnell would not take place before a road opening application has been approved by Sutherland Shire Council and on the days the following events are taking place: • Australia Day (January); • The Festival of Kites (May); • The Boree Regatta (October). and • Water events for the Australian Scout Jamboree (first two weeks of January 2016).				✓	✓
Heritage						
J1	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.	✓				
J2	If any further heritage items were discovered throughout the Project, work would cease until an assessment is carried out by a qualified heritage professional.	✓	✓			✓
J3	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	✓	✓			

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	the decommissioning process. The recording would be undertaken in accordance with the Heritage Council guidelines on <i>Photographic Recording of Heritage Items Using Film and 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 the Sutherland Shire Library and NSW State Library.					
J4	The Heritage Management Strategy (HMS) and the management strategies within it would continue to be implemented.				✓	✓
J5	Opportunities to adaptively reuse redundant buildings identified in the HMS as having high or moderate heritage significance would continue to be reviewed prior to final demolition works.				✓	✓
J6	The sculptural panels by Bert Flugelman would be retained and preserved.				✓	✓
J7	Sandstone blocks from the informal sandstone wall along Silver Beach would be set aside in a secure location prior to works, and reinstated in the same location following removal of the cooling water outlet pipeline.				✓	✓
J8	Appropriate mitigation measures would be implemented to reduce the likely damage to the interpretive footpath in front of the driveway entrance to the Kurnell Wharf. Measures would include: • Making a record of the current state of the pavement. • Removing the affected pavement in sections and storing these sections in a secure location. • Reinstating the pavement in the same location following the removal of pipelines; • If this is not practicable, a similar pavement treatment and a matching or compatible interpretative design would be reinstated.				✓	✓
J9	If historical archaeological relics are unexpectedly found during the demolition works, works in the area of the relics would cease and the Heritage Council of NSW would be notified.					✓
J10	A Stop Works procedure would be implemented should any Aboriginal Heritage items be found. Works would cease at the vicinity of the item and OEH would be notified as soon as possible					✓
J11	If any human remains are disturbed, all work in the vicinity of the remains would stop immediately and the remains would not be further disturbed or moved. Works would cease at the vicinity of the item and OEH and NSW Police would be notified as soon as possible.					✓
J12	Prior to works commencing, all personnel and contractors involved in ground disturbance works would be briefed on the procedures to follow if human remains				✓	✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	or unexpected heritage items are found.					
J13	As part of the DEMP, a Heritage Management Section will be developed. This will incorporate previous Management and Mitigation Measures that are not already included in the HMS.				✓	✓
Ecology						
K1	A Biodiversity and Weed Management Plan (BWMP) would be prepared in order to limit and control the spread of noxious weeds within the Site/demolition works area. 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 site and in the surrounding areas; - measures for strict stockpiling control to help eradicate all noxious weeds as per NSW DPI specifications for Sutherland Shire LGA; - 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/demolition vehicles and machinery to prevent the spread of root-rot fungus (<i>Phytophthora cinnamomi</i>) and noxious weeds; - all personnel undertaking routine management activities of any noxious weeds should be appropriately trained and all contractors should hold the necessary permits and licenses. Noxious weed information sheets would be provided to demolition contractors to help identification of relevant noxious weeds.	✓	✓	✓	✓	✓
K2	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 (as per the Vegetation Exclusion Zones shown on Figure 17-	✓	✓	✓	✓	✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	1); and absolutely all works would be limited to the defined construction/demolition footprint.					
K3	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 (<i>chytridiomycosis</i>) 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.	✓	✓	✓		
K4	To minimise the potential impacts to native fauna during the demolition works the following measures would be included in the BWMP: - demolition workers would be provided with identification sheets relating to the threatened fauna species predicted to occur within the Site. - Stop work procedures would be implemented during the works on the chance encounter of any dispersing threatened frogs or the identification of nesting Pied Oystercatcher, Little Tern, Osprey or White-bellied Sea-eagle to avoid death or injury to frogs dispersing across the study area, or disturbance to nesting threatened birds. - Trenches/holes would be back-filled daily or covered overnight. Where this is not possible,				✓	✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	other measures would be considered to prevent and/or mitigate fauna entrapment. Trenches/holes would be inspected prior to works each morning. Injured frogs that become trapped within trenches would be assessed by a veterinarian or ecologist. Uninjured frogs would be captured and released into the nearest suitable habitat to the south of the study area. • If threatened frogs, Green and Golden Bell Frog or Wallum Froglet are identified during demolition works, active searching would be undertaken by a qualified zoologist experienced in the identification and management of the Green and Golden Bell Frog and Wallum Froglet. • When open trenching/digging/excavating, Caltex would ensure that exclusion fencing is erected prior to works commencing each morning. Exclusion fencing shall be maintained during all seasons of the year, given the active season for the Green and Golden Bell Frog extends from September to April and the Wallum Froglet peak activity period occurs during the colder months. • If practicable, works at Silver Beach to remove the cooling water outlet should be completed outside of the known nesting periods for Pied Oystercatcher (August to January) and Little Tern (Spring/Summer). If nesting shorebirds are encountered in the Silver Beach foreshore area in the vicinity of works (within 20 m), works at Silver Beach would cease, a qualified zoologist would be consulted and appropriate actions would be implemented, prior to works recommencing. • If practical, works to remove tall structures on-site should be completed outside of the known nesting periods the threatened bird species (July to September for Osprey and June to January for White-bellied Sea-eagle). If not practical then tall structures would be inspected for active nests prior to commencing the demolition works.					
K5	The following recommendations, would be contained in the Cooling Water Outlet Management Plan for managing the potential marine ecology impact and implemented during demolition works: • silt curtains would be installed seaward of the demolition works area but not directly above existing seagrass communities; • all plant and equipment used in the water column would be appropriately prepared, checked and cleaned to avoid potential release of contaminants; • plant and equipment used in the water column would be inspected to ensure fragments of the invasive algae <i>Caulerpa taxifolia</i> are not present; • spill kits would be used to contain and clean up any				✓	✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	spills from demolition plant and equipment. Spill kits would be located within 20 m of demolition plant and equipment; and demolition works at Silver Beach (particularly those located in the water column) would be timed such that they do not coincide with high-tide conditions or during significant wave action.					
K6	Following the removal of the continental carbon pipeline and other infrastructure Caltex would develop a strategy to manage the redundant right of way (CCROW). The strategy would include measures to: - remove fencing, reprofile and allow natural regeneration the southern part of the CCROW (beyond the southern boundary of the Site) to promote consistent and connected vegetative communities across the southern part of Caltex's ownership; - remove and keep out noxious and invasive weeds, especially during the regeneration phase; and - reprofiling of the CCROW could include creating gaps in the raised easement to allow for hydrological exchange and habitat regeneration.					✓
K7	Caltex would undertake the following prior to excavation along the Continental Carbon Right of Way: - pre-clearing inspections; and - implementing frog exclusion measures to ensure dispersing frogs are not captured and trapped in trenches during pipeline removal (e.g. exclusion fencing).					✓
Coastal Processes						
L1	A Cooling Water Outlet Management Plan would be developed as part of the Demolition Environment Management Plan (DEMP). Rehabilitation works at Silver Beach would be in accordance with this Cooling Water Outlet Management Plan. The following measures would be included:				✓	✓
L2	A detailed survey of the likely extent of the disturbed area at Silver Beach would be undertaken prior to commencing demolition works to ensure that the pre-existing topography is re-established following the works.					✓
L3	The affected sand dunes (including the back-beach and sub-aerial beach) would be re-instated using the stockpiled overburden sand and if necessary, additional sand. Additional sand used for reinstating sand dunes would be of similar particle size and composition as the overburden sand.					✓
L4	The affected sand dunes would be restored to match the previously surveyed topography. A smooth profile from the back-beach area to the dune would be re-established to ensure the aerodynamics are as					✓

Item	Management and Mitigation Measure	Conversion			Demolition	
		CD	Con	Op	DD	Dem
	consistent as possible with the undisturbed areas adjacent to the disturbed area. If necessary, liquid sprays or geotextiles would be used to help stabilise the beach and protect against erosion.					
L5	The affected sand dunes would be re-vegetated using indigenous, native flora. The existing vegetation is limited to grasses, with no woody vegetation. The area would be re-planted with similar grass species in a manner that ensures minimal loss of wind-blown sand from the dune while the area is re-vegetating. All re-vegetated areas would: • contain signage to highlight these areas as rehabilitation zones that prohibit public and vehicular access; • be temporarily fenced, and • be maintained and monitored until vegetation is established using approved dune rehabilitation methods.					✓
L6	Material of a similar sediment size and colour characteristics would be used as back fill material for the trench below the low tide mark. To account for later settling and consolidations, some overfilling would be undertaken to account for later consolidation (approximately 10 % would be recommended).					✓