

DEMOLITION ENVIRONMENTAL MANAGEMENT PLAN
Kurnell Refinery Conversion Project
January 2018

Table of Contents

1. GENERAL	1
1.1. Introduction	1
1.2. Project Background.....	2
1.3. Site Description	3
1.4. Project Works.....	3
1.5. Scope of Document.....	6
1.6. Objectives of the DEMP	8
1.7. Consultation and Correspondence.....	8
1.8. Environmental Policy.....	9
1.9. Project Schedule	11
2. ENVIRONMENTAL MANAGEMENT	19
2.1. Roles and Responsibilities	19
2.2. Approvals and Licensing Requirements.....	22
2.3. Internal Communication	22
2.4. External Communication	22
2.5. Induction	23
2.6. Training	23
2.7. Emergency and Incident Management.....	24
2.8. Non-Conformance and Corrective Action.....	27
2.9. Management of Complaints	27
2.10. Management of Cumulative Impacts	28
3. HERITAGE MANAGEMENT	29
3.1. Introduction	29
3.2. Objectives	30
3.3. Project Overview	30
3.4. Pre-demolition Management	30
3.5. Roles and Responsibilities	30
3.6. Management Procedures	31
3.6.1. Management Actions	31
3.6.2. Performance Indicators	32
3.6.3. Monitoring	32
3.6.4. Reporting.....	32
3.6.5. Corrective Action	32
4. IMPLEMENTATION	33

Table of Contents

4.1. Risk Assessment.....	33
5. MONITORING AND REVIEW	34
5.1. Environmental Audits and Inspections	34
5.2. External Audits	34
5.3. DEMP Review	34
6. ENVIRONMENTAL PROCEDURES.....	36
7. REPORTING.....	38
8. EMERGENCY CONTACTS.....	39
9. REFERENCE DOCUMENTS	40

Revision History

Revision No.	Date of Revision	Description of Revision	Section / Page No.
0	July 2015	Draft for consultation	-
1	September 2015	Final for Approval	-
2	September 2015	Approved	-
3	January 2018	Update to include the requirements of MOD 2 and MOD 3. Submitted to Department of Planning and Environmental for approval.	Whole document

Tables

Table 1-1 - SSD 5544 MOD 1 Requirements of DEMP

Table 1-2 Demolition DEMP and Sub Plan consultation and approval requirements

Table 1-3 - Proposed Demolition Schedule

Table 1-4 - Pre-demolition Activity Schedule

Table 1 5 - Pre-ACS Modification works Activity Schedule

Table 4-1 - Risk Matrix Table

Table 4-2 - Risk Rating

Table B1 - Relevant NSW Legislation

Table C1 - Aspects and Impacts Associated with Demolition Activities

Table E-1 - Sub Plans Required by the Development Consent

Figures

Figure 1-1 - Site Location

Figure 1-2 - Site Layout and Demolition Works Area

Figure 1 3 - Site Layout and ACS Management Works Area

Figure 1 4 - Site Layout and Tank 101 Demolition Works Area

Figure 2-1 - Project Organisation Chart

Figure 2-2 - Emergency Management System Framework

Appendices

Appendix A Environmental Management Plans (Sub-Plans)

Appendix B References, Standards, Codes and Regulations

Appendix C Project Aspects and Impacts Register

Appendix D Equipment & Structures to be Demolished

Appendix E SSD 5544 Sub Plans Requirements

Appendix F Checklist Examples

Abbreviations

ACS	Asbestos Contaminated Soil
Caltex	Caltex Refineries (NSW) Pty Ltd
CBD	Central Business District
CLOR	Caltex Lubricating Oil Refinery
DEMP	Demolition Environmental Management Plan
DP	Deposited Plan
DPE	Department of Planning & Environment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP&A Act	Environmental Planning and Assessment Act 1979
ER	Environmental Representative
EMS	Environmental Management System
EPA	Environment Protection Authority
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ERT	Emergency Response Team
HMS	Heritage Management Strategy
HSE	Health, Safety and Environment
IIF	Incident and Injury Free
JUHI	Joint User Hydrant Installations
KTOSRT	Kurnell Terminal Oil Spill Response Team
km	kilometers
mbgl	Metres Below Ground Level
MMM	Management and Mitigation Measures
MOD	Modification to a Project Approval (e.g. SSD 5544)

NSW	New South Wales
OEH	NSW Office of Environment and Heritage
PIRMP	Pollution Incident Response Management Plan
POEO Act	Protection of the Environment Operations Act 1997
the Policy	Environmental Policy
the Project	Kurnell Refinery Conversion Project
Refinery	Former Kurnell Refinery, now Kurnell Terminal
SEE	Statement of Environmental Effects
SS LGA	Sutherland Shire Local Government Area
SSD	State Significant Development
Sub Plans	Environmental Sub Management Plans
Terminal	Kurnell Terminal
the Site	The Project site/work area

1. GENERAL

1.1. Introduction

Caltex have converted the refinery in Kurnell (the 'Site') to a finished fuel terminal facility (the Project). This Demolition Environmental Management Plan (DEMP) identifies the environmental protection measures that will be implemented by Caltex Refineries (NSW) Pty Ltd (Caltex) during the demolition phase of the Project at the Kurnell Terminal, New South Wales (NSW).

The aim of the DEMP is to:

- Prevent and/or minimise potentially adverse environmental impacts from Project activities; and
- Ensure compliance with environmental legislative and regulatory requirements.

This DEMP provides all Caltex employees and contractors with a clear description and understanding of responsibilities and requirements concerning demolition activities and addresses the requirements of:

- The conditions of the first modification to Caltex's Project Approval (SSD 5544 MOD 1), consented on 10 August 2015 by the NSW Minister for Planning as delegated to the Planning Assessment Commission;
- The conditions of the second modification to Caltex's Project Approval (SSD 5544 MOD2), consented on 27 October 2017 by the NSW Minister for Planning as delegated to the Planning and Assessment Commission;
- The conditions of the third modification to Caltex's Project Approval (SSD 5544 MOD 3), consented on 17 November 2017 by the NSW Minister for Planning as delegated to the Planning and Assessment Commission; and
- The Project's Consolidated Management and Mitigation Measures (MMM) (as provided in the modification instrument for SSD 5544 MOD 3).

Caltex will carry out the works in accordance with the conditions of consent for SSD 5544 where relevant and the subsequent modifications, (SSD 5544 MOD 1, MOD 2 and MOD 3).

This DEMP references relevant parts of the Caltex's Environmental Management System (EMS). Specific Environmental Sub Management Plans (Sub Plans) have been developed to facilitate the management of aspects or issues identified in the following documents:

- SSD 5544 MOD 1 and the Statement of Environmental Effects (SEE) for the Kurnell Refinery Demolition, dated November 2014 (referred to in this report as the 'MOD 1 SEE')
- SSD 5544 MOD 2 and the SEE for the Asbestos Contaminated Soil (ACS) Management Project, dated October 2016 (referred to in this report as the 'MOD 2 SEE')
- SSD 5544 MOD 3 and the SEE for the Tank 101 Demolition Works, dated August 2017 (referred to in this report as the 'MOD 3 SEE')
- The consolidated MMMs.

The Sub Plans are included as **Appendix A**.

The Kurnell Terminal has an ISO 14001 accredited Environmental Management System (EMS) (as detailed in *D-OEMS-PROC-14.16 Environmental Management System Description*). This system includes comprehensive management plans and is used site wide. The DEMP and sub-management plans will be implemented in line with the EMS. The DEMP consolidates existing Caltex procedures that have been established at the Terminal and that are implemented for routine maintenance and repair work. This DEMP does not replace these existing procedures but rather summarises these procedures for use during the demolition works.

1.2. Project Background

Kurnell Terminal is located on the Kurnell Peninsula within the Sutherland Shire Local Government Area (SS LGA), approximately 15 kilometres (km) south of Sydney's Central Business District (CBD). **Figure 1-1** shows the location of the Site.

Caltex received development consent (SSD 5544) for completing the first phase of the Project (the 'conversion works') and completed these works in 2016. The 'demolition works', are the current phase in the process of establishing a viable, safe, reliable and sustainable finished product import terminal at Kurnell.

The demolition works involve the demolition, dismantling and removal of refinery process units, redundant tanks, including Tank 101, redundant pipelines, redundant services and redundant buildings as well as associated minor civil works and waste management activities. These works commenced in mid-2015 and are anticipated to be completed by the end of July 2018. The area within which demolition works will occur is the demolition works area as shown on **Figure 1-2** and **Figure 1-3**. In addition to these works the ACS Management Project will be undertaken in the area shown on **Figure 1-4**. The ACS Management works will be completed by April 2019.

A Statement of Environmental Effects (SEE) (URS, November 2014) was prepared to support the modification application for the demolition works. In line with the requirements of S. 96 (2) of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act), the SEE provided the information required by clause 115 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). It also addressed a set of Secretary's Environmental Assessment Requirements (SEARs) that have been specifically issued for the demolition works. The SEE addressed these requirements, and considered a range of environmental, safety, legal, social and economic impacts related to the demolition works. Potential impacts are identified and where necessary mitigated or offset by the inclusion of MMM to ensure that potential impacts for the local environment and Kurnell and Sutherland Shire communities are minimised or avoided.

Following lodgment of the modification applications and associated SEEs for MOD 1 and MOD 2, these documents were exhibited. A number of submissions were received following exhibition and Caltex responded to these in separate Response to Submissions Reports (RTSs) for each application. Each response to the submissions resulted in additional and amended management and mitigation measures. Each RTS was finalized and submitted alongside each of the respective SEEs.

The modification application and SEE for MOD 3 was not exhibited due to the small scale of the additional works and therefore no formal RTS was required.

The consolidated MMMs within the existing modification instrument (as amended following approval of SSD 5544 MOD 3) include the measures from the three modifications SEE's as amended by the RTS reports (where relevant).

1.3. Site Description

The Caltex Kurnell Terminal is located the Kurnell Peninsula in the Sutherland Shire Local Government Area (refer to **Figure 1-1**) and consists of the following Lot and Deposited Plan (DP) numbers:

- | | | |
|-------------------------|------------------------|-------------------------|
| • Lot 56/ DP 908 | • Lot D/ DP 361103 | • Part Lot 123/ DP 8135 |
| • Lot 62/ DP 908 | • Lot G/ DP 361103 | • Part Lot 125/ DP 8135 |
| • Part Lot 12/ DP 7632 | • Lot K/ DP 362655 | • Lot 77/ DP 9564 |
| • Lot 190/ DP 7632 | • Lot 570/ DP 752064 | • Lot 81/ DP 9564 |
| • Lot 44/ DP 8135 | • Lot 1/ DP 1044690 | • Part Lot 2/ DP 215818 |
| • Lot 46/ DP 8135 | • Lot 283 / DP 752064 | • Lot B/ DP 338897 |
| • Lot 78/ DP 8135 | • Lot 57/ DP 908 | • Part Lot F/ DP 361103 |
| • Part Lot 122/ DP 8135 | • Part Lot 11/ DP 7632 | • Lot J/ DP 362655 |
| • Part Lot 124/ DP 8135 | • Lot 189/ DP 7632 | • Lot H/ DP 362655 |
| • Lot 48/ DP 9564 | • Lot 43/ DP 8135 | • Lot 24/DP 776328 |
| • Lot 78/ DP 9564 | • Lot 45/ DP 8135 | • Lot 25 / DP 776328 |
| • Part Lot 1/ DP 215818 | • Part Lot 77/ DP 8135 | • Lot 1 / DP 132055 |
| • Lot 1/ DP 215819 | • Lot 79/ DP 8135 | • Lot 1 / DP 126647 |
| • Lot 2/ DP 126647 | • Lot 2 / DP 215818 | |

The majority of the demolition works will be completed within the boundary of the Site. The exceptions to this include:

- The removal of the Continental Carbon Pipeline which is located on land owned by Caltex to the south of the Site (Lot 2/DP 215818);
- Sections of the redundant pipelines that run through the Western and Eastern ROWs that are located outside of the Site (i.e. under the roads that cross the ROWs (no Lot and DP available) and under Silver Beach (Lot 3/DP 1165618 from the low tide mark into Botany Bay); and
- The removal of the cooling water intake pipelines and associated infrastructure from the Kurnell Wharf (Lot 456/DP 1413279).

1.4. Project Works

This DEMP has been prepared to address the activities related to the 'demolition works' (as defined by the MOD 1 SEE), the ACS Modification works (as defined by the MOD 2 SEE) and the Tank 101 works (as defined by the MOD 3 SEE) that may have a significant impact upon the environment.

SafeWork NSW defines demolition as '*work that includes demolishing or dismantling a structure or part of a structure that is either load-bearing or related to the physical integrity of the structure*'.

A description of the demolition works for the Project is provided below:

- **Stage 1: Refinery Process Units and Associated Infrastructure:**

- disconnection and removal of pipelines from the process units area;
- removal of insulation, corrosion protection materials and other building materials prior to demolition taking place;
- demolition of the refinery process units by lowering to a level where they can be more easily cut up using heavy machinery;
- intermediate storage of demolished material on the former Caltex Lubricating Oil Refinery (CLOR) or other designated area within the Site as required prior to disposal, recycling or divestment;
- removal of the foundations and slabs below the process units; and
- removal of redundant cabling and some underground services including the Oily Water Sewer from the area beneath the refinery process units.

These demolition works require excavation work which may extend down to approximately two metres below ground level (mbgl).

- **Stage 2: Tanks and Associated Infrastructure:**

- disconnection and removal of a number of tanks and vessels from both the eastern and western tank areas;
- demolition of the tanks using heavy machinery to cut them up;
- intermediate storage of the demolished material at the former CLOR or other designated area on the Site prior to disposal or recycling; and
- removal of redundant infrastructure associated with the tanks (such as water draw equipment and pipelines).

These demolition works may require excavation work which may extend down to approximately one metre below ground level (mbgl). The bunds associated with the demolished tanks would remain intact and in situ. Bund drainage would be by manual drain valve actuation.

Within the Eastern Tank Area 64 of the 77 tanks will be demolished. Tank 101 will also be demolished.

- **Stage 3: Pipelines/Pipeways:**

The demolition work would also include the removal of seven underground pipelines. These pipelines include the following:

- the cooling water outlet running from the terminal through the Western Right of Way (ROW), under Silver Beach and into Botany Bay;
- two cooling water intake lines running from the pump-house on Kurnell Wharf through the Eastern ROW to the terminal;
- three redundant product lines running through the Eastern ROW; and
- the Continental Carbon pipeline running south from the Site.

Some pipeways would also be removed as part of the demolition works. This work would all be above ground and within the former refinery process area.

Once removed redundant pipes and materials from the pipeways would be stored at the former CLOR or other designated area on the Site prior to recycling or disposal.

- **Stage 4: Buildings:**

The building demolition work will likely commence later than the other demolition activities, except for buildings located within the process plant demolition zones, which for the most part will be demolished with the plant. This work would involve:

- the demolition and removal of a number of redundant buildings on Site related to the operation of the refinery as shown on **Figure 1-2**;
- demolition would be undertaken using heavy machinery such as bulldozers and hydraulic excavators;
- intermediate storage of the demolished material at the CLOR or other designated area on the Site prior to disposal or recycling; and
- removal of foundations and services associated with the redundant buildings.

These demolition works may require excavation work which may extend down to approximately 1 mbgl.

- **Stage 5: Services / Concrete Crushing:**

Redundant cabling and underground services associated with the redundant infrastructure in the refinery process area and redundant buildings across the Site would also be removed. These services include:

- connection points and underground pipes to the Oily Water Sewer beneath the refinery process units; and
- selected redundant sewer lines, cabling and other services from redundant buildings that included amenities.

A full list of equipment and structures to be demolished is presented in **Appendix D**.

A description of the ACS Modification works for the Project is provided below:

- **ACS Modification works:**

The ACS management works propose to remove the ACSs and place them in a containment cell, in order to remove the hygiene risk and the WHS Regulation Exemption from the pipeways.

The ACS management works involve the following activities:

Construction:

- Additional soil sampling within the pipeways to confirm the waste classification of the soil prior to placement in the containment cell;
- Construction of the containment cell base and leachate collection system in the proposed cell location;
- Installation of ground water monitoring wells down gradient of the proposed cell location;
- Excavation and transportation of ACSs directly to the containment cell location for emplacement;
- Filling and compaction of the ACSs into the containment cell;
- Verifying the removal of ACS from the pipeways; and
- Closure of the containment cell.

- **Operation:**

Managing and monitoring the closed containment cell.

1.5. Scope of Document

The document presents the Project's environmental commitment, management planning, works procedures and implementation. It provides an overview of the measures that will be taken by Caltex to ensure that potential environmental hazards and the associated risks will be minimised or mitigated during the demolition works.

Table 1-1 lists the information required to be addressed in the DEMP as required under the Development Consents. This DEMP has been prepared to address these requirements.

Table 1-1 SSD 5544 MOD 1 Requirements of DEMP

Condition Requirement	Reference Section
<i>Condition 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:</i>	-
<i>a) be prepared in consultation with Council, EPA and the NSW Health;</i>	Section 1.7
<i>(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;</i>	Section 1.7
<i>(c) identify the statutory approvals and consents that apply to the development;</i>	Section 1.1, Section 2.2 and Appendix B
<i>(d) consolidate all relevant management plans and monitoring programs required in the conditions of this Consent;</i>	Appendix A
<i>(e) outline all environmental management practices and procedures to be followed during demolition works associated with the development;</i>	Section 2.1, Section 2.3, Section 4, Section 5, Section 6
<i>(f) describe all activities to be undertaken on the site during demolition works associated with the development, including a clear indication of demolition stages;</i>	Section 1.4
<i>(g) incorporate all relevant management and mitigation measures contained in the SEE;</i>	Appendix A
<i>"(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>	Section 4, Section 5, Appendix A, Appendix F
<i>i. Biodiversity and weed management (See Condition C43A);</i>	Appendix A, Appendix C
<i>ii. Soils and water management (See Condition C12A);</i>	Appendix A, Appendix C
<i>iii. Contamination management (See Condition C15A);</i>	Appendix A, Appendix C
<i>iv. Noise and vibration management (See Condition C22A);</i>	Appendix A, Appendix C
<i>v. Air quality management (See Condition C28A);</i>	Appendix A, Appendix C
<i>vi. Stormwater and wastewater management (See Condition C12A);</i>	Appendix A, Appendix C
<i>vii. Traffic management (See Condition C36A);</i>	Appendix A, Appendix C
<i>viii. Demolition waste and resource management (See Condition C40A);</i>	Appendix A, Appendix C
<i>ix. Groundwater management, including measures which are consistent with the relevant Management and Mitigation Measures contained in Appendix C of this consent;</i>	Appendix A, Appendix C
<i>x. Acid sulfate soils management (See Condition C14);</i>	Appendix A, Appendix C
<i>xi. Heritage Management Strategy (See Condition C31);</i>	Section 3, Appendix C
<i>xii. Cooling Water Outlet management (see Condition C42B);</i>	To be submitted a minimum of 4 weeks prior to works commencing
<i>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.</i>	To be submitted a minimum of 4 weeks prior to works commencing
<i>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>	Section 2.10
<i>xv describe the roles and responsibilities for all relevant employees involved in the demolition works associated with the Development;</i>	Section 2.1

Condition Requirement	Reference Section
<i>(i) 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;</i>	Section 2.4, 2.7 and 2.9
<i>(j) include a complaints handling procedure; and</i>	Section 2.9
<i>(k) 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.</i>	Section 5.3

The DEMP outlines management goals, objectives and procedures and includes Sub Plans focusing on a specific environmental management issue associated with the demolition works. This DEMP should be read in conjunction with the following Environmental Sub Management Plans (Sub Plans) included in

Appendix A:

- Air Quality Management Plan;
- Biodiversity and Weed Management Plan;
- Soil and Water Management Plan (including the Contamination Management Plan, Acid Sulfate Soils Management Plan and the Groundwater Management Plan);
- Noise and Vibration Management Plan;
- Demolition Waste and Resource Management Plan;
- Traffic Management Plan;
- Cooling Water Outlet Management Plan; and
- Containment Cell Management Plan

The *Caltex Operational Excellence and Risk Guidance Document: Management of Asbestos, Asbestos Containing Materials and Synthetic Mineral Fibres Hazardous Materials Management Plan* (Doc Number: HM001, Version: 1.3) has been updated to include specific requirements concerning the demolition works.

A Long Term Environmental Management Plan (LTEMP), as required by SSD 5544 MOD 2, Condition C55, will be prepared prior to the completion of the ACS Modification works. The LTEMP will be incorporated into the Site's Operational Environmental Management Plan (OEMP) as a sub plan once available.

Each Contractor will adopt this DEMP or develop their own Project specific DEMP or integrated Health, Safety and Environment (HSE) Management Plan to manage the environmental risks specifically related to their scope of work on the Project. These Contractor documents will, as a minimum, align with the requirements of this DEMP and are required to be reviewed and approved by the Caltex Environmental Representative (ER) prior to mobilisation to Site.

Compliance with this DEMP is mandatory for all personnel and Contractors carrying out the demolition works. The location of known and potentially contaminated areas is noted in the Soil and Water Management Plan presented in **Appendix A** and will be provided to construction/demolition personnel involved in soil excavation and handling.

1.6. Objectives of the DEMP

The intent of this DEMP is to achieve the following overarching objectives:

- Ensure that all Caltex personnel and Contractors clearly understand their environmental obligations and receive appropriate training to perform their duties in a competent manner.
- Comply with all relevant Commonwealth and State environmental requirements.
- Comply with relevant Australian and other recognised standards.
- Aim for zero significant environmental incidents during demolition as part of Caltex's Incident and Injury Free (IIF) operations.

Caltex is responsible for overall environmental management of the Project. The objectives of this DEMP are:

- To ensure that the existing Caltex procedures are followed during the Project.
- To ensure compliance with the provisions of the relevant environmental legislation.
- To address the environmental issues and safeguards identified in the SEEs and associated RTSs.
- To raise the environmental awareness during the Project.

The DEMP is based on the content of the MOD 1 SEE, MOD 2 SEE and MOD 3 SEE and incorporates the consolidated mitigation measures outlined in the consent for SSD 5544 MOD 3.

This DEMP should be read in conjunction with the Sub Plans included as **Appendix A**.

1.7. Consultation and Correspondence

In accordance with SSD 5544 MOD 1 and SSD 5544 MOD 2, **Table 1-2** lists the regulatory authorities which were consulted and/or approved the preparation of the DEMP and sub plans.

Table 1-2 Demolition DEMP and Sub Plan consultation and approval requirements

Management Sub Plan	Condition	Consultation	Approval
DEMP	SSD 5544 MOD 1 (D1A)	EPA Council ¹ NSW Health	DPE - Secretary
	MMM A8 and A9	NSW DPI (NOW)	
Soil and Water Management Plan, including:	SSD 5544 MOD 1, Condition C12A		DPE - Secretary
	MMM A8, C18-19, F2	NSW DPI (NOW)	
<i>Contamination Management Plan</i>	SSD 5544 MOD 1, Condition C15A		DPE – Secretary
<i>Acid Sulfate Soils Management Plan</i>	SSD 5544 MOD 1, Condition C14	EPA Council	DPE – Secretary
<i>Groundwater Management Plan</i>	SSD 5544 MOD 1, Condition 13	NOW	DPE – Secretary
Noise Management Plan	SSD 5544 MOD 1, Condition C22A	EPA ²	DPE – Secretary
Air Quality Management Plan	SSD 5544 MOD 1, Condition C28A	EPA ²	DPE – Secretary
Traffic Management Plan	SSD 5544 MOD 1, Condition C36A	Council	DPE – Secretary
Demolition Waste & Resource Management Plan	SSD 5544 MOD 1, Condition C40A	EPA	DPE – Secretary
Biodiversity and Weed Management Plan	SSD 5544 MOD 1, Condition C43A	NSW OEH	DPE – Secretary
Cooling Water Outlet Management Plan	SSD 5544 MOD 1, Condition C43C	Council	DPE – Secretary
Containment Cell Management Plan	SSD 5544 MOD 2, Condition C50	EPA	DPE – Secretary

Note: 1. Council refers to Sutherland Shire Council.

Note: 2. This consultation was in addition to the requirements outlined in SSD 5544 MOD 1 and the MMM.

1.8. Environmental Policy

The Caltex Environmental Policy applies to all Caltex personnel and Contractors undertaking any activity including work on the Project. This policy is provided below.

Copies of this policy are displayed in a prominent position in the Caltex offices and on the Caltex internet site. Contractors are encouraged to also have their own environmental policy.



Caltex Environment Policy

Caltex is committed to operating in such a way as to minimise adverse impacts on the environment and communities in which it operates. To achieve this aim Caltex will:

- **Integrate Environmental protection into business strategy and planning**, so that risks to and impact on the Environment are considered in business decisions, and establishing Environmental protection objectives and targets is part of Caltex's business planning process.
- **Reduce our environmental impact** by identifying Environmental impacts of Caltex's operations and continually improving processes and products to conserve resources, increase energy efficiency, prevent pollution and minimise waste.
- **Maintain systems** to identify and manage risks to the Environment and the communities in which Caltex operates, and prevent Environmental incidents.
- **Measure Environmental impact performance** to monitor improvement and progress towards Caltex's Environmental objectives.
- **Document and report Environmental performance** throughout the organisation and publicly.
- **Allocate resources** to effectively manage Caltex's Environmental impacts.
- **Comply with Environmental legislation** and with Caltex's Environmental management systems.
- **Audit Environmental systems** regularly to verify compliance with legislation and with this policy.
- **Communicate Environmental protection priorities** and ensure those who work with Caltex are trained in and have effective tools to achieve minimum environmental impact and incident free operations.
- **Consult with employees and the community** to provide opportunities to contribute to the making of decisions affecting the environment and communities in which Caltex operates.
- **Work ethically and constructively to influence proposed Environmental laws and regulations**, and debate on emerging issues.
- **Hold all levels of the Caltex workforce accountable** for Environmental performance in their areas, and responsible for Environmental performance in their work.
- **Be prepared for emergencies**, so that the environmental outcome of any incident may be mitigated quickly and effectively.



Julian Segal
Managing Director & CEO

May 2015

1.9. Project Schedule

Caltex commenced the demolition works during the second half of 2015. The demolition works are anticipated to be completed by the end of July 2018.

During the demolition works, certain tanks conversions will also continue across the Site.

A schedule for demolition activities is shown in **Table 1-3** below.

Table 1-3 Proposed Schedule

Task	Indicative Date
Demolition works	
Demolition of Refinery Process Units	Mid 2015 – Mid 2017
Demolition of Tanks	Mid 2016 – Mid 2018
Pipeline Removal	Start 2016 – Mid 2018
Demolition of Buildings	Mid 2016 – End 2017
Concrete Crushing	Q3 2017
ACS management works	
Containment Cell Construction	Late 2017 – Q1 2018
Excavation of ACS from Pipeways and Filling of Containment Cell	Q2 2018 – Q4 2018
Closure of Containment Cell	Q1 2019

It is noted that the schedule of demolition works associated with the Project may vary from the anticipated schedule, but will not extend beyond three years from the date of consent of SSD 5544 MOD 1. ACS Management Works will not extend beyond 30 April 2019 in accordance with Condition B7B.

Table 1-4 summarises the schedule of tasks required prior to the demolition works.

Table 1-4 Pre-demolition Activity Schedule

Task	Timeframe	Requirement
Dilapidation Report Prepare a dilapidation report of the public infrastructure in the vicinity of the Site (including roads, gutters and footpaths) and submit a copy of this report to the Secretary and Council.	Prior to commencement of demolition	SSD 5544 MOD 1, Condition B17A
Except for those preliminary works that are outside the scope of the hazard studies, or within such further period as the Secretary may agree, Caltex shall prepare and submit for the approval of Secretary the following studies set: 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. 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.	One month Prior to commencement of demolition Updated prior to Tank 101 works commencing A Demolition Management Plan for the Tank 101 demolition works shall be prepared in consultation with the department).	SSD 5544 MOD 1, Condition C3A Demolition, other than of preliminary works, shall not commence until approval has been given by the Secretary. SSD 5544 MOD 3, Condition C3B
Emergency Plan Caltex 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.	No later than one month prior to the commencement of the demolition works, or within such a further period as the Secretary may agree. Updated prior to Tank 101 works commencing	SSD 5544 MOD 1, Condition C4A SSD 5544 MOD 3, Condition C4B

Task	Timeframe	Requirement
Fire Safety Study Review Caltex 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.	One month prior to the completion of demolition works, or within such further period as the Secretary may agree.	SSD 5544 MOD 1, Condition C7A
Heritage Caltex 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.	Within two months of its scheduled demolition.	SSD 5544 MOD 1, Condition C32A
Caltex 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.	Within two months of its scheduled demolition.	SSD 5544 MOD 1, Condition C32B
Demolition Works Caltex will 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 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.	Prior to the demolition works commencing for a particular structure or group of structures. The DMPs for the two concrete stacks will be provided to EPA for comment a minimum of 2 weeks prior to demolition works for these structures	MMM A7
Document Finalising a) Caltex would provide a draft of the DEMP and SWMP to NSW DPI for review and comment. b) Caltex would provide NSW Health with a copy of the DEMP and Asbestos Management Plan (AMP) for review and comment. c) Caltex would provide NSW OEH with a copy of the Biodiversity and Weed Management Plan (BWMP) for review and comment.	Prior to finalising.	MMMs A8 to A10

Table 1-5 summarises the schedule of tasks required prior to the ACS Modification works commencing.

Table 1-5 Pre-ACS Modification works Activity Schedule

Task	Timeframe	Requirement
Appoint a EPA accredited Site Auditor	Prior to the ACS Management works commencing	SSD 5544 MOD 2, Condition C48
Remedial Action Plan Prepare a Remedial Action Plan (RAP) for the ACS Modification works to the satisfaction of the EPA accredited Site Auditor/ the Site Auditor shall provide a copy of a Site Auditor Statement and Site Audit Report to the EPA and Secretary.	Prior to the ACS Management works commencing	SSD 5544 MOD 2, Condition C49
Containment Cell Management Plan a) Caltex would consult with the EPA on the Draft Containment Cell Management Plan, and provide to the Secretary for Approval. b) Update the DEMP and sub-plans within three months of the modification approval.	Prior to the ACS Management works commencing Within 3 Months of MOD 2 approval	SSD 5544 MOD 2, Condition C50 SSD 5544 MOD 2, Condition D5



Figure 1-1 Site Location

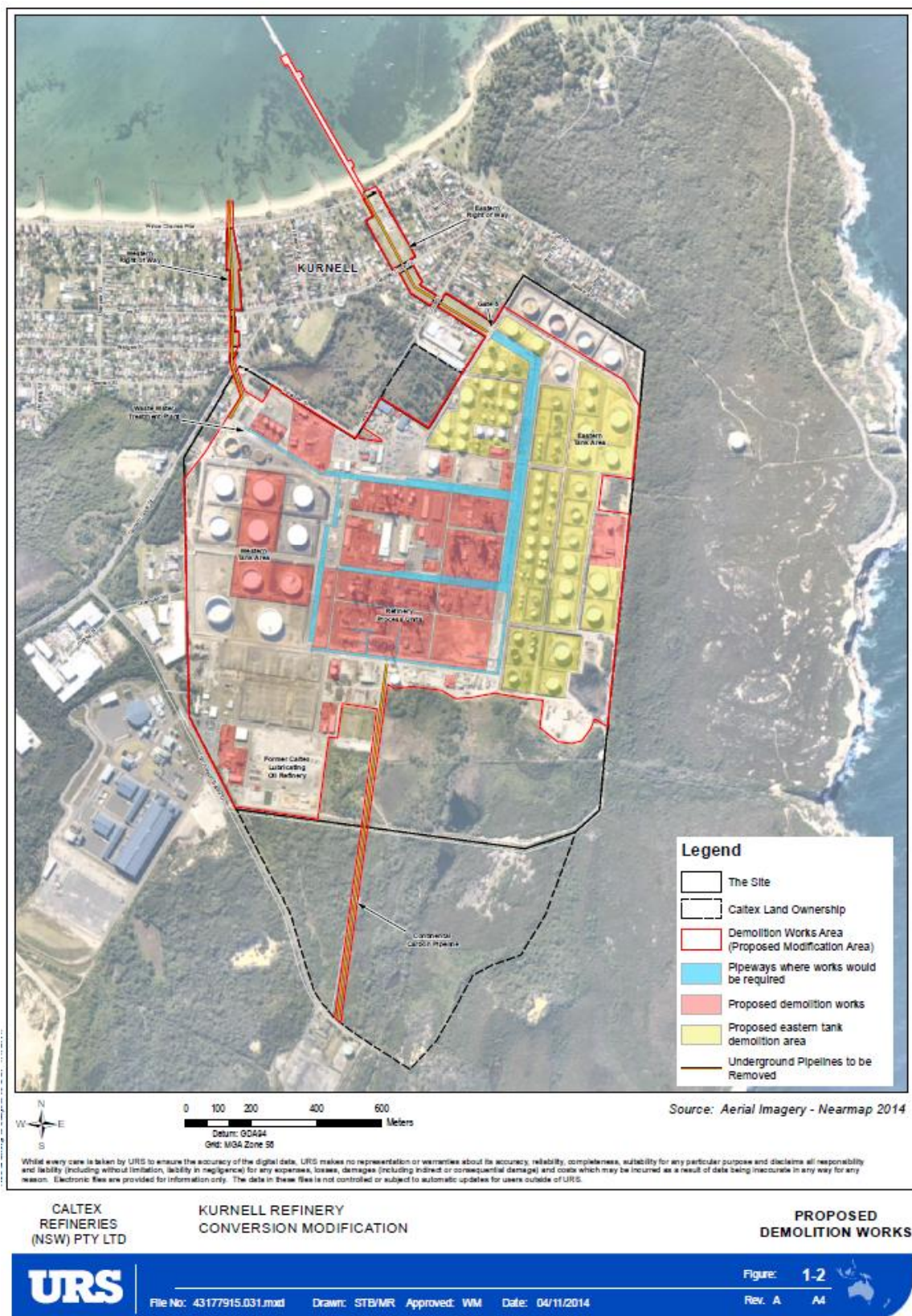


Figure 1-2 Site Layout and Demolition Works Area

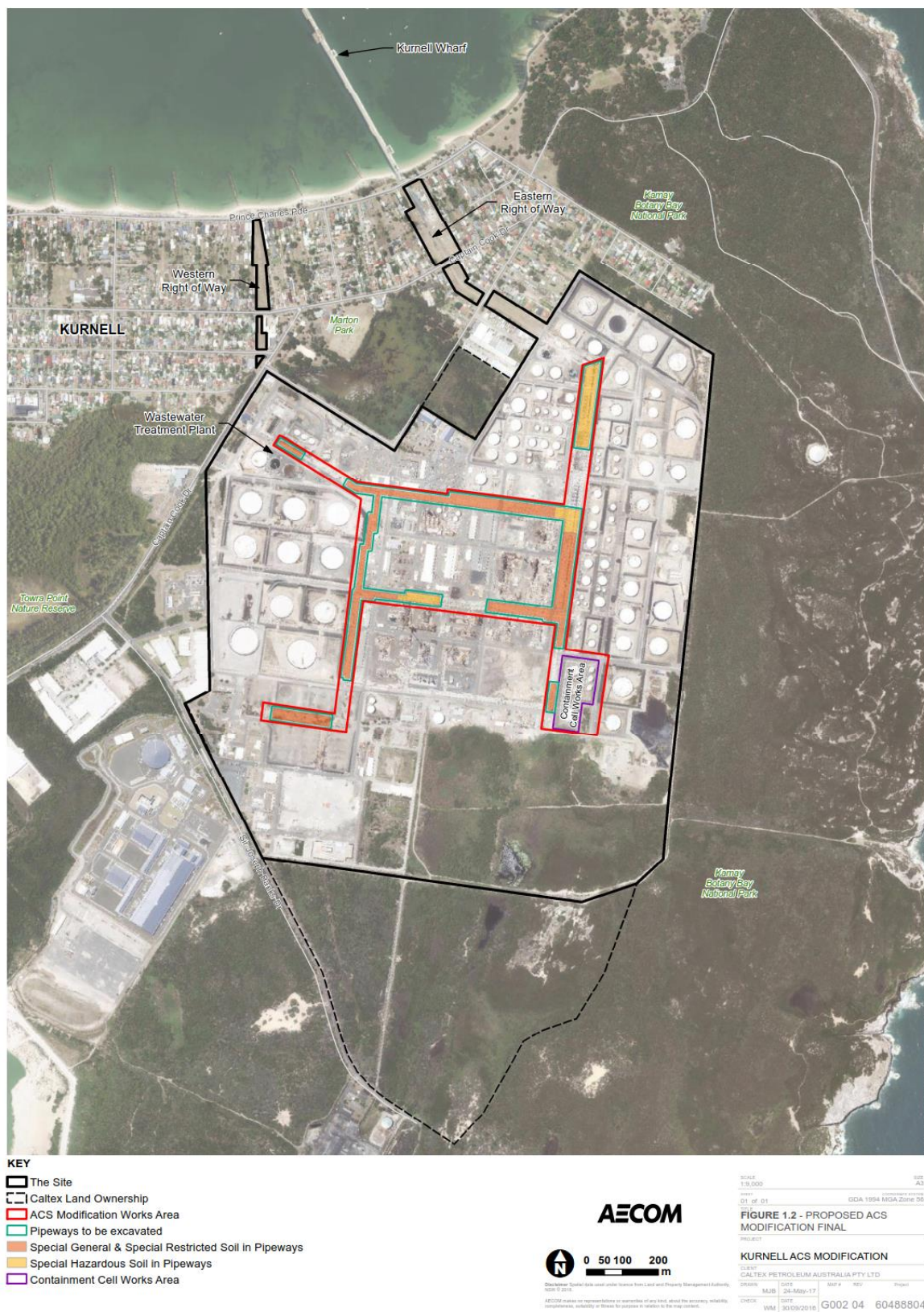


Figure 1-3 Site Layout and ACS Management Works Area



Figure 1-4 Site Layout and Tank 101 Demolition Works Area

2. ENVIRONMENTAL MANAGEMENT

2.1. Roles and Responsibilities

Overall responsibility for the implementation of the management procedures that are summarised in this DEMP rests with Caltex. All employees and Contractors will meet the requirements of this DEMP and associated procedures.

Key Project personnel including the Caltex Demolition Project Lead (and their delegates), Caltex Demolition Project Coordinators, Caltex Environmental Representative (ER), Contractor Project Manager and each Contractor's Environment / HSE Representative will ensure that all management actions are undertaken to a satisfactory standard and that all personnel are aware of their responsibilities with respect to environmental matters. There will be dedicated staff to manage environmental issues (or integrated HSE matters) during demolition. A general outline of responsibilities in relation to environmental management is provided below:

Caltex Senior Environmental Specialist

- Overall accountability for the environmental management of the Site.
- Implementation of the Caltex Environmental Policy with respect to the Site.
- Leads interaction with the EPA and other environmental agencies as required.
- Manages environmental incidents at the Site.

Demolition Project Lead / Demolition Execution Superintendent / Demolition Support Services Superintendent

- Overall accountability for the environmental management of the Project.
- Implementation of the Caltex Environmental Policy with respect to the Project.
- Overall responsibility for development, implementation, maintenance and compliance with this DEMP.
- Ensure contracts contain relevant environmental provisions.
- Review and confirm whether works associated with the Project are classified as Demolition (or not) under the Development Consent (SSD_5544 and its modification) and if classified as Demolition, advise on the relevant pre-demolition and demolition requirements that the works would be subject to under the consent.

Caltex Demolition Project Coordinators

- Accountable for demolition related environmental matters within the scope of their work packages.
- Ensure the requirements of this DEMP are implemented in relation to the unit/area specific demolition work packages.

Caltex Environmental Representative (ER)

- Principal point of advice in relation to the environmental performance of the Project (i.e. conversion and demolition works).
- Monitor the implementation of environmental management plans and monitoring programs required under the Development Consent (SSD_5544 and its modification) and advise the Caltex Demolition Project Lead (or their delegate) upon the achievement of these plans and programs.
- Advise Caltex on matters specified in the Development Consent (SSD_5544 and its modification) and other licences and consents related to the environmental performance and impacts of the Project..

- Approve or reject “minor amendments” to the DEMP. The Environmental Representative will consult with the Secretary where uncertain as to whether an amendment to the DEMP constitutes a “minor amendment”.
- Require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.
- Be consulted in responding to the community concerning the environmental performance of the Project where the resolution of points of conflict between Caltex and the community is required.

Caltex Emergency Response Team

- Implementation of the Emergency Response Plan in the event of an incident, including a pollution incident.
- Provide assistance to emergency services in notifying the community and businesses in the event of an incident.

Caltex Emergency Controller

- Authorise the allocation of resources and direction of activities.
- Responsible for the overall control of the emergency.

Contractor Project Manager

- Overall responsibility for the development and implementation of the Contractor’s own project specific DEMP or integrated HSE Management Plan.
- Maintain alignment between Contractor’s project specific DEMP and Caltex’s DEMP;
- Ensure compliance with the requirements of this DEMP throughout its works.
- Appoint an Environment or HSE Representative.

Contractor Environment / HSE Representative

- Implement the Contractor’s own DEMP and related procedures.
- Comply with the requirements of this DEMP.
- Report fortnightly (or as required) to the Caltex ER on environmental performance, as required by this DEMP.

All Demolition Personnel (Caltex and Contractors)

- Comply with the requirements of this DEMP.
- Report all environmental incidents as they occur.
- Attend environmental inductions or any other training as required.

The relationship between these roles is shown in **Figure 2-1** below.

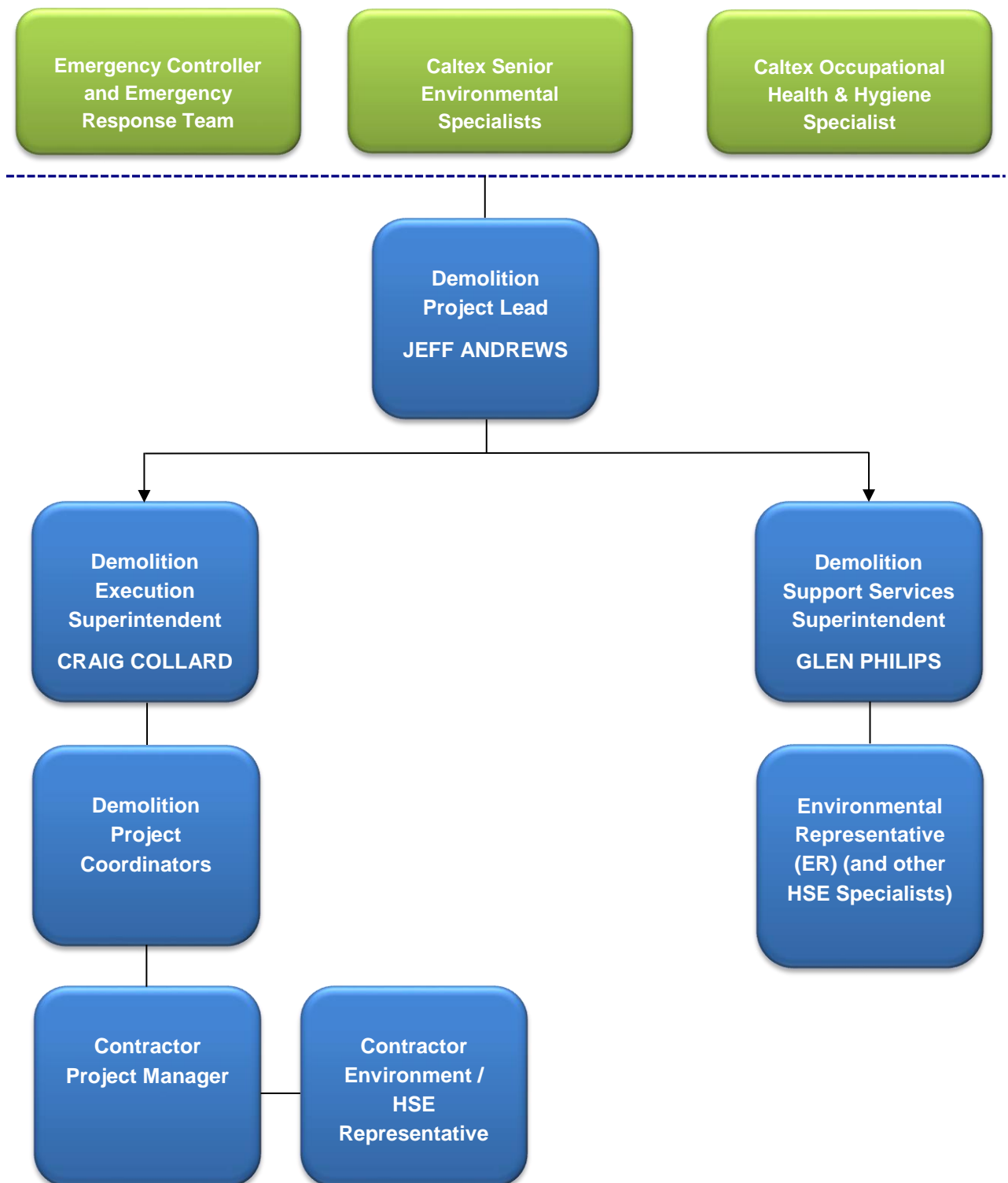


Figure 2-1 Project Organisation Chart

2.2. Approvals and Licensing Requirements

The Project will be completed in accordance with the existing EPL (No. 837) and relevant Standards, Codes, Acts and Regulations, in particular, *Australian Standard AS 2601:2001: The Demolition of Structures*, or its latest version and the requirements of the *Work Health and Safety Regulation 2011*. Demolition works as defined under the *Work Health and Safety Regulation 2011* will be undertaken by licensed demolition experts.

Lighting associated with the Project will comply with the latest version of *Australian Standard 4282(NT) - Control of Obtrusive Effects of Outdoor Lighting* and will be mounted, screened and directed in such a manner so that it does not create a nuisance to surrounding properties or the public road network.

A summary of key environmental legislation is provided in **Appendix B**. Caltex shall apply to the EPA to vary the EPL if additional scheduled activities are required to be undertaken as result of the demolition works. Variations to the EPL must be finalised prior to works covered by the amendments commencing.

Personnel are required to comply with these statutory obligations and requirements. These legislative requirements have also been incorporated into individual Sub Plans (**Appendix A**).

Reference should also be made to Caltex's Environmental System as detailed in *D-OEMS-PROC-14.16 Environmental Management System Description* for legislative and other requirements. Documents from the EMS are available through the Caltex Environmental Representative. Caltex has a National Operating Standard for Environmental Compliance Calendar (SD-OEMS-PROC-14.1) to track environmental compliance and reporting deadlines to ensure milestones are completed in a timely manner and are reviewed and signed off at the correct management level.

Copies of Permits, Licences and Approvals relevant to Project activities will be kept on Site.

2.3. Internal Communication

Internal communications will include discussions, electronic communications and printed material as required. Caltex has communication systems in place that will be used as appropriate during the Project.

Environmental issues including incidents and near misses, as well as all health and safety incidents and near misses, will be raised as a regular component of toolbox talks, site meetings and transmitted electronically as necessary.

2.4. External Communication

External communication methods may include:

- Site meetings with the Community Representative(s);
- Use of the existing Kurnell Terminal telephone complaints line;
- The Caltex website (<https://www.caltex.com.au/our-company/environment>);
- Community leaflets/newsletters;
- Meetings and correspondence with interested parties including the Local Council and EPA;
- Discussions with adjoining land owners / neighbours and the community;

When key demolition activities are occurring at the Site that may affect adjoining landowners/neighbours (e.g. works in the rights of way and roadways or the demolition of some of the large stacks on the Site), a letter box drop to likely affected residents in Kurnell will occur at least 2 weeks prior to the activity occurring.

Caltex are also in regular contact (at least quarterly) with the EPA and will also advise the EPA of key activities proposed to be occurring at the Site.

Upcoming demolition activities will also be discussed at the existing quarterly community meeting held at the Kurnell Terminal. A representative of the EPA also regularly attends these meetings.

In accordance with Condition D9 of SSD 5544 MOD 1 the following information will be publicly available on the Caltex website during the Project:

- The EIS (URS, May 2013);
- SEE (URS, November 2014) and MOD 1;
- MOD 2 and its accompanying documents
- Current statutory approvals for the demolition works;
- Approved strategies, plans or programs;
- A summary of the monitoring results of the demolition works, 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 Secretary.

The above information will be kept up-to-date during the demolition works.

2.5. Induction

Caltex has a site induction program that all contractors and employees are required to complete prior to undertaking any work. In addition to the standard site induction, Caltex will develop and deliver a Project specific induction for all contractors and staff associated with the demolition work. The Project specific induction will include the requirement for mandatory compliance with this DEMP by all personnel involved in demolition activities and include emergency procedures for the Project site.

All Caltex employees and the Contractor are required to undertake the Caltex Project Induction before they can commence work on the Project.

2.6. Training

Relevant Caltex and Contractor personnel will have the experience and necessary training to carry out the tasks required for the implementation of this DEMP. This will include awareness of current Caltex environmental measures, including the appropriate use and maintenance of equipment as well as first aid and firefighting measures.

Environmental training will be provided as relevant by Caltex, or delegated to relevant Contractors, including:

- Relevant existing Caltex environmental management measures.
- Spill kit use and management.
- Firefighting measures.
- The control of ignition sources at the Site.
- Location and type of potentially contaminated areas.
- Unexpected finds, including heritage items, Aboriginal items or human remains.
- Erosion and sediment control and management.

Contractors will implement appropriate training to ensure its personnel are aware of their environmental responsibilities, including requirements set out in their works-specific DEMP.

Caltex and the Contractor will each maintain a Training Register that records all environmental training completed by its personnel, including records of attendance at awareness training and toolbox talks, as well as competency assessments.

2.7. Emergency and Incident Management

Caltex will continue to implement its existing incident management procedures, including response to, investigation and reporting of incidents.

A comprehensive Emergency Management System is currently implemented at the Kurnell Terminal, with associated response and safety equipment (i.e. spill kits, firefighting equipment and first aid kits) held on Site. The Terminal is fully fenced and has 24hr security to prevent unauthorised access to work areas. Key personnel are trained to support the implementation of the system. Regular training exercises are carried out by Caltex.

The composition of the Caltex Emergency Management System is shown in **Figure 2-2**.



(Source: Caltex Kurnell Refinery Pollution Incident Response Management Plan)

Figure 2-2 Emergency Management System Framework

The *Protection of the Environment and Operations Act 1997* (POEO Act) requires that the holder of an EPL prepare a Pollution Incident Response Management Plan (PIRMP). Accordingly, Caltex has developed and implements a PIRMP for the Kurnell Terminal.

The PIRMP is available at the Caltex website: <https://www.caltex.com.au/-/media/documents/caltex/environment-documents/environmental-monitoring-data/kurnell-terminal-pollution-incident-response-management-plan-pirmp--public-website-version.ashx?la=en>.

A copy is also held for easy access to demolition workers (and other personnel working on the Site):

- in the emergency information cabinet at the entrance to the Site; and
- in the Emergency Operations Centre.

The objectives of the Kurnell Terminal PIRMP are to:

- Ensure timely reporting of pollution incidents to: staff on the premises, the NSW Environment Protection Authority (EPA), Fire and Rescue NSW, NSW Ministry of Health, SafeWork NSW, Sutherland Shire Council and people outside of the terminal that may be affected by a pollution incident.
- Minimise and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks.
- Ensure that the plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

The relevant requirements of the Kurnell Terminal PIRMP have been incorporated into this DEMP. However, the responsibility for implementation of the POEO Act notification requirements in the event of a pollution incident has been placed on the Senior Environmental Specialist (Licensing).

In the event of an incident or emergency situation, the relevant parts of the Caltex Emergency Management System Framework will be implemented. Demolition works in the immediate area will cease immediately. The Caltex Senior Environmental Specialist (Licensing) will be contacted immediately and if required, emergency services will also be contacted.

In the event of an emergency, the Terminal Emergency Response Team (ERT) will be notified, who will implement the relevant parts of the Terminal Emergency Response Plan (STD 4.02.01.01). If required, the Kurnell Terminal Oil Spill Response Team (KTOSRT) will also be notified to implement the relevant procedures within the Caltex Oil Spill Response Manual.

Caltex will notify the Secretary of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 24 hours of becoming aware of the incident. Caltex will provide a preliminary report on the incident to the Secretary within seven days of the date on which the incident occurred.

The POEO Act notification requirements will be implemented by Caltex in response to any pollution incident that is causing or threatening material harm to the environment¹.

¹ Section 147 of the POEO Act defines the meaning of material harm to the environment as follows:

(1) *For the purposes of this Part:*

(a) *harm to the environment is material if:*

(i) *it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*

Caltex will implement the POEO Act notification requirements, in the following order:

1. Call 000 if the incident presents an immediate threat to human health or property.
2. Notify the EPA (131 555).
3. Notify the Ministry of Health via the local Public Health Unit (9382 8233).
4. Notify SafeWork NSW (131 050).
5. Notify Sutherland Shire Council (8536 2224).
6. Notify Fire and Rescue NSW (1300 729 579).

The relevant information to be given, as required under the POEO Act when notifying the pollution incident to the regulatory authorities is as follows:

- a) Time, date, nature, duration and location of the incident.
- b) Location of the place where pollution is occurring or is likely to occur.
- c) The nature, the estimated quantity or volume and the concentration of any pollutants involved, if known.
- d) The circumstances in which the incident occurred (including the cause of the incident if known).
- e) Action taken or proposed to be taken to deal with the incident any resulting pollution or threatened pollution, if known.
- f) When the information relating to items c), d) or e) is not known at the time of verbal notification, this information must be provided once it becomes available.

Complying with these notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation or legislation administered by SafeWork NSW.

It should be noted that the definition of “pollution incidents” under the POEO Act excludes noise. Odour is not required to be reported as a pollution incident under Part 5.7 of the POEO Act. Additionally, a person is not required to notify an incident if the incident is an ordinary result of action required to be taken to comply with an EPL, an Environment Protection Notice or other requirement of or made under the POEO Act.

All personnel on site at the terminal (employees and contractors) will be also informed of a site emergency that can include a pollution incident immediately via the Emergency Alarm, the public broadcast system and/or via electronic communication.

Members of the Kurnell Emergency Response Team and other personnel involved with the implementation of the emergency response plan related to the pollution incident will be notified by Pager and/or SMS as soon as the emergency has been identified.

As the terminal is located in close proximity to the community and businesses, the Caltex Emergency Response Team will provide assistance to emergency services in notifying the community and businesses in the event of an incident.

(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and

(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

If necessary, prior to the arrival of emergency services this notification role will be delegated by the Caltex Emergency Controller. Communications tools such as phone calls, door knocking and letter box drops will be considered, as appropriate for the incident and its impact.

An example Incident Investigation and Corrective Action Checklist is provided in **Appendix F**.

2.8. Non-Conformance and Corrective Action

Non-conformances with this DEMP, including environmental incidents, shall be managed and recorded in accordance with the Terminals' Loss Prevention System (LPS).

Environmental incidents shall be reported to the Caltex Senior Environmental Specialist (or designated person) and Demolition Execution Superintendent.

2.9. Management of Complaints

Caltex has a complaint management procedure for the investigation, response and reporting of complaints.

Caltex manages all community complaints in accordance with the requirements of EPL 837, including:

- Reporting complaints in the Annual Return for the relevant EPL.
- Keeping a legible record of all complaints made to Caltex and its Contractors, including:
 - The date and time of the complaint.
 - The method by which the complaint was made.
 - Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect.
 - The nature of the complaint.
 - The action taken by Caltex in relation to the complaint, including any follow-up contact with the complainant.
 - If no action was taken by Caltex, the reasons why no action was taken.
- The complaints record must be produced to any authorised officer of the EPA who asks to see it.
- The complaints record must be kept for at least four years after the complaint was made.
- Caltex must operate, during its operating hours, a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- Caltex must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

Caltex will operate its 24-hour Kurnell Community Hotline telephone number, a postal address and an email address (as below) to receive feedback and complaints associated with the Project.

Complaints, enquires and feedback regarding the Project can be made through the following channels:

- 24-hour telephone number: 1800 802 385 toll free
- Mail: Terminal Manager, Caltex Kurnell Terminal, 2 Solander Street, Kurnell, NSW, 2231.

All feedback and complaints will be provided to the Caltex ER, the Terminal Manager, and/ the Senior Environmental Specialist (Licensing),

Any feedback and complaint records will be logged in the Complaints Register, tracked and where relevant, responded to. Responses to complaints will be made, where reasonably possible, within 48 hours of receiving the complaint.

2.10. Management of Cumulative Impacts

The main site operations undertaken at the Kurnell Terminal include:

- Receipt of product via the wharf
- Distribution of product through the pipelines to other Caltex facilities (managed by the Caltex Pipelines team)
- Wharf operations and maintenance
- Shipping activities
- Coordinating product movements between the Terminal, Banksmeadow Terminal, Sydney JUHI and SNP (automated)
- Transfer of slops via underground pipeline to the wharf for removal
- Filling, transferring and delivering product to/from onsite storage tanks via internal pipelines
- Inspection, monitoring and testing of all storage and product transfer equipment, including bulk storage tanks, piping systems and valves, vent systems and devices, emergency shutdown systems, control pumps, and maintenance of all storage and product transfer equipment
- Inspecting vapour lines for compliance
- Emergency Response
- Obtaining samples of product for testing, storage and disposal at the Site laboratory
- Maintenance of pipeline Right of Ways (ROWs)
- Vegetation and weed management
- Operation of a jet fuel treater
- Caltex Soil Remediation Facility
- Stormwater management and outfalls at Quibray and Botany Bay
- Oily water system capture, treatment at the Waste Water Treatment Plant and wastewater outfall pipeline through Yena Gap
- Managing site security (including site entry and other permits)
- Inventory management and data entry/processing
- Conducting and recording routine inspections and observations
- Management of road traffic and people movements on Site

The operational works are managed under the Kurnell Operational Environmental Management Plan (OEMP). In addition the following works may be undertaken during 2018 and 2019:

- Remediation activities
- Operation of the Landfarm.

The demolition works and ACS Management works will be managed so that there is limited interruption to the operations of the terminal and remediation activities and landfarm and so that cumulative environmental impacts are minimised. For example potentially dust generating activities will not occur concurrently across the Site. Potential impacts will be raised in the daily toolbox talks, for example, closure of internal roads and notification of high noise generating activities.

3. Heritage Management

3.1. Introduction

This Aboriginal and Non-Aboriginal Heritage Objects Management Plan has been prepared in response to the Development Consent conditions shown in **Table 3-1**.

Table 3-1 Requirements for Heritage Management

Condition	Condition Requirement	Reference Section
SSD 5544 MOD 1, C31A	<i>The Applicant shall continue to:</i> <i>a) implement the Heritage Management Strategy prior to and during the demolition works; and</i> <i>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.</i>	Section 3 <i>Caltex Kurnell Refinery Demolition: Heritage Impact Statement by Australian Museum Consulting for URS Australia Pty Ltd, October 2014</i>
SSD 5544 MOD 1, C32A	<i>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.</i>	Section 3.4
SSD 5544 MOD 1, C32B	<i>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.</i>	Section 3.4
SSD 5544 MOD 1, C32B	<i>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.</i>	Section 3.6
MMM G14	<i>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:</i> <ul style="list-style-type: none"> <i>Utilise Appendix H Heritage Impact Assessment to identify the medium to high heritage significance buildings to be retained;</i> <i>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</i> <i>Outline general monitoring and management measures to monitor vibration and manage buildings.</i> 	Noise & Vibration Management Plan, Appendix A
MMM J13	<i>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.</i>	Section 3

3.2. Objectives

The objective of this Heritage Management Plan is to manage any aboriginal or non-aboriginal heritage objects discovered during the Project. To address this objective, the Management Plan documents:

- The management measures, actions and associated performance indicators, that will be implemented throughout the Project;
- The proposed monitoring program that will be implemented; and
- Key project management roles and responsibilities and reporting requirements.

3.3. Project Overview

The work that will be carried out during the Project is not anticipated to disturb a significant area of the Site or excavate ground that has not previously been disturbed. The potential for encountering a heritage object is considered very low based on the history of the site and past ground disturbance.

For the purpose of this management plan a heritage object, or a potential heritage object, is considered to be an anthropogenic artifact, structure or implement that is not related to refinery operations.

The demolition works have the potential to impact on five identified historic heritage items or places within the immediate vicinity of the works. The five heritage items or places are:

- Australian Oil Refinery;
- Silver Beach;
- Four Wheel Drive Track (Captain Cook Drive);
- Kamay Botany Bay National Park; and
- Kurnell Peninsula Headland.

The demolition works area itself forms part of the locally significant Australian Oil Refinery and locally significant Silver Beach.

3.4. Pre-demolition Management

The following actions are to be undertaken:

- **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.
- **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.

3.5. Roles and Responsibilities

Overall responsibility for the implementation of this Aboriginal and Non-Aboriginal Heritage Objects Management Plan rests with Caltex. All employees and the Contractor will meet the requirements of this Management Plan and associated procedures. Management actions set out in this Management Plan may be delegated in writing by Caltex to the specific Contractor.

Key Project personnel including the Demolition Project Lead (or their delegate), Caltex ER, Contractor Project Manager and each Contractor's Environment / HSE Representative, will ensure that all management actions are undertaken to a satisfactory standard and that all personnel are aware of their responsibilities with respect to heritage matters. There will be dedicated staff to manage environmental/heritage issues (or integrated HSE matters) during the implementation and operational phase of the project. A general outline of responsibilities is provided in Section 2.1.

3.6. Management Procedures

Specific control measures required to undertake the Project including the Performance Objectives, Management Actions, Performance Indicators, Monitoring, Reporting and Corrective Actions are set out in the following sections.

Suitable equipment, facilities, training, work practices and other necessary precautions will be taken to minimise impacts to the heritage items, environment and the risk of pollution.

All Caltex and Contractors personnel will implement reasonable and practicable measures to avoid or minimise impacts to the heritage items that may arise from the Project.

Prior to and during the demolition works Caltex shall continue to implement the Heritage Management Strategy (HMS) for the Project as well as 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. 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.

3.6.1. Management Actions

The following mitigation measures will be implemented during the course of demolition works:

- Prior to works commencing, all personnel and contractors involved in ground disturbance works will be briefed on the procedures to follow if human remains or unexpected heritage items are found.
- If during the course demolition any previously unidentified heritage object(s) or archaeological relics are identified all work likely to affect the object(s) shall cease immediately until an assessment is carried out by a qualified heritage professional 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 authorisation from the Heritage Council of NSW is received.
- If during the course of demolition any previously unidentified Aboriginal object(s) are identified, all work likely to affect the object(s) shall cease immediately until an assessment is carried out by a qualified heritage professional and the OEHL informed in accordance with Section 89A of the *National Parks and Wildlife Act 1974*. Relevant works shall not recommence until authorisation from OEHL is received.
- If during the course of demolition any human remains are disturbed, all work in the vicinity of the remains will stop immediately and the remains would not be further disturbed or moved. Works would cease in the vicinity of the item and OEHL and NSW Police would be notified as soon as possible.
- Sandstone blocks from the informal sandstone wall along Silver Beach will be set aside in a secure location prior to demolition works, and reinstated in the same location following removal of the cooling water outlet pipeline.

- The following measures will be implemented to reduce the likely damage to the interpretive footpath in front of the driveway entrance to the Kurnell Wharf:
 - 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.
- The sculptural panels by Bert Flugelman would be retained and preserved.

3.6.2. Performance Indicators

The following performance indicators will be implemented during the Project:

- All objects are identified and reported in accordance with this plan.

3.6.3. Monitoring

The Contractor will inspect areas to be excavated and during all excavation activities.

3.6.4. Reporting

The Contractor will report any heritage, or potential heritage object to the Caltex ER as soon as possible.

The ER will notify the Heritage Council of New South Wales and the OEH of any heritage, or potential heritage objects encountered immediately.

3.6.5. Corrective Action

In the event a heritage object is identified work will cease and a heritage assessment of the area will be undertaken.

4. IMPLEMENTATION

4.1. Risk Assessment

Potential environmental aspects and impacts associated with demolition works are summarised in **Appendix C**. Establishment of the level of risk to the environment associated with these aspects and impacts, has been determined by using the following criteria:

- The likelihood that a potential environmental impact will occur, if the activity is not managed;
- The consequence to the environment if the impact were to occur; and
- Applying the risk matrix (**Table 4-1**) to assess the level of risk associated with each demolition activity.

Table 4-1 and **Table 4-2** show the risk matrix and risk rating applied to identified environment aspects and impacts.

Table 4-1 Risk Matrix Table

Consequence	Likelihood					
	Practically Impossible	Highly Unlikely	Unlikely	Possible	Quite Likely	Common Occurrence
Catastrophic	High	Severe	Severe	Severe	Severe	Severe
Massive	Moderate	High	Severe	Severe	Severe	Severe
Major	Low	Moderate	High	High	Severe	Severe
Moderate	Low	Low	Moderate	Moderate	High	High
Minor	Negligible	Low	Low	Low	Moderate	Moderate
Slight	Negligible	Negligible	Low	Low	Low	Low

Table 4-2 Risk Rating

Rating	Classification
Severe	Significant damage, medium to long term or permanent effect, off site impact, significant cost to repair
High	Extensive damage, medium to long term effect, off site impact, moderate to high cost to repair
Moderate	Moderate damage, short to medium term effect, off-site impacts repairable at low to moderate cost
Low	Discernible impact, short term effect, site impact only, repairable at little cost
Negligible	No discernible impact, no action required

The key environmental impacts relating to the work being carried out are identified in **Table C-1** (**Appendix C**) Aspects and Impacts Associated with Demolition Works.

In accordance with the above risk matrix and risk ratings **Table C-1** in **Appendix C** indicates that the highest level of risk associated with a Project activity is categorised as “*High*” in respect to demolition of significant heritage structures.

5. MONITORING AND REVIEW

5.1. Environmental Audits and Inspections

Regular audits and inspections, including independent audits, will be carried out to confirm compliance with this DEMP.

Project site audits will be conducted according to the Project Audit Schedule. The Project Audit Schedule will detail proposed dates for the audits and inspections at all work sites across the Project and the personnel involved in the audits and inspections. The Project Audit Schedule will be a live document and will be modified from time to time to suit the changing activities and risks. The Project Audit Schedule will be risk based and higher risk activities will be the subject of increased audit and inspection. Inspections will be conducted on a weekly basis, or as otherwise required.

Audits may be conducted as integrated HSE audits or specific environmental audits. The Contractor will conduct environmental or integrated HSE audits at least monthly. The Contractor will submit copies of completed audit forms to the Caltex ER on a monthly basis.

Audit and inspection findings will be recorded in the Caltex action management system called Cintellate for action and close out. Cintellate will detail the source of the action (i.e. audit, inspection or other), the action required, target close out date, actual close out date and the person responsible for the action item.

An example Environmental Inspection Checklist is provided in **Appendix F**.

5.2. External Audits

External audits and inspections of the Project may be conducted by government agencies and/or their representatives to ensure compliance with permits and licences as well as commitments made in the demolition works SEE and RTS (as well as other documentation as required). For such audits and inspections, the Caltex ER will accompany the auditors at all times.

In accordance with Conditions D7 and D8 of SSD 5544 MOD 1 Caltex will within a year of the date of the Consent (January 2014²), and every three years thereafter (unless the Secretary directs otherwise), commission and pay the full cost of an Independent Environmental Audit of the Project. A copy of Independent Audit Report along with Caltex's response to any recommendations made in the report will be submitted to the Secretary within three months of commissioning the audit.

The findings and recommendations arising from external audits will be recorded in the Cintellate and managed to close out in agreed timeframes.

Personnel will be notified of known upcoming external audits and inspections through notification on the central notice board and through the relevant Manager.

5.3. DEMP Review

This DEMP is based on the relevant information and requirements set out in the MOD 1 SEE, MOD 2 SEE, MOD 3 SEE, the conditions of consent for SSD 5544, the consolidated Management and Mitigation Measures and EPL 837.

² It should be noted that Caltex has received an extension on this requirement due to the submission of SSD 5544 MOD 1

As per condition D5 of SSD 5544 MOD 2, this DEMP and associated sub-plans shall be formally reviewed, and if necessary revised by the Demolition Project Lead (or their delegate) in consultation with the Caltex ER, to the satisfaction of the Secretary, within three months of:

- an approval of a modification;
- a submission of an incident report under Condition D6 (of SSD 5544)
- an approval of an Annual Review under Condition D4 (of SSD 5544); or
- a completion of an audit under Condition D7(of SSD 5544).

A summary of changes will be recorded in the revision control chart and the Plan distributed to personnel on the control copy distribution list. Where changes are significant and impact on Site environmental management, a tool box talk will be presented to relevant staff and recorded.

The risk assessment will be reviewed periodically and updated to include newly identified site specific risks. This may occur in light of a major incident, series of minor repeat incidents, complaints, audit findings or if the demolition activity changes so as to have additional environmental impact which is not considered in the existing risk assessment.

6. ENVIRONMENTAL PROCEDURES

Specific control measures required to undertake the demolition works are set out in the environmental management sub plans in **Appendix A**. These measures will be complied with by all Caltex personnel and Contractors as relevant. All activities must be carried out in a competent manner. Suitable equipment, facilities, training, work practices and other necessary precautions will be taken to minimise impacts to the environment and the risk of pollution. All plant and equipment installed used for the Project will be maintained in a proper and efficient condition and operated in a proper and efficient manner and in accordance with the equipment manufacturer's specifications.

Caltex will implement the following risk reduction measures during the demolition works in addition to managing the Site in accordance with existing requirements as a major hazard facility:

1. Demolition works would be coordinated with terminal activities, including conversion works. Where high risk demolition works are to occur (e.g. where there is a potential risk of damage to terminal operations), an assessment will be completed in conjunction with terminal operations to formulate a hazard control plan specific to the high risk activity.
2. Demolition Works Plans will include a framework for considering the demolition of individual tanks in shared tank farm areas (i.e. sequence activities to maximize space around in-service tanks).
3. An Access Control Plan will be developed for a demolition area that identifies when a demolition operator is likely to have limited visibility when using heavy machinery / vehicles.
4. Instructions will be provided for evacuating buildings and blocking roadways during the demolition of tall structures.
5. Additional requirements will be outlined for work on interconnecting pipework adjacent to live pipes (e.g. cold cutting and controlled removal; protective barriers).
6. There will be increased surveillance (i.e. use spotters) for work adjacent to live pipes / pipelines in line with existing Caltex procedures.
7. Caltex will check contractor capability for independent verification carried out by the contractor.
8. Additional precautions will be undertaken for floating roof tanks where pontoons may entrap flammable material which may not be detected during normal gas testing.
9. Hazardous Area classification drawings for demolition works will be reviewed and updated, particularly in areas where demolition activities are to take place in parallel with the operating Terminal. Particular attention will be paid to the requirements for control of ignition sources on Site.
10. Where possible and practicable to do so, access ramps will be constructed away from operational pipework.
11. Appropriate measures will be undertaken to minimise the risk of subsidence to the substation and nearby residential dwelling both of which are in close proximity to the pipelines being removed within the western right-of-way (e.g. shoring, reducing the size of excavations etc.). The appropriateness of these measures will be assessed by a suitably qualified engineer.
12. A Caltex inspection program will be implemented that includes truck loading activities (e.g. use Tipper Truck Loading / Unloading Safety Inspection Checklist FORM 4.00.03.027).
13. In consultation with energy authorities the requirements for isolation and/or installation of protective barriers will be determined for the overhead power lines in the rights-of-way.
14. Chemical cleaning requirements will be determined and implemented to remove contamination prior to removal.

15. Waste disposal requirements will be determined and implemented for mercaptan³ building rubble.
16. High noise generating demolition works would be confined to less sensitive times of the day and not outside the hours of 7.00 am to 6.00 pm Monday to Saturday (refer to Noise Management Sub Plan, **Appendix A**).

³ Also called thiols. Refers to an organosulphur compound. Many mercaptans have a strong garlic odour and are used as odourants to detect natural gas (which is odourless in pure form). Thiols react with mercury to form mercaptides.

7. REPORTING

The Contractor will provide a brief report to the Caltex ER on a fortnightly basis, including all information required by this DEMP (including the sub Environmental Management Plan (EMPs)).

Caltex will report to the EPA in accordance with the requirements of the Sites EPL as relevant to the demolition works.

Records will be developed and maintained in relation to this DEMP including:

- Training records
- Incident report forms
- Audit/inspection forms
- Corrective Actions Register
- Complaints Register
- Monitoring results
- Controlled Waste Receipts and Tracking Numbers
- Volume of waste to landfill and waste recycled

The Contractor is required to forward all records generated as a result of this DEMP to the Caltex ER on a monthly basis. Records will be maintained on site by the Caltex ER.

As per condition D4 of SSD 5544 an annual environmental review report will be prepared to the satisfaction of the Secretary. The annual review will provide information on the conversion, demolition and operation of the Site. This review shall:

- 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.

8. EMERGENCY CONTACTS

Emergency Contacts	
SITE ADDRESS	Kurnell Terminal, NSW 2 Solander Street, Kurnell, NSW 2231 Contact Name: Dr. Jos Kusters Senior Environmental Officer (Licensing) Contact Number: 0478 303 105 Caltex Australia Ltd Head Office: (02) 9250 5000
EMERGENCY	333 (Caltex Emergency Number – call first); or 000
ENVIRONMENTAL ISSUES AND NOTIFICATION Caltex ER	Contact Name: Dora Ambrosi-Wall Contact Number: 0434 149 971
EPA Environment Line	131 555
SafeWork NSW	131 050 After hours: 9214 9220
Fire and Rescue NSW	1300 729 579
Public Health Unit (Randwick Office at Prince of Wales Hospital - ask for Public Health Nurse on call)	(02) 9382 8233 After hours: (02) 9382 2222
HOSPITAL Sutherland Hospital Kareena Rd, Caringbah	(02) 9540 7111
Saint George Hospital Gray Street, Kogarah	(02) 9113 1111
LOCAL POLICE Miranda Local Area Command 34 Kingsway Cronulla	(02) 9527 8199
POISONS INFORMATION CENTRE Advice on first aid including dangerous plants, animals, insects and household products.	131 126

Emergency Contacts	
WILDLIFE RESCUE WIRES 24 hours, 7 days a week	1300 094 737
NATIONAL PARKS Botany Bay National Park Duty Officer	(02) 9668 2000 or 0419 428 054
CALTEX KURNELL COMMUNITY HOTLINE 24 hours, 7 days a week	1800 802 385 (Toll Free)

9. REFERENCE DOCUMENTS

Integrated Waste Management Strategy (IWMS) Environment Protection License 837 Condition U6 (PRP U23) report (Caltex, December 2012)

MAN – Kurnell Refineries Oil Spill Contingency Plan

PROC – Management of Change

STD – Environment Standard for Environmental Review for Plant Modification

STD – Kurnell Refineries Area Obligations to EPA Licence 837

PROC – CRN 11 Operating: Storm Water/Firewater Systems Operating Procedures

PROC – Internal Audits

PROC – Operating Emergency Procedure for Power Plant – Plant 11 Procedure 7 – Oil/Chemical Spill

SWI – Work Instruction for Sampling of Refinery Effluent Water

PROC – Job Safety Analysis

PROC – Community Complaints

STD – Loss Investigation & Reporting

PROC – Loss/Near Loss Investigation & Reporting

PROC – Incident Reporting to the EPA

New South Wales (NSW) Department of Infrastructure, Planning and Natural Resources *Guideline for the Preparation of Environmental Management Plans(2004)*

APPENDIX A

APPENDIX A – Environmental Management Sub Plans

(These are provided as separate documents)

Appendix B – References, Standards, Codes and Regulations

References, Standards, Codes and Regulations

This list is a guide only to documents applicable in the preparation and review of Inspection Plans, Subcontractor SWMS's or general Project relevant regulations and may not include all relevant documents. It is the responsibility of all persons preparing documents to be fully aware of the requirements associated with their work activities. For the latest version of each of the following documents go to the relevant Websites for each e.g. Legislation www.legislation.nsw.gov.au, Australian Standards; www.saiglobal.com, NSW Codes of Practice; <http://www.safework.nsw.gov.au/>, National Codes of Practice; www.safeworkaustralia.gov.au.

Also refer to Caltex's Environmental System as detailed in *SYS DESC 5.01.01.001 Refining Environmental Management System (EMS)* for legislative and other requirements. References to legislative and other requirements are also provided in the Sub Plans.

NSW Legislation

Key NSW legislation is provided in the following table.

Table B-1 Relevant NSW Legislation

Legislation, Licences, Permits or Consents	Applicability	Responsibility
Protection of Environmental Operations (POEO) Act 1997 , under authority of NSW EPA	<ul style="list-style-type: none"> Relevant to all stages of demolition. Environment Protection Licence 837 is currently associated with the Site. Any spills or pollution incidents need to be reported under this Act. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative
Protection of the Environment Operations (Waste) Regulation 2014 , under authority of NSW EPA	<p>This Regulation:</p> <ul style="list-style-type: none"> Exempts certain waste streams from the full waste tracking and recordkeeping requirements. Makes requirements relating to the transport of controlled waste to interstate destinations. Allows the EPA to approve the immobilisation of contaminants in waste. Makes special requirements relating to asbestos waste. Exempts certain occupiers or types of waste from these contributions. Allows rebates to be claimed in relation to certain types of waste. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative

APPENDIX B

Legislation, Licences, Permits or Consents	Applicability	Responsibility
<u>Protection of the Environment Operations (Clean Air) Regulation 2010</u> , under authority of NSW EPA	<p>In relation to industry, the Regulation:</p> <ul style="list-style-type: none"> Sets maximum limits on emissions from activities and plant for a number of substances, including chlorine, dioxins, furans, smoke, solid particles and sulphur; Deals with the transport and storage of volatile organic liquids; Restricts the use of high sulphur liquid fuel; Imposes operational requirements for certain afterburners, flares, vapour recovery units and other treatment plant. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative
<u>Contaminated Land Management Act 1997</u> , under authority of NSW EPA	<ul style="list-style-type: none"> This Act provides for a process to investigate and remediate land that has been contaminated and presents a significant risk of harm to human health. Section 60 of the Act is a "Duty to Report Contamination". This duty applies to owners of land and persons who become aware their activities have contaminated the land. The Site contains contaminated land and the provisions of this Act must be complied with during the works. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative
<u>Waste Avoidance and Resource Recovery Act 2001</u> , under authority of NSW EPA	<ul style="list-style-type: none"> Relevant to all demolition activities. The Project will comply with the objectives of the Act - that is, ensuring resource management conforms to a hierarchy of avoidance, recovery then disposal. Objectives have been integrated into the Demolition Waste and Resource Management Sub Plan (refer Table E-1) 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative
<u>Work, Health and Safety Regulation 2011</u> , under authority of SafeWork NSW	<ul style="list-style-type: none"> Relevant to all demolition activities. Ensure that all dangerous goods or combustible liquids are identified and properly stored to prevent spillage. Maintain Dangerous Goods register and MSDS. Record the results of a risk assessment relating to the storage and handling of dangerous goods. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative

APPENDIX B

Legislation, Licences, Permits or Consents	Applicability	Responsibility
<u>Heritage Act 1977</u> , under authority of Heritage Council of NSW	<ul style="list-style-type: none"> Is activated upon discovery of a relic. Sections 139 – 145 of the Act prevent excavation of a relic, except in accordance with a gazetted exception or where an excavation permit is issued. Section 146 of the Heritage Act protects unexpected relics discovered across NSW. In the event that unexpected relics are discovered on site, works should cease immediately and Heritage Council consulted. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative
<u>National Parks and Wildlife Act 1974</u> , under authority of NSW EPA National Parks and Wildlife Service (NPWS)	<ul style="list-style-type: none"> Upon discovery of an aboriginal object. If aboriginal objects are discovered during demolition, works should cease and NPWS consulted. The Site is unlikely to contain any relics or places of archaeological value and it is unlikely that objects will be uncovered, given the nature of the work. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative
<u>Biosecurity Act 2015</u> , under authority of NSW Department Primary Industries	<ul style="list-style-type: none"> Relevant to all Site activities. Certain pests (weeds) must be notified (defined by Schedule 1 of the <i>Biosecurity Regulation 2017</i>). 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative
<u>Biodiversity Conservation Act 2016</u> , under authority of the Office of Environment and Heritage (OEHS)	<ul style="list-style-type: none"> Is relevant if any threatened species, populations, communities and/or critical habitat listed under the Act are potentially affected by the activity or impacted on or off the work site, as a consequence of the activity. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative
<u>Environmental Planning and Assessment Act 1979</u> , under authority of NSW Department of Planning & Environment (DPE)	<ul style="list-style-type: none"> Applies to State significant development (SSD) that is large scale projects that are declared as such under an Environmental Planning Instrument (EPI). Development consent required prior to demolition works commencing. Ensures that the development of the land is undertaken incorporating ecologically sustainable development principles. Has the provision for penalties to be issued should development conditions be breached. 	Demolition Project Lead (or delegate), Environmental Representative and Contractor Environment / HSE Representative

APPENDIX B

Commonwealth Legislation

Key Commonwealth legislation that the Project team should be aware of includes:

- *Environment Protection and Biodiversity Conservation Act 1999*
- *Road Transport Reform (Dangerous Goods) Repeal Act 2009*
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*
- *National Environment Protection Measures (Implementation) Act 1998*
- *Hazardous Waste (Regulation of Exports and Imports) Act 1989*
- *National Environment Protection Council Act 1994*
- *Water Act 2007*
- *Natural Heritage Trust of Australia Act 1997*

Other Requirements

- Kurnell Refinery Demolition Statement of Environmental Effects (MOD 1 SEE), URS November 2014
- Kurnell Refinery Demolition Response to Submissions Report, URS March 2015
- Kurnell ACS Management Project Statement of Environmental Effects (MOD 2 SEE), AECOM October 2016
- Kurnell ACS Management Project Response to Submissions Report, AECOM June 2017
- Kurnell Tank 101 Demolition Works Statement of Environmental Effects (MOD 3 SEE), AECOM August 2017
- Kurnell Tank 101 Demolition Works Response to Submissions Letter, AECOM October 2017
- Environment Protection Licence 837
- NSW Landcom publication Managing Urban Stormwater - Soils and Construction (4th Edition, March 2004); and Managing Urban Stormwater, EPA 1997
- National Water Quality Management Strategy
- Australian and New Zealand Guidelines for fresh and marine water quality 2000 (ANZECC/ARMCANZ, 2000)
- National Standard for the Storage and Handling of Workplace Dangerous Goods [NOHSC: 1015 (2001)]
- National Code of Practice for the Storage and Handling of Dangerous Goods [NOHSC: 2017 (2001)]
- National Waste Policy: Less Waste, More Resources (EPHC 2009)
- NSW Office of Environment and Heritage (OEH) (formerly DECCW) Waste Classification Guidelines Part 4: Acid Sulfate Soils
- State Environmental Planning Policy (Kurnell Peninsula) 1989 (Kurnell SEPP) (Repealed)
- Sutherland Shire Local Environment Plan (2015)
- RTA Vehicle Standards Information Sheet No. 5 – Vehicle Dimension Limits
- Acid Sulfate Soils Assessment Guidelines August 1998 (New South Wales Acid Sulfate Soils Management Advisory Committee)
- Safe Work Australia, How to Safely Remove Asbestos, Code of Practice, December 2011
- Australian Standard AS 2601:2001: The Demolition of Structures
- Australian Standard 4282(NT) - Control of Obtrusive Effects of Outdoor Lighting

Appendix C – Project Aspects and Impacts Register

APPENDIX C

Table C-1 Aspects and Impacts Associated with Demolition Works

The criteria used to rank the risks for the various aspects and impacts are explained in **Section 4.1**.

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
Site Management	Poor practice	Non-conformance with DEMP targets	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 SSD 5544 MOD 3 EPL 837 	Site Inspection and audit	Highly Unlikely	Slight	Negligible
Hazards & Risks	Uncontrolled or unplanned falling of infrastructure, object or crane collapse	Damage to adjacent plant or equipment	<ul style="list-style-type: none"> Work, Health & Safety Act 2011 	Structure specific Demolition Management Plan Hazard & Risk Analysis (Planager, November 2014)	Possible	Moderate	Moderate
	Removal of Pipes	Damage to live pipework	<ul style="list-style-type: none"> Work, Health & Safety Act 2011 	Structure specific Demolition Management Plan Hazard & Risk Analysis (Planager, November 2014)	Possible	Moderate	Moderate
	Isolation	Failure to isolate process equipment causes uncontrolled leak, spill, sparking, electrocution	<ul style="list-style-type: none"> Work, Health & Safety Act 2011 	Structure specific Demolition Management Plan Hazard & Risk Analysis (Planager, November 2014)	Possible	Moderate	Moderate

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
	Ignition sources	Introduction of an ignition source to the Site causes fire/explosion	<ul style="list-style-type: none"> SSD 5544 MOD 1 Work, Health & Safety Act 2011 	Structure or group of structures specific Demolition Management Plan Hazard & Risk Analysis (Planager, November 2014) Hot Works Permit / Permit to Work Training	Possible	Moderate	Moderate
	Spills and/or leaks from inadequate storage areas and secondary containment	Potential on or off site pollution	<ul style="list-style-type: none"> POEO Act 1997 National Standard for the Storage and Handling of Workplace Dangerous Goods [NOHSC: 1015 (2001)] National Code of Practice for the Storage and Handling of Dangerous Goods [NOHSC: 2017 (2001)] 	All goods stored in bunded location. Spill kit to be maintained and available onsite Terminal spill response plans and procedure Soil and Water Management Plan	Unlikely	Minor	Low
Soils, Groundwater and Contamination	Exposed soil	Erosion of exposed surfaces causing sediment to enter stormwater drains	<ul style="list-style-type: none"> SSD 5544 MOD 1 POEO Act 1997 	Soil and Water Management Plan	Highly Unlikely	Moderate	Low
	Vehicle movement over exposed soil	Tracking of soil onto local Terminal roadways	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 SSD 5544 MOD 3 POEO Act 1997 	Soil and Water Management Plan	Highly Unlikely	Slight	Negligible

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
	Wind over exposed soil	Erosion of exposed surfaces causing dust.	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 SSD 5544 MOD 3 POEO Act 1997 	Air Quality Management Plan	Possible	Minor	Low
	Unexpected find	Demolition uncovers articles of Aboriginal or European cultural heritage significance.	<ul style="list-style-type: none"> National Parks and Wildlife Act 1974 	Heritage Management Strategy	Practically Impossible	Slight	Negligible
	Sediment control	Run-off from stockpiles potentially contaminating soil and groundwater	<ul style="list-style-type: none"> POEO Act 1997 	Soil and Water Management Plan	Possible	Minor	Low
	Excavation activities	Mobilisation of contamination from soils	<ul style="list-style-type: none"> POEO Act 1997 	Soil and Water Management Plan	Possible	Minor	Low
	Acid sulfate soils	Mobilisation of metals within runoff to levels toxic to natural systems. Release of acidic runoff	<ul style="list-style-type: none"> SSD 5544 MOD 1 	Soil and Water Management Plan	Possible	Minor	Low
	Spills and leaks from demolition equipment or during refueling	Potential on or off site pollution	<ul style="list-style-type: none"> POEO Act 1997 	Terminal spill response plans and procedure	Possible	Minor	Low
	Removal of hardstand/concrete areas	Increased infiltration of rainwater to underlying soil		Soil and Water Management Plan	Possible	Minor	Low
	Wash areas not sealed or provided with secondary containment. Washing not conducted in designated areas.	Potential on or off site pollution	<ul style="list-style-type: none"> POEO Act 1997 	Wash in designated areas, isolated from storm water drains.	Highly Unlikely	Slight	Negligible

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
Human Health and Ecological Risk	Asbestos in the form of small fragments and fibres potentially in surface soil layers.	Exposure to elevated asbestos fibres	<ul style="list-style-type: none"> • POEO Act 1997 • Contaminated Land Management Act 1997 • Code of Practice for the Management and Control of Asbestos in the Workplace • Code of Practice How to Safely Remove Asbestos 	Soil and Water Management Plan Terminal asbestos management and procedure	Possible	Moderate	Moderate
	Management of asbestos contaminated soils	Exposure to elevated asbestos fibres	<ul style="list-style-type: none"> • SSD 5544 MOD 2 • POEO Act 1997 • Contaminated Land Management Act 1997 • Code of Practice for the Management and Control of Asbestos in the Workplace • Code of Practice How to Safely Remove Asbestos 	Remedial Action Plan Containment Cell Management Plan Licensed Asbestos removal contractor will be engage and air monitoring undertaken	Possible	Major	High
	Contaminated soil	Potential soil contamination may pose a vapour risk for workers (e.g. in a building or a deep trench)	<ul style="list-style-type: none"> • POEO Act 1997 • Contaminated Land Management Act 1997 	Soil and Water Management Plan	Possible	Minor	Low

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
Waste Management	Unidentified or unexpected waste materials	Additional waste streams require management	<ul style="list-style-type: none"> • POEO (Waste) Regulation 2014 • EPA Waste Classification Guidelines 	Demolition Waste and Resource Management Plan	Possible	Minor	Low
	Demolished or excavated material not stored on sealed ground or with sediment and erosion controls	Soil contamination	<ul style="list-style-type: none"> • POEO Act 1997 • Waste Avoidance and Resource Recovery Act 2001 • POEO (Waste) Regulation 2014 	Demolition Waste and Resource Management Plan Soil and Water Management Plan	Possible	Minor	Low
	Not using designated waste storage areas	Soil / Water contamination	<ul style="list-style-type: none"> • POEO Act 1997 • Waste Avoidance and Resource Recovery Act 2001 • POEO (Waste) Regulation 2014 	Demolition Waste and Resource Management Plan Soil and Water Management Plan	Possible	Minor	Low
	Not using designated waste storage areas	Recyclable materials to landfill	<ul style="list-style-type: none"> • Waste Avoidance and Resource Recovery Act 2001 • POEO (Waste) Regulation 2014 	Demolition Waste and Resource Management Plan	Highly Unlikely	Minor	Low
	Not using designated waste storage areas or on-site disposal facilities	Liquid waste impacts sealed and/or unsealed ground and/or storm water drains	<ul style="list-style-type: none"> • POEO Act 1997 	Demolition Waste and Resource Management Plan	Highly Unlikely	Moderate	Low

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
	Control of materials	Waste to landfill, Illegal disposal	<ul style="list-style-type: none"> • POEO Act 1997 • Waste Avoidance and Resource Recovery Act 2001 • POEO (Waste) Regulation 2014 	Demolition Waste and Resource Management Plan	Highly Unlikely	Moderate	Low
Surface Water, Wastewater and Flooding	Interaction of stormwater with hydrocarbon impacted soils	Potential on or off site pollution	<ul style="list-style-type: none"> • SSD 5544 MOD 1 • SSD 5544 MOD 2 • SSD 5544 MOD 3 • POEO Act 1997 • Contaminated Land Management Act 1997 	Soil and Water Management Plan	Possible	Minor	Low
	Stormwater contaminated by leaks and spills from demolition vehicles, plant and equipment	Potential on or off site pollution	<ul style="list-style-type: none"> • SSD 5544 MOD 1 • SSD 5544 MOD 2 • SSD 5544 MOD 3 • POEO Act 1997 • Contaminated Land Management Act 1997 	Soil and Water Management Plan	Possible	Minor	Low
	Potential adverse impacts to stormwater flows and discharge	Potential on or off site pollution	<ul style="list-style-type: none"> • SSD 5544 MOD 1 • SSD 5544 MOD 2 • SSD 5544 MOD 3 • POEO Act 1997 • Contaminated Land Management Act 1997 	Soil and Water Management Plan	Possible	Minor	Low

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
Noise & Vibration	Demolition works could cause acoustic impacts at identified sensitive receptors	Noise exceeds specified standards, disrupts neighbours.	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 SSD 5544 MOD 3 POEO Act 1997 	Noise Management Plan	Unlikely	Minor	Low
	Hours operated	Noise outside regular work hours disrupts neighbours.	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 POEO Act 1997 	Noise Management Plan	Highly Unlikely	Minor	Low
	Vibration	Disruption, annoyance and nuisance to residents and potential damage to adjacent structures	<ul style="list-style-type: none"> SSD 5544 MOD 1 POEO Act 1997 	Noise Management Plan Consult with potentially affected parties prior to commencement of works that may be impacted by demolition vibration	Unlikely	Minor	Low
Air Quality and Odour	Demolition works could potentially generate air quality impacts such as dust, VOC emissions and odour	Pollutants exceed specified air quality standards.	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 SSD 5544 MOD 3 POEO Act 1997 	Air Quality Management Plan	Highly Unlikely	Slight	Negligible

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
	ACS Modification works would potentially generate airborne asbestos impacts	Impacts to workers and nearby receptors	<ul style="list-style-type: none"> SSD 5544 MOD 2 Work Health and Safety Act 2011 	Remedial Action Plan Containment Cell Management Plan Licensed Asbestos removal contractor will be engage and air monitoring undertaken	Possible	Major	High
Transport and Access	Demolition traffic could impact the local road network. Transport of materials during demolition. Increased truck and vehicle traffic flow through Kurnell and Solander Street. Vehicle movements and parking within the Terminal	Disruption of local traffic and increased traffic congestion. Disruption of emergency egress/ingress to Terminal. Worker/vehicle conflicts and safety risks.	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 SSD 5544 MOD 3 Environmental Planning and Assessment Act 1979 Road Transport (Vehicle Registration) Regulation 2017 Road Act 1993 RTA Vehicle Standards Information Sheet No. 5 – Vehicle Dimension Limits 	Traffic Management Plan	Highly Unlikely	Minor	Low

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
Heritage	Demolition of locally significant structures	Locally significant Oil Refinery structures are demolished.	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 SSD 5544 MOD 3 Heritage Act 1977 Australian Heritage and Commission Act 1975 (repealed) Environment Protection and Biodiversity Conservation Act 1999 	Final review of the adaptive reuse capabilities of highly significant buildings which are proposed to be demolished Heritage Management Strategy	Unlikely	Major	High
	Demolition of locally significant structures	The demolition works would potentially impact the heritage amenity values of Silver Beach and Roadway including interpretative concrete footpath at Kurnell Wharf.	<ul style="list-style-type: none"> National Parks and Wildlife Act 1974 (NSW) State Environmental Planning Policy: Kurnell Peninsula 1989 / Sutherland Shire LEP 2015 	Final review of the adaptive reuse capabilities of highly significant buildings which are proposed to be demolished Heritage Management Strategy	Unlikely	Minor	Low
Ecology	Fauna in work area, either natural features or man-made structures that are potential fauna habitat	Disturbance, injury, death. Loss of habitat. Disturbance to shorebird habitat during removal of the Cooling Water Outlet Pipeline at Silver Beach	<ul style="list-style-type: none"> National Parks and Wildlife Act 1974 Threatened Species Conservation Act 1995 	Biodiversity and Weed Management Plan	Highly Unlikely	Slight	Negligible

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
	Fauna in excavations	Pits, holes, trenches causing disturbance, injury, death	<ul style="list-style-type: none"> National Parks and Wildlife Act 1974 Threatened Species Conservation Act 1995 	Biodiversity and Weed Management Plan	Highly Unlikely	Slight	Negligible
	Stormwater discharge	Sediment laden water, contaminated water and oily water is discharged off-site and into the groundwater system affecting nearby natural areas and GDEs	<ul style="list-style-type: none"> SSD 5544 MOD 1 SSD 5544 MOD 2 SSD 5544 MOD 3 POEO Act 1997 Contaminated Land Management Act 1997 	Biodiversity and Weed Management Plan Soil and Water Management Plan	Unlikely	Minor	Low
	Weed dispersion	Increase in noxious weed infestations.	<ul style="list-style-type: none"> Biosecurity Act 2015 	Biodiversity and Weed Management Plan	Unlikely	Minor	Low
	Release of sediments and/or contaminants during removal of the Cooling Water Outlet Pipeline at Silver Beach	Marine pollution/contamination	<ul style="list-style-type: none"> SSD 5544 MOD 1 POEO Act 1997 	Cooling Water Outlet Management Plan Soil and Water Management Plan	Possible	Moderate	Moderate
Coastal Processes	Removal of the Cooling Water Outlet Pipeline at Silver Beach	Damage to the aesthetic significance and amenity of the local heritage item Silver Beach and roadway.	<ul style="list-style-type: none"> POEO Act 1997 National Parks and Wildlife Act 1974 Threatened Species Conservation Act 1995 	Silver Beach Rehabilitation Plan	Unlikely	Minor	Low

APPENDIX C

Category	Aspect	Impact	Legal and other Requirement	Control	Likelihood	Consequence	Risk
	Removal of the Cooling Water Outlet Pipeline at Silver Beach	Damage to the physical fabric of an informal sandstone wall alongside the beach.	<ul style="list-style-type: none"> • POEO Act 1997 • National Parks and Wildlife Act 1974 • Threatened Species Conservation Act 1995 	Silver Beach Rehabilitation Plan	Unlikely	Minor	Low
	Removal of the Cooling Water Outlet Pipeline at Silver Beach	Damage to the physical fabric and narrative continuity of an interpretative concrete footpath in front of the entrance to the Kurnell Wharf.	<ul style="list-style-type: none"> • POEO Act 1997 • National Parks and Wildlife Act 1974 • Threatened Species Conservation Act 1995 	Silver Beach Rehabilitation Plan	Unlikely	Minor	Low

Appendix D – Equipment & Structures to be Demolished

- Crude Distillation Unit (CDU) No. 1, (Area 1: Plant 2);
- Vacuum Distillation Unit (VDU), (Area 1: Plant 2);
- Power Plant, (Area 1: Plant 11);
- Fluid Catalytic Cracking Unit (FCCU) No. 1, (Area 2: Plant 4);
- FCCU No. 2, (Area 2: Plant 34);
- Polymerisation, (Area 2: Plant 5);
- Alkylation, (Area 2: Plant 36);
- Flare, (Area 2: Plant 9);
- Catalytic Reforming Unit (Platformer), (Area 3: Plant 35);
- CDU No. 3, (Area 3: Plant 45.1);
- Hydrotreating Unit (HTU) / Rheniforming, (Area 3: Unit 45.2/3);
- No. 1 and No. 2 Sulphur Recovery Units (SRU) / Amine, (Area 3: Plant 45.4 and 45.8);
- Diesel Hydrotreating Unit (DHTU), (Area 3: Plant 45.6);
- Treating and Splitting Unit (TSU), (Area 3: Plant 45.7);
- IsoSiv, (Area 3: 45.9);
- Benzene Saturation Unit (BENSAT), (Area 3: Plant 61);
- Eastern Tank Area (64 tanks to be demolished, Butane and RGP tanks to be demolished);
- Western Tank Area (9 tanks to be demolished);
- Pipeways / Pipelines (Majority of preexisting line systems, including 8 underground pipelines, to be demolished);
- Loading Racks (Off Solander Street);
- Kurnell Wharf (Off Prince Charles Parade):
 - two cooling water inlet pipes running alongside wharf and the steel brackets holding them to the concrete pylons to be demolished; and
 - three original pumps and two early pumps to be removed from the cooling water pumphouse.
- 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;
- Hut 3 (Adjacent to Main Office Building);
- IT/Inspection Records building (adjacent COB) (Off Cook Street);
- TAJ (Off Cook Street);
- Guard House – main gate (Road 9);
- Old Laboratory (Area 1: Road 9);
- Reliability (Old Inspection Building), (Area 1: Road M);
- J Store, (Area 1: Road M);
- Plant 32 Control Room, (Area 1: Road M);
- Substation K, (Area 1: Road 4);
- Toilet Block, (Area 1: Road M);
- Satellite Equipment Room, (Area 1: Road M);
- Dangerous Goods Store, (Area 1: Road 5);
- Area 1 Maintenance, (Area 1: Road 6);

APPENDIX C

- Cafeteria, (Area 2, Road 9);
- Gas Cylinder Store, (Area 2: Road M);
- Old Training Centre (Old Garage), (Area 2: Road M);
- Technical building, (Area 2: Road M);
- Yard Office North, (Area 2: Road M);
- Area 2 Maintenance, (Area 2: Road 6);
- E&I Workshop, (Area 2: near main hydroblast slab);
- Substation J, (Area 2: Road 6);
- Plant 4/Plant 34 Satellite Control Room, (Area 2: Road M);
- Substation C and Motor Control Room, (Area 2: Road 4);
- Plant 36 Control Room, (Area 2: Road 6);
- Plant 5 Control Room, (Area 2: Road N);
- Yard Office South, (Area 3: Road 9);
- RIM Store (Beside Yard Office South), (Area 3: Road 9);
- Substation U, (Area 3: Road 9);
- Plant 45.1 West Satellite Control Room, (Area 3: Road N);
- Substation R, (Area 3: Road N);
- Plant 35 East Satellite Control Room, (Area 3: Road N);
- Substation O, (Area 3: Road N);
- Substation T, (Area 3: Road 6);
- Substation E, (Area 3: Road Q);
- CLOR Maintenance Services (Change Rooms), (Area 4: Road U);
- CLOR Workshop (Area 4: Road 17);
- Zone E Workshop (CLOR Reliability Workshop), (Area 4: Road 17);
- Sieve Shed and Insulators Workshop, (Area 4: Road 9);
- Tank 101 and associated infrastructure

Appendix E – SSD 5544 Sub Plans Requirements

Table E-1 lists the Sub Plans required by the Development Consent.

Table E-1 Sub Plans Required by the Development Consent

Management Sub Plan	Reference Section	Condition
Soil and Water Management Plan <i>Contamination Management Plan</i> <i>Acid Sulfate Soils Management Plan</i> <i>Groundwater Management Plan</i>	Appendix A	SSD 5544 MOD 1, Condition C12A SSD 5544 MOD 1, Condition C15A - SSD 5544, Condition 15
Noise Management Plan	Appendix A	SSD 5544 MOD 1, Condition C22A
Air Quality Management Plan	Appendix A	SSD 5544 MOD 1, Condition C28A
Traffic Management Plan	Appendix A	SSD 5544 MOD 1, Condition C36A
Demolition Waste & Resource Management Plan	Appendix A	SSD 5544 MOD 1, Condition C40A
Biodiversity and Weed Management Plan	Appendix A	SSD 5544 MOD 1, Condition C43A
Cooling Water Outlet Management Plan	Appendix A	SSD 5544 MOD 1, Condition C43C
Containment Cell Management Plan	Appendix A	SSD 5544 MOD 2, Condition C50

Appendix F – Checklist Examples