

Development Consent

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

As delegate of the Minister for Planning under delegation executed on 16 February 2015, I approve the development application referred to in Schedule A, subject to the conditions in Schedules B to D.

These conditions are required to:

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



Anthea Sargeant
Executive Director
Key Sites & Industry Assessments

Sydney 15 December 2016

SCHEDULE A

Application Number:	SSD 7065
Applicant:	Stolthaven Australia Pty Ltd
Consent Authority:	Minister for Planning
Land:	Steelworks Road, Mayfield including: Lots 1 and 2 on DP 1177466 Lots 36, 37, 38 and 39 on DP 1191723 Part Lot 4 on DP 1184514
Development:	Construction and operation of a bulk fuel storage and distribution terminal, marine loading arm and pipeline

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DEFINITIONS

Term	Definition
Applicant	Stolthaven Australia Pty Ltd (Stolthaven), or its successors in title
BCA	Building Code of Australia
CLM Act	<i>Contaminated Land Management Act 1997</i>
Combustible Liquids	Includes diesel and biodiesel, covered by SSD 6664
Construction	Earthworks, civil works, drainage, bund construction, tank foundations, tank fabrication and installation, office construction, gantry and fire water installation, mechanical and electrical works for the expanded terminal, as described in the EIS
Council	City of Newcastle
CSMP	<i>Contaminated Site Management Plan: Intertrade Industrial Park, Closure Area of Former Steelworks Site Mayfield</i> , prepared by Hunter Development Corporation, dated February 2014
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development described in the EIS and RTS involving expansion of the existing bulk fuel storage terminal to receive, store and dispatch flammable and combustible fuels via pipeline from the M7 berth and increase throughput to 3,500 million litres per year
EIS	Environmental Impact Statement titled <i>Stolthaven Bulk Fuel Terminal – Stage 3, Environmental Impact Statement</i> prepared by AECOM, dated 19 February 2016
ENM	Excavated Natural Material
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	Environment Protection Authority
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6 pm to 10 pm
Feasible	Feasible relates to engineering considerations and what is practical to build
Flammable Liquids	Includes gasoline, ethanol and jet fuel, as described in the EIS
Incident	An incident causing or threatening material harm to the environment, and/or an exceedance of limits or criteria in this consent or other statutory licences, permits and/or consents
M4 berth	Mayfield No. 4 Berth, as shown in Appendix 4
M7 berth	Mayfield No. 7 Berth, as shown in Appendix 1
Management and Mitigation Measures	The Management and Mitigation Measures at Appendix 2 of this consent
Marine loading arm	A marine loading arm located adjacent to the M7 berth to transfer fuel from ships to the pipeline and the terminal
Mayfield Concept Plan	Major Project Application MP 09_0096 approved by the Minister on 16 July 2012, as described in the document titled <i>Environmental Assessment Mayfield Site Port-Related Activities Concept Plan</i> prepared by AECOM, dated July 2010; <i>Submissions Report Mayfield Site Port-Related Activities Concept Plan</i> prepared by AECOM, dated December 2010 and as modified by MP 09_0096 MOD 1 approved by the Minister on 17 March 2014 and MP 09_0096 MOD 2 approved by the Minister on 12 December 2014 (shown in Appendix 3)
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the development
Night	The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
NOW	NSW Office of Water within the Department of Primary Industries
OEH	Office of Environment and Heritage
Operation	Import, storage and distribution of flammable and combustible liquids to the expanded terminal from the marine loading arm and pipeline at the M7 berth, as described in the EIS and RTS
PHA	Preliminary Hazard Analysis prepared by Cockshott Consulting Engineers Pty Ltd, Rev 4 dated 31 August 2016
Pipeline	Fuel delivery pipelines from the M7 berth to the terminal, as shown on Figure 1 in Appendix 1
PNSW	Property NSW
POEO Act	<i>Protection of the Environment Operations Act, 1997</i>
PON	Port of Newcastle
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications, etc.
Reasonable	Reasonable relates to the application of judgment in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements
Remediation	Works carried out in accordance with the CSMP and Remediation Notice

Term	Definition
Remediation Notice	Maintenance of Remediation Notice No. 20142802 issued to PON under Section 28 of the CLM Act dated 20 March 2014
RTS	The Applicant's response to submissions titled <i>Stolthaven Bulk Fuel Terminal – Stage 3 Response to Submissions Report</i> prepared by AECOM dated 1 July 2016, <i>Response to Submissions Addendum</i> , prepared by AECOM dated 19 September 2016 and Memo titled <i>Proposed use of Intermediate Bulk Containers</i> , prepared by AECOM dated 7 October 2016
RMS	NSW Roads and Maritime Services
Secretary	Secretary of the Department of Planning and Environment, or nominee
Sensitive receivers	Residence, education institution (e.g. school, university, TAFE college), health care facility (e.g. nursing home, hospital), religious facility (e.g. church) and children's day care facility
Site	The land referred to in Schedule A and as depicted in Appendix 1. Includes the existing terminal approved under SSD 6664 and the expanded terminal, pipeline and marine loading arm at the M7 berth covered by SSD 7065
Site Air Quality Model	A model developed by PON for the assessment and management of cumulative air emissions from the Mayfield Concept Plan area
Site Auditor	A site auditor accredited by the EPA under the CLM Act
Site Noise Model	A model developed by PON for the assessment and management of cumulative noise from the Mayfield Concept Plan area
SSD 6664	Construction and operation of a bulk fuel storage terminal approved by the then Minister for Planning on 16 April 2015 and as modified by SSD 6664 MOD 1 approved by the Minister on 28 September 2015, and shown in Appendix 4
Terminal	Includes tanks, bunds, truck loading gantries and administration building
Utility	Any infrastructure or service associated with water supply, sewerage, electricity supply, telecommunications or gas supply
VENM	Virgin Excavated Natural Material

**SCHEDULE B
GENERAL ADMINISTRATIVE CONDITIONS**

Obligation to Minimise Harm to the Environment

- B1. In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the Development.

Terms of Consent

- B2. The Applicant shall carry out the Development in accordance with the:
- a) State Significant Development Application SSD 7065;
 - b) EIS and RTS;
 - c) the plans and drawings at Appendix 1; and
 - d) the Management and Mitigation Measures at Appendix 2.
- B3. If there is any inconsistency between the plans and documentation referred to in Condition B2 above, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.
- B4. The Applicant shall comply with any reasonable requirement(s) of the Secretary arising from the Department's assessment of:
- a) any reports, plans or correspondence submitted in accordance with this consent; and
 - b) the implementation of any actions or measures contained in these documents.

Limits of Consent

- B5. This consent lapses five years after the date from which it operates, unless the Development has physically commenced on the land to which the consent applies before the date on which the consent would otherwise lapse under Section 95 of the EP&A Act.
- B6. The Applicant shall not increase the throughput of combustible liquids above 1,300 million litres (ML) per year until SSD 6664 has been surrendered in accordance with Condition B11, and an amended EPL has been issued for the Development. The Applicant shall provide a copy of the amended EPL to the Secretary prior to increasing throughput above 1,300 ML per year.
- B7. Following the receipt of an amended EPL for the Development and the surrender of SSD 6664 in accordance with Condition B11, the Applicant shall:
- a) not receive, store and dispatch more than 3,500ML of flammable and combustible liquids on the Site per year; and
 - b) ensure the storage capacity at the Site does not exceed 355.7 ML of flammable and combustible liquids at any one time.
- B8. The Applicant shall not receive flammable liquids from the M4 berth at any time.
- B9. Following the receipt of an amended EPL for the storage of additives on the Site, the Applicant may receive, store and use additives on Site in Intermediate Bulk Containers (IBCs) as described in the RTS, subject to implementation of the following measures, to the satisfaction of the Secretary:
- a) storage of additives in IBCs within a bund constructed in accordance with *Australian Standard 1940-2004: The storage and handling of flammable and combustible liquids*; and
 - b) implementation of relevant safety procedures for fire safety and protection of personnel as required by Condition C4b).

Note: If an amended EPL is not required for the storage of additives in IBCs on the Site, the Applicant may store and used additives in IBCs on the Site from the date of this consent, subject to satisfactory implementation of Conditions B9a) and B9b) above.

- B10. The Applicant shall not use more than 30,000 litres of additives from IBCs on the Site per year, until the vapour recovery unit is installed and commissioned in accordance with Conditions C15 and C16.

Other Consents and Approvals

- B11. Prior to operation of the Development, or as otherwise agreed with the Secretary, the Applicant shall surrender development consent SSD 6664 for the Site in accordance with the EP&A Regulation.

Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent should not be understood as implying that works legally constructed under a valid consent can no longer be legally maintained or used.

- B12. Prior to the commencement of operation, the Applicant shall provide written evidence to the satisfaction of the Secretary, demonstrating the M7 berth has all relevant approvals and licenses to receive flammable and combustible liquids by ship.
- B13. Nothing in this consent impacts on the following consents/approvals:
- a) PA 12/001 issued under Section 111 of the EP&A Act dated 20 February 2012; and
 - b) DA 293-08-00 as modified issued under Section 80 of the EP&A Act dated 6 April 2001.

Mayfield Concept Plan

- B14. The Applicant shall carry out the Development generally in accordance with the requirements of the Mayfield Concept Plan approval (09_0096), as modified.
- B15. Within six months of the commencement of operation, or as otherwise agreed with the PON, the Applicant shall decommission and remove the existing pipeline connection and associated infrastructure between the Site and the M4 berth, to the satisfaction of the PON. The Applicant shall provide a copy of the approval to undertake the demolition works and provide evidence of completion of the works, to the satisfaction of the Secretary.

Statutory Requirements

- B16. The Applicant shall ensure that all necessary licences, permits and approvals are obtained and kept up-to-date as required throughout the life of the Development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals.

Structural Adequacy

- B17. The Applicant shall ensure new buildings and structures, and alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.
- B18. Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works. Part 8 of the EP&A Regulation sets out the requirements for the certification of the Development.

Protection of Public Infrastructure

- B19. The Applicant shall:
- a) repair, or pay the full costs associated with repairing public infrastructure that is damaged by the Development; and
 - b) relocate, or pay the full costs associated with relocating public infrastructure that needs to be relocated as a result of the Development.

Utilities and Services

- B20. Utilities, services and other infrastructure potentially affected by the construction and operation of the Development shall be identified prior to construction, to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the Development shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Applicant.

Operation of Plant and Equipment

- B21. The Applicant shall ensure plant and equipment used for the Development is:
- a) maintained in a proper and efficient condition; and
 - b) operated in a proper and efficient manner.

Staged Submission of Plans or Programs

- B22. With the approval of the Secretary, the Applicant may:
- a) submit any strategy, plan or program required by this consent on a progressive basis; and/or
 - b) combine any strategy, plan or program required by this consent.

Development Contribution

- B23. Prior to operation of the Development, the Applicant shall pay Council \$228,600 in development contributions.

Note: This contribution is subject to indexation to reflect quarterly variations in the Consumer Price Index All Group Index Number for Sydney, as published by the Australian Bureau of Statistics.

Dispute Resolution

- B24. In the event that a dispute arises between the Applicant and Council, PON or a public authority, in relation to a requirement under this consent, or relevant matter relating to the Development, either party may refer the matter to the Secretary for resolution. The Secretary's determination of the dispute shall be final and binding on the parties.

Compliance

- B25. The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.
- B26. The Applicant shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the Site, including contractors, sub-contractors and visitors.
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SCHEDULE C SPECIFIC ENVIRONMENTAL CONDITIONS

HAZARDS

- C1. The Applicant shall implement:
- a) all control measures proposed in the PHA;
 - b) all relevant actions, as listed in Appendix C of the PHA, in response to the recommendations from the Buncefield incident investigation report; and
 - c) all recommendations of the PHA.
- C2. Prior to completion of detailed design of the Development, or within such further period as the Secretary may agree, the Applicant shall prepare a Surge Study for the Development. The Study shall:
- a) be prepared in consultation with SafeWork NSW;
 - b) consider scenarios including, but not limited to, pump trips and operation of the dry break coupling on marine loading arms;
 - c) take into account the maximum pumping and tank filling rates when evaluating the pressures that can occur in the pipeline in a surge scenario; and
 - d) evaluate the controls such as valve closing times and pressure rating of pipes and related equipment.
- The findings of the Surge Study shall be included in the Final Hazard Analysis required under Condition C4d).
- C3. Prior to finalising the detailed design of the Development, the Applicant shall consult with SafeWork NSW regarding any requirements under the *Work Health and Safety Act 2011* and *Work Health and Safety Regulation 2011*.

Pre-construction

- C4. At least one month prior to the commencement of construction of the Development (except for construction of those preliminary works that are outside the scope of the hazard studies), or within such further period as the Secretary may agree, the Applicant shall prepare and submit for the approval of the Secretary the studies set out under subsections a) to d) (the pre-construction studies). Construction, other than of preliminary works, shall not commence until approval has been given by the Secretary and, with respect to the Fire Safety Study, approval has also been given by Fire and Rescue NSW (FRNSW).
- a) **CONSTRUCTION SAFETY STUDY**
A Construction Safety Study prepared in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 7, 'Construction Safety Study Guidelines'*. For developments in which the construction period exceeds six (6) months, the commissioning portion of the Construction Safety Study may be submitted two months prior to the commencement of commissioning.
 - b) **FIRE SAFETY STUDY**
The Applicant's Fire safety Study (FSS) shall be updated to incorporate any changes due to the Development. This Fire Safety Study shall be prepared with consultation with the FRNSW. 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'*. Any outstanding issues from FRNSW shall be resolved and reported on in the FSS.
 - c) **HAZARD AND OPERABILITY STUDY**
A Hazard and Operability Study (HAZOP) for the Development chaired by an independent qualified person approved by the Secretary prior to the commencement of the study. In addition, the following shall be covered in the HAZOP:
 - surge issues for the various operating scenarios;
 - the ullage (in the tanks) above the high high alarm/emergency shutdown level, taking into account the slow closing time assigned to the emergency shutdown valves by the surge study required under Condition C2 above; and
 - the study shall be carried out in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'*. The study report must be accompanied by a program for the implementation of all recommendations made in the study. Safety related recommendations must be included in the final design of the Development. If the Applicant intends to defer the implementation of a recommendation, justification must be included.

d) **FINAL HAZARD ANALYSIS**

A Final Hazard Analysis of the overall Site, consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'*. The FHA shall report on the implementation of the recommendations of the PHA. The FHA shall:

- demonstrate that the tank overfill protection system (for all tanks) reduces the risk so far as reasonably practicable, and it achieves as a minimum safety integrity level (SIL) 2 rating. A SIL allocation and verification report for the Development shall be undertaken and enclosed in the FHA;
- re-evaluate and confirm all relevant data and assumptions from the PHA, in particular, the outcomes of the surge analysis that may result in changes in the risk assessment and impact on the overall risk from the facility;
- re-evaluate and confirm all control measures proposed for prevention and mitigation of incidents; and
- report on implementation of the recommendations of the PHA.

Pre-commissioning

C5. The Applicant shall develop and implement the plans and systems set out under subsections a) to c). No later than two months prior to the commencement of commissioning of the Development, or within such further period as the Secretary may agree, the Applicant shall submit, for the approval of the Secretary, documentation describing those plans and systems. Commissioning shall not commence until approval has been given by the Secretary.

a) **TRANSPORT OF HAZARDOUS MATERIALS**

Arrangements covering the transport of hazardous materials including details of routes to be used for the movement of vehicles carrying hazardous materials to or from the Site. The routes selected shall be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 11, 'Route Selection'*. Suitable routes identified in the study shall be used except where departures are necessary for local deliveries or emergencies.

b) **EMERGENCY PLAN**

The Applicant's Emergency Plan and detailed emergency procedures shall be updated to incorporate any changes due to the Development. The plan shall include detailed procedures for the safety of all people outside of the Site who may be at risk from the Site. The plan shall be in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 1, 'Industry Emergency Planning Guidelines'*.

c) **SAFETY MANAGEMENT SYSTEM**

The Applicant's Safety Management System shall be updated to include any changes due to the Development. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records shall be kept on Site and shall be available for inspection by the Secretary upon request. The Safety Management System shall be developed in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'*.

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

Pre-startup Compliance Report

C6. One month prior to the commencement of operation of the Development, the Applicant shall submit to the Secretary, a report detailing compliance with Conditions C4 and C5, including:

- a) dates of study/plan/system submission, approval, commencement of construction and commissioning;
- b) actions taken or proposed, to implement the recommendations and safety-related control measures in the studies/plans/systems;
- c) a pre-startup safety review/checklist; and
- d) responses to each requirement imposed by the Secretary under Condition C9 of this Schedule.

Post-startup Compliance Report

C7. Three months after the commencement of operation of the Development, the Applicant shall submit to the Secretary, a report verifying that:

- a) the Emergency Plan required under Condition C5b) is effectively in place and that at least one emergency exercise has been conducted; and

- b) the Safety Management System required under Condition C5c) has been fully implemented and that records required by the system are being kept.

Ongoing

C8. HAZARD AUDIT

Twelve months after the commencement of operation of the Development and every three years thereafter, or at such intervals as the Secretary may agree, the Applicant shall carry out a comprehensive Hazard Audit of the Site and within one month of each audit submit a report to the Secretary.

The audits shall be carried out at the Applicant's expense by a qualified person or team, independent of the Site, approved by the Secretary prior to commencement of each audit. Hazard Audits shall be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines'* (HIPAP No. 5). The audit reports shall, in addition to the requirements provided in HIPAP No 5:

- a) verify implementation of all actions proposed by the Applicant in response to the recommendations from the Buncefield incident investigation report as contained in Appendix C of the PHA;
- b) verify that an inspection, testing and preventative maintenance program has been developed, implemented and maintained to ensure the reliability and availability of key safety critical equipment;
- c) confirm the throughput and storage quantities of potentially hazardous materials are consistent with the PHA; and
- d) verify implementation of any measures arising from the reports submitted in respect of Conditions C1 to C5 of this Schedule.

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

Further Requirements

- C9. The Applicant shall comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the reports submitted in respect of Conditions C1 to C8, within such time as the Secretary may agree.
- C10. The Applicant shall contribute to, in so far as it relates to the Site, preparation of or updates to the following plans and audits for the Mayfield Concept Plan, in consultation with the PON:
- a) the *Mayfield Site Precinct Emergency Management Plan*, February 2016 consistent with the Department's *Hazardous Industry Advisory Paper No. 1 – Emergency Planning*;
 - b) a Safety Management System, consistent with the Department's *Hazardous Industry Advisory Paper No. 9 – Safety Management*; and
 - c) hazard audits, consistent with the Department's *Hazardous Industry Advisory Paper No. 5 – Hazard Audit Guidelines*.

Notes:

- *The intent of the condition is to ensure any cumulative hazard issues across the Mayfield Concept Plan area are identified and managed; and*
- *The relative contribution by the Applicant and timing shall be determined in consultation with the PON, to the satisfaction of the Secretary.*

AIR QUALITY

Air Quality Limits

- C11. The Applicant shall install and operate equipment to ensure the Site complies with all load limits, air quality criteria and air quality monitoring requirements as specified in an EPL for the Site.

Offensive Odour

- C12. The Applicant shall not cause or permit the emission of offensive odours beyond the boundary of the Site, as defined under Section 129 of the POEO Act.

Dust Minimisation

- C13. The Applicant shall carry out all reasonable and feasible measures to minimise dust generated by the Site.

- C14. During construction and operation of the Development, the Applicant shall ensure:

- a) all vehicles on Site do not exceed the designated on Site speed limit;
- b) all loaded vehicles entering or leaving the Site have their loads covered; and
- c) all vehicles leaving the Site are cleaned of dirt, sand and other materials before they leave the Site, to avoid tracking these materials on to public roads.

Vapour Recovery Unit

- C15. The Applicant shall install and commission a vapour recovery unit on the six bay truck loading gantry prior to:
- a) annual throughput of petroleum products exceeding 1,300 ML; or
 - b) bulk storage of any Class 3 Flammable Liquid Dangerous Goods, described in the EIS.
- C16. The vapour recovery unit shall be designed, constructed and operated in accordance with the requirements of the EPL.
- C17. The Applicant shall monitor emissions from the vapour recovery unit stack in accordance with the requirements of the EPL. The monitoring data shall be reported to the PON on a quarterly basis, or in accordance with the monitoring frequency required in the EPL.
- C18. If the results of monitoring show any impact greater than that predicted by the air quality modelling in the EIS, the Applicant shall investigate and implement further air quality mitigation measures as directed by the Secretary or the EPA.

Air Quality Management Plan

- C19. The Applicant shall update the existing Air Quality Management Plan for the Site to include the Development, to the satisfaction of the Secretary. This plan shall:
- a) be approved by the Secretary prior to operation of the Development;
 - b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent and the EPL;
 - c) describe the air quality monitoring to measure the performance of the Development against the conditions of this consent and the EPL; and
 - d) demonstrate the air quality measures for the Development are consistent with the PON's *Mayfield Air Quality Monitoring Plan, October 2015*, or its latest version.

Greenhouse Gas

- C20. The Applicant shall implement all reasonable and feasible measures to minimise energy use on Site and greenhouse gas emissions produced on Site.

Meteorological Monitoring

- C21. The Applicant shall install, operate and maintain a meteorological weather station on the Site that complies with the requirements of an EPL for the Site.

TRAFFIC AND ACCESS

Traffic Movements

- C22. The Applicant shall:
- a) keep accurate records of truck movements including:
 - total hourly truck movements in peak periods;
 - total truck movements per day;
 - total truck movements per annum;
 - the volume of flammable and combustible liquids received, stored and dispatched;
 - b) report these records in the Annual Review; and
 - c) provide these records to PON on a bi-monthly basis.

Access and Parking

- C23. The Applicant shall ensure:
- a) all internal roads and parking (including driveways, grades, lighting, aisle widths, aisle lengths, turning paths, sight distance requirements and parking bay dimensions) associated with the Development are designed and constructed in accordance with the latest versions of the *Australian Standards 2890.1:2004 and 2890.2:2002*;
 - b) internal roads accessed by heavy vehicles are designed to ensure the swept paths of the longest vehicle and maneuverability through the site is in accordance with *AUSTROADS – Guide to Road Design*; and

- c) car, motorbike and bicycle parking spaces are provided on site in accordance with the requirements of the *Newcastle Development Control Plan, 2012*, where relevant.

Operating Conditions

- C24. The Applicant shall ensure:
- all heavy vehicle movements to and from the Site are made in a forward direction; and
 - vehicles associated with the Site do not park or queue on the public road network outside the Mayfield Concept Plan area.

Traffic Management Plan

- C25. The Applicant shall update the existing operational Traffic Management Plan for the Site to include the Development. The plan shall:
- be approved by RMS and the Secretary prior to operation of the Development;
 - be prepared in consultation with PON, PNSW, Council, RMS, adjoining land owners and the local community;
 - detail vehicle routes, access arrangements and coordination with other developments in the Mayfield Concept Plan area;
 - include details of driver training awareness to minimise noise, in particular from reversing alarms and compression braking;
 - detail procedures for assessing the effectiveness of measures to minimise heavy vehicles accessing residential streets;
 - detail procedures for managing operational traffic, including adherence to the *Australian Code for Transport of Dangerous Goods by Road and Rail*, January 1998 or its latest version; and
 - be updated to be consistent with the PON's *Traffic Management Plan, Mayfield Concept Plan, November 2015* or its latest version.

NOISE

Hours of Work

- C26. The Applicant shall comply with the hours of work in Table 1.

Table 1: Hours of Work

Activity	Day	Hours
Construction	Monday – Friday	7am – 6pm
	Saturday	8am – 1pm
	Sunday & Public Holidays	Nil
Operation	Monday – Sunday	24 hours

Construction Noise

- C27. The Applicant shall implement all reasonable and feasible management and mitigation measures to ensure noise generated during construction of the Development does not exceed the construction noise goals in Table 2.

Table 2: Construction Noise Goals dB(A)

Location		LAeq(15min)
R1, R2, R3, R4, R5, R6, R7, R8	Mayfield	53
R9	Carrington	54
R10	Stockton	57
R11	Mayfield East Public School	55

Notes:

- To identify the locations referred to in Table 2, see Appendix 5.
- Construction noise generated by the Development is to be measured in accordance with the EPA's Interim Construction Noise Guideline.

- C28. Construction outside of the hours identified in Condition C26 may be undertaken in the following circumstances:
- works that are inaudible at the nearest sensitive receivers;
 - works agreed to in writing by the Secretary;

- c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or
- d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

Mayfield Concept Plan Site Noise Model

C29. Prior to the commencement of construction of the Development, the Applicant shall provide the *Noise and Vibration Impact Assessment*, prepared by AECOM dated 19 February 2016, including all modelling data, to the PON for the purposes of updating the Site Noise Model.

Operational Noise Limits

C30. The Applicant shall ensure noise from the Site does not exceed the noise limits in Table 3.

Table 3: Noise Limits dB(A)

No.	Location	Day	Evening	Night	Night	Night
		L _{eq(15min)}	L _{eq(15min)}	L _{eq(15min)}	L _{eq(9hr)}	L _{1(1min)}
R1	1 Arthur Street, Mayfield	35	35	35	N/A	45
R2	52 Arthur Street, Mayfield	35	35	35	N/A	48
R3	2 Crebert Street, Mayfield	41	41	41	35	49
R4	21 Crebert Street, Mayfield	40	40	40	35	47
R5	24 Crebert Street, Mayfield	42	42	42	37	51
R6	30 Crebert Street, Mayfield	41	41	41	35	50
R7	50 Crebert Street, Mayfield	35	35	35	N/A	50
R8	2 McNeil Close, Mayfield	35	35	35	N/A	48

Note:

- To identify a noise receiver location, refer to the figure in Appendix 5.
- Noise generated by the Site is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the EPA's NSW Industrial Noise Policy.

C31. The Applicant shall ensure fire pumps on the Site are designed and operated so that noise from routine testing or maintenance is not more than L_{eq(15min)} 53 dB(A) at sensitive receivers. Routine testing or maintenance must only occur during the day time.

Mayfield Concept Plan Noise Quota

- C32. The Applicant shall:
- a) ensure noise from the Site does not exceed the noise quotas provided by the PON in accordance with the Site Noise Model; and
 - b) comply with the directions of the PON in relation to the management of noise from the Site.

Operating Conditions

- C33. The Applicant shall:
- a) implement all reasonable and feasible noise management and mitigation measures to prevent and minimise noise from the Site;
 - b) implement, where possible, a safe system of work so that tonal movement alarms, such as reversing beepers, are not needed on the Site;
 - c) maintain the effectiveness of any noise suppression equipment or plant at all times and ensure defective plant that may generate offensive noise is not used operationally until fully repaired; and
 - d) regularly assess noise monitoring data and relocate, modify and/or stop operations to ensure compliance with the relevant conditions of this consent.

Noise Management Plan

- C34. The Applicant shall update the existing Noise Management Plan for the Site to include the Development. The plan shall:
- a) be prepared by a suitably qualified expert, in accordance with EPA Guidelines;
 - b) be approved by the Secretary prior to operation of the Development;
 - c) describe the measures that would be implemented to ensure compliance with the:
 - i. noise limits in Condition C30; and

- ii. noise quotas provided by PON, to maintain compliance with the noise goals in the Mayfield Concept Plan;
- d) include a procedure for implementing noise mitigation measures, should the Applicant be directed to by the EPA, PON or the Secretary, or should non-compliances be detected; and
- e) include procedures to receive, record and respond to complaints.

Noise Monitoring

- C35. The Applicant shall monitor noise from the Site. The monitoring shall:
- a) be undertaken annually, or to address genuine noise complaints related to the Site as determined by the Secretary, EPA or the PON;
 - b) be undertaken in accordance with the *NSW Industrial Noise Policy* and the *Noise Verification Monitoring Plan, October 2015* or its latest version;
 - c) demonstrate compliance with the noise limits in this consent and the noise quotas provided by PON in accordance with the Mayfield Concept Plan; and
 - d) be reported annually to the Secretary, EPA and the PON.

Note: The monitoring requirements could be satisfied by the monitoring network required for the Mayfield Concept Plan once established.

CONTAMINATION AND REMEDIATION

Statutory Requirements

- C36. The Applicant shall carry out the Development in accordance with the requirements of the:
- a) Remediation Notice; and
 - b) CSMP.
- C37. Prior to commencement of construction, the Applicant shall provide written evidence to the Secretary from the Site Auditor confirming that all construction works associated with the Development meet the requirements of the documents listed in Condition C36 above.
- C38. Prior to commencement of operation, the Applicant shall provide written evidence to the Secretary from the Site Auditor confirming that all works associated with the Development have been constructed in accordance with the requirements of the documents listed in Condition C36 above.

Human Health Risk

- C39. The Applicant shall provide written advice from the Site Auditor confirming that all works associated with the Development would be constructed to address any risk of harm to human health posed by the potential ingress of volatile vapours into buildings and confined spaces.

SOIL AND WATER

Imported Soil

- C40. The Applicant shall:
- a) ensure that only VENM or ENM or other material approved in writing by the EPA or the Site Auditor is used as fill on the Site;
 - b) keep accurate records of the volume and type of fill to be used on Site; and
 - c) make these records available to PON and the Secretary upon request.

Water Licences

- C41. The Applicant is required to obtain the necessary water licences for the Development under the *Water Act 1912* and/or the *Water Management Act 2000*.

Note: Licences are required for groundwater bores, excavations that may intercept groundwater, dewatering activities and extraction or interception of surface water.

Discharge Limits

- C42. The Applicant shall ensure all water discharges from the Site comply with the requirements specified in an EPL for the Site.

Stormwater and Drainage System

- C43. The Applicant shall maintain the stormwater and drainage system for the Site to the satisfaction of PON.

Stormwater and Drainage Management Plan

- C44. The Applicant shall update the existing Stormwater and Drainage Management Plan for the Site to include the Development, to the satisfaction of the Secretary. The plan shall:
- a) be updated prior to operation of the Development;
 - b) be prepared in accordance with OEH's *Managing Urban Stormwater* and other relevant guidelines;
 - c) detail the stormwater infrastructure to be installed for the Development and detail how it integrates with the existing stormwater system on the Site;
 - d) describe the measures to be implemented to maintain this infrastructure over time;
 - e) include a program to monitor stormwater quality and quantity; and
 - f) detail how the stormwater infrastructure integrates and is consistent with the PON's *Concept Stormwater Management Strategy* dated 9 July 2015 or its latest version.

Water Management Plan

- C45. The Applicant shall update the existing Water Management Plan for the Site to include the Development, to the satisfaction of the Secretary. The plan shall:
- a) be updated prior to operation of the Development;
 - b) include procedures for the prevention and management of spills and leaks from the Development, including the terminal, M7 berth and pipeline;
 - c) include a surface water monitoring program to measure the quality and quantity of water discharges from the Site in accordance with an EPL for the Site;
 - d) include a groundwater monitoring program to evaluate the integrity of the surface capping in minimising groundwater contamination and monitor in accordance with the requirements of an EPL for the Site; and
 - e) include a surface and groundwater response plan, including remedial actions and procedures to be followed in the event of an incident.

Bunding and Storage of Liquids

- C46. The Applicant shall store all chemicals, fuels and oils used on the Site in appropriately banded areas in accordance with the requirements of all relevant Australian Standards, and/or the EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Handbook*.
- C47. The Applicant shall ensure all bunds:
- a) have impervious walls and floors;
 - b) are of sufficient capacity to contain 110% of the volume of the tank (or 110% of the volume of the largest tank where a group of tanks are installed);
 - c) have floors graded to a collection sump; and
 - d) do not have a drain valve incorporated in the bund structure, or are constructed and operated in a manner that achieves the same environmental outcome.

Leak Prevention

- C48. The Applicant shall:
- a) conduct annual integrity testing on the petroleum product pipeline extending between the terminal and the M7 berth;
 - b) conduct leak testing of the petroleum products pipeline extending between the terminal and the M7 berth prior to each transfer of product;
 - c) conduct surveillance checks on the pipeline prior to the commencement of and during transfer operations of any petroleum products; and
 - d) maintain a register for all integrity and pressure tests conducted on the pipeline extending between the terminal and the M7 berth.

UTILITIES AND SERVICES

- C49. The Applicant shall update the existing Utilities and Services Plan for the Site to include the Development. The plan must:
- a) be updated prior to operation of the Development;
 - b) be prepared in consultation with relevant utility and service providers and adjacent landowners, where relevant;
 - c) include an implementation schedule which shows how all essential utilities and services are to be provided to the Site;
 - d) provide a copy of all necessary consents from relevant utility and service providers showing that access to these utilities and services is available and secured; and
 - e) include a strategy to integrate all utilities and services with the broader system to be provided by PON for the Mayfield Concept Plan, and be consistent with the *Utilities Infrastructure Plan, July 2015*, or its latest version.

VISUAL AMENITY

Landscaping

- C50. The Applicant shall update the existing Landscape Management Plan for the Site to include the Development, to the satisfaction of the Secretary. The Plan must:
- a) be prepared in consultation with PON and in accordance with the relevant requirements of the *Newcastle Development Control Plan, 2012*;
 - b) be updated and implemented prior to operation of the Development;
 - c) demonstrate the building treatments are of sufficient design quality to minimise the visual impacts of the Site, and include a variety of materials and external finishes;
 - d) illustrate the location, species and mature heights of plants to be established on Site;
 - e) provide for the maintenance of the landscaping on Site; and
 - f) ensure the administration building and landscaping is consistent with the requirements of the PON acknowledging the Site's location at the entrance to the Mayfield Concept Plan area.

Building Materials

- C51. Where possible the Applicant shall utilise building materials that minimise the potential visibility of the Development, including non-reflective materials.

Lighting

- C52. The Applicant shall ensure any lighting associated with the Site:
- a) complies with the latest version of Australian Standard *AS 4282 (INT)-Control of Obtrusive Effects of Outdoor Lighting*, where relevant; and
 - b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.

Signage

- C53. The petroleum product pipeline extending between the terminal and the M7 berth must:
- a) be identified in accordance with Australian Standard *AS1345-2008: Identification of the contents of pipes, conduits and ducts*; and
 - b) include pipe markers including the name of the Applicant and emergency contact details.
- C54. The Applicant shall not install any advertising signs on the Site without consultation with the PON and the written consent of the Secretary.

SITE SECURITY

- C55. The Applicant shall:
- a) install and maintain a perimeter fence and security gates on the Site;
 - b) ensure the security gates on Site are locked whenever the Site is unattended; and
 - c) consult with the PON with regards to minimum fencing specifications.

WASTE

- C56. The Applicant shall ensure any waste generated on the Site is classified in accordance with the EPA's *Waste Classification Guidelines* (DECCW, 2009), or any superseding document and disposed of to a facility that may lawfully accept the waste.
- C57. Waste generated outside the Site shall not be received at the Site for storage, treatment, processing, reprocessing, or disposal on the Site, except as expressly permitted by an EPL, if such a licence is required in relation to that waste.
- C58. The Applicant shall:
- a) implement all reasonable and feasible measures to minimise waste generated on Site; and
 - b) ensure any waste generated on Site is appropriately stored, handled and disposed of.

AVIATION SAFETY

- C59. Prior to the commencement of construction, the Applicant shall provide the Secretary with a copy of all necessary approvals from the Air Base Command Post of RAAF Base Williamstown and the Directorate of External Land Planning within the Defence Support Group of the Department of Defence for the erection of all structures that constitute transient/temporary or permanent obstructions

in accordance with the *Operation of cranes and tall structures in the vicinity of Newcastle Airport* (Department of Defence, 2013).

**SCHEDULE D
ENVIRONMENTAL MANAGEMENT, REPORTING, AUDITING
& COMMUNITY ENGAGEMENT**

ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

- D1. The Applicant shall prepare a Construction Environmental Management Plan (CEMP) for the Development, to the satisfaction of the Secretary. The Plan must:
- a) be approved by the Secretary prior to construction of the Development;
 - b) identify the statutory approvals that apply to the Site;
 - c) outline all environmental management practices and procedures to be followed during construction;
 - d) describe all activities to be undertaken on the Site during construction, including a clear indication of construction stages;
 - e) detail how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts;
 - f) describe the roles and responsibilities for all relevant employees involved in construction works; and
 - g) include the management plans under Condition D2 of this consent.
- D2. As part of the CEMP for the Development, required under Condition D1 of this consent, the Applicant shall include the following:
- a) a soil and water management plan;
 - b) a contaminated materials management plan, prepared in consultation with the PON;
 - c) a traffic management plan;
 - d) a noise and vibration management plan;
 - e) an air quality (dust) management plan;
 - f) a utilities and services provision plan; and
 - g) a waste management plan.
- D3. The Applicant shall carry out construction of the Development in accordance with the CEMP approved by the Secretary (and as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

Environmental Management Strategy

- D4. The Applicant shall update the existing Environmental Management Strategy (EMS) for the Site to include the Development, to the satisfaction of the Secretary. The EMS shall:
- a) be submitted to the Secretary for approval prior to operation of the Development;
 - b) be prepared by a suitably qualified and experienced expert;
 - c) provide the strategic framework for environmental management of the Site;
 - d) identify the statutory requirements that apply to the Site;
 - e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Site;
 - f) describe in general how the environmental performance of the Site would be monitored and managed;
 - g) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the Site;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise in relation to operations at the Site;
 - respond to any non-compliance;
 - manage cumulative impacts;
 - respond to emergencies;
 - h) include the management plans under Condition D5 of this consent; and
 - i) be provided to the PON once approved by the Secretary, including any approved amendments to the EMS.
- D5. As part of the EMS for the Site, required under Condition D4 of this consent, the Applicant shall include the following:
- a) air quality;
 - b) traffic;
 - c) noise;
 - d) stormwater and drainage;
 - e) water;
 - f) utilities and services; and
 - g) landscape.

- D6. The Applicant shall operate the Site in accordance with the EMS approved by the Secretary (and as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.

Management Plan Requirements

- D7. The Applicant shall ensure the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:
- a) detailed baseline data;
 - b) a description of:
 - the relevant statutory requirements (including any relevant consent, licence or lease conditions);
 - any relevant limits or performance measures/criteria; and
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Site or any management measures;
 - c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - d) a program to monitor and report on the:
 - impacts and environmental performance of the Site; and
 - effectiveness of any management measures (see c) above);
 - e) a contingency plan to manage any unpredicted impacts and their consequences;
 - f) a program to investigate and implement ways to improve the environmental performance of the Site over time;
 - g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the relevant limits and/or performance measures / criteria; and
 - h) a protocol for periodic review of the plan.

Revisions to Strategies, Plans and Programs

- D8. Within three months of the submission of an:
- a) audit submitted under Condition D12;
 - b) incident report under Conditions D10 and D11;
 - c) annual review under Condition D9; and/or
 - d) a modification to this consent,

the Applicant shall review, and if necessary, revise the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

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

REPORTING

Annual Review

- D9. By the end of December each year, and annually thereafter, the Applicant shall review the environmental performance of the Site, to the satisfaction of the Secretary. This review must:
- a) be prepared in consultation with PON;
 - b) describe the operations that were carried out in the past year;
 - c) analyse the monitoring results and complaints records of the Site over the past year, including a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - monitoring results of previous years; and
 - predictions in the EIS;
 - d) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - e) identify any trends in the monitoring data;
 - f) identify any discrepancies between the impacts predicted in the EIS and the actual impacts of the Site and analyse the potential cause of any significant discrepancies; and
 - g) describe what measure will be implemented over the next year to improve the environmental performance of the Site.

Incident Reporting

- D10. Upon detecting an exceedance of the limits/performance criteria in this consent or the occurrence of an incident that causes (or may cause) material harm to the environment, the Applicant shall immediately (or as soon as practical thereafter) notify the Secretary, PON and any other relevant agencies of the exceedance/incident.
- D11. Within seven days of the date of the incident, the Applicant shall provide the Secretary, PON and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

INDEPENDENT ENVIRONMENTAL AUDIT

- D12. Within one year of the date of this consent, and every three years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the Site. The audit must:
- a) be carried out by a suitably qualified, experienced and independent audit team whose appointment has been endorsed by the Secretary;
 - b) include consultation with PON;
 - c) assess the environmental performance of the Site, and its effects on the surrounding environment;
 - d) determine whether the Site is complying with the relevant standards, performance measures and statutory requirements, including the Mayfield Concept Plan;
 - e) review the adequacy of the EMS for the Site, compliance with this consent, and any other licences and consents; and, if necessary;
 - f) recommend measures or actions to improve the environmental performance of the Site, and/or any plan/program required under this consent.
- D13. Within three months of commissioning the audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, EPA and PON with a response to all recommendations contained in the audit report.

COMMUNITY CONSULTATION

- D14. The Applicant shall contribute to the Community Communication Strategy required for the Mayfield Concept Plan. The level and timing of the contribution by the Applicant shall be determined in consultation with the PON.

ACCESS TO INFORMATION

- D15. The Applicant shall make the following information publicly available on its website and keep the information up to date:
- a) the EIS;
 - b) current statutory consents for the Site;
 - c) approved strategies, plans and programs;
 - d) a summary of all monitoring data for the Site as required under this consent and the Mayfield Concept Plan;
 - e) a complaints register, updated on an annual basis;
 - f) Annual Reviews, Independent Environmental Audits and the Applicant's response to the recommendations; and
 - g) any other matter required by the Secretary.

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

APPENDIX 1 DEVELOPMENT PLANS



Figure 1: Stolthaven Fuel Storage Terminal, Marine Loading Arm and Pipeline

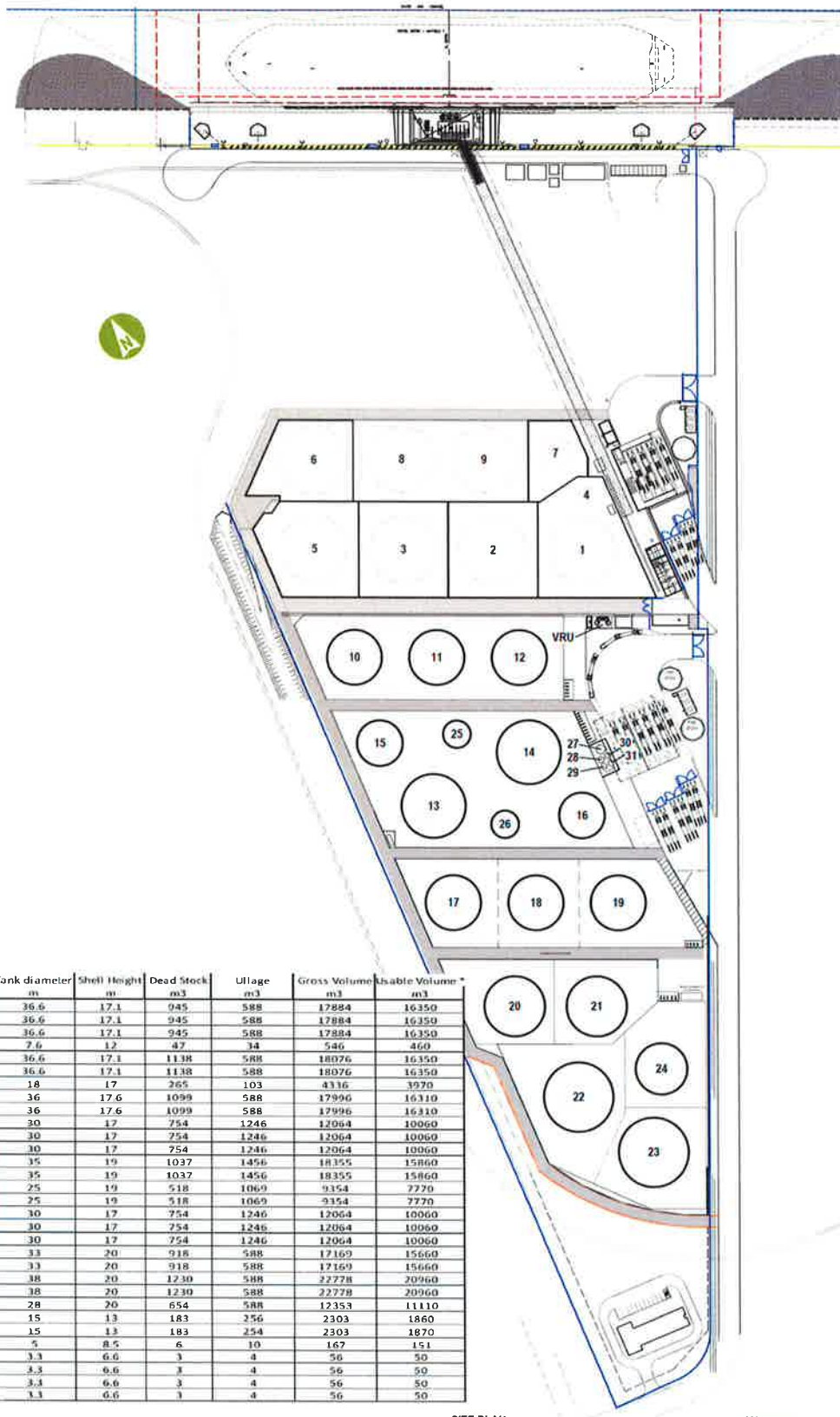


Figure 2: Storage Tank Schedule