



Mayfield Facility Independent Environmental Audit

Prepared for:
Stolthaven Australasia Pty Ltd

Prepared by:
ENVIRON Australia Pty Ltd

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Acronyms and Abbreviations

EA	Environmental Assessment
EIS	Environmental Impact Statement
CEMP	Construction Environmental Management Plan
CSMP	Contaminated Soil Management Plan
EMP	Environmental Management Plan
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	Environment Protection Authority
EPL	Environment Protection Licence
HDC	Hunter Development Corporation
NCC	Newcastle City Council
NOW	NSW Office of Water
NPC	Newcastle Port Corporation (now Port of Newcastle)
OEMP	Operational Environmental Management Plan
PON	Port of Newcastle
VRA	Voluntary Remediation Agreement
RAP	Remedial Action Plan

Executive Summary

ENVIRON Australia Ltd (ENVIRON) has been engaged by Stolthaven Australasia Pty Ltd (Stolthaven) to conduct an Independent Environmental Audit ('Audit') of the Stolthaven Fuel Storage Facility (the facility) at Steelworks Road, Mayfield, New South Wales (NSW). The Audit is required under Condition 10 (Schedule 5) of the Project Approval, as issued and administered by the NSW Department of Planning and Environment for the facility.

The facility is required to conduct its operations in accordance with the Project Approval (08_0130) issued by the NSW Department of Planning and Infrastructure (now the Department of Planning and Environment) on 8 June 2012 (as modified), under Section 75J of the NSW *Environmental Planning and Assessment Act 1979*. The Project Approval conditions address various environmental matters including the conduct of an Independent Environmental Audit.

ENVIRON undertook a facility visit on 16 December 2014. During site visits, ENVIRON observed the operations, interviewed personnel and reviewed on-site records. A follow up meeting with Stolthaven personnel was held on 21 January 2015. This audit report contains the detailed findings in **Tables 3 and 4**.

ENVIRON audit observations and interviews with site representatives demonstrated that the existing environmental management system elements are considered to substantially address the Project Approval (construction and/or operation) requirements. Procedures were observed to be implemented which manage potential impacts on the environment from the facility. ENVIRON has identified non-conformance with 17 Project Approval and Environment Protection Licence conditions which have are described in further detail within **Table 2** of this report.

1 Introduction

ENVIRON Australia Ltd (ENVIRON) has been engaged by Stolthaven Australasia Pty Ltd (Stolthaven) to conduct an Independent Environmental Audit ('Audit') of the Stolthaven Fuel Storage Facility (the facility) at Steelworks Road, Mayfield, New South Wales (NSW). The Audit is required under Condition 10 (Schedule 5) of the Project Approval, as issued and administered by the NSW Department of Planning and Environment for the facility.

The site is identified as Part of Lot 33 in Deposited Plan 1116571.

2 Scope of Work

The Audit was conducted at the facility to review the site activities; the management of potential impacts upon the environment from these activities; and to confirm compliance against:

- The Conditions of Project Approval (Schedule 3 – General Administrative Conditions; Schedule 4 - Specific Environmental Conditions; and, Schedule 5 – Environmental Management, Auditing and Reporting); and
- The site's Environment Protection Licence (No. 20193), issued by the NSW Environment Protection Authority (EPA).

In accordance with Condition 10 (Schedule 5) of the Project Approval, the Audit has included:

- Consultation with EPA and Port of Newcastle (formerly Newcastle Port Corporation, the landowner).
- Assessment of the environmental performance of the Project, and its effects on the surrounding environment.
- Determination as to whether the Project is complying with the relevant standards, performance measures, and statutory requirements.
- A review of the adequacy of the Environmental Management Strategy for the Project; compliance with the requirements of this approval, and any other licenses and approvals; and if necessary:
- Recommendation of measures or actions to improve the environmental performance of the Project, and/or any plan/program required under this approval.

Within three months of commissioning the audit, or as otherwise agreed by the Director-General, the audit report is to be submitted by Stolthaven to both the EPA and the Department of Planning and Environment with Stolthaven's response to any recommendations contained in the audit report.

Audit tasks were undertaken are outlined in the following.

2.1 Task 1 – Data Collection and Desktop Review

ENVIRON conducted a desktop review of relevant site documentation prior to and following the site visit. The following documents (and the relevant condition in the approval documents) were reviewed as part of the audit:

Document	Relevant Condition
Project Approval	
Project Approval for Application No 08_0130 (as modified by Modifications 1, 2 and 3)	NA
Payment Detail Report (Section 94A Contribution payment)	Condition 14, Schedule 3
Letter: Project Approval 08_0130 - Pre-Construction Compliance (AECOM to Department of Planning and Infrastructure, 30 July 2012)	Condition 4, Schedule 5

Table 1: Documents Reviewed for the Environmental Audit	
Document	Relevant Condition
Letter: Soil Vapour Investigation for the proposed Bulk Fuel Storage Facility, located within the Mayfield Terminal, Newcastle, NSW (AECOM to Stolthaven dated 10 July 2013)	Condition 4, Schedule 4
Operational Noise and Vibration Management Plan: Bulk Liquid Storage Terminal, Mayfield NSW (AECOM, 2013)	Condition 28, Schedule 4
Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent) (AECOM, 2014)	Condition 25, Schedule 4
Schedule 4 - Specific Environmental Conditions - Compliance Requirements (spreadsheet)	Various, Schedule 4
Letter: Approval of Construction Certificate for Bulk Liquids Storage Facility (BPK Building Approvals to Stolthaven dated 29 April 2013)	Condition 8, Schedule 3
Company SSHEQ Policy, 4 August 2014	Condition 1, Schedule 5
Letter: Stolthaven Liquid Fuel Storage Facility (08_0130 MOD 1) Commencement of Operation (Department of Planning and Environment to Stolthaven dated 5 June 2014)	Condition 8, Schedule 3 Condition 3, Schedule 4 Conditions 18 and 19, Schedule 4 Condition 28, Schedule 4 Condition 1, Schedule 5 Conditions 10 and 11, Schedule 4 Condition 5, Schedule 5
Stolthaven Newcastle Mayfield Terminal Operational Environmental Management Plan (27 May 2014)	Condition 1, Schedule 5
Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility: Q1 – February 2014(AECOM, March 2014)	Condition 11, Schedule 4
Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility: Q2 - May 2014 (AECOM, June 2014)	Condition 11, Schedule 4
Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility: Q3 - August 2014 (AECOM, September 2014)	Condition 11, Schedule 4
Letter: Review Soil Vapour Investigations, AECOM (July 2013) (ENVIRON Australia (as EPA Accredited Auditor) to Stolthaven dated 6 August 2013)	Condition 4, Schedule 4
Letter: Marstel Liquid Fuel Storage Facility (08_0130) Commencement of Construction Stage 1	Condition 13 Schedule 3 Condition 2, Schedule 4 Condition 13, Schedule 4 Condition 18, Schedule 4 Condition 3, Schedule 5 Conditions 10, 11, 16, 34 and 35, Schedule 4
Letter: Stolthaven Liquid Fuel Storage Facility (08_0130 MOD 1) Approval of Post-Approval Documentation	Condition 13 Schedule 3 Condition 2, Schedule 4 Condition 18, Schedule 4 Condition 3, Schedule 5
Emergency Response Plan: Stolthaven Terminals Newcastle Lot 2 Steelworks Road Mayfield.	Condition 18, Schedule 4
Email: Newcastle Statistics (truck movements in and to October 2014)	Condition 12, Schedule 4
NSW Office of Water Bore Licence Certificates	Condition 6, Schedule 4

Table 1: Documents Reviewed for the Environmental Audit	
Document	Relevant Condition
Letter: Final Occupation Certificate No 2013/063 for Bulk Liquids Storage Facility at Lot 33 DP 1116571 (Off Selwyn Street) Mayfield (BPK Building Approvals to Stolthaven dated 6 June 2014)	Condition 8, Schedule 3
Letter: Stolthaven Newcastle Bulk Fuels Terminal (Design Compliance Statement (Project wide), Design Certificate (Office and Switchroom) and Design Certificate (Workshop). Aurecon to Stolthaven dated 20 September 2013	Condition 8, Schedule 3
Letter: Stolthaven Newcastle Bulk Fuels Terminal Stage 1A Expansion Design Compliance Statement. Aurecon to Stolthaven dated 14 May 2014	Condition 8, Schedule 3
Letter: Stolthaven Newcastle Bulk Fuels Terminal Stage 1A Expansion (Design Certificate). Aurecon to Stolthaven dated 23 May 2014	Condition 8, Schedule 3
Letter: Newcastle Terminal Stage 1 Civil Works (Roads and Parking). Aurecon to Stolthaven dated 11 September 201	Condition 17, Schedule 4
OneSteel Mayfield Site: Stolthaven Access Via Steelworks Road Induction (OneSteel PowerPoint presentation) dated September 2013	Condition 15, Schedule 4
Utilities And Services Plan Stolthaven (Australia) Pty Ltd Bulk Liquids Terminal – Mayfield Site, Newcastle Stolthaven, dated September 2013)	Condition 21, Schedule 4
Stolthaven Terminals Newcastle: Landscape Management Plan (Stolthaven, undated).	Condition 36, Schedule 4
Letter: Minister’s Project Approval 08_0130 for Proposed Bulk Liquids Fuel Storage Facility at Mayfield (interim Occupation Certificate) (BPK Building Approvals to Stolthaven dated 13 November 2013)	Condition 8, Schedule 3
Letter: Stolthaven Liquid Fuel Storage Facility (08_0130 MOD 1) Commencement of Operation (Department of Planning and Environment to Stolthaven dated 15 November 2013)	Condition 16, Schedule 4 Condition 21, Schedule 4 Condition 28, Schedule 4 Condition 34, Schedule 4 Condition 35, Schedule 4 Condition 36, Schedule 4 Condition 1, Schedule 5 Conditions 10 and 11, Schedule 4
Annual Review: Stolthaven Bulk Fuel Storage Facility (AECOM, December 2014)	Condition 9, Schedule 5
Current Tank Inventory Report (Printed 17 December 2014)	Condition 5, Schedule 3
Transaction Details Report (16 to 18 December 2014)	Condition 5, Schedule 3 Condition 12, Schedule 4
Stormwater Collection (and analysis results) Records	Condition 11, Schedule 4
Stolthaven Terminals Newcastle: Traffic Management Plan Lot 2 Steelworks Road Mayfield (Stolthaven 2013)	Condition 16, Schedule 4
Work as Executed Drawing (Stage 1 Site Layout) 22 October 2013 (Aurecon)	Condition 5, Schedule 5

Table 1: Documents Reviewed for the Environmental Audit	
Document	Relevant Condition
Truck Movements and Fuel Reveal and Output Volumes for the Week 5 to 11 December 2014.	Condition 5, Schedule 3 Condition 12, Schedule 4
Waste Disposal Records	Condition 40, Schedule 4
Environment Protection Licence	
Letter: EPL 20193 – Notification of intention to store petroleum products (Stolthaven to the EPA, 25 October 2013) Drawing No L005	Special Condition E1.1
Waste Disposal Records	Conditions O6.1 – O6.4
Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility: Q1 – February 2014(AECOM, March 2014)	Conditions L3.1 – L3.3 Conditions M1 – M3
Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility: Q2 - May 2014 (AECOM, June 2014)	Conditions L3.1 – L3.3 Conditions M1 – M3
Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility: Q3 - August 2014 (AECOM, September 2014)	Conditions L3.1 – L3.3 Conditions M1 – M3

2.2 Task 2 – Develop Audit Visit Plan

A comprehensive audit checklist was developed to facilitate ENVIRON's on-site interviews and inspection for the assessment of compliance. **Table 4** (Conditions of Project Approval) and **Table 5** (Environment Protection Licence conditions) are the completed audit checklists.

2.3 Task 3 – Site Visit

ENVIRON (Shaun Taylor as Lead Auditor) undertook a site visit on 16 December 2014. ENVIRON audit personnel comprised. Curricula vitae for the audit team are provided in **Appendix A**.

The following facility representatives were interviewed during the course of the audit and assisted the ENVIRON auditors by providing access to records, procedures and the facility:

- Will Struthers (Australasian HSE, Quality Compliance and Regulatory Manager).
- Ryan Duckmanton (Site Manager).
- Liam Buxton (Site Engineer).
- Michael Frost (General Manager).

A follow up meeting with Stolthaven personnel was held on 21 January 2015. This was to discuss the initial findings of the audit and to seek clarification of any outstanding issues.

2.4 Task 4 – Prepare Audit Report

Information gathered throughout the audit process was reviewed, evaluated and collated in this audit report. The report contains a summary of the findings in **Section 3** and **Section 4**, and the detailed findings of compliance are presented in a tabular format in **Table 3** and **Table 4** (refer to the Audit Tables section of this report). A draft report was provided to Stolthaven to review for factual accuracy.

2.5 Audit Consultation

As required by Condition 10 (Schedule 5) of the Project Approval, the audit included consultation with the Environment Protection Authority (EPA) and the Port of Newcastle (formerly Newcastle Port Corporation (NPC)). The outcome of this consultation is discussed in **Section 3.4**.

3 Findings

3.1 Environmental Management Findings

ENVIRON audit observations and interviews with site representatives demonstrated that the existing environmental management system elements are considered to substantially address the Project Approval and Environment Protection Licence requirements.

Procedures were observed to be implemented which manage potential impacts on the environment from the facility. The facility appeared to be well maintained and there was no evidence of issues of environmental concern.

However, ENVIRON notes that non-conformance with the Project Approval and Environment Protection Licence conditions were identified. These, and the ENVIRON recommendations and the proponent's agreed actions and timeframes, are described in **Table 2**.

3.2 Project Approval

The facility is required to conduct its operations in accordance with the Project Approval (08_0130) issued by the NSW Department of Planning and Infrastructure (now the Department of Planning and Environment) on 8 June 2012 (as modified), under Section 75J of the NSW *Environmental Planning and Assessment Act 1979*. The Project Approval conditions address various environmental matters including the conduct of an Independent Environmental Audit. This audit report contains the detailed findings in **Table 3**.

ENVIRON's review of project documentation, audit observations and interviews with site representatives demonstrated the project has to date been substantially conducted in accordance with the terms of this approval. However non-conformances have been identified and are listed in **Table 2**. These primarily relate to the preparation and submission of documentation as required by the Project Approval.

The key non-conformances are:

- The facility has exceeded the permitted annual diesel and biodiesel throughput levels.
- A Compliance Tracking Program has not been developed and implemented, and therefore has not been submitted to the Department of Planning and Environment as required.

ENVIRON findings and recommendations are documented within **Table 3** of this report.

3.3 Environmental Protection Licence

The facility operates under an Environment Protection Licence, issued by the EPA.

ENVIRON's review of project documentation, audit observations and interviews with site representatives demonstrated the project has to date been substantially conducted in accordance with the terms of this approval. However non-conformances have been identified and are listed in **Table 2**.

The key non-conformances are:

- As per the Project Approval, the facility has exceeded the permitted annual diesel and biodiesel throughput levels.
- Noise monitoring has not been undertaken as required by the licence.
- Reports and notifications have not been submitted to the EPA within the required timeframes.

ENVIRON findings and recommendations are documented within **Table 4** of this report.

Stolthaven advised that they (Stolthaven's Australasian HSE, Quality Compliance and Regulatory Manager, and their specialist consultants) attended a meeting with the EPA (Newcastle Office) on 21 January 2015 to discuss conditions of the Environment Protection Licence where compliance has not been achieved and how these can be addressed.

3.4 Consultation Feedback

As required by Clause 9(a), Schedule 5, the independent environmental audit is to be prepared in consultation with the Port of Newcastle and the EPA.

Port of Newcastle

A telephone conversation on 15 December 2014 and subsequent email communication (email received 13 January 2015) with the Port of Newcastle identified the following observations:

- Port of Newcastle does regularly meet with Stolthaven on various issues.
- Part of the current application by Stolthaven is to rescind the existing approval, and Port of Newcastle wants the requirement for consultation reflected by a condition in any new approval (as it is required in the approval of Modification No. 3 of MP 08_130).
- Port of Newcastle requested the Planning Approval to include a condition requiring Stolthaven to consult with Port of Newcastle in undertaking the audit. This was to assess Stolthaven's compliance with the Mayfield Concept Plan and the provision of associated monitoring data.
- As such, Port of Newcastle would like to receive operational phase information from Stolthaven, particularly:
 - Groundwater.
 - Noise.
 - Traffic.
 - Air quality.
- Port of Newcastle recommends:
 - Stolthaven consult with Port of Newcastle for the development of an Operational Consultation Program to outline what information is to be exchanged, how and how often. This should reflect the requirements of the Project Approval, and Port of Newcastle requests a minimum of a quarterly basis.

- That Stolthaven ensure that the air quality and noise reports reflect the output information requirements for the Mayfield Concept Plan.

Environment Protection Authority

An email was issued to the Environment Protection Authority on 9 January 2015 requesting to discuss the audit, with a follow up email issued on 2 February 2015.

In an email received 3 February 2015 the Environment Protection Authority advised that as the audit is against the Project Approval the EPA does not have a role in this matter.

The email noted that Stolthaven are required to report non compliances against their Environment Protection Licence in the respective Annual Return. Annual Return non-compliances are detailed on the POEO Public Register once the EPA has reviewed and finalised the Annual Return.

4 Recommendations

Table 2 identifies those conditions of the Project Approval and Environment Protection Licence where non-conformance was identified, and recommends improvement actions, and a timeframe for completion.

In addition to the actions listed in **Table 2** to address non-conformances, the following actions are recommended to further enhance Stolthaven's environmental performance and compliance.

- As required by Condition M7.2 of the Environment Protection Licence, the telephone complaints line is displayed at the front gate of the facility. While the telephone number is displayed at the entry to the facility, it would be difficult for members of the community to view this as vehicles are required to pass through the OneSteel security gate to access the facility.

It is recommended the number also be displayed on the Stolthaven Mayfield facility website.

- As requested by Port of Newcastle, Stolthaven should consult with Port of Newcastle for the development of an Operational Consultation Program to outline what information is to be exchanged, how and how often (Port of Newcastle requests a minimum of a quarterly basis).

Table 2: Recommended Improvement Actions and Timeframes			
Condition	Non-Conformance Issue	Recommended Actions	Recommended Timeframe
Project Approval			
Condition 2, Schedule 2	<p>This condition identifies the documents which the facility must be constructed and operated in accordance with. This includes the Environmental Assessment, the Project Layout Plan, the modification applications, the Statement of Commitments, and the Project Approval.</p> <p>Non-compliances were identified. As such the Project has not been carried out in accordance with the listed documents.</p>	Completion of the recommended actions listed below	Refer to timeframes for the actions listed below.
Condition 5, Schedule 3	<p>The condition states that Stolthaven shall not receive, store and dispatch more than 500 million litres of diesel and biodiesel a year.</p> <p>Stolthaven advised throughput for their Environment Protection Licence Annual Report period (12 October 2013 to 11 October 2014) was 760 million litres of diesel and biodiesel.</p>	<p>Stolthaven has acknowledged that an increased throughput forms part of the current development application and Environmental Impact Statement for additional development at the facility. However this does not address the existing exceedance and likely exceedences prior to any approval being granted, and the likely actions required by a Project Approval to allow this to occur.</p> <p>In the event that Stolthaven wishes to continue operating with a throughput greater than that permitted in the Project Approval, Stolthaven is to immediately consult with the Department of Planning and Environment to determine the process to be implemented.</p>	Commence negotiations in February 2015

Table 2: Recommended Improvement Actions and Timeframes			
Condition	Non-Conformance Issue	Recommended Actions	Recommended Timeframe
Condition 12, Schedule 4	<p>This condition identifies the categories of truck movement data that Stolthaven must collect. It also requires this data to be made available in the Annual Review, and provided bi-monthly to PON.</p> <p>Stolthaven records the required truck movement data. However all the required data is not presented in the Annual Review, and it has not been provided on a bi-monthly basis to PON as required.</p>	The Annual Review is to be reviewed with reference to the requirements of this condition.	February 2015
		The required data is to be provided to PON as required.	February 2015 and bi-monthly ongoing
Condition 23, Schedule 4	<p>The condition requires Stolthaven to ensure that operational noise generated by the facility does not exceed the criteria in Table 2 presented in the condition.</p> <p><i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) was prepared in accordance with Condition 25, Schedule 4. It found that it was not possible to directly measure the impact of noise attributable to the facility due to the influence from other noise sources, such as noise from other industrial areas and traffic noise on Industrial Drive.</p> <p>The compliance assessment was therefore carried out with SoundPLAN noise modelling software, using the results of on-site attended noise measurements undertaken on 28 July 2014. The modelling predicted that day, evening and night reasonable 'worst' case 15-minute intrusive scenarios at two locations (2 and 21 Crebert Street) would exceed the $L_{Aeq\ 15\text{-minute}}$ intrusive scenarios.</p> <p>While the assessment concluded that the exceedances are not considered significant, they represent an exceedance of the criteria and non-</p>	<p>The report concluded that while exceedences were predicted, the noise impacts: are significantly below the background noise level; comply with the derived criteria in accordance with the EPA <i>Industrial Noise Policy</i>; comply during neutral meteorological conditions; and no noise complaints have been received regarding the facility operations.</p> <p>Stolthaven should consult with the Department of Planning and Environment and the EPA to discuss these findings, and whether modification to the condition is appropriate.</p>	Commence negotiations in February 2015

Table 2: Recommended Improvement Actions and Timeframes			
Condition	Non-Conformance Issue	Recommended Actions	Recommended Timeframe
	compliance with the condition.		
Condition 24, Schedule 4	<p>The condition requires Stolthaven to ensure that operational noise generated by the Project does not exceed the sound power limits in Table 3 (which forms part of the condition) or the maximum sound power levels required by the Mayfield Concept Plan, whichever is the lesser.</p> <p>The <i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) acknowledges the Mayfield Concept Plan cumulative amenity noise quota, and that it is yet to be developed. However it does not undertake an assessment against the sound power limits in Table 3 of this condition.</p>	In the absence of the Mayfield Concept Plan cumulative amenity noise quota, the <i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) should include an assessment against the sound power limits in Table 3 of this condition.	Commence in February 2015.
Condition 25, Schedule 4	As above	Refer to above	Refer to above
Condition 6, Schedule 5	<p>This condition requires Stolthaven to develop and implement a Compliance Tracking Program to assess compliance against the Project Approval. The Program is to be submitted to the Department of Planning and Environment every three months or as requested.</p> <p>Stolthaven has advised that a Compliance Tracking Program has not been developed and implemented, and that the program has therefore not been submitted to the Department of Planning and Environment as required.</p>	<p>Stolthaven should immediately develop a Compliance Tracking Program. This would have a similar structure to Tables 3 and 4, noting as relevant where conditions have been met (and no longer requiring action), and the status of those conditions requiring ongoing implementation and monitoring. This should be developed in consultation with the Department of Planning and Environment.</p> <p>This should be undertaken as soon as possible.</p>	Commence in February 2015

Table 2: Recommended Improvement Actions and Timeframes			
Condition	Non-Conformance Issue	Recommended Actions	Recommended Timeframe
Condition 13, Schedule 5	<p>This condition identifies the documents that are to be made publicly available on the Stolthaven website.</p> <p>While a number of documents are present, the Stolthaven Mayfield facility website does not include all required documents.</p>	<p>All relevant documents are to be uploaded to the Stolthaven Mayfield facility website. This includes:</p> <ul style="list-style-type: none"> • The modification approvals. • A summary of monitoring results. • The current version of the Operational Environmental Management Plan. 	March 2015
Environment Protection Licence			
A1.2	<p>This condition defines the fee based activities as:</p> <ul style="list-style-type: none"> • Petroleum products storage: > 100,000KL stored • Shipping in bulk: >100,000 – 500,000 T loaded and unloaded <p>Stolthaven advised throughput for their Environment Protection Licence Annual Report period (12 October 2013 to 11 October 2014) was 760 million litres of diesel and biodiesel. This exceeds the permitted “Shipping in bulk: >100,000 – 500,000 T loaded and unloaded” fee based activity limit</p>	<p>Stolthaven has acknowledged that an increased throughput forms part of the current development application and Environmental Impact Statement for additional development at the facility. However this does not address the existing exceedance and likely exceedences prior to any approval being granted (and subsequent variation to the Environment Protection Licence), and the likely actions required by a Project Approval to allow this to occur.</p> <p>In the event that Stolthaven wishes to continue operating with a throughput greater than that permitted in the Environment Protection Licence, Stolthaven is to immediately consult with the EPA for a variation to the licence.</p> <p>Stolthaven advised that they attended a meeting with the EPA (Newcastle Office) on 21 January 2015 to discuss this and other conditions of the Environment Protection Licence where compliance has not been achieved. .</p>	Commenced negotiations in January 2015
A1.4	<p>Stolthaven advised throughput for their Environment Protection Licence Annual Report period (12 October 2013 to 11 October 2014) was 760 million litres of diesel and biodiesel. This exceeds the permitted</p>	As above.	Commenced negotiations in January 2015

Table 2: Recommended Improvement Actions and Timeframes			
Condition	Non-Conformance Issue	Recommended Actions	Recommended Timeframe
	volume of 500 million litres of diesel and biodiesel.		
A3.1	<p>This condition states that works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>As there has been non-compliances with conditions of this environment protection licence, this condition has also not been complied with.</p>	As above.	Commenced negotiations in January 2015
O6.4	<p>The condition requires all wastewater generated on the premises to be pumped out at least weekly.</p> <p>This has only been achieved during some short time periods for the emptying of septic tanks</p>	<p>From 27 May 2014 to 28 October 2014 the septic tank was emptied at intervals of between 4 and 19 days. However, as of 28 October 2014 Stolthaven has commissioned a contractor to empty the septic tank on a weekly basis.</p> <p>The non-conformance has been addressed. NO further action is required.</p>	NA
M9.1.	<p>This condition defines the locations, times and durations that noise monitoring must be undertaken.</p> <p>The attended noise monitoring was not undertaken in accordance with the requirements of Conditions M9.1(a) it was only undertaken at four of the ten nominated (locations), M.9.1(c) (monitoring was not undertaken during all of the nominated periods) and M9.1 (d) (the duration of monitoring was less than required).</p>	<p>The <i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) did not comply with the monitoring methodology requirements of this condition (the assessment was based on modelled noise from the facility at the nominated locations at the required time periods).</p> <p>If Stolthaven or its specialists believe that the methodology requirements in this condition are not appropriate, consultation should be immediately undertaken with the EPA on this issue and an agreed strategy developed.</p>	Commence in February 2015

Table 2: Recommended Improvement Actions and Timeframes			
Condition	Non-Conformance Issue	Recommended Actions	Recommended Timeframe
R1.5	<p>This condition requires the Annual Return to be supplied to the EPA not later than 60 days after the end of each reporting period.</p> <p>The EPA website identifies the end date for the Annual Return reporting period was 10 October 2014, and that the Annual Return was received 5 January 2015. This is beyond the 60 days required by this condition.</p>	<p>The Compliance Tracking Program (refer to recommended action for Condition 6, Schedule 5 of the Project Approval) should include a required commencement date for the Annual Return so that it is prepared and submitted to the EPA within the required timeframe.</p>	Commence in February 2015
R1.6	<p>This condition defines the notification process if a licensee will be unable to complete the Annual Return by the due date.</p> <p>Stolthaven did not notify the EPA of the delay in supplying the Annual Return in accordance with the condition.</p>	Refer to Condition R1.5.	Commence in February 2015
E1.1	<p>The condition requires the licensee to notify the EPA no later than 30 days prior to first receiving petroleum products for storage at the premises. The letter was issued to the EPA on 25 October 2013. The letter advised that the facility would be receiving and storing petroleum products from 14 November 2013.</p>	Due to the nature of the non-conformance no remedial action can be undertaken	NA

5 Limitations

ENVIRON Australia prepared this report in accordance with the scope of work as outlined in our proposal to Stolthaven Australasia Pty Ltd dated 24 November 2014 and in accordance with our understanding and interpretation of current regulatory standards.

Site conditions may change over time. This report is based on conditions encountered at the site at the time of the report and ENVIRON disclaims responsibility for any changes that may have occurred after this time.

The conclusions presented in this report represent ENVIRON's professional judgment based on information made available during the course of this assignment and are true and correct to the best of ENVIRON's knowledge as at the date of the assessment.

ENVIRON did not independently verify all of the written or oral information provided to ENVIRON during the course of this investigation. While ENVIRON has no reason to doubt the accuracy of the information provided to it, the report is complete and accurate only to the extent that the information provided to ENVIRON was itself complete and accurate.

This report does not purport to give legal advice. This advice can only be given by qualified legal advisors.

5.1 User Reliance

This report has been prepared exclusively for Stolthaven Australasia Pty Ltd and may not be relied upon by any other person or entity without ENVIRON's express written permission.

Audit Tables

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Schedule 3: General Administrative Conditions					
Obligation to Minimise Harm to the Environment					
1	The Proponent must implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or decommissioning of the Project.	Yes			The management plans and procedures described in this table describe how Stolthaven implements measures to prevent and/or minimise any harm to the environment.
Terms of Approval					
2	2. The Proponent must carry out the Project generally in accordance with the: a) EA; b) project layout plan as modified by MP 08_0130 MOD 1; c) modification application MP 08_0130 MOD 1; d) modification application MP 08_0130 MOD 2; e) modification application MP 08_0130 MOD 3; f) Statement of Commitments; and g) conditions of this approval.		No		This independent audit reviews the performance of Stolthaven against these documents. Non-compliances were identified. These are noted in this table and listed in Section 3.1 of this report.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.			NA	
4.	The Proponent must comply with all reasonable requirements of the Director-General arising from the Department's assessment of: a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and b) the implementation of any actions or measures contained in these documents.	Yes			This independent audit reviews the performance of Stolthaven against these documents.
Limits on Approval					
5.	The Proponent shall not receive, store and dispatch more than 500 million litres of diesel and biodiesel a year.		No		Stolthaven advised throughput for their Environment Protection Licence Annual Report period (12 October 2013 to 11 October 2014) was 760 million litres of diesel and biodiesel. Stolthaven advised that an Environmental Impact Statement has been prepared and submitted to the Department of Planning and Environment, proposing an increase to the capacity of the facility

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Statutory Requirements					
6.	The Proponent must ensure that all necessary licences, permits and approvals are obtained and kept up-to-date as required throughout the life of the Project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals.	Yes			In addition to the Project Approval, Stolthaven operates in accordance with the following: <ul style="list-style-type: none"> • Environment Protection Licence (No. 20193). • Groundwater Licence (for the groundwater monitoring wells). Compliance with these licences is considered in this audit.
Surrender of Existing Development Consents					
7.	Nothing in this approval will impact on the following consents/approvals: <p>a) PA 12/001 issued under Section 111 of the EP&A Act dated 20 February 2012;</p> <p>b) DA 293-08-00 as modified issued under Section 80 of the EP&A Act dated 6 April 2001; and</p> <p>c) any other consents or approvals issued under the EP&A Act..</p>	Yes			Noted.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Structural Adequacy					
8.	The Proponent must ensure that any new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	Yes			A letter from the Department of Planning and Infrastructure dated 5 June 2013 noted receipt of the Design Compliance Statement and the Structural Construction Certificate, and that these documents meet the requirements of this condition.
Protection of Public infrastructure					
9.	The Proponent must: a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the Project; and b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the Project.			NA	No such issues have arisen.
Utilities					
10.	Prior to the construction of any utility works, the Proponent must obtain relevant approvals from service providers.	Yes			Port of Newcastle (PON) is responsible for management of the utilities servicing the facility. The Utilities and Services Plan was prepared in consultation with PON (as Newcastle Port Corporation, NPC).

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Operation of Plant and Equipment					
11.	The Proponent must ensure that any plant and equipment used on site, or in connection with the Project is: a) maintained in a proper and efficient condition; and b) operated in a proper and efficient manner.	Yes			Stolthaven maintains a plant and equipment maintenance register. This includes an electronic database (Excel spreadsheet), and a hard copy (viewed on site). The register identifies the equipment and machinery, the required inspection and maintenance regime, and records of the completed inspections and maintenance. Inspections (and maintenance if required) of the scheduled equipment are undertaken on a monthly basis. The hard copy is completed when personnel undertake the inspections and any maintenance, which is transferred to the electronic database.
12.	No Condition 12 in Schedule 3 of the Project Approval.			NA	
Staged Submission of Strategies, Plans or Programs					
13	With the written approval of the Director-General, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.	Yes			Written approval was granted by the Director-General's nominee for the staging of the project (letter dated 31 July 2012).

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Development Contribution					
14	Within 12 months of this approval, the Proponent shall pay Council a suitable contribution for the Project that has been determined generally in accordance with any applicable 94A Contributions Plan. If there is a dispute regarding the total amount of contribution to be paid, either party may refer the matter to the Director-General for resolution.	Yes			The contribution was paid to Newcastle City Council on 21 November 2014 (Bank Payment Detail Report viewed showing details of fee transfer to Newcastle City Council).
Dispute Resolution					
15.	In the event that a dispute arises between the Proponent and Council or a public authority other than the Department, in relation to a specification or requirement applicable under this approval, the matter must be referred by either party to the Director-General, or if not resolved, to the Minister, whose determination of the dispute shall be final and binding to all parties. For the purpose of this condition, 'public authority' has the same meaning as provided under Section 4 of the Act.			NA	No disputes have arisen.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Schedule 4: Specific Environmental Conditions					
CONTAMINATION AND REMEDIATION					
Statutory Requirements					
1	The Proponent shall carry out the Project in accordance with the requirements of the: a) VRA; b) RAP; and c) CSMP.	Yes			Refer to response to Conditions 2 and 3, Schedule 4.
2.	Prior to commencement of any works, the Proponent shall provide written evidence to the Director-General from the Site Auditor confirming that all construction works associated with the project meets the requirements of the documents listed in Condition 1 above.	Yes			Refer to response to Condition 3, Schedule 4. In addition, a letter dated 6 August 2013 noted that the Site Auditor was satisfied that the requirements of the documents in Condition 1 have been achieved.
3.	Prior to commencement of operation, the Proponent shall provide written evidence to the Director-General from the Site Auditor confirming that all works associated with the project have been constructed in accordance with the requirements of the documents listed in Condition 1 above.	Yes			The required Site Audit Report was submitted to the Department of Planning and Environment. The Department of Planning and Environment confirmed on 5 June 2014 that they were satisfied with the report.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Human Health Risk					
4	<p>The Proponent shall assess the risk of harm to human health to the satisfaction of the Site Auditor.</p> <p>The assessment shall:</p> <p>a) be prepared in consultation with the NPC and be submitted prior to commencement of construction of any buildings on the site;</p> <p>b) be prepared in accordance with the requirements of the VRA;</p> <p>c) assess the risks to human health posed by potential ingress of volatile vapours into buildings and confined spaces; and</p> <p>d) include an environmental site management or contingency plan to address any identified risk of harm.</p>	Yes			<p>The report "Soil Vapour Investigation for the proposed Bulk Fuel Storage Facility, located within the Mayfield Terminal, Newcastle, NSW" (AECOM, 2013) was prepared to satisfy this condition.</p> <p>A letter from the Site Auditor dated 6 August 2013 noted that the Site Auditor agreed with the conclusions of the Assessment.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Imported Soil					
5	<p>The Proponent shall:</p> <p>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;</p> <p>b) keep accurate records of the volume and type of fill to be used on site; and</p> <p>c) make these records available to NPC and the Department upon request.</p>	Yes			This condition was complied with during construction of the facility. Refer to responses to Conditions 2 and 3, Schedule 4.
SOIL AND WATER					
Water Licences					
6.	The Proponent is required to obtain the necessary water licences for the Project under the Water Act 1912 and/or the Water Management Act 2000.	Yes			Stolthaven possesses Bore Licence Certificates issued by the NSW Office of Water for groundwater monitoring bores (issued 23 September 2014).

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Discharge Limits					
7	The Proponent shall ensure that all water discharges from the site comply with the: a) discharge limits (both volume and quality) set for the project in any EPL; or b) the relevant provisions of the POEO Act.	Yes			Stolthaven has undertaken quarterly groundwater monitoring as required by the Environment Protection Licence. Stolthaven has undertaken surface water monitoring as required by the Environment Protection Licence to confirm that any water discharges comply with the licence criteria.
Bunding and Storage of Liquids					
8	The Proponent shall store all chemicals, fuels and oils used on-site in appropriately banded areas in accordance with the requirements of all relevant Australian Standards, and/or the EPA's <i>Environmental Protection Manual: Technical Bulletin Bunding and Spill Management</i> .	Yes			The diesel storage tanks are located with banded areas as required by the identified standards.
Stormwater and Drainage System					
9.	The Proponent shall design and maintain the stormwater and drainage system for the project in consultation with HDC to the satisfaction of NPC.	Yes			The facility design (including stormwater) was developed in consultation with PON (formerly NPC) and HDC.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Stormwater and Drainage Management Plan					
10.	<p>The Proponent shall prepare and implement a Stormwater and Drainage Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with NPC, HDC and the Site Auditor and be submitted to the Director-General for approval prior to carrying out any works on site. The Plan must:</p> <p>a) be prepared in accordance with OEH's Managing Urban Stormwater publication any other relevant guidelines;</p> <p>b) show what stormwater, treatment and control infrastructure will be installed as part of the stormwater and drainage system for the project and how it will integrate with other stormwater and drainage systems in the area;</p> <p>c) describe the measures that will be implemented to maintain this infrastructure over time;</p> <p>d) include a program to monitor stormwater quality and quantity; and</p> <p>e) include a strategy to integrate the stormwater management system with the broader system to be provided by NPC for the Mayfield Concept Plan area.</p>	Yes			<p>The construction component of the Stormwater and Drainage Management Plan was accepted by the Department of Planning and Infrastructure on 31 July 2012. This was developed in consultation with PON (formerly NPC).</p> <p>The Operation component of the Stormwater and Drainage Management Plan (as part of the Operational Environmental Management Plan) was accepted by the Department of Planning and Infrastructure on 15 November 2013. This was developed in consultation with PON.</p> <p>Stolthaven undertakes stormwater quality and quantity monitoring in accordance with its Environment Protection Licence (EPL).</p> <p>As discussed in addressing Condition 11, Schedule 3, Stolthaven maintains a plant and equipment maintenance register. This includes stormwater management and drainage infrastructure within the facility.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Water Management Plan					
11.	<p>The Proponent shall prepare and implement a Water Management Plan for the Project to the satisfaction of the Director-General. This plan must be prepared in consultation with NPC, HDC, NOW, EPA and the Site Auditor and be submitted to the Director-General for approval prior to carrying out any works on site. The Plan must include:</p> <p>a) procedures for the prevention and management of spills and leaks from the Project, including the M4 berth, pipeline and fuel storage facility;</p> <p>b) a surface and groundwater monitoring program to measure the quality and quantity of water discharges from the site; and</p> <p>c) a surface and groundwater response plan, including remedial actions and procedures that will be followed in the event of an incident.</p>	Yes			<p>The construction component of the Water Management Plan was accepted by the Department of Planning and Infrastructure on 31 July 2012. This was developed in consultation with PON (formerly NPC).</p> <p>The operational component of the Water Management Plan (as part of the Operational Environmental Management Plan) was accepted by the Department of Planning and Infrastructure on 15 November 2013. This was developed in consultation with PON (formerly NPC).</p> <p>Stolthaven undertakes stormwater quality and quantity monitoring and groundwater monitoring in accordance with its Environment Protection Licence (EPL).</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
TRAFFIC					
Traffic Movements					
12.	<p>The Proponent shall:</p> <p>a) keep accurate records of:</p> <ul style="list-style-type: none"> • Total hourly truck movements in peak periods; • total truck movements per day; • total truck movements per annum; and • the volume of diesel and biodiesel that is received, stored and dispatched. <p>b) make these records available in its Annual Review.</p> <p>c) provide these records to PON on a bi-monthly basis.</p>		No		<p>Stolthaven provided an extract from truck movement register. The register recorded the date, time of arrival, time at the facility, and the type and quantity of fuel loaded into the truck.</p> <p>The Annual Review Report includes total monthly truck movements, the average daily truck movements and the volume of diesel and biodiesel that was transported from the facility.</p> <p>The Annual Report did not present accurate records of total hourly truck movements in peak periods, total truck movements per day (only a monthly daily average); and only presented the volume of diesel and biodiesel that was dispatched (it did not include quantities received).</p> <p>Refer to Condition 9, Schedule 5 for further comment on the Annual Review report.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Construction Access Route					
13.	<p>The Proponent shall prepare and submit a road condition report for the component of the construction access route that will be utilised primarily by the Project. The report shall:</p> <p>a) be prepared in consultation with HDC and NPC;</p> <p>b) be submitted to the Director-General prior to commencement of any works; and</p> <p>c) provide details, including photographic evidence, of the condition of the road infrastructure prior to commencement of any works</p>	Yes			A Road Access Condition Report was prepared (Aurecon, 2012) to the satisfaction of the Department of Planning and Environment prior to the commencement of construction.
14.	The Proponent shall repair, or pay the full costs associated with repairing the construction access route that is damaged by the Project.			NA	No issues.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Operational Access Route					
15.	<p>If the operational access route is not completed prior to commencement of operation, the Proponent must obtain the approval of the Director-General, prior to using the construction access route for operational vehicles.</p> <p>In seeking to obtain this approval, the Proponent must submit a report to the Director-General which includes:</p> <ul style="list-style-type: none"> a) evidence of appropriate consultation with NPC, HDC, NCC and adjacent landowners, where relevant; b) the expected duration of use of the construction access route for operational vehicles; c) the nature and extent of any road upgrade works required to enable operational traffic to use the route, including widening, resurfacing, street lighting and/or traffic management works; d) evidence that all relevant approvals for these road upgrade works have been obtained, if required, and implemented to the satisfaction of NPC; and e) update and resubmit the Traffic Management Plan required by condition 16 to include additional procedures to manage operational traffic using the construction access route. 			NA	<p>The operational access route was included in the Operation Traffic Management Plan (Aurecon, 2013) as approved by the Department of Planning and Infrastructure 15 November 2013.</p> <p>The Plan was prepared in consultation with the nominated bodies. A response from NPC (now PON) was also provided to the Department of Planning and Environment.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Traffic Management Plan					
16.	<p>The Proponent shall prepare and implement a Traffic Management Plan to the satisfaction of the Secretary. The plan must:</p> <p>a) be submitted to the Secretary for approval prior to commencement of operation;</p> <p>b) be prepared in consultation with PON, HDC, Council and RMS;</p> <p>c) detail construction and operational vehicle routes, access arrangements and coordination with other developments in the Mayfield Concept Plan area;</p> <p>d) include details of driver training awareness to minimise noise, in particular from reversing alarms and compression braking;</p> <p>e) 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.</p>	Yes			<p>The Construction Traffic Management Plan (as part of the Construction Environmental Management Plan) was accepted by the Department of Planning and Infrastructure on 31 July 2012. The Plan was prepared in consultation with the nominated bodies.</p> <p>The Operation Traffic Management Plan (Aurecon, 2013) was approved by the Department of Planning and Infrastructure 15 November 2013. The Plan was prepared in consultation with the nominated bodies. A response from NPC (now PON) was also provided to the Department of Planning and Environment.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Access and Parking					
17.	The Proponent must ensure that 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 Project are designed and constructed in accordance with the latest versions of the Australian Standards 2890.1:2004 and 2890.2:2002, and AUSTRROADS for heavy vehicle usage.	Yes			Aurecon was responsible for the design of the facility. Aurecon issued a letter dated 11 September 2013 that noted their scope included the design of roads and pavements in the facility. The statement notes that the design has been prepared in accordance with, where applicable, Australian Standards 2890.1:2004 and 2890.2:2002, and AUSTRROADS guidelines.
HAZARDS					
18.	The Proponent must prepare and implement a Fire Safety Study, prior to construction of the Project. This plan must: a) cover the relevant aspects of the Department's Hazardous Industry Planning Advisory Paper No. 2 – Fire Safety Study Guidelines and the Best Practice Guidelines for Contaminated Water Retention and Treatment Systems; b) be prepared in consultation with adjacent landowners, including OneSteel; and c) meet the requirements of NSW Fire and Rescue.	Yes			The Fire Safety Study was completed and approved by the Department of Planning and Infrastructure on 31 July 2012. Firefighting equipment is included in the facility equipment inspection and maintenance register.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
19.	<p>The Proponent shall prepare and implement an Emergency Plan for the Project, including the fuel transfer activities at the M4 berth, prior to operation. The plan shall:</p> <p>a) be prepared in consultation with NPC;</p> <p>b) be consistent with the Department's Hazardous Industry Planning Advisory Paper No. 1 – Emergency Planning; and</p> <p>c) detail the emergency procedures for the Project.</p>	Yes			<p>An Emergency Response Plan was prepared prior to the commencement of operations, and has been revised three times to reflect changes to operational conditions.</p> <p>A copy of the Emergency Response Plan was provided to NPC (now PON) for information and comment. No feedback had been received.</p> <p>While the Plan does not refer to the <i>Hazardous Industry Planning Advisory Paper No. 1 – Emergency Planning</i>, the Plan is generally consistent with the document.</p> <p>The Plan details the emergency response procedures for the facility.</p>
20.	<p>The Proponent shall contribute to, in so far as it relates to the Project, preparation of the following plans and audits for the Mayfield Concept Plan, in consultation with NPC:</p> <p>a) a Port Emergency Response Plan, consistent with the Department's Hazardous Industry Advisory Paper No. 1 – Emergency Planning;</p> <p>b) a Safety Management System, consistent with the Department's Hazardous Industry Advisory Paper No. 9 – Safety Management; and</p> <p>c) hazard audits, consistent with the Department's Hazardous Industry Advisory Paper No. 5 – Hazard Audit Guidelines</p>	Yes			<p>Stolthaven maintains regular consultation and communications with PON (formerly NPC). Stolthaven is represented on the Port Security Committee. Stolthaven contributed to the Mayfield No. 4 Berth Security Response Plan.</p> <p>However, Stolthaven has not been requested by PON to provide inputs into documents to specifically support the Mayfield Concept Plan.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
UTILITIES AND SERVICES					
21.	<p>Prior to commencement of operation, the Proponent shall prepare and implement a Utilities and Services Plan to the satisfaction of the Director-General. The plan must:</p> <p>a) be prepared in consultation with relevant utility and service providers and adjacent landowners, where relevant;</p> <p>b) include an implementation schedule which shows how all essential utilities and services are to be provided to the site;</p> <p>c) provide a copy of all necessary approvals from relevant utility and service providers showing that access to these utilities and services is available and secured; and</p> <p>d) include a strategy to integrate all utilities and services with the broader system to be provided by NPC for the Mayfield Concept Plan.</p>	Yes			<p>Utilities and Services Plan has been prepared and was approved by the Department of Planning and Infrastructure on 15 November 2013. It was prepared in consultation with PON (formerly NPC).</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
NOISE AND VIBRATION					
Construction Noise					
22.	The Proponent must ensure that all reasonable and feasible management and mitigation measures are employed so that construction noise generated by the Project meets the construction noise goals in Table 1.	Yes			A Construction Environmental Management Plan was prepared and approved by the Department of Planning and Infrastructure on 31 July 2012.
Operational Noise					
23.	The Proponent must ensure that operational noise generated by the Project does not exceed the criteria in Table 2 (<i>refer to modification approval document</i>).		No		<p>An Operational Noise Management Plan was prepared and approved by the Department of Planning and Environment on 15 November 2013.</p> <p><i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) was prepared in accordance with Condition 25, Schedule 4. It found that it was not possible to directly measure the impact of noise attributable to the facility due to the influence from other noise sources, such as noise from other industrial areas and traffic noise on Industrial Drive.</p> <p>The compliance assessment was therefore carried out with SoundPLAN noise modelling software, using the results of on-site attended noise measurements undertaken on 28 July 2014. The modelling predicted that day, evening and night reasonable 'worst' case 15-minute intrusive scenarios at two locations (2 and 21 Crebert Street) would exceed the $L_{Aeq\ 15\text{-minute}}$ intrusive scenarios. The report states:</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
					<p><i>"It should be noted that the maximum predicted noise levels are 8 dB(A) below the measured background noise level at these receiver locations, the compliance noise emission levels comply during neutral meteorological conditions, the compliance noise emission levels comply with the requirement in accordance with the EPA INP.</i></p> <p><i>As such, even though there are modelled exceedances of the conditions of consent noise limits they are not considered significant, and as such discussion with the approving authority should be undertaken".</i></p> <p>While the assessment concluded that the exceedances are not considered significant, they represent an exceedance of the criteria and non-compliance with the condition.</p> <p>No operational noise complaints have been received by Stolthaven.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Sound Power Limits					
24.	The Proponent must ensure that operational noise generated by the Project does not exceed the sound power limits in Table 3 or the maximum sound power levels required by the Mayfield Concept Plan, whichever is the lesser.		No		<p>An Operational Noise Management Plan was prepared and approved by the Department of Planning and Infrastructure on 15 November 2013. The Plan includes measures for noise management.</p> <p>The <i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) does not specifically address the sound power limits in Table 3 in Condition 24.</p> <p>The assessment states the following “<i>In consultation with the Department of Planning & Environment (DP&E) and the EPA, it is understood that by meeting the requirements of the MCP cumulative amenity noise quota, the Facility will demonstrate compliance, via alternate methods, with the maximum sound power levels presented in Section 24 and Section 25 of the Project Approval conditions (Application 08_0130)</i>”</p> <p><i>As the methodology for this cumulative noise management process is still being finalised, noise quota levels have not been issued for the Facility</i>”.</p> <p>As the Mayfield Concept Plan cumulative amenity noise quota is yet to be developed, the compliance assessment should have considered the criteria listed in Table 3 of Condition 24. If correspondence has been received that states the conditions of Table 3 in Condition 24 does not need to be achieved, this should be presented in the assessment report.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Noise Verification					
25.	Within 6 months of commencement of operations, the Proponent shall carry out a noise verification program to the satisfaction of the Director-General. The program must confirm the sound power levels are as predicted in the EA and shall be used to update the Mayfield Concept Plan Site Noise Model.		No		Refer to comments regarding Condition 24.
Construction and Operation Hours					
26.	The Proponent must comply with the hours of construction and operation in Table 4, unless otherwise agreed to in writing by the Director-General.	Yes			The facility operates 24 hours a day, Monday to Sunday.
Operating Conditions					
27.	The Proponent shall implement best practice noise and vibration management, including all reasonable and feasible measures to minimise noise and vibration emissions of the Project to the satisfaction of the Director-General.	Yes			An Operational Noise Management Plan was prepared and approved by the Department of Planning and Infrastructure on 15 November 2013. The Plan includes measures for noise management. As previously discussed, the <i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) was undertaken and found that predicted noise levels in day, evening and night reasonable 'worst' case 15-minute intrusive scenarios at two locations (2 and 21 Crebert Street) would exceed the $L_{Aeq\ 15\text{-minute}}$ intrusive scenarios.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
					<p>The report states:</p> <p><i>“It should be noted that the maximum predicted noise levels are 8 dB(A) below the measured background noise level at these receiver locations, the compliance noise emission levels comply during neutral meteorological conditions, the compliance noise emission levels comply with the requirement in accordance with the EPA INP.</i></p> <p><i>As such, even though there are modelled exceedances of the conditions of consent noise limits they are not considered significant, and as such discussion with the approving authority should be undertaken”.</i></p> <p>No operational noise complaints have been received by Stolthaven.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Noise Management Plan					
28.	<p>The Proponent must prepare and implement a Noise Management Plan for the Project to the satisfaction of the Director-General. This plan must:</p> <ul style="list-style-type: none"> a) be prepared by a suitably qualified expert, in accordance with EPA Guidelines; b) be submitted to the Director-General for approval prior to carrying out any works on site; c) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval; d) include a noise monitoring program to measure the performance of the Project against the relevant conditions of this approval; e) detail procedures to receive, record and respond to complaints; f) describe the contingencies that would be implemented, and the timing for implementation, should non compliances be detected; and g) describe a protocol that has been agreed with NPC for the provision of input into the broader Mayfield Concept Plan Site Noise Model required under the Mayfield Concept Plan. 	Yes			<p>An Operational Noise Management Plan was prepared and approved by the Department of Planning and Infrastructure on 15 November 2013. The Plan includes measures for noise management.</p> <p>The plan addresses the Mayfield Concept Plan Site Noise Model (which was yet to be developed at the time of the plan development). Stolthaven has not been requested to provide input into the Mayfield Concept Plan Site Noise Model.</p> <p>Refer to comments regarding Condition 23 on the findings of the compliance assessment in relation to implementation of the plan.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
28A.	The Proponent shall use its best endeavours to participate in the development and implementation of a precinct-wide noise map for the Port of Newcastle should one be developed to the satisfaction of the Secretary.	Yes			Stolthaven has not been requested to provide data to support the Mayfield Concept Plan Site Noise Model. However a copy of the <i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) has been provided to PON. The compliance assessment and the Operational Noise Management Plan both address the Mayfield Concept Plan Site Noise Model.
AIR QUALITY & GREENHOUSE GAS					
Odour					
29.	The Proponent must not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the POEO Act.	Yes			An Air Quality Management Plan was prepared and approved by the Department of Planning and Infrastructure on 15 November 2013. The plan includes measures to manage air quality, including odour emissions.
Greenhouse Gas					
30.	The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Director-General.	Yes			An Air Quality Management Plan was prepared and approved by the Department of Planning and Infrastructure on 15 November 2013. The plan includes measures to manage air quality emissions, which would also manage greenhouse gas emissions.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Air Quality Discharges					
31.	The Proponent must comply with all load limits, air quality criteria and air quality monitoring requirements as specified in the EPL for the site.	Yes			The EPL requires monitoring of the stack venting emissions from truck filling activities. At the time of the audit the required monitoring had been completed and calculations and reporting was underway and due in January 2015.
Dust Mitigation Measures					
32.	The Proponent must design, construct, operate and maintain the Project in a manner that minimises or prevents the emission of dust from the site and complies with any monitoring requirements in the EPL.	Yes			An Air Quality Management Plan was prepared and approved by the Department of Planning and Infrastructure on 15 November 2013. The plan includes measures to manage air quality emissions, which includes dust control measures. The facility has been designed and operated, however, to minimise surfaces and areas that could result in dust generation. At the time of the audit site visit, there were no visible dust emissions from the facility.
Operating Conditions					
33.	The Proponent shall: a) implement best practice air quality management, including all reasonable and feasible measures to minimise offsite odour, fume and dust emissions of the Project; b) minimise any visible off-site air pollution; and c) minimise the surface disturbance on site, to the satisfaction of the Director-General.	Yes			An Air Quality Management Plan was prepared and approved by the Department of Planning and Infrastructure on 15 November 2013. The plan includes measures to manage air quality emissions, which includes dust control measures. At the time of the audit site visit, there were no visible dust emissions from the facility or any noticeable odours or fumes.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Air Quality and Greenhouse Gas Management Plan					
34.	<p>The Proponent must prepare and implement an Air Quality and Greenhouse Gas Management Plan for the Project to the satisfaction of the Director-General. This plan must:</p> <p>a) be submitted to the Director-General for approval prior to carrying out any works on site;</p> <p>b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval;</p> <p>c) include an air monitoring program to measure the performance of the Project against the relevant conditions of this approval;</p> <p>d) describes a protocol that has been agreed with NPC for the provision of input to the broader site air quality model required under the Mayfield Concept Plan.</p>	Yes			<p>The construction Air Quality and Greenhouse Gas Management Plan was accepted by the Department of Planning and Infrastructure on 31 July 2012.</p> <p>The operational Air Quality Management Plan was accepted by the Department of Planning and Infrastructure on 15 November 2013. This notes the monitoring required by the Environment Protection Licence.</p> <p>Stolthaven has not been requested to provide data to support the broader site air quality model required under the Mayfield Concept Plan.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Energy Efficiency Plan					
35.	<p>Prior to commencement of construction, the Proponent shall prepare and implement an Energy Efficiency Plan to the satisfaction of the Director-General. The plan shall:</p> <p>a) describe the measures to be implemented to minimise energy use on the site including energy consumption levels, predicted energy savings and options for alternative energy sources including solar power generation, potential for third party access to roofs for solar generation, and co-generation; and</p> <p>b) include a program for monitoring the effectiveness of these measures, and a protocol for the periodic review of the plan.</p>	Yes			<p>The construction Energy Efficiency Management Plan (as part of the Construction Environmental Management Plan) was accepted by the Department of Planning and Infrastructure on 31 July 2012.</p> <p>The Operational Energy Efficiency Plan was accepted by the Department of Planning and Infrastructure on 15 November 2013.</p> <p>As discussed in Condition 11. Schedule 3 Stolthaven maintains a plant and equipment maintenance register. The required inspections would identify issues associated with energy efficiency with equipment and any necessary maintenance actions.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
VISUAL AMENITY					
Design and Landscaping					
36.	<p>The Proponent must prepare and implement design and landscape management plan for the project to the satisfaction of the Director-General. The plan must be prepared in consultation with NPC and be submitted to the Director-General for approval prior to construction. The Plan must:</p> <p>a) demonstrate the building treatments are of sufficient design quality to minimise the visual impacts of the project, and include a variety of materials and external finishes;</p> <p>b) illustrate the location, species and mature heights of plants to be established on site;</p> <p>c) provide for the maintenance of the landscaping on site; and</p> <p>d) illustrate how the design of the buildings would integrate with the landscaping proposed, ensuring landscaping is used to minimise views of the site.</p>	Yes			<p>The Landscape Management Plan was prepared and accepted by the Department of Planning and Infrastructure on 15 November 2013.</p> <p>Note: the condition required the plan to be submitted for approval prior to construction. However the correspondence from the Department of Planning and Infrastructure noting that construction could commence did not make reference to the Landscape Management Plan. Additionally, the letter from the Department of Planning and Infrastructure approving the Plan did not reference this.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Construction Materials					
37.	Where possible the Proponent must utilise building materials that will minimise the potential visibility of the Project (ie. use of non-reflective materials).	Yes			<p>The Landscape Management Plan notes that “<i>The product tanks are white to reduce heating by radiation (the sun) and hence vapour disbursement; therefore visual impacts are of a secondary importance in terms of environmental effects.</i></p> <p><i>The cladding for the load gantry, office building and fire water tank is a windspray Colourbond colour to minimise visual impact.”</i></p>
Lighting					
38.	<p>The Proponent shall ensure that any lighting associated with the Project:</p> <p>a) complies with the latest version of Australian Standard AS 4282(INT)-Control of Obtrusive Effects of Outdoor Lighting; and</p> <p>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.</p>				<p>Stolthaven advised the following:</p> <p>Stolthaven note that the lighting associated with the Project has not been specifically modelled against AS 4282 however through discussion with design engineers Aurecon as at 23 January 2014, Stolthaven would assert that AS 4282 deals with obtrusive lighting i.e. spill lighting that affect neighbouring properties and is, in Stolthaven’s opinion, more applicable to residential areas or private areas affected by industrial lighting. Stolthaven has carried out an initial design review and conclude that this particular standard is not considered applicable.</p> <p>Stolthaven intend to apply for an approval condition variation to more accurately reflect site infrastructure within the context of the industrial local. If this is considered an inappropriate action then Stolthaven will complete modelling of</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
					<p>our exiting lighting infrastructure against AS 4284.</p> <p>On 23 January 2015 Stolthaven received a confirmation statement from the project design engineers Aurecon which confirms that that the compound and outdoor lighting “is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network”.</p> <p>In light of this response it is concluded that Stolthaven is in compliance with this condition: as the lighting has been installed so that it does not create a nuisance to surrounding properties or the public road network, and no complaints on lighting spillage have been received.</p>
Signage					
39.	The Proponent must not install any advertising signs on site without the written approval of the Director-General.			NA	

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
WASTE					
40.	The Proponent shall ensure that all waste generated on the site during construction and operation of the Project is stored, handled and disposed of in accordance with the EPA's Waste Classification Guidelines.	Yes			<p>The Operational Environmental Management Plan includes a Waste Management Plan section. The Plan includes classifying and managing waste in accordance with the Guidelines. It also includes actions to allow Stolthaven to comply with the Environment Protection Licence.</p> <p>Records of septic and effluent tank contents removal (date and volume) provided. Material transported from the facility by a licensed contractor.</p>
Schedule 5: Environmental Management, Reporting & Auditing					
ENVIRONMENTAL MANAGEMENT					
Environmental Management Strategy					
1.	<p>The Proponent must prepare and implement an Environmental Management Strategy for the Project to the satisfaction of the Director General. This strategy must be submitted to the Director General prior to commencement of construction, and:</p> <p>a) Provide the strategic context for environmental management of the Project;</p> <p>b) Identify the statutory requirements that apply to the Project;</p> <p>c) Describe in general how the environmental</p>	Yes			<p>A letter from the Department of Planning and Environment dated 5 June 2014 states that it is satisfied that the Operational Environmental Management Plan meets the requirements of this condition.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
	<p>performance of the Project would be monitored and managed;</p> <p>d) Describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the operation and environmental performance of the Project; • receive, handle and respond to complaints; • resolve any disputes that may arise during the course of the Project; • respond to any non-compliance; • manage cumulative impacts; • respond to emergencies; and <p>e) Describe the role, responsibility, authority and accountability of all the key personnel involved in the environmental management of the development.</p>				

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Management Plan Requirements					
2.	<p>The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>a) detailed baseline data;</p> <p>b) a description of:</p> <ul style="list-style-type: none"> • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Project or any management measures; <p>c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> • impacts and environmental performance of the Project; and • effectiveness of any management measures 	Yes			<p>A letter from the Department of Planning and Environment dated 5 June 2014 states that it is satisfied that the Operational Environmental Management Plan meets the requirements of this condition.</p> <p>The Department of Planning and Environment has approved all management plans (construction and operation phases) prepared for the facility.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
	<p>(see c) above);</p> <p>e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>f) a program to investigate and implement ways to improve the environmental performance of the Project over time;</p> <p>g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the relevant limits and/or performance measures / criteria; and <p>h) a protocol for periodic review of the plan.</p>				

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Construction Environmental Management Plan					
3.	<p>The Proponent must prepare and implement a revised Construction Environmental Management Plan for the Project to the satisfaction of the Director-General. The Plan must:</p> <p>a) be submitted to the Director-General for approval prior to commencement of any works associated with MP 08_0130 MOD 1;</p> <p>b) include:</p> <ul style="list-style-type: none"> • an erosion and sediment control plan; • a soil and water management plan; • a traffic management plan; • a noise and vibration management plan; • an air quality (dust) management plan; • a heritage management plan; • a utilities and services provision plan; and • a waste management plan. 	Yes			A letter from the Department of Planning and Infrastructure dated 17 September 2013 states that it is satisfied that the Construction Environmental Management Plan meets the requirements of this condition.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
REPORTING AND AUDITING					
Pre-Construction Compliance					
4.	Prior to the commencement of construction, the Proponent must certify in writing to the Director-General that all the relevant conditions of this approval have been complied with and advise the Director-General of the planned construction commencement date.	Yes			A letter dated 30 July 2012 was submitted to the Department of Planning and Infrastructure addressing the requirements of this condition.
Pre-Operation Compliance					
5.	Prior to the commencement of operations, the Proponent must submit 'work as executed' plans to the Department for all the development associated with the Project. These plans must be prepared by a suitably qualified and experienced expert, and include plans showing the 'work as executed' plans laid over the approved plans to demonstrate that the Project has been carried out in accordance with the approved plans.	Yes			The Work as Executed plan for the initial stage of development was prepared in accordance with this condition was emailed to the Department of Planning and Infrastructure on 25 October 2013. A Work as Executed plan for the additional stage of development was reviewed as part of this audit.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Compliance Tracking Program					
6.	The Proponent shall prepare and implement a program to track the compliance status of the Project against the conditions of this approval. The program shall be submitted to the Director-General every 3 months, or as otherwise requested in writing by the Director-General.		No		Stolthaven has advised that a Compliance Tracking Program has not been developed and implemented, and that the program has therefore not been submitted to the Department of Planning and Environment as required.
Incident Reporting					
7.	The Proponent shall notify the Director-General and any other relevant agencies of any incident or potential incident with actual or potential significant off-site impacts on people or the biophysical environment associated with the Project as soon as practicable after the Proponent becomes aware of the incident.			NA	The Emergency Response Plan includes procedures for the management and reporting of potentially significant environmental incidents incident with off-site impacts. Stolthaven has not had such an incident requiring reporting.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
8.	<p>Within 6 days of notifying the incident, the Proponent must provide a written report to the Department, EPA and NPC that:</p> <p>a) describes the date, time, and nature of the incident;</p> <p>b) identifies the cause, or likely cause, of the incident; and</p> <p>c) describes what action has been taken to date address the incident and what actions are proposed to be implemented in the future to either address the consequences of the incident or avoid a recurrence of the incident.</p>			NA	As noted, Stolthaven has not had a potentially significant incident with off-site impacts requiring reporting.

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Annual Review					
9	<p>One year after the commencement of operation, and annually thereafter, the Proponent must review the environmental performance of the Project to the satisfaction of the Director-General.</p> <p>This review must:</p> <p>a) be prepared in consultation with PON</p> <p>b) describe the operations that were carried out in the past year;</p> <p>c) analyse the monitoring results and complaints records of the Project over the past year, which includes a comparison of these results against the</p> <ul style="list-style-type: none"> • relevant statutory requirements, limits or performance measures/criteria; • monitoring results of previous years; and • relevant predictions in the EA; <p>c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>d) identify any trends in the monitoring data over the life of the Project; and</p> <p>e) describe what measure will be implemented over the next year to improve the environmental performance of the Project.</p>	Yes			<p>The initial Annual Review was submitted to the Department of Planning and Environment on 18 December 2014. A copy has been provided to PON for review and comment.</p> <p>The Annual Review report addresses the requirements of this condition. However, as previously discussed the Annual Review does not present all of the traffic data required by Condition 12, Schedule 4.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Independent Audit					
10.	<p>Within one (1) year of the commencement of operations of the project, and every three (3) years thereafter, or as otherwise agreed by the Director-General, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:</p> <p>(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the development and assess whether it is complying with the relevant requirements in this consent and any relevant EPL (including any plan or program required under these consents);</p> <p>(d) review the adequacy of any plans or programs required under these consents; and, if appropriate;</p> <p>(e) recommend measures or actions to improve the environmental performance of the development, and/or any plan or program required under these consents.</p>	Yes			<p>This report is the initial Independent Environmental Audit of the development. The audit was undertaken in the required timeframe, by an auditor endorsed by the Department of Planning and Environment.</p> <p>The audit report addresses conditions 10(b) to 10(e).</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
11.	Within 3 months of commissioning the audit, or as otherwise agreed by the Director-General, the Proponent must submit a copy of the audit report to PON, EPA and the Director-General with a response to any recommendations contained in the audit report.	Yes			The audit report will be submitted to PON, EPA and the Department of Planning and Environment within three months of commissioning the audit.
Revisions to Strategies, Plans and Programs					
12.	<p>Within 3 months of the submission of an:</p> <p>a) audit under condition 10 of schedule 5;</p> <p>b) incident report under condition 8 of schedule 5;</p> <p>c) annual review under condition 9 of schedule 5; and/or</p> <p>d) a modification to this approval,</p> <p>the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.</p>	Yes			<p>Stolthaven is yet to receive a response to the documents identified in conditions 12(a), 12(b) and 12(c).</p> <p>Stolthaven has revised the Operational Environmental Management Plan to reflect changes to the facility associated with the approved modifications.</p>

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Access to Information					
13.	<p>From the commencement of the construction of the Project, the Proponent must make the following information publicly available on its website as it is progressively required by the approval:</p> <p>a) a copy of all current statutory approvals;</p> <p>b) a copy of the current plans and programs required under this approval;</p> <p>c) a summary of the monitoring results of the Project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;</p> <p>d) a complaints register, which is to be updated on a monthly basis;</p> <p>e) a copy of the Annual Reviews (over the last 5 years);</p> <p>f) a copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit; and</p> <p>g) any other matter required by the Director-General.</p>		No	<p>The Stolthaven Mayfield Facility website is located at: http://www.stolthaven.com/Stolthaven-Terminals/Terminal-Network/Australia/~link.aspx?_id=61475AE4E5D74568A669295663E36D54&Z=Z</p> <p>The website presents:</p> <ul style="list-style-type: none"> • The initial project approval (it does not include the modification approvals) • The Department of Planning and Environment's approval of the Construction Environmental Management Plan, supporting plans and for the commencement of construction. • The Construction Environmental Management Plan. • Construction Services Location Plan. • Operational Environmental Management Strategy (this includes an earlier version of the Operational Environmental Management Plan. The current version needs to be uploaded). • Specialist operational management plans. <p>A Complaints Register is not uploaded as no complaints have been received.</p> <p>The Annual Review and the Independent Environmental Audit have only recently been issued to the Department of Planning and Environment and will be uploaded shortly.</p> <p>As of 6 January 2015 a summary of monitoring results have not been uploaded. However a summary of the results are included in the Annual Review that will shortly be uploaded.</p>	

Table 3. Conditions of Development Consent					
Item No.	Requirement and Reference	Compliant			Findings
		Yes	No	NA	
Community Consultation Strategy					
14.	The Proponent shall contribute to the Community Communication Strategy required for the Mayfield Concept Plan. The level and timing of this contribution by the Proponent and timing shall be determined in consultation with NPC to the satisfaction of the Director-General.			NA	Stolthaven has not received a request from PON to contribute to the Community Communication Strategy required for the Mayfield Concept Plan.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
1 Administrative Conditions					
A1	A1.2: Fee based activities: Petroleum products storage: > 100,000KL stored Shipping in bulk: >100,000 – 500,000 T loaded and unloaded		No		Stolthaven advised throughput for their Environment Protection Licence Annual Report period (12 October 2013 to 11 October 2014) was 760 million litres of diesel and biodiesel. This equates to approximately 672,200 tonnes, which exceeds the permitted mass to be loaded and unloaded. Stolthaven advised that an Environmental Impact Statement has been prepared and submitted to the Department of Planning and Environment, proposing an increase to the capacity of the facility.
	A1.3: Tank farm storage capacity (95ML)	Yes			
	A1.4: Petroleum products annual throughput: 500 ML		No		Stolthaven advised throughput for their Environment Protection Licence Annual Report period (12 October 2013 to 11 October 2014) was 760 million litres of diesel and biodiesel. Stolthaven advised that an Environmental Impact Statement has been prepared and submitted to the Department of Planning and Environment, proposing an increase to the capacity of the facility
	1.5: Flammable liquids storage	Yes			
A2	A2.1: Premises or plant to which this licence applies	Yes			
A3	A3.1: Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition		No		As previously discussed the facility has exceeded the permitted annual throughput.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
	of this licence.				
2 Discharges to air and water and applications to land.					
P1	Section P1.2: Location of water monitoring/discharge points and areas	Yes			Groundwater and surface water monitoring has been undertaken at the nominated locations.
	Section P1.3: Location of weather monitoring	Yes			Continuous weather data is sourced from the nominated location (Mayfield No. 4 Berth Automatic Weather Station).
3 Limit Conditions					
L1 Pollution of Waters					
L1.1	Except as may be expressly provided in any other condition of this Licence, the licensee must comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> .	Yes			
L2 Load Limits					
L2-2.2	Section L2.2: Benzene and VOC (air)			NA	At the time of the audit the required monitoring had been completed and calculations and reporting was underway and due in January 2015.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
L3 Concentration Limits					
L3.1 - 3.4	Section L3.4: Point 5 Water and/ or Land Concentration Limits	Yes			Stolthaven measures the surface water monitoring results against the limits listed in Condition L3.4. Monitoring results showed that Stolthaven complied with this condition.
L4 Waste					
L4.1	The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.	Yes			No such wastes have ever been received at the facility.
L4.2	This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if those activities require an environment protection licence.			NA	
L6 Noise Limits					
L5.1	Noise generated at the premises must not exceed the noise limits at the locations and times specified in the table	Yes			An Operational Noise Management Plan was prepared and approved by the Department of Planning and Environment on 15 November 2013. <i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise</i>

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
					<p><i>Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) was prepared to assess compliance with the noise limits nominated in Condition L5.1.</p> <p>It found that it was not possible to directly measure the impact of noise attributable to the facility due to the influence from other noise sources, such as noise from other industrial areas and traffic noise on Industrial Drive.</p> <p>The compliance assessment was therefore carried out with SoundPLAN noise modelling software, using the results of on-site attended noise measurements undertaken on 28 July 2014. The modelling predicted that day, evening and night reasonable 'worst' case 15-minute intrusive scenarios at two locations (2 and 21 Crebert Street) would exceed the L_{Aeq} 15-minute intrusive scenarios. The report states:</p> <p><i>"It should be noted that the maximum predicted noise levels are 8 dB(A) below the measured background noise level at these receiver locations, the compliance noise emission levels comply during neutral meteorological conditions, the compliance noise emission levels comply with the requirement in accordance with the EPA INP.</i></p> <p><i>As such, even though there are modelled exceedances of the conditions of consent noise limits they are not considered significant, and as such discussion with the approving authority should be undertaken".</i></p> <p>No operational noise complaints have been received by Stolthaven.</p>

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
L5.2 – L5.8	Conditions relating to criteria			NA	
L6 Hours of operation					
L6.1	Hours of construction activity (not operations)			NA	
L7 Potentially offensive odour					
L7.1	Offence to generate odour beyond the premises boundary	Yes			No complaints have been received from neighbours or other locations regarding odour from the facility. No odours were detected by the auditor on the day of the audit.
L8 Other limit conditions					
L8.1	The stack used to vent emissions from truck filling activities must be a minimum of 15 metres in height.	Yes			The stack is approximately 20 metres in height. This was confirmed by review of the “Vapour Diversion Layout and Tank Design” detailed design drawing. This shows the stack’s vent is about the height of the tank, which is 19.073 metres above ground level.
L8.2	The exit velocity of emissions from the stack used to vent emissions from truck filling activities must exceed 15 metres per second at all times	Yes			Exit velocity is constantly measured to confirm it exceeds the required velocity.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
4 Operating Conditions					
O1 Activities must be carried out in a competent manner					
O1.1	<p>Licensed activities must be carried out in a competent manner. This includes:</p> <p>a) The processing, handling, movement and storage of materials and substances used to carry out the activity; and</p> <p>b) The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</p>	Yes			<p>The licensed activities (petroleum products storage and shipping in bulk) are undertaken in accordance with a number of standard operational procedures, including the Operational Environmental Management Plan.</p> <p>Wastes generated at the facility are managed in accordance with the Waste Management Plan (as part of the Operational Environmental Management Plan). Wastes are removed from the facility by licensed contractors.</p> <p>During the observation only minor issues were identified. These had been noted in the plant and equipment maintenance register and the appropriate action scheduled.</p>
O2 Maintenance Plant and Equipment					
O2.1	<p>All plant and equipment installed at the premises or used in connection with the licensed activity:</p> <p>a) Must be maintained in a proper and efficient condition; and</p> <p>b) Must be operated in a proper and efficient manner.</p>	Yes			<p>Stolthaven maintains a plant and equipment maintenance register. This includes an electronic database (Excel spreadsheet), and a hard copy (viewed on site). The register identifies the equipment and machinery, the required inspection and maintenance regime, and records of the completed inspections and maintenance. Inspections (and maintenance if required) of the scheduled equipment are undertaken on a monthly basis.</p> <p>Personnel must have the appropriate qualifications (if required) and/or undertaken the required training to operate the plant and equipment at the facility.</p>

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
O3 Dust					
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Yes			The vast majority of the operational section of the Stolthaven property is hardstand area. The Air Quality Management Plan includes dust control measures.
O3.2	All operations and activities occurring at the Premises must be carried out in a manner which will minimise and prevent the emission of dust from the Premises.	Yes			The Air Quality Management Plan includes dust control measures.
O3.3	Trucks entering and leaving the premises that are carrying loads of dust-generating materials must have their loads covered at all times, except during loading and unloading.	Yes			The Air Quality Management Plan includes this measure. During standard operations there is limited need for trucks delivering loads of dust-generating materials.
O4 Emergency response					
O4.1	The licensee must maintain, and implement as necessary, a current emergency response plan for the premises. The licensee must keep the emergency response plan on the premises at all times.	Yes			Stolthaven has prepared an Emergency Response Plan which is retained at the facility.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
O5 Processes and management					
O5.1	All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place	Yes			All above ground tanks storing diesel, biodiesel and other materials are contained within the bunded area that complies with condition O5.2.
O5.2	Bunds must: a) have walls and floors constructed of impervious materials; b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed); c) have floors graded to a collection sump; and d) not have a drain valve incorporated in the bund structure, or be constructed and operated in a manner that achieves the same environmental outcome	Yes			The Site Manager advised that the facility bund system complies with the requirements of this condition. This was confirmed by review of Compliance Plans that identified tank capacities, spill capture requirements and capacity of the facility bund system.
O6 Waste management					
O6.1	The licensee must ensure that any liquid and/or non liquid waste generated and/or stored at the premises is assessed and classified in accordance with the EPA's Waste Classification Guidelines as in force from time to time.	Yes			Wastes generated at the facility are managed in accordance with the Waste Management Plan (as part of the Operational Environmental Management Plan). The Plan has been prepared in consistent with the Waste Classification Guidelines. Wastes are removed from the facility by licensed contractors.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
O6.2	The licensee must ensure that waste identified for recycling is stored separately from other waste	Yes			Recyclable waste (paper and cardboard) is stored separately and removed from the facility by a contractor.
O6.3	The licensee must not land apply or dispose sewage at the premises	Yes			Sewage is stored in a septic tank prior to removal from the facility by a contractor.
O6.4	All wastewater generated on the premises must be collected and removed from the premises by a licensed waste transporter and taken to a facility that is able to lawfully receive it and reuse or dispose of it. The collected sewage must be pumped out at least weekly, or more frequently as required, to prevent discharges from the collection tank.		No		Wastewater in a septic tank and effluent tank (slops) are emptied by a licensed contractor. From 27 May 2014 to 28 October 2014 the septic tank was emptied at intervals of between 4 and 19 days. However, as of 28 October 2014 Stolthaven has commissioned a contractor to empty the septic tank on a weekly basis.
O7 Other operating conditions					
O7.1	During the discharge of petroleum products between any ship and the petroleum products pipeline, the ship is considered to be part of the premises whenever the pipeline infrastructure is attached to the ship.	Yes			Stolthaven operational procedures (including environmental management) address activities at Mayfield No. 4 Berth.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
Petroleum Product Pipeline Integrity and Pressure Testing					
O7.2	The licensee must conduct annual integrity testing on the petroleum product pipeline extending between the tank farm and Mayfield No. 4 Berth according to the documents titled: 'Wharfline Integrity Checks - SHNC-OPS-020' dated August 2013; and 'Work Instruction Wharfline Integrity Checks - SHNC-OPS-020' dated August 2013.	Yes			The initial annual integrity testing on the petroleum product pipeline was undertaken on 13 November 2014.
O7.3	The licensee must conduct leak testing of the petroleum products pipeline extending from the main tank farm to Mayfield No. 4 Berth prior to each transfer of product operation	Yes			Leak testing forms part of the Stolthaven standard operating procedure for the transfer of product from Mayfield No. 4 Berth to the tanks. A record is maintained of every transfer, including quantity received.
O7.4	The licensee must maintain a register for all integrity and pressure tests conducted on the pipeline extending from the tank farm to Mayfield No. 4 Berth.	Yes			Stolthaven presented a record of the pipeline pressure test that was undertaken on 9 November 2014.
5 Monitoring and Recording Conditions					
M1 Monitoring Records					
M1.1	The results of any monitoring required to be conducted by this Licence or a load calculation protocol must be recorded and retained as set out in this condition.	Yes			Monitoring results have been recorded by Stolthaven and its consultants, and retained. This is as an electronic controlled copy.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
M1.2	<p>All records required to be kept by this Licence must be:</p> <ul style="list-style-type: none"> a) In a legible form, or in a form that can readily be reduced to a legible form; b) Kept for at least 4 years after the monitoring or event to which they relate took place; and c) Produced in a legible form to any authorised officer of the EPA who asks to see them. 	Yes			Monitoring results and other records required by this licence have been recorded by Stolthaven and its consultants, and retained. This is as an electronic controlled copy.
M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this Licence:</p> <ul style="list-style-type: none"> a) The date(s) on which the sample were taken; b) The time(s) at which the sample was collected; c) The point at which the sample was taken d) The name of the person who collected the sample. 	Yes			These records have been collected for all samples collected to comply with this licence.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
M2 Requirement to monitor concentration of pollutants discharged					
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Yes			The monitoring (and the associated reporting) addresses the pollutants and the associated criteria listed in Condition M2.2.
M2.2	Water and/ or Land Monitoring Requirements referred to in Condition M2.1.	Yes			The monitoring (and the associated reporting) addresses the pollutants and the associated criteria listed in this condition.
M3 Testing methods – concentration limits					
M3.1	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to an utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Yes			The Quarterly Groundwater Monitoring Reports outline the methodology used in the collection and analysis of samples. While the reports do not clearly reference them, the methodology appears consistent with the Approved Methods Publication (<i>Approved Methods for the Sampling and Analysis of Water Pollutants in New South Wales</i> (EPA 2004). This includes sample analysis undertaken by a NATA accredited laboratory.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
M4 Testing methods - load limits					
	Division 3 of the Protection of the Environment Operations (General) Regulation 2009 requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the Administrative Conditions of this licence.	Yes			Condition L2.2 lists load limits for benzene and volatile organic compounds in air emissions. At the time of the audit the results of the air monitoring were being used in the required calculations and associated reporting.
M5 Weather monitoring					
M5.1	The licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below at Monitoring Point 6. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.	Yes			Continuous weather data is sourced from the nominated location (Mayfield No. 4 Berth Automatic Weather Station). The station can capture the parameters listed in the condition and the associated criteria.
M6 Recording of pollution complaints					
M6.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this Licence applies.	Yes			A Complaints Register has been established by Stolthaven. However no complaints have been received to date.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
M6.2	The record must include: a) the date and time of complaint; b) the method by which the complaint was made; c) any personal details of the complaint which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.			NA	The Complaints Register has been structured to capture the listed information. However no complaints have been received to date.
M6.3	The record of complaint must be kept for at least 4 years after the complaint was made.			NA	
M6.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Yes		NA	

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
M7 Telephone complaints line					
M7.1	The licensee 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.	Yes			A telephone complaints line is operated for the facility.
M7.2	The licensee 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.	Yes			The telephone complaints line is displayed at the front gate of the facility. While the telephone number is displayed at the entry to the facility, it would be difficult for members of the community to view this as vehicles are required to pass through the OneSteel security gate to access the facility. It is recommended the number also be displayed on the Stolthaven Mayfield facility website.
M7.3	Conditions M7.1 and M7.2 do not apply until 3 months after: a) The date of the issue of this Licence or b) If this Licence is a replacement Licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the Licence was served on the licensee under clause 10 of that regulation.			NA	

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
M7.4	The licensee must nominate a representative of the company who is available at all times and is capable of providing immediate assistance or response during emergencies or any other incidents at the premises. The name of the nominated representative and their contact details, including a telephone number, must be current at all times.	Yes			<p>The Emergency Response Plan includes an Emergency Contact List. This list includes the name, position and mobile phone number for four key facility personnel. The Plan was revised and re-issued in November 2014 to include the details of the new Site Manager.</p> <p>The plan notes that for out of hours alarms activated an Auto Dialler txt message will be sent to Site Manager, Operations Coordinator or on call Operator and General Manager, with a response to the alarm made by the Site Manager or Operations Coordinator or on call Operator.</p>
M8 Requirement to monitor volume or mass					
M8.1	<p>For each discharge point or utilisation area specified below, the licensee must monitor:</p> <p>a) the volume of liquids discharged to water or applied to the area;</p> <p>b) the mass of solids applied to the area;</p> <p>c) the mass of pollutants emitted to the air;</p> <p>at the frequency and using the method and units of measure, specified in the table.</p>	Yes			The table relates to water discharges. Stolthaven measures and records the volume of water discharged from the facility.

Table 5: Conditions of Environment Protection Licence

Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
M9 Other monitoring and recording conditions					
M9.1	<p>To assess compliance with Condition L5.1, attended noise monitoring must be undertaken in accordance with Condition L5.6 and:</p> <p>a) at each one of the locations listed in Condition L5.1;</p> <p>b) occur annually during the licensed reporting period;</p> <p>c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of:</p> <p>(i) 1.5 hours during the day;</p> <p>(ii) 30 minutes during the evening; and</p> <p>(iii) 1 hour during the night;</p> <p>d) occur for three consecutive operating days.</p>		No		<p><i>Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield: Operational Noise Compliance Assessment (Conditions of Consent)</i> (AECOM, 2014) assesses operational performance against the criteria in Condition L5.1 (which is reflected in Condition 23, Schedule 4 of the Project Approval.</p> <p>Attended noise monitoring was undertaken at four of the ten locations listed in Condition L5.1. The compliance assessment notes “These receiver locations were selected as all other receiver locations are further away. As such, by achieving compliance at these locations, compliance will be achieved at the other receiver locations.”</p> <p>The attended noise monitoring was not undertaken in accordance with the requirements of Conditions M9.1(c) and (d).</p>

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
6 Reporting Conditions					
R1 Annual Return Documents					
R1.1	The licensee must be complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance (Certified); and b) a Monitoring and Complaints (Signed) Summary.	Yes			The Annual Return was emailed to EPA on 5 January 2015. A hard copy was posted by registered mail by Stolthaven on 5 January 2015. The EPA website notes that the Annual Return was received on 5 January 2015.
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below	Yes			The initial Annual Return was emailed to EPA on 5 January 2015. A hard copy was posted by registered mail by Stolthaven on 5 January 2015. The EPA website notes that the Annual Return was received on 5 January 2015.
R1.3	Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.			NA	

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
R1.4	<p>Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:</p> <p>a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or</p> <p>b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.</p>			NA	
R1.5	<p>The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring Licence not later than 60 days after the date the transfer was granted (the 'due date').</p>		No		<p>The EPA website identifies the end date for the Annual Return reporting period was 10 October 2014, and that the Annual Return was received 5 January 2015. This is beyond the 60 days required by this condition.</p>

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
R1.6	Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify: a) the assessable pollutants for which the actual load could not be calculated; and b) the relevant circumstances that were beyond the control of the licensee		No		Stolthaven did not notify the EPA prior to the due date that they would be unable to complete and submit the Annual Return by the due date.
R1.7:	Licensee must retain copy of Annual Return: The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	Yes			
R1.8	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) The Licence holder; or b) By a person approved in writing by the EPA to sign on behalf of the Licence holder.	Yes			

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
R2 Notification of environmental harm					
R2.1	The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act. Notifications must be made by telephoning the EPA's Pollution Line service.			NA	No incidents causing or threatening material harm to the environment have occurred at the facility.
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.			NA	
R3 Written Report					
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: a) Where this Licence applies to premises, an event has occurred at the premises; or b) Where this Licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this Licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which			NA	This condition is applicable to the EPA.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
	the Licence applies). The authorised officer may request a written report of the event.				
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.			NA	
R.3.3	The request may require a report which includes any or all of the following information: a) The cause, time and duration of the event; b) The type, volume and concentration of every pollutant discharged as a result of the event; c) The name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) The name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) Action taken by the licensee in relation to the event, including any follow-up contact with any complainants;			NA	This condition is applicable to the EPA.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
	f) Details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) Any other relevant matters.				
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.			NA	This condition is applicable to the EPA.
7 General Conditions					
G1 Licence					
G1.1 – G1.3	A copy of the Licence must be kept at the premises and made available to EPA/ employee or agent.	Yes			A copy of the licence is retained on site with the facility environmental management documentation.

Table 5: Conditions of Environment Protection Licence					
Item No.	Requirement/ Reference	Response			Findings
		Yes	No	NA	
G2 Signage					
G2.1	<p>The petroleum product pipeline extending between the main tank farm and Mayfield No. 4 Berth must:</p> <p>(a) Be identified in accordance with Australian Standard AS1345-2008: 'Identification of the contents of pipes, conduits and ducts'; and</p> <p>(b) Have pipe markers that include the name of the licensee and emergency contact details of the licensee.</p>	Yes			<p>The wharf to terminal pipeline is labelled in accordance with AS1345-2008. Compliant diesel labels are displayed as per the standard requirement, where access is possible.</p> <p>The wharf to terminal pipeline displays the Stolthaven EPA licence number and emergency contact number at 100 metre intervals, where access is possible.</p>
8 Special Conditions					
E1 Prior to Commencing Conditions					
E1.1	<p>The licensee must provide written notification to the EPA's Regional Manager - Hunter at PO Box 488G, Newcastle no later than 30 days prior to first receiving petroleum products for storage at the premises.</p> <p>The notification must include:</p> <p>a) The date that petroleum products are first intended to be received for storage at the premises.</p>		No		<p>The letter was issued to the EPA on 25 October 2013. The letter advised that the facility would be receiving and storing petroleum products from 14 November 2013.</p> <p>The letter was issued 20 days prior to first receiving petroleum products for storage, and therefore does not comply with this condition.</p>

Appendix A

Curricula Vitae of Audit Team

Shaun Taylor, B App Sc (Hons) | Senior Environmental Scientist

Newcastle, Australia

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Shaun is a Senior Environmental Scientist with over 15 years' experience in environmental impact assessment and management in Australia, the Middle East and Africa. This has included managing the impact assessment and approval processes for a range of projects, including road and rail infrastructure, water and wastewater, power infrastructure, industrial and manufacturing operations, waste management operations, residential developments and tourist facilities. This has required Shaun to coordinate specialist assessments by multi-disciplinary teams to complete complex environmental assessments. It has also developed a working understanding of the approval processes at local, state and federal government levels. Shaun has also developed and assisted in the implementation of a number of construction and operational environmental management plans to facilitate environmental compliance of these developments with their approvals.

Shaun has also undertaken environmental audits and compliance monitoring of the construction and operation of a number of developments, including road and rail infrastructure, water infrastructure and Defence facilities. He has also been responsible for numerous hazardous materials audits of Defence facilities, power generation and transmission facilities, commercial and industrial facilities, tourist developments and residential buildings.

EDUCATION

1997 Bachelor of Applied Science (Environmental Assessment and Management) (Honours), University of Newcastle, Australia

EXPERIENCE

Environmental Assessments and Approvals

- Environmental Approvals Manager for the Hunter 8 Alliance (Australian Rail Track Corporation (ARTC), 2007 – 2013). Responsible for:
 - Preparation of and approval by the Department of Planning and Infrastructure (DOP&I) of the Environmental Assessment (EA) for augmentation of approximately 10km of the Main Northern Railway between Whittingham and Minimbah.
 - Preparation of and approval by DOP&I and the Federal Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) of the EA for augmentation of approximately 32km of the Main Northern Railway between Maitland and Minimbah.
 - Management of Biodiversity Offsetting Team responsible for preparation of Biodiversity Offsetting Strategy (which used Biobanking) for approval by the DOP&I, the subsequent Biodiversity Offset Package, and the Biodiversity Management and Offset Plan for approval by SEWPaC.
 - Preparation and approval of Reviews of Environmental Factors (REF) for three rail overpasses and four REFs for services relocation.
 - Providing ongoing support during construction of the project, including overseeing construction phase ecological, Aboriginal and noise and vibration services, and the preparation of multiple Consistency Review Reports for amendments to the approved project.
- Environment Manager for the Mardi to Mangrove Pipeline Link Project (Wyang Shire Council, 2007 - 2009). Responsible for:
 - Overseeing the consideration of environmental issues in route options analysis.
 - Managing the preparation of the two REF for the Project. This included a major REF for 21 km for a major water pipeline, river intake, river crossings and pump stations; and a REF for dam augmentation

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works. This included coordination of various specialist studies, including terrestrial and aquatic ecology; Aboriginal and non-indigenous heritage; hydrology and water quality; geotechnical conditions; noise and vibration; and traffic management.

- Consultation and coordination with various government agencies, the local community and Planning and Engineering personnel from Wyong Shire Council and Gosford City Council.
- Project Manager for preparation of the Preliminary Environmental Assessment for the Kooragang Coal Terminal Arrival Roads Project (ARTC, 2013).
- Project Director for preparation of the EA for upgrade of food and oil processing facility, Kooragang Island (Cargill, 2013).
- Project Manager for preparation of REF for the Kooragang Coal Terminal Departure Roads Upgrade (ARTC, 2012).
- Project Director for REF prepared for Roads and Maritime Services, including:
 - Upgrade of New England Highway, Whittingham (2012).
 - Upgrade of intersection of Toronto Road, Woodrising (2012).
 - Tomago Road industrial subdivision access intersection (2012).
 - Upgrades of intersections of the Pacific Highway, Tomago (2008).
- Project Director for REF for Newcastle Port Corporation:
 - Sediment sampling program (2012).
 - Port facilities upgrade (2013).
 - Sediment sampling program (2013).
- Peer review of Environmental Impact Statement (EIS) for dredging of South Arm of the Hunter River/ Port of Newcastle (Newcastle Port Corporation, 2012).
- Project Manager for various environmental impact assessments for Hunter Water Corporation, including:
 - REF for Swansea sewer main upgrade: This included an Aboriginal heritage impact assessment and construction noise impact assessment (2012).
 - Concept Design and EA, Tomago Main: Construction, operation and maintenance of major water trunk main through sensitive wetland environment, Kooragang Island, Newcastle. Project included option and route analysis, concept design and detailed environmental investigations including terrestrial and aquatic ecology assessment, Aboriginal heritage assessment and acid sulphate soil assessment (2008).
 - REF and EIS for major water main upgrade, Tarro to Shortland: Construction, operation and maintenance of major water trunk main through sensitive wetland environment, Newcastle. Assessment included terrestrial and aquatic ecology assessment, Aboriginal heritage assessment and acid sulphate soil assessment (2007).
- Project Manager for REF for Ausgrid, including:
 - 132kV transmission line from Ourimbah to Wamberal on NSW Central Coast. This included environmental inputs into the route options analysis and preferred option selection. This included investigation of various issues, including aquatic and terrestrial ecology, Aboriginal and non-indigenous heritage, noise and vibration impacts, traffic and access, and social impacts (2008).
 - Power line relocations, Hunter Region (2012).

Shaun Taylor B App Sc (Hons.)

- Project Director for REF for water supply and drainage infrastructure, Vales Point Power Station (Delta Electricity, 2012).
- Project Manager for the Jebel Ali Village Environmental Impact Assessment (EIA), Dubai, UAE: Demolition of existing low scale villa style development and replacement with high-density tower development. EIA included air quality assessment, noise assessment, flora and fauna assessment, EMF Survey, hazardous materials survey and visual impact assessment.
- Project Manager for the Glass Factory EIA, Abu Dhabi UAE: Construction and operation of a major glass bottle factory, the first industrial operation within a new major industrial area. EIA included assessment of air quality, noise, water quality, waste and traffic issues. EIA to comply with Abu Dhabi regulations and World Bank EA Guidelines.
- Project Manager for the Dubai Energy and Environment Park (EnPark) EIA, Dubai, UAE: Construction and operation of a sustainable complex to provide accommodation and employment for over 10,000 people. EIA included air quality assessment, groundwater assessment and noise impact assessment (EnPark, 2006 – 2007).
- Peer Review and Specialist Studies Coordination for the Dubai Maritime City EIA, Dubai, UAE: Construction and operation of residential, commercial and maritime development constructed on an area of approximately 250 hectares of reclaimed land. EIA included air quality assessment, noise impact assessment, marine ecology assessment, water quality assessment and sediment quality assessment (DMC, 2006).
- Project Manager for the Hamriya Port Redevelopment Review of Environmental Factors (REF), Dubai, UAE: Redevelopment of the port and associated facilities to increase capacity and improve operations. REF considered marine ecology, marine sediment, water quality, noise and air quality impacts.
- Project Manager for the Doraleh Container Terminal EIA, Djibouti: Construction and operation of major container terminal and port facility, including dredging and reclamation of approximately 150 hectares, including coral areas. The EIA included noise impact assessment, air quality assessment, marine and terrestrial ecology impact assessment, sediment quality assessment and water quality assessment. Completed to comply with Djibouti regulations and World Bank EA Guidelines (DP World, 2007).
- Peer Review and author for various EIAs for a major Industrial Development in Saudi Arabia: This included EIAs for a power station, port facilities, phosphate plant and phosphate mine. EIAs completed to comply with KSA guidelines and World Bank EA Guidelines (Ma'aden, 2006).
- Project Manager for the Al Barari Residential and Commercial Development EIA and EMP, Dubai, UAE: Construction and operation of a mixed use residential, commercial and tourism development, including artificial waterways, wastewater treatment plant and polishing plant. EIA included flora and fauna assessment and consideration of air quality, noise and groundwater quality issues (Al; Barari, 2006).
- Project Manager for the Dubai Waterfront Earthworks EIA, Dubai, UAE: Earthworks to create a flat gradient over an area of approximately 80km² of sand dune environment. EIA included consideration of flora and fauna, cultural heritage, noise, air quality and contamination issues (Nakheel, 2007).
- Peer Review for the Cultural Village Tourist and Residential Development EIA, Qatar: Construction and operation of a major mixed use residential, commercial and tourism development in the coastal environment. EIA included a marine ecology assessment, water quality assessment and sediment quality assessment, as well consideration of noise, air quality and social impacts (2006).
- Team Member, EA, Pacific Highway Upgrade: Investigations for route identification and impact assessment for Pacific Highway Upgrade, Northern NSW (Oxley Highway to Kempsey; Woolgoolga to Wells Crossing). Responsible for management of terrestrial and aquatic ecology assessments, Aboriginal stakeholder consultation and general community consultation (2003 – 2006).

Shaun Taylor B App Sc (Hons.)

- Project Manager for Route Selection Study, Overhead Power Lines, Central Coast: Collection of data on and assessment of a range of environmental and social issues to provide input to the route selection for a major power line. This included consultation and community meetings with a range of local community and environmental groups, and local and state government agencies (EnergyAustralia, 2007).
- Project Manager for the Environmental Impact Statement (EIS) for Thermal Desorption Contaminated Soil Treatment Plant, Newcastle: Proposed operation of a contaminated soil thermal desorption plant on the former Newcastle Steelworks site. EIA included noise impact assessment, air quality impact assessment and ecological risk assessment. Also responsible for management of a community consultation program (Innova, 2005).
- Project Manager for the EIS for Green Waste Composting Facility and SEE for Waste Transfer Station, Tamworth: Construction and operation of a green waste composting facility and water transfer station. EIS and SEE included air quality and odour impact assessment, noise impact assessment, terrestrial ecology assessment and traffic impact assessment. Also responsible for management of a community consultation program (Tamworth Regional Council, 2005).
- Project Manager for the Statement of Environmental Effects (SEE) for Major Tourist Resort and Residential Development, Anna Bay: Proposed construction and operation of a major hotel and tourist villa development with artificial waterways. Assessment included terrestrial ecology and SEPP 14 wetland assessment, Aboriginal heritage assessment, hydrology and flooding assessment and traffic impact assessment (Spacecon, 2005).
- Divestment Studies for Department of Defence properties. These studies identified the potential environmental constraints and opportunities on the properties. This included:
 - Fort Wallace (2005).
 - The former Gan Gan Army Camp and Stockton Rifle Range (2003).
- Project Manager for EIS for Clarence Town Sewerage Scheme: Construction and operation of an effluent collection scheme within the village, transportation pipes to a sewage treatment plant and an effluent irrigation area. EIS included a terrestrial ecology assessment, Aboriginal heritage assessment, non-indigenous heritage assessment and water quality assessment. Also responsible for management of a community consultation program (Department of Land and Water Conservation, 2004).
- Project Manager for EIS for Landfill Extension, Singleton: Construction of earthworks required for the stabilisation and extension of an existing landfill. EIS included terrestrial ecology assessment, Aboriginal heritage assessment, air quality and odour impact assessment, noise impact assessment and surface water and groundwater quality assessment. Also responsible for management of a community consultation program (Singleton Council, 2002).
- Project Manager for EIS for Link Road and Water Main, Warnervale, Wyong: Construction and operation of a four lane road between Wyong and Watanobbi, and a water pipeline between Watanobbi and Mardi. EIS included a terrestrial ecology assessment, Aboriginal heritage assessment, acid sulphate soil assessment, traffic impact assessment and noise impact assessment (Wyong Shire Council, 2002).
- Project Manager for the EIS and Remedial Action Plan (RAP) for remediation of part of former Newcastle Steelworks, Mayfield: Earthworks to reshape and capped contaminated soil over an area of approximately 24 hectares. EIS included air quality assessment, noise impact assessment, ecological and health risk assessment and traffic impact assessment. Also responsible for management of a community consultation program (BHP Billiton, 2002).

Environmental Management Plans

- Project Manager for preparation of the Construction Environmental Management Plan (CEMP) for the construction of the South Hedland Transmission Line (PowerServe, 2013).

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- Environmental Approvals Manager for the Hunter 8 Alliance (Australian Rail Track Corporation). This role included the preparation and approval of four separate CEMP. This included specialist management plans for Aboriginal heritage, flora and fauna, non-indigenous heritage, geological heritage (fossil area), noise and vibration, soil and water management, surface and groundwater and traffic management (ARTC, 2007 – 2013).
- Project Director for preparation of CEMP and specialist plans for Wire Rope Facility at Tomago, NSW (Midal, 2012).
- Project Manager for preparation of CEMP and specialist plans for major water trunk main through sensitive wetland environment, Kooragang Island, Newcastle (HWC, 2008).
- Project Manager for preparation of Environmental Management Plans for geotechnical investigations in sensitive environmental areas for the Oxley Highway to Kempsey Pacific Highway Upgrade (RTA, 2005).

Environmental Auditing and Compliance

- Environmental Management Representative for Cardiff Station Railway Upgrade (Transport for NSW, 2012 - 2013)
- Environmental Management Representative for upgrade of water infrastructure at Telarah and Windale (Hunter Water Corporation, 2013).
- Project Manager for Phases 1, 2 and 3 development of the Environmental Management System for the Newcastle Army Training Depot. Shaun undertook the initial environmental audit, including development of Environmental Aspects and Impacts Register, before progressing to development of site-specific environmental management procedures (Department of Defence, 2005).
- Environmental Auditor for various RTA Single Invitation Maintenance Contracts and RTA Construction Projects. This required document and field audits of environmental performance of local councils responsible for maintenance works on RTA roads within their local government area (RTA, 2003 – 2005).

Hazardous Materials Auditing and Management

- Project Manager for asbestos review, risk assessment and remediation options strategy of administration and academic building (University of Newcastle, 2013).
- Auditor for Hazardous Materials Audit for former commercial building within the extended rail corridor (ARTC, 2013).
- Development of Asbestos Management Plan for asbestos containing materials and soil within the rail corridor (ARTC, 2012).
- Auditor for Asbestos Audit of power transmission infrastructure (EnergyAustralia, 2007).
- Project Manager for Asbestos Audit of over 100 residential, educational and commercial buildings within the Jebel Ali Village (Nakheel, 2007).
- Project Manager for Asbestos Audits of various commercial buildings throughout Newcastle and the Hunter Region (various, 2003 – 2006).
- Auditor for Asbestos Audits of Defence properties, South Coast of NSW. Shaun undertook audits of approximately 100 buildings on Defence properties on the NSW South Coast (Department of Defence, 2004).
- Project Manager for Asbestos Audits and Management Plans for Eraring Energy properties: Audits were undertaken of and Asbestos Management Plans developed for Eraring Power Station, Buffer Zone Lease properties and Brown Mountain Power Station (Eraring Energy, 2004).
- Project Manager and Auditor for Asbestos Audits of Defence properties, Central and Northern NSW: Coordination of an eight member team undertaking asbestos audits of approximately 500 buildings on

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Defence properties throughout Central and Northern NSW. Shaun undertook the initial asbestos audit and the follow up audit, which also included cadet facilities Department of Defence, 2000 and 2004).

Prior to joining ENVIRON, Shaun held the following positions:

- GHD Australia, Newcastle, Senior Environmental Scientist – Major Projects Approvals Manager (2007 – 2013).
- GHD United Arab Emirates, Dubai, Manager – Environment (2006 – 2007).
- GHD Australia, Newcastle, Service Group Manager – Environment (2005 – 2006).
- GHD, Australia, Newcastle, Senior Environmental Scientist (2003 – 2005).
- GHD Australia, Newcastle, Environmental Scientist (1998 – 2003).
- BHP Research, Land Protection Panel, Melbourne, Environmental Scientist (1997)

CREDENTIALS

Certifications

Rail Industry Safety Induction

Construction Induction (White Card)

ARTC Safety Induction

Senior First Aid

Professional Affiliations and Activities

Member, Environmental Institute of Australia and New Zealand

Member, Hunter Environmental Institute

Graeme Nyland | Principal

Sydney, Australia

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Graeme Nyland is the Managing Principal of ENVIRON's Sydney office. He is an engineering geologist with more than 30 years of consulting experience in the areas of environmental and geotechnical consulting—the past 20 years of which focused on soil and groundwater contamination. He is a contaminated sites auditor, accredited by both New South Wales Environment Protection Authority (under the Contaminated Land Management Act of 1997), and by Western Australia Department of Environment and Conservation (under the Contaminated Sites Act of 2003). Graeme has participated in projects throughout Australia, as well as in the US, New Zealand and Papua New Guinea. His areas of environmental expertise include soil and groundwater contaminated site assessments, audits of contamination status for property transfer and property development purposes, site remediation, landfill siting and management and environmental management. He was accredited as an environmental auditor in 1998, and has conducted more than 400 statutory and voluntary audits in New South Wales, Australian Capital Territory and Western Australia.

EDUCATION

1984 MEngSc, Geotechnical and Hydrogeology, University of New South Wales

1973 BSc with Honours, Applied Geology, University of New South Wales, Sydney

2000 Business Management Certificate with Distinction, Australian Institute of Management

EXPERIENCE

Site Audits

- More than 300 statutory and non-statutory site audits under NSW Contaminated Land Management Act, for properties in Sydney and throughout NSW and ACT, covering a wide range of potential contaminants.
- Audits in ACT under ACT Environment Protection Act and in WA under Contaminated Sites Act.
- Audits for property transfer for Sumitomo Bank and Bank of San Francisco, California, and Commonwealth Bank, Sydney.
- Audits during investigation, remediation and redevelopment process of major former Defence facilities at Penrith, Schofields Aerodrome, Moorebank and Neutral Bay.
- Audit of investigation and/or remediation at industrial facilities including BlueScope Port Kembla, Capral Aluminium, Boeing Bankstown, Bunnerong and Tallawarra former power stations, Nuplex Botany, BHP Newcastle, ADI Lithgow.
- Audits of investigations at former railway marshalling yard and maintenance facility at Enfield prior to proposed sale of the property, for Sydney Ports Corporation.
- Audits of investigation and/or remediation at sheep/cattle dip sites in ACT and northern NSW.
- Audits of former gasworks sites in Neutral Bay, Singleton, Mudgee and Wollongong.
- Audits of investigations of railway owned properties in Sydney, Wollongong, Bathurst and Moss Vale prior to proposed sale of the properties.
- Approximately 50 audits of investigations and/or remediation for fuel depots and service stations for Mobil, Caltex and Shell.
- Project director for environmental liability and operational audits at over 30 motor vehicle and truck dealerships.

Graeme Nyland

- Audits relating to redevelopment of former landfill sites, including sites at Tempe, Waterloo, Penrith, Strathfield, Dural, Wyong and Camden.
- Audits of investigations of contamination by tenants for lease purposes for State Property sites in Sydney and Newcastle.
- Due Diligence audits of major chemical facilities in Sydney and Melbourne.

Landfill and Waste Disposal Studies

- Project management of hydrogeological studies and review of leachate monitoring system, existing landfill and 825 acre expansion, Altamont Sanitary Landfill, Livermore, California.
- Soils and hydrogeology studies for detection monitoring program, regulatory compliance and waste load assimilative capacity, waste management units at Sacramento Wastewater Treatment Plant, California.
- Groundwater monitoring, Kurnell Landfill, Sydney, and formulation of groundwater pollution management plans.
- Revision of groundwater monitoring programs to reduce scope and conform to regulatory requirements, fertiliser evaporation ponds and soil management units, Richmond, California.
- Groundwater and surface water investigations and data reviews, Castlereagh Waste Disposal Depot, Sydney.
- Investigation and remediation of a landfill in a former brick pit, including leachate collection and treatment, gas treatment, and groundwater monitoring, for Ford Motor Company, Homebush, Sydney.
- Investigation and remediation design for former landfill and nightsoil depot at Camden for Camden Council.

Sediment and Water Quality Studies

- Contamination and remediation assessment for former industrial site and sediments adjacent to Lane Cove River, Sydney.
- Sediment sampling and analysis and assessment of sources of polynuclear aromatic hydrocarbons, San Francisco Bay.
- Water quality assessments, Marlowes Lagoon, Palmerston, Northern Territory, prior to development of Palmerston township.

Contaminated Site Assessment (Soil and Groundwater)

- Soil and groundwater contamination investigations prior to sale of property of former Ford Motor Vehicle and Truck Assembly Plants and associated facilities, Homebush, (NSW), Brisbane (QLD) and Auckland (NZ)
- Investigations at proposed cogeneration plant site at Botany, including consideration of the affect of groundwater pollution from neighbouring activities on the proposed development and the impact of the development on the groundwater remediation proposals.
- Soil and groundwater contamination investigation of industrial site prior to sale at Beaconsfield, Sydney, (on Botany Sands) for Pacific Power.
- Contamination assessments of 300 ha Defence site, Ingleburn.
- Environmental assessments and preliminary remediation strategy for proposed redevelopments, City West Development Project, Pyrmont Peninsula, Sydney.
- Senior reviewer for soil and groundwater contamination investigations and remedial feasibility study, former Union Pacific railroad yard, Sacramento, California.
- Groundwater contamination investigations and remedial feasibility studies, Union Pacific railroad yard, Oroville, California.

Graeme Nyland

- Project manager for general environmental services contract, San Francisco Bay Area Rapid Transit District, including soil and groundwater contamination assessments and remediation for proposed line extensions and existing trackways and maintenance facilities.
- Soil and groundwater contamination investigations and field quality control audits, Fort Ord Army Base, Monterey California.
- Soil and groundwater contamination assessment, White Bay Power Station, Sydney.
- Management and/or review of numerous site assessments, Sydney, for clients including State Rail Authority, Pacific Power, Sydney Water, Ford, Merck. Sharpe and Dohme.
- Risk assessment for arsenic and organochlorine pesticides, former industrial site, Sydney.
- Management of soil and groundwater contamination investigations and health risk assessments, former manufactured gas plant sites, Madera, Oakdale, Willows, and Chico, California.

Site Remediation and Validation, including Groundwater Remediation

- Contamination assessment and remediation and validation plans, and validation, for a lead and hydrocarbon contaminated former Dulux paint and lead manufacturing site, in Sydney.
- Project director for soil and groundwater remediation and post remediation monitoring at a former chemical manufacturing site including setting of risk based cleanup criteria and EPA liaison, Sydney, for Merck. Sharpe and Dohme.
- Soil validation program, former Pyrmont Power Station (now Sydney Casino) Site, Pyrmont, Sydney, prior to site transfer to Casino Control Authority.
- Contamination investigation, remediation of hydrocarbon contaminated soils, and groundwater remediation feasibility assessment, Ford's former motor vehicle assembly plant, Sydney.
- Remediation of landfills, metals and hydrocarbon contamination at a Defence site, Kingswood.
- Remediation of a former landfill in a brick pit, including ongoing leachate collection and treatment, gas treatment, and groundwater monitoring, Homebush, Sydney.

Highways, Pipelines, Railways and Airfields

- Route investigations for Frances Bay Arterial Road and other major roads in the Northern Territory. Investigations included cutting stability and excavatability, road making materials, stability of embankments over swamps, subgrade conditions, and structural design.
- Investigations for development of new taxiways and terminal, Darwin airport (RAAF Base).
- Numerous materials investigations throughout Northern Territory for roads, bridges, railways, and construction materials.
- Investigations for onshore natural gas pipeline routes, Western Australia.
- Materials investigations, proposed Alice Springs to Darwin railway, NT.
- Geotechnical overview report, Hume Highway, Tarcutta Deviation, NSW.
- Project Director for assessment of environmental liabilities from soil and groundwater contamination at a major international airport, Sydney, Australia.
- Investigation, design and quality control for chemical stabilisation of highway pavements, northern NSW.

Geotechnical and Environmental Studies for Mines, Dams and Tunnels

- Soils investigation for artificial lake design and construction, Darwin, Northern Territory.

Graeme Nyland

- Materials assessments for spoil heap cover designs, Rum Jungle and Moline Mine rehabilitation projects, Northern Territory.
- Engineering geological mapping, laboratory testing and design of repair recommendations, Halawa water transmission tunnel, Oahu, Hawaii.
- Data collection and analyses for slope design and stability studies at Great Victoria, Bronco, Copperhead and Kanowna open cut gold mines, Western Australia.
- Site investigations for two tailings dams, and on site mapping and verification during construction, Argyle Diamond Mine, WA.
- Management of engineering geological studies for dredge design, Eneaba mineral sands mine, Western Australia.
- Various studies including excavatability and spoil dump stability at Collie coal mine, Western Australia.
- Project Director and geological input, cost benefit assessment of remediation options for contaminated seepage, Captains Flat Mine Site, NSW.
- Risk assessment for mine and tailings heaps at Woodsreef former asbestos mine, Barraba, NSW.

Offshore Studies

- Offshore site investigations for product loading jetty and cooling water inlet tunnel as part of the Northwest Shelf Project in Withnell Bay, Karratha, Western Australia.
- Engineering geological investigations of deep foundations in calcareous sediments for existing North Rankin "A" gas production platform, and site geologist during remedial measures, Northwest Shelf, Western Australia.
- Goodwyn Platform foundation investigations, Northwest Shelf, WA, and selection of test site in South Australia for onshore grouted pile tests.
- Saladin Oilfield Development, geotechnical investigations for offshore facilities, WA.
- Offshore site investigations, Harriet Field and Chervil, WA.
- Client representative on offshore site investigation including geophysics, sediment sampling, and in situ testing for pipeline route and petroleum loading site, Kikori Delta, New Guinea.

Assessments for Buildings, Bridges and Infrastructure Projects

- Site investigations for infrastructure including the plant site, crusher site, town site, tailings dams and construction materials for Argyle Diamond Mine in Western Australia.
- Geotechnical feasibility studies for coal-fired power station on Channel Island, Northern Territory, Australia. Investigation included ash disposal dams, two access bridges, jetty, an access road over mangrove swamps, and structure and coal store foundations.
- Site investigation for lime and cement plant on Quarantine Island, Northern Territory. Investigated foundations, excavation conditions and groundwater by drilling, trenching and seismic refraction methods.
- Foundation investigations for buildings in Darwin, Northern Territory, Australia, including Darwin Centre, Marraki Apartments, Workers Club.
- Foundation and geological investigations for turbine stations, electrical substations, and associated transmission lines, including Kalgoorlie, Pinjar and Mungarra, Western Australia.
- Soils investigations for upgrading of Darwin airport, Northern Territory, including new terminal building and taxiways.

Graeme Nyland

- Preliminary engineering geological investigations including air photo interpretation for siting of new airport at Broome, Western Australia.
- Elizabeth River Bridge site investigation, including approaches through mangrove swamps, Northern Territory.
- Project management of foundation investigations for proposed Collie coal fired power station, Western Australia.

Prior to joining ENVIRON, Graeme held the following positions:

- Senior Principal, URS/Dames & Moore
- Engineering Geologist/Scientific Officer, Main Roads Department, New South Wales

CREDENTIALS

Registrations & Certifications

NSW EPA-Accredited Site Auditor under Contaminated Land Management Act 1997 (NSW)

WA DEC-Accredited Contaminated Sites Auditor under Contaminated Sites Act 2003

Registered Geologist (RG) and Certified Engineering Geologist (CEG), California

Professional Affiliations & Activities

Member, Australian Water Association

PUBLICATIONS & PRESENTATIONS

Six technical publications on engineering geological aspects of landslides and foundations, and soil and groundwater contamination investigations and remediation.