Stolthaven Australia Pty Ltd
21-Aug-2015

Statement of Environmental Effects

Section 96 Modification - SSD_6664 Throughput Increase

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Client: Stolthaven Australia Pty Ltd

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			Name/Position	Signature
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1.0 Introduction

1.0 Request for Modification

This Statement of Environmental Effects (SEE) has been prepared by AECOM Australia Pty Ltd (AECOM) on behalf of Stolthaven Australia Pty Ltd (Stolthaven) to permit additional throughput of combustible fuels at Stolthaven's existing fuel import, storage and dispatch facility (the Facility). Stolthaven owns and operates the Facility on the former BHP Steelworks site at Mayfield, NSW, which is a land parcel managed by the Port of Newcastle Pty Ltd (PON) in the Port of Newcastle (refer **Figure 1**).

The Facility currently operates under development consent, State Significant Development (SSD) 6664 and Environmental Protection Licence (EPL) 20193, which both permit combustible fuel throughputs of up to 1,010 ML per year. Stolthaven has recently reviewed the Facility's throughputs and forecasts, and has identified that the primary customers of the Facility are likely to require combined throughputs of up to 1,300 ML in order to meet short and medium term demands.

Following discussion with the Department of Planning and Environment (DP&E) and agreement on the approvals pathway, this SEE has been prepared seeking modification to the existing SSD_6664 under Section 96(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to permit the increased throughput of combustible fuels (the Proposed Modification)(refer **Appendix A**). The Proposed Modification would not require an increase in storage capacity at the Facility or the construction of any new fuel storage tanks or associated infrastructure.

This SEE addresses the requirements of the EP&A Act, including the relevant matters listed in Sections 79C and 96 of the Act as well as Clause 115 of the Environmental Planning and Assessment Regulation 2000.

Stolthaven would progress a separate application under the *Protection of the Environment Operations Act 1997* (POEO Act) to vary EPL 20193 to licence the new proposed annual throughput of petroleum products.

1.1 The Proponent

Stolthaven is a bulk liquids logistics company, which specialises in handling fuels, hazardous bulk liquids and edible oils. Stolthaven has gained a global reputation for excellence in the storage and handling of bulk liquids. Stolthaven, formally operating as Marstel, has been operating since 1987 and is a national leader in the business of bulk liquid storage, with a highly valued customer base, including numerous multi-national companies. Stolthaven has operations across Australia (Victoria, Queensland and NSW) and New Zealand.

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2.0 Background

2.0 Part 3A and Part 4 Approvals

The Facility currently operates under SSD_6664 issued on 16 April 2015 under Part 4 of the EP&A Act. However the Facility was originally approved under the now superseded Part 3A of the EP&A Act, which Project Approval MP08_130 made allowance for three diesel storage tanks, and 300 ML per annum of diesel and biodiesel throughput. Subsequent modifications to that original Project Approval have included:

- MOD 1 – Two additional 18ML diesel tanks, one additional 4.2ML biodiesel tank and an additional 100ML pa throughput. Approved 26 July 2013;
- MOD 2 – Paper modification to the wording of Condition 6 to remove reference to the Department of Health. i.e. no changes to the composition of the approved Facility. Approved 15 November 2013; and
- MOD 3 – Increase throughput from 400ML pa to a total of 500ML pa. No additional tanks or infrastructure. Approved 10 July 2014;
- The current SSD_6664 approval transferred the Facility from a Part 3A approval to an SSD approval, and permitted the Facility's capacity to be increased through an additional:
    - Two 18ML diesel storage tanks; and
    - Throughput to total 1,010ML pa.

2.1 Proposed Modification

The Proposed Modification seeks to amend SSD_6664 to increase the Facility's combustible fuels throughput from 1,010ML pa to 1,300ML pa.

The Proposed Modification relates to the following parcels of land on Steelworks Road, Newcastle NSW:

- Lot 2 DP 1177466, the site of the current Facility;
- Lot 44 DP 1191982, the location of the Mayfield No. 4 Berth (M4); and
- Lots 42 and 45 DP 1191982, through which the pipeline between the Facility and Mayfield No. 4 Berth (M4) traverses.

2.2 Conditions Requiring Modification

A modification is sought regarding Condition No. 6 of Schedule 2 of the current development consent:

> *Following the receipt of an amended EPL for the Development, the Applicant shall not receive, store and dispatch more than 1,300 million litres of diesel and biodiesel fuel per year.*

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3.0 Site Description

3.0 The Site

The Site is located around 5 km northwest of the Newcastle CBD. All four lots are leased to Stolthaven from PON for the purposes of operating the Facility. The Site is flat and lies at approximately 1.9 m AHD. It adjoins the South Arm of the Hunter River to the north and industrial premises to the west as shown in **Figure 2**. The Site consists of the following parcels of land:

- Lot 2 DP 1116571;
- Lot 36 DP 191723;
- Lot 37 DP 191723; and
- Lot 48 DP 1191723.

Lot 2 contains the existing fuel terminal operations including the existing seven operational tank, two tanks currently under construction (approved as part of SSD_6664), site office and amenities building (**Figure 3**). A detailed description of the existing terminal facility is provided in the Environmental Impact Statement for SSD_6664 (AECOM, 2015).

All lots are bounded to the south east by an access road constructed by PON, which provides vehicular access from the Site to Industrial Drive, via Steelworks Road.

The Proposed Modification would not involve any construction or other ground-breaking works, and would therefore not impact on the existing contamination remediation works that have been undertaken in the area. Specifically, the Proposed Modification would not interfere with the integrity of the existing capping layer and subterranean barrier wall.

3.1 Surrounding Land Use

The Site is located opposite and adjacent to established industries on Kooragang Island and in Mayfield and Carrington. Land use surrounding the Site primarily comprises industrial development, as shown in **Figure 2** and includes:

- North – Hunter River and Port Waratah Coal Services (PWCS) Coal Loaders;
- South – Currently vacant land. Anticipated future use for industrial/business park uses;
- West – OneSteel operations; and
- East – Current vacant industrial land and Koppers Australia pipeline.

The nearest residential area is located at Mayfield (**Figure 2**), with the closest receptors approximately 900 m from the site boundary. Other residential areas in proximity to the site include the suburbs of Carrington, Wickham and Tighes Hill.

3.2 Land Use Context

The Port of Newcastle is a major distribution point and activity centre for a number of industries. Whilst the export of coal is the predominant commodity shipped through the Port, approximately 40 other cargo types (e.g. fertilisers, vegetable oils, grains, woodchips and aluminium) are also moved through the Port on a regular basis. The Port of Newcastle also supports other industries such as ship building and repairs in the Marine precinct. The Port is also becoming an increasingly popular location for recreational craft, particularly with the establishment of the Newcastle Cruising Yacht Club.

Industrial land uses dominate the area surrounding the site to the north and west. A number of Port related land uses also surround the site. Those areas currently used for industrial purposes have been occupied by heavy industry for significant periods.

The nearest area of environmental or ecological significance is the Hunter River Wetlands National Park which is located approximately 5km to the north of the site. Between the Site and the wetlands lie the south arm of the Hunter River and the industrial areas of Kooragang Island, notably the coal loading facilities of PCWS and the Newcastle Coal Infrastructure Group (refer **Figure 2**).

G:\IENV\Projects\60316036869 Stolthaven\FIGURES\Modification 1\60326868 F1 Regional Context 17 07 2015 TO

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REGIONAL CONTEXT

Stolthaven State Significant Development Modification 1

FIGURE 1

G:\ENV\Projects\603\60326869 Stolthaven\FIGURES\Modification 1\60326868 F2 Site Location 17 07 2015 TO

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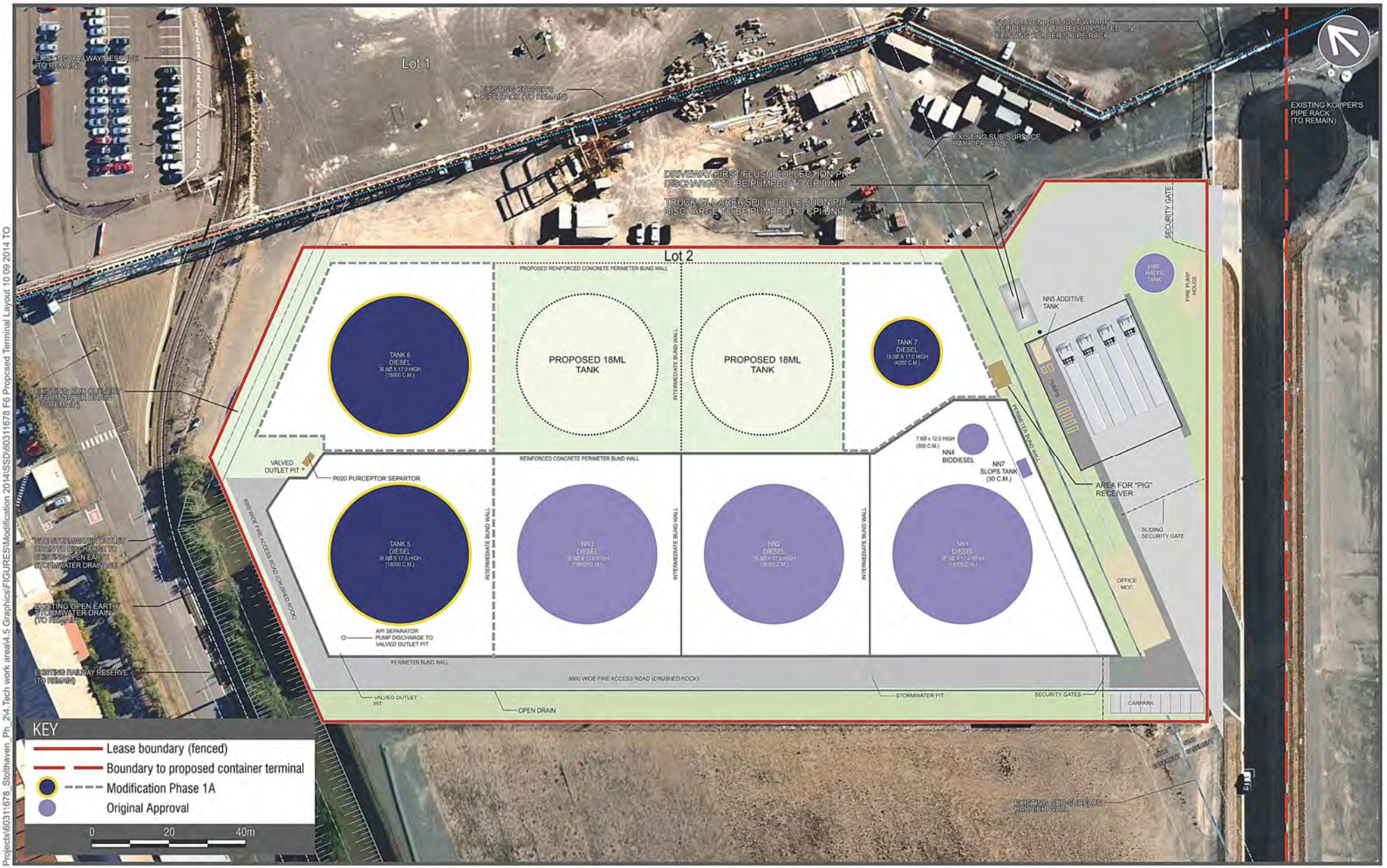
SITE LOCATION

Stolthaven State Significant Development Modification 1

FIGURE 2



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PROPOSED TERMINAL LAYOUT

Stolthaven State Significant Development Modification 1

FIGURE 3

4.0 Statutory Planning

4.1 Approval Pathway

The initial development of the Facility met the definition of designated development in accordance with Schedule 3 of the *Environmental Planning and Assessment Regulations 2000*. However, as the Proposed Modification would not significantly increase the environmental impact of the Facility (Item 35, Schedule 3 of the Regulation), the Proposed Modification itself does not constitute designated development. The Facility is currently approved to operate according to SSD_6664 issued under Part 4 of the EP& Act. Sections 96(1A) and (2) of the EP&A Act allow a consent authority to modify a development consent after receiving an application to do so. Under both subsections (1A) and (2), the proposed modification must relate to substantially the same development for which the consent was originally granted as well as for subsequent modifications which have already been approved. Furthermore, Subsection (1A) allows a consent authority to modify a development where it is satisfied that the proposed modification is of minimal environmental impact.

The Proposed Modification is considered to properly fall for determination by DP&E under Section 96(1A) of the EP&A Act as it would have only a minimal environmental impact due to the following:

- The Proposed Modification would not require an increase in storage capacity at the Facility, nor would it involve the storage or handling of flammable liquids. As such, it would not require the construction of any new fuel storage tanks or associated infrastructure at the Facility, and would not significantly increase the Facility's overall risk profile;
- The Proposed Modification would result in minimal impacts only to air quality, noise, traffic and transport and hazard and risk given the relatively minor increase in the volume of combustible fuels products passing through the facility;
- Other environmental impacts of the Proposed Modification would be negligible, including impacts to surface and groundwater, biodiversity, visual amenity, Aboriginal and non-Aboriginal heritage, and soils and contamination. This is due to the fact that the Proposed Modification would not require any construction or other ground-breaking works; and
- Furthermore, the Proposed Modification can be properly considered to relate to the same development for which:
    - Original consent was granted under Part 3A to construct and operate the Facility with diesel and biodiesel storage tanks and an annual throughput of 300ML pa of diesel products per year; and
    - A modified consent was most recently granted (SSD_6664) to increase combustible fuels throughput to 1,010 ML pa, build two new diesel storage tanks, and merge all previous existing consents for diesel and petroleum handling into one.

Moreover, the Proposed Modification follows substantially the same approach as DP&E has previously taken with the Facility: e.g. MOD 3 (approved 10 July 2014 under section 75W of the EP&A Act) to the original MP08_130 increased the Facility's throughputs from 400ML pa to 500ML pa with no additional tanks or infrastructure commissioned.

4.2 Requirements for SEE

4.2.1 Compliance under Section 79C of the EP&A Act

Section 96(3) of the EP&A Act requires an application for modification of a consent to take into consideration the relevant matters set out in Section 79C(1). The matters listed in Section 79C(1) and their relevance to the Proposed Modification are detailed in **Table 1**.

Table 1 Relevant Section 79C(1) Matters

Section 79C(1) Requirement	SEE Section where Addressed
(a) the provisions of:	
(i) any environmental planning instrument, and	**Section 4.2.2**
(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	**Section 4.4**
(iii) any development control plan, and	**Section 4.5**
(iii) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and	There are no relevant planning agreements applying to the Proposed Modification
(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and	The relevant matters are prescribed under clause 115 of the *Environmental Planning and Assessment Regulation 2000*. These are summarised in **Table 2**.
(v) any coastal zone management plan (within the meaning of the *Coastal Protection Act 1979*), that apply to the land to which the development application relates,	No relevant coastal zone management plan applies to the Proposed Modification
(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	**Section 6.0**
c) the suitability of the site for the development,	**Section 3.0**
(d) any submissions made in accordance with this Act or the regulations,	At the time of preparing this SEE, no such submissions had been received.
(e) the public interest.	**Section 5.2**

4.2.2 Integrated Development under Section 91 of the EP&A Act

Integrated development refers to a development which, in addition to development consent, requires one or more additional approvals before it can proceed. The approval trigger for the Proposed Modification is the site's EPL under the *Protection of the Environment Operations Act 1997*(POEO Act).

The purpose of the integrated development provisions is to streamline the approvals process, and to avoid duplication and conflicting decisions, where more than one decision-maker is involved in approving a development.

For integrated development, the normal assessment and notification procedures are followed, but DP&E as the determining authority must also ask the authority responsible for giving the other approval (EPA) in advance whether it will consent to the proposal, and if so, on what terms. It is therefore understood that this SEE would be referred to the EPA for their feedback.

4.2.3 Environmental Planning and Assessment Regulation 2000

The EP&A Regulation outlines the requirements and regulatory processes under the EP&A Act.

Clause 115 'Application for modification of development consent' of the EP&A Regulation pertains to this modification application and is considered in **Table 2**.

Table 2 Requirements under Clause 115 of the EP&A Regulation

Clause Item	Requirement	Reference in SEE
An application for modification of a development consent under section 96 (1), (1A) or (2) or 96AA (1) of the Act must contain the following information		
a)	The name and address of the applicant	This SEE has been prepared on behalf of the applicant, Stolthaven Australia Pty Limited, ABN 50825884846, of 401 Kororoit Creek Road, Altona, Victoria 3018.
b)	A description of the development to be carried out under the consent (as previously modified)	Refer **Section 5.0**.
c)	The address, and formal particulars of title, of the land on which the development is to be carried out	**Sections 2.1** and **3.0**.
d)	A description of the proposed modification to the development consent	Refer **Section 5.0**.
e)	A statement that indicates either: (i) that the modification is merely intended to correct a minor error, misdescription or miscalculation (ii) that the modification is intended to have some other effect, as specified in the statement	NA The Modification would result in minimal impacts only to air quality, noise, traffic and transport and hazard and risk given the relatively minor increase in the volume of combustible fuels products passing through the facility. Other environmental impacts of the Modification would be negligible, including impacts to surface and groundwater, biodiversity, visual amenity, Aboriginal and non-Aboriginal heritage, and soils and contamination. This is due to the fact that the Modification would not require any construction or other ground-breaking works.
f)	A description of the expected impacts of the modification	Refer **Section 6.0** to **Section 11.0**.
g)	An undertaking to the effect that the development (as to be modified) will remain substantially the same as the development that was originally approved	Refer **Section 4.1**.
h)	If the is not the owner of the land, a statement signed by the owner of the land to the effect that the owner consents to the making of the application (applicant except where the application for the consent the subject of the modification was made, or could have been made, without the consent of the owner)	Landowners consent is provided by PON under separate cover.
i)	A statement as to whether the application is being made to the Court (under section 96) or to the consent authority (under section 96AA)	The Modification relates to substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified. The Facility currently operates under SSD_6664. This SEE has therefore been prepared for submission to the Department of Planning and Environment for determination under Section 96AA of the EPAAct 1979, rather than the Court.

The site's EPL 20193 has been administered under the EP&A Regulation, and in the event that this modification is approved, the site would continue to operate under this licence. The approval of the modification would necessitate amendments to the licence as discussed in Section4.6.

4.3 Environmental Planning Instruments

Development in NSW is carried out under the EP&A Act. Environmental planning instruments, including State Environmental Planning Policies (SEPP) and Local Environmental Plans (LEP), are legal documents enacted under Part 3 of the EP&A Act that regulate land use and development.

Environmental planning instruments determine the permissibility of the proposed development and the environmental assessment pathway for the proposed development. The environmental planning instruments relevant to the proposed development are discussed below.

4.3.1 Newcastle Local Environmental Plan

The Facility is located within the Newcastle City local government area where the relevant local Environmental Planning Instrument is the Newcastle LEP 2012. However, as the Facility is identified as being within the boundaries of the Newcastle Port Lease Area and falls under the provisions of the Three Ports SEPP, the provisions of the LEP 2012 do not apply to the Facility.

4.3.2 State Environmental Planning Polices

The following environmental planning instruments include provisions relating to issues that are relevant to the environmental impact assessment of the Proposed Modification:

State Environmental Planning Policy No. 33 — Hazardous and Offensive Development;

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP);

State Environmental Planning Policy No. 55 – Remediation of Land; and

State Environmental Planning Policy 71 – Coastal Protection (SEPP 71)

State Environmental Planning Policy (Three Ports) 2013 (Three Ports SEPP)

The Three Ports SEPP provides a consistent approach to the land use planning and management of the development of NSW's three main Ports, Port Botany, Port Kembla and the Port of Newcastle.

The Facility is located on land zoned SP1 Special Activities and is permissible with consent in this zone. As described in **Section 4.1**, the Facility is also defined as a designated development under the EP&A Regulation 2000. Pursuant to Clause 27 of the Three Ports SEPP, designated development in the Port Lease Area is declared to be SSD and assessed as such pursuant to the provisions of the EP&A Act.

State Environmental Planning Policy (State and Regional Development) 2011

The State and Regional Development SEPP declares that certain development projects or infrastructure are of regional or State significance. A described above, pursuant to Clause 27 of the Three Ports SEPP, the Facility is declared to be SSD. Clause 27(2) of the Three Ports SEPP indicates that the State and Regional Development SEPP is to apply to development if declared as SSD. Therefore the State and Regional Development SPP applies to the Proposed Modification.

Under Clause 11 of the State and Regional Development SEPP, Development Control Plans (DCPs) do not apply to SSD. Therefore no DCPs apply to the Proposed Modification.

State Environmental Planning Policy 33 – Hazardous and Offensive Development (SEPP 33)

SEPP 33 was designed to ensure that sufficient information is provided to consent authorities to determine whether a development is hazardous or offensive. Conditions can then be imposed on the development to reduce or minimise adverse impacts. Any development application for a potentially hazardous development must be supported by a Preliminary Hazard Analysis.

The document *Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines* was prepared by the Department of Urban Affairs and Planning (DUAP, 1994) to provide assistance in implementing SEPP 33. The Guidelines recommend a 'risk screening' method for determining whether a proposal is hazardous, and provide guidance on assessing potentially offensive development proposals. The previous Preliminary Hazard Assessment found that the Facility would not constitute a hazardous or offensive development. As the

modification is not introducing any new types of fuels or processing, it does not constitute a hazardous or offensive development.

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)

The aim of this Policy is to facilitate the effective delivery of infrastructure across the State. Schedule 3 lists development which requires referral to the Roads and Maritime Service (RMS) including:

> *Transport terminals, bulk stores, container depots or liquid fuel depots with a capacity of 8,000m^2 with site access to any road.*

Under section 104 of the Infrastructure SEPP, the Minister is required to forward the SSD application to the RMS for comment before making a determination.

A Project specific Traffic Impact Assessment (TIA) has been prepared to assess potential impacts of the Proposed Modification. This TIA concluded the Proposed Modification would not have a significant impact on the operation of the road network, including Industrial Drive. Details are provided in **Section 8.0**.

State Environmental Planning Policy 55 – Remediation of Land (SEPP 55)

SEPP 55 promotes the remediation of contaminated land to reduce the risk of harm to human health or other environmental systems. Clause 7 of SEPP 55 requires a consent authority to consider whether the land is contaminated and whether it is suitable (or can be made suitable) for the proposed development. A Contaminated Site Management Plan has been developed for the entire former BHP Steelworks Site, which forms part of the Voluntary Remediation Agreement formed under the *Contaminated Land Management Act 1994*. Remediation works have been completed, including the construction of a groundwater barrier around the contaminated parts of the Site and remediation of the surface areas with the application of crushed rock (HDC, 2010).

As the Proposed Modification would not require any excavation or other construction works, no further consideration of legacy soil and groundwater contamination issues is required.

State Environmental Planning Policy 71 – Coastal Protection (SEPP 71)

The Proposed Modification would be located within the coastal zone as defined by SEPP 71 which makes provision regarding protection of coastal attributes, protection of natural and cultural heritage elements, coastal environmental protection, and the retention of foreshore public access. Clause 8 of the SEPP provides matters for consideration to be taken into account by a consent authority when determining an application to carry out development. The Proposed Modification would not impact on any coastal features, or access to these features, which SEPP 71 aims to protect. Therefore no further consideration of SEPP 71 is required.

4.4 Mayfield Concept Plan

Concept Plan (MP09_0096) was approved by the Minister under the Section 75M (now repealed) of the EP&A Act on 16 July 2012 to enable development of the former BHP Steelworks site (known as the Closure Area or Concept Plan area), a 90-hectare portside portion of land on the South Arm of the Hunter River within which the Facility sits. The Concept Plan area is to be developed progressively in stages to accommodate anticipated future trade needs over a 20-25 year timeframe. The Concept Plan identified the use of the site for a range of port related activities that could generally be divided into the following categories:

- PON Operations – Including office, storage sheds, vehicle and marine equipment, Newcastle Port Corporation (NPC) dredging vessel, pilot cutters and helipad;
- Bulk and General – Including handling non-hazardous dry bulk products including grain, briquettes, and coke cargoes;
- General Purpose uses – Handling and storage of cargo containers, heavy machinery, Roll On Roll Off and break bulk cargo. This includes the existing general cargo facility known as Mayfield No.4 Berth (M4);
- Container handling – Facilities for the import and distribution of Twenty-Foot Equivalent Unit (TEU) cargo containers; and
- Bulk Liquid – Storage, blending and distribution of bulk liquids including fuels.

New road and rail infrastructure requirements to service the development of these precincts was also proposed.

4.4.1 Modification

The Concept Plan established acceptable environmental limits for the site and provided indicative estimates of the forecast trade volumes for each precinct. These estimates were based on established NSW government policy, general market conditions at that time and NPC's best available knowledge regarding the types and volumes of trade over the extended timeframe for development of the Concept Plan.

NPC sought to modify the Concept Plan to remove the precinct limitations that restricted certain land uses in size and location within the Concept Plan area. DP&E approved this modification on 17 March 2014. Notably the modification replaces reference to limits in terms of TEU volumes with truck movements, changes triggers for rail works from TEU volumes to daily average train movements, and replaces precinct based sound power levels with entire site noise goals for sensitive receivers.

4.4.2 Relationship between the Proposed Modification and the Concept Plan

When considering the relationship between the Concept Plan and Project Approvals, reference is made to Condition 1.6 of the Concept Plan Approval, which reads;

Limits on Approval

1.6 This Concept Plan approval does not apply to berths, berthing or harbour operations. It also does not apply to other activities approved or legally operating at the site in accordance with other project approvals at the date of this Concept Plan approval.

As the Project Approval for the Facility (MP08_0130) was issued prior to the Concept Plan Approval, Condition 1.6 of the Concept Plan Approval excludes the Facility from being subject to the requirements of the Concept Plan. Regardless during the Project Approval and modification applications, Stolthaven has sought to demonstrate consistency with the Mayfield Concept Plan Approval.

The Proposed Modification would also need to demonstrate consistency with the Concept Plan approval, as Condition 1.6 of the Concept Plan Approval would apply to a new application. Under the Concept Plan approval, projects within the Concept Plan area, subject to Part 4 of the EP&A Act, need to be assessed against the environmental assessment requirements specified in Schedule 3 of the Concept Plan Approval. In addition, under the Concept Plan Approval, PON is required to implement a number of management and monitoring plans, to which future projects within the Concept Plan area will be required to adhere.

4.4.3 Consistency with Mayfield Concept Plan

It is noted that the Concept Plan Approval does not provide consent for any physical works to be undertaken on the Site as these are to be assessed and approved as part of individual project approvals, e.g. Project Approval 08_0130 as modified. These approvals for the existing Facility have demonstrated consistency with the requirements of the Mayfield Concept Plan Approval. In considering the Proposed Modification, three main requirements of the Concept Plan Approval are addressed. They are:

- The maximum daily permissible traffic movements;
- Shipping movement numbers; and
- Coordination of the Proposed Modification with the environmental management documents and plans required by the Concept plan Approval.

Traffic Movements

The proposed increase in throughput would require a corresponding increase in traffic movements for the distribution of fuels. As detailed in Schedule 2, Conditions 2.3, Table 1 – *Initial Staging and Total Truck Movement Limits,* of the Concept Plan Approval (as modified) up to 1,268 total truck movement per day can occur from the Concept Plan Site, prior to additional traffic monitoring or studies being required.

The Proposed Modification would increase the number of trucks using the site from 100 trucks to 150 trucks per day or a maximum of 300 movements per day (150 in: 150 out). Currently Stolthaven is the only operator on the Concept Plan Site and will be the only operator for the immediate future. Therefore the Proposed Modification is within the initial traffic staging limits of the Concept Plan Approval with some 968 movements remaining prior to additional site wide and network traffic assessments being required.

Reference is made to **Section 8.0** detailing the Traffic Impact Assessment.

Ship Movements

The Proposed Modification would require an additional 10 ship movements per year (an increase from the current 104 movements per annum), resulting in a cumulative total of 57 ships accessing the Site each year (and therefore a cumulative of 114 shipping movements to and from the Site). This increase would be well within the 560 ship movements expected to be generated by the Mayfield Concept Plan development and well within the projected capacity of the Port of Newcastle (AECOM, 2010).

Given the moderate percentage (1.8%) of shipping movements the Proposed Modification would generate relative to the overall number of movements for the Port of Newcastle, any impact on the operation of the port is considered to be acceptable.

Concept Plan Approval Environmental Management Plans

There are a number of management plans required by the Mayfield Concept Plan approval which will apply to all future development in the Mayfield Concept Plan area. The Facility is required to adhere to these plans given its location within the Mayfield Concept Plan area. As the first project within the Mayfield Concept Plan area to have been approved and begin construction, Stolthaven has undertaken to meet all relevant requirements of the Mayfield Concept Plan approval as applicable.

Table 3 provides an assessment of the requirements of the plans.

Table 3 Mayfield Concept Plan Approval Management Plans

Condition – Plan / Document	Response
Condition 2.5 Transport Management Plan – A Transport Management Plan shall be implemented by NPC prior to the operation of any projects under the Concept Plan	The Proposed Modification would not be operated prior to the implementation of a Traffic Management Plan by PON.
Condition 2.12 Site Air Quality Model – A site Air Quality Model shall be lodged with the Director-General prior to the consideration of any project under the Concept Plan	The Air Quality Impact Assessment for the Proposed Modification has been undertaken in accordance with the Concept Plan Site Air Quality Model. Refer **Section 9.0**.
Condition 2.19 Concept Plan Site Noise Model – A Site Noise Model shall be lodged with the Director-General prior to the consideration of any project under the Concept Plan	The Noise Impact Assessment for the Proposed Modification has been undertaken in accordance with the Concept Plan Site Noise Model. Refer **Section 9.0**.
Condition 2.21 Stormwater Management Strategy – A Stormwater Management Strategy shall be lodged with the Director-General prior to the consideration of any project under the Concept Plan	A Stormwater Management Strategy has been lodged with the Secretary-General as part of previous approvals obtained for the Facility. The Proposed Modification would not necessitate amendments to the Stormwater Management Strategy.
Condition 2.22 Utilities Infrastructure Plan – A Utilities Infrastructure Plan shall be lodged with the Director-General prior to the consideration of any project under the Concept Plan	A Utilities Infrastructure Plan has been lodged with the Secretary-General as part of previous approvals obtained for the Facility. The Proposed Modification would not necessitate amendments to the Utilities Infrastructure Plan.
Condition 2.23 Shore Side Power – A Shore Side Power Feasibility Assessment shall be lodged with the Director-General prior to the consideration of any project under the Concept Plan	A Shore Side Power Feasibility Assessment has been lodged with the Secretary-General as part of previous approvals obtained for the Facility. The Proposed Modification would not necessitate amendments to the Shore Side Power Feasibility Assessment.
Condition 2.26 Port Emergency Response Plan – The Port Emergency Response Plan shall be updated and submitted two months prior to the commencement of any project under the Concept Plan	The Port Emergency Response Plan is updated regularly and would be submitted to the Secretary-General to recognise the Proposed Modification.
Condition 2.27 Safety Management System – A Safety Management System shall be prepared and implemented prior to the commissioning of any project under the Concept Plan	The Safety Management System shall be updated prior to the commissioning of the Proposed Modification.

Condition – Plan / Document	Response
Condition 3.3 Community Communication Strategy – A Community Communication Strategy shall be submitted to the Director-General prior to the lodgement of any project associated with the Concept Plan	A Community Communications Strategy has been prepared and submitted to the Secretary-General as part of previous approvals obtained for the Facility. The Proposed Modification would not necessitate amendments to the Community Communications Strategy. The community has been briefed on the Proposed Modification during regular community meetings.
Condition 4.1 Compliance Tracking Program – A Compliance Tracking Program shall be lodged with the Director-General prior to the consideration of any project under the Concept Plan	A Compliance Tracking Program has been prepared and submitted to the Secretary-General as part of previous approvals obtained for the Facility. The Proposed Modification would not necessitate amendments to the Compliance Tracking Program.

4.5 Development Control Plans

As described in **Section 4.3.2**, SSDs are excluded from the applications of DCPs. Therefore no further consideration of the *Newcastle Development Control Plan 2012* is required.

4.6 Project Licensing

The POEO Act prohibits any person from causing pollution of waters or air, and provides penalties for pollution offences relating to water, air and noise. The existing Facility operates under EPL 20193 as a chemical storage facility for petroleum products as defined by Section 9, Schedule 1 of the POEO Act. A variation to EPL 20193 would be required to account for the increased annual throughput capacity for the Facility, as well as for the load-based licensing component of EPL 20193.

At the time of writing, Clause A1.4 of EPL 20193 specifies that the annual throughput of the Facility must not exceed 1,010ML per year. A variation to EPL 20193 would be sought to amend this amount to the proposed 1,300 ML subject to approval. The *Work Health and Safety Regulations 2011* require the registration of Major Hazard Facilities. Given that the Facility would continue to store combustible fuels only, it would not meet the threshold requirements for Major Hazard Facility notification or consideration by WorkCover NSW.

4.7 Commonwealth Matters

Actions that may significantly affect matters of National Environmental Significance (NES) require assessment and/or approval from the Commonwealth Department of Environment (DoE) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act lists nine matters of NES that must be addressed when assessing the environmental impacts of a proposal. A Protected Matters Search of NES Matters within a 10km radius of the Site was undertaken as shown in **Appendix B** and summarised in **Table 4**.

Table 4 Consideration of Matters of National Environmental Significance

***Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)**	
NES Matters	**Comment**
Australia's World Heritage properties	There are no properties on the World Heritage Register in the vicinity if the Facility.
National Heritage Places	There are no National Heritage Places in the vicinity of the Facility.
Ramsar wetlands of international importance	There are no wetlands of international importance on the site or in the study area or immediately adjacent. The Hunter River Wetland National Park is a Ramsar listed wetland located approximately 2.5km to the north of the Site beyond the coal loaders and existing industrial areas of Kooragang Island. The environmental management plans outlined in **Section 5.1.6** would continue to be implemented at the Facility to prevent offsite migration of pollutants which could harm the wetland.

***Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)**	
Nationally threatened species and ecological communities	It is unlikely that there would be any impact on Commonwealth-listed threatened species or ecological communities.
Migratory species listed under the EPBC Act	It is unlikely that there would be any impact on Commonwealth or international treaty listed migratory species.
Commonwealth marine areas	The Proposed Modification is not located within or adjacent to a Commonwealth marine area. There would be no direct or indirect impacts to a Commonwealth marine area.
Great Barrier Reef Marine Park	NA
Nuclear actions, including uranium mining	NA
Water resources impacted on by a coal seam gas or large coal mining development	NA

Note: NA = not applicable

As shown in **Table 4**, the Proposed Modification would not have a significant impact on any of these matters of NES. Accordingly, a referral to the DoE is not necessary.

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5.0 The Proposed Modification

5.1 Description of Proposed Modification

The Proposed Modification seeks approval for the increase in throughput of the Facility from an approved 1,010ML per year to 1,300ML per year. This represents an annual increase of 290ML, and would necessitate a slight increase in truck and ship transport movements to and from the Facility (in the order of 50 trucks per day and around 10 additional ship movements per year in addition to current trucking and shipping movements which are already approved to and from the Facility).The Proposed Modification does not require the construction of additional storage tanks or infrastructure.

5.1.1 Fuel Products

The Proposed Modification would see an increase in volumes of diesel and biodiesel which are currently transported to and from, and also stored at, the Facility. The increase in volumes of diesel and biodiesel attributed to the proposed modification and the cumulative total proposed for each type of fuel to be stored at the Facility is detailed in **Table 5**. This current fuel storage scenario would not change as a result of the Proposed Modification.

Table 5 Current Schedule of Fuel Storage Tanks

Tank ID No.	Design Product[1]	Tank Diameter	Shell Height (m)[2]	Usable Volume (m^3)[3]
1	Diesel	36.6	17.1	16,350
2	Diesel	36.6	17.1	16,350
3	Diesel	36.6	17.1	16,350
4	Biodiesel	7.6	12	460
5	Diesel	36.6	17.1	16,350
6	Diesel	36.6	17.1	16,350
7	Biodiesel	18	17	3,970
8	Diesel	36	17.6	16,310
9	Diesel	36	17.6	16,310

1) ULP = Unleaded Petrol. PULP = Premium Unleaded Petrol.

2) Shell height is the height of the outer shell of the tank: i.e. the height of the tank to the external observer.

3) Usable Volumes =Gross tank volume –dead space and contingency volume.

5.1.2 Ancillary Infrastructure

In addition to the fuel storage tanks the Proposed Modification would also involve the continued operation of supporting ancillary infrastructure, including but not limited to:

- Slops tank;
- Truck loading gantry;
- Workshop;
- Fire water storage tank;
- Fire pump house;
- Pipe connecting to the Mayfield Berth 4 (M4);
- Office building;
- Stormwater management system; and
- Safety and security features (e.g. chain fencing, controlled site access).

None of this supporting infrastructure would require upgrades to support the Proposed Modification.

5.1.3 Operational Activities

The operation of the Facility can generally be divided into the following key areas:

- Import - Receipt of fuels by ship;
- Transfer – From ships to the Terminal;
- Storage – in the Terminal (as per **Table 5**); and
- Dispatch – Out loading of fuels for delivery to customers by truck.

Following the approval of the Proposed Modification, the Facility would continue to operate according to this current, approved manner of operations.

The Facility would continue to be access from the traffic controlled intersection of Industrial drive and Ingall St (refer **Figure 4**).

5.1.4 Hours of Operation

The Proposed Modification would operate 24 hours a day, 7 days a week which is consistent with the existing approved operation (Condition 24, Schedule 3 of SSD 6664).

5.1.5 Staffing

As the Proposed Modification would see only a minimal increase in throughputs at the Facility, no additional full time staff would be required. The Facility would continue to employ around 12-14 full time equivalent staff.

As with the existing operations, truck drivers would be transient and only frequent the Facility during truck loading. Specific amenities would be provided for truck drivers to use during truck loading.

5.1.6 Environmental Management and Monitoring

The existing Facility currently operates in accordance with Stolthaven's Mayfield Environmental Management Plan which incorporates a range of sub-plans and supporting documents including:

- Stormwater Management Plan;
- GroSundwater Management Plan;
- Contaminated Soils Management Plan;
- Acid Sulfate Soils Management Plan;
- Waste Management Plan;
- Noise Management Plan;
- Traffic Management Plan;
- Air Quality Management Plan;
- Energy Efficiency Management Plan; and
- Landscape Management Plan.

The site environmental management system has been developed in consultation with a range of stakeholders including the PON, Newcastle City Council and DP&E. Stolthaven would amend and update its site environmental management plans to accommodate any changes required by the Proposed Modification. Any such updates would be undertaken in further consultation with the appropriate agency stakeholders and incorporate the relevant outcomes and recommendations from the environmental assessment contained in this SEE.

5.1.7 Environmental Auditing and Reporting

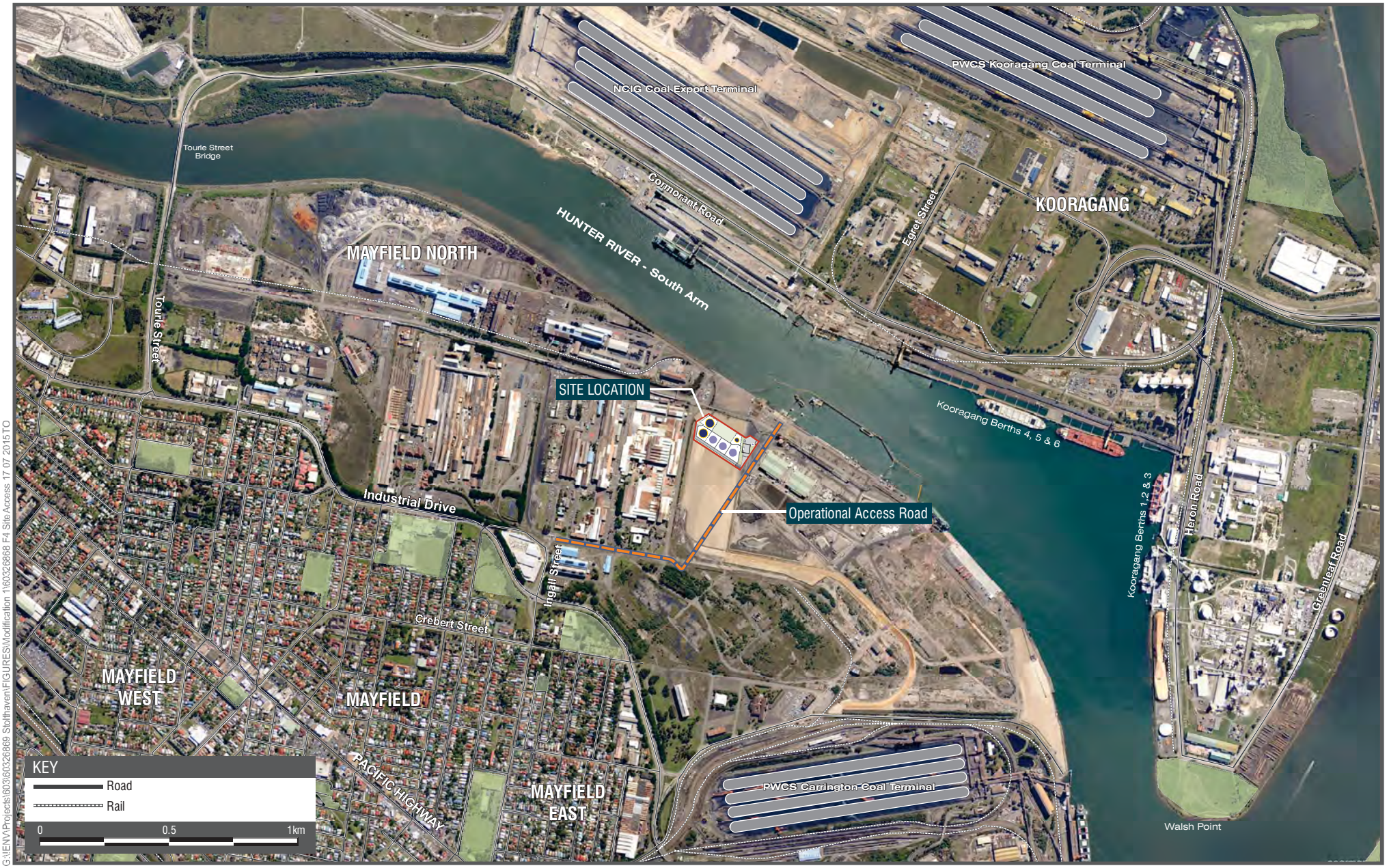
The environmental reporting requirements of Stolthaven's existing operation are currently undertaken in accordance with Project Approval (08_0130) and EPL requirements. Stolthaven would therefore undertake:

- An annual review of operations and consistency against the conditions of approval one year from the commencement of operations;
- An independent environmental audit one year from the commencement of operations and every 3 years thereafter; and
- Annual environmental reporting to the EPA in accordance with the EPL requirements.

5.2 Proposed Modification Justification

The Proposed Modification is of economic significance to the regional, State and national economies due to the changes in the Australian fuel supplies market, and the need to provide secure fuel supplies for the ongoing operation of Australian businesses and industry. Increasing demand for fuels both nationally, and regionally within the Hunter, has created a need for more locally based fuel importation, storage and dispatch facilities to reduce the Hunter's dependence on fuel from Sydney. Additionally, the growing demand for biofuels as a result of increased concern and regulation surrounding climate change has created a need for increased logistical capacity in the biofuels sector.

The Proposed Modification would allow the Facility to operate with a higher throughput to service increasing demand for diesel and biodiesel fuels throughout the Hunter Valley and beyond, including a key customer base in the mining industry. Given that the existing Facility has sufficient infrastructure in place to accommodate this increased throughput without the need for additional storage or other construction or ground-breaking works, and with minimal increases in shipping and road transport movements only, the Facility is in an ideal position to meed this increased demand with minimal additional environmental impact.



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Stolthaven State Significant Development Modification 1

FIGURE 4

6.0 Environmental Assessment

6.0 Matters for Consideration under Section 79C(1)

Section 79C(1) requires consideration of the environmental, social and economic impacts of a proposed development. An assessment of the likely environmental issues and associated level of risk was made for the Proposed Modification based on issues raised during the planning for the existing Facility. The prioritisation of environmental issues and subsequence focus of environmental assessment for the Proposed Modification has been divided into key issues, and other issues. Key issues for consideration as part of the Proposed Modification include the following:

- Hazard and risk;
- Traffic and transport;
- Air quality; and
- Noise and vibration.

These issues are detailed further in **Section 7.0** to **10.0** below. All other environmental issues are considered to have low priority are considered in **Section 11.0**.

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7.0 Hazard and Risk

The Proposed Modification would increase the Facility's annual throughput from 1,010ML pa to 1,300ML pa. Given this represents an increase in combustible fuels only, the Facility's overall risk profile would not change, and no further assessment is considered necessary under SEPP 33 (refer **Section 4.3.2**), the *Work Health and Safety Act 2011*, or the *Work Health and Safety Regulation 2011*. To ensure the increased throughputs of the Proposed Modification are managed appropriately, the following mitigation measures would be carried out:

- The original Fire Safety Study would be reviewed to ensure the fire water retention systems (used to contain potentially contaminated fire water) have adequate capacity for the additional supply;
- The preventative maintenance program at the Facility would be reviewed to ensure the reliability of equipment is maintained at all times; and
- All existing emergency documentation would be updated as necessary.

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8.0 Traffic and Transport

A Traffic Impact Assessment (TIA) for the Proposed Modification was prepared by AECOM and is provided in **Appendix C**.

8.0 Existing Environment

Site Context

The Facility is located within the Mayfield Concept Approval Site, to the east of the existing OneSteel development on Steelworks Road off Ingall Street and Industrial Drive.

The most direct and therefore main access to the Facility is via the traffic signal controlled intersection of Industrial Drive and Ingall Street. PON has provided Stolthaven and its contractors with access to the Facility with a permanent road and services access from Ingall Street, along Steelworks Road and down the eastern side of the Facility (refer **Figure 4**).

Existing Traffic Conditions

RMS traffic volume data have been obtained to determine the historical traffic growth and current mid-block traffic flows in the surrounding study area. The data show that between 1995 and 2004 (the last available traffic count data available), there has been an average yearly growth rate of 0.27% in the surrounding area. However, a growth rate of 1% was specified by RMS for the traffic impact assessment undertaken for the Mayfield Concept Plan, and this rate has been used to assess traffic volumes associated with the Proposed Modification.

To provide a better understanding of peak hour traffic conditions, a classified intersection traffic count was commissioned on 6 September 2012 at the Industrial Drive/Ingall Street intersection as part of previous development assessments undertaken for the Facility. The survey was conducted for two hours in the weekday AM peak (7:00-9:00am) and the PM peak (4:00pm-6:00pm). The survey identified peak hours of 7:30-8:30am and 4:30-5:30pm. Using this information, the performance of the Industrial Drive/Ingall Street Intersection was evaluated using SIDRA Intersection 5.1, a computer-based modelling package designed for calculating isolated intersection performance based on Level of Service (LoS). LoS is a measure of the overall performance of an intersection with LoS A to C being good to satisfactory, LoS D being near capacity and LoS E to F being at or above capacity. Detailed descriptions of the different LoS can be found in **Appendix C**.

The analysis indicates that the Industrial Drive/Ingall Street Intersection currently operates at LoS B during both AM and PM peak hour periods. The Industrial Drive/Ingall Street intersection operates with spare capacity of approximately 34% and 35% in AM and PM peaks respectively.

8.1 Potential Impacts

The Proposed Modification would increase the number of trucks using the site from 100 trucks to 150 trucks per day or a maximum of 300 movements per day (150 in: 150 out). With a throughput of up to 1,300 ML per annum an 85%/15% B-Double/B-Single truck split and a tanker capacity of 50,000L for B-Double and 36,000L for B-Singles, a combined cumulative total of 54,750 tankers would be generated by the Facility per annum (18, 250 of those by the Proposed Modification itself). Operating 365 days a year yields an average daily cumulative requirement of 150 tankers at the Facility, which equates to 300 tanker movements per day (150 in and 150 out), or 100 additional movements at the Site per day as a result of the Proposed Modification.

Despite this variations may occur due to market forces and as a result daily truck movements may fluctuate higher or lower. To accommodate variable daily truck numbers the TIA assessed 150 tankers per day, or 300 tanker movements per day being generated, to cover the worst case potential operational traffic scenario.

The existing access at Ingall Street would be used during operation with 80% of the traffic coming from the north and 20% from the south. Again, this is consistent with the Port Terminal Facilities Mayfield Concept Plan submission.

Intersection Performance

Intersection modelling was undertaken of the Industrial Drive/Ingall Street intersection to examine the potential traffic impacts of the proposed operational traffic increase. This analysis was undertaken for the 2015 traffic scenario, and for a 2025 scenario with assumed traffic growth based on a 1% annual growth rate of traffic per year.

A summary of peak hour intersection performance is provided in **Table 6** for the measured 2015 traffic volumes, and the forecast 2025 traffic volumes. Detailed outputs of the modelling results are provided in **Appendix C**.

Table 6 Summary of SIDRA Results for Industrial Drive/Ingall Street Intersection

Year - Ingall Street / Industrial Drive Intersection	AM Peak				PM Peak			
	Vehicles Per Hour	Deg. of Satn.*	Avg. Delay (s)	Level of Service	Vehicles Per Hour	Deg. of Satn.*	Avg. Delay (s)	Level of Service
2012	3,062	0.660	15.3	B	3,156	0.652	17.3	B
2015 without Proposed Modification	3,171	0.690	15.4	B	3,266	0.672	17.6	B
2015 with Proposed Modification	3,182	0.693	15.7	B	3,277	0.685	18.2	B
2025 without Proposed Modification	3,497	0.760	16.1	B	3.607	0.741	18.5	B
2025 with Proposed Modification	3,509	0.764	16.2	B	3,618	0.757	19.0	B

Source: AECOM 2015

*Degree of Saturation Scale of 0 (low saturation) to 1 (high saturation).

The Proposed Modifications analysis indicates a negligible impact to the overall intersection performance during the 2015 AM and PM peaks. The intersection would continue to operate at LoS B in both peak hours. The spare capacity of the intersection would reduce slightly.

The background traffic growth in 2025 has a minor impact on the overall intersection performance, which would remain at LoS B in both AM and PM peaks, with a slight reduction in spare capacity. The operational traffic remains the same as in 2015 and it has a negligible impact on the overall intersection performance. As no other elements of the Mayfield Concept Plan are proposed to be developed by 2015, this TIA demonstrates that the facility can operate without triggering intersection upgrades or exceeding the LoS criteria for the Industrial Drive / Ingall Street intersection.

Consistency with Mayfield Concept Plan

The proposed throughput increase, to a maximum of 1,300 ML per annum, and the proposed increase in traffic volumes of a maximum of 300 truck movements per day, is within the development envelope established and assessed for the Mayfield Concept Plan, which marked 1,268 truck movements per day as the initial trigger for further detailed assessment of traffic infrastructure capacities. Therefore the Proposed Modification would be developed in line with the conditions of approval of the Concept Plan.

As no other elements of the Concept Plan are proposed to be developed to any significant extent by 2015, the TIA demonstrates that the Facility can operate without triggering intersection upgrades or exceeding the LoS criteria for the Industrial Drive/Ingall Street intersection.

Internal Access and Parking Criteria

Operational activity would continue to take place 24 hours a day, 7 days a week, in accordance with Project Approval (08_0130). Eight onsite parking spaces are provided for staff parking in a designated area next to the entrance of the Facility. No increase in employee numbers is proposed as part of the Project and no shift in working pattern is anticipated, hence there is no requirement for additional operational staff parking.

Shipping

As detailed in **Section 4.2** the Project is expected to generate approximately 10 additional ship visits per year. This is expected to have a negligible impact to the operation of the Port. The Mayfield Concept Plan original anticipated some 40 movement for the bulk liquids precinct.

Subsequent modifications to the Mayfield Concept Plan approval removed the precinct based assessment and site management criteria to instead provide a whole of site approach to environmental management. As a result there is no specific cap on bulk liquid shipping movement as a requirement of the Mayfield Concept Plan.

When considering shipping movements it should also be noted that Stolthaven is currently the only established operator on the Mayfield Concept Plan site therefore there are no other facilities for which cumulative shipping numbers should be considered.

8.2 Management and Mitigation Measures

A Traffic Management Plan governing operations was prepared for the existing Facility, in accordance with the original project approval, and was prepared in consultation with PON, Hunter Development Corporation, Newcastle City Council and Roads and Maritime Service. The Traffic Management Plan would be amended to incorporate the increased traffic numbers expected to be generated as a result of the Proposed Modification.

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9.0 Air Quality

An Air Quality Impact Assessment (AQIA) for the Proposed Modification has been prepared by AECOM and is provided in **Appendix D**.

9.0 Existing Environment

Newcastle's air quality has improved in recent years following the cessation of steel manufacturing in the area. A number of pollutant sources remain, however, including industrial, domestic and transportation activities, with motor vehicles considered to provide the greatest emission load to local air sheds. The primary pollutants of concern in the Newcastle airshed are particulate matter and photochemical smog/ozone and its precursors (oxides of nitrogen and VOCs). Industrial emissions sources include the nearby Orica, and the Tomago Aluminium smelter. Dust emissions arise from the coal and grain terminals, while odour emissions from seed processing (Cargill) and coal tar processing (Koppers) commonly affect the Mayfield and Kooragang Island areas. There are two other operating fuel storage facilities in Newcastle: Caltex (Wickham), BP (Carrington) and . There is also the soon to be commissioned Park Fuels (Kooragang Island) which are located adjacent to or near to residential areas.

The main emissions of concern for fuel storage activities are VOCs. These are organic compounds which can act as precursors in the production of photochemical smog. VOCs can be emitted from storage tanks, filling stations vents, pipelines and process equipment leaks associated with fuel storages. Typically, VOCs are largely sourced from petroleum fuels.

Emissions of pollutants of concern from the diesel and biodiesel tanks are not expected to be significant as these fuels are low volatility liquids. Significantly, and unlike many other petroleum products, there would only be low levels of VOCs emanating from tanks storing diesel and biodiesel. Consistent with the AQIA's undertaken for the existing Facility, cumene was used as an indicator species to examine potential impacts.

During truck filling the vapour within the empty truck tanker is displaced and redirected to the tanker vent air outlet point from where it is discharged via a blower and stack arrangement. The system does not treat the air or re-circulate the vapour back into the trucks or to another process for further use. No additional truck loading /unloading bays or gantries are proposed as part of the Proposed Modification. The loading and unloading of vehicles would continue to be undertaken in accordance with current operational procedures. The assumed parameters of the stack used to vent the emissions from the truck filling activities are shown in **Table 7**.

Table 7 Truck Filling Stack Parameters

Parameter	Value
Temperature	25°C
Height	21 m above ground level
Diameter	0.18 m
Velocity	15 m/s
Volumetric flow rate	0.375 Am^3/s

9.1 Potential Impacts

9.1.1 Methodology

As a requirement of the Mayfield Concept Plan Approval (Condition 2.12), the PON developed a *Site Air Quality Model* to facilitate the assessment of air quality impacts of projects within the Concept Plan Area. The Model also provides the opportunity to coordinate the cumulative assessment of all projects within the Concept Plan Area and identify potential air quality issues during project planning to aid the identification of appropriate mitigation measures.

PON has prepared this Site Model in consultation with the EPA and in accordance with the following documents:

- DEC (2005). Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales.

- Barclay, J. and Scire, J. (2011). *Generic Guidance and Optimum Model Settings for the CALPUFF Modelling System for Inclusion into the 'Approved Methods for the Modelling and Assessments of Air Pollutants in NSW, Australia*'.

A technical manual has also been prepared (AECOM, 2014) which provides details on the background, development, inputs (including meteorological) and requirements for undertaking an AQIA in accordance with the PON Site Model.

Full details on the methodology, model inputs and dispersion modelling undertaken for the Proposed Modification are contained in **Appendix D**. Dispersion modelling was undertaken for typical operating conditions with the following pertinent operational characteristics:

- Continuous operation of the Facility (24 hours per day, 7 days per week, 365 days per year); and
- Continuous emissions from the truck filling activities.

The site operations also encompass the use of an additives tank and a slops tank. Both these sources are small in size and have an extremely low turnover when compared to the diesel storage tanks. The composition of the liquid held in these tanks is variable and cannot be accurately identified. The emissions from these sources are considered to be minor and have not been quantitatively reviewed in this assessment.

9.1.2 Potential Impacts

Dispersion Modelling

Dispersion modelling was undertaken of the cumulative operation of the Facility as currently approved alongside the additional impacts of the Proposed Modification. This used the Port of Newcastle Mayfield Concept Plan Site Air Quality Model. Dispersion modelling predicts ground level concentrations of cumene potentially released during the operation of the Facility.

Two scenarios were modelled to determine the likely impacts of the Project:

- Scenario 1 – Typical operations assuming trucks filling comprise a mix of trucks which have previously held combustible and flammable filling at the grnatry; and
- Scenario 2 – Worst case operating conditions assuming all truck filling at the gantry previously held flammable liquids.

Scenario 1

The modelling results for ground level concentrations of pollutants at the site boundary under Scenario 1are outlined in **Table 8**. The modelling results for the worst case receiver under Scenario1 are detailed **Table 9**. These are shown against the relevant EPA criteria for the pollutants modelled.

Table 8 Predicted Maximum Ground Level Concentrations of Pollutants (µg/m^3) at Site Boundary – Scenario 1

Pollutant	NSW EPA Criteria (µg/m^3)	Predicted Maximum Concentration (µg/m^3)			
		Boundary	% of NSW EPA Criterion	Residential / Industrial / Commercial	% of NSW EPA Criterion
Benzene	29	8.66	29.9%	3.17	10.9%
Trimethylbenzene (mixed isomers)	2,200	10.69	0.5%	3.94	0.2%
Ethylbenzene	8,000	6.82	0.09%	2.50	0.03%

Table 9 Predicted Maximum Ground Level Concentrations of Pollutants (µg/m^3) at a Sensitive Receptor – Scenario 1

Pollutant	NSW EPA Criteria (µg/m^3)	Predicted Maximum Concentration (µg/m^3)			
		Residential	% of NSW EPA Criterion	Industrial / Commercial	% of NSW EPA Criterion
Cumene	21	0.12	0.6%	0.25	1.2%
Toluene	360	15.82	4.4%	36.97	10.3%

Pollutant	NSW EPA Criteria (µg/m^3)	Predicted Maximum Concentration (µg/m^3)			
		Residential	% of NSW EPA Criterion	Industrial / Commercial	% of NSW EPA Criterion
Xylenes	190	5.07	2.7%	10.75	5.7%

Scenario 2

The predicted ground level concentrations for Scenario 2 (maximum operations) resulting from the dispersion model are summarised in **Table 10** for principle and individual air toxics assessable at the site boundary and in **Table 11** for individual odorous air pollutants assessable at the nearest sensitive receptor.

Table 10 Scenario 2 (Maximum Operations) Predicted Maximum Ground Level Concentrations 99.9th Percentile for Principle and Individual Air Toxics Assessable at the Site Boundary (µg/m^3)

Pollutant	NSW EPA Criteria (µg/m^3)	Predicted Maximum Concentration 99.9th Percentile (µg/m^3)			
		Boundary	% of EPA Criterion	Residential / Industrial / Commercial	% of EPA Criterion
Benzene	29	24.73	85.3%	9.02	31.1%
Trimethylbenzene (mixed isomers)	2,200	31.31	1.4%	11.44	0.5%
Ethylbenzene	8,000	19.09	0.2%	6.97	0.09%

Table 11 Scenario 2 (Maximum Operations) Predicted Maximum Ground Level Concentrations 99.9th Percentile for Individual Odorous Air Pollutants Assessable at the Nearest Sensitive Receptor (µg/m^3)

Pollutant	NSW EPA Criteria (µg/m^3)	Predicted Maximum Concentration 99.9th Percentile (µg/m^3)			
		Residential	% of EPA Criterion	Industrial / Commercial	% of EPA Criterion
Cumene	21	0.30	1.4%	0.65	3.1%
Toluene	360	47.97	13.3%	109.43	30.4%
Xylenes	190	13.82	7.3%	30.38	16.0%

As shown above for both scenarios , the results of the modelling assessment predicted that all assessed VOC concentrations would comply with the NSW EPA guideline criterion at all sensitive receptor locations assessed when the Proposed Modification is considered cumulatively alongside the current operations at the Facility. The predicted value with the highest proportion of the NSW EPA criteria under the most typical operating scenario was for benzene at 29.9%; this receptor was a boundary receptor located on the south of the site. The predicted value with the highest proportion of the criteria for a residential / commercial location was also for benzene with a predicted impact of 10.9% of the NSW EPA criterion.

Concentration contour Plots showing the predicted 1 hour 99.9th percentile impacts from the assessed pollutants are provided in **Appendix D**. The assessment predicts that no adverse impacts are likely to occur as a result of the Stolthaven bulk liquids facilities operations at and beyond the site boundary or at residential receptors.

EPL Load Inclusion

The relevant scheduled activity undertaken at the Facility as per EPL 20193 is petroleum products storage. The assessable pollutants for this activity are benzene and VOCs. The assessable loads for these pollutants are calculated in accordance with the EPA's Load Calculation Protocol (June, 2009). For petroleum products storage, the acceptable load calculation methods and emission factors are specified as shown in **Table 12**.

Table 12 Acceptable Load Calculation Methods - Petroleum Products Storage

Component/Activity	Acceptable Calculation Methods	
	Benzene	VOCs
Transfer of liquid	Site-specific emission factors Mass balance TANKS	
Storage of liquids		
Vapour disposal or recovery systems	N/A	Periodic source monitoring Emission factors - predictive emission monitoring system or site-specific

Site-specific sampling was undertaken at the Facility for both the transfer and storage of liquid and the gantry emissions for VOC composition. The site-specific sampling together with the TANKS model, both methods listed by the EPA's Load Calculation Protocol, were used to estimate the cumulative emissions for the Proposed Modification alongside the Facility as it is currently approved to operate.

The assessable load for each pollutant is equivalent to the total emissions in kilograms per year of that pollutant. As such, the sum of the emissions from the tanks and truck filling gantry represent the total estimated assessable loads for the site with a throughput of 1,300 ML. The assessable load for total VOC and benzene is provided in **Table 13.** In summary, the assessable load for total VOC is estimated to be 21,469 kilograms per year, while the benzene assessable load is estimated to be 423 kilograms per year. These values have been reported in order for the proponent, Stolthaven, to submit an EPL variation to the NSW EPA in order to update the assessable load limits stated in section L2.2 of the EPL as a response to the Facility's increased throughput.

Table 13 Revised Assessable Load Limits

Pollutants	Revised Assessable Loads Limits (kg/year)
Storage Tank Emissions	
Benzene	84
Total VOCs	10,681
Gantry Emissions	
Benzene	339
Total VOCs	10,788
TOTAL	
Benzene	423
Total VOCs	21,469

9.2 Management and Mitigation Measures

The impact assessment undertaken for the Stolthaven bulk liquids facilities throughput increase up to 1,300ML predicts that the pollutant criterion stipulated by the EPA would be met at all sensitive receptors and, as such, the Proposed Modification is not expected to adversely affect the environment or amenity of receptors.

The Facility would continue to operate in accordance with its Site Air Quality Management Plan. The AQMP would be reviewed and updated where appropriate to reflect the Proposed Modification. Emissions from the truck filling stations would continue to be vented from a stack with the parameters in **Table 7**. These parameters have been shown by previous dispersion modelling as well as the current assessment to result in pollutant levels that meet NSW EPA criterion at the nearest sensitive receptor and beyond the boundary of the facility.

G:\ENV\Projects\603\60326869 Stolthaven\FIGURES\Modification 1\60326868 F5 Predicted 1 Hour Cumene Concentrations 04 08 2015 TO

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PREDICTED 1 HOUR CUMENE CONCENTRATIONS 99.9th PERCENTILE

Stolthaven State Significant Development Modification 1

FIGURE 5

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10.0 Noise and Vibration

A Noise Impact Assessment (NIA) for the Proposed Modification has been prepared by AECOM and is provided in **Appendix E**.

10.0 Existing Environment

The nearest residential areas to the site are located to the south-west of the project site at Mayfield, with the closest receptors in Crebert Street, approximately 900 m from the proposed terminal site. To the south east there are residential receivers located in Carrington, approximately 2km away.

In order to establish the existing noise environment adjacent to the Facility, ambient noise monitoring results presented in a noise assessment that incorporates the project area has been reviewed in addition to attended and unattended measurements undertaken by AECOM. The following noise assessments were referenced:

- *"Mayfield Site Port-Related Activities Concept Plan EA"*, Report No. 09077, Revision F, July 2010 by Wilkinson Murray.
- *Noise Impact Assessment, Modification of Project Approval 08_0129*, by AECOM referenced as 60306451, Rev 3, dated 13 November 2013.

In addition to these previous studies, noise verification works were undertaken in July 2014 to validate the previous noise assessment undertaken for the Facility and typical noise environments. This included attended and unattended monitoring of some individual receivers and typical receiver locations for input into future noise assessments. Details of the outcomes of these assessments are provided in Section 2.2 of **Appendix E**.

Project specific sensitive receivers are detailed in **Table 14**. These receivers are consistent with the receiver list assessed as part of SSD_6664 and subsequent modification approval applications.

Table 14 Representative Sensitive Receiver Locations

Receiver number	Address	Land use classification	Associated receiver area
R1	1 Arthur St, Mayfield	Residential - Urban	Mayfield
R2	52 Arthur St, Mayfield	Residential - Urban	Mayfield
R3	62 Arthur St, Mayfield	Residential - Urban	Mayfield
R4	2 Crebert St, Mayfield	Residential - Urban	Mayfield
R5	21 Crebert St, Mayfield	Residential - Urban	Mayfield
R6	30 Crebert St, Mayfield	Residential - Urban	Mayfield
R7	50 Crebert St, Mayfield	Residential - Urban	Mayfield
R8	32 Elizabeth St, Carrington	Residential - Urban	Carrington
R9	186 Fullerton Road, Stockton	Residential - Suburban	Stockton
R10	Mayfield East Public School	School	-
R11	40 Industrial Drive, Mayfield	Commercial	-
R12	OneSteel Site -Lot 224 Steelworks Rd, Mayfield	Industrial	-

The sensitive receivers listed in **Table 14** are shown in proximity to the site on **Figure 6**.

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AECOM

NOISE SENSITIVE RECEIVER LOCATIONS

Stolthaven State Significant Development Modification 1

FIGURE 6

10.1 Potential Impacts

10.1.1 Operation

The operational noise modelling utilised SoundPLAN 7.3 software to examine the potential cumulative impacts of the Proposed Modification operating alongside the current Facility. Meteorological inputs for the model were obtained from the available Bureau of Meteorology (BOM). A detailed description of the site noise model, meteorological data and other modelling inputs is provided in Section 4.2 of **Appendix E**. Operational modelling was undertaken of several potential operational scenarios to examine potential operational impacts, being:

- Reasonable worst case intrusiveness scenarios (15 minute period):
  - Scenario 1 – All trucks filling;
  - Scenario 2 (evening) – One truck filling, three trucks arriving and three leaving the Facility;
  - Scenario 2 (night) – One truck filling, two trucks arriving and two leaving the Facility; and
- Reasonable worst case amenity scenario.

Detailed descriptions of each scenario are provided in Section 6.2 of **Appendix E**.

Each of the scenarios was modelled against day, evening and night criteria to determine whether there would be potential for impacts to occur. Modelling outcomes were compared to the cumulative operation of the current Facility with the Proposed Modification in place. Noise criteria that have been developed in accordance with the Industrial Noise Policy (INP) as described in Section 3.0 of **Appendix E**.

The assessments found that compliance at all assessment receiver locations during all operational scenarios under all prevailing meteorological conditions, except for residential receiver locations in the north-east of Mayfield, that bound Industrial Drive which are predicted to exceed during the overall night period by up to 1-2 dB(A) under worst case meteorological conditions. It should be noted that R4 and R5 locations are essentially the same location, and are separated by approximately 40 m.

However, it is recommended that as it is known that Stage 3 of the Mayfield Bulk Fuel Facility development is proposed in the near future, which will encompass the current Facility, and will require complete noise assessment and review for approval, and considering the points outlined below, that noise emissions and mitigation measures be reviewed at this stage.

Sleep Disturbance Criteria

The night-time sleep disturbance assessment has been undertaken against the most stringent meteorological conditions. This includes 3 m/s source to receiver winds and an F-Class temperature inversion occurring predicted for all receiver locations. As the noise levels are generally higher for the 3 m/s source to receiver winds situation, only these results have been presented. The results are presented in **Table 15**. Noise contour maps are provided in Appendix D of **Appendix E**.

Table 15 $L_{A1\ (1\ minute)}$ Noise Contribution at Representative Sensitive Receiver Locations during Night-time Operational Conditions

Receiver	Criterion	Predicted $L_{A1\ (1\ minute)}$ with 3 m/s source to receiver winds	Exceedance
R1	52	44	-
R2	52	48	-
R3	52	49	-
R4	52	49	-
R5	52	47	-
R6	52	51	-
R7	52	48	-
R8	54	33	-
R9	61	30	-

The 900 m separation between the site and the nearest residential receivers means that the maximum external noise levels are not predicted to exceed 51 dB(A) due to the night-time operations of the Facility. Therefore, the assessment indicates compliance with the sleep disturbance screening criterion at all assessment locations during the night-time period.

Fuel Ship / Tanker Noise

Ship/tankers operating in association with the bulk fuel facility would continue to be docked at Mayfield Berth No. 4 and pump fuel via the pipeline into storage tanks at the Facility.

It was assumed that ships would continue to be at berth for an extended period of time when operating, and as such the noise levels have not been corrected for duration for any of the time periods.

The predicted operational noise levels from fuel/ship tankers when at berth are presented in Section 4.6 of **Appendix E**. The results indicate that the predicted noise levels from the ships alone would comply with criteria under neutral and prevailing meteorological conditions at all assessment locations during all assessment periods.

Road Traffic Noise

The existing traffic flows were determined from the most recent published Roads and Maritime Service permanent count station data for Station No. 05.953, located Mayfield West, west of Woodstock Street which is located 1.4 km to the west of the location of the access road at the intersection of Industrial Drive and Ingall Street. It is proposed that the site would generate 300 movements per day as a direct result of the project. The impacts of the resulting traffic on surrounding roads are as detailed in **Table 16**.

Table 16 Summary of Traffic Flow Increase

Location	Existing traffic numbers[1]	Existing traffic noise levels[3]	Calculated existing traffic numbers breakdown[5]	Nett increase	% Increase	Increase in noise levels, dB(A)
Industrial drive, Mayfield Station No. 05.953	30,717	68 dB(A) $L_{Aeq\ (15hr)}$	27,000	166[2]	0.6	<1
		64 dB(A) $L_{Aeq\ (9hr)}$	3,717	48[2]	1.3	<1

Notes:

1) Traffic numbers are based upon the Traffic Volume Data for Hunter and Northern Regions 2004, produced by the Roads and Maritime.

2) This is the worst case scenario where all traffic movements from the site head in the same direction from the site along Industrial Drive, Mayfield, and this is based upon the lowest annual average traffic flow numbers on Industrial Drive in proximity of the site.

3) Measured by AECOM at 118 Woodstock Street, Mayfield between 29 July 2011 and 4 August 2014.

4) It is assumed that all light vehicle movements occur during 7:00 am – 10:00 pm.

5) Breakdown calculated based upon the percentages presented in **Appendix E**.

Predicted traffic noise increases on roads surrounding the Facility have been predicted to be less than a cumulative 1 dB(A) for the existing Facility operating with the Proposed Modification in place, based upon the estimated daily vehicle movements presented in **Table 16** The existing traffic noise levels along Industrial Drive, Mayfield were measured by AECOM at 118 Woodstock Street, Mayfield between 29 July 2011 and 4 August 2014. Even though the existing traffic noise levels exceed the recommended traffic noise criteria in accordance with the EPA's Road Noise Policy (RNP, 2011), the increase in traffic noise as a result of traffic from the Facility would not have a noticeable impact on sensitive receivers adjacent to Industrial Drive, Mayfield, and it would not be reasonable or feasible to provide noise mitigation measures as the worst case traffic noise increase from the project site would not be noticeable to nearby receiver locations.

10.2 Management and Mitigation Measures

Mayfield Concept Plan Noise Management Framework contribution

PON is in the process of developing and implementing a Cumulative Environmental Noise Management Tool (CENMT), which includes the development of a Site Noise Model, to take into consideration all existing and future development to determine the applicable noise quotas for individual sites within the MCP area. No specific criteria have been provided to Stolthaven for assessment of the current proposal. Upon finalising a methodology for assessing cumulative noise impacts from the MCP, noise levels from the operations of the Facility are to be provided so that the noise contribution from the Facility can be included in the MCP cumulative noise map, and compliance with the allocated noise limits for the Facility determined.

Upon completion and approval of a methodology for assessing cumulative noise impacts from the MCP area, amenity period noise levels from the operations of the Facility, are to be reviewed by PON so that the noise contribution from the site can be included in the MCP cumulative noise map, and compliance with the allocated noise quotas for the Facility determined.

Summary

Noise impacts associated with the Proposed Modification would be within the relevant project environmental noise criteria, except for residential receiver locations in the north-east of Mayfield bounding Industrial Drive, which are predicted to exceed during the overall night period by up to 1-2 dB(A) under worst case meteorological conditions. However, these impacts are not considered significant, and it is recommended that they are addressed in the future Stage 3 of the Facility's assessment and development.

Subject to approval, the existing Noise and Vibration Management Plan currently in place for the operating Facility would be reviewed and updated to ensure all reasonable and feasible noise and vibration management measures have been incorporated into the operation of the site.

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11.0 Other Environmental Issues

11.0 Overview

Given the Proposed Modification would result in increased throughput volumes only, with no construction or other ground-breaking works, the matters identified as low impact in **Section 6.0** would experience nil or negligible additional impacts from the Proposed Modification. These matters are discussed in **Table 17**. No additional mitigation measures are considered necessary to manage impacts from the Proposed Modification on these aspects of the environment.

Table 17 Other Environmental Issues

Issue	Impact
Soils and Water	As the Proposed Modification would not require any construction or other ground-breaking works, the Proposed Modification would not impact on soils and water in the vicinity of the Site.
Visual	The Proposed Modification would lead to a slight increase in shipping and road transport movements to and from the Facility. This slight increase in transport movements would add to transport infrastructure (i.e. trucks and ships) visible at the Facility. Views of the Facility are largely obstructed owing to topography, buildings and intermittent vegetation. There are few residential areas from which views to the Facility are possible. The closest area is part of Crebert Street, Mayfield. Views across the site are only possible from the eastern section of this street. These are further obstructed by trees and the built environment. The visual assessment undertaken for the existing Facility identified that due to the lack of visual access to the site, the lack of any significant view corridor and the industrial context of the wider area, the potential impacts would be minimal. Additional ships and truck movements at the Facility would be viewed in the context of the existing transport movements to and from the Facility. The additional shipping and trucking movements would have a minimal impact on the visual amenity of the area.
Ecology	The Site does not support any habitat features for threatened flora and fauna species. As the Proposed Modification would not require any construction or other ground-breaking works, no impacts would occur for any flora and fauna in the vicinity of the Site, including migratory and marine fauna species.
Heritage	As the Proposed Modification would not require any construction or other ground-breaking works, the Proposed Modification would not impact on heritage values in the vicinity of the Site.
Socio - economic	Impacts to the local community that may result from noise, traffic, air quality or other environmental aspects are within acceptable limits. The social impacts of the Proposed Modification are therefore considered to be low. The Proposed Modification would enable Stolthaven to satisfy a registered demand for fuel in the Newcastle and wider region. It would support the development and growth of the Hunter Region, through securing fuel supplies to regional businesses, in line with the Regional Economic Development Strategy and continues to provide an important source of energy (fuel) for mining equipment. The Proposed Modification would Ongoing community consultation has been undertaken as part of the development of the existing Facility. This would continue to be undertaken by Stolthaven as part of the Proposed Modification.
Greenhouse gas	The Proposed Modification would see a small increase in Scope 3 greenhouse gas emissions through the increase in fuel delivery and dispatch movements at the Facility. While the proposed increased throughput is associated with an increase in GHG emissions, the scale of these emissions in the broader context of GHG emissions from the transport sector and from Australia as a whole is not considered significant. Based on the figures previously calculated for the most recent Environmental Impact Statement

Issue	Impact
	prepared for the Facility, the Facility's total greenhouse gas emissions were found to represent approximately 0.04 % of the total Australian emissions and 0.84 % of the total transport emissions in Australia in 2012. The greatest contributor to emissions was the consumption by Stolthaven end users of the supplied fuel (89 % of Stolthaven's estimated emissions). The Proposed modification would give rise to an increase in truck movements from around 100 trucks (and 200 movements) each day to 150 tucks (and 300 movements) each day. Based on the figures previously calculated for the most recent Environmental Impact Statement prepared for the Facility, this would lead to an increase from 3,288 tonnes of equivalent CO_2 per annum to around 4,932 tonnes per annum due to increased traffic movements. The percentage of overall contribution to Australia's greenhouse gas emissions would therefore continue to be negligible. The relationship between GHG concentrations and climate change is very complex and nonlinear. As such, the effect of the emission of this amount of GHGs on the environment or climate change cannot be estimated. The Proposed Modification represents a very minor source of GHG emissions, both in terms of the economic sector emissions and Australia's national emissions. As such, the Proposed Modification would have a minimal impact on the environment. Should the Proposed Modification be approved, the existing Energy Efficiency Plan would be updated to include the Proposed Modification.
Waste	The Proposed Modification would not require any construction or other ground-breaking works. As such, no additional waste materials would be generated as a result of the Proposed Modification.
Ecologically Sustainable Development (ESD)	Australia's *National Strategy for Ecologically Sustainable Development 1992)* defines ecologically sustainable development as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'. The principles, outlined in the original EIS, which assist in the achievement of ESD include: – The precautionary principle; – Inter-generational equity; – Conservation of biological diversity and ecological integrity; and – Improved valuation and pricing of environmental resources. The Facility incorporates ESD principles in its current operations. The Proposed Modification would not impact on the ability of the Facility to operate according to these principles.

12.0 Summary of Mitigation Measures

Table 18 provides a summary of the environmental management and monitoring that would be undertaken as part of the Proposed Modification.

Stolthaven commits to updating its environmental management and monitoring plans prepared as part of the original Project Approval, as modified, with the environmental mitigation measures detailed in **Table 18**. Where applicable, management plans for the Facility would be amended and used for the management of the Proposed Modification. Additionally, where monitoring and management plans specified by the Concept Plan Approval are required, these would supersede site specific management plans in accordance with the Concept Plan Approval.

Table 18 Summary of Mitigation Measures

Environmental Aspect	Commitments and Mitigations
Management Plan	As described in **Section 5.1.6**, Stolthaven would undertake updates to its existing operational environmental management plans in consultation with DP&E as required by the Proposed Modification.
Traffic and Transport	The Traffic Management Plan prepared for the existing Facility would be updated as relevant to accommodate the Proposed Modification.
Air Quality	The Facility would continue to operate in accordance with its Air Quality Management Plan. The Air Quality Management Plan would be reviewed and updated where appropriate to reflect the Proposed Modification.
Hazards and Risks	- The original Fire Safety Study would be reviewed to ensure the fire water retention systems (used to contain potentially contaminated fire water) have adequate capacity for the additional supply; - The preventative maintenance program at the Facility would be reviewed to ensure the reliability of equipment is maintained at all times; and - All existing emergency documentation would be updated as necessary.
Noise and Vibration	It is recommended that minor noise exceedances are addressed in the future Stage 3 of the Facility's assessment and development. Subject to approval, the existing Noise and Vibration Management Plan currently in place for the operating Facility would be reviewed and updated to ensure all reasonable and feasible noise and vibration management measures have been incorporated into the operation of the site.
Greenhouse Gas	The Energy Efficiency Plan would be updated to include all elements of the Proposed Modification.

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13.0 Conclusion

This SEE has considered the potential for the Proposed Modification to impact on the environment, and has demonstrated that, with the recommended mitigation measures in place, the environmental impacts of the Proposed Modification would be minimal. As such, the Proposed Modification is recommended for approval by DP&E.

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Appendix A

Letter from Department of Planning and Environment

Appendix A Letter from Department of Planning and Environment

Appendix B

EPBC Protected Matters Search

Appendix B EPBC Protected Matters Search

Appendix C

Traffic Impact Assessment

Appendix C Traffic Impact Assessment

Appendix D

Air Quality Impact Assessment

Appendix D Air Quality Impact Assessment

Appendix E

Noise Impact Assessment

Appendix E Noise Impact Assessment