NSW GOVERNMENT

Vopak Bulk Liquids Storage Facility

Section 75W
Modification Request
(MP 06_0089 MOD 2)

December 2018

Cover photo

Department of Planning and Environment (2015)

Disclaimer

Copyright notice

Glossary

Abbreviation	Definition
BCA	Building Code of Australia
CIV	Capital Investment Value
Council	Randwick City Council
Department	Department of Planning and Environment
DG	Dangerous goods
DPI	Department of Primary industries
EA	Environmental Assessment
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPL	Environment Protection Licence
FRNSW	Fire and Rescue NSW
LGA	Local Government Area
Minister	Minister for Planning
OEH	Office of Environment and Heritage
Planning Secretary	Planning Secretary of the Department of Planning and Environment
Pmpy	Chance of a fatality occurring in a million years
RMS	Roads and Maritime Services
RtS	Response to Submissions
SEPP	State Environmental Planning Policy
Three Ports SEPP	*State Environmental Planning Policy (Three Ports) 2013*

Executive Summary

This report details the Department of Planning and Environment's (the Department) assessment of a former section 75W modification request (MP 06_0089 MOD 2) for the Vopak Bulk Liquids Facility (Site B facility). Vopak Terminals (Sydney) Pty Ltd (the Proponent) proposes to construct and operate additional fuel terminal infrastructure and make alterations to existing infrastructure at the Site B facility on 1-9 and 20 Friendship Road, Port Botany in the Randwick local government area (LGA).

The Site B facility currently imports, stores and distributes bulk liquids such as jet fuel, gasoline and diesel for the Sydney and NSW fuel markets. The Proponent currently supplies around 30 per cent of Sydney and NSW's petroleum requirements, including jet fuel to Sydney Airport by road tanker and pipeline.

The site is located 12 kilometres (km) west of the Sydney central business district and four km west of Sydney Airport and covers approximately nine hectares (ha) of land. The nearest sensitive receivers to the site are located approximately 1.5 km east of the site in the suburb of Phillip Bay.

Approval History

On 28 February 2007, project approval was granted by the then Minister for Planning for the expansion of the Site B facility. The approval consolidated the Proponent's existing operations and permitted the construction of additional fuel terminal infrastructure and an increase in total annual product throughput from 2,100 megalitres (ML) to 3,950 ML, including:

- receival of up to 3,950 ML of bulk liquids a year at the Site B facility
- dispatch of up to 1,897.5 ML of bulk liquids a year by road tanker, including a maximum volume of 15 ML of jet fuel by road tanker.

The closure of the Shell and Caltex refineries in NSW and the need for NSW to have a secure and diverse fuel supply network has created a strong market demand for fuel storage and distribution facilities in NSW. To meet the anticipated increase in customer demand and facilitate an increase in product throughput at the site, the Proponent proposes to increase the total annual product throughput at the site from an approved 3,950 ML to 7,800 ML/year.

Current Proposal

The Proponent has requested to modify the project approval to allow the construction and operation of additional fuel terminal infrastructure and to make alterations to existing fuel infrastructure to facilitate the increase in product throughput to 7,800 ML/year, including:

- construction of three additional road tanker loading bays and one unloading bay
- debottlenecking and efficiency improvements of ship import and export pipelines, transfer pumps and manifolds
- construction of new road tanker access and roadway, awning, warehouse extensions and amenities building
- amendments to several existing conditions including the removal of annual product throughput limits from the project approval.

The proposed works to the facility would enable an increase in the total annual product throughput at the site from an approved 3,950 ML/year 7,800 ML/year, of which the:

- output by road tanker for all products including jet fuel would increase from 1,897.5 ML/year to 3,700 ML/year
- output by pipeline for all products would increase from 1,867 ML to 2,100 ML/year
- output by ship would increase from 185 ML to 2,000 ML/year.

The modification works have a capital investment value of $25 million and is expected to generate 40 construction jobs over a period of up to 18 months.

Statutory Context

The project is a transitional Part 3A project under Schedule 2 to the *Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017* (EP&A (STOP) Regulation). The power to modify transitional Part 3A projects under section 75W of the Act as in force immediately before its repeal on 1 October 2011 is being wound up – but as the request for this modification was made before the 'cut-off date' of 1 March 2018, the provisions of Schedule 2 (clause 3) continue to apply. Consequently, the Minister for Planning is the consent authority for the proposed development under section 4.5(1) of the EP&A Act. As there were less than 25 public submissions in the nature of objections, Randwick City Council did not object and no political donations were made in the last two years, the Executive Director, Key Sites and Industry Assessments, can determine the modification request under delegation.

Engagement

The Department exhibited the modification request and accompanying documents from Wednesday 14 December 2016 to Wednesday 1 March 2017. A total of 10 submissions were received including seven from government agencies, one from a special interest group and two from members of the general public. Of the 10 submissions received, one objected to the modification request.

Key concerns raised in submissions related to hazards and risk, transport of dangerous goods (DG) along Denison Street in Hillsdale, traffic and air quality impacts. Following exhibition, the Applicant undertook additional risk modelling to address the Department and the community's concerns relating to DG transport along Denison Street. A Response to Submissions (RTS) report was submitted in April 2018, to address and clarify matters raised in the submissions.

Assessment

The Department's assessment of the application has fully considered all relevant matters under section 4.15 of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development. The Department has identified the key issues for assessment are hazards and risk, DG transport risk, traffic, air quality and removal of the throughput limit conditions.

Concerns were raised about the risks associated with DG transport movements along Denison Street and the associated traffic impacts as a result of increasing the road tanker throughput. The Department's assessment concludes the risks associated with DG transport along Denison Street would not substantially change as a result of the proposed modification. Although up to 20 Vopak road tankers per hour could potentially use Denison Street during the peak period, the Department considers the impact of additional Vopak road tankers on road capacity would be minimal and within any daily or seasonal variations that currently exists along the surrounding road network.

While the Proponent has requested the deletion of throughput limit conditions (Schedule 2, conditions 9 to11) from the project approval, the Department has retained the throughput limits as it would ensure the environmental impacts associated with the project can continue to be managed under the approval.

With regard to hazards and risks and air quality, the Department's assessment concludes:

- the potential hazards and risks from the proposed modification to the Site B facility would still meet the Department's hazard risk criteria for fixed facilities in *HIPAP No.4 – Risk Criteria for Land Use Safety Planning*
- the project would continue to meet relevant air quality criteria at the nearest sensitive receivers.

The Department has recommended several conditions to manage and monitor hazards and risk, DG transport risk, air quality and operational traffic, including but not limited to:

- implementation of a number of hazards studies to ensure the risk from the project to the surrounding environment is tolerable
- ongoing traffic monitoring of Proponent DG traffic along Denison Street to monitor any changes in DG transport movements
- implementation of an air quality management plan to manage air emissions from the project.

The Department's assessment concluded the impacts of the proposed modification can be mitigated and/or managed to ensure an acceptable level of environmental performance, subject to the recommended conditions of approval. Consequently, the Department considers the modification request is in the public interest and is recommended for approval, subject to conditions.

Contents

1. Introduction

This report assesses a section75W modification request by Vopak Terminals (Sydney) Pty Ltd (the Proponent) to modify its project approval to construct and operate additional fuel terminal infrastructure and to make alterations to existing infrastructure at its bulk liquids storage facility. These works would allow for an increase in the total annual petroleum product throughput at the site. The request has been lodged pursuant to the former section 75W of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The project was originally approved under Part 3A of the EP&A Act. The project is a transitional Part 3A project under Schedule 2 to the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017 (EP&A (STOP) Regulation). The power to modify transitional Part 3A projects under section 75W of the Act as in force immediately before its repeal on 1 October 2011 is being wound up – but as the request for this modification was made before the 'cut-off date' of 1 March 2018, the provisions of Schedule 2 (clause 3) continue to apply. Consequently, this report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may determine the modification of the project under section 75W of the EP&A Act.

1.1 Background

The Proponent operates a bulk liquids storage facility at 1-9 and 20 Friendship Road, Port Botany in the Randwick local government area (see **Figure 1**). The facility is known as the Site B facility and currently imports, stores and distributes bulk liquids such as jet fuel, gasoline and diesel for the Sydney and NSW fuel markets.

Figure 1 | Site Location

The Proponent is an independent tank storage provider offering bulk liquids services including use of its bulk liquids distribution facilities to independent operators and large petroleum companies. The Site B facility currently has a total approved product throughput of up to 3,950 mega litres (ML) of bulk liquids a year. The facility is comprised of import (wharf and berthing) and fuel terminal infrastructure (see **Figure 2**), which is integrated into a wider network of petroleum and liquid fuels transport infrastructure throughout Sydney and NSW. Existing infrastructure includes: product storage tanks with a total capacity of 350,000 cubic metres (m3) and pipelines, transfer pumps and road tanker loading and unloading bays to facilitate product distribution.

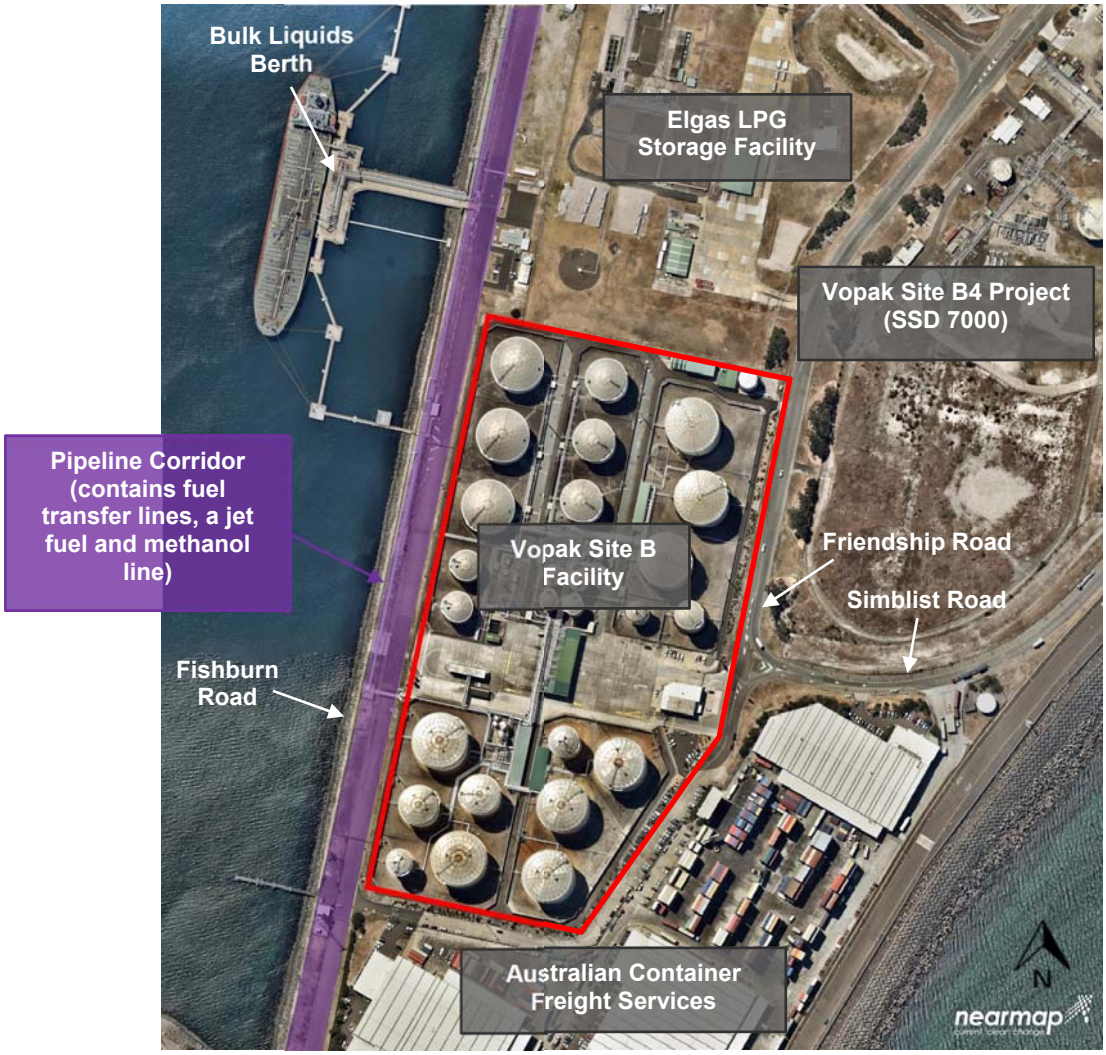

Figure 2 | Vopak Site B Facility

The site is located on nine hectares (ha) of land, approximately 12 kilometres (km) south-west of the Sydney central business district (CBD) and four km west of Sydney Airport. Road access to the site is via Friendship Road and Simblist Road, which both operate in a one-way direction. The site is bounded by:

- Friendship Road and the approved Vopak Site B4 Project (SSD 7000) to the east
- a transport and logistics company Australian Container Freight Services to the south
- Fishburn Road and pipeline corridor to the west
- Elgas Liquefied Petroleum Gas Storage Facility (Elgas) to the north.

The cessation of fuel refining in NSW and the ongoing need for NSW to have a secure and diverse fuel supply network has created a strong market demand for fuel storage and distribution facilities. The Proponent currently

supplies around 30 per cent (%) of Sydney and NSW's petroleum requirements, including jet fuel to Sydney Airport by road tanker and pipeline.

The Proponent has identified a need to respond to the changing market conditions as more customers enter the market. To meet the anticipated increase in customer demand and facilitate an increase in product throughput at the site, the Proponent has requested to modify the existing project approval MP 06_0089 to allow the construction and operation of additional fuel terminal infrastructure and to make alterations to existing fuel infrastructure.

1.2 Approval History

The Site B facility was developed in three stages. The first stage of the development known as Stage B1, was approved on 16 January 1995 (DA 38/94) by the then Minister for Planning. Consent was granted for the construction and operation of a bulk liquids storage facility, which included the development of 12 bulk liquids storage tanks and permitted a total annual throughput of 600 ML/year. The first stage of the Site B facility commenced operation in 1996.

A second development consent (DA 549/97) was approved by the then Minister for Planning on 30 June 1998 for the construction of five additional storage tanks. This second stage of the development was referred to as Stage B2 and enabled an increase in the total annual throughput from 600 ML/year to 1,600 ML. A modification to this consent further increased the total annual throughput from 1,600 ML/year to 2,100 ML/year.

On 28 February 2007, project approval (MP 06_0089) was granted by the then Minister for Planning for the expansion of the Site B facility, referred to as Stage B3. The approval permitted the construction and operation of nine additional storage tanks and an increase in total annual product throughput from 2,100 ML to 3,950 ML, including:

- receival of up to 3,950 ML of bulk liquids a year at the Site B facility
- dispatch of up to 1,897.5 ML of bulk liquids a year by road tanker, including a maximum volume of 15 ML of jet fuel by road tanker. The remaining 2,052.5 ML is dispatched via pipeline or ship.

As part of this approval, the Proponent also consolidated all of its operations under project approval MP 06_0089 by surrendering its development consents for Stages B1 and B2 (DA 38/94 and DA 549/97). The site is thereafter referred to as the Site B facility.

The approval has been modified on one occasion (MP 06_0089 MOD 1) to allow for an increase in the volume of jet fuel distributed from the site by road tanker from 15 ML to 150 ML a year.

1.2.1 Other Development Consents

On 23 November 2016, the Proponent was granted development consent (SSD 7000) to construct and operate a bulk liquids storage facility (Site B4) adjacent to the Site B facility (see Figure 2). The Site B4 Project provides an additional storage capacity of 200 ML via seven additional storage tanks to meet the anticipated increase in customer and market demand. Site B4 would connect to the Site B facility via pipelines and no bulk liquids are to be dispatched by road tanker from the B4 site.

2. Proposed Modification

The Proponent has lodged a modification request (MP 06_0089 MOD 2) under the former section 75W of the EP&A Act to construct and operate additional fuel terminal infrastructure including new road loading bays and to make alterations to existing infrastructure at the Site B facility. These works would enable an increase in the annual product throughput from 3,950 ML to 7,800 ML at its Site B facility (an increase in annual throughput of 51%).

The modification is described in full in the Environmental Assessment (EA) and the Response to Submissions (RTS) included in **Appendix A** and is discussed in **Table 1** below and shown in **Figure 3**.

Table 1 | Summary of Modifications

Aspect	Description
Modification Summary	Modification to construct and operate new fuel terminal infrastructure and make alterations to existing infrastructure at the Site B facility to support an increase in the total annual product throughput at the site from an approved volume of 3,950 ML to 7,800 ML.
Total Product Throughput	Total product throughput assessed at 7,800 ML a year (see **Section 2.1**), of which: • 3,700 ML would be distributed by road tanker • 2,100 ML would be distributed by pipeline • 2,000 ML to be exported out to sea
Road Tanker Bays	• Construction of three new road tanker bays (Bays, 7, 8 and 9). • Construction of one road tanker unloading bay for biofuels, additives and other ancillary products.
Ship Import/Export Debottlenecking[1]	• Ship import of existing inlet manifolds, tank import pipelines and inlets, including tank-to-tank and tank recirculation piping and pumping facilities, as well as instrumentation for quantity and quality control to increase flowrates. • Ship export debottlenecking of existing tank outlets, tank export pipelines and transfer pumps as well as instrumentation for quantity and quality control to increase flowrates. • Civil, structural, piping, electrical and instrumentation works for the ship import/export debottlenecking works. • General efficiency improvements including, but not limited to, improving coordination of customer ship planning.
Additional Lease Area	• Lease of an additional 2,870 square metres (m^2) of land from NSW Ports to the north and west of the Site B facility and Simblist Road intersection with Friendship Road (see Figure 3).
New Road Tanker Access and Roadway, Queuing	• New road tanker entry access on the western boundary of the Site B facility from Fishburn Road to enable road tankers to approach the site from the north (see **Figure 3**).

[1] Debottlenecking is the process of identifying specific areas and/or equipment in oil and gas facilities that limit the flow of products and optimising them so that overall capacity in the facility can be increased.

Aspect	Description
Spaces and Associated Road Works	• Construction of a new road on a 12 metre (m) wide NSW Ports roadway easement along the northern boundary of the Site B facility, which would include a queuing lane, passing lane and footpath. • Provision of up to 12 additional off-site queuing spaces on the new road. • Reduction in the number of on-site queuing spaces from 12 to 7. • Provision of a set of traffic lights at the end of the new road queueing lane and automated gates at the new road tanker entry access from Fishburn Road. • Widening of Fishburn Road to accommodate the passing lane and queuing lane alongside the existing two Port traffic lanes. • Modification to the Simblist Road and Friendship Road intersection to enable a third (middle) lane right hand turn into Friendship Road.
New Amenities Building and Other Works	• Construction and operation of a new amenities building for road tanker drivers including toilet facilities, training room, meal room, office and driver cubicles. • Expansion of an existing warehouse located at the north-eastern corner of the site. • Construction of a steel framed awning (19 m x 1.9 m) on the northern side of the existing control room building.
Amendment to Conditions	Modifications to existing conditions including: • Amendment of Condition 6 – notification requirements regarding the use of flexible hoses. • Deletion of Conditions 9,10, and 11 – restrictions on product throughput. • Amendment of Condition 27 – efficiency rating of the vapour recovery unit (VRU).
Road Tanker Movements	182 road tankers per day (2016 scenario) 280 road tankers per day (2023 scenario)
Capital Investment Value	$25 million
Employment	Construction jobs: 40 No additional operational jobs
Hours of Operation	<u>Construction</u> • Monday to Friday: 7:00 am to 6:00 pm • Saturdays 8:00 am to 1:00 pm • No work on Sundays or public holidays <u>Operation</u> 24 hours a day, 7 days a week

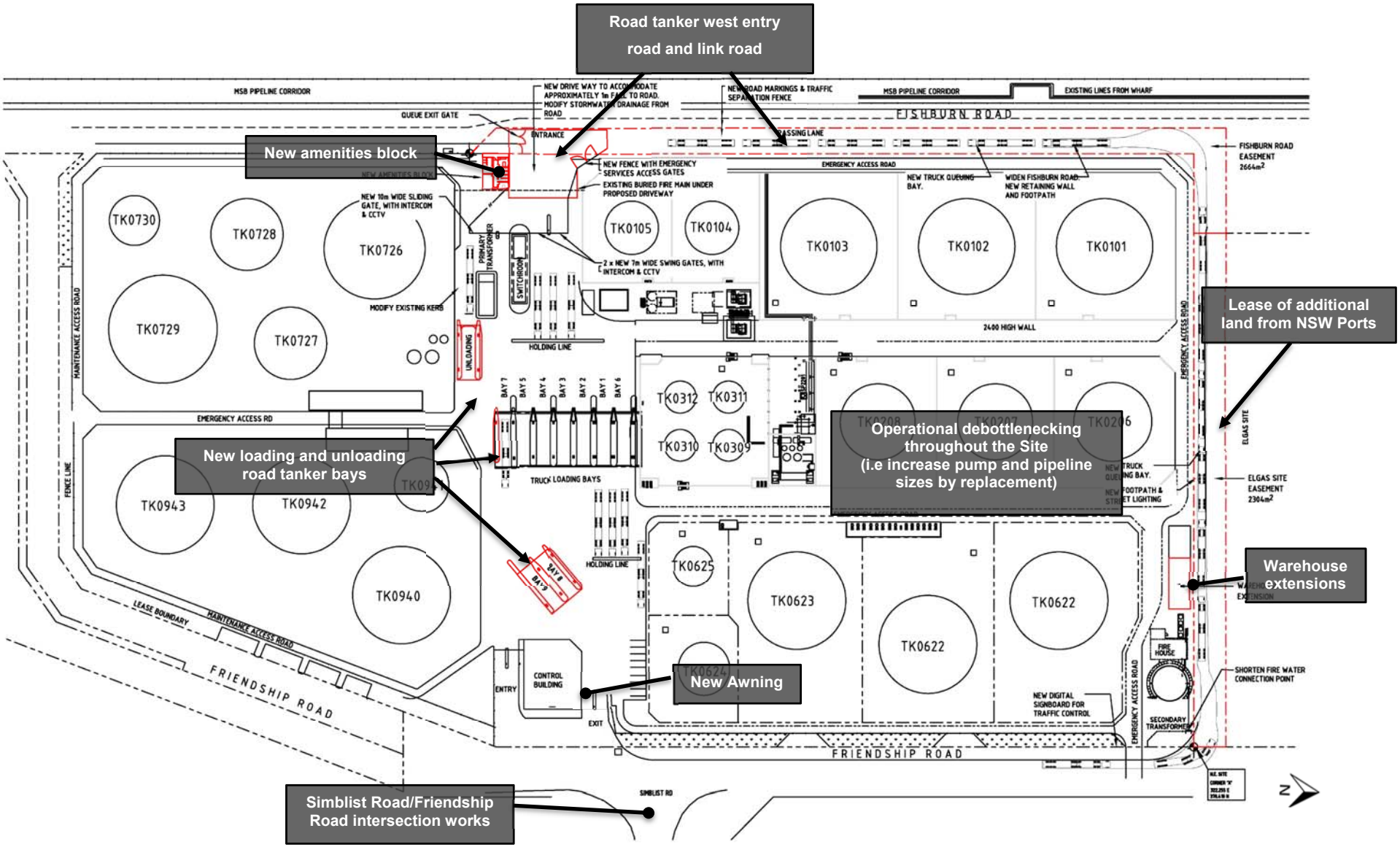

Figure 3 | Proposed Modification

2.1 Assessed Product Throughput Limits

The Proponent is currently permitted to receive, handle and distribute a total volume of 3,950 ML/year of bulk liquids via ship, pipeline or road tanker (see **Table 2**). Of this volume, approximately 1,897.5 ML/year of bulk liquids (including 150 ML of jet fuel) is permitted to be distributed by road tanker.

The Proponent's assessment is based on a maximum annual throughput at the Site B facility of 7,800 ML/year (see **Table 2**). The proposed modification works to the facility would result in an increase in the:

- output by road tanker for all products including jet fuel to 3,700 ML/year
- net average shipping flowrates and the number of simultaneous ship import and export activities for all fuel types

Table 2 | Approved and Assessed Total Product Throughput

Aspect	Approved Total Product Throughput (ML/year) (MP 06_0089)	Assessed Total Product Throughput (ML/year) (This Modification)	Difference
Annual Output by Road Tanker (ML)	1,897.5 (61,000 road tankers)	3,700 (92,500 road tankers)	+ 1,802.5 ML +31,500 road tankers
Annual Output by Pipeline (ML)	1,867	2,100	+ 233 ML
Annual Output by Sea (ML)	185	2,000	+ 1,815 ML
Annual Total Throughput (ML)	3,950 (estimated 180 - 200 ships per year)	7,800 (estimated 300 - 350 ships per year)	+ 3,850 ML

2.2 Staging of the modification

The proposed modification would be carried out in two stages as discussed below.

2.2.1 Stage 1

The Proponent has indicated that Stage 1 works would be completed in approximately six months. Vehicular access to the site would be via Fishburn Road and Friendship Road. The main construction activities include but are not limited to:

- construction of road tanker loading bay 7 and additional road tanker pumps and supply pipelines
- construction of road tanker unloading bay and road tanker unloading pumps
- construction of a steel framed awning (19 m x 19 m wide) on the northern side of the existing control room
- progressive import debottlenecking of inlet manifolds, tank import pipelines and tank inlets
- progressive ship export debottlenecking of tank outlets, tank export pipelines and transfer pumps
- civil, structural, piping, electrical and instrumental works for the above
- warehouse extension.

2.2.2 Stage 2

The Stage 2 component of the modification is scheduled to commence construction when the road tanker throughput reaches approximately 2,600 ML per year. The construction works would take approximately 12 months and would include the following activities:

- construction of road tanker loading bays 8 and 9 and additional road tanker pumps and supply pipelines

- construction of a new road tanker entry access on the western boundary of the Site B facility from Fishburn Road and modification to the Simblist Road/Friendship Road intersection
- new driver amenities building
- progressive import debottlenecking of inlet manifolds, tank import pipelines and tank inlets
- progressive ship export debottlenecking of tank outlets, tank export pipelines and transfer pumps

civil, structural, piping, electrical and instrumental works for the above.

2.3 Proponent's Need for the Modification

The decline in NSW's refining capacity has resulted in an increase in fuel imports as more independent fuel suppliers enter the market. The Proponent has indicated the demand for gasoline would remain stable, however the demand for diesel and jet fuel is projected to increase over the next few years along with the volume of exports by ships.

Sydney makes up most of the demand for petroleum products and historically this demand was met by the Shell Clyde and Caltex Kurnell refineries, both of which have now ceased production. The proposed modification is necessary for the following reasons:

- meet current and future customer and market demand to ensure security of supply
- improve operational economies of scale as higher throughputs reduce overall unit operating costs.

The proposed modification would also improve operational efficiencies at the Site B facility by removing bottlenecks in the facility's existing ship import and export infrastructure as well as improving site amenities with the construction of a new driver amenities building, control room building awning and other works.

3. Strategic Context

3.1 Three Ports SEPP

The *Three Ports State Environmental Planning Policy* (Three Ports SEPP) is the environmental planning instrument that sets the land use planning and assessment framework for appropriate development at Port Botany, Port Kembla and the Port of Newcastle. The Three Ports SEPP aims to protect the ports from incompatible land uses and stipulates zones for the surrounding land to accommodate port activities.

The modification is consistent with the industrial use of the area surrounding Port Botany and the location of the Vopak Site B facility allows for the Proponent to continue importing and distributing bulk liquids in the future.

3.2 Greater Sydney Region Plan

In March 2018, the Greater Sydney Commission (GSC) published the Greater Sydney Region Plan (the Region Plan) and the associated District Plans. The Region Plan replaces *A Plan for Growing Sydney* and outlines how Greater Sydney will manage growth and change and guide infrastructure delivery. It sets the vision and strategy for Greater Sydney, to be implemented at a local level through District Plans. The Vopak Site B facility is located within the industrial zoned Port Botany Precinct in the Eastern City District.

Objective 16 of the Region Plan seeks to ensure Sydney's freight and logistics network remains competitive and efficient. The Region Plan includes key strategies for managing land use activities around the Port and protecting current and future freight corridors to ensure the Sydney's trade gateway remains internationally competitive.

This objective is further supported by the Actions set out in the Eastern City District Plan. For example, *Action 30 – manage the interfaces of industrial areas, trade gateways and intermodal facilities*, outlines the actions for safeguarding and retaining industrial zoned land for port, intermodal and logistics uses in and around Port Botany.

Overall, the proposed modification is consistent with the strategic direction set out for Greater Sydney in the Region Plan and Eastern City District Plan.

4. Statutory Context

4.1 Section 75W

Under Schedule 2 of the *EP&A (STOP) Regulation*, the power to modify transitional Part 3A projects under former section 75W of the EP&A Act as in force immediately before its repeal on 1 October 2011 is being wound up – but as the request for this modification was made before the 'cut-off date' of 1 March 2018, the provisions of Schedule 2 (clause 3) continue to apply.

The Department notes:

- the primary function and purpose of the approved project would not change as a result of the proposed modification
- the modification is of a scale that warrants the use of the former section 75W of the EP&A Act
- any potential environmental impacts would be appropriately managed through the existing or modified conditions of approval.

Therefore, the Department is satisfied the proposed modification is within the scope of the former section 75W of the EP&A Act and does not constitute a new development application. Accordingly, the Department considers the request should be assessed and determined under the former section 75W of the EP&A Act rather than requiring a new development application to be lodged.

4.2 Approval Authority

The Minister for Planning is the approval authority for the request. Under the Minister's delegation of 11 October 2017, the Executive Director, Key Sites and Industry Assessments, may determine the request under delegation as:

- the relevant local council has not made an objection
- a political disclosure statement has not been made
- there are less than 25 public submissions in the nature of objections. One objection to the proposal was received from the public.

4.3 Ports Assets (Authorised Transactions) Act 2012

In 2013, the NSW Government leased the three main ports in NSW to private port operators under a 99-year lease. The sale was facilitated under the Ports Assets (Authorised Transactions) Act 2012 (Ports Assets Act) which enabled the authorised transfer of ports assets and functions to the private sector.

The Ports Assets Act also lifted the cargo throughput limits for Port Botany and this includes the amount of bulk liquids that could be received, handled at or transported from Port Botany. The Department notes that section 32(1) of the Ports Assets Act states that a planning control is of no effect to the extent that it would operate to impose a cargo throughput limit for Port Botany. The EA refers to this provision in relation to the Proponent's request to delete Schedule 2, Conditions 9, 10 and 11 (Restrictions on Throughput) from project approval MP 06_0089. The Department's consideration of this issue is discussed further in Section 7.5.

5. Engagement

5.1 Department's Engagement

Under the former section 75W of the EP&A Act, the Department is not required to notify or exhibit the modification request. However, due to the complex nature of the proposal and the potential for public interest, the Department exhibited the request from Wednesday 14 December 2016 to Wednesday 1 March 2017:

- on the Department's website
- at the then Department's information centre (320 Pitt Street, Sydney)
- at Randwick City Council's offices and Eastgardens Library.

The modification request was advertised in the Southern Courier. Previous submitters from the original application were notified of the modification request and invited to make a submission. The modification request was also referred to Randwick City Council (Randwick Council), Environment Protection Authority (EPA), Bayside Council, Fire and Rescue NSW (FRNSW), Roads and Maritime Services (RMS), Department of Primary Industries (DPI) and SafeWork NSW.

During the exhibition period, a total of ten submissions were received, including seven from public authorities and three from the public. Of the submissions received, one submission objected to the proposal.

5.2 Key Issues – Government Agencies

Randwick Council did not object to the modification and commented on the potential noise, odour and air quality, traffic and parking impacts, particularly offsite queuing and/or circling of trucks within residential areas adjacent to the Port. Council also raised concerns about the proposed removal of throughput limit conditions from the approval.

Bayside Council did not object to the modification and raised a number of concerns relating to transport of dangerous goods along Denison Street and the risk to nearby residential and sensitive land uses, as well as traffic impacts on the local road network. Council also provided comments on air quality and noise impacts.

EPA did not object to the modification but requested additional information including further air dispersion modelling, details of the vapour recovery unit (VRU) performance and benzene reduction study. The EPA also commented on potential groundwater, land contamination and stormwater issues and requested that further clarification be provided.

FRNSW recommended a Fire Safety Study (FSS) be prepared for the modification and outlined the scenarios, procedures and measures that should be considered in the FSS.

SafeWork NSW required a number of clarifications on the Preliminary Hazard Analysis (PHA) for the Site B facility particularly in relation to the pipeline scenarios.

DPI did not raise any issues and recommended the Proponent prepare a Construction Soil and Water Management Plan for the modification.

RMS raised no objections to the modification.

5.3 Community Issues

Three submissions in total were received from the public and a special interest group, of which one submission objected to the proposed modification. The submissions raised the following issues:

- increase in cumulative risk as a result of the modification
- traffic and parking issues and risks associated with the transport of dangerous goods on Denison Street
- suitability of Denison Street as a dangerous goods route
- cumulative traffic impacts on the local road network, particularly around Port Botany.

5.4 Response to Submissions

Following the exhibition of the modification request, the Proponent consulted with the Department's Hazards and Risk Specialist regarding the risk assessment approach for assessing dangerous goods movements along Denison Street. As a result, the Proponent undertook additional risk modelling to address the issues raised by the Hazards and Risk Specialist.

In April 2018, the Proponent provided a response to submissions (RTS) report, which addressed the submissions made during the exhibition of the modification request. The RTS included a revised air quality impact assessment (AQIA) as well as additional risk modelling and assessment of truck movements along Denison Street to address concerns raised by Randwick Council, Bayside Council and several public submissions. The RTS was made publicly available on the Department's website and was provided to key agencies to consider whether it adequately addressed the issues raised.

Initially, the scope of the modification included an upgrade or replacement of the existing vapour recovery unit (VRU) at the Site B facility. However, as the project approval already permits the operation and ongoing maintenance of the VRU, the Department agreed that upgrading or replacing the existing VRU would not require further approval. In its RTS, the Proponent amended the scope of the modification to remove references to an upgrade or replacement of the VRU. The Department acknowledges the Proponent has requested an amendment to the operational efficiency requirement of the VRU (Condition 27, Schedule 3 of MP 06_0089). The Proponent has included details of the operation and emission control capabilities of the upgraded VRU in the RTS in response to the EPA's submission. The Proponent has advised the new VRU is yet to be installed.

6. Assessment

The Department has assessed the merits of the proposed modification. During this assessment, the Department has considered the:

- EA and assessment report for the original application
- existing conditions of approval (as modified)
- the EA supporting the proposed modification (**Appendix A**)
- submissions from State government authorities and Councils (**Appendix A**)
- the Proponent's response to issues raised in submissions
- relevant environmental planning instruments, policies and guidelines
- requirements of the EP&A Act, including the objects of the EP&A Act.

The Department considers the key assessment issues are hazards and risks, dangerous goods movements, traffic and access, air quality and the removal of throughput limit conditions. The Department's assessment of other issues is provided in **Table 6**.

6.1 Hazards and Risk

The proposed modification would double the total annual product throughput at the Site B facility from an approved 3,950 ML/year to 7,800 ML/year. This consists of an increase in:

- pipeline throughput from 1,867.5 ML/year to 2,100 ML/year
- road tanker loading throughput from 1,897 ML/year to 3,700 ML/year
- ship export throughput to 2,000 ML/year.

The Site B facility is a Major Hazard Facility under the *Work Health and Safety Act 2011*. The proposed modification is deemed a 'potentially hazardous industry' under the provisions of *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development.* Therefore, a detailed risk assessment of the proposed modification was undertaken.

The Department requested the Proponent update its existing Quantitative Risk Assessment (QRA) for the Site B facility to assess the potential risk to people, property and the environment resulting from the proposed modification. The QRA was prepared by Sherpa Consulting, which considered the risks from the Site B facility based on a 2016 throughput (current case) and the maximum throughput in 2030 (future case). The QRA was carried out in accordance with the Department's *Hazardous Industry Planning Advisory Paper (HIPAP) No. 6 – Hazard Analysis* (HIPAP No.6).

The methodology of the QRA included the identification of potential hazards, analysis of the consequences and the likelihood of occurrence and estimation of the resultant risk to surrounding land uses. The risks were then compared with the relevant land use safety criteria defined in the Department's *HIPAP No.4 – Risk Criteria for Land Use Safety Planning* (HIPAP No.4).

6.1.1 Hazard Identification, Frequency and Consequence Analysis

The Site B facility would continue to store hazardous materials including gasoline, jet fuel, ethanol and diesel. As the proposed modification does not introduce new dangerous goods or new operations at the Site B facility, the potentially hazardous scenarios would not change from those previously assessed under the original approval.

These hazardous scenarios include releases from storage tanks, equipment and road tankers, releases from pipework and loading arms and releases from storage tanks as a result of overfilling.

The QRA also considered the likelihood of each incident occurring (frequency) and the potential consequences of these hazardous incidents. The potential consequences identified in the QRA include:

- fire involving flammable materials such as jet fire, pool fire, tank top fire and bund fire
- vapour cloud explosions due to overfilling storage tanks.

The Department is satisfied the appropriate techniques were used to analyse the potential consequence and likelihood of occurrence for each identified hazardous scenario and is satisfied it is consistent with HIPAP No. 6.

6.1.2 Risk Analysis

The frequency and consequence for the release events discussed above were combined to estimate the risk from the proposed modification, which was then assessed against the risk criteria in HIPAP No. 4. The individual fatality risk criteria for various land uses is shown in **Table 3** below.

Table 3 | Individual Risk Criteria

Land Use	Risk Criteria (risk per million per year (pmpy))[2]
Hospitals, schools, child-care facilities, old age housing	0.5
Residential, hotels, motels, tourist resorts	1
Commercial developments including retail centres, offices and entertainment centres	5
Sporting complexes and active open space	10
Industrial	50

The assessment found the proposed modification satisfies all relevant risk criteria as follows:

- the individual risk fatality contour for residential land uses does not extend to residential areas (the closest residence is 1.5 km east of the site in the suburb of Phillip Bay) (see **Figure 4**)
- the individual fatality risk contour for industrial land uses is contained within the site boundary (see **Figure 4**)
- the risk of damage and propagation complies with the risk criteria and is within the site boundary
- the risk of injury from heat radiation and explosion overpressure was not evaluated due to absence of residential and sensitive land uses in the vicinity
- societal risk was not considered as the site is surrounded by industrial land uses and the societal risk relating to surrounding residential properties is relatively low
- the cumulative individual fatality risks of the proposed modification and the Site B4 Project (SSD 7000) complies with the relevant risk criteria in HIPAP No. 4 (see **Figure 5**).

In 1996, the Department carried out a risk assessment of current and future developments in the Port Botany area. The results of this assessment were published in a report titled the *Port Botany Land Use Safety Study* and provided the cumulative risk for existing and future developments and established a strategic land use safety framework for the Port and surrounding land uses. The Proponent considered the impact of the proposed modification on the cumulative risk estimated in the *Port Botany Land Use Safety Study*.

[2] Risk criteria refers to a chance of a fatality occurring in a million years.

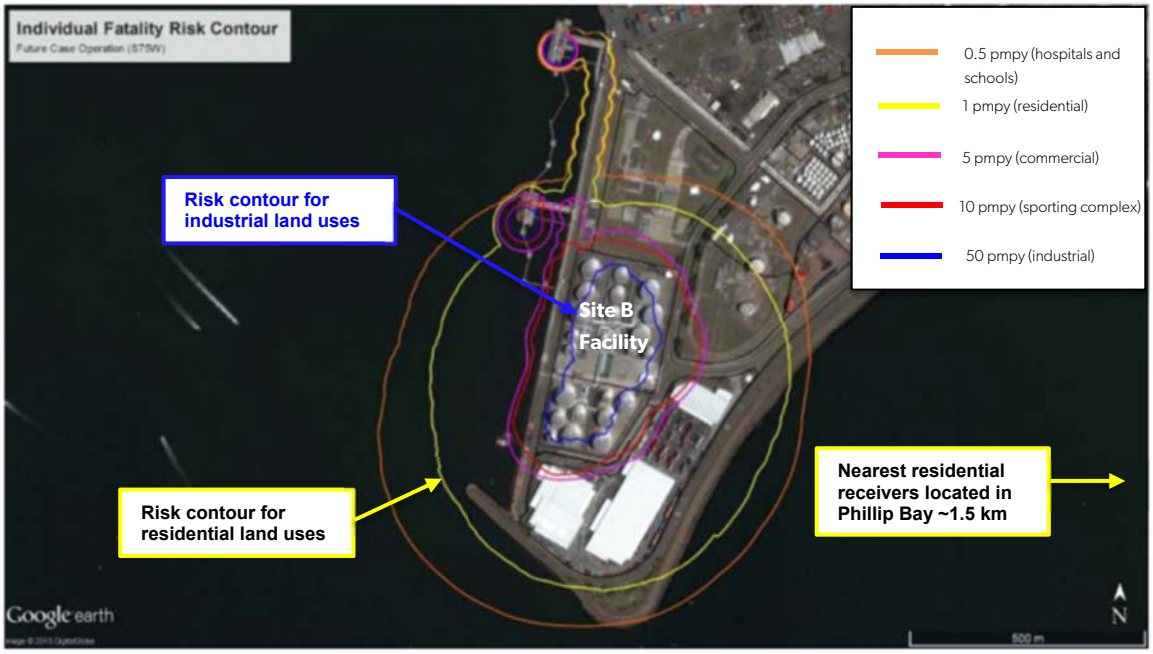

Figure 4 | Individual Fatality Risk (Vopak Site B Facility only – Future Case)

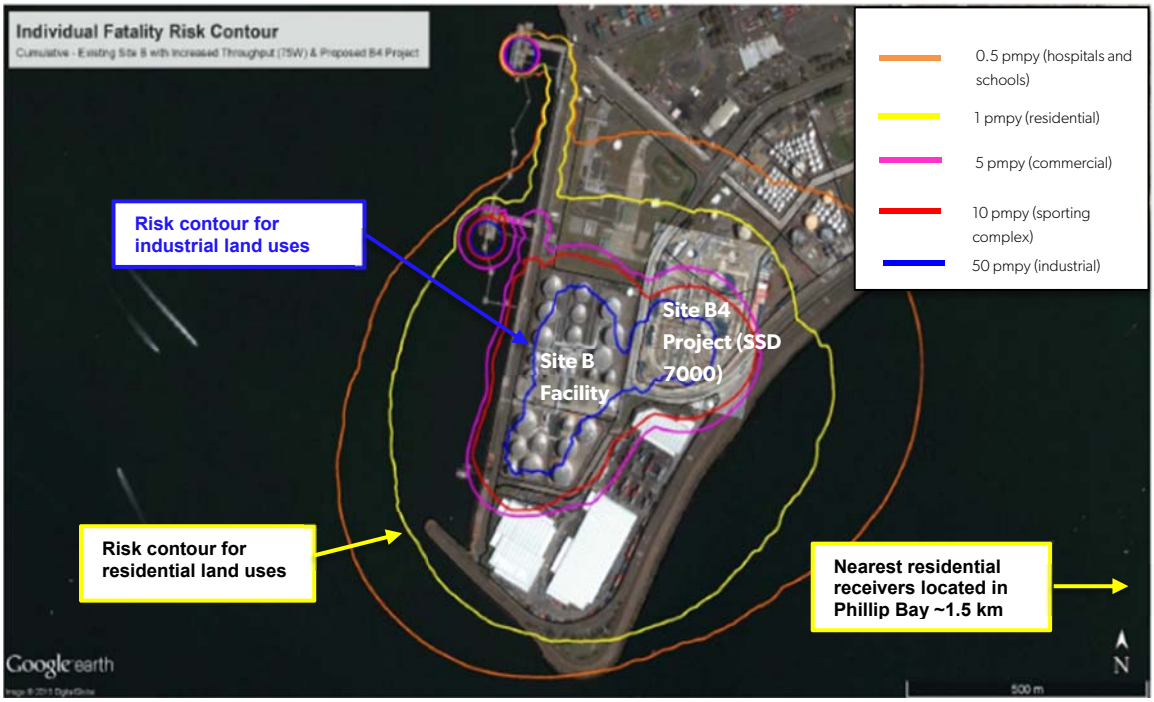

Figure 5 | Cumulative Individual Fatality Risk (All Vopak operations including the Site B4 Project and BLBs)

The QRA concluded the proposed modification is unlikely to increase the cumulative risk for industrial and residential land uses as presented in the future case scenario in the Port Botany Land Use Safety Study. This is because the industrial risk contour for the proposed modification was found to be within the site boundary. The Department agrees with the above conclusion and is satisfied the project meets the quantitative risk criteria set out in HIPAP No. 4.

SafeWork NSW did not object to the proposed modification but after seeking clarifications on the QRA assumptions and modelled scenarios, SafeWork NSW recommended the following studies be undertaken by the Proponent at the post approval stage:

- a Hazard and Operability Study (HAZOP)

- update of existing surge studies with the proposed operating conditions and new surge studies for new and additional components
- risk assessment study addressing both on-site and off-site risk as required under Chapter 9 of the *Work Health and Safety Regulation 2011* (WHS Regulation).

The Department has recommended conditions for the Proponent to undertake a HAZOP and the surge studies, but notes a risk assessment study is already required under the WHS Regulation and does not need to be duplicated in the approval.

FRNSW made a number of recommendations relating to the preparation of the Fire Safety Study (FSS), which the Proponent has accepted. The Department has included a condition requiring the Proponent to update its FSS in consultation with FRNSW.

Randwick Council requested further information on the leak detection and emergency response procedures at the Site B Facility. The Proponent provided details of its existing control measures which include, but are not limited to, ensuring each road tanker loading bay is fitted with emergency shutdown buttons, flame detectors and automatic foam deluge systems. Randwick Council did not raise any further issues. To ensure the risks from the site are as low as reasonably practicable, the Department has recommended a condition requiring the Proponent to implement all reasonable and feasible prevention and mitigation measures.

Although the consequence analysis was based on operating parameters consistent with the assumptions adopted for the original assessment, any future changes to the operating parameters of the site can also be made through other planning pathways such as the complying development provisions in the Three Ports SEPP. As such, the Department has included a condition requiring the Proponent to notify the Department and prepare an updated hazard analysis if the Site B operations deviate from the assumptions contained in the QRA. This condition would ensure the Department is made aware of any future changes in operating parameters of the Site B facility, even those which do not involve modifications to the project approval.

The Department has carefully considered the findings and recommendations of the QRA and is satisfied the proposed modification would meet the relevant risk criteria, provided the Proponent implements all proposed risk reduction measures and all recommendations in the QRA. The Department is also satisfied the proposed modification would not increase the risk to the surrounding land uses as the industrial risk contours for the project would be confined to within the site boundary.

To ensure the Site B facility operates in a safe manner, a number of conditions are recommended at the pre-construction, pre-commissioning, pre-startup, post-startup phases and the ongoing operation of the project, including:

- Construction Safety Study consistent with the Department's relevant guidelines
- a Fire Safety Study considering and, if necessary, implementing measures for the proposed modification to ensure acceptable fire protection levels
- a Final Hazard Analysis in accordance with the Department's relevant guidelines
- a Hazard and Operability Study consistent with the Department's relevant guidelines
- an updated Emergency Plan and Site B Safety Management System to incorporate any changes associated with the modification
- Pre-Startup and Post-Startup Compliance Reports detailing compliance with all conditions required to be satisfied prior to and after operation has commenced.

The Department considers these measures would ensure that hazards and risks associated with the construction and operation of the project are continually monitored and managed to acceptable levels.

6.1.3 Conclusion

The Department's assessment concludes the proposed modification would meet all relevant risk criteria and can be managed, subject to the Proponent implementing all risk reduction measures and recommendations in the QRA. The Department has recommended conditions requiring the Proponent to prepare a Construction Safety Study, Fire Safety Study, Final Hazard Analysis, HAZOP and update its Emergency Plan and Safety Management System.

6.2 Dangerous Goods Movements

The proposed modification will increase the number of road transport movements of dangerous goods (DG) to and from the Site B facility. Approximately 70% of road tanker exports from the Site B facility are Class 3 DGs (i.e. gasoline and jet fuel), while the remaining 30% comprises combustible products (i.e. diesel and biodiesel). A Transport Risk Assessment (TRA) was prepared by Sherpa Consulting, which evaluated the potential risk impacts from incidents as a result of increasing DG movements to and from the Site B facility.

6.2.1 Background

The majority of road tanker traffic associated with the Site B facility currently use Foreshore Road and Botany Road to access the Sydney arterial network. However, road tankers can also use a secondary dangerous goods route to the north of the site via Beauchamp Road and Denison Street in Hillsdale (see **Figure 6**). The TRA identified an increase in DG traffic along Denison Street may increase the risk to surrounding residential and commercial land uses.

A DG Transport Quantitative Risk Assessment for Denison Street (DS-QRA) was previously prepared in 2015 as part of a development application for a Bunnings Warehouse development in Hillsdale. The original study presented the cumulative risks from DG movements on Denison Street, taking into account the population in the area at that time. As part of the Proponent's modification request, the Proponent engaged Systra Scottlister to update the original DS-QRA to evaluate the potential increase in DG traffic risk from the proposed modification. The updated DS-QRA is referred thereafter as the 2016 DS-QRA.

The Department notes there is no widely accepted quantitative risk criteria for the transport of DG both internationally and in NSW. As such, the original 2015 study adopted the individual and societal fatality risk criteria for fixed potentially hazardous facilities as set out in HIPAP No. 4 (see **Table 3**). This approach was also applied to the 2016 DS-QRA, which assessed the potential cumulative risk impacts and compared any changes in risk from the proposed modification with the 2015 baseline.

As part of this analysis, the 2016 DS-QRA considered two scenarios: current (2016) case and future (2023) case, which assumes the maximum road tanker throughput of 3,700 ML/year has been reached. The Department considers this approach to be acceptable.

6.2.2 Risk Analysis Approach

As the 2016 DS-QRA is an update to the original 2015 study, the Department critically reviewed the parameters which changed from the original study to ensure the assessment was conservative and appropriate. These parameters include the proposed number of Vopak-only traffic movements along Denison Street (as part of this modification) and the most recent population data. The Department considers the parameters adopted in the study are appropriate.

Figure 6 | Vopak DG Transport Route along Denison Street

The risk analysis is sensitive to the number of DG traffic movements on Denison Street. The EA indicated around 10% of Vopak road tankers travel north of the site and east via Beauchamp Road and Denison Street. This assumption was adopted in the 2016 DS-QRA and was confirmed in a survey undertaken by the Proponent. To account for any uncertainties in the risk analysis, the Department requested the Proponent undertake a sensitivity analysis, in compliance with HIPAP No. 6 to further estimate the transport risks if Vopak-only DG movements doubled along Denison Street (i.e. 20% of Vopak road tankers using Denison Street).

The following risks were estimated in the 2016 DS-QRA for both the 2016 and 2023 case and are discussed in the following sections:

- individual fatality risks from Vopak-only DG movements on Denison Street
- societal risk from Vopak-only DG movements on Denison Street
- cumulative risk (individual and societal risk) from all DG movements on Denison Street
- risk results of the sensitivity analysis at 20% of Vopak road tankers.

6.2.3 Individual Fatality Risk – Vopak-only DG Movements

The 2016 DS-QRA presented individual risk contours for the 2016 and 2023 case and showed there would be no significant increase in individual fatality risk as a result of the proposed modification. As the change in risk between the different cases is not significant, it cannot be compared using individual risk contours. Therefore, the Proponent prepared a risk transect to show the change in risk at distances from a release location (i.e. the point where a DG truck incident occurs resulting in release of DGs). In the scenario, the release location is the intersection of the Botany Industrial Park (BIP) Gate 3 and Denison Street as the risk exposure is highest due to the potential for a car collision at the intersection (see **Figure 6**).

At the release location, the individual fatality risks for the 2016 case is approximately 10 per million per year (pmpy), which is the criteria applicable to sporting complexes and active open spaces. Under the 2023 case, the risk marginally increases above 10 pmpy. At the nearest residential receiver, which is located approximately 25 m from the road (or the release location), the risks for all four cases is below 1 pmpy, which is the criteria applicable to residential land uses. As the impacts associated with a release of flammable liquids from a road tanker would likely be limited to the kerb of Denison Street, the risks associated with the proposed modification would be tolerable.

6.2.4 Cumulative Individual Risks from all DG Movements

The 2016 DS-QRA presented the cumulative individual fatality risk contours for the original 2015 case, the 2016 case, the 2023 case and showed no discernable increases in risk for the 2016 and 2023 case (see **Figure 7**). The Proponent prepared another risk transect to compare the differences in risk for each case and showed that at the nearest residential receiver (at least 25 m from the road), there would be no substantial change in cumulative individual risks between the original 2015 case and the 2023 case. The transported material, being flammable liquids, would have a minimal impact on overall risks because:

- the ignition probability of flammable liquids is lower than the ignition probability of flammable gases which are also transported via Denison Street
- if ignited, flammable liquids would result in a pool fire, which is likely to be limited to the kerb. The impacts of a pool fire are localised and rapidly decrease with distance.

Therefore, as flammable liquids are not a major contributor to the cumulative risk on Denison Street, the proposed modification would not significantly increase the overall risks to the nearest residential receivers. The Department's assessment concludes the cumulative individual fatality risk from the proposed modification would be tolerable.

6.2.5 Societal Fatality Risk – Vopak-only DG Movements

Societal risk considers the chance of accidents causing multiple fatalities in the population around Denison Street. The societal risk posed by the proposed modification on Denison Street is shown in **Figure 8**.

For the 2016 case, the societal risk from Vopak-only DG movements is marginally in the ALARP (As Low As Reasonably Practicable) region. At maximum throughput (2023 case), the societal risk still extends into the ALARP region but the change in risk between the future and the current case is small. Within the ALARP region, the emphasis is on reducing risks as far as possible by implementing and maintaining safety measures.

The risks in the ALARP region are tolerable provided all practicable control measures are implemented and maintained by the Proponent. Currently, the Proponent has implemented a number of controls for the project such as requiring its drivers to undertake driver training, obtain the necessary EPA and Safework licensing and to follow the designated transport route. Nevertheless, the Department has recommended a condition requiring the Proponent to demonstrate all practicable control measures are implemented to ensure the risks from the proposed modification are as low as reasonably practicable. The Department is satisfied the societal risk associated with the proposed modification would remain tolerable.

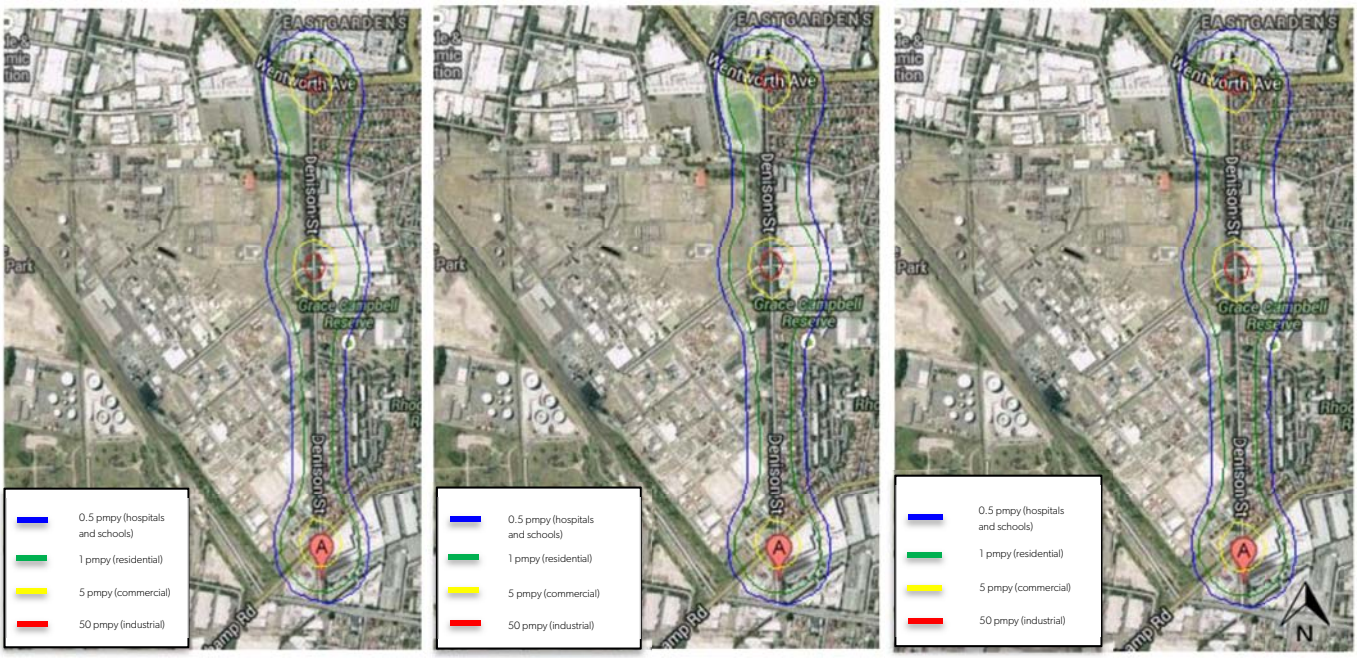

Figure 7 | Individual Fatality Risks – All DG Transport

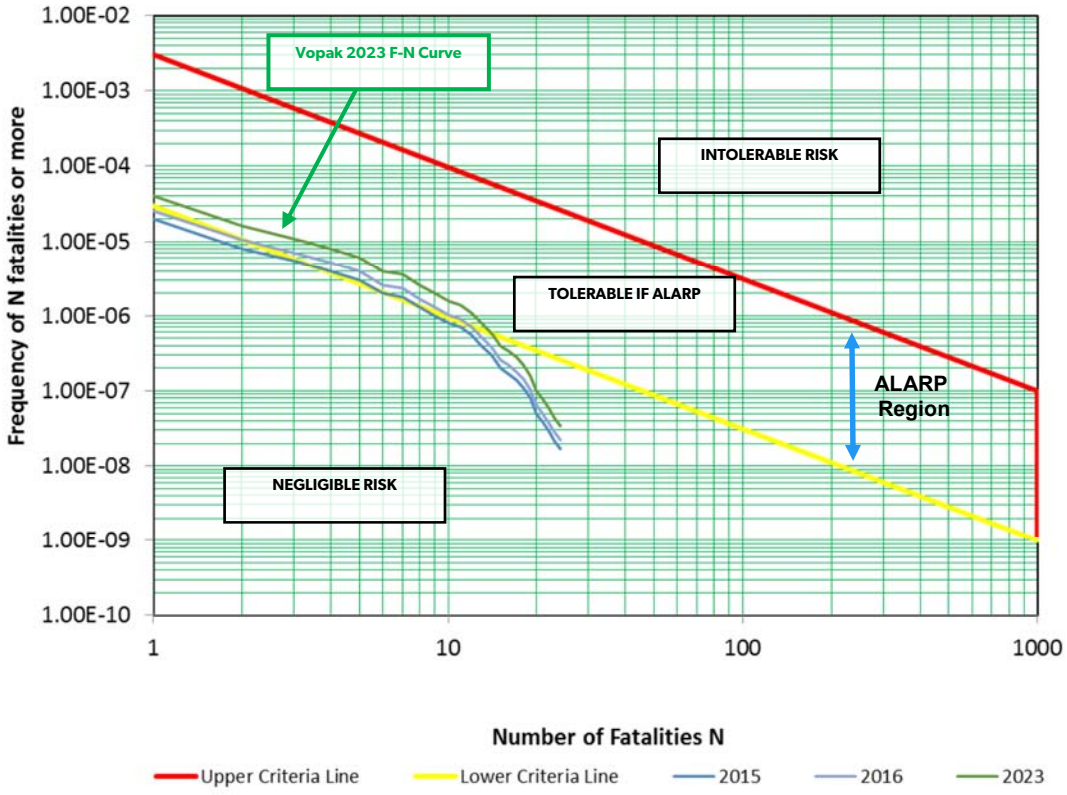

Figure 8 | Fatality Curve for Vopak-only DG Movements on Denison Street

6.2.6 Cumulative Societal Fatality Risk

The cumulative societal risk posed by all DG traffic on Denison Street is presented in **Figure 9**. Under the 2023 case, the proposed modification would result in a minimal increase in societal fatality risk and would remain within the ALARP region.

Submissions from Bayside Council and the public raised concerns around the cumulative risks from the transport of dangerous goods on the area including Hensley Athletic Field. Bayside Council requested that the cumulative effects from all DG traffic as well as the fixed facilities along Denison Street (i.e. BIP) be analysed in the updated 2016 DS-QRA.

The Proponent clarified the 2016 DS-QRA considered the cumulative risks from surrounding areas including the Hensley Athletic Field. The Department acknowledges Bayside Council's request, however, as the increase from Proponent DG movements is not large enough to result in substantial changes in cumulative risks for all DG movements, such level of risk is unlikely to further increase the overall risk from all DG movements and the BIP. Therefore, the cumulative risk of the BIP and all DG traffic was not considered further. The Department is satisfied the overall cumulative societal fatality risk would be tolerable.

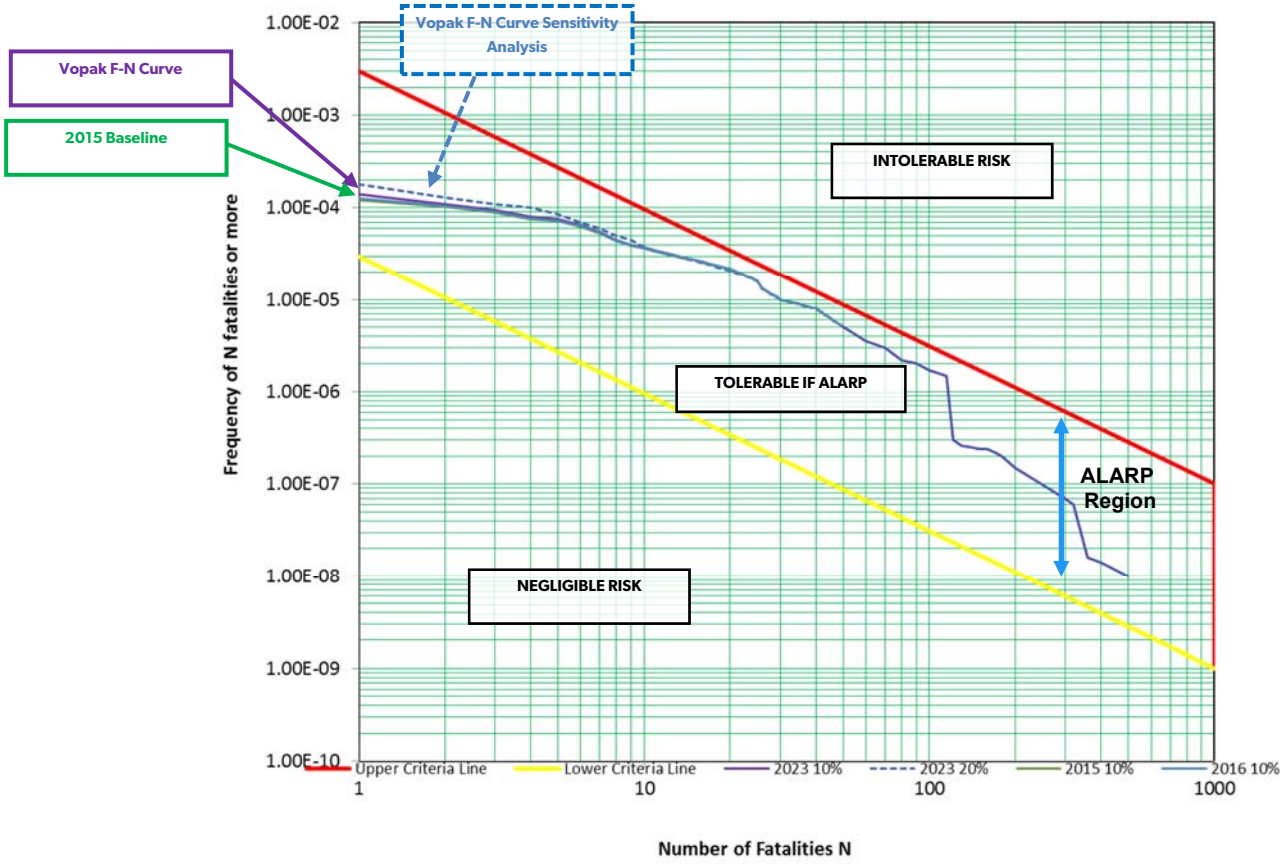

Figure 9 | Fatality Curve for all DG Movements on Denison Street with Sensitivity Analysis of 2023 with 20% Proponent DG Traffic using Denison Street

6.2.7 Sensitivity Analysis

The Department requested the Proponent undertake a sensitivity analysis considering a worst-case scenario of a doubling of Vopak DG transport movements on Denison Street (i.e. 20% Vopak-only DG transport movements). The sensitive analysis shows that with 20% of Vopak-only DG movements, the cumulative individual fatality and societal risks would double when compared to the 2023 case at 10% Vopak-only DG traffic (see **Figure 8** and **Figure 9**). Notwithstanding, the societal risk would remain within the ALARP region and does not extend into the intolerable region.

To ensure the cumulative individual and societal risks do not increase further along Denison Street, the risks from Vopak DG road tankers using Denison Street should be continually monitored. The Department has recommended a condition requiring the Proponent to update the DS-TQRA every three years. The updated DS-TQRA must estimate the most recent traffic movement of Class 3 DGs from the Vopak site along Denison Street. The study must also evaluate the cumulative transport risks on Denison Street with consideration of the DS-QRA prepared in 2015 and the most recently available population and meteorological data.

6.2.8 Conclusion

The Department's assessment concludes the proposed modification would not result in a substantial increase in DG transport risk along Denison Street as a result of increasing the road tanker throughput. Assuming all risk reduction measures and recommendation are implemented and maintained, the proposed modification would not increase the risks to the surrounding land uses to unacceptable levels. To ensure the risk does not change beyond what has been assessed in the modification, the Department has recommended conditions requiring the Proponent to:

- implement all practicable measures to ensure the risks are as low as reasonably practicable
- periodically update the DS- TQRA every three years.

6.3 Traffic and Access

The proposed modification would generate additional heavy vehicle movements to and from the Site B facility which has the potential to impact on the capacity and efficiency of the local road network. A Traffic Impact Assessment (TIA) was prepared by Samsa Consulting on behalf of the Proponent, which assessed the potential traffic and transport impacts of the proposed modification.

The Site B facility can be accessed via a one-way loop along Simblist Road and Friendship Road (see **Figure 10**). Both roads are privately managed by NSW Ports and connect to Bumborah Point Road and Botany Road, which are in turn managed by the RMS. Botany Road is the main connection to the Port and extends east to Bunnerong Road and west to Foreshore Road.

Heavy vehicle routes to and from the Site B facility are shown in **Figure 10**. The TIA indicated that approximately 85% of road tankers use Foreshore Road as the main route to Sydney's arterial road network, while 10% of road tankers use Beauchamp Road and Denison Street (off Botany Road) as a secondary route for travelling to and from the north. Road tankers are prohibited from travelling east bound on Bunnerong Road with the exception of local deliveries which is estimated to be around 5% of road tankers.

6.3.1 Operational Traffic Volumes

The Site B facility operates 24 hours a day and currently experiences two peak road tanker arrival periods:

- 03:00 to 11:00 hours (maximum at approximately 06:00 hours)
- 14:00 to 22:00 hours (maximum at approximately 20:00 hours).

Table 4 shows the historical average road tanker generation up to the current year of operations (2016 projected) and the future forecast product throughput and traffic generation up to the year 2023. To determine future product throughput volumes and future road tanker traffic generation, the TIA analysed historical product throughput data and assumed the average volume load of a rigid single road tanker is 36.3 kilolitres (kL). While a growing proportion of the Vopak truck fleet comprises B-double trucks which can carry a volume of 54.7 kL, for the purposes of this assessment, a conservative volume of 36.3 kL was adopted.

Current operations (2016 projected) were based on projections that 2,400 ML/year of bulk liquids would be distributed via road tanker, generating up to 182 truck trips per day or 7.6 trucks per hour. With regard to staff

trips, current light vehicle movements are approximately 110 trips per day or up to 50 trips per hour during background peak traffic periods.

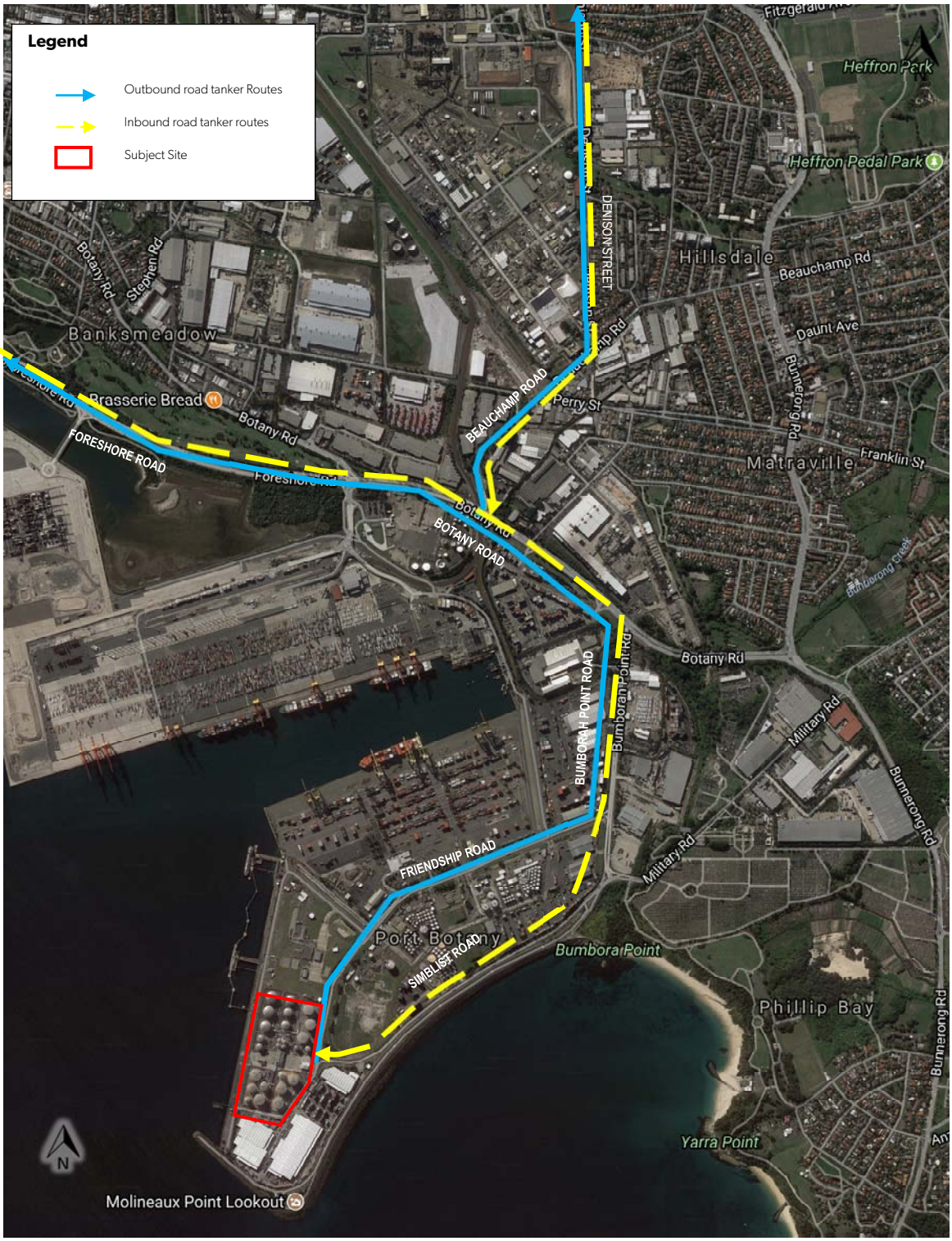

Figure 10 | Heavy Vehicles Routes and Key Access Routes To and From the Site

By 2023, the total product throughput by road tanker transport is expected to reach 3,700 ML/year, which would be the maximum volume distributed via road tanker. This would generate up to 280 heavy vehicle trips per day or 11.7 road tankers per hour and would equate to an additional 196 road tanker trips per day (or 98 road tankers) over and above the current (2016) average daily road tanker traffic.

The TIA included appropriate and conservative assumptions and considered the potential traffic impacts of a worst-case scenario for the year 2023 (final operations) on key roads and intersections. The TIA predicted the proposed modification would result in a 0.1 to 1.3% increase in hourly and daily traffic levels on key roads including Bumborah Point Road, Beauchamp Road and Botany Road.

Table 4 | Current and Future Forecast Product Throughput and Road Tanker Traffic Generation

Year	Projected Throughput	Average Road Tanker Volume (kL)	Road Tanker Loads per year	Road Tanker Loads per day (average)	Road Tanker Loads per hour (average)
2013	2,200	35.4	62,678	172	7.2
2016	2,400	36.3	66,116	182	7.6
2023	3,700	36.3	101,928	280	11.7

The TIA acknowledged that Botany Road and Foreshore Road is constrained at peak periods of the day which can result in significant queuing and reduced levels of service at the key intersections. However, the TIA stated the proposed modification would have a minimal effect on the local road network and intersection operations because the daily traffic generated by the proposal would be readily absorbed into the existing traffic flows. Further, the additional traffic would be within the daily traffic variations that exist in the local road traffic network.

RMS did not object to the proposed modification and noted the proposed modification would not have a significant impact on the overall operation of the road network. Randwick Council initially raised concerns about the adequacy of the traffic assessment noting it did not contain an intersection analysis. The Department acknowledges Randwick Council's concern but concluded an intersection analysis was unnecessary as the proposal would only increase existing traffic levels between 0.1 % and 1.3% at key roads and intersections. Instead, the Department requested the Proponent undertake further analysis to confirm the daily traffic variations in the surrounding local road network.

In its RTS, the Proponent analysed RMS traffic count data obtained over five weekdays in 2017 for the Botany Road/Beauchamp Road intersection to determine the daily traffic variations. The Proponent concluded the level of traffic increase attributable to the proposed modification (ranging from less than 0.1% to 1.3% increase) would be well within the daily variations in the road network being 10.1% for the daily total. The RMS agreed with the Proponent's analysis noting the proposed modification would be within an acceptable 10% of proposed trip generation for the project and would be adhering to designated heavy vehicle routes. Randwick Council did not raise any further issues.

Despite the broader cumulative traffic issues, the proposal's contribution to the road network is within the daily traffic variations and would not impact significantly on traffic conditions. To manage traffic from the site, the Department has included a condition requiring the Proponent to update its existing Traffic Management Plan (TMP) as part of the Operational Environmental Management Plan (OEMP), to include details of heavy vehicle routes and traffic management measures such as managing truck arrivals throughout the day and a driver code of conduct to minimise the potential impacts of the proposal on the local and regional road network.

6.3.2 Denison Street Traffic Volumes

The EA also considered the use of Denison Street as a heavy vehicle and dangerous goods route for Proponent road tanker traffic. During exhibition, several public submissions raised concerns about the proposed traffic impacts along Denison Street arising from the modification.

Existing traffic along Beauchamp Road, Denison Street and Wentworth Avenue ranges from approximately 23,840 vehicles per day along Beauchamp Road to 37,300 vehicles per day along Wentworth Avenue. This comprises traffic coming from Port Botany and the BIP. Traffic count surveys undertaken in March/April 2015 recorded between 94 and 104 heavy vehicles travelling northbound per hour during the peak period (3 pm to 5 pm) along Denison Street. Of this volume, the EA noted that up to 13 Vopak road tankers per hour could be using Denison Street (assuming all Vopak road tankers use Denison Street only). By 2023, the EA predicted that up to seven additional Vopak road tankers or a total of 20 Vopak road tankers per hour could potentially use Denison Street. The EA concluded the impact of additional Vopak road tankers on road capacity would be minimal and within any daily or seasonal variations that currently exists along the surrounding road network. The Department agrees with this conclusion and considers the additional Vopak road tankers would not significantly impact the operation of Denison Street.

Several submissions also raised concerns around the increase in dangerous goods movements along Denison Street. The risk impacts resulting from an increase in dangerous goods movements along Denison Street is discussed in **Section 6.2**.

6.3.3 Construction Traffic

Construction is proposed to be carried out in two stages and is expected to take around six months during the Stage 1 works and 12 months during Stage 2 works. During the peak construction period, up to 40 people would be employed resulting in a maximum of 80 light vehicle movements per day. The estimated heavy traffic volumes are expected to be up to 10 heavy vehicle movements per day.

The TIA found the construction works are likely to have minimal impact on the existing traffic network and would be within any daily traffic variations. In addition, no road closures or traffic detours would be required during these activities. The Proponent has committed to implementing a number of traffic measures to manage construction traffic impacts such as installing traffic control devices and signage, which would be detailed in a Construction TMP, as part of a Construction Environmental Management Plan (CEMP).

RMS and Randwick Council and did not raise any issues relating to construction traffic. The Department is satisfied the construction works would be temporary in nature and are not likely to impact on the local road network. The Department has formalised the Proponent's commitments in the recommended conditions of approval.

6.3.4 Site Access

The proposed modification involves changes to site access arrangements for road tankers. Currently, road tanker access to and from the site is via an entry and exit point on Friendship Road (see **Figure 10**). During Stage 1, road tankers would continue to enter and exit the site via Friendship Road. Construction works associated with Stage 2 would commence when road tanker throughput reaches 2,600 ML/year. Parking and site access for staff would remain unchanged under the proposed modification.

During Stage 2, road tanker access is ultimately proposed via a western entry on Fishburn Road for road tanker entries and Friendship Road for road tanker exits (see **Figure 11**). To facilitate road tanker access to the western entry, a new link road is proposed to be constructed in an existing easement through the Elgas site to the north of the site. The new link road would enable road tankers to approach the western entry from the north allowing for a 3.5 m wide queuing lane and a 3.5 m wide passing lane. Fishburn Road would also be upgraded to allow for the addition of a queuing and passing lane. It is anticipated that around 18 B-double sized vehicles would be able to queue on the new link road to ensure road tankers do not queue onto Friendship Road. Due to restricted visibility from the queue on the new link road to Fishburn Road, traffic lights would be installed at the end of the new link road to inform drivers when there is space available in the on-site queue (see **Figure 11**).

The proposed modification also includes the construction of an additional central right-turn on the Simblist Road approach to Friendship Road to separate Proponent road tanker movements from through vehicle movements. This would eliminate any traffic conflicts with vehicles already travelling northbound on Friendship Road. To ensure the construction of the new link road and driveway is appropriately managed, the Proponent has committed to implementing several traffic management measures including temporary warning, guidance and information signage as part of the Construction TMP.

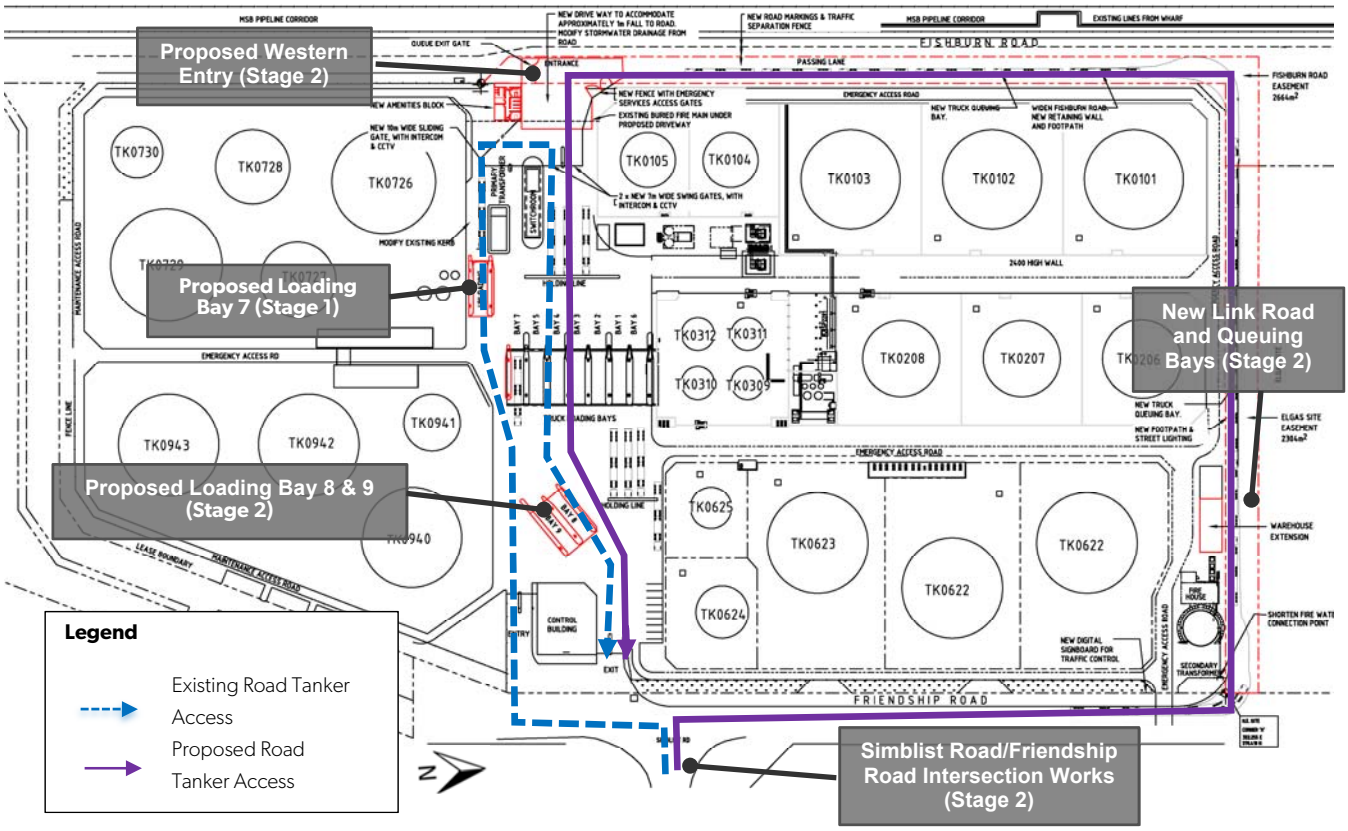

Figure 11 | Existing and Proposed Site Access Arrangements

Randwick Council did not raise any concerns regarding the proposed traffic mitigation measures but commented on the timing of construction of the new western entry and link road. As the construction of the new western entry would only commence once the facility reaches a road tanker throughput volume of 2,600 ML/year, Randwick Council noted throughput projections in the TIA showed that by 2017/18, the facility would be exceeding this volume (at 3,200 ML). Randwick Council therefore requested the Proponent commit to constructing the new western entry as part of the Stage 1 works. The Proponent reviewed its latest estimates for road tanker throughput and confirmed that in 2017, the annual road tanker throughput was under 2,600 ML, which would not yet trigger the need for the new western entry.

The Department considers the proposed site access arrangements during the Stage 1 and Stage 2 works would not result in offsite queuing and traffic impacts to surrounding residential areas. The project approval currently requires the Proponent to manage vehicle queuing and parking on-site. Hence, the Department is satisfied construction activities associated with the new access road can be managed under the Construction TMP. The Department has also recommended the Proponent detail final site access arrangements and strategies in its Operational TMP to manage trucks entering/exiting the facility.

6.3.5 Conclusion

The Department's assessment concludes the potential traffic and access impacts associated with the construction and operation of the proposal would be minimal and can be adequately managed by the Proponent via a construction and operational TMP. The Department concludes the new western entry would provide adequate on-site queuing spaces for road tankers minimising off-site queuing.

6.4 Air Quality

The operation of four new tanker bays and associated infrastructure would enable the Proponent to increase the total annual throughput at the Site B facility from 3,950 ML to 7,800 ML. This has the potential to contribute to existing volatile organic compound (VOC) emissions in the area, such as benzene and toluene, due to the additional product throughput that would be stored and transferred at the site.

The primary emissions from the Site B facility include:

- VOCs from the storage and transfer of petroleum products and emission losses from gantry and filling station vents and pipelines within the site and the adjoining Site B4
- dust and particulate emissions during construction works associated with the proposed modification.

An Air Quality Impact Assessment (AQIA) was prepared by AECOM to assess the construction and operational air quality impacts of the proposed modification and is based on a maximum product throughput of 7,800 ML. The AQIA was prepared in accordance with the EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*.

6.4.1 Operation

The AQIA considered the following pollutants to be of potential concern: benzene, cumene, cyclohexane, ethylbenzene, n-hexane, toluene and xylenes.

The AQIA considered the cumulative air quality impacts of the Proponent's operations in Port Botany including the Site B facility, Site B4 facility, bitumen facility and associated BLBs. The modelling assumed a worst-case scenario involving the continuous operation of the facility including the operation of all nine loading bays (including the four proposed loading bays), loading 3.5 tankers per hour per bay, with the residual fuel in tankers assumed to be 100% flammable (petroleum). The modelling also assumed a new vapour recovery unit (VRU) operating at a conservative stack concentration of 4 milligrams per litre (mg/L) of total unrecovered vapours to accommodate for the increase in throughput. The VRU recovers vapour emissions from the truck-filling gantries when tankers are filled with fuel on-site.

The maximum cumulative predicted ground level concentrations (GLC) for the assessed pollutants is presented in **Table 5** and shows the Proponent's operations would not exceed the EPA ground level criteria for any of the assessed pollutants at all residential receptors. Cumulative benzene concentrations are predicted to be 25.30 micrograms per cubic metre (µg/m^3) or 87% of the EPA criterion of 29 µg/m^3. The AQIA indicated the Site B facility would produce the highest benzene concentrations (GLC predicted to be 23.99 µg/m3), which is likely attributed to the facility's VRU.

The significant benzene emissions were previously identified during the assessment of the Vopak Site B4 Project (SSD 7000), with the EPA at the time recommending further investigations into the feasibility of benzene reductions at the Site B facility. As part of this modification request, the Proponent confirmed it is upgrading its existing VRU to minimise off-site air quality impacts and to ensure compliance with the emission limits in the *Protection of the Environment Operations (Clean Air) Regulation 2010* (Clean Air Regulation). The Proponent has committed to ensuring the VRU would meet best practice and industry standards and provided a manufacturer's guarantee to demonstrate the new VRU can meet regulatory requirements. The new VRU would be capable of

achieving a vapour emission limit of 4 milligrams per litre (mg/L) which is well within the regulatory limits of 110 mg/L currently prescribed in the facility's EPL and the Clean Air Regulation.

Table 5 | Maximum Cumulative Predicted Ground Level Concentrations at or Beyond the Site Boundary 99/9th Percentile (µg/m3)

Pollutant	EPA Criteria (µg/m³)	Ground Level Concentration (µg/m³)					Cumulative % of Criteria
		Site B	Site B4	Vopak Bitumen & BLB 1/2	Background GLC	Cumulative GLC	
Benzene	29	23.99	0.00020	0.00046	1.31	25.30	87%
Cumene	21	0.01	14.93	0.00306	0.12	15.06	72%
Cyclohexane	19,000	10.12	0.00001	0	0.48	10.59	<1%
Ethylbenzene	8,000	8.33	0.00006	0.00036	0.34	8.67	<1%
n-hexane	3,200	85.03	0.00040	0.00198	4.25	89.28	3%
Toluene	360	74.43	0.00032	0.00541	3.28	77.71	22%
Xylene	190	35.04	0.00022	0.00154	1.41	36.46	19%

Note: *Orange highlight denotes cumulative GLCs approaching the upper limit of the EPA criteria*

The EPA sought clarifications on the findings of the benzene reduction study noting that despite the installation of the upgraded VRU, cumulative ground level benzene concentrations still remained high (87% of the EPA impact assessment criterion). The EPA advised it may introduce a special condition in the EPL requiring the Proponent to carry out a continuous improvement program at the facility to reduce benzene emissions to the maximum extent achievable.

The Proponent's assessment is conservative given the modelling assumes all returning product is gasoline (which is high in hydrocarbon vapours) and that all nine loading bays would be fully occupied and continuously filling per bay, per hour. In reality, loading patterns are variable due to peak periods and loading times. In addition, automotive diesel, which is low in hydrocarbon vapour emissions, also make up some of the returning product. The Proponent has committed to investigating and implementing benzene reduction measures, such as making improvements to internal roof design and pump seals throughout the life of the project. The EPA supports this approach.

The Department has considered the Proponent's commitment to further manage benzene emissions and concurs with the EPA's view that a continuous improvement program to reduce benzene emissions may be necessary to manage benzene emissions from the facility. The Department also considers a benzene emissions reduction program via a pollution reduction program can be managed under the facility's EPL. The Department has included the Proponent's updated statement of commitments in the recommended instrument. The Department has also recommended the Proponent prepare and implement an Operational Air Quality Management Plan (OAQMP) detailing operational mitigation measures and an ongoing emissions monitoring program to minimise air quality impacts.

Randwick Council also raised concerns regarding odour emissions given VOCs would be the primary source of odour. As part of the assessment of the Site B4 Project (SSD 7000), the Proponent's operations would not exceed odour emissions, therefore no further assessment was required.

The proposed modification is predicted to meet the relevant assessment criteria for VOCs and would be designed in line with best practice and industry standards. The Department's assessment concludes the potential air quality impacts from the modification can be adequately managed, subject to conditions.

6.4.2 Condition 27 – VRU Efficiency Requirement

Condition 27 of the project approval requires the Proponent to ensure its VRU is operating at a 99% recovery efficiency at all times. This condition was based on a commitment made by the Proponent in the original Environmental Assessment for the project in 2006. The EPL also requires the Proponent to meet an emission limit of 110 mg/L as required by the Clean Air Regulation. In reality, the VRU was unable to simultaneously meet the recovery efficiency guarantee (Condition 27) and the emission guarantee (requirement of the EPL) due to the design of the VRU. Hence, the Proponent has requested Condition 27 be amended so that it is consistent with the VRU emission limits contained in the facility's EPL.

The EPA did not object to the deletion of Condition 27 noting the VRU complies with the EPL and once upgraded, would be capable of meeting a stricter emission limit of 4 mg/L. The EPA advised it would be varying the EPL to reflect the 4 mg/L emission limit, should approval be given.

The Department has considered the Proponent's request and notes the VRU is currently meeting the requirements under the facility's EPL and the Clean Air Regulation. The Department agrees to delete the 99% efficiency requirement under Condition 27 and recommends a new condition requiring the VRU to meet an emission limit of 4 mg/L, as per the EPA's recommendation. The Department also recommends a post-commissioning validation study following the installation of the upgraded VRU to verify that the VRU is achieving a vapour emission limit of 4 mg/L.

6.4.3 Construction

During construction, the proposed modification has the potential to generate dust emissions due to earthworks associated with the construction of the new access road and driveway, driver amenities block and road tanker loading bays. These works would be temporary in nature and would be carried out in two stages over a period of 18 months.

The potential impacts to residents from dust emissions during construction would be negligible, given the closest residents to the site are around 1.5 km to the east of the site in Phillip Bay. Notwithstanding, the Proponent has committed to a number of best practice and industry standard mitigation measures to be detailed in a CEMP and would include the following measures:

- fitting all vehicles and plant/equipment with emission control equipment
- vehicle loads to be covered at all times
- wetting and covering of stockpiles and exposed surfaces.

The EPA did not raise any concerns regarding air quality impacts during construction. The Department is satisfied air quality impacts during construction can be readily managed through the Proponent's statement of commitments and a CEMP and are unlikely to impact on sensitive receivers. The Department has recommended formalising the Proponent's commitments for managing dust during construction in the recommended instrument.

6.4.4 Conclusion

The Department's assessment concludes the construction impacts, including dust and particulate emissions, would be relatively low and are able to be managed through the implementation of standard management and mitigation measures, which are to be included in the CEMP.

In terms of operational impacts, the Department concludes the operational air quality modelling predictions demonstrate the relevant air quality impact assessment criteria for benzene, cumene and other VOCs would be complied with at all times at all receivers. Despite significant benzene emissions from the facility, the Department accepts the Proponent is committed to reducing benzene emissions at the site through upgrading the VRU and implementing other design measures. The Department has recommended several conditions for the Proponent to prepare an OAQMP and to ensure the VRU meets a concentration limit of 4 mg/L.

6.5 Removal of Throughput Limit Conditions

Schedule 2, conditions 9, 10 and 11 of project approval MP 06_0089 provide limits on throughput at the Site B facility. These conditions require the Proponent to ensure the:

- annual throughput at the site does not exceed 3,950 ML of bulk liquids a year (condition 9)
- volume of bulk liquids received at the site by road tanker does not exceed 192.5 ML (condition 10)
- volume of bulk liquids dispatched by road tanker does not exceed 1,897.5 ML of bulk liquids a year, including a maximum of 150 ML of jet fuel (condition 11).

The Proponent has requested the deletion of conditions 9 to 11, which it states will make its operations more transparent to its stakeholders as the annual throughput at the site has exceeded the throughput limits in the past. However, the Proponent has used section 32(1) of the Ports Assets Act to justify previous exceedances in the annual throughput limit as section 32(1) can switch off a planning control to the extent that it would operate to impose a cargo throughput limit at Port Botany (see **Section 4.3**). The EA indicated conditions 9 to 11 are planning controls and therefore the limits contained in those conditions would be of no effect.

The EPA and Randwick Council objected to the removal of the throughput limit conditions on the basis that conditions 9 to 11 are crucial to mitigating the adverse environmental impacts of the project, particularly with respect to traffic and dangerous goods movements. Randwick Council also stated that it is unreasonable to remove conditions 9 to 11 as it acts as an effective means for protecting the amenity of surrounding residential areas from unregulated road transport.

6.5.1 Department's Consideration

The Minister as the approval authority has obligations under the EP&A Act to assess the environmental impacts of the proposed modification and impose conditions where necessary to minimise and manage any residual environmental impacts. Section 4.15 of the EP&A Act sets out the matters for consideration by an approval authority when determining an application, including transitional Part 3A projects. This includes consideration of:

- the provisions of any relevant environmental planning instrument or regulations that apply to the land to which the development application applies
- the likely impacts of a development including environmental impacts on the natural and built environment
- the suitability of the site
- any submissions made in accordance with the EP&A Act or the EP&A Regulation
- public interest.

The Department considers it necessary to continue to impose conditions 9 to 11 in the project approval irrespective of the operation of the Ports Assets Act, given the:

- potential environmental impacts of the proposed modification, including the existing constraints of the surrounding road network
- proximity of the Site B facility to residential areas and the risks associated with the transport of dangerous goods
- views of Randwick Council, the EPA and submissions received from the public.

It is also the Department's view that section 32(1) of the Ports Assets Act does not prevent the imposition of conditions that limit or restrict the cargo throughput limit for Port Botany. Should the Ports Assets Act be repealed in the future, the throughput limit conditions contained in the project approval would continue to be in place. As such, retaining the throughput limit conditions are appropriate.

In its assessment of the modification, the Proponent adopted a maximum total annual throughput of 7,800 ML/year in its EA and supporting technical studies. This includes 3,700 ML/year to be distributed by road tanker, of which 2,344.2 ML is made up of gasoline and 259.6 ML is comprised of jet fuel. The Department has considered the likely impacts of the proposed modification in the previous sections of this report including hazards and risk, dangerous goods movements and traffic. The Department recommends amending conditions 9 and 11 to reflect the maximum limits adopted in the EA being:

- ensure the annual throughput at the site so that it does not exceed 7,800 ML of bulk liquids a year (condition 9)
- ensure volume of bulk liquids dispatched by road tanker does not exceed 3,700 ML of bulk liquids a year, including a maximum of 2,603.8 ML of Dangerous Goods Class 3.1 (condition 11).

The Proponent has accepted the Department's position and recommendation to amend the throughput limit conditions to reflect the proposed maximum total annual throughput of 7,800 ML.

6.5.2 Conclusion

The Department's assessment concludes that retaining the throughput limit conditions in the approval would ensure the environmental impacts associated with the project will continue to be managed. The Department has recommended that the throughput limit conditions be amended to reflect the proposed maximum annual throughput at the facility.

6.6 Other Issues

The Department's assessment of other issues is provided in **Table 6**.

Table 6 | Assessment of Other Issues

Assessment	Recommended Condition
Soil	
• The site was reclaimed during the 1970s and is comprised of gravel, sandstone, demolition rubble and steel reinforcement. There has been previous contamination on the site which was remediated. • The site includes a water treatment plant and slop tanks to collect and treat stormwater from the storage tanks and road tanker bay areas. • During construction of the new link road, activities such as earthworks, stockpiling and stripping of topsoil have the potential to result in erosion, sediment transport and contamination. • Potential impacts are expected to be minimal given the Proponent has committed to implementing several erosion and sediment control measures such as managing stockpiles and installing sediment fences. • DPI did not raise any concerns but recommended the Proponent prepare a Construction Soil and Water Management Plan in accordance with the guideline Managing Urban Stormwater – Soils and Construction (Blue Book). • Given the existing approval already contains a condition for the Proponent to manage soil erosion and sediment discharge during construction, the Department has recommended updating this condition to ensure any erosion and sediment control measures are installed and maintained in accordance with the Blue Book.	Require the Proponent to: • implement soil and erosion sediment controls in accordance with the Blue Book

Assessment	Recommended Condition
• During operation, the primary source of potential soil and surface water impacts would be from the release of hydrocarbons. • The EA indicated that any stormwater from the new road tanker bay areas would continue to drain to a sump and transferred to slop tanks prior to offsite disposal, while the new link road would drain into the existing ports drainage system. • The EPA requested further clarification on the safeguards and management measures for minimising the risk of stormwater pollution on the new link road. • To address EPA's concerns, the Proponent has committed to installing a system that complies with NSW Ports Development Code and EPA guidelines. • The Department considers the site's existing operational stormwater management system is adequate, subject to implementation of existing and new conditions. • The Department's assessment concludes any soil and water impacts associated with the proposed modification can be adequately managed.	
Contamination and Groundwater	
• Groundwater is generally intercepted between 3.2 and 4.2 m below ground level. • During construction of the new link road, excavation works would be carried out at a depth of 1.2 m and are therefore unlikely to intercept groundwater. • During operation, the release of hydrocarbons from the facility has the potential to lead to soil and groundwater contamination. • The EA indicated that any contaminated run-off from the tanks or loading bays would be contained within the bunded areas and diverted into the site's existing slop tanks. • The EPA requested additional information on the potential impacts of the modification on any land or groundwater contamination in the area. • In its RTS, the Proponent confirmed that there had been no reported visual indicators of soil contamination. Although there has been some groundwater mounding from the periodic filling and emptying of storage tanks, the Proponent confirmed the works associated with the modification would not intercept the groundwater. • The EPA was satisfied with the information provided in the RTS and advised that the Proponent is required to continue to undertake groundwater monitoring in its EPL. • The potential groundwater and soil contamination impacts of the modification would be minimal given the facility's existing environmental safeguards for stormwater and spill containment. • The Department's assessment concludes groundwater and contamination impacts can be adequately managed through the existing and new conditions of consent and the EPL.	No additional conditions are necessary
Waste	
• The Proponent currently has a waste management system in place at the Site B facility. • During construction, the main waste products generated would include excavation and surplus materials, wastewater, waste oils and fuels and domestic waste.	Require the Proponent to: • incorporate waste strategies in the CEMP and OEMP.

Assessment	Recommended Condition
• Construction waste would be handled and disposed of in accordance with guidelines and strategies already in place for the Site B facility. • During operation, the proposed modification would not result in the generation of new waste streams. The EA indicated any runoff from the new tanker loading bays would be collected in slop tanks and disposed offsite to a licensed waste facility. Runoff in other areas would continue to be diverted to the site's wastewater treatment plant. • The Proponent has committed to incorporating a number of waste strategies into its CEMP and OEMP in accordance with EPA guidelines. The Department has formalised this commitment in the modifying instrument. • The EPA and Randwick Council did not raise any concerns. • The Department's assessment concludes the proposed modification would not result in significant waste impacts and can be managed by the existing conditions as well as the waste strategies contained in the CEMP and OEMP.	
Deletion of Condition 6 – Flexible hoses	
• Condition 6, Schedule 3 of the approval requires the Proponent to notify NSW Ports on each occasion that flexible hoses are used for the project. • The Proponent indicated that it uses the flexible hoses for ship import/export activities and during road tanker loading, but it intends to use them for road tanker loading only. • The Proponent has requested this condition be amended as it considers that NSW Ports should only be notified when the flexible hoses are being used on NSW Ports owned infrastructure such as the BLBs for ship import/export activities. • NSW Ports did not raise any concerns. • The Department agrees that it would not be necessary to notify NSW Ports on other occasion when the flexible hoses are used on Proponent owned infrastructure. • The Department has recommended this condition be amended.	Require the Proponent to: • notify NSW Ports in writing on each occasion that the flexible hoses are used for ship import/export activities relating to the bulk liquids berths.
Noise	
• Randwick Council raised concerns about construction and operational noise impacts associated with the modification, noting that it receives complaints from residential neighbours regarding noise from the Port. • Randwick Council recommended: o construction vehicles be required to use non-tonal reversing alarms to minimise impacts to adjacent residential areas during night time works o the Proponent ensure the proposed modification does not give rise to an offensive noise as defined in the Protection of the Environment Operations Act 1997. • The Department notes the EA did not include a noise assessment, however the Proponent's statement of commitments includes controls to manage noise during construction and operation such as ensuring all vehicles are fitted with appropriate mufflers and construction activities are carried out during standard work hours. • The Department has formalised these commitments in the recommended instrument. • The Department acknowledges Randwick Council's concerns regarding noise impacts from Port-wide operations and is aware there is scope to	Require the Proponent to: • participate in the establishment of a noise map for the port precinct.

Assessment	Recommended Condition
identify and manage noise across the Port Botany precinct in the future, as per EPA guidelines. • Should this occur, the Department has recommended a condition requiring the Proponent to participate in any efforts to establish a noise map across the port precinct. • The Department's assessment concludes that any construction and operational noise impacts can be adequately managed, subject to conditions.	
Warehouse Extensions	
• During this assessment, the Department has become aware that the Proponent has completed the warehouse extensions, which are subject to this modification. • Given a construction certificate has not been issued for an 'unapproved' structure or building, a building information certificate (under Division 6.7 of the EP&A Act) from Randwick Council should be obtained to cover all aspects of construction and occupation. This would ensure the warehouse extensions are structurally sound and comply with the Building Code of Australia or other building standards. • The Department has recommended a condition requiring the Proponent to obtain and provide a copy of a building certificate for the warehouse extensions to the Planning Secretary.	Require the Proponent to: • obtain a building information certificate from Council for the warehouse extensions.

7. Evaluation

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act.

The Proponent has identified a need to provide a secure fuel supply to service the NSW and Sydney fuel markets in light of the reduced refining capacity in NSW. The proposed modification enables the Proponent to construct and operate additional fuel infrastructure to enable it to reach an annual total throughput of 7,800 ML/year. The proposal would result in several economic benefits such as improved operational efficiency, reliability and security of supply.

The Department's assessment concludes:

- potential hazards and risks from the proposed modification to the Site B facility would still meet the Department's hazard risk criteria for fixed facilities in HIPAP No 4
- individual fatality and societal risks associated with DG transport along Denison Street would not substantially change as a result of the proposed modification
- operational traffic impacts associated with the increase in road tanker movements to and from the site would not impact on existing road network conditions
- the project would continue to meet relevant air quality criteria at the nearest sensitive receivers.

Although the Proponent requested the deletion of throughput limit conditions (Schedule 2, conditions 9 to11) from the approval, the Department has retained the throughput limits as it would ensure the environmental impacts associated with the project can continue to be managed, irrespective of the operation of the Ports Assets Act.

The Department has recommended several conditions to manage and monitor hazards and risk, DG transport risk, air quality and operational traffic including but not limited to:

- implementation of a number of hazards studies to ensure the risk from the project to the surrounding environment is tolerable
- ongoing traffic monitoring of Proponent DG traffic along Denison Street to monitor any changes in DG traffic movements
- implementation of an AQMP to manage air emissions from the project.

This assessment concludes that with the implementation of the recommended modifying conditions, the impacts of the proposed modification can be mitigated and/or managed to ensure an acceptable level of environmental performance.

The Department is satisfied the modification should be approved, subject to conditions.

8. Recommendation

It is recommended that the Executive Director, Key Sites and Industry Assessments, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report
- **determines** that the application MP 06_0089 MOD 2 falls within the scope of section 75W of the EP&A Act
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant/refuse consent/approval to the application
- **agrees** with the key reasons for approval listed in the draft notice of decision
- **modify** the consent MP 06_0089
- **signs** the attached approval of the modification (**Attachment D**).

Pamela Morales
Senior Planning Officer
Industry Assessments

Recommended by:

Sally Munk
Principal Planner
Industry Assessments

Recommended by:

Chris Ritchie
Director
Industry Assessments

12/12/18.

9. Determination

The recommendation is: **Adopted by:**

Sargeant

Anthea Sargeant 27/12/18
Executive Director
Key Sites and Industry Assessments

Appendices

Appendix A – List of Documents

- Statement of Environmental Effects

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7122

- Submissions

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7122

- Response to Submissions Report

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7122

Appendix B – Consolidated Consent

Appendix C – Notice of Modification