



Planning &
Environment

**STATE SIGNIFICANT DEVELOPMENT ASSESSMENT:
Vopak Site B4 Project
SSD 7000**



Environmental Assessment Report
Section 89H of the
Environmental Planning and Assessment Act 1979

November 2016

ABBREVIATIONS AND DEFINITIONS

Applicant	Vopak Terminals Sydney Pty Ltd
Council	Randwick City Council
Construction	The demolition of buildings or works, carrying out of works, including earthworks, erection of buildings and other infrastructure
DA	Development Application
Department	Department of Planning and Environment
Development	The development as described in the EIS and RTS
DPI	Department of Primary Industries
EIS	Environmental Impact Statement titled <i>Vopak Site B4 Project – Environmental Impact Statement</i> prepared by AECOM, dated 9 October 2015
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
HIPAP	Hazardous Industry Planning Advisory Paper
HIPAP No. 4	<i>Hazardous Industry Planning Advisory Paper No. 4: Risk Criteria for Land Use Safety Planning</i>
HIPAP No. 6	<i>Hazardous Industry Planning Advisory Paper No. 6: Hazard Analysis</i>
Minister	Minister for Planning
Operation	Import, storage and export of bulk liquids as described in the EIS
RMS	Roads and Maritime Services
RTS	Response to Submissions titled <i>Response to Submissions – SSD 7000 Vopak Site B4 Tank Farm</i> prepared by AECOM, dated 18 December 2016
Secretary	Secretary of the Department, or nominee
Sensitive receiver	Residence, education institution, health care facility, religious facility and child care facility
SEPP	State Environmental Planning Policy
SEPP 33	<i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</i>
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSD	State Significant Development
Three Ports SEPP	<i>State Environmental Planning Policy (Three Ports) 2013</i>

Cover photo: Proposed Vopak Site B4 Project (Source: Environmental Impact Statement for Vopak Site B4 Project)

© Crown copyright 2016
Published November 2016
NSW Department of Planning and Environment
www.planning.nsw.gov.au

Disclaimer:

While every reasonable effort has been made to ensure that this document is correct at the time of publication, the State of New South Wales, its agents and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance upon the whole or any part of this document

TABLE OF CONTENTS

ABBREVIATIONS AND DEFINITIONS	ii
TABLE OF CONTENTS	iii
FIGURES	iv
EXECUTIVE SUMMARY	5
1. BACKGROUND.....	1
1.1. The Department's Assessment	1
1.2. Project Background	1
1.3. Site Description and Surrounding Land Uses	2
1.4. Vopak Site B Facility – Existing Operations	3
2. PROPOSED DEVELOPMENT	4
2.1. Description of the Development	4
2.2. Fuel Import and Transfer	4
2.3. Applicant's Need for the Development.....	5
3. STATUTORY AND STRATEGIC CONTEXT.....	8
3.1. Strategic Context	8
3.2. State Significant Development	8
3.3. Permissibility.....	8
3.4. Consent Authority	8
3.5. Other Approvals.....	9
3.6. Consideration under Section 79C of the EP&A Act	9
3.7. Environmental Planning Instruments	9
3.8. Public Exhibition and Notification	9
3.9. Objects of the EP&A Act	9
3.10. Ecologically Sustainable Development	10
3.11. <i>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)</i>	10
4. CONSULTATION AND SUBMISSIONS	11
4.1. Consultation.....	11
4.1.1. Consultation by the Applicant.....	11
4.1.2. Consultation by the Department.....	11
4.2. Submissions	11
4.2.1. Public Authorities.....	11
4.2.2. General Public.....	12
4.3. Response to Submissions.....	12
5. ASSESSMENT	12
5.1. Hazards and Risks	12
5.2. Air Quality	16
5.3. Other Issues	17
6. CONCLUSION	20
7. RECOMMENDATION	21
APPENDIX A: Development Consent	22
APPENDIX B: Considerations under Section 79C	23
APPENDIX C: Consideration of Environmental planning instruments.....	24
APPENDIX D: Environmental Impact statement	25
APPENDIX E: Submissions	26
APPENDIX F: Response to Submissions	27

FIGURES

Figure 1: Regional Context	1
Figure 2: Site Context	2
Figure 3: Vopak Site B Facility	3
Figure 4: Proposed Development (highlighted in red) and the Site B Facility	6
Figure 5: Process Flow Diagram of the Proposed Development (highlighted in red) and the Site B Facility (highlighted in green)	7
Figure 6: Individual Fatality Risk Contour – Proposed Development Only	13
Figure 7: Cumulative Individual Fatality Risk (Site B Facility and Proposed Development).....	14

EXECUTIVE SUMMARY

Vopak Terminals Sydney Pty Ltd (the Applicant) has lodged a Development Application (DA) and accompanying Environmental Impact Statement (EIS) seeking to construct and operate a bulk liquids storage facility at Port Botany in the Randwick local government area (LGA). The proposed development would comprise seven storage tanks, with a combined storage capacity of up to 200,000 m³ (or 200 mega litres) of Class 3 flammable or combustible fuel products including gasoline and diesel.

The Applicant currently operates a fuel import, export and distribution terminal (known as the Site B facility) in Port Botany and supplies in excess of 20% of Sydney and NSW's fuel requirements. The proposed development would be located adjacent to the Site B facility.

In the last few years, the Australian fuels supply market has undergone a number of significant changes due to increased competition from new, large scale refineries in the Asia-Pacific region, which have considerably larger and more efficient refining capacity than in Australia. The recent closure of the Shell Clyde Refinery and Caltex Kurnell Refinery has led to an increase in fuel imports in NSW, prompting a growing number of independent fuel suppliers to enter the market.

The Applicant has identified the need to provide a secure fuel supply to service the NSW and Sydney fuel markets in light of the reduced onshore refining capacity in NSW. The Applicant anticipates the proposal would lead to a number of economic benefits such as improved operational efficiency, reliability and security of supply.

The proposed development does not involve any distribution by road from the site, but it would export product via product pipelines. The proposed development would be connected to the Site B Facility via a series of pipelines, but it would not increase the Site B facility's throughput limit or capacity.

The proposal is classified as State significant development (SSD) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it:

- involves development within the Port Botany lease area that is classified as designated development under Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation); and
- has a capital investment value of more than \$100 million.

Consequently, the Minister for Planning is the consent authority for the proposed development.

The proposed development has a capital investment value of \$116 million and would provide up to 100 jobs during construction and ongoing employment for workers at the Site B facility.

The Department exhibited the EIS for the development from Thursday 22 October 2015 until Friday 20 November 2015 and received 12 submissions, including eight from government authorities and four from the general public. All submissions from the general public objected to the proposal.

Key concerns related to hazards and risks and air quality. The Applicant submitted a Response to Submissions (RTS) in December 2015 to address and clarify matters raised in the submissions. A revised air quality impact assessment was submitted in May 2016 to address specific matters raised by the Environment Protection Authority.

The Department's assessment of the application has fully considered all relevant matters under Section 79C of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development. The Department identified the following key issues for assessment:

- hazards and risks associated with the storage of fuels; and
- air quality and odour impacts including cumulative air emissions.

The Department's assessment concluded the proposed development would meet the Department's hazard risk criteria and relevant air quality and noise criteria at sensitive receivers. The proposed development would not generate operational traffic, however construction traffic generated by the development would be temporary and managed via a Construction Traffic Management Plan.

The Department has recommended a number of conditions to manage and monitor hazards and risks, air quality, construction traffic, soil and water, including but not limited to:

- implementation of a number of hazard studies to ensure the risk from the development to the surrounding environment is minimised;
- implementation of an air emissions program to manage air and odour emissions from the development; and
- construction of bund walls and implementation of stormwater management measures.

Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.

1. BACKGROUND

1.1. The Department's Assessment

This report details the Department of Planning and Environment's (the Department) assessment of a State significant development application (SSD 7000) for the Vopak Site B4 Project (proposed development). The proposed development involves the construction and operation of a bulk liquids storage facility which would be located adjacent to Vopak Terminal's existing Site B operations. The Department's assessment considers all documentation submitted by Vopak Terminals, including the Environmental Impact Statement (EIS) and Response to Submissions (RTS), and submissions received from government authorities, stakeholders and the public. The Department's assessment also considers the legislation and planning instruments relevant to the site and the development.

This report describes the proposed development, surrounding environment, relevant strategic and statutory planning and the issues raised in submissions. The report evaluates the key issues associated with the development and provides recommendations for managing any impacts during construction and operation. The Department's assessment of the Vopak Site B4 Project has concluded the development is in the public interest and should be approved, subject to conditions.

1.2. Project Background

Vopak Terminals (Sydney) Pty Ltd (the Applicant) is seeking development consent to construct and operate a bulk liquids storage facility at Port Botany in the Randwick local government area (LGA) (see **Figure 1**). The proposed development would be comprised of seven storage tanks, with a combined storage capacity of up to 200 mega litres (ML) of Class 3 flammable or combustible fuel products (classified under the Dangerous Goods Code) including gasoline and diesel.



Figure 1: Regional Context

The Applicant is a large independent storage provider for the oil and chemical industry with around 80 terminals in 28 countries. In Australia, the Applicant currently operates a fuel import, export and distribution terminal at Port Botany (known as the Vopak Site B facility) for jet fuel, petroleum and diesel (see **Figure 1**).

The recent decline and cessation of all fuel refining in NSW and the ongoing need for the State to have a secure and diverse fuel supply network has created a strong market demand for fuel storage facilities. The Applicant has identified the need to provide a secure fuel supply in light of the reduced onshore refining capacity in NSW.

1.3. Site Description and Surrounding Land Uses

The proposed development is located at 20 Friendship Road, Port Botany on 4.2 hectares (ha) of the original nine ha site which was formerly occupied by the Qenos Hydrocarbon Terminal (known now as the site) (see **Figure 1**). The Vopak Site B4 Project is adjacent to the Applicant's Site B facility.

The site is approximately 12 kilometres (km) south-east of the Sydney central business district and 4 km west of Sydney Airport. Port Botany is NSW's only container port and the largest bulk liquid and gas port servicing the Sydney metropolitan region.

The site and adjoining land is topographically flat at an elevation of around 3.8 metres (m) Australian Height Datum (AHD). The site is bounded by Simblist Road to the east and to the south and Friendship Road to the west. The main vehicular access to the site and adjoining industrial premises is via Simblist Road which operates in a one-way direction. Vehicles exiting the site would travel via Friendship Road (see **Figure 2**).

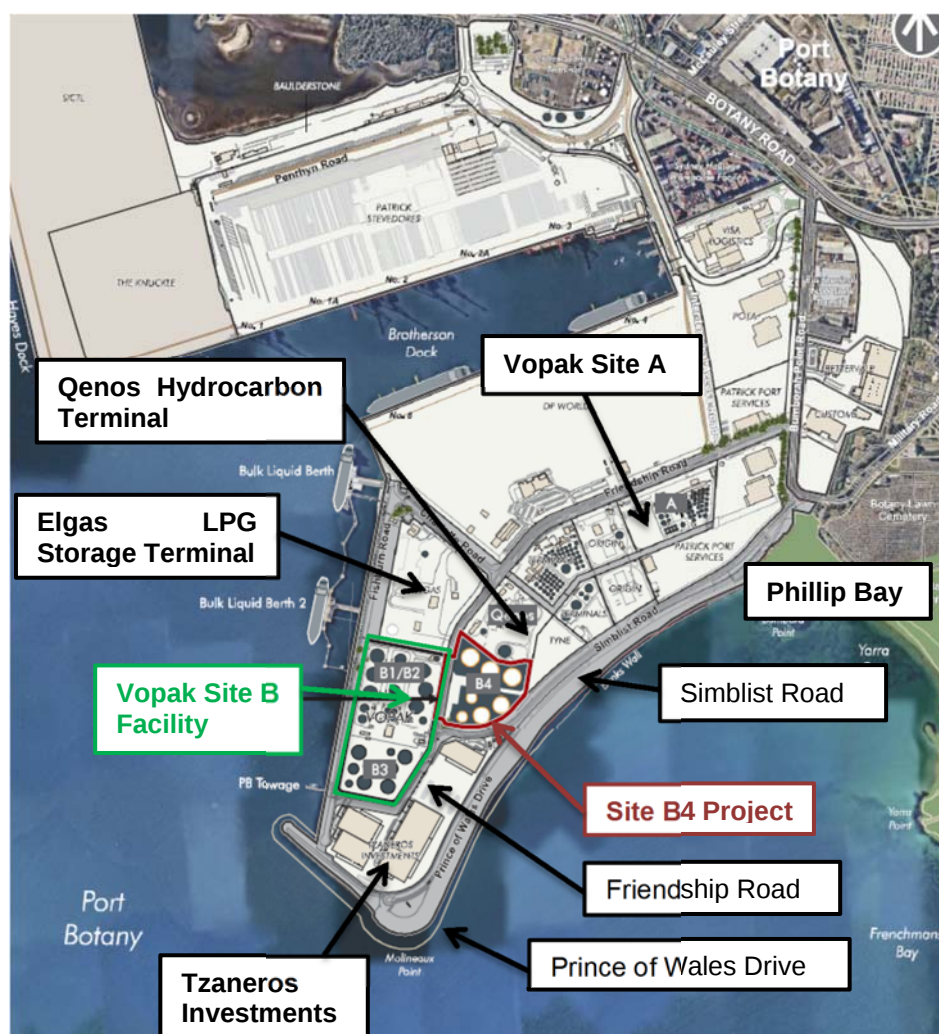


Figure 2: Site Context

A number of industrial and port-related uses immediately surround the site (see **Figure 2**), including the:

- remaining portion of the Qenos Hydrocarbon Terminal and the Elgas LPG Storage Terminal to the north and north-west;
- existing bitumen storage and distribution terminal owned by Vopak (Site A) to the north-east;
- existing Vopak Site B facility to the west; and
- Tzaneros Investments (a transport and logistics company) to the south.

The nearest residential areas are located around 1.5 km north-east of the site in the suburb of Phillip Bay.

1.4. Vopak Site B Facility – Existing Operations

The Applicant currently operates the Site B facility under an existing project approval (MP 06_0089), issued by the then Minister for Planning on 28 February 2007. The Site B facility is comprised of import (wharf and berthing) and fuel terminal infrastructure (see **Figure 3**), which is integrated into a wider network of petroleum and liquid fuels transport infrastructure including the Caltex Banksmeadow Terminal and Mobil Silverwater Terminal.

The Environment Protection Authority (EPA) has issued an Environment Protection Licence (EPL 6007) for the Site B facility, as chemical storage and shipping in bulk are scheduled activities under the *Protection of the Environment Operations Act 1997* (POEO Act).

The proposed development would be connected to the Site B Facility via a series of pipelines. This development application, however, would not involve an increase in product throughput at the Site B facility.



Figure 3: Vopak Site B Facility

2. PROPOSED DEVELOPMENT

2.1. Description of the Development

The Applicant proposes to construct and operate a bulk liquids storage facility comprising seven storage tanks with a total capacity of around 200 ML. The proposed development is physically separated from the Site B facility by Friendship Road. The major components of the development are summarised in **Table 1** shown in **Figure 4** and described in full in the EIS (see **Appendix D**).

Table 1: Main Development Components

Aspect	Description
Development Summary	Construction and operation of a bulk liquids storage facility with a nominal capacity of 200 ML. The proposed development does not involve any increase in throughput from the Site B facility or distribution by road from the proposed development.
Staged Construction Works	The Applicant proposes to undertake the proposed development in two stages: - Stage 1 (B4A): construction of three storage tanks dedicated to combustible fuels (mainly diesel); and - Stage 2 (B4B): construction of four storage tanks capable of storing flammable or combustible products (mainly gasoline). Both stages would involve the following works: - construction of tank foundations and concrete bund walls; - construction of a stormwater management system including bunding, site grading, culverts, collection pits, separation and treatment facilities; - construction of perimeter and access roads and hardstand areas; - tank fabrication; - construction of pumps, manifold transfers, pipelines, safety systems and fire systems; - physical connection of the proposed development to the Site B facility via pipeline; and - carparking.
Tanks	- Construction and operation of seven storage tanks, approximately 43.5 m in diameter and 24.35 m in height (see Figure 4); and - Construction of a bunded tank farm, pumps, piping and safety systems.
Pipelines and Transfer Manifold	New pipelines via a culvert under Friendship Road to be connected to the Site B facility and the transfer manifold.
Truck Movements	No truck movements would be generated during operation of the proposed development.
Operation	The development would allow for the following operations: - ship unloading/loading to and from the tanks at the proposed development directly from the existing berths via a manifold in the Site B facility; - tank to tank transfer of fuels within the proposed development as well as between tanks in the proposed development and the Site B facility; - tank recirculation; - pipeline import and export of fuel via the Site B manifold; and - new pipeline connecting the proposed development to the road tanker loading bays at the Applicant's existing Site B facility.
Working Hours	- Construction: 7am to 6pm (Monday to Friday), 8am to 1pm (Saturday); and - Operation: 24 hours, 7 days a week.
Capital Investment Value	\$116 million
Employees	Construction – 100 Operation – no new operational jobs but the proposed development will provide ongoing employment for workers at the Applicant's existing Site B facility

2.2. Fuel Import and Transfer

The interaction between the proposed development and the Site B facility is shown in **Figure 5** and described below.

All fuel imports are delivered to the Site B facility via ships berthing at either Bulk Liquids Berth (BLB) 1 or BLB 2 (see **Figure 4**). To enable the transfer of fuel products from the berths to the proposed

development, six pipelines would be connected to the B4 tanks via the Site B Facility. These pipelines would run under Friendship Road and enable the transfer of fuel as follows:

- four transfer lines would enable the transfer of products from the berths to the B4 tanks via the Site B facility; and
- two multipurpose lines would enable products stored in B4 tanks to be transferred directly to the road truck gantry at Site B or to off-site pipeline transfers such as the Caltex Transfer Pipeline.

The pipelines also enable internal circulation between the B4 tanks and the Site B Facility. In addition, fuel products can be exported directly from the B4 tanks back onto ships that are docked at BLB 1 or BLB 2. The proposed development also involves installing improved fuel transfer infrastructure which would result in improved import/export efficiencies and removal of bottlenecks.

The proposed development would not generate any road distribution traffic as fuel deliveries by road is only permitted from the Site B facility under project approval MP 06_0089. The proposed development does not involve any increase in product throughput from the Site B facility. Any increase in product throughput or road distribution traffic at the Site B facility will be assessed in a separate request to modify project approval MP 06_0089.

2.3. Applicant's Need for the Development

The recent decline and cessation of NSW's refining capacity has resulted in an increase in fuel imports as more independent fuel suppliers enter the market. The Applicant has identified a need to expand its fuel storage capacity in Port Botany in order to secure a reliable fuel supply in the Sydney and NSW fuel markets and to cater for future market demand.

The Applicant currently supplies 20% of Sydney and NSW's petroleum requirements and the proposed development would lead to a number of economic benefits such as:

- improved operational efficiency of the fuel logistics chain through the ability to import larger shipments of fuel;
- improved security of supply for suppliers by having more storage available at any one time;
- improved reliability in fuel supply capability;
- reuse of port land; and
- direct capital investment and employment generation during construction and operation of the proposed development.

The Applicant's existing Site B facility is close to a 100% occupancy rate, so an increase in the facility's storage capacity (that is, this proposal) would enable the Applicant to provide additional storage for new suppliers to enter the market.

Under the Site B Project Approval, the Site B facility has a total approved product throughput of up to 3,950 ML of bulk liquids per year. The Applicant anticipates an increase in the demand for fuel import and exports in the next few years and is proposing to modify its existing project approval MP 06_0089 to increase the total product throughput to 7,800 ML per year and to upgrade terminal infrastructure at the Site B facility. This would include construction and operation of additional road tanker loading bays, new entry roadways on the site and an upgrade to the vapour recovery unit and is subject to a separate Section 75W modification request to the Minister for Planning.

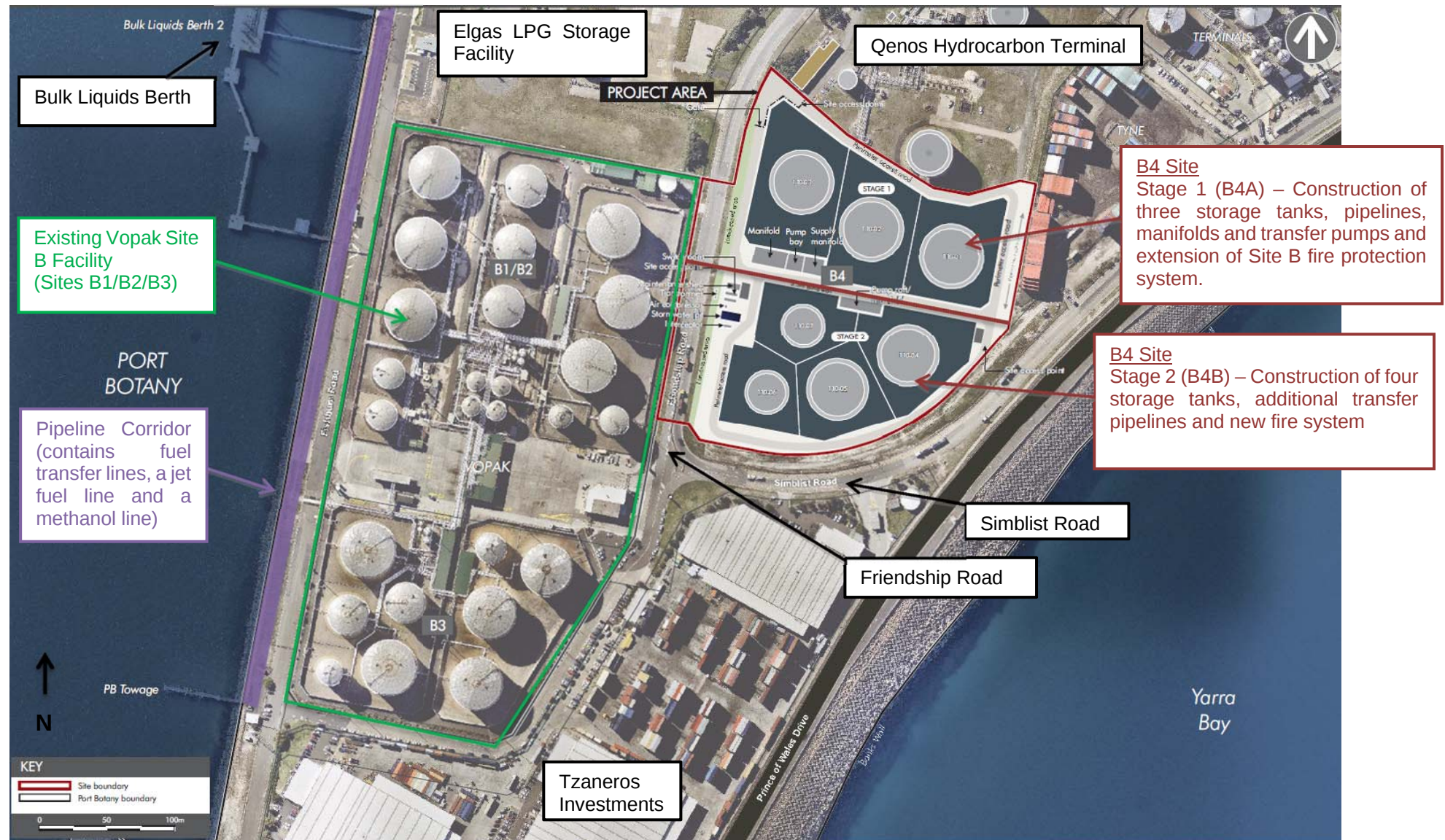


Figure 4: Proposed Development (highlighted in red) and the Site B Facility

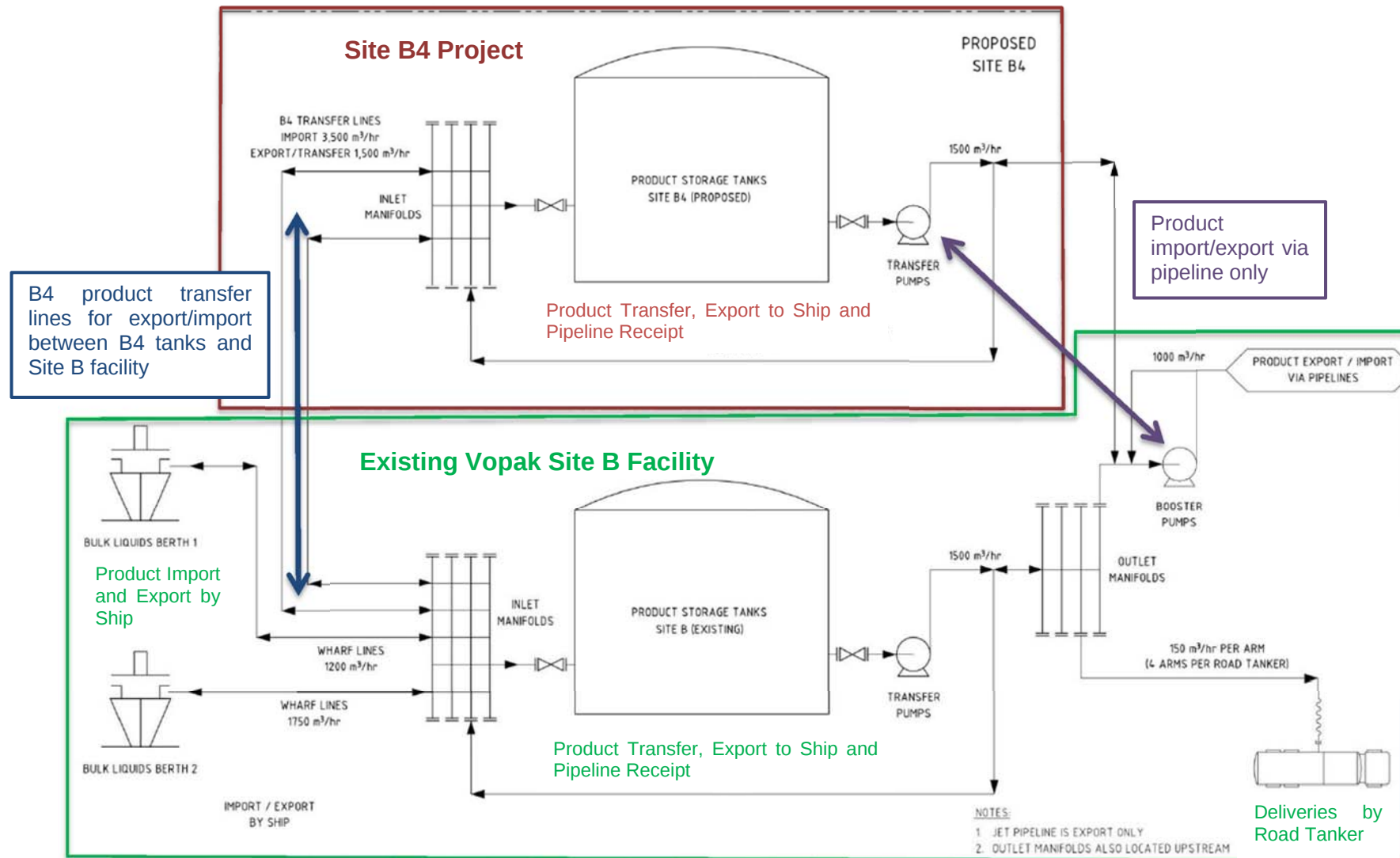


Figure 5: Process Flow Diagram of the Proposed Development (highlighted in red) and the Site B Facility (highlighted in green)

3. STATUTORY AND STRATEGIC CONTEXT

3.1. Strategic Context

The NSW Government has announced the Premier's Priorities which cover 12 key areas including economic growth, provision of infrastructure, protection of vulnerable communities, improving education and environmental protection. One of the Premier's key priorities is 'Creating Jobs'. The NSW government aims to encourage business investment and the creation of 150,000 new jobs in NSW over the next four years.

The proposed development would contribute towards 'Creating Jobs' by providing 100 construction jobs and ongoing operational jobs for employees at the existing Site B facility once the proposed development is fully operational. The development also represents a \$116 million capital investment in industrial development which would have flow on economic benefits for the greater Sydney metropolitan.

The proposal is also consistent with the goals, directions and actions outlined in *A Plan for Growing Sydney* as it will be a major contributor to the growth of Sydney's ports (Direction 1.5) as well as promoting economic growth in the local and NSW economy.

The Greater Sydney Commission has released the draft of six district plans encompassing Greater Sydney, which will guide the delivery of *A Plan for Growing Sydney*. The draft district plans set out the vision, priorities and actions for the development of each district. The proposed development is located within the Central District, which includes the Sydney CBD and stretches from Strathfield to the west and Port Botany to the south. The Central District is considered to be the economic, cultural and tourism focal point for Greater Sydney. The proposed development would assist in meeting one of the productivity priorities of the draft district plan, as it would contribute towards driving the economic growth of Greater Sydney by providing employment and supplying fuel products to the growing NSW economy.

3.2. State Significant Development

The proposal is State significant development (SSD) pursuant to Clause 27(1)(a) of *State Environmental Planning Policy (Three Ports) 2013* (Three Ports SEPP) because it:

- involves development that is within the Port Botany lease area that is classified as designated development under the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation); and
- has a capital investment value of more than \$100 million.

Consequently, the Minister for Planning is the consent authority for the proposed development.

3.3. Permissibility

The SP1 – Special Activities zone applies to the site under the Three Ports SEPP. Development for a fuel storage terminal is permissible with development consent in the SP1 zone. Therefore, the Minister or delegate may determine the carrying out of the development.

3.4. Consent Authority

On 16 February 2015, the Minister delegated the responsibility for the determination of SSD applications to the Executive Director, who report to the Deputy Secretary, Planning Services, where:

- the relevant local council has not made an objection; and
- there are less than 25 public submissions in the nature of objections; and
- a political disclosure statement has not been made.

There have been four public objections to the proposed development and Randwick City Council has not objected. In addition, no political disclosure statement was made for this application or any previous related application, and no reportable political donations disclosures were made by any persons who have lodged a submission.

Accordingly, the application is able to be determined by the Executive Director, Key Sites and Industry Assessments under delegation.

3.5. Other Approvals

Under Section 89K of the EP&A Act, other approvals may be required and must be approved in a manner that is consistent with any Part 4 consent for the SSD under the EP&A Act.

In its submission, the EPA advised that a variation to EPL No. 6007 for the Site B facility would be required for the development. The Applicant would be required to make a separate application to the EPA to obtain a licence variation. The Department has considered the relevant issues relating to the issue of an amended EPL in the assessment of the proposal (see Section 5 of this report).

3.6. Consideration under Section 79C of the EP&A Act

Section 79C of the EP&A Act sets out matters to be considered by a consent authority when determining a development application. The Department's consideration of these matters is set out in Section 5 and **Appendix B**. In summary, the Department is satisfied the proposed development is consistent with the requirements of Section 79C of the EP&A Act.

3.7. Environmental Planning Instruments

Under Section 79C of the EP&A Act, the consent authority, when determining a development application, must take into consideration the provisions of any environmental planning instrument (EPI), draft EPI (that has been subject to public consultation and notified under the EP&A Act) that apply to the proposal.

The Department has considered the development against the relevant provisions of several key EPIs including:

- *State Environmental Planning Policy (Three Ports) 2013 (Three Ports SEPP)*;
- *State Environmental Planning Policy (Infrastructure) 2007 (the ISEPP)*;
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)*; and
- *Randwick Local Environmental Plan 2012*.

The Department's assessment concludes that, subject to the implementation of the recommended conditions of consent, the development is generally consistent with the aims, objectives and provisions of these instruments (see **Appendix C** for further detail).

3.8. Public Exhibition and Notification

Under Section 89F(1) of the EP&A Act, the Secretary is required to make the development application and any accompanying information of an SSD application publicly available for at least 30 days. The application was on public exhibition from **Thursday 22 October 2015** until **Friday 20 November 2015**. Details of the exhibition process and notifications are provided in Section 4.1.

3.9. Objects of the EP&A Act

The Department has fully considered the objects of the EP&A Act, including the encouragement of Ecologically Sustainable Development (ESD), in its assessment of the application.

The Department considers the following objects are most relevant to the assessment of this application:

- (a) *to encourage*
 - (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment;*
 - (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
 - (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats;*
 - (vii) *ecologically sustainable development;*
- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State; and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.*

The Department has given due consideration to these objects in its assessment of the proposal in **Table 2** below.

Table 2: Objects of the EP&A Act and Relevance to the Development

Object	Consideration
5(a)(i)	The proposal would ensure the proper management and conservation of natural resources, as it would utilise an existing industrial site that has been used for heavy industry for over 100 years. The site is zoned for industrial use and has been strategically identified for industrial port-related uses. The development would not impact on any natural resources. Development of the site would promote economic welfare for the local community through the provision of 100 construction jobs and will provide ongoing employment for workers at the Site B facility.
5(a)(ii)	The proposal would ensure the orderly and economic use of the land, which is zoned for industrial use within a working port. The proposal would enable the site to continue to be used for industrial purposes consistent with its zoning.
5(a)(vi)	The Department's assessment in Section 5 of this report demonstrates that with the implementation of recommended conditions of consent, the impacts of the development can be mitigated and/or managed to ensure the environment is protected.
5(a)(vii)	The development is consistent with the principles of ESD as it would utilise an existing industrial site for the continued supply of fuel to customers in Sydney and NSW, without adverse impacts on the natural environment.
5(b)	The Department has assessed the development in consultation with, and giving due consideration to, the technical expertise and comments provided by Council and other government authorities. This is consistent with the object of sharing the responsibility for environmental planning between the different levels of government in the State.
5(c)	The application was exhibited in accordance with Section 89F(1) of the EP&A Act to provide public involvement and participation in the environmental planning and assessment of this application (Section 4). The Department also consulted with the relevant government authorities and Council during preparation of the EIS.

3.10. Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) the precautionary principle;
- (b) inter-generational equity;
- (c) conservation of biological diversity and ecological integrity; and
- (d) improved valuation, pricing and incentive mechanisms.

The potential environmental impacts of the development have been assessed and, where potential impacts have been identified, mitigation measures and environmental safeguards have been recommended.

The development would not require removal of native vegetation and is not anticipated to have adverse impacts on native flora or fauna, including threatened species, populations and ecological communities, and their habitats, as it would utilise an existing industrial site that has been used for heavy industry for over 100 years. Any environmental impacts from the proposed development would be minimised through the provision of management and mitigation measures. As such, the Department considers that the proposal would not adversely impact on the environment and is consistent with the objects of the EP&A Act and the principles of ESD.

3.11. Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Under the EPBC Act, assessment and approval is required from the Commonwealth Government if a development is likely to impact on a matter of national environmental significance (MNES), as it is considered to be a 'controlled action'. The EIS for the development included a preliminary assessment of the MNES and concluded the development would not impact on any of these matters, and is therefore not a 'controlled action'. As such, a referral to the Commonwealth Government was not required.

4. CONSULTATION AND SUBMISSIONS

4.1. Consultation

The Applicant, as required by the Secretary's Environmental Assessment Requirements (SEARs), undertook consultation with relevant local and State authorities as well as the community and affected landowners. The Department undertook further consultation with these stakeholders during the exhibition of the EIS and throughout the assessment of the application. These consultation activities are described in detail in the following sections.

4.1.1. Consultation by the Applicant

The Applicant undertook a range of consultation activities throughout the preparation of the EIS including:

- a community information session with the Matraville Precinct and local residents to discuss the proposal and any community concerns; and
- meetings with key government agencies and NSW Ports.

4.1.2. Consultation by the Department

After accepting the EIS for the application, the Department:

- made it publicly available from **Thursday 22 October 2015** until **Friday 20 November 2015**:
 - on the Department's website;
 - at the Department's offices (Bridge Street, Sydney);
 - at the Randwick City Council (Council offices) and Malabar Community Library;
- notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Randwick City Council by letter; and
- advertised the exhibition in the Southern Courier newspaper.

A total of 12 submissions were received on the development during the exhibition period, including eight from public authorities and four from the general public. A summary of the issues raised in the submissions is provided below. A full copy of these submissions is included in **Appendix E**.

4.2. Submissions

4.2.1. Public Authorities

Randwick City Council (Council) raised a number of key issues relating to construction traffic and hours, drainage, visual amenity, air quality and noise and vibration impacts and provided recommended conditions.

Botany City Council commented that a number of environmental issues including stormwater runoff, contamination and dust should be addressed in a Construction Environmental Management Plan. Botany City Council also noted that whilst this application does not assess the transportation of dangerous goods during operation of the development, a detailed traffic management plan would be required as part of a Section 75W modification request to the Site B Project Approval.

The **Environment Protection Authority (EPA)** raised concerns with the potential air quality impacts of the development. The EPA requested a revised air quality assessment to address a number of issues including ozone impacts, cumulative assessment of VOC emissions from the development and other industrial facilities in the port and justification of the meteorological model used. The Applicant provided a revised air quality impact assessment in its RTS report to address the EPA's concerns.

NSW Roads and Maritime Services (RMS) noted that heavy vehicles are not permitted to queue on Bumborah Point Road and the Applicant would be required to prepare a Construction Traffic Management Plan for the development.

The **Office of Environment and Heritage (OEH)** noted the proposal would not impact on matters of biodiversity, Aboriginal cultural heritage or flooding and therefore had no further comments.

Fire and Rescue NSW (FRNSW) recommended a number of conditions relating to the preparation of a Fire Safety Study for the development.

NSW Department of Primary Industries - Water (DPI - Water) advised that further consultation with DPI - Water may be required if any dewatering activities are undertaken. DPI - Water also requested construction details for the monitoring bores be submitted prior to commencement of construction.

Safework NSW (formerly WorkCover NSW) required a number of clarifications on the Preliminary Hazard Analysis (PHA) and recommended a number of preconstruction, pre-commissioning and post commissioning conditions.

4.2.2. General Public

Four submissions were received from the general public. All submissions objected to the development on the basis of concerns regarding:

- the increase in the number of dangerous goods movements in the Botany Bay region;
- the potential risks associated with storage of hazardous materials close to residential areas; and
- health effects and air quality impacts.

4.3. Response to Submissions

In June 2016, the Applicant provided a response to the issues raised in submissions (see **Appendix F**). The RTS was made publicly available on the Department's website. The RTS included:

- details of construction noise and traffic management measures;
- clarification of PHA assumptions which were raised by Safework NSW and FRNSW; and
- a revised air quality impact assessment which included an assessment of cumulative air emissions from neighbouring industrial facilities in the Port Botany area.

The RTS was referred to Council, EPA, RMS, SafeWork NSW, FRNSW and DPI Water to confirm their issues had been adequately addressed. Council and all the agencies were satisfied with the Applicant's responses and recommended conditions, where relevant to manage residual impacts. The Department has considered the issues raised in submissions and the RTS in its assessment of the proposed development.

5. ASSESSMENT

The Department has considered the EIS, the issues raised in submissions and the Applicant's RTS in its assessment of the development. The Department considers the key issues relate to hazards and risks and air quality. Other issues are considered to be minor and are discussed in **Table 5** in **Section 5.3**.

5.1. Hazards and Risks

The proposed development would present various hazards and risks to the surrounding environment. The development is identified as a Major Hazard Facility (MHF) under the *Work Health and Safety Act 2011* and is deemed a "potentially hazardous industry" under the provisions of *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33). Therefore, a detailed risk assessment was undertaken as part of the EIS.

Sherpa Consulting prepared a Preliminary Hazard Analysis (PHA) as part of the EIS to assess the risk to people, property and the environment as a result of the proposed development. The PHA was carried out in accordance with the Department's *Hazardous Industry Planning Advisory Paper (HIPAP) No. 6 – Hazard Analysis*.

The purpose of the PHA is to identify potential hazards, analyse consequences and the likelihood of occurrence, then estimate the resultant risk to surrounding land uses. The risks are then compared with the relevant land use safety criteria defined in *HIPAP No. 4 – Risk Criteria for Land Use Safety Planning* to determine whether the development would pose an unacceptable risk to surrounding land uses.

The proposed development would store the following hazardous materials: gasoline, jet fuel, ethanol and diesel.

These flammable/combustible liquids have the potential to cause injury or fatality to people, damage to property and/or the biophysical environment. In a tank farm operation, a number of scenarios may result in the release of these hazardous chemicals. The scenarios identified in the PHA are releases from storage tanks, releases from pipework or releases from filling operation (overfilling).

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

- fire involving flammable materials (e.g. jet fire, pool fire, vapour cloud fire, tank top fire, bund fire); and
- explosion in the event of overfilling storage tanks.

The Department considers 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.

The frequency and consequence for the release events were combined to estimate the risk from the proposed development 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 Fatality Risk Criteria

Land Use	Risk Criteria (risk per million per year (pmpy))*
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

* Note: Criteria refers to a chance of a fatality occurring in a million years

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

- the individual risk fatality contour 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 6**);
- the individual fatality risk contour for industrial land uses is contained within the site boundary (see **Figure 6**);
- 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 evaluated as the development is surrounded by industrial land uses; and
- the cumulative individual fatality risks of the Site B facility and the proposed development complies with the relevant risk criteria in HIPAP No. 4 (see **Figure 7**).

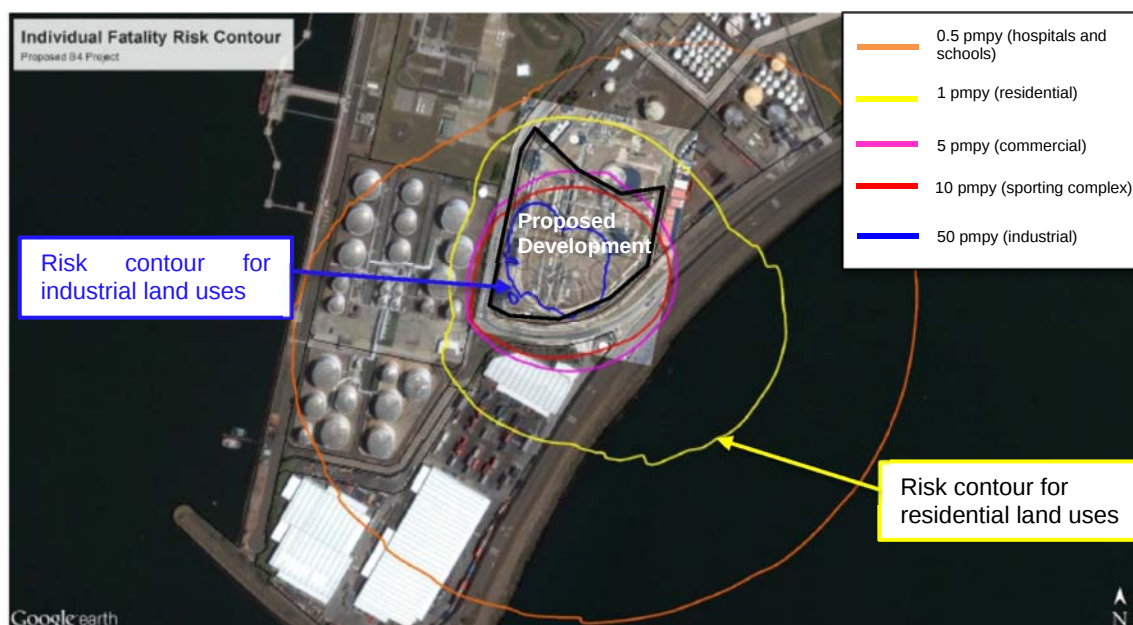


Figure 6: Individual Fatality Risk Contour – Proposed Development Only

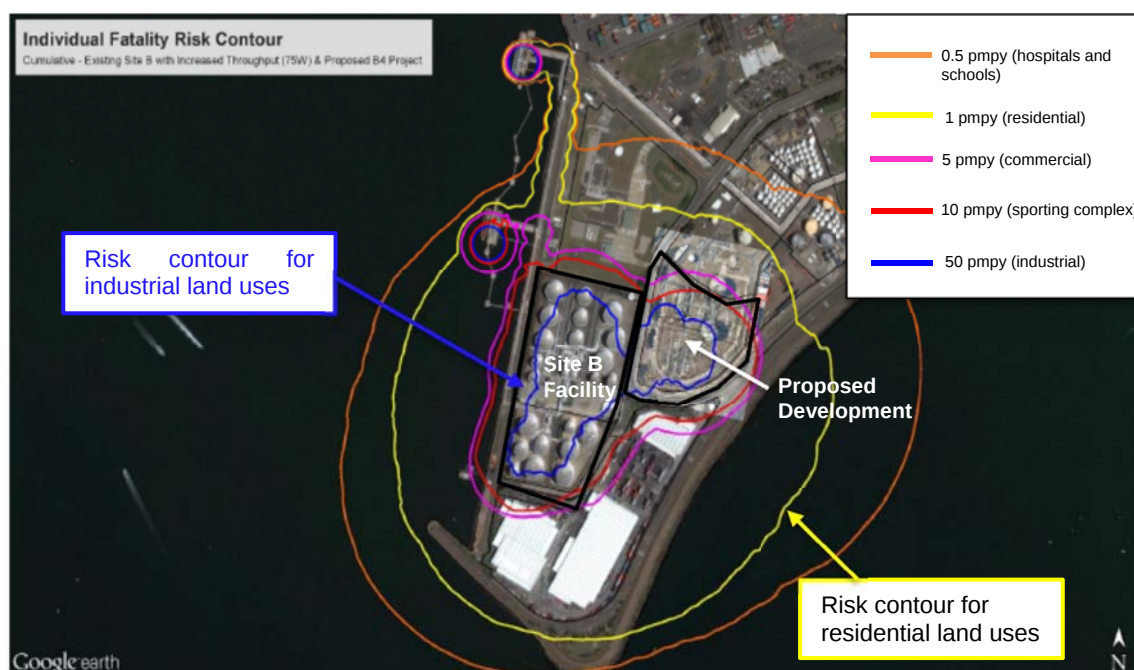


Figure 7: Cumulative Individual Fatality Risk (Site B Facility and Proposed Development)

In 1996, the Department carried out a risk assessment of current and future developments in the Port Botany area. The results of this assessment was published in a report titled the Port Botany Land Use Safety Study. The study 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 Applicant considered the impact of the development on the cumulative risk estimated in the Botany Land Use Safety Study.

The PHA concluded the proposed development 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 development was found to be within the site boundary. The Department agrees with the above conclusion and is also satisfied the development meets the quantitative risk criteria for new developments as set out in HIPAP No. 4.

The Department also required the Applicant to address the findings of the Buncefield incident investigation report (UK Health and Safety Executive, "*Buncefield Explosion Mechanism Phase 1*", RR718, 2009). The Buncefield incident was a large explosion that occurred at an oil storage facility in the UK in December 2005. The Buncefield report provided recommendations to prevent such an incident from occurring again in the future, and is considered by the Department in its assessment of these types of facilities.

The PHA confirmed the recommendations from the Buncefield report that are applicable to the development would be implemented, such as installing a high integrity overfill prevention system and adequate engineering controls to terminate or divert a transfer without relying on a third party. These recommendations are similar to those already implemented for the Site B facility. The Department considers the Applicant has appropriately addressed the Buncefield recommendations and is satisfied with the Applicant's proposed actions.

SafeWork NSW did not object to the proposal but sought clarification on a number of PHA assumptions including proposed safeguards for tank overfilling, tank top fire events and valve closure times in the event of increased tank filling rates. The Applicant confirmed a number of technical studies would be undertaken during detailed design to verify those assumptions. The Department has recommended the following studies be incorporated in the conditions of consent:

- safety instrument systems reliability studies, which would consider tank overfilling and rim seal fire protection systems;
- a Hazard and Operability Study (HAZOP) which would consider the ullage allowance when the tank level is approaching its upper limit and the effective valve closure time at the increased filling rate; and

- a surge study to determine adequate valve closure times, which would reduce the probability of pipeline failure due to surge pressure. The study findings would be reflected in the Final Hazard Analysis (FHA).

Fire and Rescue NSW (FRNSW) requested the Applicant to update its existing Fire Safety Study (FSS) for the Site B facility to include:

- works associated with the provision of extra road tanker bays at the Site B facility;
- proposed increased discharge rates from BLB 1 & BLB 2; and
- interfacing of services of the proposed development with the Site B facility.

The Department acknowledges FRNSW's recommendations regarding the FSS. While the Department agrees with FRNSW's approach, the additional road tanker bays are not covered in the scope of the proposed development and have not been assessed in this development application. The additional road tanker bays are included in the proposed Section 75W modification request to project approval MP 06_0089 for the Site B Facility. As such, the Department does not recommend the FSS include the additional road tanker bays for this development. FRNSW did not raise any further issues.

A number of issues were raised by the general public during the exhibition period which related to the:

- potential impacts arising from the movement of dangerous goods by trucks on local roads to local residents close to the proposed development; and
- potential risks from a possible terrorist attack on the proposed development.

The Department reviewed these submissions and notes the proposed development does not involve road transportation of dangerous goods, therefore the transport risk would not change. In terms of any potential risks from a terrorist attack, the Department notes the Applicant will be required to have security procedures and safety systems in place for the proposed development, as required under the *Work Health and Safety Regulation 2011*. The Department considers the concerns raised by the general public have been addressed.

The Department has carefully considered the findings and recommendations of the PHA and is satisfied the proposed development would meet the relevant risk criteria, provided the Applicant implements all proposed risk reduction measures and all recommendations in the PHA. The Department is also satisfied the proposed development would not increase the risk to the surrounding land uses as the industrial risk contours for the development would be confined to within the site boundary. The Department's assessment concludes the risk from the development would be adequately managed.

To ensure the proposed development operates in a safe manner, a number of conditions are recommended at various stages of construction and operation. This includes conditions at the pre-construction, pre-commissioning, pre-startup, post-startup phases and conditions relating to the ongoing operation of the proposed development. As the proposed development would be connected to the Site B facility, it is appropriate to extend some of the existing hazard studies at the Site B facility to include the proposed development. This should be in the form of updates to various plans and systems already in place for the Site B facility. As part of the recommended conditions, the Applicant is required to submit the following for review and approval:

- a Construction Safety Study consistent with the Department's relevant guidelines;
- a Fire Safety Study considering and, if necessary, implementing measures for the proposed development 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;
- a comprehensive Emergency Plan and update to the Site B Safety Management System to incorporate any changes associated with the development;
- Pre-Startup and Post-Startup Compliance Reports detailing compliance with all conditions required to be satisfied prior to and after operation has commenced; and
- ongoing independent Hazard Audits for the development to ensure safety and compliance with all statutory documents and approvals.

The Department considers these measures would ensure that hazards and risks are continually monitored and managed to acceptable levels.

5.2. Air Quality

The proposed development has the potential to contribute to existing volatile organic compound (VOC) emissions in the area, such as benzene and toluene, associated with the broader operations in the port due to the storage and transfer of petroleum liquids at the site.

The primary emissions from the development include:

- VOCs from the storage and transfer of petroleum products and emission losses from the filling station vents and pipelines within the site; and
- dust and particulate emissions during construction works.

As part of the EIS, Aecom prepared an Air Quality Impact Assessment (AQIA) to assess the construction and operational impacts of the development. The assessment was undertaken in accordance with the EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales, 2005*.

Construction

During construction, the proposed development has the potential to generate dust emissions or particulate matter due to earthworks associated with bund and tank construction. These works would be temporary in nature and are expected to take 10-15 weeks to complete.

The closest residents to the site are around 1.5 km away in the suburb of Phillip Bay. Given the distance from the proposed development, the AQIA concluded the potential impacts to residents from dust emissions during construction would be negligible. To minimise dust emissions, the Applicant has committed to implementing a number of best practice and industry standard mitigation measures to be detailed in a Construction Environmental Management Plan (CEMP) and would include measures such as covering loads during transport, watering exposed surfaces and roads and vehicles and ensuring vehicles are fitted with emissions control equipment.

Due to the staged construction of the proposed development, the AQIA also noted the Stage B4B site (at the southern end of the site, see **Figure 4**) has the potential to generate dust, particularly from stockpiles, if left unmanaged. To manage this, the Applicant has committed to a number of dust suppression mitigation measures including grass stabilisation of any stockpiles and maintaining parts of the site as compacted hardstand or sealed hardstand until such time the Applicant commences construction of Stage B4B.

The Department and EPA are satisfied air emissions during construction works can be adequately managed through the abovementioned measures, which are to be incorporated into a CEMP. The Department has recommended formalising the Applicant's commitments for managing dust during the construction works into the recommended conditions of consent.

Operation

The development has the potential to emit VOCs particularly from storage tanks, filling station vents and pipelines located within the site. The AQIA considered the following pollutants to be of potential concern: benzene, cumene, cyclohexane, ethylbenzene, n-hexane, toluene and xylene.

In response to concerns raised by the EPA regarding a cumulative assessment of the proposed development, the Applicant prepared an updated AQIA and considered the contributions of the proposed development in the context of other industries in the port, particularly the Applicant's existing Site B facility, bitumen facility and associated bulk liquids berths (BLB). The modelling assumed a doubling of throughput at the Site B facility from 3,800 ML to 7,800 ML per year, as per the proposed Section 75W modification request to project approval MP 06_0089. In addition, the modelling also assumed the Site B vapour recovery unit (VRU) operating at 93.57% efficiency. The Department notes the VRU is not currently meeting its 99% efficiency level as required under project approval MP 06_0089, however, this issue will need to be addressed in the proposed Section 75W modification request.

The maximum (worst case) cumulative predicted ground level concentrations at and beyond the site boundary is presented in **Table 4** and shows that emissions from the development alone would not result in any exceedances in the EPA criteria. The assessment predicted no adverse impacts are likely to occur as a result of the proposed development at and beyond the site boundary or at sensitive receptors.

The predicted cumulative impact for all pollutant concentrations are well below the relevant EPA criteria for the assessed pollutants with the exception of benzene which is predicted to be 25.41 $\mu\text{g}/\text{m}^3$ (or 88% of the EPA criterion of 29 $\mu\text{g}/\text{m}^3$) and cumene which is predicted to be 15.7 $\mu\text{g}/\text{m}^3$ (or 75% of the EPA criterion of 21 $\mu\text{g}/\text{m}^3$, see Table 4). While the Site B facility is predicted to contribute the highest proportion of benzene, the proposed development itself is predicted to only contribute around 1.4% of the EPA criterion. In addition, the predicted contributions from the proposed development are lower than existing background levels for all emissions (see Table 4).

As VOCs are the primary source of odour emissions, the AQIA concluded odour emission thresholds would not be exceeded and therefore no further assessment was required.

Table 4: Maximum Cumulative Predicted Ground Level Concentrations At or Beyond the Site Boundary 99.9th Percentile ($\mu\text{g}/\text{m}^3$)

Pollutant (VOCs)	EPA Criteria	Maximum Predicted 99.9 th percentile concentration (µg/m³)					Cumulative % of EPA criteria
		Cumulative	Contributions to Cumulative				
			Vopak Site B4 Project	Vopak Site B	Vopak bitumen and BLB 1 and 2	Background	
Benzene	29	25.41	0.414	19.96	<0.0001	5.04	88%
Cumene	21	15.7	0.0005	0.0003	0.08	15.81	75%
Cyclohexane	19,000	23.06	0.197	18.61	<0.0001	4.25	<1%
Ethylbenzene	8,000	15.66	<0.0001	15.20	<0.0001	0.46	<1%
n-hexane	3,200	73.53	0.496	62.89	0.0081	10.14	2%
Toluene	360	197.92	0.537	190.95	<0.0001	6.43	55%
Xylenes	190	42.19	0.452	39.75	<0.0001	1.99	22%

The EPA recommended the major emission sources associated with the site as identified in the AQIA be verified at the post-commissioning stage of the development. As benzene impacts are at the upper limits of the EPA criterion, the EPA recommended further investigations into the feasibility of benzene reductions across the Applicant's operations be undertaken.

The Department agrees with the EPA that an air emissions monitoring program should be included as part of an operational Air Quality Management Plan (AQMP) and has included this in the recommended conditions. This would also include a post-commissioning study to verify the predictions in the AQIA. Despite cumulative benzene and cumene levels approaching their respective limits, the Department notes the proposed development does not contribute a significant proportion of pollutants to the local air shed. Notwithstanding, the Applicant has committed to designing and operating the development in line with best practice and industry standards such as ensuring tanks are fitted with internal floating roofs to minimise odour and air emissions.

With regard to the benzene impacts from the adjoining Site B facility, the Department would assess this issue as part of the proposed Section 75W modification request to modify project approval MP 06_0089.

The Department's assessment concludes potential air quality impacts can be adequately managed. The proposed development is predicted to meet the relevant assessment criteria for VOCs and will be designed and operated in line with best practice and industry standards. The Department has included a number of conditions requiring the Applicant to prepare and implement an AQMP and undertake post-commissioning air emissions verification.

5.3. Other Issues

The Department's assessment of other issues is provided in Table 5.

Table 5: Assessment of Other Issues

Consideration	Recommended Conditions
Traffic and Transport	
A Construction Traffic Impact Assessment (TIA) was prepared by Aecom as part of the EIS which assessed the construction traffic impacts associated with the development.	Require the Applicant to: prepare a Construction Traffic Management Plan in

Consideration	Recommended Conditions
- Access to the site is via a one-way loop along Simblist Road and Friendship Road. Both roads are privately managed by NSW Ports and connect to Bumborah Point Road and Botany Road, which are both managed by the RMS. <u>Construction</u> - Construction is expected to take around 18 months. During the peak construction period, there would be a maximum of 168 light vehicle movements and 15 heavy vehicle movements per day. - The TIA found the construction traffic generated by the development would have a minor impact on the operation of the Botany Road/Bumborah Point Road intersection resulting in a minor increase in average delays. The TIA concluded the intersection would maintain a level of service (LoS) B during peak AM and PM hours. - The construction of the pipeline crossing under Friendship Road would be carried out in 2 stages to ensure the road remains operational. The EIS indicated each stage would take approximately 2 weeks to complete, resulting in a total of 1 month during which traffic impacts on Friendship Road may occur. - The Applicant has committed to implementing traffic controls particularly at the Simblist Road intersection with Friendship Road which would be detailed in a Construction Traffic Management Plan (CTMP) and prepared in consultation with NSW Ports. - NSW Ports and Randwick Council did not raise any concerns. RMS advised no queuing of heavy vehicles onto Bumborah Point Road is permitted during construction. - One public submission raised concerns about traffic impacts on local residents. - The Department considers the construction traffic impacts, particularly the works on Friendship Road are only temporary in nature and would be confined to the port area. These works would be adequately managed via a CTMP and has been included as a condition in the recommended instrument. <u>Operation</u> - During operation, the proposed development may occasionally generate maintenance and inspection trips from light vehicles but it would not generate additional road distribution traffic. The tanks would have a direct pipeline connection to the truck gantry at the Site B facility for distribution by road. - Botany Council did not object to the proposal but noted a separate section 75W modification request for the Site B facility would have to consider any increase in road distribution traffic particularly road tanker traffic. - The Department acknowledges no road tankers would directly access the proposed development during operation. The Department has included a condition restricting the dispatch of fuel products directly from the proposed development. - The Department's assessment concludes that traffic impacts associated with the proposed development would be minor, subject to conditions.	consultation with NSW Ports for approval by the Secretary. The CTMP should also include traffic controls at the Friendship Road/Simblist Road intersection for the culvert construction works; - ensure any works on Friendship Road are undertaken in accordance with NSW Ports requirements; and - ensure no bulk liquids are dispatched directly from the proposed development.
Soil and Water	
- The site was most recently used as an ethylene storage terminal by Qenos before it was demolished in 2015. A site audit statement concluded no significant levels of contaminants were detected in the soil or groundwater and found it would be suitable for commercial/industrial use. <u>Construction</u> - Potential surface water impacts could result from excavation works associated with bund construction and tank installation. These impacts include sediment laden runoff from spoil stockpiles, potentially contaminated fill being brought on-site and uncontained hydrocarbon spill entering the waterway. Excavation works for the culvert under Friendship Road also has the potential to intercept the water table. - The EIS concluded soil disturbance and the risk of encountering Acid Sulphate Soils would be low as the tanks and pipelines would be aboveground. - The Applicant has committed to implementing best practice management measures for managing erosion and runoff to ensure that soil and surface water impacts are minimised. - The EPA and DPI Water did not raise any issues, however DPI Water recommended conditions relating to interception of groundwater and erosion and sediment controls be included in the instrument. The Department has included a condition in the recommended instrument to this effect. - The Department is satisfied the appropriate measures would be in place to manage soil and water impacts during construction.	Recommended conditions requiring the Applicant to: - implement soil and water management measures consistent with the Blue Book including a sediment and erosion control plan; and - prepare a Water Management Plan for the operation of the development for managing surface water.

Consideration	Recommended Conditions
<u>Operation</u> - During operation, the primary source of potential surface water impacts would be from the release of hydrocarbons on site to the soil and/or local receiving waters. - The EIS indicated these impacts would be unlikely given the storage tanks would be fully bunded and any stormwater and bundwater from the tank areas would be directed into separators and treated on-site to remove hydrocarbons prior to being discharged to the stormwater drainage system. Any waste that cannot be discharged would be transferred into the existing slops system at the Site B facility. - Contaminated fire water would also be contained within the tank bund areas and would either be transferred to slop tanks at the Site B facility or removed by road tanker. - The Department considers the proposed stormwater system would be adequate during operation, subject to conditions. The Department recommends the Applicant prepare a Water Management Plan for managing surface water. - The Department's assessment concludes soil and water impacts would be adequately managed during operation.	
<u>Noise and Vibration</u> - A Noise and Vibration Impact Assessment (NVIA) was prepared by Aecom which assessed the construction and operational impacts of the proposed development. - During construction, the main noise sources would be from idling trucks, excavators and diesel generators during tank installation and pipeline works. - The NVIA predicted construction noise levels at the residential receivers would range from 34 to 39 dB(A) which is below the recommended Noise Management Levels (NMLs) of 51 dB(A) during daytime periods and 46 dB(A) during evening/night-time periods for residential receivers. - The Applicant also proposes to undertake works during standard construction hours, however works associated with the pipeline/culvert works on Friendship Road would be undertaken outside these hours to minimise impact to port users. - The Department agrees the works on Friendship Road should be undertaken outside of peak use to minimise disruption to other port users. The Department is satisfied that these works can be carried out anytime without disruption to residential receivers and understands the Applicant would consult with NSW Ports regarding the timing of these works. - During operation, the primary noise source would be from fuel pumps. - Under a worst case scenario, the NVIA predicted noise levels would range from 14 to 22 dB(A) at the residential receivers which is within the noise limits for the development during daytime (52 dB(A)), evening (39 dB(A)) and night-time periods (38 dB(A)). - The NVIA noted vibration-intensive works would be undertaken during construction of the tank foundations which may impact the adjacent Elgas LPG Storage Terminal. However, the assessment found the development would not result in any structural damage to Elgas assets. - The EPA and Randwick Council did not raise any issues but Randwick Council recommended a Noise and Vibration Management Plan (NVMP) be prepared during construction and operation. - The Department considers a NVMP is not necessary given noise and vibration impacts during construction and operation are well below the relevant noise and vibration limits. The Department recommends the Applicant implement all reasonable and feasible noise and vibration mitigation measures outlined in the NVIA to minimise noise and vibration impacts to nearby sensitive receivers. - The Department's assessment concludes that noise and vibration impacts would be adequately managed, subject to the measures proposed by the conditions.	Require the Applicant to: - ensure construction works are undertaken during standard construction hours with the exception of Friendship Road works; and - implement all reasonable and feasible noise and vibration mitigation measures outlined in the NVIA.
<u>Waste Management</u> - The Applicant currently has a waste management system in place at the Site B facility. - During construction, the main waste products generated would include surplus materials, excess cut from excavation works and equipment and vehicle fluids. - Construction waste would be handled and disposed of in accordance with EPA guidelines and strategies already in place for the Site B facility.	Recommended conditions requiring the Applicant to: - implement reasonable and feasible measures to minimise waste; and - comply with the EPA's <i>Waste Classification Guidelines</i> for

Consideration	Recommended Conditions
- During operation, the EIS indicated the development would not generate a significant amount of operational waste with the main source of waste being from the generation of slops from draining water from the storage tanks. Wastewater from the tanks and bunds would be treated on-site and any fuels would be recovered and treated at the Site B facility or disposed of at a licensed facility. - The Applicant has committed to incorporating a number of waste strategies into its CEMP and OEMP in accordance with EPA guidelines. - The EPA and Randwick Council did not raise any concerns. - The Department's assessment concludes waste impacts from the development would be minimal and can be managed, subject to conditions. The Department has recommended conditions to formalise the Applicant's commitments.	the management of all waste on the site.
Visual Amenity	
- The site is located within an existing industrial and port environment with the nearest residential receivers located approximately 1.5 km east of the site in Phillip Bay. - The EIS found the development would have a minor impact on the visual amenity of the area particularly as the storage tanks would be similar in height to surrounding sites and it is located within an industrial area. - NSW Ports and Randwick Council did not raise any concerns but recommended that landscaping be undertaken at the site. - The Applicant has committed to preparing a Landscape Management Plan to manage the visual amenity of the area to meet NSW Ports requirements. - The Department agrees the visual impacts from a broader landscape perspective would be minor. - At a local level, the Department notes NSW Ports has general landscape requirements for its tenants, which the Applicant states it would comply with. - The Department's assessment concludes the impacts to the visual amenity of the site would be negligible.	Recommended conditions require the Applicant to: ensure external lighting for the development complies with Australian standards.

6. CONCLUSION

The Department's assessment of the application has considered all relevant matters under Section 79C of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development.

The Department's assessment concluded the proposed development would:

- meet Department's hazard risk criteria in HIPAP No.4;
- meet relevant air quality and noise criteria at sensitive receivers; and
- not generate operational traffic, with the exception of temporary construction traffic that can be adequately managed via a Construction Traffic Management Plan.

The Department has recommended a number of conditions to manage and monitor hazards and risks, air quality, construction traffic, soil and water, including but not limited to:

- implementation of a number of hazard studies to ensure the risk from the proposed development to the surrounding environment is minimised;
- implementation of an air emissions program to manage air and odour emissions from the proposed development; and
- implementation of soil and water measures including stormwater management measures to address soil and water impacts during construction and operation of the development.

The Department has also recommended conditions for ongoing environmental management, including regular and incident reporting and regular independent environmental audits, acknowledging that some of these reports could be combined with the adjoining Site B facility requirements.

The proposed development would provide additional storage capacity to an existing import, export and distribution terminal to improve operational efficiencies and security of supply for suppliers in the Sydney and broader NSW fuel markets. The development would also provide an investment of approximately \$116 million in Port Botany.

The Department has concluded that with the commitments made by the Applicant and with the implementation of the recommended conditions of consent, the impacts of the development can be mitigated and/or managed to ensure an acceptable level of environmental performance. Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.

7. RECOMMENDATION

It is recommended the Executive Director, Key Sites and Industry Assessments:

- **consider** the findings and recommendations of this report;
- **approve** the development application under section 89E of the EP&A Act; and
- **sign** the attached development consent (refer **Appendix A**).

Pamela Morales
Planning Officer
Industry Assessments


Chris Ritchie 7/11/16
Director
Industry Assessments


Anthea Sargeant 23/11/16
Executive Director
Key Sites and Industry Assessments

APPENDIX A: DEVELOPMENT CONSENT

APPENDIX B: CONSIDERATIONS UNDER SECTION 79C

Section 79C of the EP&A Act requires that the consent authority, when determining a development application, must take into consideration the following matters:

(a) the provisions of: (i) any environmental planning instrument, and (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and (iii) any development control plan, and (iii) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and (v) any coastal zone management plan (within the meaning of the <i>Coastal Protection Act 1979</i>) that apply to the land to which the development application relates,	Detailed consideration of the provisions of all environmental planning instruments (including draft instruments subject to public consultation under this Act) that apply to the proposed development is provided in Appendix C of this report. The Applicant has not entered into any planning agreement under section 93F. The Department has undertaken its assessment of the proposed development in accordance with all relevant matters as prescribed by the regulations, the findings of which are contained within this report. The site is not located within the coastal zone and the Department is not aware of any coastal zone management plan that applies to the land to which the development application relates.
(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	The Department has considered the likely impacts of the development in detail in Section 5 of this report. The Department concludes that all environmental impacts can be appropriately managed and mitigated through recommended conditions of consent.
(c) the suitability of the site for the development,	The development is a suitable land use for the site, as the site is located on existing industrial land that is zoned for industrial purposes and is permissible with development consent.
(d) any submissions made in accordance with this Act or the regulations,	All matters raised in submissions have been summarised in Section 4 of this report and given due consideration as part of the assessment of the proposed development in Section 5 of this report.
(e) the public interest.	The recommended conditions of consent impose a range of controls, which the Department considers will mitigate any potential environmental impacts of the proposed development. On balance, the proposed development is considered to be in the public interest.

APPENDIX C: CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

State Environmental Planning Policy (Three Ports) 2013

The site is zoned SP1 Special Activities under the *State Environmental Planning Policy (Three Ports) 2013* (Three Ports SEPP). Development for a fuel storage terminal is permissible with development consent in the SP1 zone.

The proposal is State significant development pursuant to Clause 27(1) of the Three Ports SEPP because it:

- involves development that is within the Port Botany lease area that is classified as designated development under Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation); and
- has a capital investment value of more than \$100 million.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

SEPP 33 aims to identify proposed developments with the potential for significant off-site impacts, in terms of risk and/or offence (odour, noise etc). A development is defined as potentially hazardous and/or potentially offensive if, without mitigating measures in place, the development would have a significant risk and/or offence impact on off-site receptors.

The fuel storage facility would handle flammable materials which is classified as dangerous goods and are stored on site. Therefore SEPP 33 does apply and the development is considered as “potentially hazardous industry”. The Department’s assessment of hazards and risk is contained in Section 5.1 of this report.

State Environmental Planning Policy (Infrastructure) 2007

The Infrastructure SEPP (ISEPP) aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for consultation with relevant public authorities about certain development during the assessment process.

The proposal constitutes traffic generating development under Schedule 3 of the ISEPP and was referred to the RMS for comment. RMS confirmed that they have no objection to the proposed development. The development is considered to be consistent with the aims and objectives of the ISEPP, and the requirements of Clause 104 of the SEPP, as demonstrated by the response received from the RMS and in the assessment of the proposal contained in Section 5 of this report.

Randwick Local Environmental Plan 2012

The Randwick LEP aims to conserve and manage the natural and built resources of the local government area (LGA) for present and future generations applying the principles of ecologically sustainable development. The LEP also aims to contribute to the economic wellbeing of the community in an environmentally responsible manner and also contains provisions to conserve Randwick’s heritage and protect sensitive land. This plan applies to the whole of the Randwick LGA but does not apply to the proposed development as it is located on land identified under the Three Ports SEPP.

The Department has consulted with the Randwick City Council (Council) throughout the assessment process. The Department has considered all relevant provisions of the Randwick LEP and those matters raised by Council in its assessment of the proposal in Section 5 of this report.

APPENDIX D: ENVIRONMENTAL IMPACT STATEMENT

See link: [//majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7000](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7000)

APPENDIX E: SUBMISSIONS

See link: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7000

APPENDIX F: RESPONSE TO SUBMISSIONS

See link: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7000