MAJOR PROJECT ASSESSMENT: MARSTEL BULK LIQUID FUEL STORAGE FACILITY (08_0130)

Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

June 2012

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EXECUTIVE SUMMARY

Marstel Terminals Newcastle Pty Ltd (Marstel) has sought approval to construct and operate a bulk liquid fuel storage facility in the Port of Newcastle, which would be used by Shell Australia to receive, store and distribute finished diesel and biodiesel products to the Hunter and Gunnedah regions.

Diesel fuels would be received at Berth No. 4 by ship and would be pumped along a new pipeline to the facility. Biodiesel would be received by road at a truck loading gantry. Both diesel and biodiesel products would be dispatched by road to its customers in these regions.

The project has a capital investment value of approximately $30 million. It would provide employment for up to 50 people during construction and up to 8 people during operation (as the facility is largely automated).

The project constitutes a transitional major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it has a capital investment value of more than $20 million for the purpose of bulk liquid storage facilities, and would ordinarily require the Minister's approval. However, the application is able to be determined by the Deputy Director-General under delegation.

The Department exhibited the Environmental Assessment of the project from 16 November 2011 to 23 December 2011 and received 27 submissions on the project: 9 from public authorities, 4 from special interest groups and 14 public submissions, predominantly from the Mayfield area. All of the public submissions objected to or raised concerns about the project, on the basis of a perceived lack of consistency with the Mayfield Concept Plan and that the project was premature given that the Concept Plan has not yet been determined (see below). Other issues raised included transport and access, hazards and risks, noise and vibration and air quality.

The Department has assessed the application, EA, submissions on the project, and Marstel's response to submissions, in accordance with the objects of the EP&A Act and the principles of ecologically sustainable development.

The assessment found that the key issues associated with the project were soil and water, hazards and risks, transport and access, noise and vibration and air quality. Other issues included greenhouse gas, utility and service provision, visual, development contributions, Aboriginal and non-Aboriginal heritage, biodiversity and waste.

The Department is satisfied that the project's residual impacts can be adequately mitigated and managed, and has recommended a broad range of conditions to ensure this occurs.

The Marstel project is located on part of the former BHP Steelworks site in Mayfield. Newcastle Port Corporation (NPC) has lodged an application for concept approval under Part 3A of the EP&A Act for the development of port and industrial related activities on this land, which is in the final stages of assessment. As Part 3A has been repealed, future applications for development within the Mayfield Concept Plan area (if approved) would be assessed and determined under Part 4 or Part 5 of the EP&A Act.

The Department has ensured that the Marstel project (one of two transitional Part 3A major project applications on the Mayfield land) is consistent with the land use precincts and the indicative road and rail infrastructure proposed to service these precincts in the Concept Plan. In addition, the recommended conditions for the Marstel project fully reflect both the intent and requirements of the conditions put forward in the draft approval for the Mayfield Concept Plan.

Notwithstanding, the Department is satisfied that the proposal is permissible on this land and that it is capable of being developed as a stand alone project even if the Mayfield Concept Plan does not proceed.

The project would contribute towards increased demands for fuels and biofuels and is located in close proximity to import locations and the expanding market for fuel products in the Hunter and Gunnedah regions. The project would also reduce reliance on road transport of fuels from Sydney.

On balance, the Department believes that the project's benefits sufficiently outweigh its residual costs and that it is therefore in the public interest and should be approved, subject to strict conditions.

1. BACKGROUND

1.1 Project Setting

Marstel Terminals Newcastle Pty Ltd (Marstel) is an independent bulk liquid storage and handling company, which specialises in handling both hazardous and non-hazardous products including petrochemicals, petroleum fuels, biofuels, lubricants, bitumen and vegetable oils. Marstel currently has nine operational bulk liquid terminal operations in Australia and New Zealand.

Marstel proposes to construct and operate a bulk liquid fuel storage facility in the Port of Newcastle which would be used by Shell Australia to receive, store and distribute finished diesel and biodiesel products to the Hunter and Gunnedah regions.

The site is located in the Southern Arm of the Hunter River in the Port of Newcastle. It is located approximately seven kilometres north west of the Newcastle Central Business District and has good road, rail and shipping connections (see Figure 1).

Figure 1: Regional Context

1.2 Site and Surrounding Area

The main land uses surrounding the site are industrial and port related (see Figure 2) and include:

- North – Kooragang Island industrial area including Kooragang Island shipping berths, Port Waratah Coal Services, Kooragang coal loading terminal, Newcastle Coal Infrastructure Groups coal export terminal and HiFert fertiliser dispatch facility and distribution centre;
- South – Port Waratah Coal Services Carrington Coal Terminal and Dyke Berth Nos. 4 and 5;
- East – the southern tip of Kooragang Island comprising various industrial land uses including ammonium nitrate production (Orica), alumina and coke unloading and storage facilities, fertiliser storage and despatch facility (Incitec Pivot); and
- West – OneSteel and Koppers.

Land located immediately west and south-west of the site is associated with the future Intertrade Industrial Park (IIP) (as shown on Figure 2). Residential development associated with the suburbs of Mayfield, Tighes Hill, Carrington and Stockton are located nearby. The nearest sensitive receivers to the site are located along Industrial Drive, Mayfield and Mayfield East Public School which are located approximately 1 kilometre away on the opposite side of Industrial Drive to the IIP.

1.3 Mayfield Port Side Land

Marstel's site lies within the western end of the former BHP Steelworks site, which is now more commonly known as the Mayfield port-side land. This land has a long history of industrial use and was formerly used for copper smelting from 1866 to 1893, followed by iron and steelmaking by BHP between 1915 and 1999. Operations associated with the steelworks ceased in 1999.

Planning for the Mayfield port-side land commenced with the closure of the former BHP Steelworks. A remediation strategy was developed for the land together with a redevelopment proposal for a multi purpose terminal (which included the IIP site) and dredging of the Southern Arm of the Hunter River.

The then Minister for Planning granted staged development consent for the project in April 2001 (DA No. 293-09-00). Stage 1 included the remediation of the BHP Closure Area and the demolition and removal of structures associated with the former steelworks.

Remediation works have been conducted on this land since 2006 in accordance with this consent. The remediation activities are being undertaken in stages (see Figure 2), based on a strategy of containment through capping and groundwater control, with some hotspots of contamination excavated and treated. Stage 1 works have been completed and focused on an area which contains the most highly contaminated material found on-site, whilst Stage 2 works are scheduled for completion in 2012.

The land is currently used by NPC and Koppers Australia for port-related activities (see Figure 3) in conjunction with ongoing remediation activities to facilitate the redevelopment of the land.

NPC operates a general cargo handling facility, known as the Mayfield No. 4 Berth, which began operations in December 2009 and allows for the import and export of a range of cargo. The facility comprises a wharf structure with one berth, mobile cranes, a hardstand area, demountable buildings and an access road.

Koppers has a plant to the north west of the site, consisting of two continuous tar distillation units and naphthalene still. Ancillary facilities associated with the plant include the ex-BHP No.6 Berth for unloading coal, tar and pitch products and an aboveground pipeline which runs east to west across the northern portion of the land.

Other associated infrastructure includes a shared access road through the IIP site to Mayfield No. 4 Berth and ex-BHP No.6 Berth, several internal haul roads, which have been temporarily constructed to provide access around the land, and two main open earth stormwater drains, one of which crosses Marstel's site (see Figure 3).

Figure 2: Site and surrounding area (including remediation areas)

Figure 3: Existing infrastructure and activities on the site

The site is accessible by road, rail and via the shipping channel associated within the South Arm of the Hunter River. The main road access is from Selwyn and Ingall Streets via Industrial Drive, which connects to the Pacific Highway and New England Highway to the north west. Access via rail is available via the Morandoo Sidings and Port Waratah Loop to the south, via a level crossing over Selwyn Street.

1.4 Mayfield Land Port-Related Activities Concept Plan (09_0096)

Rather than pursuing the multi purpose terminal proposal, NPC lodged an application for concept approval under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to guide the development of port and industrial related activities on the Mayfield land.

The application was lodged on 1 May 2009 and the Department publicly exhibited the EA from 4 August 2010 until 6 September 2010. The application is in the final stages of assessment and will be required to be determined by the Minister for Planning and Infrastructure.

The concept plan identifies the arrangement of industrial and port-related land uses into five (5) key precincts, which are proposed to be developed progressively to reach peak operations by 2034. The five (5) precincts and their intended uses include (see Figure 4):

- **NPC Operational Precinct** (3 hectares) – for managing operations by NPC within the Port of Newcastle. It contains various administrative buildings and small-scale facilities, including vehicle and marine equipment maintenance areas;
- **Bulk and General Precinct** (12 hectares) – to be used for handling and storing non hazardous dry bulk products. It contains various buildings and infrastructure, including covered storage areas, storage silos, conveyor systems and office buildings;
- **General Purpose Precinct** (25 hectares) – for handling and storing cargo containers, heavy machinery, break bulk and Roll On Roll Off cargo. It contains various buildings and infrastructure, including covered storage areas and areas of hardstand. This area includes the General Cargo Handling Facility/Mayfield No. 4 Berth constructed as part of the 2001 consent;
- **Container Terminal Precinct** (35 hectares) – for the storage and transfer of containers. Operations within the precinct are planned to reach up to 600,000 Twenty Foot Equivalent Units (TEU) by 2024 and a peak of one million TEU by 2034. It contains buildings and infrastructure including quayside and mobile cranes, rail mounted gantries, hardstand areas and an administration building; and
- **Bulk Liquid Precinct** (15 hectares) – for the receivable, storage, blending and distribution of fuels, including biofuels. It contains buildings and structures including tank farms with steel storage tanks, fuel distribution pipelines and administration buildings.

The boundaries of the precincts are indicative and approximate, subject to changes in the future to accommodate future trade needs and demands. New road and rail infrastructure to service the precincts are also proposed with access corridors off Industrial Drive from Ingall Street and Selwyn Street. A berth precinct is also envisaged for the land but it does not form part of the concept plan.

The land would also require the provision of other infrastructure including water, sewer, natural gas, electricity and telecommunications. There are currently a number of options as to how infrastructure and services would be provided to the land but this would depend on how the land is developed over time and the coordination of services within corridors.

NPC has stated that the concept plan is proposed to be developed progressively and therefore a high level of flexibility is required due to likely changing port technology over time. As a result, NPC is not able to definitively outline the subdivision of land at this stage as this will depend on the successive activities that are attracted to the land.

Furthermore, the concept plan was not accompanied by any project application/s to develop the land. Future activities proposed on the land would be the subject of separate development applications to fit within the overall framework outlined by the environmental capacity of the land as determined by the concept plan.

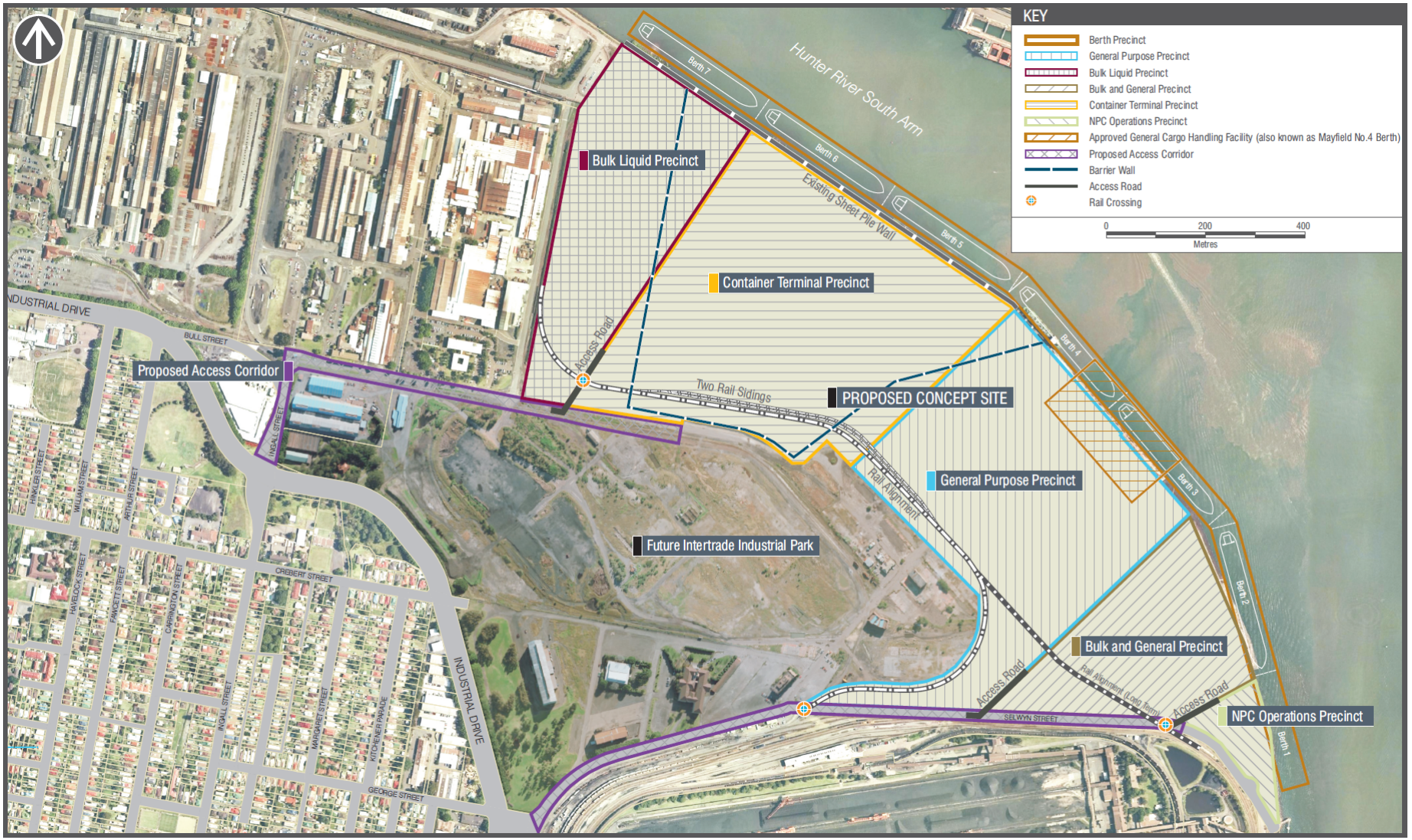

Figure 4: Mayfield Land Port-Related Activities Concept Plan (09_0096)

1.5 Relationship between the Mayfield Concept Plan and the Marstel Project

The Mayfield Concept Plan is classified as a transitional major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). As Part 3A has now been repealed, future applications for development within the area of the Mayfield Concept Plan would be assessed and determined under Part 4 or Part 5 of the EP&A Act.

The Department has two transitional major project applications in the area of the Mayfield Concept Plan that are legally required to be assessed and determined under Part 3A: the Marstel project and a proposal by Independent Cement and Lime Pty Ltd to develop a cement terminal within the Bulk and General Precinct, the EA for which is expected to be lodged shortly.

In its assessment, the Department has ensured that the project is consistent with the land use precincts and the indicative road and rail infrastructure proposed to service these precincts in the Concept Plan. In addition, the recommended conditions for the Marstel project reflect both the intent and requirements of the conditions put forward in the draft approval for the Mayfield Concept Plan.

Notwithstanding this, the proposal is permissible on the project site and it is capable of being developed as a stand alone project even if the Mayfield Concept Plan does not proceed.

This has been considered and addressed in the Department's assessment of each key issue in Section 5 of this report.

1.6 Previous Project Approval (07_0044)

On 23 December 2007, Marstel received approval from the then Minister for Planning for a similar bulk liquid fuel storage facility to be located on the southern end of Kooragang Island. The 2007 project approval has not been acted upon by Marstel because the company subsequently decided to develop its facility on the Mayfield land as it provides superior access to port and pipeline infrastructure.

2. PROJECT DESCRIPTION

In July 2008, Marstel submitted an application to develop a bulk liquid fuel storage facility on the Mayfield land. In July 2011, revisions were made to the project including the type and quantity of liquids to be stored. The project description reflects the revised project that has been assessed by the Department.

2.1 Project Description

The major components of the project are summarised in Table 1, and depicted in Figures 2 to 6. The project is described in full in the Environmental Assessment (EA), which is attached as Appendix F.

Table 1: Major components of the project

Component	Description
Tank farm	Three 18ML diesel storage tanks with capacity to hold a total of 54ML at any one time, a 0.5ML biodiesel tank and a small additive tank and slops tank.
Fuel pipeline	Construction of a 300mm fuel pipeline to carry diesel from Mayfield No. 4 Berth (M4) to the storage facility, a distance of about 1km. The pipeline would be constructed above ground and would be installed on the existing services gantry bridge (using existing Koppers pipeline supports). This gantry runs from M4, through the Mayfield land, and into the OneSteel and Koppers sites.
Truck loading gantry	A three-bay road tanker gantry bay which would be capable of multi-product loading of a 50,000 litre B-Double road tanker in around 45 minutes.
Other buildings	Office and amenities building, workshop, fire pump house and fire water storage tank.
Operational process	In general, the operational process includes (see Figure 5): • receival of diesel fuel at Berth No. 4 (M4) by ship and biodiesel at the truck loading gantry; • diesel fuel is pumped along a new pipeline from M4 to the diesel tanks and biodiesel is pumped from the truck loading gantry into the 0.5ML biodiesel

	tank; and • both fuel types would be dispatched by road throughout the Hunter region.
Fuel deliveries	Diesel – up to 8 ships per year; Biodiesel - up to 2 truck deliveries a day (4 truck movements).
Fuel dispatch	By road, up to 16 B-double truck dispatches a day (32 truck movements).
Total throughput	Up to 300ML a year (264ML of diesel and 36ML of biodiesel).
Construction access	From Selwyn Street, across the Mayfield Concept Plan site to Mayfield Berth No. 4 and along the Koppers pipeline easement to Marstel's facility (this access route may also be utilised during the early stages of the operational phase of the project should it not be ready).
Operational access	From Ingall Street, along Steelworks Road and down the eastern side of the bulk liquid precinct and into the facility.
Off site infrastructure and services	NPC would provide intersections, access ways, services and utilities to Marstel's site boundary. NPC will need to gain the necessary approvals for these works.
On site infrastructure and services	Provision of all onsite services, utilities and stormwater drainage would be Marstel's responsibility.
Hours of operation	24 hours, 7 days a week. Delivery of biodiesel by truck would typically be between 7am and 4pm on weekdays and 6am to 12pm on Saturdays.
Capital investment value	$30 million
Jobs	50 during construction and 8 during operations
Length of construction	Approximately 14 months

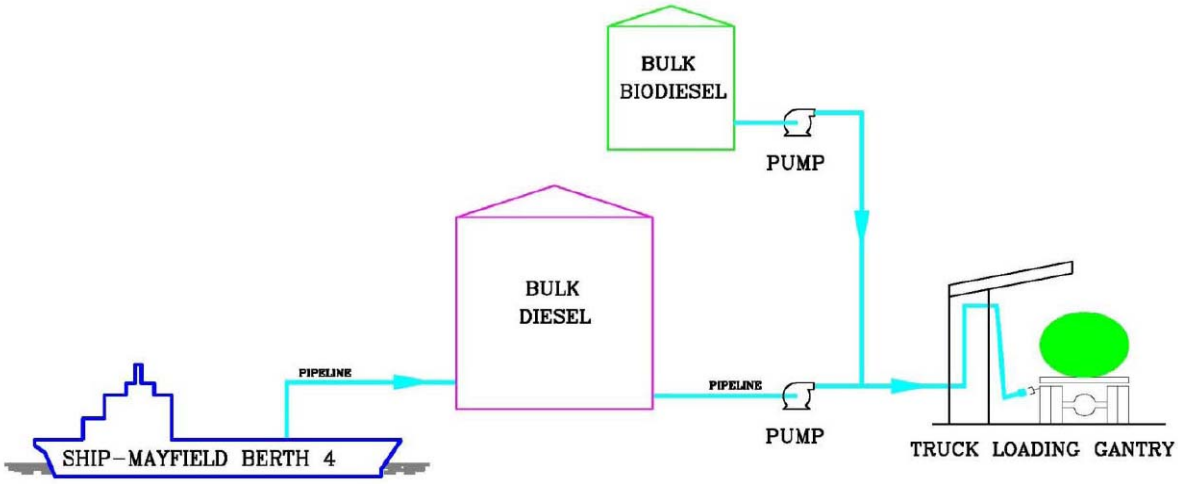

Figure 5: Schematic representation of the operational process

2.2 Project Need

Industrial (mainly mining and associated) activity in the Hunter and Gunnedah regions has increased the demand for fuels and biofuels. The development of the Marstel facility for Shell Australia would assist these industries to grow with provision of more cost effective fuel, increased efficiencies and a stable fuel supply.

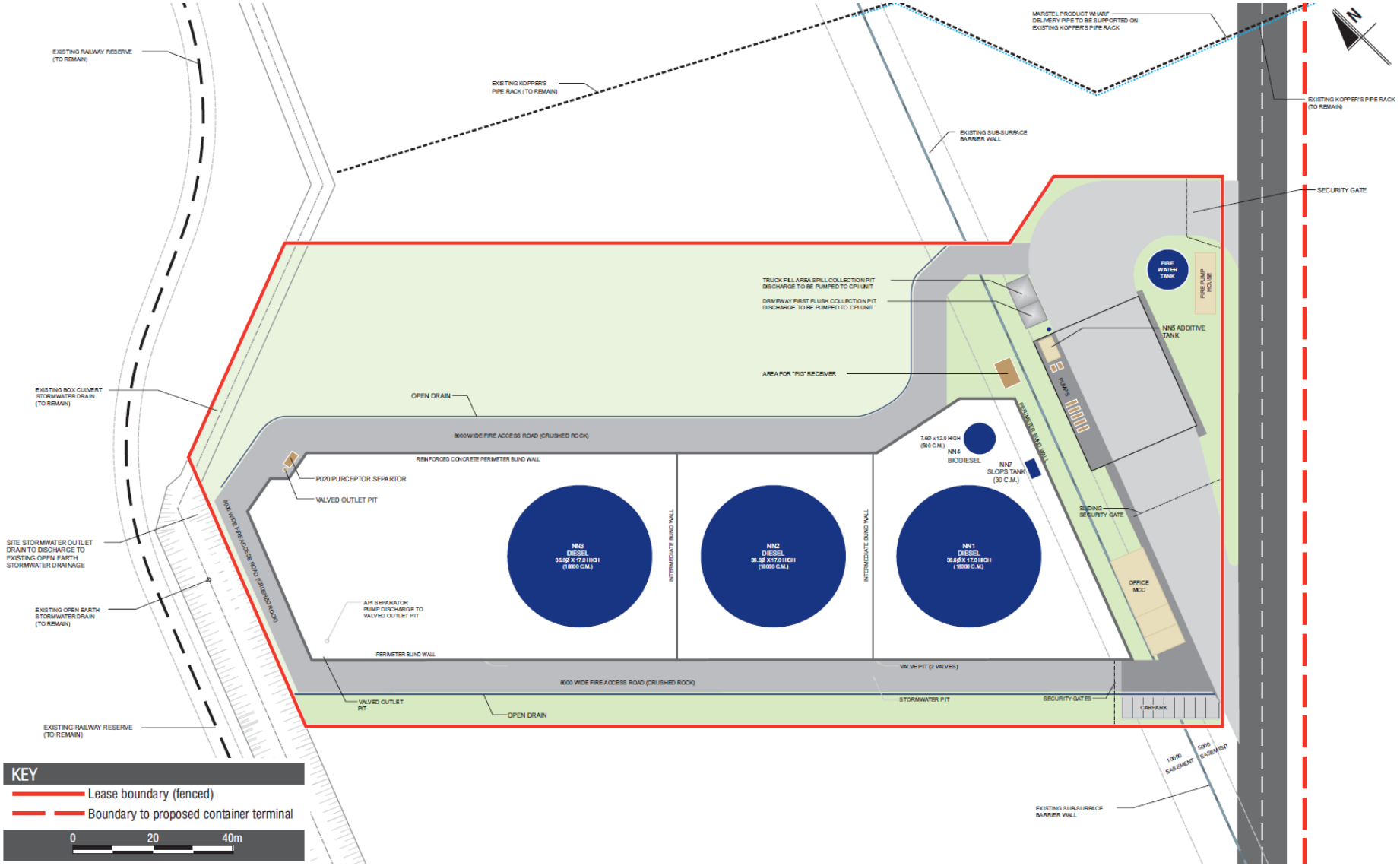

Figure 6: Project Layout

3. STRATEGIC AND STATUTORY CONTEXT

3.1 Strategic Context

The project is consistent with the goals and priorities of *NSW 2021*, including growth in the NSW economy and targeting additional employment opportunities, particularly in centres close to where people live and to provide access to public transport, as well as the *NSW Ports Growth Plan (2003)*, which aims to facilitate the future growth of the Port.

In addition, the recently released *National Port Strategy* prepared by Infrastructure Australia and the National Transport Commission (2010) identifies the importance of ports in Australia and their role in expanding international growth and economic trade.

The *Lower Hunter Regional Strategy (2006)* identifies the need to promote the Port of Newcastle as identified in the *NSW Port Growth Strategy* and facilitate economic growth in the Lower Hunter Region by increasing land and waterfront infrastructure available for port-related activities. The strategy also aims to ensure sufficient employment lands are available in appropriate locations, including on traditional industrial land. The project is consistent with the strategy.

3.2 Major Project

The project constitutes a transitional 'Major Project' under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as it has a capital investment value of more than $20 million for the purpose of bulk liquid storage facilities and therefore triggered the criteria in Schedule 1, Clause 10(2)(a) of *State Environmental Planning Policy (Major Projects) 2005*.

Part 3A of the EP&A Act, as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A to the Act, continues to apply to transitional Part 3A projects. Director-General's environmental assessment requirements (DGRs) have been issued in respect of this project. The project is therefore a transitional Part 3A project.

Consequently, this report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may approve or disapprove of the carrying out of the project under section 75J of the EP&A Act.

3.3 Approval Authority

The Minister has delegated his functions to determine Part 3A development applications to the Department where:

- the council has not made an objection; and
- there are less than 25 public submissions objecting to the proposal; and
- a political disclosure statement has not been made in relation to the application.

There have been 14 public submissions and Newcastle City Council has not made an objection to the proposal. There has also been no political disclosure statement made for this application or for any previous related applications, and no disclosures made by any persons who have lodged an objection to this application.

Accordingly, the application is able to be determined by the Deputy Director-General under delegation.

3.4 Other Approvals

The project will require an environment protection licence under the *Protection of the Environment Operations Act 1997.* This licence must be approved in a manner that is consistent with any Part 3A approval for the project. The Department has consulted with the Environment Protection Authority (EPA) and considered the relevant issues relating to the grant of a licence in the assessment of the project (see Section 5 of this report). The EPA has determined that should development consent be granted, it would be able to issue an EPL for the project subject to conditions.

Water licences may be required under the *Water Act 1912* and/or the *Water Management Act 2000* if the project intercepts or extracts groundwater. The Department has consulted with the NSW Office of Water (NOW) in respect of this application and has incorporated its request into the recommended conditions.

3.5 Permissibility

The site is zoned SP1 Special Activities under Schedule 3, Part 20 'Three Ports Site' of *State Environmental Planning Policy (Major Projects) 2005*. The proposed development is permissible with consent in this zone and is consistent with the objectives of this zone in Part 20, Division 2, Clause 11(1).

3.6 Environmental Planning Instruments

Under Section 75I of the EP&A Act, the Director-General's report is to include a copy of or reference to the provisions of any:

- *State Environmental Planning Policy* (SEPP) that substantially govern the carrying out of the project; and
- environmental planning instrument that would (but for Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project.

The Department has considered the project against the relevant provisions of several environmental planning instruments (including SEPPs 33, 55 and 71, the Infrastructure SEPP and the *Newcastle Local Environmental Plan 2003*). The Department is satisfied that, subject to the implementation of the recommended conditions of approval, the proposal is generally consistent with the aims and objectives of these instruments (see Appendix C).

3.7 Objects of the Environmental Planning and Assessment Act 1979

The Minister is required to consider the objects of the EP&A Act when he makes decisions under the Act. These objects are detailed in Section 5 of the Act, and include:

'The objects of this Act are:

(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,
  (iii) the protection, provision and co-ordination of communication and utility services,
  (iv) the provision of land for public purposes,
  (v) the provision and co-ordination of community services and facilities, and
  (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, and
  (vii) ecologically sustainable development, and
  (viii) the provision and maintenance of affordable housing, and
(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 objects of most relevance to the Minister's decision on whether or not to approve this project are those under Section 5(a)(i), (ii), (iii) and (vii).

With respect to ecologically sustainable development (ESD), the EP&A Act adopts the definition 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 the principles and programs including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms. In applying the precautionary principle, public decisions should be guided by careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment and an assessment of the risk-weighted consequences of various options.

The Department has fully considered the objects of the EP&A Act, including the encouragement of ESD, in its assessment of the project application. Marstel has also undertaken an environmental risk analysis of the project, and considered the project in the light of the principles of ESD.

3.8 Statement of Compliance

Under Section 75I of the EP&A Act, the Director-General's report is required to include a statement relating to compliance with the environmental assessment requirements with respect to the project. The Department is satisfied that the environmental assessment requirements have been complied with.

4. CONSULTATION

4.1 Exhibition and Notification

Under Section 75(3) of the EP&A Act, the Director-General is required to make the Environmental Assessment (EA) of a project publicly available for at least 30 days.

After accepting the EA for the project, the Department:

- made it publicly available from 16 November 2011 until 23 December 2011:
  - at the Department's Information Centre,
  - at Newcastle City Council, and
  - at the Nature Conservation Council;
- notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Newcastle City Council by letter; and
- advertised the exhibition in the Newcastle Herald.

This satisfies the requirements in Section 75H(3) of the EP&A Act.

During the assessment process the Department also made a number of documents available for download on the Department's website. These documents included the:

- project application;
- Director-General's environmental assessment requirements;
- EA;
- submissions received; and
- Marstel's response to issues raised in these submissions.

During the exhibition period, the Department received a total of 27 submissions on the project comprising:

- 9 from public authorities;
- 4 from special interest groups; and
- 14 public submissions, predominantly from the Mayfield area.

A summary of the issues raised in submissions is provided below. A copy of these submissions is attached in Appendix E.

4.2 Public Authorities

The **Environment Protection Authority** (EPA) indicated that the noise and air quality assessments were inadequate and Marstel subsequently lodged revised noise and air quality assessments. The EPA reviewed these assessments and determined that an EPL could be issued for the project, subject

to conditions being imposed to address residual noise, air quality, stormwater discharges, groundwater, spill containment and emergency response related matters.

Hunter Development Corporation (HDC) provided a number of comments on the project relating to the provision of roads and services, contamination and remediation management and stormwater.

Newcastle City Council (NCC) raised a number of issues relating to the provision of access and services, stormwater and management of the remediation areas. Council also stated that a monetary contribution would be required for the project.

Newcastle Port Corporation (NPC) generally supported the proposal but requested further additional information from Marstel in relation to site access, stormwater and other infrastructure. Newcastle Port Corporation issued landowners consent for the project on 5 October 2011.

NSW Fire and Rescue (F&R) recommended that Marstel be required to prepare an Emergency Plan and a Fire Safety Study in accordance with relevant Hazardous Industry Planning Advisory Papers.

NSW Health (NSW Health) recognised that Marstel had identified and addressed major foreseeable potential public health risks but identified some aspects of the proposal that needed to be addressed in more detail, particularly in relation to the liquid fuel transfer pipeline.

NSW Office of Water (NOW) had no objection to the proposal and recommended a condition be included requiring Marstel to obtain relevant water licences if it intercepts or extracts groundwater.

Roads and Maritime Services (Roads) had no objection to the project and noted that it would be able to operate without additional road infrastructure being needed because of the low trip generation predicted.

Roads and Maritime Services (Maritime) requested that the Department ensure that landowners consent is provided prior to determination of the project because it would affect Mayfield No. 4 Berth which is owned by RMS (Maritime). Landowners consent for the project was provided from Roads and Maritime Services (Maritime) on 1 May 2012.

4.3 Special Interest Groups

Correct Planning and Consultation for Mayfield Group (CPCFM) objected to the project because of the impacts it would have on Mayfield and the surrounding area particularly when combined with the impacts associated with redeveloping the Mayfield port-side land as a whole. The main issues of concern to CPCFM were the potential impact of additional truck movements on the safe and efficient operation of the existing road network and the associated increase in hazard risk from the project because these trucks would be carrying diesel and biodiesel products.

Wickham Great Lifestyle of Wickham (GLOW) raised a number of issues including hazards and risks, the capacity of the road and rail infrastructure to accommodate the project and consistency with the Mayfield Concept Plan.

Mayfield East School Public School P&C Association objected to the project primarily due to the potential risk to school pupils from the transportation of flammable liquids past the school. Mayfield East P&C also endorsed the submission from CPCFM.

OneSteel objected to the project until such time that Marstel provided further clarification on how the project would affect its operations. OneSteel also requested that further risk assessment work be carried out to determine the potential fire and explosion damage to its infrastructure. The company also raised concerns relating to access to shared utilities and services.

4.4 Community Submissions

All 14 submissions received from the community objected to or raised concerns about the project. The main reasons for objecting were:

- that the Marstel project should not be determined before the Mayfield Concept Plan;

- that there are no roadways, services and infrastructure on the land that can be utilised by the project;
- the project would increase potential hazards and risks in the area particularly when combined with other hazardous industries operating in the Port of Newcastle;
- the additional truck movements that would be generated by the project together with those that would be generated as the Mayfield Concept Plan (if approved) is developed over time; and
- the potential health and amenity impacts to sensitive receivers including surrounding residential areas (particularly Mayfield and Carrington) and the Mayfield East Public School;

4.5 Community Consultation

Marstel held three meetings on 10 August 2011, 30 August 2011 and 6 December 2011 to keep the community informed of the progress of the project and to provide an opportunity for the community to ask questions regarding the project.

4.6 Response to Submissions

Marstel lodged a response to issues raised in submissions on 23 April 2012, which included revised noise and air quality assessments. No changes were made to the project.

5. ASSESSMENT

In assessing the merits of the project, the Department has considered:
- the EA, submissions and response to submissions on the project (see Appendices D to F);
- the EA, submissions and response to submissions on the Mayfield Concept Plan;
- the relevant environmental planning instruments, guidelines and policies (see Appendix C); and
- the objects of the EP&A Act, including the object to encourage ecologically sustainable development.

The Department considers the key issues for the project include impacts on soil and water, hazards and risk, transport and access, noise and vibration and air quality. All other issues are considered in Table 4. The appropriateness of dealing with the Marstel application ahead of determination of the Mayfield Concept Plan has been dealt with in Section 1.5.

5.1 Soil and Water

Staged remediation has been conducted on the Mayfield port side land since 2006 in accordance with the multi-purpose terminal consent (DA 293-09-00) (see Section 1.3 of this report). These activities have been carried out in stages (see Figures 2 and 7), primarily based on a strategy of containment through surface capping and groundwater control.

The project site straddles remediation areas 1 and 2 with the road tanker fill stand, first flush stormwater pit, spill collection pit, office building and car park in area 1, and the bunded tank farm in area 2. It also overlies a section of the groundwater barrier wall (see Figure 7).

As the project site falls within the remediated Mayfield land, it is subject to the requirements of a Voluntary Remediation Agreement (VRA), Remediation Action Plan (RAP) and Contaminated Site Management Plan (CSMP). An EPA accredited Site Auditor is responsible for ensuring all development and related activities on the land are carried out in accordance with the requirements of these documents. The EPA did not raise any issues in relation to soil and water in its submission on the project.

The specific remediation works that have been carried out on the land are illustrated in Figure 7 and include the installation of:
- two stormwater drains along the eastern and western boundaries of the Mayfield land;
- a groundwater barrier wall around the most contaminated part of the site (area 1);
- an impermeable cap across the surface of the site to prevent infiltration of water and leaching of contaminants; and
- a groundwater monitoring network.

Figure 7: Remediation works carried out on the site

It is important that existing contaminated soil and water resources continue to be contained so that further contamination of the land does not occur and that the installed remediation works are maintained (or restored if disturbed) when excavation and construction activities on the land are carried out. The Department has examined soils, groundwater and stormwater and drainage in this context.

Soils

The EA identified that the following works are likely to affect contaminated soils and existing capping: construction of the tank farm in area 2, requiring removal of the capping layer and excavation into the underlying soils, regrading of the capping layer to the north and south of the tank farm to allow stormwater to drain away from the tank farm, and the removal of the capping layer and excavation into underlying soils in area 1 for construction of the first flush stormwater pit, spill collection pit, road tanker fill stand, office building and car park.

Marstel had the Site Auditor for the Mayfield land review the proposed works against the requirements of the VRA, RAP and CSMP and it was confirmed that whilst these works are generally consistent with these documents and are unlikely to compromise the remediation works, further detailed information would need to be provided to the Site Auditor before construction commences on site.

The Department has subsequently recommended the following conditions to ensure that construction of the facility is carefully managed so that the integrity of the remediation works is maintained:

- carry out the project in accordance with the requirements of the VRA, RAP and CSMP;
- prior to commencement of any works, provide written evidence to the Director-General from the Site Auditor confirming that all construction works associated with the project meet the requirements of these documents;
- prior to commencement of operation, provide written evidence to the Director-General from the Site Auditor confirming that all works associated with the project have been constructed in accordance with the requirements of these documents; and
- prepare and implement a Human Health Risk Assessment to the satisfaction of NSW Health to ensure that there is no risk to human health posed by potential ingress of volatile vapours into those structures to be constructed in the area.

To ensure that no further soil or water contamination occurs, Marstel should be permitted to use only Virgin Excavated Natural Material, Excavated Natural Material (or other material approved by the EPA or the Site Auditor) as fill on the site. In addition, as a component of the Construction Environmental Management Plan for the project, it is recommended that Marstel should be required to prepare and implement an erosion and sediment control plan which describes the location, function and capacity of control structures and the measures to segregate clean water from contaminated areas, together with a Soil and Water Management Plan which includes a protocol to test for Acid Sulphate Soils (ASS) and, if necessary, manage and appropriately dispose of ASS off-site.

Groundwater

There are three groundwater aquifers in the vicinity of the site. Contamination has occurred within the fill layers overlying the aquifers, with polycyclic aromatic hydrocarbons (PAH) occurring in the uppermost fill layers and volatile organic compounds (VOC) occurring deeper down, particularly in area 1. This groundwater has been contained by a groundwater barrier wall and capping beam.

The EA stated that it is unlikely that Marstel's works would intercept groundwater at the excavation depths proposed. However, if these works do intercept groundwater, Marstel proposes to test the groundwater against relevant criteria and, if contaminated, dispose of this water off-site at a licensed facility.

However, the Department raised concern regarding the extent to which the project could impact on the groundwater barrier wall and capping beam. The CSMP details specific requirements for construction activities in the vicinity of these works such as excluding development that would penetrate the barrier wall or capping beam, unless the written approval of HDC is obtained, and ensuring that controls are in place to minimise damage.

As noted above, the recommended conditions require Marstel to carry out the project in accordance with the requirements of the VRA, RAP and CSMP and obtain written evidence from the Site Auditor

confirming that the construction works meet the requirements of these documents. The Department is satisfied that this condition would also serve to address this issue.

The Department recommends a series of other conditions to ensure that the impacts from the project on groundwater resources are managed appropriately, including requirements for Marstel to obtain the necessary water licences for the project (as per NOW's submission and recommendation on the project), ensure that all water discharges from the site comply with EPL requirements, store all chemicals, fuels and oils on-site in appropriately bunded areas and prepare and implement a soil and water management plan for both the construction and operational phases of the project.

Stormwater and Drainage

The EA included a conceptual stormwater and drainage management system for the project site, comprising:

- diversion drains to carry clean surface water away from the site and into the existing western stormwater drain that ultimately drains to the Hunter River;
- collection, testing and treatment (if required) of water collected within the bunded tank farm area, road tanker fill stands and pump bays, prior to discharge to the Hunter River;
- a first flush system to capture oil and grease from paved roadways and hard stand areas outside of the bunded tank farm; and
- segregation of water drained from diesel tanks for offsite disposal.

The Department generally supports the proposed stormwater and drainage management system, but requires that details of the system be finalised prior to carrying out any works on site, in particular what stormwater, treatment and control infrastructure will be installed as part of the stormwater and drainage management system for the project and how it will integrate with other stormwater and drainage management systems in the area. If the Mayfield Concept Plan is approved, Marstel's stormwater and drainage management system also needs to be capable of being integrated into the broader system that is proposed by NPC for the Mayfield port-side land. Conditions have been recommended to ensure that this occurs.

It is further recommended that Marstel be required to prepare and implement a Stormwater and Drainage Management Plan for the project in consultation with NPC, HDC, NOW, the EPA and the Site Auditor to the satisfaction of the Director-General. The Plan would need to show the stormwater and drainage management system in detail, describe the measures that would be implemented to maintain this infrastructure over time and include a program to monitor stormwater quality and quantity.

Overall, the Department is satisfied that the recommended conditions will ensure that the project is constructed without adversely affecting existing contaminated areas and the existing soil and groundwater remediation works. Marstel will also need to seek a further approval for its stormwater and drainage system before being permitted to carry out any works on site.

5.2 Hazards and Risk

The potential hazards and risks associated with receiving, storing and dispatching diesel and biodiesel were assessed in the EA. These include transfer of these fuels from ships via flexible hose and fixed pipeline to Marstel's facility, storage of these fuels on site, fuel transfer and loading into road tankers via pipework and pumps and transportation off-site via road tankers.

When assessing industrial related proposals, SEPP 33 is the key policy for determining whether the proposal is considered to be "potentially hazardous industry". In applying SEPP 33, a risk screening exercise is carried out to determine whether a development proposal should be classified as potentially hazardous by comparing the quantities of hazardous materials to be stored, handled or transported with applicable screening criteria provided in the Department's guideline for applying SEPP 33.

In this case, the project will store and handle diesel and biodiesel on site and distribute these materials offsite. These materials are classified as combustible materials because they have high flash points (>90^{o}C) and therefore have a low risk of ignition or explosion at ambient temperatures. As only combustible materials would be present in this case, the project is not considered to be potentially

hazardous and so a Preliminary Hazardous Analysis (PHA) is not required to be prepared in support of the application. Had the project involved the storage, handling and distribution of flammable materials such as aviation fuel (which has a lower flash point and a higher risk of ignition or explosion at ambient temperatures) then a full risk based quantitative PHA would have been required.

Notwithstanding this, Marstel elected to prepare a qualitative PHA for the proposal, which included project-specific management and mitigation measures to reduce the risk of an incident.

The PHA concluded that as only combustible materials would be present in this case, the potential for localised heating and minor vapour generation resulting in ignition or pool fire at the facility is low. Other operational risks were identified, including spills of diesel/biodiesel at the M4 Berth, leading to pollution of the Hunter River, ignition of any spills and resulting fire at the berth or at the facility, leaks of diesel/biodiesel from the pipeline and overfilling of truck tankers and spills of fuel into the bund.

To address this, the PHA identified a number of measures to minimise these identified risks, including site specific fire safety measures, spill containment procedures and measures to ensure pipeline integrity, which are all included in Marstel's statement of commitments. The Department recommends that additional documents be prepared and implemented prior to construction of the project, comprising a Fire Safety Study (to be approved by NSW Fire and Rescue), an Emergency Plan for the facility and an Emergency Response Plan for fuel transfer activities at the M4 Berth.

OneSteel also requested that further risk assessment work be carried out to determine the potential fire and explosion damage risk on the extended gantry structure during diesel fuel transfer from ship to storage tanks spreading to its services and the potential for fire preventing the operation of the adjacent OneSteel rail freight line corridor. To address this, Marstel carried out further risk assessment work to address these issues, which found that there would be no offsite impacts or risks to OneSteel's operation or its workers.

OneSteel also requested that it be consulted when the hazard-related documents outlined above are prepared. The Department agrees that this is appropriate particularly given the close proximity of OneSteel's operation to the project and has imposed this request in the recommended conditions.

In addition to the site specific requirements as outlined above, the Department recommends that Marstel should be required to participate in any broader hazard related requirements set out in the draft recommended Mayfield Concept Plan approval and assist in addressing these requirements, in so far as they relate to the Marstel project. This requirement has also been incorporated into the recommended conditions of approval.

The Department is satisfied that the project presents minimal hazards and risks and considers that the commitments made by Marstel, coupled with the recommended conditions of approval, adequately manages this issue.

5.3 Transport and Access

AECOM carried out a transport assessment for the Mayfield Concept Plan, incorporating the bulk liquids precinct. Marstel's EA summarised the key components of the transport assessment, as they relate to the project and modelled the contribution that the project would make to existing and proposed traffic levels. The key transport issues are site access, the impacts of the project on the surrounding road network and the need for road and intersection upgrades.

Site Access

Marstel is reliant on NPC providing access to the site from the existing road network. Access to the site is proposed as follows (see Figure 9):

- Construction – Industrial Drive, George Street, Selwyn Street, across the Mayfield land along the Koppers pipeline easement. Selwyn Street to Mayfield Berth 4 (M4 berth) is a sealed, industrial road constructed under the approval for remediation of the closure area and development of a Multiple Purpose Terminal (DA 293-08-00). The section from Mayfield Berth 4 to the site is unsealed and would be used as a temporary road during construction; and

Figure 9: Construction and Operational Access Roads

- Operation – Industrial Drive, Ingall Street, Steelworks Road over the railway line and along the eastern boundary of the bulk liquids precinct into Marstel's site. NPC has an activity approval under Section 111 (Part 5) of the EP&A Act (PA 12/001) for this access. Construction is anticipated to commence in August 2012.

In the event that the operational access route has not been completed by the time Marstel commences its operations on site (or there is another valid reason for not using the operational access route straightaway), the company has sought approval to continue to use the construction access route in the short term. The Department has no objection to this request in principle but it would require more detailed information to be provided by Marstel at the time. A condition is recommended which requires the company to justify and obtain the further approval of the Director-General prior to using the construction access route for operational vehicles.

Impacts on the existing road network

The project is seeking approval to receive, store and dispatch up to 300ML/yr of fuel per annum which would generate up to 32 daily truck movements.

According to RTA traffic volume data (as reported in Marstel's EA), historical traffic growth and current mid block traffic flows in the surrounding area has gradually increased by an average yearly growth rate of 0.27% (see Table 2).

Table 2: Historical Traffic Volumes and Growth

Station Number	Location	1995	1998	2001	2004	Growth (%)
05.953	Industrial Drive (NW of Woodstock Street)	29,746	29,549	30,334	30,717	0.36
05.979	Industrial Drive (West of Werribi Street)	22,952	21,608	21,559	23,339	0.19

The EA also includes an analysis of intersection movements based on traffic count data at the two intersections that provides access to the Mayfield land (and Marstel's project site) from Industrial Drive during both the AM and PM peak hours. This shows that when the count was made at the busier of the two intersections (Industrial Drive/Ingall Street) during the AM peak hour, there were 1,500 vehicle movements, including 114 (7%) movements by heavy goods vehicles.

In this context, Marstel's contribution of 32 daily truck movements to the number of existing light and heavy goods vehicle movements as outlined above is considered to be negligible and the project is unlikely to have a detrimental impact on the safe and efficient operation of the existing road network.

Road and intersection upgrades

The draft Mayfield Concept Plan approval requires NPC to review and if necessary upgrade the Industrial Drive/George Street/Selwyn Street intersection and the Industrial Drive/Ingall Street intersection and to develop an internal link road to redistribute truck movements evenly between the two access points into the Mayfield land.

Both the Department and the RMS agree that Marstel should not be required to contribute to the provision of this infrastructure because of the low number of daily truck movements (i.e. 32 movements) it would generate in the context of the Mayfield Concept Plan area, if approved (986 daily truck movements).

Nonetheless, to ensure that traffic is effectively managed, a number of other transport-related conditions are recommended, including a requirement for Marstel to keep accurate records of truck movements to and from the site, pay the full costs of repairing the construction access route if it is damaged by the project and to ensure that all highway works are designed and constructed in accordance with relevant Australian Standards for heavy vehicle usage.

5.4 Noise and Vibration

The EA included a noise and vibration impact assessment (NVIA) prepared by AECOM in accordance with relevant policies and guidelines.

During the course of the assessment, the EPA raised a number of issues regarding the methodology adopted in the NVIA. These issues were addressed through the preparation of a revised NVIA which was lodged with the Submissions Report (Appendix D). The changes that were made to the NVIA addressed the EPA's issues.

Construction Impacts

The NVIA included an assessment of construction noise in accordance with the EPA's *Interim Construction Noise Guideline* (ICNG).

The primary noise sources during construction include excavation, truck movements (including reversing alarms), transportation of tanks to site and fabrication of the tanks and pipeline. Vibration was not anticipated to be an issue in this case.

The assessment found that if all construction equipment and trucks were operating simultaneously (a highly conservative and unlikely scenario), the project would comply with the construction noise management levels of 53dB(A) at Mayfield, 54dB(A) at Carrington and 55dB(A) at Mayfield East Public School, with the highest predicted noise level of 41dB(A) in Mayfield.

Given the level of construction noise predicted, and given that all construction activities would take place during daytime hours only, the Department is satisfied that these impacts would not adversely affect existing amenity at surrounding sensitive receivers.

Notwithstanding this, the Department recommends that a construction noise management plan be prepared and implemented as a component of the Construction Environmental Management Plan for the project. The plan would need to include specific measures to minimise construction noise and would require Marstel to establish procedures for responding to any noise complaints received.

In addition, it is further recommended that construction noise criteria and construction hours for all audible construction activities be stipulated within the approval.

Road Traffic Noise

An assessment of road traffic noise, in accordance with EPA's *Road Noise Policy* concluded that the project would not increase road traffic noise for residences along Industrial Drive.

Operational Impacts

The NVIA included an assessment of operational noise in accordance with the *NSW Industrial Noise Policy*.

During operations, noise would be generated from a number of activities associated with the project including noise from docking ships as fuel is received at the M4 Berth, emissions from motorised fuel pumps located along the eastern boundary of the site, as well as truck and forklift machinery as fuel is received and dispatched from the facility.

A worst case scenario was modelled which assumed a ship unloading fuel at the M4 Berth with 2 truck dispatches each hour over a night-time period. Operational noise was modelled at a number of sensitive receivers and the results were compared against (the most stringent) night time criteria (see Table 3).

Table 3: Predicted Worst-Case (night-time) Operational Noise at Sensitive Receivers

Receiver	**Night-time Criteria (LAeq (15 min)**	**Prediction (LAeq15, minute)**
R1 (Mayfield)	37	30
R2 (Mayfield)	37	35
R3 (Mayfield)	37	33
R4 (Mayfield)	37	35
R5 (Carrington)	37	24
R7 (Mayfield)	37	33
R8 (Mayfield)	37	33
R9 (School)	35[1]	29

[1] Classroom internal, when in use. External criteria is 45dB

The assessment concluded that the project would comply with applicable criteria at all sensitive receivers during day, evening and night time periods, as well as during adverse weather conditions. The project would also comply with relevant sleep disturbance criteria.

The NVIA also found that noise from the project would not increase existing noise levels at any sensitive receivers in Carrington or Mayfield.

Overall, the Department is satisfied that the project would comply with applicable noise criteria and that it is unlikely to adversely impact on the amenity of sensitive receivers given the distance from them to the facility. Furthermore, given the close proximity of these receivers to Industrial Drive, coupled with the fact that the facility would be located in a heavy industrial area, it is unlikely that any noise from the project would be discernible above existing background noise levels. The EPA had no objection to the project on the basis of noise impacts.

To ensure that noise is effectively managed and monitored in this industrial and port context, it is recommended that Marstel should be required to adhere to sound power limits on site which formed the basis of the operational noise predictions.

The draft approval for the Mayfield Concept Plan requires NPC to manage and monitor noise on the Mayfield land. NPC would be required to develop maximum sound power levels for each precinct with the objective of meeting amenity noise goals at sensitive receivers in Mayfield, Carrington and Stockton. Marstel would be contributing towards this outcome by complying with the project-specific sound power limits on its site as outlined above.

The Mayfield concept plan draft approval also requires NPC to prepare a wider Concept Plan Site Noise Model for the Mayfield land. The Department recommends that a protocol should be developed between Marstel and NPC with a view to Marstel inputting into this model if the Mayfield Concept Plan is approved.

The Department has recommended a series of conditions to ensure that operational noise emissions are appropriately managed throughout the life of the project, including requirements for Marstel to:

- comply with project-specific noise impact assessment criteria at sensitive residential receivers in Mayfield and Carrington and at Mayfield East Public School (the EPA would also set noise limits in Marstel's EPL);
- ensure that the predicted sound power limits on site are not exceeded;
- establish and maintain a noise monitoring program to measure the performance of the project against the project-specific noise impact assessment criteria (this requirement may be waived if it can be demonstrated to the Director-General that these monitoring requirements have been satisfied by the monitoring network required for the Mayfield Concept Plan);
- comply with standard construction and operational hours;
- implement best practice noise management, including all reasonable and feasible measures to minimise noise from the project;
- prepare and implement a noise management plan, including the measures that would be implemented to ensure compliance with the relevant conditions of approval, procedures to receive, record and respond to complaints and the contingencies that would be implemented should non-compliances be detected; and
- comply with the relevant requirements of the Mayfield Concept Plan, including those set out above, if approved.

5.5 Air Quality

The EA included an air quality impact assessment (AQIA) by AECOM in accordance with the EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*.

During the course of the assessment, the EPA raised a number of issues regarding the methodology and conclusions of the assessment, including the source of the meteorological data that underpinned the predictions, and the emission factors used to model air emissions from the project. These issues were addressed in a revised AQIA which was lodged with the Submissions Report (Appendix D). The changes that were made to the NVIA addressed the EPA's issues.

Construction Impacts

The project has the potential to generate dust emissions from construction activities. However, this is a relatively minor impact that would take place over a temporary period of time and can be easily managed with standard dust mitigation measures. To address this, the Department would require the Proponent to minimise and prevent dust emissions from the site and to prepare and implement an air quality (dust) management plan as a component of the Construction Environmental Management Plan for the project.

Operational Impacts

The project has the potential to release volatile organic compounds (VOCs) from truck filling activities and fugitive emissions from fuel storage tanks[1].

VOCs[2] predicted to be generated at the site were modelled at surrounding receiver locations and the results were compared against the relevant impact assessment criteria for cumene of 21µg/m^3/hour. The assessment found that ground level concentrations at all sensitive receivers would be well below the criteria with the most affected residential receiver experiencing up to 1.5µg/m^3/hour (assuming a worst-case scenario of continuous operations).

The AQIA also considered the potential for offensive odour emissions from the facility and concluded that due to the low vapour pressure of diesel and biodiesel, and the distance from existing sensitive receivers, it is highly unlikely that odour would pose any problem in this case.

The Department and the EPA are satisfied that the air quality impacts of the project are well below relevant impact assessment criteria and that VOCs emitted as a result of the project would not adversely impact sensitive receivers.

The draft approval for the Mayfield Concept Plan requires Marstel to design, construct and operate the project with the objective of meeting the overall site pollutant performance established for the Mayfield land. Whilst it is NPC's responsibility to monitor and manage air quality impacts on the land, as with noise, Marstel would also contribute to overall compliance with these requirements.

The draft approval also requires NPC to prepare a wider air quality model for the Mayfield land. The Department has recommended that a protocol should be developed between Marstel and NPC with a view to Marstel inputting into this model, if the Mayfield Concept Plan is approved.

The Department has recommended a series of conditions to ensure that air quality emissions are appropriately mitigated and managed throughout the life of the project, including requirements for Marstel to:

- comply with all load limits, air quality criteria and air quality monitoring requirements as specified in the EPL for the site;
- establish and maintain an air quality monitoring program to measure the performance of the project against these requirements (this requirement may be waived if it can be demonstrated to the Director-General that these monitoring requirements have been satisfied by the monitoring network required for the Mayfield Concept Plan);
- implement best practice air quality management, including all reasonable and feasible measures to minimise offsite odour, fume and dust emissions associated with the project, minimise visible offset air pollution and surface disturbance; and
- comply with the relevant requirements of the Mayfield Concept Plan, including those set out above, if approved.

[1] VOCs emissions associated with shipping were not modelled because these emissions would be insignificant in the context of other port sources (the project would generate 8 ship deliveries a year compared with 2000-3000 ship berthing events in Newcastle port each year).

[2] The EPA has no criterion for total VOCs so cumene was assessed as an indicator species for diesel and biodiesel following receipt of advice and fuel composition data from the EPA.

5.6 Other issues

Table 4 presents the Department's consideration of other issues.

Table 4: Other Issues

Issue	Consideration	Conclusion
Greenhouse Gas	▪ The project would generate scope 2 and 3 greenhouse gas emissions from: - electricity used to run plant operations such as administration buildings, fuel pumps and plant lighting; - delivery and distribution of fuels via road and ship tanker; - passenger vehicles transporting staff to and from the site; and - combustion of fuel distributed from the facility (burning of Marstel's product). ▪ Overall, it was estimated that total emissions would be 0.064Mt CO2-e per year, which equates to 0.01% of total Australian emissions (~565Mt CO2-e per year in 2009) and 0.1% of the total transport emissions in Australia (~45Mt CO2-e per year). The greatest contributor to emissions is the consumption of the fuel supplied by Marstel to end users (~0.06Mt CO2-e per year).	▪ The project represents a minor source of greenhouse gas emissions in terms of Australia's national emissions and is unlikely to contribute significantly to climate change. ▪ The Department also notes that the project may reduce net greenhouse gas emissions over time as truck transportation distances would reduce as more fuel deliveries are made to the Hunter and Gunnedah regions from Newcastle rather than from Sydney. ▪ Notwithstanding this, conditions are recommended which require Marstel to: - implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site; and - prepare and implement an Energy Efficiency Plan which describes the measures that would be taken to minimise energy use on site.
Utility and Service Provision	▪ NPC has an agreement with Marstel that it will provide essential utilities and services to the site and obtain all necessary approvals from relevant authorities. ▪ Water supply would be sourced from an existing mains in Selwyn Street and transferred to the site via overland pipe. NPC has secured the necessary approval from Hunter Water to allow Marstel to access this water supply. ▪ NPC has requested access to an existing HDC owned substation, which is proposed to be used to provide power to the site. The infrastructure necessary to link the substation to Marstel's site (i.e. poles and wires) has been approved as part of Activity Approval PA 12/001 (Section 5.2). ▪ As OneSteel provides power to HDC's substation, the company is concerned that its power supply may be interrupted if NPC is permitted to access additional power from the substation to service Marstel's site.	▪ The Department has discussed this issue with NPC, HDC and OneSteel and understands that this substation was a component of BHP Billiton's former operations on the site. ▪ NPC has investigated the capacity of the substation and has advised that there is sufficient capacity within the substation to supply the energy requirements for Marstel. ▪ NPC has further advised that the utility requirements of the area, including the substation, would be updated as development takes place on the Mayfield land. ▪ Notwithstanding this, the Department recommends that Marstel be required to prepare a Utilities and Services Plan in consultation with relevant service and utility providers and adjacent landowners, where applicable, to the satisfaction of the Director-General. The plan would be required to demonstrate how all essential utility and services are to be provided to the site prior to commencement of operations.
Visual	▪ The project site lies within an area characterised by heavy industrial and port-related uses. The facility would be viewed in this context. ▪ There are some vantage points into the site from Industrial Drive, Cormorant Drive (from Kooragang Island), Mayfield	▪ Notwithstanding this, the Department recommends a series of conditions which require Marstel to: - prepare and implement a detailed design and landscaping management plan for the site; - utilise building materials that will minimise the potential visibility of the

Issue	Consideration	Conclusion
	residential area, the Hunter River and the surrounding industrial area. ▪ However, many of these views are limited by topography and are screened or obstructed by existing buildings and intermittent stands of vegetation.	project; and - ensure that any lighting associated with the project complies with relevant Australian Standards and is mounted, screened and directed in such a manner that it does not create nuisance to surrounding properties or the public road network.
Development Contributions	▪ Newcastle City Council stated that a monetary contribution under Section 94A of the EP&A Act is applicable to the project. ▪ Under the provisions of Council's *Section 94A Development Contributions Plan 2009*, the maximum Section 94A levy for the project is 1% of the proposed cost of the development.	▪ The capital investment value of the project is $30 million and, based on Councils DCP, the monetary contribution is $300,000. ▪ The Department has recommended a condition requiring Marstel to pay Council a monetary contribution to a maximum of $300,000 prior to commencement of operation.
Aboriginal Heritage	▪ Given the highly disturbed nature of the Mayfield land, no Aboriginal items have been identified from previous searches of the site. ▪ It is highly unlikely that Aboriginal heritage items are present on any of the Mayfield land, including the project site.	▪ No specific conditions are considered necessary, except a requirement for Marstel to include a standard protocol in its Construction Management Plan that would be followed in the event that an Aboriginal item is discovered.
Non-Aboriginal Heritage	▪ There are a number of State listed non-Aboriginal heritage items in the vicinity of the site, the closest being the original timber wharves, which are 250m to the north of the site on the banks of the Hunter River. ▪ The project would not have a detrimental impact on any of these non-Aboriginal heritage items.	▪ No specific conditions are considered necessary, except a requirement for Marstel to include a standard protocol in its Construction Management Plan that would be followed in the event that a non-Aboriginal item is discovered.
Biodiversity	▪ The project site has been highly disturbed by historical industrial and port-related activities. It contains no habitat for native species and there is no vegetation present on the site.	▪ The project would not impact on existing biodiversity. ▪ No specific conditions are considered necessary.
Waste	▪ The project would generate various waste streams, predominantly during the construction phase of the project.	▪ The Department requires Marstel to store, handle and dispose of waste in accordance with applicable guidelines.

6. RECOMMENDED CONDITIONS

The Department has prepared recommended conditions of approval for the project (see Appendices A and B). These conditions are required to:

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

The Department is also satisfied that the recommended conditions fully reflect both the intent and requirements of the conditions put forward in the draft approval for the Mayfield Concept Plan.

The Department has provided the draft recommended conditions of approval for the project to relevant government authorities for comment, and has incorporated these comments into the conditions of approval where appropriate.

The Proponent has also reviewed and accepted the draft conditions.

7. CONCLUSION

The Department has assessed the project application, EA, submissions on the project and Marstel's response to submissions, in accordance with relevant statutory requirements.

The assessment shows that the key issues relate to soil and water, hazards and risks, transport and access, noise and vibration and air quality. Other lesser issues include greenhouse gas, utility and service provision, visual, development contributions, Aboriginal and non-Aboriginal heritage, biodiversity and waste.

The Department has assessed these issues in detail having regard to the objects of the EP&A Act, and the principles of ecologically sustainable development.

The Department is satisfied that the management and mitigation measures proposed and recommended conditions of approval can effectively reduce the impacts of the project to acceptable levels.

The project responds to increased demands for fuels and biofuels and is located in close proximity to import locations and the expanding market for fuel products in the Hunter and Gunnedah regions. The project would help reduce road transport times for fuel deliveries from Sydney.

Overall, the Department believes that the project has been adequately justified on economic, social and environmental grounds and it is in the public interest and should be approved subject conditions.

Finally, the Department is satisfied that the project is consistent with the land use precincts (and the indicative road and rail infrastructure proposed to service these precincts) as proposed in the Mayfield Concept Plan and that the recommended conditions fully reflect both the intent and requirements of the conditions put forward in the draft recommended approval conditions for the Mayfield Concept Plan.

Notwithstanding this, the Department is also satisfied that the proposal is permissible on this land and that it is capable of being developed as a stand alone project even if the Mayfield Concept Plan does not proceed.

8. RECOMMENDATION

It is RECOMMENDED that the Deputy Director-General:

- **consider** the findings and recommendations of this report;
- **approve** the Project Application, subject to conditions, under Section 75J of the *Environmental Planning and Assessment Act 1979*; and
- **sign** the attached Project Approval (see Appendix B).

4/6/12.

Chris Ritchie
Manager – Industry
Mining and Industry Projects

6.6.12

Chris Wilson
Executive Director

Nick Hall
Senior Planner
9228 6438

8/6/12

Richard Pearson
Deputy Director-General

APPENDIX A: SUMMARY OF CONDITIONS OF APPROVAL

Aspect	*Condition*	*Requirement*
Schedule 2: Administrative Conditions		
Terms of Approval	5	Restriction on receipt, storage and dispatch of diesel and biodiesel
Development Contribution	14	Requirement to pay development contributions up to a maximum of $300,000
Schedule 3: Specific Environmental Conditions		
Contamination and Remediation	1-3	Statutory requirements and endorsement by Site Auditor
	4	Human Health Risk Assessment
	5	Scope of imported soils permitted on site
Soil and Water	6	Water licensing
	7	Discharge limits
	8	Bunding and storage of liquids
	9-10	Stormwater and Drainage System and Management
	11	Water Management Plan
Traffic and Access	12	Records of volume of diesel and biodiesel handled and traffic movements
	13-14	Construction access route
	15	Operational access route
	16	Traffic Management Plan
	17	Access and parking requirements
Hazards	18	Fire Safety Study
	19	Emergency Plan
	20	Plans and audits for the Mayfield Concept Plan
Utilities and Services	21	Utilities and Services Plan
Noise and Vibration	22	Construction noise criteria
	23	Operational noise criteria
	24	Maximum permitted sound power limits
	25	Noise Verification Program
	26	Construction and operation hours
	27	Operating conditions
	28	Noise Management Plan
Air Quality and Greenhouse Gas	29	Odour
	30	Minimisation of greenhouse gas
	31	Discharge limits
	32	Dust mitigation measures
	33	Operating conditions
	34	Air Quality and Greenhouse Gas Management Plan
	35	Energy Efficiency Plan
Visual Amenity	36	Design and Landscape Management Plan
	37	Construction materials
	38	Lighting
	39	Signage
Waste	40	Storage, handling and disposal of waste
Schedule 4: Environmental Management, Reporting and Auditing		
Environmental Management	1	Environmental Management Strategy
	2	Management Plan Requirements
	3	Construction Environmental Management Plan
Reporting and Auditing	4-5	Pre-construction and pre-operation compliance
	6	Compliance Tracking Program
	7-8	Incident reporting
	9	Annual Review
	10-11	Independent Audit
	12	Revision of strategies, plans and programs
	13	Access to information
	14	Community Consultation Strategy

APPENDIX B: CONDITIONS OF APPROVAL

APPENDIX C: ENVIRONMENTAL PLANNING INSTRUMENTS

Section 75I(2) of the *Environmental Planning and Assessment Act 1979* requires that reference be made to the provisions of any environmental planning instrument that would (but for Part 3A of the Act) substantially govern the carrying out of the project.

The Department's consideration of the project in the context of the objectives and provisions of the relevant environmental planning instruments is provided below.

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

State Environmental Planning Policy 33 – Hazardous and Offensive Development (SEPP 33) facilitates the consideration and assessment of hazardous or offensive development.

Development considered potentially hazardous or offensive requires a Preliminary Hazard Analysis (PHA) to be undertaken to identify and assess potential effects to both people and the environment.

The EA concluded that the project is not a 'potentially hazardous industry' and that SEPP 33 does not apply. Nonetheless, a qualitative PHA was carried out to assess the potential risks of the project and to develop appropriate management and mitigation measures to reduce the risk of an accident. Specific requirements have been included to address this.

State Environmental Planning Policy No. 55 – Remediation of Land

State Environment Planning Policy 55 – Remediation of Land (SEPP 55) promotes the remediation of contaminated land to reduce the risk of harm to human health or other environmental systems. SEPP 55 requires a consent authority to consider whether the land is contaminated and whether it is suitable (or can be made suitable) for the proposed development.

The Mayfield land is currently being remediated in stages under the multi-purpose terminal consent (DA 293-09-00) in accordance with a VRA under the *Contaminated Land Management Act 1997*. Remediation activities are due for completion in 2012.

The potential impact of contamination has been assessed and the Department considers that the project site in its remediated form would be suitable for Marstel's facility, and has included specific requirements in relation to land contamination.

State Environmental Planning Policy No. 71 – Coastal Protection

State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71) aims to ensure a consistent and strategic approach to coastal planning and management.

The Department has considered the proposal against the specific aims of the SEPP and the matters for consideration set out in clause 8 of the policy. Due to the existing and proposed industrial nature of the site and adjoining land uses a limited number of objectives are applicable. Notwithstanding the Department considered relevant matters, including the protection of the economic attributes of the coast, scale of development and visual amenity, protection of the marine environment and water quality, historic heritage, and cumulative impacts.

Section 4 of the EA also includes consideration of provisions of relevant environmental planning instruments.

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State. The project is consistent with the aims listed in the ISEPP.

The project constitutes traffic generating development to be referred to the RTA (now the RMS – Roads) under Schedule 3 of the ISEPP. The Department forwarded the project application to RMS for comment on 14 November 2011.

Newcastle Local Environmental Plan 2003

Newcastle Local Environmental Plan 2003 (LEP) provides development controls for development in the Newcastle local government area. The proposed facility is located in land zoned 4(b) Port and Industry. The objectives of the zone are to accommodate port, industrial, maritime industrial and bulk storage activities that require separation from residential areas. The Department is satisfied that the proposed facility is consistent with the relevant provisions of the LEP include Clause 25 Acid Sulfate Soils and Clause 31 Development affecting places or sites of Aboriginal heritage significance. The Department is satisfied that the EA has adequately assessed these provisions and concludes that the project generally complies with the aims and objectives of the LEP.

Section 4 of the EA also includes an assessment of the project against relevant environmental planning instruments.

APPENDIX D: RESPONSE TO SUBMISSIONS

See the attached CD-ROM entitled *Response to Submissions*, dated April 2012.

APPENDIX E: SUBMISSIONS

See the attached CD-ROM entitled *Submissions*.

APPENDIX F: ENVIRONMENTAL ASSESSMENT

See the attached CD-ROM entitled *Environmental Assessment*, dated November 2011.