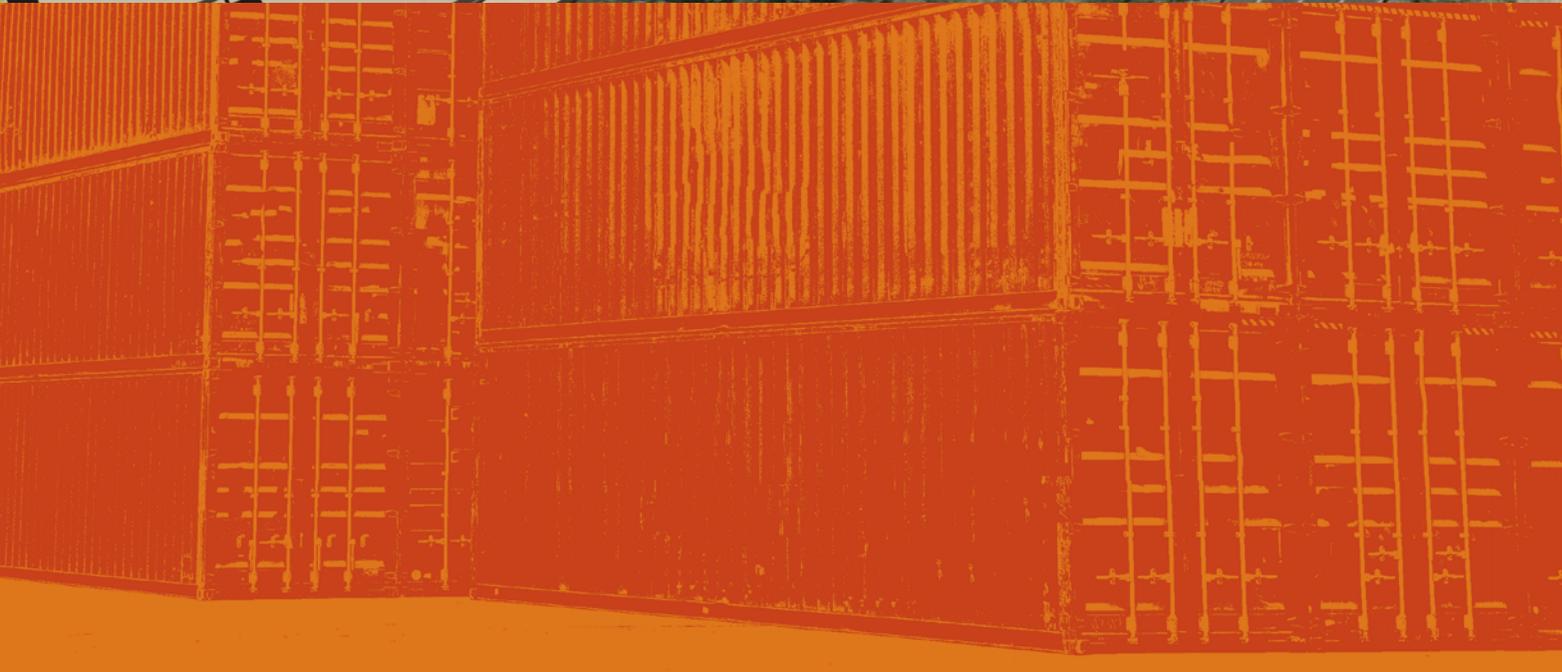


Chapter 1 Introduction



1. Introduction

The Moorebank Intermodal Terminal (IMT) Project (the Project) involves the development of intermodal freight facilities at Moorebank, in south-west Sydney, linked to Port Botany the interstate freight rail network.

This chapter provides an overview of the Project as presented in the Environmental Impact Statement (EIS) and subsequent design changes as described in the Response to Submissions report.

1.1 Background and purpose of this report

In 2014 the Moorebank Intermodal Company (MIC), a Government Business Enterprise (GBE) and the proponent for the Project, prepared an EIS for the Project, which was placed on exhibition between 8 October and 8 December 2014. During this time the community, key stakeholders, government department and interest groups were invited to make a submission either using the online submission tool on NSW Department of Planning and Environment (NSW DP&E)'s website or by providing a written submission. A total of 1,793 submissions were received during the EIS exhibition period. Of these submissions, 14 were provided by government agencies and local councils, with the remaining 1,779 provided by community members.

Following the conclusion of the public exhibition period, MIC prepared a Response to Submissions report to address the issues raised through the community and stakeholder submissions. The Response to Submissions report included amendments to the proposed development as a result of:

- an agreement being reached between MIC and the Sydney Intermodal Terminal Alliance (SIMTA) to develop an integrated precinct;
- issues raised through the EIS exhibition process; and
- outcomes of further technical investigations undertaken after the exhibition of the EIS.

The amendments included changes to both the layout of the Project and to its delivery staging. These amendments were presented in the Response to Submissions report, including justification for the proposed changes and an assessment of the *changes to the impact* relative to the impacts predicted in the EIS.

Section 89F (4) of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) states that a development application for State significant development (SSD) may be amended, substituted, or withdrawn and later replaced before it has been determined by the Minister. Where this occurs, it may require further public consultation under the provisions of section 89F(1) of the EP&A Act where it is determined by the NSW Secretary of NSW DP&E to be substantially different from the original application, and where the environmental impact of the development concerned has not been reduced by the changes proposed. NSW DP&E determined that the amendments proposed by MIC warranted further public consultation under the EP&A Act and accordingly, the proposed amendments were presented as part of the Response to Submissions report.

The Response to Submissions report (including the proposed amendments to the development) was placed on public exhibition between 28 May and 26 June 2015, during which time the community and stakeholders made submissions on the report to NSW DP&E. A total of 109 submissions were received during the exhibition period. Of these submissions, 8 were provided by government agencies and local councils, with the remaining 101 provided by community members.

This document comprises the Supplementary Response to Submissions report (this report) which is required under Division 6, clause 85A(2) of the NSW *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). Clause 85A(2) specifies that:

'The Director-General may, by notice in writing, require the applicant to provide a written response to such issues raised in those submissions as the Director-General considers necessary'.

This report documents and considers the issues raised in the community and agency submissions received from the public exhibition of the Response to Submission report. In particular, this report provides:

- an overview of the Project as presented in the EIS;
- description of the changes made to the Project following the exhibition of the original EIS, including justification for the changes and a description of the changes to the impact relative to the impacts presented in the Response to Submissions report;
- details of consultation activities undertaken prior to, and during the public exhibition of the Response to Submissions report, as well as future consultation to be undertaken during the pre-construction, construction and commissioning phases of the Project;
- response to issues raised in community and agency submissions; and
- details of additional investigations that have been undertaken since the public exhibition of the Response to Submissions report.

1.2 Overview of the Proposal

The Project involves the development of intermodal freight terminal facilities at Moorebank in south-west Sydney, linked to Port Botany and the interstate rail network. The Project includes associated commercial infrastructure (warehousing), a rail link connecting the Project site to the Southern Sydney Freight Line (SSFL) and road entry and exit points along Moorebank Avenue.

An IMT is a location for the interchange of freight between one mode of transport and another. The Project is intended to interchange freight between road and rail, and service freight movements to and from Sydney's west and south-west. The Project would handle containerised cargo (cargo transported in shipping containers), through the initial development of an import/export (IMEX) freight facility, where international freight transiting through Port Botany would be handled. The IMEX facility would be supported by the development of warehousing along Moorebank Avenue. In the longer term, an interstate IMT and associated warehousing would be developed to handle containerised freight from interstate locations.

The Project site is centred on an approximately 220 hectare (ha) area of Commonwealth-owned land currently occupied by the Department of Defence (Defence) School of Military Engineering (SME) and other minor Defence units. The Project site is adjacent to the SSFL, the East Hills Rail Line, the M5 Motorway and Moorebank Avenue.

1.2.1 Approval pathway

The MIC is currently seeking approval for the proposal 'concept' (i.e. the broad parameters of the Project to operate at a maximum capacity of 1.55 million TEU) to satisfy both:

- staged SSD consent under the NSW EP&A Act (including a Stage 1 development consent for Early Works); and
- the requirements of the Commonwealth EPBC Act in relation to impacts of the proposed action on matters protected under the Act (which, in the case of this Project, comprise listed threatened species and communities) and impacts on the environment by a Commonwealth agency.

The approval processes under the EPBC Act and the EP&A Act are being undertaken in parallel and the EIS addressed both the Commonwealth's EIS guidelines as well as the Secretary for DP&E's Environmental Assessment Requirements (SEARs) for the Project. This report and the Response to Submissions report further address the requirements under the NSW EP&A Act whilst a Final EIS is being prepared to address the Commonwealth EPBC Act.

The development of the Project is proposed to be phased, and the phasing has changed slightly to that presented in the Response to Submissions report (refer to section 6.1 of Chapter 6 – *Further clarifications and technical investigations* in this report). Initial IMEX terminal and warehousing facilities planned to commence operations around 2018 (subject to approval). Subsequent development of interstate IMT facilities, followed by 'ramp-up' of IMEX capacity and warehousing is then expected to occur in line with the expected freight demand, reaching Full Build in 2030. Future Stage 2 SSD approval applications will be linked to the proposed development phases and may be subject to further change in light of changing economic conditions in future years. Each SSD stage of development will be subject to its own detailed EIS which will provide further detail on the Project staging, timing and assessment of associated impacts.

The planning and assessment process for the Project is summarised in Figure 1.1.

MIC is seeking approval for the Project as presented in the EIS and the subsequent changes as presented in the Response to Submissions report (and summarised in section 1.3).

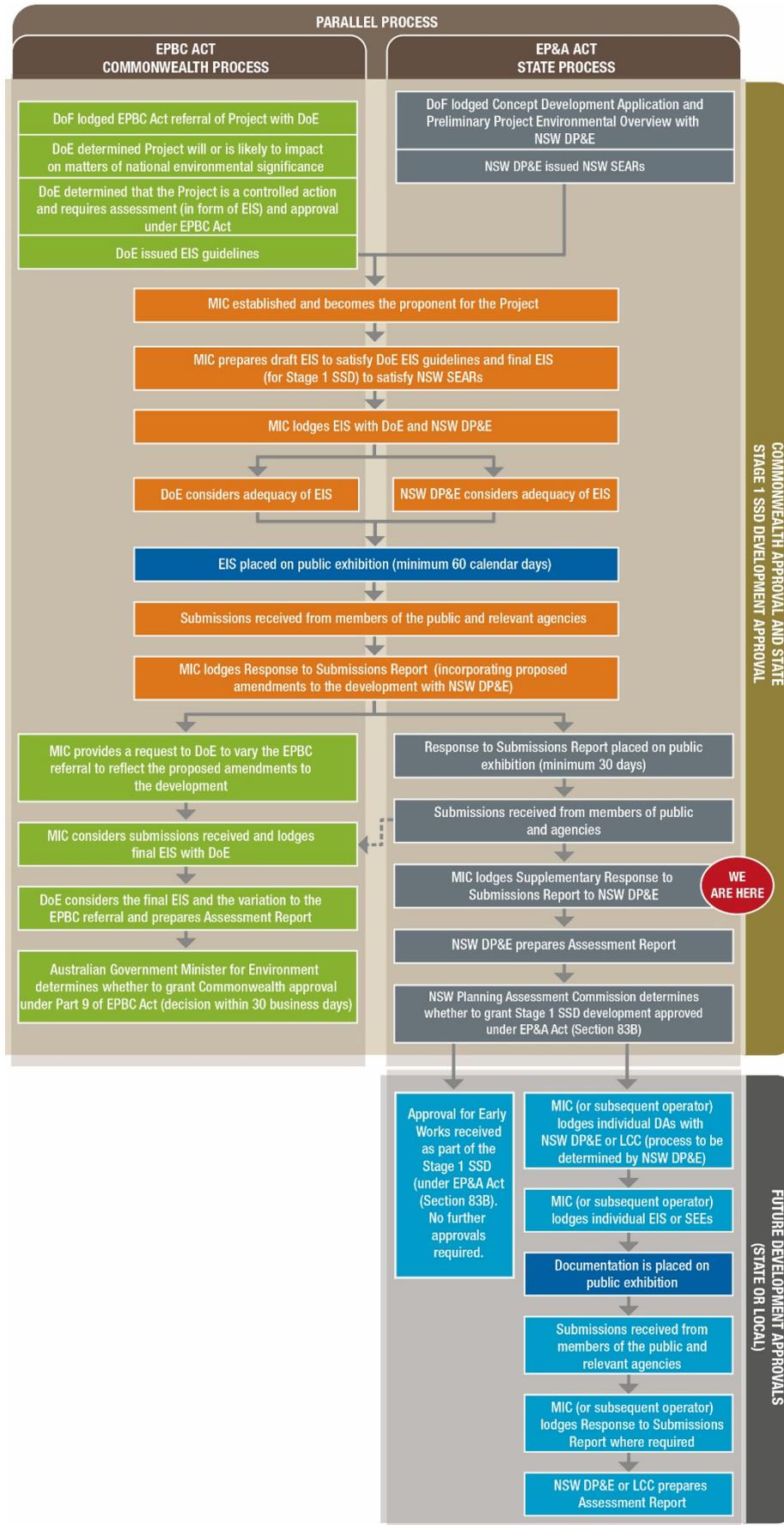


Figure 1.1 Commonwealth and State approval pathway

1.2.2 Whole of precinct approach

Prior to the EIS exhibition, MIC developed the Moorebank IMT proposal as a stand-alone project. At that time, the SIMTA proposal for an intermodal terminal on the site immediately east of the Project site was also being pursued separately, with its own planning and environmental approvals being sought. However, since the exhibition of the EIS, an agreement has been reached between MIC and SIMTA for an integrated precinct-wide intermodal facility and associated warehousing across both the MIC and SIMTA sites. This has resulted in a change in concept layout on the Moorebank IMT site and the selection of the southern rail access option as the preferred rail connection from the SSFL to the site.

Under this agreement MIC will continue with its existing application for Stage 1 SSD concept approval (incorporating early works) for the Moorebank IMT site and SIMTA will be responsible for obtaining all other approvals required under the EP&A Act, to build all stages of the Project.

SIMTA has received approval under the EPBC Act for the construction and operation of an IMT comprising a one million TEU IMEX facility and 300,000 sq. m of warehousing. SIMTA has also received concept approval from the Planning Assessment Commission (PAC) under the (then) Part 3A of the NSW EP&A Act for the development of an IMT. In approving the development however, the PAC granted concept approval only for a 250,000 TEU IMEX facility until the local road infrastructure is upgraded to support increased capacity. The PAC stipulated that 'subject to more detailed traffic assessment, an ultimate 500,000 TEU capacity could be provided and that this should be adequate to 'meet the Government's objectives for rail freight from Port Botany well into the future'. This is less than the one million TEU that was sought by SIMTA. The PAC approved the 300,000 sq. m of warehousing proposed.

SIMTA is now in the process of obtaining development approval (DA) to construct and operate Stage 1 of its development being:

- a 250,000 TEU IMEX facility; and
- a rail connection to the SSFL at the southern end of the Moorebank Intermodal Terminal site.

The agreement between MIC and SIMTA is subject to certain contractual conditions between the two parties. These conditions include that:

- project approval be obtained by SIMTA for the IMEX terminal on the SIMTA site; and
- a staged DA be obtained by MIC for terminal development on the Moorebank Intermodal Terminal site.

The agreement between MIC and SIMTA considers the planning pathway if the conditions of the agreement are met. The planning pathway would incorporate the current approval that has already been obtained by SIMTA, and would include the following milestones:

- SIMTA obtains Stage 1 DA development approval for its site (current);
- MIC obtains staged DA - including Stage 1 Early Works for its site (current); and
- SIMTA obtains all subsequent DAs for each stage of the precinct development including any necessary modifications to approval conditions granted to both sites to secure an integrated 1.55 million TEU single IMT.

Section 6.1.2 of Chapter 6 – *Further clarifications and technical investigations* of this report presents further information regarding the precinct planning underway between MIC and SIMTA.

1.3 Key features of the Proposal

The Project as presented in the EIS and the Response to Submissions Report involves the development of IMT facilities at Moorebank in south-west Sydney, linked to Port Botany and the interstate network.

The key features of the proposal (at Full Build in 2030) include:

- *An import/export (IMEX) freight terminal* designed with a maximum capacity of 1.05 million twenty-foot equivalent units (TEU) a year (525,000 TEU inbound and 525,000 TEU outbound) servicing international IMEX freight movement between Port Botany and the Project site.
- *An interstate freight terminal* designed to handle up to 500,000 TEU a year (250,000 TEU inbound and 250,000 TEU outbound) of interstate freight, servicing trains travelling to, from and between Sydney and regional and interstate destinations.
- *Warehousing facilities* with capacity for up to 300,000 square metres (sq. m) of gross floor area to provide an interface between the IMEX and interstate terminals and commercial users of the facilities such as freight forwarders, logistics facilities and retail distribution centres.
- *A rail access connection* (rail link) between the main IMT site and the SSFL via a bridge crossing the Georges River to the west of the main IMT site.
- *Establishment of a conservation area* to maintain and enhance the riparian vegetation between the Georges River and at a minimum the 1% annual exceedance probability (AEP) flood level.
- *A modification of the M5 Motorway intersection*, widening and upgrade of Moorebank Avenue to accommodate the widening and additional traffic, and traffic control measures.

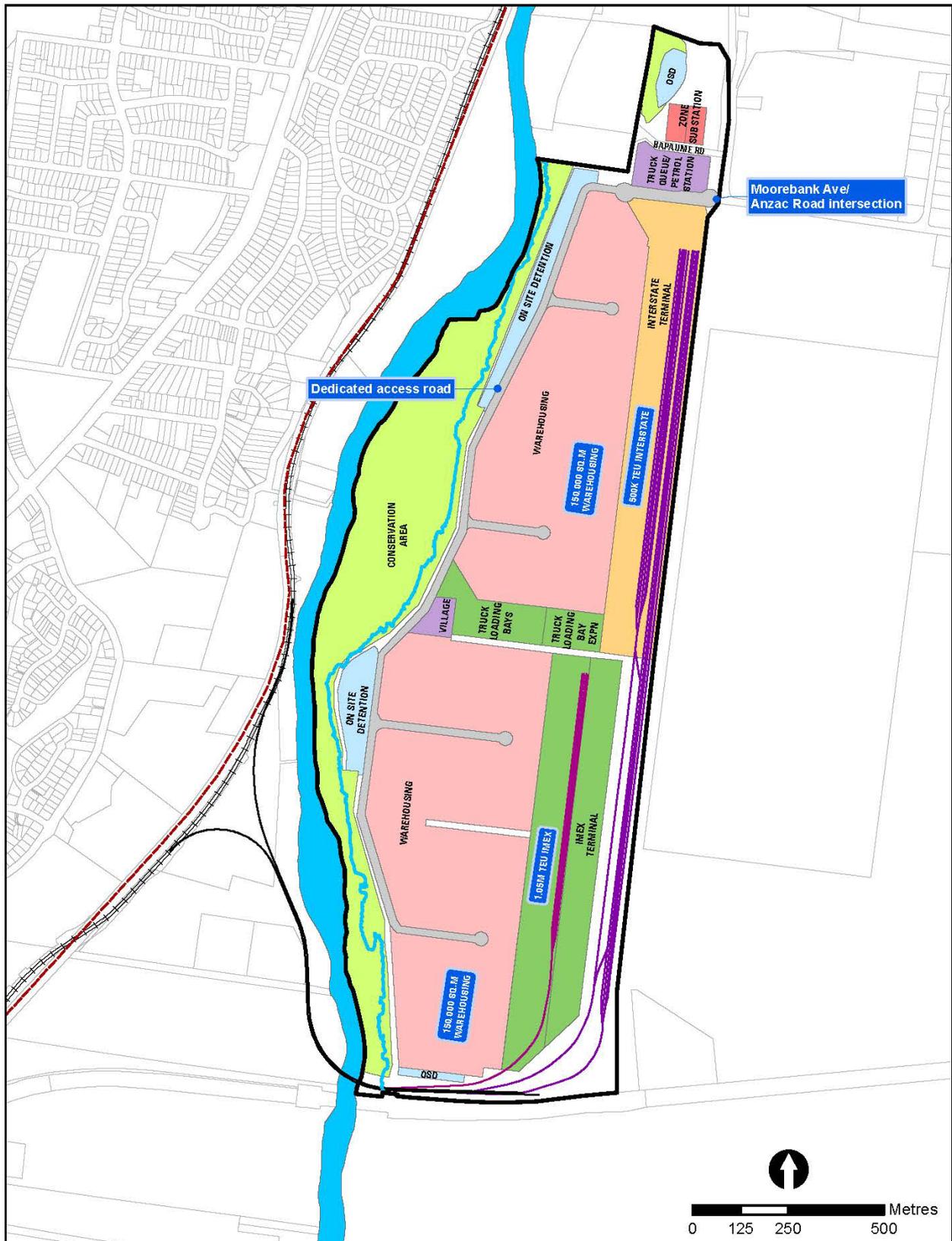
The Response to Submissions report presented amendments to the design and staging of the Project from that presented in the original EIS. The amendments, a result of the agreement between SIMTA and MIC to develop a precinct-wide IMT, included:

- changes to the layout and operation of the IMT, including the location of the warehousing, working tracks and storage tracks, IMT freight village precinct, IMEX and interstate equipment storage and repair area and detention ponds;
- confirmation that the southern rail access into the site will be required (the EIS sought flexibility to build either a southern, central or northern rail access into the site from the SSFL);
- changes to access and circulation including heavy and light vehicle access to the facility via the Moorebank Avenue and Anzac Road intersection, along a dedicated road at the north and along the western boundary of the Project site;
- changes to the upgrade of Moorebank Avenue, which will be upgraded between Anzac Road and the M5 Motorway into a four-lane dual carriageway. No upgrades are proposed south of the Anzac Road intersection since traffic from the terminal will not use the southern section of Moorebank Avenue; and
- an increase in the size of the conservation area.

Figure 1.2 provides a comparison of the key components of the Project as presented in the EIS and the Response to Submissions report. The revised IMT layout at Full Build (2030) as presented in the Response to Submissions report is provided in Figure 1.3.

KEY PROJECT COMPONENTS	DRAFT EIS	REVISED PROJECT
IMEX FREIGHT TERMINAL	<p>Designed to handle 1.05 million TEU per year of IMEX containerised freight.</p> <p>Located in the centre of the Project site.</p>	<p>Designed to handle 1.05 million TEU per year of IMEX containerised freight.</p> <p>Located in the southern section of the Project site, adjacent to Moorebank Avenue.</p>
INTERSTATE TERMINAL	<p>Designed to handle up to 500,000 TEU per year of interstate containerised freight.</p> <p>Located in the centre of the Project site.</p>	<p>Designed to handle up to 500,000 TEU per year of interstate containerised freight.</p> <p>Located along the eastern section of the Project site, adjacent to Moorebank Avenue.</p>
WAREHOUSE FACILITIES	<p>Capacity of up to 300,000 sq m.</p> <p>Located on the eastern boundary of the Project site, adjacent to Moorebank Avenue.</p>	<p>Capacity of up to 300,000 sq m.</p> <p>Located along the western boundary of the Project site, adjacent to a dedicated access road.</p>
RAIL ACCESS AND LAYOUTS	<p>Project connected to the Southern Sydney Freight Line (SSFL) via a new rail access. Three rail access options assessed in EIS (northern, central and southern rail access).</p>	<p>Project connected to the Southern Sydney Freight Line (SSFL) via a new southern access from the SSFL. Northern and central rail access options not considered further.</p>
VEHICLE ACCESS	<p>Vehicles to access the Project site from Moorebank Avenue via the M5 Motorway. Modification to the M5 Motorway intersection, widening and upgrade of Moorebank Avenue to East Hills Railway Line. Upgrade of Anzac Road and relocation and upgrade of Bapaume Road.</p>	<p>Vehicles to access the Project site from a new Moorebank Avenue/Anzac Road intersection via the M5 Motorway. Modification to the M5 Motorway intersection, widening and upgrade of Moorebank Avenue to the new intersection only.</p>
INTERNAL ROAD LAYOUT	<p>Vehicles to access IMEX, IMT terminals and warehouses via access points off the upgraded Moorebank Avenue.</p>	<p>Vehicles to access IMEX, IMT terminals and warehouses via a dedicated access road (open to the public), leading from the new Moorebank Avenue/Anzac Road intersection, located on the western boundary of the site adjacent to the conservation area.</p>
CONSERVATION AREA	<p>Located along Georges River on the western boundary of the Project site.</p>	<p>Located along Georges River on the western side of the Project site. Area increased by 4ha in the northern portion of the conservation zone.</p>
ON-SITE STORMWATER DETENTION BASIN	<p>Multiple detention basins along western edge of development area.</p> <p>Detention basin locations differ for each rail access option.</p>	<p>Multiple detention basins along western edge of development area. Currently four detention basins proposed; two adjacent (western site) to dedicated access road, one in northern corner (adjacent to ABB land) and one in the southern end of the site.</p> <p>Final locations will be determined during detailed design.</p>

Figure 1.2 Comparison of the key Project components of the EIS and the revised proposal as presented in the Response to Submission report



- 1% AEP flood level
- Existing south rail line
- Proposed IMEX Rail line
- Proposed interstate terminal rail line
- Updated southern rail connection
- Southern Sydney Freight Line
- IMEX Terminal
- Interstate Terminal
- Warehousing
- Services Freight Village / Petrol station
- Zone Substation
- Dedicated Access Road
- Georges River
- On Site Detention
- Conservation Area

Revised IMT layout at Full Build (2030)

Figure 1.3 Project layout (at Full Build) as presented in the Response to Submissions report

1.3.1 Phasing and timing

The Project would involve the phased delivery of the IMEX and interstate terminals and warehousing capacity in line with the market demand for processing containers through the IMT. Construction is proposed to commence in 2015 with the Early Works development phase. Development would then progress with construction and later simultaneous operation activities until the Project reaches Full Build in 2030.

The EIS presented five indicative development phases to describe the likely construction and operational activities from Early Works through to full operation. However, revised development phasing was presented in the Response to Submissions report taking into account the agreement reached between SIMTA and MIC for a whole of precinct approach and following revised projections of the future demand for an IMT. That phasing is presented in Figure 1.4 as Option 1.

Since then, to reflect revised staging plans developed by SIMTA since the publication of the Response to Submissions Report, and the fact that final agreement has been reached between MIC and SIMTA, an alternate phasing has been developed for the Moorebank IMT. This phasing differs slightly from Option 1 and is presented as Option 2 in Figure 1.4. It is discussed further in section 6.1.2 of Chapter 6 – Further clarifications and technical investigations in this report. The latest phasing was a best estimate for the purposes of assessing the environmental impacts at key stages of development. A summary of the Option 2 phasing presented in Figure 1.4 comprises:

1. Early Works (2015), including Rehabilitation Works – subject to the current concept approval application.
2. Phase A (2016–2017) – construction of 250,000 TEU Interstate terminal, 100,000 sq. m of warehousing and construction of the southern rail link.
3. Phase B (2018–2020) – the phase would commence with the operation of a 250,000 TEU interstate terminal and 100,000 sq. m of warehousing, as well as the construction of a 500,000 TEU IMEX rail terminal, which would become operational in mid-2019.
4. Phase C (2021–2029) – the phase would commence with operation of a 500,000 TEU IMEX terminal, 100,000 sq. m warehousing and a 250,000 TEU interstate terminal. Additional construction activities during Phase C (which would become operational once completed) comprise the construction of 150,000 sq. m of warehousing and a 250,000 TEU IMEX (mid 2022 to end 2023 approx.), construction of an additional 300,000 TEU IMEX (in 2027); and construction of an additional 250,000 TEU interstate capacity and 50,000 sq. m of warehousing (in 2029).
5. Full Build (from 2030) – operation of a 1.05 million TEU IMEX terminal, a 500,000 TEU interstate terminal and 300,000 sq. m of warehousing.

The Project development phasing is presented in Figure 1.4.

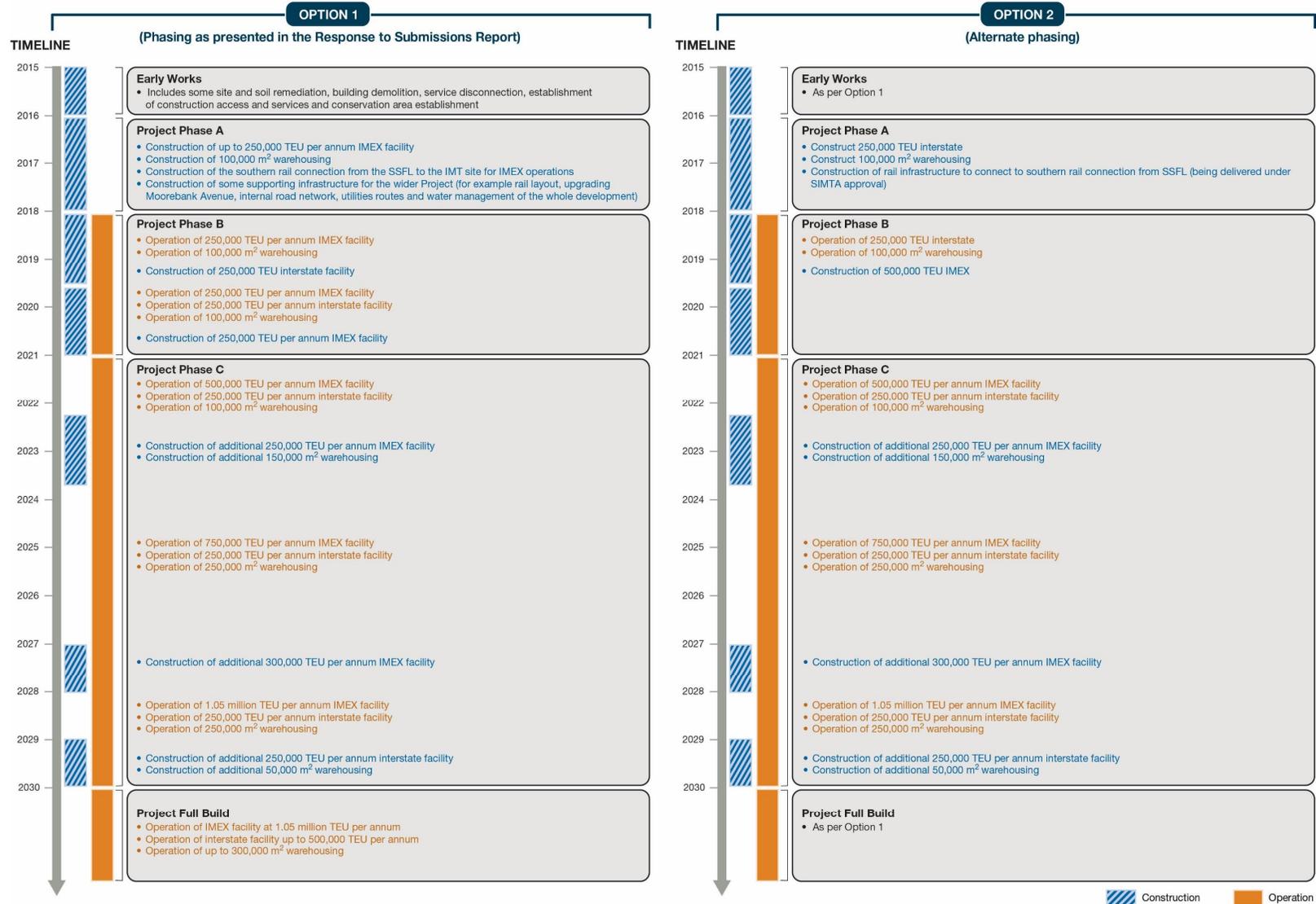


Figure 1.4 Project development phasing

1.3.2 Early Works

Section 8.3 of Chapter 8 – *Project development phasing and construction* of the EIS describes the Early Works phase of the Project. The EIS excluded Rehabilitation Works which were described in section 8.1.2 of the EIS, where it was stated that these works were outside the scope of the EIS but were subject to a separate EPBC Act referral to the DoE (EPBC referral – EPBC 2014/152). The works were subsequently determined by DoE not to be a ‘controlled action’ under the EPBC Act, meaning that no further assessment or approval would be required from the Commonwealth. Additionally, as the works constituted an ‘Action’ by the Commonwealth (MIC) entirely on Commonwealth land, it was further determined by MIC that approval under the EP&A Act would also not be required.

However, since the agreement has been made with SIMTA to build and operate the Moorebank IMT, SIMTA will now be responsible for delivering the Early Works phase of the project, which includes the Rehabilitation works. Accordingly, the Response to Submissions report presented the details of the previously excluded Rehabilitation Works, with MIC seeking to include these works as part of the Stage 1 SSD concept approval for the Project.

The Early Works component of the Project (as presented in section 8.3 of Chapter 8 – *Project development phasing and construction* of the EIS) include:

- establishment of construction facilities, which may include a construction laydown area, site offices, hygiene units, kitchen facilities and wheel wash;
- demolition of existing buildings, structures and contaminated buildings not being removed as part of the Moorebank Unit Relocation (MUR) Project or the site rehabilitation works;
- some contaminated land remediation including removal of unexploded ordnance (UXO) and explosive ordnance waste (EOW) if found, removal of asbestos contaminated buildings and remediation of an area known to contain asbestos;
- relocation of trees, including hollow bearing trees (i.e. those that provide ecologically important roosting habitats);
- service utility terminations and diversions;
- site stabilisation and establishment of the proposed conservation area on the site of the plant and equipment operator training area (known as the ‘dust bowl’) on the western side of the site;
- construction of secure perimeter fencing;
- ancillary operations including establishment of construction facilities and amenities on existing areas of hardstand. This will include staff parking, site offices, hygiene units and kitchen facilities, plant laydown areas and wheel wash;
- establishment of the conservation area within the plant and equipment operation training area (known as the ‘dust bowl’) including seed banking and planting; and
- heritage impact mitigation works including archaeological salvage of Aboriginal and European potential archaeological deposit (PAD) sites.

1.4 Key findings of the impact assessments

The EIS prepared for the Project identifies the key environmental and social impacts (positive and negative) during the construction and operation of the Moorebank IMT. Due to the proposed phased development of the Project over a relatively long period of time, the EIS adopted a 'multiple scenario' approach and impacts were assessed at certain points in time during which there would be concurrent construction and operation. This approach was used for assessing the traffic and transport, noise and vibration, local air quality and human health impacts as these were identified as the most significant for the Project.

For other impacts (including biodiversity, hazards, contamination, hydrology and water quality, heritage, visual, property and infrastructure and waste and resource use) the EIS assessed the Early Works development phase as well as one typical construction scenario and one worst case operational scenario (Full Build). Chapters 11 to 29 of the EIS presented the findings of the impact assessments. In summary, the impact assessments determined that the Project is anticipated to have a number of environmental and social impacts, however, the majority of the identified impacts are not considered significant, assuming effective implementation of the proposed mitigation and management measures outlined in the EIS.

As a result of the changes introduced to the Project since the exhibition of the EIS, the Response to Submissions report provides an assessment of the changes to the impact relative to the impacts predicted in the EIS. A qualitative scoping exercise was conducted against the findings and conclusions of the impact assessment presented in the EIS which determined that the proposed amendments to the development only affect a small number of studies. A summary of the revised impact assessments as presented in section 7.10 of Chapter 7 – *Proposed amendments to the development* of the Response to Submissions report are:

- Biodiversity impacts – Changes to the Project footprint, specifically the alignment and width of the southern rail access corridor, required a revised assessment of the Project's impacts on biodiversity and the biodiversity offset strategy. The revised assessment also included some minor changes in the quantification of credits generated from the credit calculator which changed the requirement for securing offsite offsets for some species. MIC is committed to undertaking all reasonable steps to secure the matching ecosystem credits and provide an offset package that meets the quantum of the offset requirement. The Project is being assessed under the NSW Government Framework for Biodiversity Assessment calculator.
- Visual – The greatest visual impact of the Project will be on the public parks (Leacock and Carroll Parks in Casula) and associated residential properties that are situated on the elevated topography sloping west from the Georges River. These will have clear views over the site and the taller project elements such as lighting towers and rail mounted gantry cranes. Overall, when compared to the EIS layout, the visual impacts are consistent.
- Traffic – The changed site layout changes the traffic impacts on the surrounding road network. The changes in Project development phasing have also resulted in amendments to the 'ramp up' of traffic generation associated with the revised conversion factors between site uses/activities and trip generation. Adopting the truck generation rates used by SIMTA in its traffic studies (undertaken for its EIS) has resulted in modifications to some of the underlying assumptions about the rates of traffic generation, generally resulting in lower traffic generation rates. Traffic impacts associated with the amendments include the following:
 - > A requirement to upgrade Moorebank Avenue north of Anzac Road, and the upgrading of the Anzac Road intersection to a major signalised intersection. This location would be the site entry point for all vehicles, with separation of light and heavy vehicles occurring within the site.

- > For the key intersections, while the traffic impacts at 2030 are slightly worse relative to the predictions made in the EIS, the analysis continues to show that by 2030, all intersections will have experienced a reduced level of service as a result of background traffic growth. A number of intersections will have deteriorated to an unacceptable level of service (Level D or below) without mitigation, due to background traffic alone.
- > Mitigation measures in the form of intersection treatments are proposed to ensure the intersections' performance is returned to 'base level' at any point in time i.e. the performance of an intersection remains no worse than under background (without Moorebank) conditions.
- > The Response to Submissions report identifies intersection treatments that would be required, and by what date (as presented in Table 7.36 in section 7.11.2 of Chapter 7 – *Proposed amendments to the development* of the Response to Submissions report). Mitigation treatments would only be applied if an intersection is operating at level of Service (LoS) E or worse as a result of the Project traffic above the background growth and cumulative impacts by others. Treatments would not be recommended where the resulting LoS of D or above is achieved, even where performance has deteriorated as a result of the Project.
- > Indicative timing of these upgrades is presented in presented in the Response to Submissions report (Table 7.36 in section 7.11.2 of Chapter 7 – *Proposed amendments to the development*), based on current projections for background traffic growth and anticipated increases in container throughput (or 'ramp up') over time. However, in recognition of the uncertainties in actual throughput increases (due to factors such as future economic growth rates), any funding contribution of the IMT towards these upgrades would be based on the following circumstances:
 - That certain throughput levels at the terminal had been achieved. These throughputs are identified in Table 7.36 in section 7.11.2 of Chapter 7 – *Proposed amendments to the development* of the Response to Submissions report.
 - That it can be further demonstrated (as part of any subsequent planning approval stage) that the intersection performance would have deteriorated to a Level of Service E or worse (where previously operating at a LoS D or above) were it not for the implementation of the upgrades outlined in Table 7.36.
 - The impact of traffic from Project site, when fully developed and operating at full capacity, represents less than 3.3% of the total traffic already on the M5 Motorway during peak periods. The Project would therefore not have a substantial impact on the motorway operation.
- > The mid-block capacity analysis (examining the flow of traffic along the roads between intersections) shows that ratios for all mid-block road sections would continue to perform at similar levels to the base condition with the addition of Moorebank IMT traffic.
- Construction noise impacts are similar to those identified in the EIS. The deletion of the northern rail option removes some of the most severe noise impacts (at Casula). During peak construction (2016), when piling, excavation and compaction works are undertaken adjacent to the nearest residential receptors the predicted worst case noise levels trigger the requirement for construction noise mitigation to reduce potential levels by up to 12 dB(A) $L_{Aeq(15minute)}$. For concreting works, predicted noise levels trigger the daytime criteria by 3 dB(A) $L_{Aeq(15minute)}$ at the nearest receptors in Wattle Grove. Potential noise levels from heavy vehicles operating within the onsite haul roads are within the daytime criteria and would not require specific noise mitigation to reduce the predicted noise levels.

- Operational noise impacts associated with the amendments include:
 - > The container handling area at the IMEX terminal will be automated and so will not require audible alarms or beepers. Measured noise levels provided by the manufacturer of the rail mounted gantries (RMGs) are 10 dB(A) less when operated without the audible warning alarms. This has resulted in some improvements in noise impact relative to the EIS predictions.
 - > In the revised Project the need for a rail loop to manage the entry and departure of trains within the site has been removed, which will reduce the likelihood of wheel squeal noise from rains.
 - > During operation (Full Build), predicted noise levels comply with the daytime and evening noise criteria at all assessed receptors. Noise levels in the night-time are predicted to comply with the noise criteria at the majority of receptors. Exceedances of up to 4 dB are predicted at the northern extent of Casula and of 2 dB at the western extent of Anzac Road.
 - > During adverse weather conditions, predicted noise levels comply with the daytime and evening noise criteria at all assessed receptors in Casula, Glenfield and Wattle Grove with the exception of the western extent of Anzac Road, where noise levels are up to 2 to 3 dB above the daytime and evening noise criteria.
 - > Adopting the proposed noise mitigation measures would reduce predicted noise levels by at least 5 dB and would achieve compliance at all assessed receptors.
- Air quality – Predicted local air quality impacts show minor variances in modelled results compared to impacts predicted in the EIS. The predictive dispersion modelling demonstrates that concentrations of pollutants (TSP, PM₁₀, NO_x, CO, SO₂, benzene, toluene, xylene, 1,3-butadiene, acetaldehyde and polycyclic aromatic hydrocarbons) emitted would be below acceptable ambient air quality criteria and would not adversely affect the receiving environment. An exceedance of the annual average PM_{2.5} advisory reporting goal at R33 was predicted to occur due to cumulative concentrations during Full Build activities. While this receptor was relocated in 2014, it has been retained in the assessment for completeness. The likely future land use at R33 would be associated with the SIMTA project. The elevated ambient background is the key contributor to these exceedances.
- Human health - Predicted impacts on human health of the local community show very minor variation from impacts predicted in the EIS. In addition, the recommendations presented in the EIS in relation to mitigating impacts or enhancing health benefits remain unchanged. Some additional noise mitigation measures have been outlined and these should be considered in conjunction with other mitigation measures outlined in the relevant assessments.

The Response to Submissions report provided a revised set of environmental management measures to address the impacts associated with the Project and the Project's amendments (refer section 9.3 of Chapter 9 – *Revised environmental management measures* of the Response to Submissions report).

The environmental management measures have been further revised, but on the submissions received during exhibition of the Response to Submissions report. The updated management measures are provided in Chapter 7 – *Revised environmental management measures* of this report.

1.5 Strategic justification and need for the Project

Forecast growth in international and interstate freight movements through Sydney and increased industrial and commercial development in west and south-west Sydney have prompted government and industry to consider new strategies for alleviating constraints on freight. Insufficient intermodal rail freight capacity is recognised as a key barrier to the future development of Sydney and improvements in national productivity.

Sydney's need for additional IMEX and interstate IMT infrastructure is driven by the following factors:

- Continued strong growth in containerised IMEX freight, with growth averaging 7% annually over the last 15 years (NSW Government 2013), and forecast (by the Australian Government's Bureau of Infrastructure, Transport and Regional Economics (BITRE 2010)) to be a compound annual growth rate of 4.25% to 2030.
- The need to ease the bottleneck for containerised freight at Port Botany, which is a critical gateway for the movement of national freight – i.e. to cope with future growth in containerised freight, more freight needs to be moved to and from Port Botany by rail.
- The expected growth in containerised interstate freight moving through Sydney, which is forecast to grow at 3.6% a year over the next 20 years (BITRE 2010).
- Capacity constraints within the current and planned IMT network in Sydney.
- Increasing containerised freight demand in Sydney and interstate, with a significant amount of this demand focused on west and south-west Sydney, and strategic planning in the freight sector placing increasing emphasis on interstate rail transportation.
- Heavy road congestion around Port Botany and on the M5 Motorway, which is predicted to worsen with the anticipated growth in freight.
- The high social and environmental costs of road freight relative to rail and shipping.

If these issues are not addressed, they are predicted to add substantial costs to the national and regional freight supply chain, and would have wider economic and environmental impacts associated with road congestion in Sydney.

An IMT at Moorebank would respond to Sydney's need for more freight handling capacity as the Project would enable more containerised freight to be moved by rail. The Project is one of a number of IMTs required to manage the increased number of containers expected to come through Port Botany in the long term.

Chapter 3 – *Strategic context and need for the Project* (of the EIS) and Chapter 2 – *Assessment of the issues raised by the NSW Planning Assessment Commission* (of the Response to Submissions report) provided detailed discussion of market demand and the strategic context of the Project. Overall, it was demonstrated that:

- The market demand for rail freight in south-west Sydney is adequate to substantiate the need for a 1.55 million TEU p.a. IMT facility in the Moorebank precinct by 2030.
- The road network has the capacity to accommodate this growth, subject to a number of road network upgrades as identified in section 7.9.3 of the Response to Submissions report.

- The Project is in the public interest because its residual environmental impacts will be localised and managed but its benefits will be significant and widespread for the entire community (see further discussion in section 1.6).

1.6 Public benefits

The Project is in the public's best interest as its residual impacts will be localised and managed; however its benefits will be significant and widespread for the entire community. The benefits include a major contribution to jobs and productivity growth, supply chain efficiency and reduced congestion growth. The local community will receive a share of these benefits as well as a local benefits program. In addition, the public interest is also served by the IMT in terms of its contribution to government policy, the lack of suitable alternative sites; and the unique characteristics of the site which are not needed for other land uses but make it ideal for an IMT. While some local community members oppose the Project, the broader community interest is reflected by strong support from government and industry stakeholders.

Granting development consent for the Project in its entirety as proposed is therefore consistent with the public interest, which satisfies a key aspect of planning decision-making. A reduced throughput IMT would not deliver the strategic certainty, sustainable outcomes nor government objectives and would not be in the public interest.