



11 November 2019

## Moorebank Precinct West Stage 2 (SSD 7709)

### 1. INTRODUCTION

1. On 12 May 2019, the NSW Independent Planning Commission (**Commission**) received from the NSW Department of Planning, Industry and Environment (**Department**) a State significant development application from Sydney Intermodal Transport Alliance (**SIMTA**), as Qube Holdings Limited (**Applicant**), to develop the Moorebank Precinct West Stage 2 SSD 7709 (**MPW Stage 2 Development Application**).
2. The Commission is the consent authority for MPW Stage 2 under section 4.5(a) of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**) and clause 8A of the *State Environmental Planning Policy (State and Regional Development) 2011* (**SEPP SRD**). This is because:
  - MPW Stage 2 constitutes State significant development under section 4.36 of the EP&A Act as the Moorebank Precinct West has a Capital Investment Value in excess of \$50 million and is for the purpose of warehousing and distribution centres; and
  - the Department received objections from Liverpool City Council and more than 25 submissions from the public objecting to MPW Stage 2.
3. Professor Mary O'Kane AC, Chair of the Commission, nominated Dianne Leeson (Chair), Alan Coutts and John Hann to constitute the Commission determining the MPW Stage 2 Development Application.

#### 1.1 Site and locality

4. The Moorebank Intermodal Terminal Precinct is located at Moorebank Avenue, Moorebank, south of Liverpool (**Figure 1**) and is proposed to comprise an interstate, intrastate and port shuttle freight and logistics handling facility for the Sydney Metropolitan Area.
5. The Moorebank Intermodal Terminal Precinct is divided into two sites: Moorebank Precinct East (**MPE**) and Moorebank Precinct West (**MPW**). Moorebank Intermodal Precinct East - Concept Plan (MP10\_0193), granted on 29 September 2014 (**MPE Concept Plan**) is for an import/export port shuttle freight terminal with associated warehousing and estate works. Moorebank Intermodal Precinct West - Concept Proposal & Stage 1 Early Works (SSD 5066) (**MPW Concept Plan**), granted on 3 June 2016, is for an import/export port shuttle freight terminal and a separate interstate/intrastate freight terminal and associated warehousing and estate infrastructure and related works.
6. The Department's *Moorebank Precinct West Stage 2 State Significant Development Assessment (SSD 7709)* (**Department's Stage 2 Assessment Report**), dated May 2019, described the MPW site as (**MPW Project Site**):

*"The Moorebank Intermodal Precinct (also known as the Moorebank Intermodal Freight Precinct or Moorebank Logistics Park) is located at Moorebank Avenue, Moorebank, south of Liverpool, and is proposed to comprise an interstate, intrastate and port shuttle freight and logistics handling facility for the Sydney Metropolitan Area. The Precinct covers an area of approximately 303 hectares and extends from the M5 South Western Motorway and the Defence Joint Logistics Unit (DJLU) site in the north and north-east, to the East Hills Rail Line in the south. It is divided into two sites: MPW and MPE (Figure 1).*

Two separate concept approvals cover the MPW and MPE sites:

- A concept plan approval for MPW: an import/export (IMECX) port shuttle freight terminal and a separate interstate/intrastate freight terminal and associated warehousing and estate works (SSD 5066)
- A concept plan approval for MPE: an IMEX port shuttle freight terminal, rail link to the South Sydney Freight Line (SSFL) and associated warehousing and estate works (M 10\_0193)

The MPW site is irregular in shape, approximately 3 km from north to south and 960 m from east to west at its widest point, and covers an area of approximately 220 ha. It is situated between the Georges River to the west (with the SSFL running north-south to the west of the river); and Moorebank Avenue, the MPE site, densely vegetated Commonwealth Land (known as the 'Boot Land') and the DJLU site to the east. The Holsworthy Military Reserve is located south of the East Hills line".

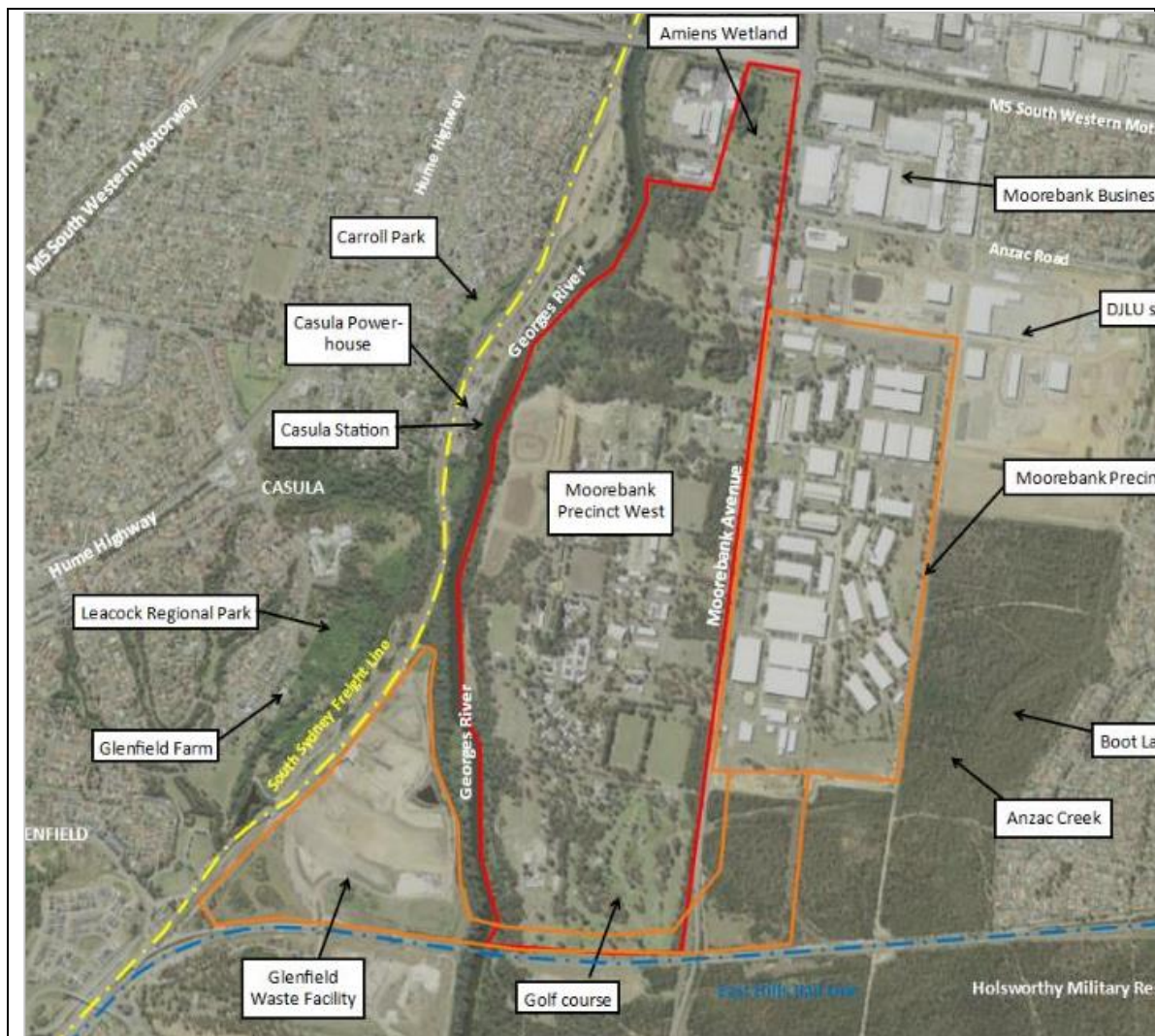


Figure 1: Site location Source: Department's Stage 2 Assessment Report

7. The Department's Stage 2 Assessment Report identified that the Project Site is "located within the following zones... under Liverpool LEP:

- IN1 General Industrial zone: 'Freight and transport facility', 'Warehouse or distribution

centres' and 'Flood Mitigation Works' are permissible with consent within the General Industrial zone

- E3 Environmental Management zone: 'Flood Mitigation Works' are permissible with consent within the Environmental Management zone
- SP1 Infrastructure zone: 'Roads' are included within the Infrastructure zone".

8. The MPW Stage 2 Development Application relates to the northern portion of the Project Site as set out in Figure 2.

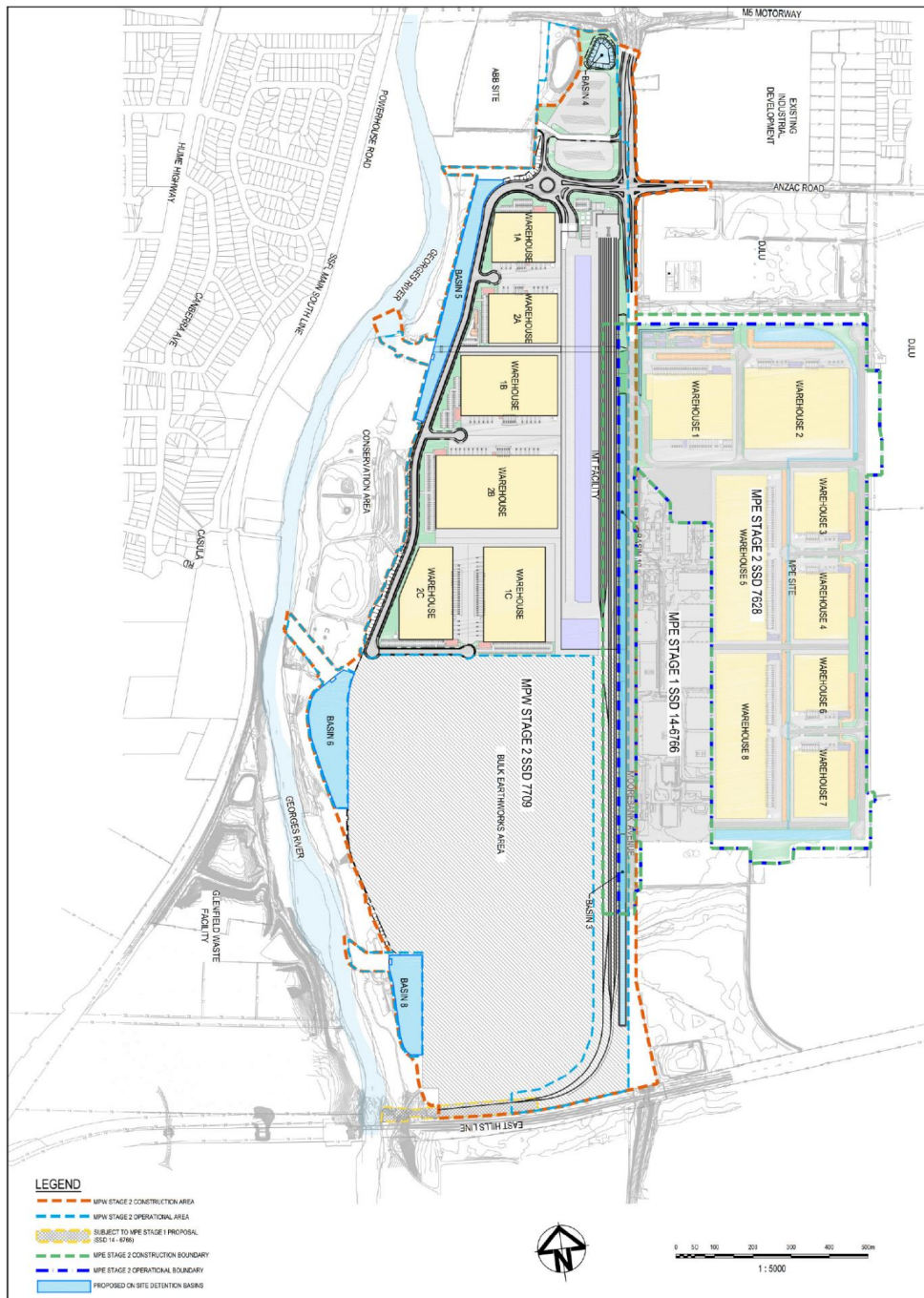


Figure 2: MPW Stage 2 project layout Source: Department's Stage 2 Assessment Report

## 1.2 Background to MPW Stage 2 Development Application

9. On 10 December 2015, the Moorebank Intermodal Precinct West - Concept Proposal & Stage 1 Early Works Stage 1 (SSD 5066) was referred to the then Planning Assessment Commission for determination under Ministerial delegation dated 14 September 2014.
10. The Department's *Major Project Assessment: Moorebank Intermodal Terminal Moorebank Avenue, Moorebank (SSD-5066)*, dated December 2015 stated that the MPW Concept Approval included:
  - “a port shuttle import / export (IMEX) terminal handling up to 1.05 million Twenty Foot Equivalent Units (TEUs (containers));
  - an interstate terminal handling up to 500,000 TEUs;
  - working freight rail tracks, freight storage tracks and container laydown/storage areas;
  - a rail link to the Southern Sydney Freight Line (SSFL) including a bridge across the Georges River;
  - warehousing of up to 300,000m<sup>2</sup> and support facilities including a freight village / service facilities for employees and users of the site; and
  - vehicle access from Moorebank Avenue.

The early works (Stage 1) proposal comprises:

- demolition of existing buildings;
  - rehabilitation of the former School of Military Engineering (SME) heavy machinery excavation/earthmoving training area;
  - remediation of contaminated land;
  - heritage impact remediation works (such as archaeological salvage); and
  - the establishment of construction facilities and access routes.”
11. On 3 June 2016, the then Planning Assessment Commission approved the MPW Concept Plan, subject to conditions of consent.
  12. On 14 May 2019, the Moorebank Intermodal Precinct West - Concept Proposal & Stage 1 Early Works Modification (SSD 5066 MOD1) (**MPW Concept Modification**) was referred to the Commission for determination.
  13. The Department's *Moorebank Precinct West Intermodal Terminal Facility Concept Plan Approval Modification (SSD 5066 MOD1) Assessment Report* proposed to modify the approved MPW Concept Plan to allow:
    - “Importation of approximately 1,600,000m<sup>3</sup> of clean fill for bulk earthworks within the site to raise existing ground levels generally by 2 to 3 m and up to 3.6 m in some locations
    - Expansion of the construction footprint to allow for Moorebank Avenue / Anzac Road intersection works
    - Transfer containers by heavy vehicles between the MPE IMT facility and MPW warehouse
    - Rearrangement of warehousing, freight village, internal roads and truck parking locations and layouts
    - Additional onsite detention (OSD) basin near the northern boundary of the site and the relocation to the west and enlargement of the southern OSD basin
    - Deletion of one of the two IMTs (the import/ export (IMEX) IMT, also described as the

*port shuttle rail freight IMT) and associated increase in the warehousing area*

- *Use of the interstate IMT (with additional rail track) for interstate, intrastate and IMEX freight*
- *Increase in building heights (relative to existing ground levels) as a result of raising the site*
- *Reduction in construction stages from four (excluding Early Works (Stage 1)) with potentially only two future development applications*
- *Ability to subdivide as part of a future development application”.*

14. On 30 October 2019, the Commission approved the MPW Concept Modification, subject to conditions of consent.

### **1.3 Summary of Development Application**

15. The Department's Stage 2 Assessment Report stated that the Development Application before the Commission proposes to develop “*Stage 2 of the approved MPW Concept proposal (SSD 5066). The proposal comprises:*

- *earthworks including the importation of 1,600,000 cubic metres (m<sup>3</sup>) of fill and vegetation clearing*
- *intermodal terminal (IMT) facility to accommodate 500,000 twenty-foot equivalent unit (TEU) container throughput capacity per annum*
- *container storage area*
- *rail link and internal road infrastructure*
- *215,000 square metres (m<sup>2</sup>) gross floor area (GFA) of intermodal warehouse use*
- *800 m<sup>2</sup> GFA freight village including retail use*
- *stormwater management infrastructure, including six onsite detention (OSDs) basins*
- *upgrade of Moorebank Avenue/Anzac Road intersection*
- *ancillary works including utilities installation/connection, signage and landscaping.”*

16. The proposed MPW Stage 2 project layout is set out at Figure 2.

17. The Development Application's consistency with the MPW Concept Modification is discussed below, at paragraphs 50-51.

### **1.4 Stated need for Development Application**

18. The Applicant's *Moorebank Precinct West - Stage 2 Proposal Environmental Impact Statement (SSD16-7709) (Development Application EIS)*, dated October 2016, stated:

*“The Proposal includes infrastructure which is critical to the on-going distribution of freight interstate, intrastate and throughout the Sydney Metropolitan Area. The Proposal also contributes considerably to a change in mode share (from road to rail) which would result in some positive benefits for the region.*

*Projected growth in trade volumes will lead to an increase in freight movements interstate, intrastate and across the Sydney Greater Metropolitan Area. This will pose substantial challenges for the supply chain which is currently dominated by road transport. To meet these challenges and to allow for increased use of rail, it is necessary to invest in new intermodal terminal capacity, to develop dedicated freight rail lines, to widen the orbital motorway network and ideally to complete the missing linkages in the current orbital motorway network, and to improve the rail interface at Port Botany”.*

## 2. THE DEPARTMENT'S CONSIDERATION OF THE DEVELOPMENT APPLICATION

### 2.1 Key steps in Department's consideration of the Development Application

19. The Department publicly exhibited the MPW Stage 2 Development Application and made the documentation publicly available on its website from 26 October 2016 - 25 November 2016. During the exhibition period, the Department received 125 submissions from members of the public, five from interest groups and seven submissions from public authorities. All members of the public who made a submission objected to the proposed development, as did two of the five interest groups.
20. A summary of the key issues raised in submissions to the Department during the exhibition period for the Development Application is provided in Figure 3.
21. The Department has prepared a development application assessment in respect to the MPW Stage 2 Development Application.
22. In addition to the public exhibition of the MPW Stage 2 Development Application, the Department also met with residents and representatives from local stakeholder groups at Liverpool City Library on 9 March 2017.

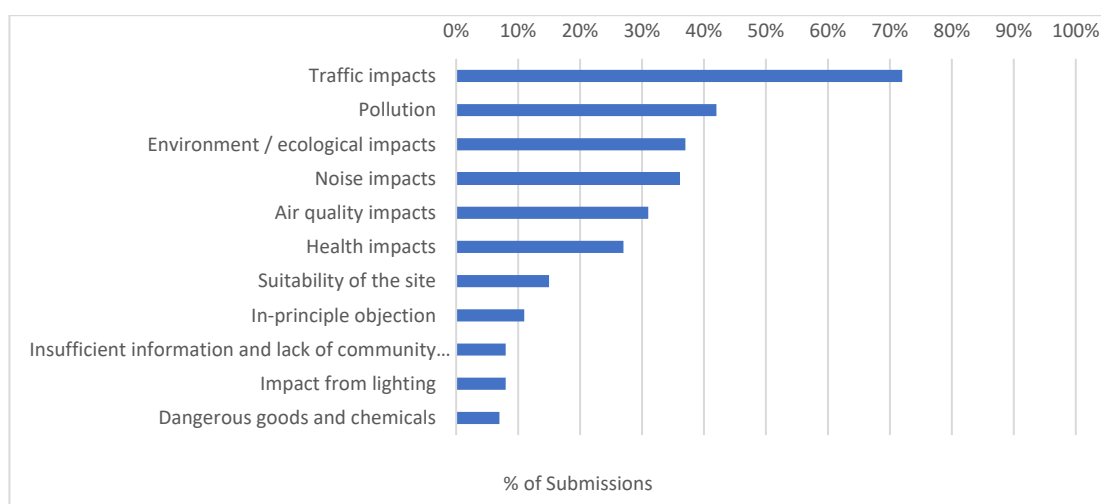


Figure 3: Summary of submissions by category Source Department's Stage 2 Assessment Report

### 2.2 The Department's Stage 2 Assessment Report

23. The Department's Stage 2 Assessment Report identified the key issues for the Development Application as:
  - consistency with the MPW Concept Modification
  - importation of fill
  - land uses and built form
  - soils and water
  - traffic
  - noise
  - air quality
  - biodiversity
  - contamination.

24. The Department's MPW Stage 2 Assessment Report identified that:

- “[t]he Department has carefully considered the proposed land use and built form of the proposal and considers that key design refinements are required to part [sic] (of) the development layout and landscape design. The Department has recommended conditions that modify some details of the development, including setback distances to surrounding land uses, and identified outcomes and objectives for landscaping enhancements and clear criteria for finalising the layout and landscape design”
- “the proposed stormwater and drainage design for the site must be enhanced in line with water sensitive urban design objectives. The Department has recommended a series of criteria for the final design of OSD basins, water detention and treatment, for assessment of the achievement of those objectives”
- “improvements to the road network, including the upgrade of the Anzac Road/Moorebank Avenue intersection upgrade, combined with road upgrades funded by the planning agreement with RMS, and improvements required under the MPE Stage 2 development consent, would ensure operational traffic impacts are managed acceptably”, and
- “noise impacts would be effectively managed through a construction noise and vibration management plan, and operational impacts would be managed to meet recommended, enforceable noise limits, with installation of a western noise wall ensuring modelled impacts are complied with. The Department is satisfied that performance requirements for IMEX locomotives enforced for MPE Stage 1 could be applied to similar locomotives accessing MPW Stage 2, and noise monitoring required for all trains”.

25. The Department's MPW Stage 2 Assessment Report concluded:

- “that the proposal has considerable strategic merit as an important element of future freight distribution in Western Sydney and the State broadly. As set out in the NSW Freight and Ports Plan, intermodal terminals within Greater Sydney are ‘critical for increasing the utilisation of the rail freight network, particularly containers to and from Port Botany’
- “The proposal is considered to provide public benefits as it would provide additional freight distribution capacity in Western Sydney and the State broadly, provide opportunities for increase transport of freight by rail between Port Botany and employment generating lands and communities in Western Sydney, and generate approximately 750 operational jobs and 1,100 construction jobs”, and
- “The Department considers that the recommended conditions of consent provide a comprehensive, strict and precautionary approach to ensuring the proposal can be constructed and operated in accordance with the requirements of Government policy and guidance, and residual impacts would be effectively managed.

*The Department considers the proposal is approvable, subject to the conditions of consent outlined within this report. This assessment report is hereby presented to the Commission for determination”.*

### **3. THE COMMISSION'S MEETINGS AND SITE VISIT**

26. As part of its determination, the Commission met with various persons as set out below. All meeting and site inspection notes were made available on the Commission's website.

#### **3.1 Meeting with the Department**

27. On 14 June 2019, the Commission met with the Department and discussed the history of the Moorebank Precinct East and West developments, the MPW Concept Modification, MPW Stage 2 Development Application and the assessment of impacts to traffic and road safety, noise and flooding and the application of water sensitive urban design principles. A copy of the meeting transcript was made available on the Commission's website on 20 June 2019.

### 3.2 Meeting with other agencies

28. On 2 July 2019, the Commission held a teleconference with NSW Roads and Maritime Services (**RMS**) to discuss the traffic modelling for the Moorebank Precinct, as well as the MPW Concept Modification, MPW Stage 2 Development Application, the nature of upgrades to the local and regional road networks and finalisation of the financial contribution. A copy of the transcript was made available on the Commission's website on 3 July 2019.
29. Due to a scheduling conflict Mr John Hann was unable to join the teleconference with RMS and reviewed the transcript in lieu of attendance.

### 3.3 Meeting with the Applicant

30. On 17 June 2019, the Commission met with the Applicant to discuss the MPW Concept Modification and MPW Stage 2 Development Application. The justification for the MPW Concept Modification, traffic impacts, noise impacts, project layout with reference to urban design and amenity, riparian corridor, stormwater design and flooding, staging of MPW and proposed amendments to the conditions of consent were the key topics discussed. A copy of the meeting transcript was made available on the Commission's website on 20 June 2019.
31. The Applicant provided a presentation, project figures and maps during the meeting. These documents were published on the Commission's website on 2 August 2019.

### 3.4 Site inspection

32. On 18 June 2019, the Commission conducted an inspection of the MPE and MPW site. This inspection included the northern boundary of the MPW Project Site, adjacent to the ABB Complex, the "dust bowl", the banks of the Georges River, identification of principal receivers, the rail crossing of the Georges River and Moorebank Avenue, and the import/export (**IMEX**) shuttle site on MPE.
33. Copies of the figures and maps tabled at the Commission's meeting with the Applicant were provided to the Commission. Summary notes of the site inspection were made available on the Commission's website on 12 September 2019.

### 3.5 Meeting with Liverpool City Council

34. On 25 June 2019, the Commission met with Liverpool City Council to discuss Council's historic objection to the Moorebank Precinct, concerns for the use of a large amount of identified zoned industrial land in the Liverpool Local Government Area, and concerns about cumulative traffic impacts from the development of the intermodal sites. Council provided copies of the Liverpool Industrial Employment Lands Study, dated 28 June 2016, and the *Draft Liverpool Industrial Land Study*, dated 2018. Both studies were published on the Commission's website on 15 July 2019. A copy of the meeting transcript was made available on the Commission's website on 26 June 2019.
35. Due to a scheduling conflict Mr John Hann was unable to join the meeting with Liverpool City Council and reviewed the transcript in lieu of attendance.

### 3.6 Public meeting

36. The Commission held a public meeting at the Brighton Lakes Golf Club, 43 Brickmakers Drive, Moorebank, NSW on 18 June 2019. A list of the 13 speakers that presented to the Commission was provided on the Commission's website. A transcript of the public meeting was made available on the Commission's website on 20 June 2019. Copies of all material tendered at the public meeting were also available on the Commission's website. All persons were offered the opportunity to provide written submissions to the Commission within seven days after the public meeting. A summary of issues raised by speakers at the meeting and in written submissions to the Commission is provided below.

37. The Commission accepted written comments/submissions up until 3 July 2019. A total of 29 submissions were received. All comments were made publicly available on the Commission's website.
38. In summary, the key issues of concern raised in oral and written submissions included the impacts of the MPW on traffic patterns and road safety, localised and downstream flood impacts, noise impacts to the local community, and air quality impacts, including associated community health impacts, from the development of the MPW site.

#### 4. ADDITIONAL INFORMATION

39. Correspondence from Roads and Maritime Services to Michael Yeind of Qube Holdings (the Applicant) dated 8 May 2018 was provided by the Department. The correspondence outlined key issues regarding traffic modelling that required resolution before RMS could advise the Secretary of the Department satisfactory arrangements had been made with regard to relevant State public road infrastructure.

The correspondence also outlined the value of a monetary contribution, calculated by RMS, required to ameliorate the scale of the traffic impacts from the development on the broader road network including key areas, intersections and arterial corridors such as the Liverpool-Moorebank study area, M5 Motorway, Hume Highway, Hoxton Park Road, Heathcote Road and Newbridge Road. This information was published on the Commission's website on 8 August 2019.

40. On 25 March 2019, the Department provided correspondence from Roads and Maritime Services detailing the execution of Voluntary Planning Agreement (VPA) by the Applicant and Roads and Maritime. The VPA is noted to include a monetary contribution to regional road upgrades to the value of \$48 million and the carrying out and dedication as public road of the proposed Moorebank Avenue Realignment. This information was published on the Commission's website on 8 August 2019.
41. On 19 July 2019, the Department provided an additional memorandum addressing the assessment of riparian vegetation, as it relates to a defined top of bank, and the staging considerations for the development of the MPW site. This information was published on the Department's website on 8 August 2019.
42. On 2 August 2019, the Commission requested additional information from the Department to clarify the interpretation of the Department's definition of "top of bank". This request was published on the Commission's website on 2 August 2019.
43. On 12 August 2019, the Commission wrote to the Department seeking confirmation of whether the Applicant's suggested amendments to the proposed conditions of consent for the MPW Concept Modification and MPW Stage 2 Development Application were considered as part of the Department's assessment of the respective projects. This request was published on the Commission's website on 15 August 2019.
44. On 14 August 2019, the Commission received a revised visual project description which identified the top of bank estimates as set out by the Applicant. The additional information included a calculation of what area of the MPW Project Site, in square metres would be impacted. This response was published on the Commission's website on 15 August 2019.
45. On 9 September 2019, the Department provided a memorandum which considered:
  - the Applicant's requested amendments to the proposed conditions of consent for the MPW Concept Modification and the Stage 2 Development Application, and
  - the Applicant's revised mapping relating to the top of bank and riparian corridor dated 14 August 2019.
46. Following a meeting with the Applicant on 2 October 2019 and further consideration of comments, the Department provided the Commission with amended conditions on 8 October

2019. The Department noted that these amendments enabled improved project outcomes and provided further clarification with respect to a number of the conditions. The Department concluded that the amended conditions improved project certainty for the Applicant, the consent authority and the community.

47. On 5 November 2019 correspondence was sent by the Commission to the Department outlining that the Commission had considered the revised conditions and accepted the Department's recommendations, with the exception of amendments to Condition B42, which related to stockpiling of fill, and Condition B84, which relates to timing of road upgrades. In the correspondence the Commission requested that *"wording for conditions B42 and B84 reverts to that of the original recommended conditions of consent as issued in the Department's referral pack of 14 May 2019"*.

## 5. THE COMMISSION'S CONSIDERATION

### 5.1 Material considered by the Commission

48. In this determination, the Commission has carefully considered a range of assessment documentation and prior approvals, in particular **(the material)**:
- the MPW Concept Plan
  - the MPW Concept Modification
  - the MPW Stage 2 Development Application
  - *Major Project Assessment; Moorebank Intermodal Terminal Moorebank Avenue, Moorebank (SSD-5066)*, dated 10 December 2015, and its accompanying appendices
  - *State Significant Development - Moorebank Intermodal Terminal Concept Plan, Liverpool LGA* dated 3 June 2016, prepared by the Planning Assessment Commission, and its accompanying appendices
  - the Concept Modification Report dated June 2016 and prepared by Arcadis, and its accompanying appendices
  - all public and government agency submissions on the Modification Report
  - the Concept Modification RtS, dated 5 December 2016, prepared by Arcadis and its accompanying appendices
  - all Government agency responses to the Concept Modification RtS
  - the *Moorebank Precinct West - Concept Modification Supplementary Response to Submissions - SSD 5066 MOD1 (Concept Modification Supplementary RtS)* dated August 2017, prepared by Arcadis
  - the *Moorebank Precinct West - Stage 2 Proposal Environmental Impact Statement – (SSD16-7709)* dated October 2016 (**Development Application EIS**), prepared by Arcadis, and its accompanying appendices
  - the *Moorebank Precinct West - Stage 2 Proposal Response to Submissions – SSD 16\_7709*, dated July 2017 (**Development Application RtS**), prepared by Arcadis and its accompanying appendices
  - the *MPW Stage 2 – Consolidated assessment clarification responses* dated 20 December 2018, (**Development Application Supplementary Response**) prepared by Arcadis and its accompanying appendices
  - the Department's Concept Modification Assessment Report and its accompanying appendices
  - the Department's Stage 2 Assessment Report and its accompanying appendices

- the Commission's meeting with the Department on 14 June 2019, including all tabled documents and figures
- the Commission's meeting with the Applicant on 17 June 2019, including all tabled documents and figures
- the Commission's meeting with Council on 25 June 2019, including all tabled documents and figures
- the Commission's meeting with RMS on 2 July 2019, including all tabled documents and figures
- oral presentations made to the Commission at the public meeting on 18 June 2019 and associated presentation documents, aids and other information
- the site and locality inspection conducted on 18 June 2019 and all information provided during the site inspection
- all public written comments to the Commission received after the public meeting on 18 June 2019
- the *Consolidated Response - Moorebank Precinct West Concept Proposal (SSD 5066 Mod 1) and Moorebank Precinct West Stage 2 (SSD 7709) Independent Planning Commission: Request for Additional Information*, dated 12 August 2019, (**Consolidated Response**) prepared by Aspect Environmental
- the Department's *Moorebank Precinct West Concept MOD 1 and Stage 2 – Response to Commission's requests*, dated 9 September 2019.

## 5.2 Mandatory considerations

49. In determining the MPW Stage 2 Development Application the Commission has taken into consideration the following relevant mandatory considerations, as provided in s 4.15 of the EP&A Act (**mandatory considerations**):
- the provisions of all:
    - environmental planning instruments
    - proposed instruments that are or have been the subject of public consultation under the EP&A Act and that have been notified to the Commission (unless the Secretary has notified the Commission that the making of the proposed instrument has been deferred indefinitely or has not been approved)
    - development control plans
    - planning agreements that have been entered into under s 7.4 of the EP&A Act, and draft planning agreements that a developer has offered to enter into under s 7.4, and
    - the Environmental Planning and Assessment Regulations 2000 (**Regulations**) to the extent that they prescribe matters for the purposes of s 4.15(1) of the EP&A Act, that apply to the land to which the Application relates
  - the likely impacts of the MPW Stage 2 Development Application, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality
  - the suitability of the site for development
  - submissions made in accordance with the EP&A Act and Regulations, and
  - the public interest.

### 5.3 Consistency with the Moorebank Precinct West Concept Plan

50. The Department's Stage 2 Assessment Report identified that the MPW Concept Modification and MPW Stage 2 Development Application were concurrently assessed by the Department. To this end, the Department *"has assessed the MPW Stage 2 application in accordance with the Department's final recommendations for the proposed Concept modification"*.
51. The Commission notes the Department's approach to concurrently assessing applications because as set out in the Commission's MPW Concept Modification Statement of Reasons, dated 30 October 2019, the Concept Modification does not significantly change MPW Concept Plan.

### 5.4 Relevant Environmental Planning Instruments

52. The Department's MPW Stage 2 Assessment Report provided consideration and assessment of the Environment Planning Instruments (**EPIs**) that apply to the MPW Stage 2 Development Application. The following EPIs were identified as relevant to the Department's Stage 2 Assessment Report:
  - *State Environmental Planning Policy (State & Regional Development) 2011 (SRD SEPP)*
  - *State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)*
  - *State Environmental Planning Policy No. 44 – Koala Habitat Protection*
  - *State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)*
  - *State Environmental Planning Policy No. 64 – Advertising Structures and Signage (SEPP 64),*
  - *Draft State Environmental Planning Policy (Remediation of Land)*
  - *Draft State Environmental Planning Policy (Environment) and*
  - *Liverpool Local Environmental Plan 2008 (Liverpool LEP).*
53. With regard to *State Environmental Planning Policy (State & Regional Development) 2011 (SRD SEPP)* the Department's Stage 2 Assessment Report stated that:
  - *"The proposal is SSD under section 4.36 (development declared SSD) of the (EP&A Act) as the development:*
    - *Has a CIV (capital investment value) in excess of \$30 million (\$533,000,000) and comprises railway freight terminals and associated railway infrastructure for the purposes of container packing, storage or examining, which is identified as SSD under clause 19 of Schedule 1 of (SRD SEPP).*
  - *In accordance with Clause 8A of the SRD SEPP and section 4.5 of the EP&A Act, (the Commission) is the declared consent authority as:*
    - *Liverpool City Council has made an objection*
    - *There are more than 25 public submissions objecting to the proposal"*.
54. With regard to *State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)* the Department's Stage 2 Assessment Report stated:
  - *"The development constitutes traffic generating development in accordance with clause 104 of the Infrastructure SEPP as it comprises a freight transport facility and warehouse and distribution centre. The Infrastructure SEPP requires traffic generating development to be referred to RMS for comment.*

*The application was referred to RMS in accordance with the Infrastructure SEPP. Comments raised by RMS are outlined in Section 5. Due to the nature and scale of the*

development, the Applicant is required to make satisfactory arrangements to contribute to the provision of relevant State public infrastructure for development application. During the assessment period, the Applicant entered into a voluntary planning agreement with RMS to make a cash contribution of \$48 million to regional road upgrades, and upgrade Moorebank Avenue south of the entrance to MPE freight terminal or relocate Moorebank Avenue to the east of the MPE site (subject to a future planning application).”, and

- “The development is located within the vicinity of an electricity transmission or distribution network and in accordance with clause 45 of the Infrastructure SEPP, the development must be referred to the relevant electricity supply authority for comment.

The application was referred to Endeavour Energy in accordance with the Infrastructure SEPP. No submissions was [sic] received. As part of its assessment, the Department sought confirmation that the Applicant had consulted with Endeavour Energy. Appendix E of Attachment P of the Consolidated Assessment Clarification Responses outlines consultation, regarding finalising designs for works in the Endeavour Energy easement”.

55. With regard to State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) the Department’s Stage 2 Assessment Report concluded that:

“The proposal is therefore consistent with the Infrastructure SEPP given the consultation and consideration of the comments from the relevant public authorities. The Department has included suitable conditions in the recommended conditions of consent”.

56. With regard to State Environmental Planning Policy No. 44 – Koala Habitat Protection the Department’s Stage 2 Assessment Report stated that:

“SEPP 44 aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.

The Department has considered impacts to Koala habitat in its review of the updated March 2019 BAR. The Department has recommended conditions requiring the Applicant to prepare a Koala Management Plan prior to construction, that includes:

- habitat corridors, of adequate dimensions to provide an adequate Koala habitat corridor as supported by a Koala specialist, to provide connectivity both within the Intermodal Precinct area and with other core koala habitat areas (i.e. to the south and to the west along Georges River)
- commitment to retain Koala use trees on site in line with phased earthworks
- details of structures to eliminate barriers to movement (presented by fences, roads, drainage culverts or pits, rail lines and the like) for koalas and other native fauna likely to use the site or habitat corridor
- details on koala habitat rehabilitation/ restoration within the identified habitat corridors
- other measures to minimise the risk of harm to koalas

Subject to these conditions, the Department considers that the proposal would be consistent with the objectives of SEPP 44”.

57. With regard to State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) the Department’s Stage 2 Assessment Report stated that:

“SEPP 55 aims to provide a state-wide approach to the remediation of contaminated land. In particular, SEPP 55 aims to promote the remediation of contaminated land to reduce the risk of harm to human health and the environment by specifying under what circumstances consent is required, specifying certain considerations for consent to carry out remediation work and requiring that remediation works undertaken meet certain standards....

A full assessment of contamination issues associated with the proposal is provided in

Section 6.9 of this report. The Department has included detailed specific conditions for finalising remediation and a Site Audit Statement. The Department is satisfied that, subject to the implementation of the recommended conditions, the site can be made suitable for its proposed industrial/commercial land use”.

58. With regard to State Environmental Planning Policy No. 64 – Advertising Structures and Signage (SEPP 64) the Department’s Stage 2 Assessment Report stated that:

*“SEPP 64 applies to all signage that under an EPI can be displayed with or without development consent and is visible from any public place or public reserve...*

*Under clause 8 of SEPP 64, consent must not be granted for any signage application unless the proposal is consistent with the objectives of the SEPP and with the assessment criteria which are contained in Schedule 1 of the SEPP.*

*...the Department has recommended conditions requiring backlight and illuminated signage not to be visible from residential receivers. Signage generally would be outlined in the revised architectural plans for the site, to be submitted for approval prior to construction.*

*Subject to these conditions, the Department considers that the proposal would be consistent with the objectives and assessment criteria outlined in the SEPP.”*

59. With regard to the Liverpool LEP, the Department’s MPW Stage 2 Assessment Report stated that:

*“The Liverpool LEP aims to encourage the development of housing, employment, infrastructure and community services to meet the needs of the existing and future residents of the Liverpool LGA. The Liverpool LEP also aims to conserve and protect natural resources and foster economic, environmental and social well-being.*

*The Department has consulted with Council throughout the assessment process and has considered all relevant provisions of the Liverpool LEP and those matters raised by Council in its assessment of the development... The Department concludes the development is consistent with the relevant provisions of the Liverpool LEP”.*

60. With regard to EPIs set out in paragraph 52, the Department’s Stage 2 Assessment Report stated that the *“Department has undertaken a detailed assessment of these EPIs in Appendix B and is satisfied the application is consistent with the requirements of the EPIs”*

61. The Commission agrees with the Department’s assessment, as set out in paragraph 52-60, and finds that the MPW Stage 2 Development Application would be consistent with the relevant EPIs, because:

- the EPIs identified in paragraph 52 were considered as part of the approval of the MPW Concept Plan, including the recently approved modification (Mod 1), and, as set out in paragraphs 52 - 60, the MPW Stage 2 Development Application
- the MPW Stage 2 Development Application is consistent with the objectives of the site’s IN1 General Industrial Zone, as defined in the Liverpool LEP
- the Department has provided appropriate conditions with respect to remediation of land, koala habitat, traffic impacts and advertising signage and structures.

## **5.5 Proposed Environmental Planning Instruments**

62. The Department’s Stage 2 Assessment Report identified the following proposed EPIs as being relevant to the MPW Stage 2 Development Application:

- *Draft State Environmental Planning Policy (Remediation of Land) (Draft Remediation SEPP)*
- *Draft State Environmental Planning Policy (Environment) (Draft Environment SEPP)*

63. The Department's MPW Stage 2 Assessment Report concluded that the Development Application was consistent with the Draft Remediation SEPP because:

- *"The Draft Remediation SEPP will retain the overarching objective of SEPP 55 promoting the remediation of contaminated land to reduce the risk of potential harm to human health or the environment... [and] will require all remediation work that is to be carried out without development consent, to be reviewed and certified by a certified contaminated land consultant". Therefore the Department found that it "is satisfied that the proposal will be consistent with the objectives of the Draft Remediation SEPP"*

The Department's MPW Stage 2 Assessment Report concluded that the Development Application was consistent with the Draft Environment SEPP because:

- *"The Draft Environment SEPP is a consolidated SEPP which proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property.....Given that the proposal is consistent with the provisions of the existing SEPPs that are applicable, the Department concludes that the proposed development will generally be consistent with the provisions of the Draft Environment SEPP."*

64. The Commission accepts the Department's assessment, as set out in paragraphs 62-63 and finds that the MPW Stage 2 Development Application would be consistent with the relevant draft EPIs, because the development is consistent with the overarching provisions of the existing contaminated land, water catchment, waterways and urban bushland SEPPs.

## 5.6 Relevant Strategic plans

65. The Department's MPW Stage 2 Assessment Report identified three strategic plans as relevant to the MPW Stage 2 Development Application. These plans are:

- Infrastructure NSW's *Building Momentum: State Infrastructure Strategy 2018 – 2038 (2018)*,
- Transport for NSW's *Future Transport Strategy 2056 (2018)* and associated *NSW Freight and Ports Plan (2018)*, and
- Greater Sydney Commission's *A Metropolis of Three Cities – the Greater Sydney Regional Plan (2018)* and associated *Western City District Plan (2018)*.

66. With regard to *Building Momentum: State Infrastructure Strategy 2018 – 2038 (INSW 2018)*, the Department's MPW Stage 2 Assessment Report stated:

*"The Moorebank Intermodal is identified as an 'important freight and logistics precinct' in Building Momentum: State Infrastructure Strategy 2018-2038 (INSW 2018). The Strategy indicates that the terminal is one of the 'highest priority investments necessary to achieve a target of carrying 40 per cent of containerised traffic on rail to and from Port Botany'. The Government supports the Strategy's recommendation that it pursue a strategy to alleviate existing congestion on the road network around the site".*

67. With regard to Transport for NSW's *Future Transport Strategy 2056 (2018)* and *NSW Freight and Ports Plan (2018)*, the Department's MPW Stage 2 Assessment Report stated:

*"The Future Transport Strategy 2056 (Transport for NSW 2018) emphasises the need for safe, efficient and sustainable movement of freight, and sets a series of future directions for investigation. Importantly, one such direction is to expand intermodal rail capacity in Western Sydney. This is a theme investigated further in the subsequent NSW Freight and Ports Plan (Transport for NSW 2018), which concludes that intermodal terminals within Greater Sydney are 'critical for increasing the utilisation of the rail freight network, particularly containers to and from Port Botany, and commits to investment in rail and road upgrades to support the Moorebank Intermodal".*

68. According to the Department's MPW Stage 2 Assessment Report, the *Greater Sydney Commission's A Metropolis of Three Cities – the Greater Sydney Regional Plan* identified that:

*"freight volumes are forecast to 'almost double in the next 40 years' and 'increasing importance [is being] placed on 24/7 supply chains to maintain Greater Sydney's global competitiveness".*

69. Similarly, the *Western Sydney District Plan* noted that:

*"As the Western City District develops, opportunities to improve freight network efficiencies, including a Western Sydney Fuel Pipeline to Western Sydney Airport, will become increasingly important. The District must also connect port and airport activities, linking Western Sydney Airport, Moorebank Intermodal Terminal and a potentially expanded container port at Port Kembla via the Outer Sydney Orbital..."*

*Investment in potential dedicated freight corridors will allow a more efficient freight and logistics network. Moorebank Intermodal Terminal is currently under construction in western Sydney, and will provide an integrated service including interstate terminals, warehousing, retail and service offerings, and rail connection to the Southern Sydney Freight Line, which also provides dedicated freight rail access all the way to Port Botany. Transport for NSW and the Australian Government are committed to supporting efficient movement of goods close to the Moorebank Intermodal Terminal by facilitating freight rail and road access".*

70. The Commission has reviewed the MPW Stage 2 Development Application with regard to relevant strategic planning documents, as set out in paragraphs 65-69. The Commission considers that the MPW Stage 2 Development Application, is consistent with targets and principles of these strategies because the MPW Stage 2 Development Application will enable the development of MPW, providing an important precinct to facilitate the storage and distribution of freight through Port Botany and to both intrastate and interstate receivers, and facilitating an increase in the rail share of freight transport in NSW.

## **5.7 Likely impacts of the development on both natural and built environments of MPW Stage 2**

### **5.7.1 Traffic impacts**

#### *Public and Council comments of traffic impacts*

71. The Commission heard concerns from Council, speakers at the public meeting, and received written comments regarding the impacts of MPW Stage 2 Development Application on local and regional traffic patterns and road safety. These concerns included the impact of the significant increase in heavy vehicle movements to service the operational facility, uncertainty in relation to the timing and extent of road upgrades and the lack of transparency about, and suitability of, the traffic modelling undertaken by the Applicant and RMS, as well as the proposed extension to construction hours.

#### *Applicant's consideration of traffic impacts*

72. The Applicant undertook an assessment of potential construction and operational traffic impacts generated by the Development Application.

#### Construction-related traffic impacts

73. With regard to construction-based traffic associated with the Development Application the Applicant stated in the Development Application EIS that for:

*"the construction assessment it was determined the number of truck movements would vary between 6 and 740 truck movements a day (i.e. 1,480 trips) per day), depending on the construction works period. ...The analysis of the scenarios found that a Level of Service*

(LoS) of B or C, representing good to satisfactory operating conditions, would be maintained at the key intersections of the M5 Motorway / Moorebank Avenue and Moorebank Avenue / Anzac Road during the AM and PM peak hours. A Preliminary Construction Traffic Management Plan (PCTMP) has been prepared to outline traffic management measures that would be adopted, and further considered as part of the preparation and implementation of the CEMP and CTMP for the construction of the Proposal”.

74. The Applicant's Development Application RtS identified that “[o]ut-of-hours activities are required to reduce impacts on the AM and PM peak periods thereby reducing impacts associated with traffic. Activities have been selected and restricted to ensure compliance with the NSW EPA Interim Construction Noise Guidelines (ICNG), i.e. not propose any works that would impact on the surrounding land uses above the relevant criteria”.
75. This was further reiterated during the meeting with the Commission where, as set out in the provided transcript, the Applicant identified that the extension of construction hours would serve to distribute construction vehicle movements outside of “peak” traffic periods. This increase was identified as a method of managing heavy vehicle contributions to peak hour traffic volumes on the local and regional road network.

#### Operational traffic impacts

76. The Applicant's Development Application EIS identified that:

*“The operational traffic impact analysis determined that the Proposal would generate 1,458 truck movements (2-way) per day, of which approximately 95 percent are expected to arrive or leave between 6 AM and 10 PM. Operational traffic controls have been prescribed to prevent heavy vehicles travelling along Anzac road, Moorebank Avenue (south of the Proposal site entrance) or through the suburb of Wattle Grove to access the Proposal site. Operation of the Proposal would also generate approximately 2,670 car movements (2-way) to and from the Proposal each week day, with approximately 40 percent of trips made during the peak AM and PM periods. Approximately 18 percent of employee car traffic generated by the Proposal would travel to the Proposal site via Moorebank Avenue from the north, while approximately 22 percent and 31 percent would travel to the Proposal site via the M5 Motorway from the east and west, respectively. A further 18 percent would access the site via the Hume highway before linking with the M5 Motorway. 8 percent and 3 percent of employee car trips would reach the Proposal site via Anzac Road to the east and Moorebank Avenue from the south, respectively. Outbound traffic movements would typically reflect the reverse of inbound movements...”*

*Overall, it is concluded that the Proposal (and cumulative scenario including the Proposal) would result in only marginal traffic impacts to the surrounding road network in the presence of mitigation and management measures. The analysis shows that with the exception of the Moorebank Avenue/Anzac Road intersection, all of the key intersections within the study area would require upgrades to manage existing and projected background traffic volumes before the addition of the traffic generated by the Proposal.”*

77. The Applicant's Development Application EIS identified that an upgrade to the intersection of Moorebank Avenue/Anzac Road has been negotiated with the NSW RMS and that a “Preliminary Operational Traffic Management Plan (POTMP) has been prepared to identify the management strategies to minimise traffic impacts associated with operation of the facility and would be finalised prior to operation of the Proposal”.
78. The Applicant's Operation Traffic Impact Assessment, submitted with the Development Application RtS, considered the operational traffic impacts of the Development Application reflecting amendments made to the MPW as part of the Development Application RtS. This assessment concluded that “the Amended Proposal would result in consistent impacts to those already identified and assessed as part of the existing OTTIA. Therefore, the outcomes and recommendations of the assessment undertaken for the OTTIA are still relevant and appropriate for the assessment of the Amended Proposal”.

### *The Department's and NSW Government agencies' consideration of traffic impacts*

79. The Department's assessment of the MPW Stage 2 Development Application identified that traffic impacts would occur in two distinct categories: construction traffic and operational traffic.

#### Construction-related traffic impacts

80. With regard to construction traffic, the Department's Stage 2 Assessment Report stated that the:
- *"majority of heavy vehicle movements (during construction) are associated with the importation of approximately 1,600,000 m<sup>3</sup> of fill to deliver the site levels envisaged in the development plans. Due to the large volume of heavy vehicle movements, the Applicant committed to only receiving 22,000 m<sup>3</sup> of fill per day across a cumulative scenario (this sum also includes fill importation for MPE Stage 2). To ensure compliance with this commitment, a condition has been recommended to ensure heavy vehicle movements are managed in accordance with the 22,000 m<sup>3</sup> importation limit".*
  - *"Applicant's modelling indicates that the predicted traffic volumes can be catered for within the existing capacity of the road network.... The Department accepts this assumption and considers construction traffic can be managed through the above restriction on importing fill and the implementation of a construction traffic management plan which would include details of access and parking arrangements and heavy vehicle routes. In addition, the Application would require RMS approval to install temporary traffic controls, including detours and signage, and the use of Cambridge Avenue would be prohibited for heavy vehicles. The Department considers that through the implementation of these recommended conditions, and other conditions relating to stockpile management and disturbance of land.... heavy vehicles movements can be managed appropriately".*
81. The Department's Stage 2 Assessment Report stated that *"it is important to set clear limits on construction hours .... While the Applicant has requested extended construction hours for fill importation, the Department accepts the recommendations of the independent reviewer and the EPA, that construction take place within standard construction hours, as further justification is needed for extended hours. The Department recommends limiting construction hours to 7am to 6pm Monday to Friday, and 8am to 1pm on Saturdays, with highly noise intensive works to be completed in maximum three hour blocks between 8am to 5pm Monday to Friday, and 8am to 1pm on Saturdays. Consistent with other major projects, the Department considers that approval could be given to out-of-hour works in accordance with a protocol approved as part of the construction noise and vibration management plan, if further justification was developed at a later time".*

#### Operational traffic impacts

82. The Department's Stage 2 Assessment Report identified roads upgrades consistent with the MPW Stage 1 and subsequent MPE developments. The principal intersection *"upgrades identified to cater for the cumulative traffic generated at the MPW and MPE sites are the following:*
1. *Moorebank Avenue / Anzac Road: signalised intersection;*
  2. *M5 Motorway / Moorebank Avenue: additional capacity for on and off ramps, widen Moorebank Avenue and increase storage lengths (north bound – right turn movements);*
  3. *M5 Motorway / Hume Highway: improve traffic signal operations during peak times;*
  4. *Moorebank Avenue / Newbridge Road: additional right turn lane from Moorebank Avenue and improve traffic signal operations;*

5. *Moorebank Avenue / Heathcote Road: extend right turn lane from Moorebank Avenue south approach and change the signal to vehicle actuation in the PM peak to improve traffic signal operations; and*
  6. *M5 Motorway / Heathcote Road: improve traffic signal operations.”*
83. The Department’s Stage 2 Assessment Report identified that at the time of writing the Applicant was finalising a voluntary planning agreement (**VPA**) with the NSW RMS to address local and regional impacts to the road network. The Department stated that:
- “The Department acknowledges that submissions on the draft VPA as exhibited, including from Liverpool City Council, questioned the adequacy of the Applicant’s contribution. However, the Department accepts advice from Roads and Maritime Services that the VPA would ensure that the Applicant makes appropriate contributions towards the provision of relevant State public infrastructure for the proposed development.*
- The Department understands the monetary contribution will assist in funding identified upgrade works, while the Applicant would be responsible for upgrade or future realignment of Moorebank Avenue. Though the VPA includes a potential relocation of Moorebank Avenue, this component does not form part of this proposal and would be subject to separate assessment and approval under the EP&A Act. Should the relocation of Moorebank Avenue not proceed, the VPA requires the Applicant to undertake upgrade works (Moorebank Avenue south of the Anzac Road intersection) under the MPE Stage 2 approval”.*
84. The Department’s Stage 2 Assessment Report concluded *“that operational traffic impacts are manageable subject to the planning agreement and upgrade of the Moorebank Avenue/Anzac Road intersection (site access).”*

*Commission’s consideration of traffic impacts*

85. During the meeting with NSW RMS, as set out in paragraph 28, it was confirmed:
- that a range of road upgrades would be required to manage the expected traffic impacts from developing MPW and that responsibility for delivering these upgrades was divided between RMS and the Applicant
  - both parties have entered into a Planning Agreement that requires the Developer to make Development Contributions in connection with the proposed MPW Stage 2 development and the Moorebank Intermodal Precinct West Development as a whole for the purpose of providing contributions towards relevant State public infrastructure, namely State and regional roads, and
  - RMS supported in principle moving heavy vehicle traffic out of “peak” traffic periods but noted that this needed to be considered against the potential noise and traffic impacts to the local community.
86. Commissioners also sought clarification from RMS about the traffic modelling. In response RMS noted:
- that the development of the model was led by RMS, with support from the Applicant and MIC (Moorebank Intermodal Company), as the model needed to examine that impacts of the whole Moorebank Intermodal Precinct and produce traffic generation forecasts for both MPE and MPW, and
  - that it had therefore been peer reviewed by three separate organisations.
87. The Commission acknowledges the public and Council submissions and concerns regarding the traffic modelling undertaken by the Applicant and RMS. The Commission considers that the modelling provides a representative assessment of the expected construction and operational traffic-related impacts and accepts the conclusions of RMS, as set out in paragraph 86 regarding the applicability of the traffic modelling.

88. The Commission notes that RMS and the applicant have entered into a Voluntary Planning Agreement and accepts RMS' view that the Agreement *"provides satisfactory arrangements for the Developer to contribute to the provision of State and regional roads infrastructure"*.
89. The Commission accepts the assessment and conclusions of the Department, as they relate to construction traffic, and outlined in paragraph 81 because the traffic related impacts have been appropriately assessed with the identified likely impacts mitigated and managed through reasonable and appropriate conditions.
90. The Commission acknowledges the views of RMS, as set out in paragraph 85, that shifting traffic loads out of "peak" periods *"would be beneficial for the overarching network"*. However, RMS also acknowledged that *"given the adjoining residents... additional hours and noise would be... a big concern, and ... you certainly wouldn't want increased truck – uncontrolled truck movements of a night if you could avoid it."*
91. The Commission therefore agrees with the conclusion of the Department that while shifting traffic to non-peak periods can be beneficial, additional information and justification is required as part of Construction Traffic and Access Plans before this extension to operating hours can be considered.
92. The Commission agrees with the conclusion that of the Department, as outlined in paragraph 84, that operational traffic impacts are manageable subject to the planning agreement and the upgrade of the Moorebank Avenue/Anzac Road intersection.
93. On 5 November 2019 the Commission sent correspondence to the Department outlining that the Commission had considered the revised conditions B84 regarding the timing of road infrastructure upgrades and did not accept the proposed amendment. The Commission formed the view that the timing of investment in road infrastructure upgrades as outlined in the unamended condition B84 provided greater benefit and certainty for the community.
94. The Commission finds that the construction and operational traffic-related impacts of the MPW Stage 2 Development Application are acceptable because:
  - while construction traffic will increase to facilitate the importation of fill to raise the MPW Project Site, this increase can be managed through proposed road upgrades and the conditioned Construction Traffic and Access Plans
  - the Applicant has negotiated an appropriate financial contribution, through a VPA with RMS, to undertake road upgrades to address likely impacts to the regional road network, and
  - the operational traffic is largely consistent with the assessed and approved operation traffic impacts considered as part of the assessment of the MPW Concept Plan.

### **5.7.2 Site Elevation, Revised Layout and Construction Staging**

#### *Public and Council comments*

95. The Commission heard concerns from Council, speakers at the public meeting, and received written comments regarding MPW Stage 2 Development Application's visual impacts, layout and design, impacts on riparian corridors and construction staging. These concerns included the significant deviation from the approved MPW Concept Plan as a result of the importation of up to an additional 1,600,000m<sup>3</sup> of fill to elevate the MPW Project Site prior to the approval of modification to SSD 5066, the differences between the Applicant and the Department with respect to revising the site layout as a result of the calculation of riparian corridors and stormwater infrastructure design, and staging of construction.

#### *Applicant's consideration*

##### Site Elevation

96. The Proposal includes the importation of 1,600,000m<sup>3</sup> of fill to raise the Project Site. The Applicant's Development Application EIS notes:

- *Construction of the Proposal would require vegetation clearing and the importation and placement of large amounts of fill material to level and raise the site, which has the potential to lead to erosion and generate sediment laden runoff into the Georges River, thereby impacting water quality. The majority of the Proposal site has been assessed as having a low erosion potential, however, works within the vicinity of the Georges River and Anzac Creek would have high erosion potential and would be managed accordingly.*
97. At its meeting with the Commission and during the site visit, refer to paragraphs 30 and 32, the Applicant advised that, based on its experience in managing the MPE Project Site and the detailed design of the MPW Project Site, it had identified a need for the MPW Project Site to be elevated to allow for the effective management and drainage of stormwater:
- *“to get drainage to work where we have the requirement to manage stormwater levels on paved areas to keep them out of warehouses”*
  - *“to get the ... grade in the drainage lines to get to the OSDs where the biofiltration sits”*
  - *“the preference of drainage being underground rather than above, and maintaining a grade”.*

In the Applicant's view the site *“needs to have this level adjustment to be able to adequately deal with stormwater for an industrial precinct”.*

#### Revised Layout - Riparian Corridor

98. In the MPW Stage 2 Development Application RtS, the Applicant notes that *“the riparian corridor is approximately 40 metres wide at its narrowest point at a single location between the northern boundary of the riparian corridor and the northern-most basin outlet. The rest of the 2.1km long riparian corridor is greater than 50 metres wide, and is up to 290 metres wide in some locations... It is also noted that at its narrowest point, vegetation is already cleared to within approximately 30 metres of the river's edge, and the Proposal will not clear any native vegetation that is currently within 40 metres of the Georges River”.*
99. Additionally, the Applicant provided a Consolidated Response to the Commission's Request for Further Information, dated 2 August 2019. The Consolidated Response identified that:
- managing riparian zones and associated setbacks as set out in Condition B2 would result in a loss of 31,032m<sup>2</sup> of developable area
  - the cumulative application of condition B2 in addition to other conditions such as amendments to batters for OSD basins and potential provision of a Koala corridor would *“further reduce the developable area”.*
100. The Applicant concluded by stating that *“the Applicant's view is that the impacts of most of these other recommended conditions can be effectively managed under the proposed amendments to the recommended conditions... in other cases the cumulative application of conditions would further reduce the developable area, though this figure would not be quantifiable until after Planning Secretary approval of relevant management plans and supporting documentation”.*

#### Revised Layout - Landscaping

101. The October 2018 plans submitted by the Applicant identify that *“22% of the MPW Stage 2 site (excluding the future Stage 3 warehousing area) will be landscaped, including 15% soft landscaping including areas along access roads and the rail connection, and 7% of the site covered by OSDs (including non-vegetated batters)”.*
102. In a meeting with the Commission, the Applicant noted that *“the OSD basins aren't permanent detention basins, so they don't have water sitting in them the entirety of the time. In the absence of water sitting in them, they are open space with vegetation in the bottom of them, and we don't see why that can't be considered as soft landscaping. Even with water, it still provides an ameliorative effect for landscape design and an urban heat island, and it*

*has been considered and accepted as part of that quantification for MPE Stage 2”.*

103. At the same meeting the Applicant sought some flexibility in landscaping requirements noting that *“there’s other alternatives to it than having trees. An example from Stage 2: we proposed, for the condition that requires us to have landscape bays, that we would have soft landscaping, porous pavements that could be driven over – so you still have access to the parking bay; you still have a tree at the end of that bay, but the surface itself is considered soft landscaping – and that was rejected by the Department”.*
104. The Applicant sought amended conditions to ensure consistency with those imposed on the neighbouring MPE Stage 2 consent (SSD 7628) and to include the OSDs within the minimum landscaping requirements.

#### Construction staging

105. The Applicant undertook an assessment of the impacts associated with a single construction stage for the development as it relates to other areas of identified potential impacts, such as stormwater quality and traffic impacts.
106. During the meeting with the Commission, as set out at paragraph 30, the Applicant identified that the staging of the construction of MPW in accordance with the conditions proposed by the Department, in particular with reference to defined terms of “earthworks” and “construction” would limit the flexibility required to:
- manage the importation of the identified fill material, and
  - manage the overall progress of the construction of MPW.
107. The Applicant noted that *“what we believe is that if we’re restricted to only opening 65 hectares at once, then we should... be able to stage reports that reflect we’ve now completed the stabilisation works and earthworks on that 65 hectare lot, then we should be able to progress with the other management plans that are in place”.*
108. During the meeting with the Commission and a subsequent submission, the Applicant also identified amendments to the proposed conditions of consent which they considered would achieve the identified level of flexibility to ensure efficient construction of the Development Application, noting the Applicant’s experience in managing similar impacts on the MPE Project Site.
109. In a meeting with the Department on 2 October 2019 the Applicant sought to vary Condition B42 and increase the length of time (beyond 6 months) stockpiling of imported fill was permitted before placement.

#### Department’s consideration

##### Site Elevation

110. The Department’s Stage 2 Assessment Report identified that *“as part of its review of the MPW Concept modification, that the Department recommended that the concept for raising of the site should be permitted. However, the Concept requires the specific environmental impacts of those works to be assessed further as part of this proposal.*
- The Department has considered the impacts of imported fill as part of its holistic assessment of the construction impacts of the proposal”.*
111. The Department’s Stage 2 Assessment Report assessed the off-site visual impacts associated with the Development Application as a result of raising the Project Site by up to 3.6 metres and identified the *“proposal would result in visual impacts at off-site viewpoints, particularly to the west of the site”.*
112. The Department’s Stage 2 Assessment Report also noted that *“the raising of the site, warehousing and lighting infrastructure (the tallest fixtures onsite) are likely to be more visible. Warehouses and light poles would be visible above existing canopy trees, though it is accepted that this would have been the case if the proposal was built at grade.*

*As the Department concluded for MPE Stage 2, the industrial character of the MPW Stage 2 proposal, its substantial scale and extent, and the current lack of satisfactory onsite landscaping and amenity, would result in the development — in its current proposed form — creating large areas of hardstand area and a large expanse of warehouse roofs and walls.”*

113. The Department’s assessment of the MPW Concept Modification which applies to MPW Stage 2, recommended Condition 19B which states *“The total volume of uncompacted fill to be imported must not exceed 1,600,000m<sup>3</sup> unless it can be demonstrated in a future Development Application that the proposed finished surface level of any filled section of the site does not exceed 16.6 m AHD”.*

Revised Layout - Riparian Corridor

114. The Department notes that the requirement to protect a riparian corridor west of the Project Site was established under the MPW Concept Modification consent. The Concept conditions of consent include a future environmental assessment requirement for the Applicant to provide a riparian corridor with a minimum width of 40 metres measured from top of bank as well as a requiring demonstration that bushfire asset protection zones do not impact on the Georges River Riparian Corridor.
115. The Department’s Stage 2 Assessment Report set out the importance of the riparian vegetation. The Department stated:
- *“As part of the MPW Stage 1 approval the Applicant is required to maintain a minimum 40 metre riparian corridor along the western bank of the Georges River. The Department understands that parts of the riparian corridor would be impacted due to the placement and location of OSD basins and outlets.... The Department acknowledges that the riparian corridor provides a key fauna connectively element and the 40 metre buffer was intended to maintain biodiversity values. Due the importance of the riparian corridor, the Department has required the Applicant to reconfirm the proposed western site boundary with reference to a clearly defined riparian corridor, and design the outlet channels associated with the detention basis to maintain fauna connectivity...”*
  - *“The Department considers that any riparian corridor must encompass key constraints to development on riverfront, such as the 1% AEP flood extent. The Department does not accept that the Applicant has comprehensively demonstrated that its proposed riparian corridor protects key environmental constraints...”*
116. The Department notes that *“the purpose of the riparian corridor is to protect key environmental values such as biodiversity, connectivity and soil and bank stability, along the banks of the Georges River”* and therefore *“there would be unacceptable uncertainty in applying a flat 40m buffer from the edge of the river bank given:*
- *the complexities in defining ‘top of the bank’;*
  - *it is unclear whether all environmental constraints are now encompassed in the proposed riparian corridor (as they were in the Concept RtS corridor), such as flood levels*
  - *the need to protect key State significant biodiversity values”.*
117. The Department therefore recommends conditions of consent that *“require the riparian corridor to comprise both:*
- *A buffer zone to the most inland of:*
    - *40m from the top of the bank as surveyed by a registered surveyor, or*
    - *The 1% AEP flood extent, plus*
  - *An additional 10 m extension to the buffer zone established above, where native vegetation is located on or within 10m east of the buffer”.*
118. As part of the revised conditions submitted to the Commission on 8 October, the Department

noted that Condition B189 “gives effect to recommended Concept condition E24A, which requires: ‘All future Development Applications must demonstrate that bushfire asset protection zones do not impact on biodiversity offset areas and the Georges River riparian corridor’ and reflect the requirements of Condition B2.

*It may be appropriate to allow an area of reduced bush fire fuel within the riparian corridor where that would not impact on the corridor, but further information would be needed to verify significant vegetation is not impacted. An alternate form of this condition has been drafted that would allow for a verification process to occur”.*

As such the Department recommended amendment of B189 to allow for asset protection zones in the riparian corridor “*within areas greater than 40m from top of bank as determined in accordance with condition B2 where evidence is provided to the satisfaction of the Planning Secretary that riparian vegetation, and any trees over 3 m in height, will be retained.*”

#### Revised Layout - Landscaping

119. The Department considers that “*it is important that the site allows for efficient movements of freight to, from and within the intermodal and warehousing areas, and unencumbered hardstand and road access is provided across the site. However, the Applicant has not provided a fully integrated landscape design*”.
120. The Department therefore “*recommended a series of design criteria to inform revised landscape layout to be submitted as part of a refined Urban Design development report. The criteria have been developed to address concerns raised during the assessment, including by the GA NSW*”.
121. The Department’s Stage 2 Assessment Report concluded that the “*Department has carefully considered the proposed land use and built form of the proposal, and considers that key design refinements are required to part of the development layout and landscape design. The Department has recommended conditions that modify some details of the development, including setback distances to surrounding land uses, and identified outcomes and objectives for landscaping enhancements and clear criteria for finalising the layout and landscape design.*”
122. Following a meeting with the Applicant on 2 October 2019 and further consideration of comments, the Department provided the Commission with amended conditions on 8 October 2019. These included amendments to Condition B68 regarding minimum landscaping requirements.
123. Construction Staging
124. The Department’s Stage 2 Assessment Report noted that “*the Applicant’s proposal; envisages earthworks across the entire MPW site, to enable construction of the intermodal terminal, the warehousing, freight village and estate works, as well as to establish a raise level base for future development of the southern end of the Site (as part of a future Stage 3 development)*”.
125. The Department expressed concerns that “*major earthworks could continue throughout the southern part of the site, and stockpiling continue indefinitely, without any clear timing for MPW Stage 3*” and therefore recommended “*that the earthworks should be conducted in phases that are proportionate to what is needed to support construction proposed for MPW Stage 2*”.
126. The Department’s Stage 2 Assessment Report identified that the potential impacts associated with importing fill to the Project Site were closely associated with the consideration of the impacts to visual amenity, changes in air quality and stormwater management at MPW. These issues are discussed further in sections 5.7.2 Site Elevation 5.7.3 Hydrological Impacts, Flooding and Stormwater and 5.7.5 Air Quality respectively.
127. The Department’s Stage 2 Assessment Report identified that the Department “*supports the*

*Applicant's commitment that all material would be clean general fill that would meet the definition of virgin excavated natural material (VENM) or excavated natural material (ENM). While the source of the fill has not been specified by the Applicant, geotechnical reports submitted as part of the EIS are based on bore-log data from spoil from WestConnex M4 East. Further, the Applicant has noted the potential availability of sandstone spoil material from tunnel excavation that may not require crushing onsite before placement. Notwithstanding, the Applicant does seek approval for rock crushing onsite during construction".*

128. The Department's Stage 2 Assessment Report concluded that:

- the recommended conditions would facilitate required development layout, landscaping and stormwater and drainage improvements by establishing clear objectives and criteria, and requiring updated plans to be endorsed by the Secretary prior to construction. Impacts on amenity and the surrounding environment would be managed in accordance with performance-based criteria, and comprehensive requirements for detailed management plans and protocols that would ensure the proposal can be constructed and operated in accordance with the requirements of Government policy and guidance, and residual impacts would be effectively managed"*

Following a meeting with the Applicant on 2 October 2019 and further consideration of comments, the Department provided the Commission with amended conditions on 8 October 2019. These included a revision of Condition B42 and amendments to the definition of low-impact works. These amendments sought to allow for an increase to the maximum 6 month period in which stockpiling of imported fill was permitted before placement, to a maximum of two years with approval of the Planning Secretary; and allow for activity as a low impact work to take place prior to construction.

#### *Commission's consideration*

##### Site Elevation

129. The Commission accepts the conclusions of the Department that *"recommended conditions of consent prescribe the following layout and landscaping improvements to be incorporated into a revised development layout plan. The Department considers that, taken together, these design refinements would assist in reducing the bulk and scale of the site from off-site viewing points"*.
130. The Commission notes that the issue of site elevation was considered as part of the MPW Concept Modification. As part of that consideration, the Commission accepted the Department's conclusions that *"although the elevation of the MPW Project Site will alter the potential impacts associated with developing the MPW, there is suitable justification for elevating the site to improve the management of impacts associated with MPW, in particular stormwater, and changes in the potential impacts can be appropriately mitigated and managed"*.
131. Based on the information provided, the Commission finds that the impacts of raising the site, including fill importation are acceptable and necessary to facilitate the construction and operation of the Development Application. The Commission finds the conditions proposed by the Department are likely to manage impacts associated with the importation of fill and raising of the Project Site.

##### Revised Layout - Riparian Corridor

132. The Commission acknowledges the importance of retaining an appropriately defined and protected area of riparian vegetation on the Project Site. The Commission also acknowledges the difference in limits set by the Department and those proposed by the Applicant regarding delineating the extent of protected riparian vegetation on the Site. However, given that the Department's limit will result in only a minor reduction on developable area across the site (3 ha out of 220 ha) the Commission agrees with the

conditions proposed by the Department.

133. The Commission has considered the assessment and identification of riparian vegetation as presented by the Applicant and Department. The Commission considers that based upon the current approved warehousing limits of MPW as a whole, that it will not result in an unreasonable reduction in developable area.
134. Therefore, the Commission agrees with the Department's recommendation "*that the riparian corridor is set out in the Development layout plans that must inform the final design of the proposal, and must be finalised prior to the commencement of construction to ensure no works occur in the corridor*".

#### Revised Layout - Landscaping

135. The Commission acknowledges the importance of achieving good urban design outcomes, including for industrial sites. Accordingly, the Commission considers that the design principles for Water Sensitive Urban Design, the recommended planting and landscaping requirements and consideration of ameliorating the urban heat island effect are important aspects in achieving this outcome.
136. The Commission acknowledges that incorporating some aspects of the design principles contained within the Department's proposed conditions of consent are likely to impact site layout and reduce the total developable area of MPW, as described in the Applicant's Consolidated Response. However, the Commission considers that this reduction in developable area represents a small proportion of the total developable area and is sufficiently distributed across the Project Site as a whole to limit the overall impact of this reduction to the construction and operation of MPW.
137. On 5 November 2019 the Commission sent correspondence to the Department outlining that the Commission had considered the revised conditions and accepted the proposed amendments to Condition B68.

#### Construction Staging

138. The Commission acknowledges the importance of establishing an effective and efficient staging strategy for the construction of Stage 2 of MPW.
139. The Commission accepts the Department's views that staging of development in line with demonstrated stabilisation of disturbed and raised areas of the Project Site is a practical and reasonable method for managing the development of the Project Site, proximity to riparian corridor and vegetation as well as the uncertainty of timing for MPW Stage 3. The Commission considered suggestions by the Applicant about alternative approaches to provide more flexibility to construction staging through no limit to the area of the site that can be developed at any one time.
140. However, the Commission accepts the Department's conclusion that a maximum limit on land disturbance and land filling activities of 65 hectares provides a significant work face. This would mean that approximately one third of the site could subject to vegetation clearing, stockpiling of fill and active land filling activity at any one time.
141. On 5 November 2019 the Commission sent correspondence to the Department outlining that the Commission had considered the revised condition B42 regarding the duration of stockpiling. The Commission formed the view that the current limits to stockpiling were suitable given that the Department's assessment of stockpiling impacts was limited to a period of up to six months only.

### **5.7.3 Hydrological impacts, flooding and stormwater**

#### *Public and Council comments of hydrological impacts and flooding*

142. The Commission heard concerns from Council, speakers at the public meeting, and received written comments regarding the impacts of the changes to hydrology across the MPW Project Site and potential for downstream flooding impacts. These concerns included the

offsite impacts of substantially increasing the hard stand area, inadequacy of the proposed stormwater management system and concerns for downstream flooding impacts.

*Applicant's consideration of hydrological impacts and flooding*

143. The Applicant undertook a *Stormwater and Flooding Environmental Assessment*, prepared by Arcadis, as part of the Development Application EIS to assess the impacts on stormwater and flooding risk from the construction and operation of the Development Application.
144. The Applicant's Development Application EIS identified that during the construction of MPW Stage 2:
- *"The progressive nature of works, vegetation clearing and compaction of soil upon disturbed land can lead to an increase in surface water flow volume and velocity across the site, presenting a high risk of erosion, surface scouring and scouring of water channels, as well as the transportation of sand, silt and clay off-site into adjacent vegetation and waterways"*
  - *"there is potential for sediment to be eroded and deposited downstream into either Georges River or Anzac Creek, in the absence of appropriate control measures. The mobilisation of sediments and pollutants has the potential to reduce the suitability of aquatic environments for some aquatic flora and fauna species"*
  - *"raising of the Proposal site, would have the potential to cause flooding impacts on surrounding properties during a significant rainfall event, in the absence of flood management measures. Flood risk to nearby properties and to the site itself may occur through the failure of existing or temporary water containment measures, or through a rainfall event exceeding that for which the controls for construction activities were designed to protect. The risk of regional flooding for a storm event up to the 100 year ARI or PMF event is considered negligible for all construction works outside of the Georges River riparian corridor".*
145. The Applicant's Development Application EIS identified that the operation of MPW Stage 2 could result in:
- *"Changes in stormwater quantity are predicted as a result of the Proposal, due to a general increase in areas of impervious surfaces".*
  - *"the potential to reduce stormwater quality as stormwater falling on the increased impervious surface of the Proposal operational area would have the potential to carry pollutants such as litter, sediments and nutrients used as fertiliser".*
146. The Applicant's Development Application EIS identified a range of mitigation measures which would be contained in a Soil and Water Management Plan and Erosion and Sediment Control Plan, or equivalent. The Development Application EIS stated that the:
- "Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP), or equivalent, would be prepared for the Proposal. The SWMP and ESCPs would be developed in accordance with the principles and requirements of the Blue Book and based on the Preliminary ESCPs provided in the Stormwater and Flooding Assessment Report (Appendix R of this EIS)".*
147. The Applicant's Development Application RtS stated that as part of the design development process amendments to the stormwater management system were identified. These amendments included:
- *"the need for an OSD storage along the eastern boundary of the MPW site to improve the drainage of the Proposal site and the surrounding land uses was identified. As a result, an OSD (Basin 10) is proposed to be provided along the eastern boundary of the Proposal site and is the same as the 'western OSD' identified and included as part of the MPE Stage 2 Proposal (SSD 7628)".*

- *“Relocation of temporary Basin 3A (renamed to Basin 3 in its proposed relocated position) to between the Rail link connection and Moorebank Avenue in the southeastern portion of the Proposal site”*
  - *“that the outlet channels can have some reduction in width without compromising the overall drainage requirements and operational maintenance of the Proposal”.*
148. The Applicant’s Development Application RtS stated that for the construction and operation of the MPW Stage 2 Development Application the *“mitigation measures outlined in MPW Concept Approval and Section 12.5.2 of the EIS are considered adequate to address impacts associated with the Amended Proposal and additional measures are not proposed”.*

*Department’s consideration of hydrological impacts and flooding*

149. The Department’s Stage 2 Assessment Report identified that the MPW Stage 2 Development Application’s *“proposed final form of the development would divide the site into a number of catchments for surface water overland flows and stormwater management. The catchments direct flows to one of five onsite detention basins, or bypass culverts or pipes, which ultimately discharge to the Georges River to the west of the site through four outlets. The OSD basins combine stormwater detention and stormwater treatment...”*
150. The Department’s Stage 2 Assessment Report identified that Alluvium was commissioned to undertake an independent expert review of the Applicant’s proposed permanent stormwater management systems, and management of stormwater during construction.
151. The Department identified that the *“independent review report raised a number of key issues with the proposed stormwater system for the overall MPE and MPW precinct including:*
- *that concrete lined drainage channels with high vertical sides are inconsistent with current practice and not appropriate*
  - *requests for clarification regarding modelling of pre- and post-development flows*
  - *issues with community safety and financial sustainability [i.e. substantial maintenance requirements and cost] of long-term operation and maintenance of the onsite detention basins [due to their proposed use for stormwater treatment].”*
152. The Department’s Stage 2 Assessment Report stated that *“the Applicant has revised the drainage design of the MPW Stage 2 project to provide batter slopes on most, but not all, of the OSD basin sides, and remove works in the Georges River associated with the discharge outlets. The outlet channels would be constructed using more naturalistic rock structures/boulders than the previously proposed gabion walls, and some additional upstream water treatment devices would be incorporated across the site. The revised plans also incorporate some additional provision for landscaping within the site.”*
153. The Department’s Stage 2 Assessment Report identified residual concerns relating to:
- *“concerns with the Applicant’s proposed stormwater design fundamentally relate to the need to better demonstrate water sensitive urban design (WSUD). RMS’s Water Sensitive Urban Design Guideline (May 2017) notes that WSUD is a ‘term given to the replication of natural processes into treatment of water in a constructed environment and is relevant to all built environments from highly urbanised to rural settings’. WSUD improves environmental performance by capturing pollutants and slowing flow rates before stormwater is discharged off site and contributes to the quality of the built environment”.*
  - *“the design and maintenance requirements of the OSD basins, which are large in size and are proposed to have a dual stormwater retention and stormwater treatment purpose. To serve both purposes, the Applicant proposes to plant ‘filter media’ (i.e. plants to remove nutrients in the surface water) in the OSD basins”.*

154. The Department's Stage 2 Assessment Report identified that changes would be required to ensure the final design of the stormwater management system is updated to achieve enhanced outcomes for the site. The Department recommended that the Applicant submit updated stormwater design drawings prior to construction, incorporating the key stormwater design principles, set out in Table 10 of the Department's Stage 2 Assessment Report, addressing the recommended design principles for water sensitive urban design, as well as updating details of significant infrastructure such as maintenance access to the OSD basins.
155. To ensure that potential hydrological impacts and flooding impacts on the Project Site can be appropriately managed and mitigated, the Department has also recommended conditions to develop and implement a:
- *"Stormwater Infrastructure Operation and Maintenance Plan. The Plan, similar to that required for MPE Stage 2 upon operation, would stipulate regular inspections (including after major rainfall events), water quality monitoring, and quarterly reporting to the Department on maintenance and inspections, and annual independent auditing of the performance of the system".*
  - *"Stormwater Quality Monitoring Program. This program would require collation of baseline data, and would set sampling locations, monitoring requirements and assessment criteria for water quality at the OSD basins, and outlets to the Georges River".*
156. The Department's Stage 2 Assessment Report concluded that *"the proposed stormwater and drainage design for the site must be enhanced in line with water sensitive urban design objectives. The Department has recommended a series of criteria for the final design of OSD basins, water detention and treatment, for assessment of the achievement of those objectives"*.
157. Following a meeting with the Applicant on 2 October 2019 and further consideration of comments, the Department provided amended conditions on 8 October 2019. These included amendments with respect to the timing of provision of the Stormwater Design Development Report and Revised Stormwater System Design Drawings and the design of the OSD Basins. These conditions allow some earthworks to commence prior to the submission of reports and drawings and amend the requirement of Condition B13 for the OSD outlets to have a maximum batter slope of 1V:4H.

#### *Commission's consideration*

158. The Commission accepts the conclusions of the Department, as outlined in paragraphs 149-157 above, as they are largely consistent with the assessment of impacts provided by the Applicant and are considered by the Commission to result in a better hydrological outcome for the MPW Project Site.
159. The Commission acknowledges the importance of careful consideration of the interaction between the proposed landform, as discussed at Section 5.7.2 of this statement, and the realised hydrological outcomes associated with the change in elevation of the MPW Project Site.
160. The Commission considers that the recommendations set out by the Department, described at paragraphs 153-155, relating to achieving the objectives of water sensitive urban design are important in ensuring an appropriate outcome for managing the hydrology of the MPW Project Site and also ensuring potential stormwater impacts are managed adequately.
161. The Commission has considered the assessment and identification of appropriate design and placement of the required OSD basins, as presented by the Applicant and Department. The Commission considers that based upon the current approved warehousing limits of MPW Project Site as a whole, that the Department's recommendations in relation to situating the OSD basins outside of the surveyed riparian corridors will not result in an unreasonable reduction in developable area.

162. The Commission finds that, subject to the amended conditions of consent recommended by the Department and the provision of suitable information supporting redesign of the stormwater management systems, the likely hydrological and stormwater impacts associated with the MPW Stage 2 Development Application are acceptable.

#### 5.7.4 Noise Impacts

##### *Public and Council comments*

163. The Commission heard concerns from Council, speakers at the public meeting, and received written comments regarding the noise impacts from the construction and operation of MPW. These concerns included a significant increase in industrial noise locally and associated adverse health impacts.

##### *Applicant's consideration*

164. The Applicant undertook a *Noise and Vibration Impact Assessment* as part of the MPW Concept Approval which “established background ambient noise levels and noise management levels (NMLs) at key receivers in Casula, Wattle Grove and Glenfield (refer Figure 8-1) by utilising 20 months of noise monitoring data from the MPW site and surrounding areas”.
165. The Applicant’s *Noise and Vibration Impact Assessment* stated that “[n]oise levels at the assessed receivers were predicted to mostly comply with the adopted NMLs, for which no additional noise mitigation is anticipated. All daytime construction works are predicted to comply with NMLs with the exception of piling works that may impact nearby receivers in Casula, Wattle Grove and Glenfield. Activities undertaken at these sites in conjunction with worst case background levels may trigger the potential requirement for noise mitigation.
166. The Applicant’s Development Application EIS stated that:
- “Operational noise levels are anticipated to increase throughout its progressive development phases, and varied at various receptors depending on the proximity of each receiver to prominent noise sources (e.g. trucks transporting containers, side picks, in-terminal transport vehicles and rail freight)”
  - “Rail noise from the operation of the Rail link connection is expected to comply with the RING [Rail Infrastructure Noise Guideline] criteria.”
  - “Road traffic noise from the MPW Project on the M5 Motorway, Moorebank Avenue and Anzac Road is expected to either comply with or have a negligible exceedance of the RNP noise criteria during the daytime and night-time at the nearest receptors, and therefore would not trigger a requirement for road noise mitigation”.
167. The Applicant’s Development Application EIS identified that “a noise wall approximately five metres high would be installed along part of the western boundary of the site”
168. The Applicant’s Development Application RtS provided additional assessment of noise impacts through the *MPW Stage 2 Responses to Submissions Addendum Impact Assessment – Noise*, dated May 2017 (**Addendum Noise Assessment**). The Addendum Noise Assessment identified that:
- “some increased construction noise impacts at sensitive receivers due to the construction of the Amended Proposal. However, the additional impacts do not result in any additional exceedances of the established NMLs over that presented in the EIS NVIA. Accordingly, the conclusions and recommended mitigation measures in the EIS NVIA relating to construction noise impacts from the Proposal, remain unchanged”.
  - “Comparison of the predicted operational noise levels for the Amended Proposal with the predicted operational noise levels for the Proposal as assessed in the EIS demonstrates that the Amended Proposal would have a very small effect on operational noise levels at sensitive receivers”.

169. The Addendum Noise Assessment concluded that MPW Stage 2:

*“would result in consistent operational noise impacts to those already identified and assessed as part of the existing NVIA. Therefore, the outcomes and recommendations of the assessment undertaken for the NVIA are still relevant and appropriate for the assessment of the Amended Proposal.*

*Additionally, this assessment concludes that the Amended Proposal would result in some additional construction noise impacts to those already identified and assessed as part of the existing NVIA due to the extended duration of construction works, additional plant and works being carried out closer to sensitive receivers. However, the outcomes and recommendations of the assessment undertaken for the NVIA are still relevant and appropriate for the assessment of the Amended Proposal”.*

#### *Department’s consideration of noise impacts*

170. The Department’s Stage 2 Assessment Report included an independent review, prepared by EMM Consulting, of the noise assessment undertaken by the Applicant. The independent review identified that “[a]llowing for some enhancement due to adverse weather during standard hours, impacts are not expected to be significant at most locations. The 1 dB exceedance shown for the residences of Casula however will be exacerbated during adverse weather. Hence, feasible and reasonable mitigation and management measures should be adopted during the noisiest activities (eg. bulk earthworks, drainage and utilities)”.

171. The Department’s Stage 2 Assessment Report identified that during construction “changes to works at the Moorebank Avenue/Anzac Road intersection would increase construction noise impacts at receivers in Wattle Grove, but that the predicted noise level would remain within the noise management levels”.

172. The Department’s Stage 2 Assessment Report identified that “some uncertainty persists regarding the assessment of noise impacts based on undefined machinery placement. However, this uncertainty can be resolved in development of the Construction Noise and Vibration Management Plan. To resolve this prior to construction, the Department has recommended that the Construction Noise and Vibration Management Plan identify work area, site compounds, internal access routes, and the type and number of plant and equipment on site, and reconfirm construction activities predicted to exceed noise management levels.”

173. The Department’s Stage 2 Assessment Report identified that the “road traffic assessment concludes that predicted increased road noise impacts on routes to and from the site would be limited to 0.3 dBA (day and night), at Moorebank Avenue, north of M5 Motorway. In accordance with the NSW Road Noise Policy, increases in impacts of less than 2 dBA are considered to represent ‘a minor impact that is considered barely perceptible to the average person’”.

174. The Department’s Stage 2 Assessment Report identified the potential for rail noise associated with increased use of the rail link Southern Sydney Freight Line and the MPW intermodal facility, which would be connected to MPW. The Department stated in the Stage 2 Assessment Report that “the rail link is approved under the MPE Stage 1 development consent, that consent includes a comprehensive suite of conditions relating to rail operations and noise.... The Department considers that these controls form a strong basis for regulating the increased use of the rail link by this proposal”.

175. The Department’s Stage 2 Assessment Report identified a range of conditions to monitor, mitigate and manage the potential noise impacts associated with the construction and operation of the MPW Stage 2 Development Application. These conditions include:

- setting compliance-based operational noise limits, based on predicted noise levels as measured at sensitive receivers
- requiring construction of a 5 m noise wall along the length of the western internal road

- a series of rail controls for MPW controls consistent with the controls implemented for the MPE Stage 1 development consent.
176. The Department's Stage 2 Assessment Report concluded that *"noise impacts would be effectively managed through construction noise and vibration management plan, and operational impacts would be managed to meet recommended, enforceable noise limits, with installation of a western noise wall ensuring modelled impacts are complied with. The Department is satisfied that performance requirements for IMEX locomotives enforced for MPE Stage 1 could be applied to similar locomotives accessing MPW Stage 2, and noise monitoring required for all trains"*.
177. The Department's Stage 2 Assessment Report noted that *"Following receipt of the RtS, the Applicant advised the Department that it seeks flexibility in delivering or not delivering the proposed noise wall."*

*The Department considers it is important that the Applicant's commitment to the Noise wall as exhibited as part of the EIS is confirmed as a condition of any consent.....(As) the Department considers that:*

- *The noise wall was clearly included in the project as exhibited*
- *The noise wall was modelled and relied upon by the Applicant as a key noise mitigation measure, notwithstanding this minor exceedances were predicted at Casula*
- *It is important that this key element of the project design is retained in order to uphold a commitment identified in the proposal as exhibited in the EIS*
- *The Applicants request for the 24/7 operations on the MPW site further warrants upholding of this commitment."*

As such the Department's Stage 2 Assessment Report recommends Condition B129 which requires the installation of a Noise Wall.

#### *Commission's consideration of noise impacts*

178. The Commission acknowledges the Applicant's assessment, as set out in paragraphs 164-169, which modelled noise impacts to largely be below identified noise limits, as per the relevant guidelines. When exceedances have been identified, the level of exceedance is noted as being small and unlikely to be perceptible to human hearing.
179. The Commission accepts the assessment and conclusions of the Department, as outlined in paragraphs 170-177 above, because they are consistent with the information submitted by the Applicant and are considered by the Commission to be representative of the likely noise impacts associated with the MPW Stage 2 Development Application.
180. The Commission considers that the Department has taken a precautionary and appropriate approach in the proposed conditions of consent, as set out in paragraph 175, to require the Applicant to abide by requirements to proactively monitor and manage noise impacts. This includes limited hours of construction *"as further justification is needed for extended hours"*.
181. The Commission accepts the assessment and conclusions of the Department with regard to the need for a Noise Wall.
182. The Commission acknowledges that, while the noise generated by construction and operation activities meet guidelines, the proposed importation and processing of 1,600,000m<sup>3</sup> of fill in addition to conditions which limit the daily volume of fill importation (Condition A9) will extend the length of time in which noise generating activities associated with the construction phase occur.

183. However, the Commission finds that the Development Application would not result in a significant increase in the predicted construction and operational noise associated with developing and operating MPW site because the overall nature, source and extent of the noise impacts considered as part of the approval of the concept plan remain largely unchanged.

### 5.7.5 Air quality

#### *Public and Council Comment*

184. The Commission heard concerns from Council, speakers at the public meeting, and received written comments regarding the impacts to air quality as a result of the construction and operation of MPW Stage 2 Development Application. These concerns included the dust and particulate matter generated during construction including stockpiling as well as operational air quality issues associated with plant, equipment and increased rail use as well as impacts to sensitive receptors.

#### *Applicant's assessment*

185. The Applicant undertook an *Air Quality Impact Assessment*, prepared by Ramboll Environ, as part of the Development Application EIS to assess the potential impacts on air quality from the construction and operation of the Development Application.

186. The Applicant's Air Quality Impact Assessment stated "*modelling results indicated that the construction phase emissions would comply with all relevant impact assessment criteria. The predicted increase in annual average PM10, PM2.5, Total Suspended Particulate matter (TSP) and dust deposition are considered minor, when compared against existing background conditions. Cumulative predictions are also presented and the results indicate that the construction for the Proposal would result in no additional days over the criteria.*

*For the operational phase of the Proposal the maximum increase in PM10 and PM2.5 is minor when compared to existing background conditions. When background is added, there are no additional exceedances of the short term impact assessment criteria.*

*The annual average background concentrations of PM2.5 already exceed the NEPM reporting standard, therefore cumulative predictions are also above the standard at all receptors. It is noted, however, that despite the existing exceedance of the annual average background concentration, the Proposal results in a relatively minor additional increase in annual average PM2.5 (<0.4 µg/m<sup>3</sup> at all sensitive receptors). The predicted NO<sub>2</sub>, CO, SO<sub>2</sub> and VOC concentrations are well below the relevant impact assessment criteria.*

187. The Applicant's Air Quality Impact Assessment proposed "*measures to further mitigate air quality impacts would be implemented as per the Air Quality Management Plan, included in the Air Quality Impact Assessment (Appendix O of this EIS), and would be included in the OEMP, including:*

- *Implementation and communication of anti-idling policy for trucks and locomotives*
- *Complaints line for the community to report on excessive idling and smoky vehicles*
- *Procedures to reject excessively smoky trucks visiting the site based on visual inspection.*

188. The Applicant's Development Application RtS provided additional assessment of air quality impacts through the *MPW Stage 2 Responses to Submissions Addendum Impact Assessment – Air Quality*, dated May 2017. The Addendum included updated predictions to reflect the changes in the modelling assumptions (**Addendum Air Quality Assessment**).

#### *Construction air quality*

189. The Applicant's Air Quality Impact Assessment noted that "*The stages of construction which incorporate activities with the greatest potential for dust emissions are the fill placement and stockpiling and bulk earthworks*".

190. The Applicant's Development Application RtS noted that *"Stockpiling of fill material would be undertaken in accordance with the Stockpile Management Protocol document"*.
191. The Applicant considered that amendments to the proposal including modification to drainage works, inclusion of on-site detention as well as container wash-down and degassing areas, hours of warehousing operation and adjustments to proposed layouts would *"not substantially alter the construction activities required for the Proposal and therefore would not alter the assessment of construction air quality impacts included in the EIS. No further assessment is considered necessary"*.
192. With regard to mitigation measures during the construction phase, the Applicant stated *"This assessment concludes that the amendments to the Proposal would result in construction phase air quality impacts generally consistent with those already identified and assessed as part of the EIS."*

*There would be no change to construction emissions attributable to the Amended Proposal. The mitigation measures outlined in Section 9.5.1 of the EIS are considered adequate to address impacts associated with the Amended Proposal and additional measures are not proposed"*.

#### *Operational air quality*

193. The Applicant considered that amendments to the proposal including modification to drainage works, inclusion of on-site detention as well as container wash-down and degassing areas, hour of warehousing operation and adjustments to proposed layouts would *"not substantially alter the (operation) activities required for the Proposal and therefore would not alter the emissions predictions presented in the EIS. No further assessment is considered necessary"*
194. With regard to mitigation measures during the operation phase, the Applicant stated *"This assessment concludes that the amendments to the Proposal would result in operation phase air quality impacts generally consistent with those already identified and assessed as part of the EIS. There would be no change to operational emissions attributable to the Amended Proposal."*

*The mitigation measures outlined in Section 9.5.2 of the EIS are considered adequate to address impacts associated with the Amended Proposal and additional measures are not proposed"*.

#### *Department's consideration of operational air quality impacts*

195. The Department's Stage 2 Assessment Report included an independent review, prepared by Todoroski Air Services, on construction and operational air quality impacts in relation to particulate matter. The independent review identified that:
196. *"The key construction air quality impacts are associated with the importation of fill. Dust or particulate matter may be generated during site clearing, importation of fill and activities such as rock breaking, stockpiling and fill placement...To reduce the prospect of offsite dust impacts, the specialist report recommends that the total area of disturbed area of land at any time should be kept below 36ha, and that the total area of exposed land (i.e. cleared, non-vegetated land, that is not treated to prevent wind erosion) should be kept below 100ha"*.  
*"During operation, air quality emissions would be associated with plant and equipment on site, and increased use of the rail link and trains entering the intermodal terminal"*
197. Department's Stage 2 Assessment Report considered *"the air quality impacts of train operations in the context of the existing requirements for use of the rail link under MPE Stage 1. As part of the MPE Stage 1 development consent, locomotives accessing the MPE Stage 1 IMEX terminal are required to incorporate available best practice noise and emission technologies. In preparation for use of the rail link, the Applicant prepared and received approval for performance standards as part of a Best Practice Review of available technologies available to locomotives that would access the site (Moorebank Precinct East*

– stage 1 Project: Best Practice review (SSD12\_6766), as prepared by Arcadis dated 19 December 2017).

*The Department recommends that IMEX port shuttle locomotives accessing the MPW site comply with the performance standards approved as part of the MPE Stage 1 Best Practice Review”.*

198. The Department’s Stage 2 Assessment Report identified a number of conditions to monitor, mitigate and manage the potential air quality impacts associated with the construction and operation of the MPW Stage 2 Development Application. These conditions include:
- a clearing limit of 65 hectares
  - compliance with relevant EPA assessment criteria which limits construction impacts at private property from the development
  - a cumulative fill importation cap of 22,000 m<sup>2</sup> for both the MPE and MPW sites
  - requiring the preparation of a Construction Air Quality Management Plan
  - specifications regarding the management stockpiling, as well as limiting stockpiling of imported fill to no longer than 6 months before placement, without approval of the Planning Secretary supported by sufficient evidence to the need to diverge from this condition
  - requiring all plant and equipment used on the site to be maintained in proper and efficient condition and operated in a proper and efficient manner, with measurement and mitigation measures outlined in an Operational Air Quality Management Plan.

#### *Commission’s consideration*

199. The Commission accepts the assessment and conclusions of the Department, as outlined in paragraphs 195 - 198, because they are consistent with the information submitted by the Applicant and are considered by the Commission to be representative of the likely air quality impacts associated with the MPW Stage 2 Development Application.
200. The Commission finds that the Development Application would not result in a significant increase in the predicted air quality associated with developing and operating MPW site because the overall nature, source and extent of the air quality impacts can be mitigated and managed through the imposition of conditions of consent.

### **5.7.6 Hazards and contamination**

#### *Public and Council Comment*

201. The Commission heard concerns from Council, speakers at the public meeting, and received written comments regarding the impacts of contamination at the MPW site. These concerns include the known contamination on the site based on previous development including defence training activities as well as the requirement for remediation of areas that was not permitted as part of the Early Works as they are currently vegetated with Endangered Ecological Communities,

#### *Applicant’s assessment*

##### Land Contamination

202. The Applicant undertook a Site Contamination Summary Report (2016), prepared by Golder Associates, as part of the Development Application EIS to assess the potential impacts of contamination from construction and operation of the Development Application. The report noted “*the greatest risk to geology and soils onsite would be during the construction phase of the Proposal when significant ground disturbance will be required to level and raise the site, while temporary stockpiling, and construction of internal roads and structures would also expose soils, creating the risk of erosion and sedimentation*”.

203. The report noted various contamination aspects identified or potentially present on the Project Site could impact on human health and/or the environment during construction. This included:

- Bonded asbestos
- Remnant UXO, EO and EOW
- Anthropogenic fill deposits
- Trichloroethylene
- Perfluoroalkyl and polyfluoroalkyl substances (PFAS)

The report proposed a series of mitigation measures to manage these issues.

204. The Report noted that unexpected impacts or structures may exist within the Project Site that may be potential sources of contamination or be indicators of contamination.

205. The Applicant's Development Application RtS provided additional assessment of contamination impacts resulting from amendments to the proposal, including modification to drainage works, inclusion of on-site detention as well as container wash-down and degassing areas, revised hours of warehousing operations and adjustments to proposed layouts.

206. With regard to contamination impacts during the construction phase, the assessment concluded that *"construction soils and contamination impacts associated with the Amended Proposal would be consistent with the EIS"*.

207. With regard to mitigation measures for the construction phase the assessment concludes *"that the Amended Proposal would result in construction phase soils and contamination impacts generally consistent with those already identified and assessed as part of the EIS"*.

208. With regard to contamination impacts during the operational phase, the RtS notes *"Consistent with the EIS, the operation of the Amended Proposal would have minimal impact on soils as the site would be stabilised with suitable materials. Stabilisation would include fill materials, hardstand areas, railway ballast and landscaping, which would significantly reduce the risk of on-site erosion."*

*Once operational, the Proposal site would be remediated to a level which is considered suitable for the operation of the Amended Proposal. As a result, there would be a low risk to workers or the environment from contaminated soil and groundwater. The use of oils, fuels, lubricants and other chemical substances and hazardous materials during operation would be in accordance with the procedures in the OEMP for the Proposal site".*

209. With regard to mitigation measures for the operation phase the assessment concludes that *"the Amended Proposal would result in operation phase soils and contamination impacts generally consistent with those already identified and assessed as part of the EIS. There would be no additional exceedances of impact assessment criteria for the Amended Proposal"*.

#### Hazard and Risk

210. The Applicant's Development Application EIS stated *"a Preliminary Risk Screening in accordance with SEPP 33 for the Proposal has been undertaken. Hazards and risks associated with the Proposal may arise from a number of activities including remediation works (remaining after Early Works), rail and road logistics, storage of hazardous materials, refuelling, waste disposal and equipment maintenance."*

*Key hazards and risks associated with the Proposal include presence of contamination on site (including asbestos), loss of containment of flammable/combustible or corrosive liquids, fire and explosion, vehicle movements and machinery use, dangerous goods storage and transport and gas leaks.*

*The IMT facility will also have an above ground mobile refuelling tank located adjacent to the proposed locomotive shifter. The contained tank would store diesel fuel (class C1 combustible liquid), with a maximum capacity of approximately 60,000 litres”.*

211. The Applicant’s Development Application RtS provided additional assessment of contamination impacts resulting from amendments to the proposal. The additional assessment concluded that the construction and operation phase hazards and risks, and mitigation measures associated with the Amended Proposal would be consistent with the EIS and no additional measures were proposed.

#### *Department’s assessment*

212. The Department’s Stage 2 Assessment Report identified that “[c]ontamination is a key issue for the MPW site, based on past development of the site and defence training activities. Remediation of the site was approved, and has already substantially progressed, as part of the MPW Stage 1 Early Works approval. However, no clearing of EECs was permitted as part of Early Works, and some vegetated areas require remediation. The MPW Stage 2 application seeks approval for clearing to enable remediation of those areas, following on from ongoing remediation allowed under the MPW Stage 1 Early Works”.
213. In terms of the likely contaminants during operation of the MPW the current proposal includes refuelling of diesel locomotives on site, and the potential for transport of dangerous goods to site for warehouse operations. However, the Department notes that “the Applicant has variously committed to not storing LPG on site and alternatively to storing LPG on site within the storage requirements of the thresholds in the Department’s Applying SEPP 33 guideline”.
214. Given the previous use of the site for defence and other activities the Department has recommended the development of a “comprehensive unexpected finds protocol be prepared for construction, that includes procedures for unexpected contamination. However, in recognition of the specialised nature of UXO impacts and need for prior investigations, the Department has recommended a standalone condition requiring that protocols for the management of UXO, EO and EOW be prepared by an UXO contractor listed on the Defence Panel of suitably qualified UXO consultants and contractors”.
215. The Department’s Stage 2 Assessment Report recommended “conditions requiring limit the total storage of DG [diesel gas] within the development to quantities below the thresholds in the Department’s Applying SEPP 33 guideline, and requiring the storage of chemicals, fuels and oils in accordance with Australian standards and EPA guidance, to ensure that the proposal would not become potentially hazardous post-approval”.

#### *Commission’s consideration*

216. The Commission accepts the conclusions of the Department’s assessment report and recommendations relating to other issues, as outlined in paragraph 212-215 including an unexpected finds protocol and requiring the storage of chemicals, fuels and oils in accordance with Australian Standards and EPA guidance.
217. Based on the material, the Commission finds that the Development Application would not result in a significant increase in risks associated with contamination or hazards as the remediation of the site is largely complete and because contamination can be mitigated and managed through the imposition of conditions of consent, including a comprehensive unexpected find protocol.

### **5.7.7 Biodiversity**

#### *Public and Council Comment*

218. The Commission heard concerns from Council, speakers at the public meeting, and received written comments regarding the impacts to biodiversity as a result of the construction and operation of MPW Stage 2. These concerns included impacts to the local Koala population, the inability of biodiversity offsets to compensate for cleared habitat, the undervaluing of vegetation and landscape values and the lack of adequate assessment of impact to

protected flora and fauna.

*Applicant's assessment of biodiversity impacts*

219. A Biodiversity Assessment Report & Wetlands Assessment (BAR) was prepared for the Proposal in October 2016. The BAR was prepared in accordance with OEH's *Framework for Biodiversity Assessment* (FBA).

220. The Applicant's Development Application EIS identified the Proposal would impact:

- Three threatened ecological communities listed under the *Threatened Species Conservation Act 1995* (TSC Act) and/or *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). These plant communities' types being:
  - Hard-leaved Scribbly gum, Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin (Vulnerable – TSC Act, Endangered – EPBC Act, area of impact 13.54 ha);
  - Parramatta Red Gum woodland on moist alluvium of the Cumberland Plain, Sydney Basin (Endangered – TSC Act, area of impact 0.68 ha);
  - Forest Red Gum, Rough-barked Apple grassy woodland on alluvial flats on the Cumberland Plain, Sydney Basin (Endangered – TSC Act, area of impact 28.47 ha).
- Two threatened flora population to be impacted on the Project Site. These being:
  - *Persoonia nutans*, Nodding Greebung (Endangered – TSC and EPBC Acts, 16 plants to be cleared)
  - *Grevillea parviflora subsp. parviflora*, Small-flowered Grevillea (Vulnerable – TSC and EPBC Acts, 333 stems to be cleared)
- Habitat connectivity in the riparian corridor of the Georges River.

The assessment noted that the clearing of vegetation will result in the loss of specific fauna habitat components that offer shelter, foraging, nesting and roosting habitat to fauna, including threatened fauna.

221. The Applicant's Development Application RtS provided additional assessment of biodiversity impacts through the *MPW Stage 2 Responses to Submissions Addendum Impact Assessment – Biodiversity*, dated May 2017. (Addendum **Biodiversity Assessment Report**).

The updated BAR represented a full updated assessment of biodiversity impacts associated with the Amended Proposal. The updated BAR was undertaken to address and note:

- Additional threatened species surveys conducted in early 2017
- Revised vegetation mapping developed following additional site inspections in 2017, noting areas identified as being cleared or consisting of planted trees
- Updates to the FBA
- Changes to the construction and operational footprint of the Proposal due to amendments to the Proposal including refinements to drainage design.

222. The Amended BAR including the following outcomes:

- The identification of two additional species impacted by the proposal. These being:
  - *Hibbertia puberla subsp. puberla* (Critically endangered – TSC Act, 2 ha to be cleared)
  - *Phascolarctos cinereus* (Vulnerable – TCA and EPBC Acts, 42.76 ha to be cleared)

- A revised Framework for Biodiversity Assessment, which resulted in increased site values of vegetation and revised calculations of offset credits for species
- A revised landscape assessment, which has resulted in slight increases to the landscape value
- Revised vegetation mapping and additional investigations

#### *Department's assessment of biodiversity impacts*

223. The Department's Stage 2 Assessment Report identified that the MPW Stage 2 Development *"will require the removal of all vegetation within the intermodal site boundary, including threatened ecological communities listed under the Threatened Species Conservation Act 1995 (TSC Act) (now the Biodiversity Conservation Act 2015) and Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Since the exhibition of the EIS, additional threatened species were discovered on the site that were not recorded or identified as part of the EIS. These species include the Hibbertia puberula subsp. Puberula, and Koala (Phascolarctos cinereus). Due to the recent discoveries the Applicant has prepared a revised Biodiversity Assessment Report (BAR) (March 2019) which includes an updated assessment of biodiversity impacts and offset requirements"*.
224. The proposal was assessed under the *NSW Biodiversity Offsets Policy for Major Projects* and a FBA. Both DPIE and OEH were satisfied that the proposal's biodiversity impacts have been assessed in accordance with the FBA.
225. The Department noted that *"the Proponent intends to offset the impacts through the establishment of biobank sites, which includes the Wattle Grove Offset Area (the Boot land); Moorebank Offset Area (Georges River riparian zone); and Casula Offset Area (the hourglass land), though there is also the prospect that some required credits may need to be obtained from the market"*.

However, there is a deficit in ecosystem credits for the Hard-leaved Scribbly gum, *Parramatta Red Gum* heathy woodland of the *Cumberland Plain*, *Sydney Basin*. The Department recommend that the applicant retire all biodiversity credits before any plant community types (PCTs) or threatened species are impacted to ensure offsetting impacts are achieved in a timely manner.

226. The Department also noted that *"as part of the MPW Stage 1 approval, the Applicant is required to maintain a minimum 40 metre riparian corridor along the western bank of the Georges River. The Department understand parts of the riparian corridor would be impacted due to the placement and location of OSD basins and outlets... The Department acknowledges that the riparian corridor provides a key fauna connectively element and the 40 metre buffer was intended to maintain biodiversity values. Due to the importance of the riparian corridor, the Department has required the Applicant to reconfirm the proposed western site boundary with reference to a clearly defined riparian corridor and design the outlet channels associated with the detention (basins) to maintain fauna connectivity."*
227. The Department's MPW Stage 2 Assessment Report concluded that *"the assessment of biodiversity impacts of the proposal has been carried out in accordance with the OEH's FBA. The Department acknowledges the proposal will directly impact threatened species identified under the TSC Act (now BC Act) and EPBC Act. The impacts would be offset in accordance with the FBA and NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014).*

*Impacts to the riparian corridor are noted due to locations of operational detention basins and discharge channels into the Georges River. To ensure the biodiversity values of the riparian corridor are maintained, the applicant will be required to ensure that fauna connectivity is maintained during construction and operation of development.*

*In addition, the Applicant will be required to prepare a Koala Management Plan, an unexcepted fauna and flora finds procedure, a Construction Flora and Fauna Management*

*Plan, pre-clearing surveys and operational monitoring and maintenance for Koala habitat corridors. These measures will ensure that any fauna and flora found on site can be appropriately managed and or relocated including enhancing existing habitat and connectivity”.*

228. The Department’s MPW Stage 2 Assessment Report identified Condition B2(a) which defines the riparian corridor and requires that the revised Development Layout Drawings must show the site, construction and operational boundaries and demonstrate:

*(a) provision of a riparian corridor, comprising the following:*

*(i) a buffer zone to the most inland of:*

- *40 metres from the top of bank, as surveyed by a registered surveyor, or*
- *the 1% AEP flood extent, excluding the localised depression at the existing major east-west drainage channel, and*

*(ii) an additional 10 metre extension to the buffer zone established in (i) above, where native vegetation is located on or within 10 metres east of the buffer.*

229. With regard to maintaining habitat connectivity in the riparian corridor the Department’s MPW Stage 2 Assessment Report identified Condition B22, which requires that:

*‘Outlet structures must ensure habitat connectivity and wildlife movement is maintained along the Georges River riparian corridor’.*

230. With regard to the location of detention basins in the riparian corridor the Department’s MPW Stage 2 Assessment Report identified Condition B2(b) which requires that the revised Development Layout Drawings must show the site, construction and operational boundaries and demonstrate:

*‘[T]he siting of biofiltration/ bioretention areas and OSD basins (with the exception of outlets to the Georges River and associated maintenance access) are outside the riparian corridor and outside the warehouse footprints’*

#### *Commission’s consideration*

231. The Commission accepts the conclusions of the Department’s assessment report and recommendations relating to other issues, as outlined in paragraph 223-230, above because appropriate measures to manage the impact of the Proposal on threatened species will be offset in accordance with the FBA and NSW Biodiversity Offsets Policy for Major Projects, fauna connectivity will be maintained during construction and operation of the development; and prior to construction the Applicant will be required to develop:

- a Koala Management Plan
- an unexpected fauna and flora finds procedure
- a Construction Flora and Fauna Management Plan
- pre-clearing surveys, and
- operational monitoring and maintenance of Koala habitat corridors.

232. The Commission finds that though the Development Application will result in impacts on biodiversity, the extent of impacts can be mitigated and managed through the conditions of consent.

### **5.7.8 Indigenous and Non-indigenous heritage**

#### *Public and Council Comment*

233. During the public exhibition of the EIS, submissions were received regarding Aboriginal (Indigenous) heritage and European (non-Indigenous) heritage.

Matters raised with regard to Aboriginal heritage included:

- The adequacy of the level of assessment undertaken to inform of the proposed works and mitigation measures,
- The inadequacy of investigation regarding the significance of scar tree MA6 and how the mitigation measures will impact the significance of the site
- The need for additional anthropological work
- Inconsistencies with MPW Concept Approval

Matters raised with regard to non-Indigenous heritage included:

- Difficulty in determining extent of impacts due to inconsistent approaches proposed in the EIS
- The cumulative impact of the culmination of stages 1 and 2 are not addressed
- The failure to adequately address impacts on Kitchener House and Glenfield Farm, particularly with regard to noise and vibration during construction and operation, requiring additional heritage assessments be undertaken.

#### *Applicant's assessment*

##### Aboriginal Heritage Impact Assessment

234. The Applicant undertook an Aboriginal Heritage Impact Assessment prepared by Artefact, as part of the Development Application EIS to assess the impacts on Aboriginal heritage during the construction and operation of the Development Application.

235. The Applicant's Development Application EIS stated that construction of the Proposal would result in direct impacts to scar trees identified as MA6, MA7, MA10, MA14 as well as MPW Stage 2 Terrace PAD (potential archaeological deposits) and the Tertiary Terrace. No impacts to Indigenous heritage were identified for the operational phase of the Proposal.

The EIS noted there were five outstanding matters that require management as part of the Proposal being:

- Management of scar trees MA6 and MA7, including relocation
- Staged salvage excavation of MPW Stage 2 Terrace PAD and the tertiary terrace (between MA10 and MA14) and salvage excavation of MA10 and MA14.

236. The Applicant's Development Application RtS addressed the matters raised during the EIS public exhibition, noting:

- *"investigations have been undertaken throughout the various stages of the MPW Project to determine the heritage significance of MA6. Mitigation of impacts regarding this item is based on this information combined with direct consultation with relevant Registered Aboriginal Parties";*
- *"The Concept Approval EIS and the EIS have provided a comprehensive review of both the level of cultural significance concerning heritage item MA6 (through historic literature review, field surveys and consultation with RAPs in accordance with OEH requirements), and the anticipated impacts to this item as a result of the Proposal. No further investigations are deemed necessary. An anthropological study would not provide any additional information that would change the outcomes of the study";*
- *"An Aboriginal Cultural Heritage Assessment Report (ACHAR) would be prepared prior to construction commencing which would include written acknowledgement and sign-off from relevant Registered Aboriginal Parties (RAPs) regarding the findings of the assessment and mitigation";*
- *"The notion that the site is not truly understood or recognized is refuted, citing the scar tree condition assessment report prepared for the MPW Concept Approval, Response*

*to Submissions), numerous site inspections of the item, consultation with RAPs and a comprehensive review of historic information to inform the assessment”*

237. The Applicant’s Development Application RtS provided additional assessment of Indigenous heritage impact resulting from the Amended Proposal. The Assessment found that *“construction stage Indigenous heritage impacts associated with the Amended Proposal would be consistent with the EIS. There would be no impacts to Indigenous heritage during the operation phase”*.

#### Non-Indigenous Heritage Impact Assessment

238. The Applicant undertook a non-Indigenous Heritage Impact Assessment prepared by Artefact, as part of the Development Application EIS to assess the impacts on non-Indigenous heritage during the construction and operation of the Development Application.
239. The Applicant’s Development Application EIS stated that one on-site item, the Moorebank Cultural landscape, and three surrounding items, Kitchener House, Glenfield Farm and Casula Power Station would be impacted by the Proposal.
240. For the Moorebank Cultural Landscape, the EIS determined that the Proposal (during construction and operation phases) would likely result in the *“disturbance to archaeological deposits, removal of landscape elements, partial loss of existing landscape setting, historical association and the landscape’s research potential”*. The proposed management and mitigation measures include retention of portions of bushland and cultural heritage values, recording of archaeological items disturbed during construction and initiating an Unanticipated Discoveries Protocol in the event that historical items or relics or suspected burials are encountered during excavation.
241. The EIS stated there would be no impacts during construction or operation phases on the three surrounding items, however there was potential for indirect impacts such as noise and visual impacts.
242. The Applicant’s Development Application RtS addressed the matters raised during the EIS public exhibition period, noting:
- The extent of impacts on non-aboriginal heritage items associated with the Proposal is clearly articulated in the EIS, and that *“impacts to the Moorebank Cultural Landscape were assessed in detail within both the MPW Concept EIS and the EIS, and considered the numerous phases of land use and occupation spanning from pre-European settlement to today relating to the Moorebank area, which includes primarily the MPW site, in the context of the MPE site. These considerations, combined with ongoing consultation with the Moorebank Heritage Group and the Department of Planning would be reflected in both the Heritage Interpretation Strategy, (to be prepared prior to Early Works) and Heritage Interpretation Plan (to be prepared during detailed design) for the Proposal.”*
  - With regard to Glenfield Farm, *“a Noise and Vibration technical memorandum was prepared for this RtS to more accurately predict the impact of the Amended Proposal.....The revised assessment included additional monitoring of existing rail noise levels at three receivers in Casula, of which one (RM1) is representative of Glenfield Farm, which is still considered a residential receiver. The revised assessment predicted that Amended Proposal rail noise levels would generally comply with established NSW Rail Infrastructure Noise Guideline (RING) criteria for “private nonnetwork rail lines” in Wattle Grove and Glenfield, but would exceed the night time criterion of 40 dBA by up to 4 dB at RM1. At this location, it is demonstrated that the Amended Proposal would result in an increase in the night time LAeq, period rail noise level of less than 2 dBA, which is considered unlikely to be noticeable and does not warrant mitigation.”*
  - With regard to Kitchener House, *“in response to this submission, a Noise and Vibration Technical Memorandum has been developed to further assess the potential for vibration*

*impact on Kitchener House which, subsequent to design development, is established as a vibration sensitive receiver. The assessment investigates Kitchener House for potential impacts arising from the construction of the Amended Proposal in accordance with relevant international standards for vibration impacts on historic buildings.*

*.....The findings of the Noise and Vibration Technical Memorandum indicate that activities most likely to generate vibration at Kitchener House would be the use of vibration-intensive equipment for road works along Moorebank Avenue, namely the use of a vibratory roller.*

*.....Recommendations have been made to identify vibration sensitivity of the heritage item through a dilapidation survey, and to restrict the use of plant and equipment according to safe working distances and the type of plant used."*

243. The Applicant's Development Application RtS provided additional assessment of non-Indigenous heritage impact resulting from the Amended Proposal. The Assessment found that *"construction stage non-Indigenous heritage impacts associated with the Amended Proposal would be consistent with the EIS. There would be no impacts to non-Indigenous heritage during the operation phase"*.

*Department's assessment*

*Aboriginal Heritage findings:*

244. The Department's Stage 2 Assessment Report identified that:

- A total of 17 Aboriginal sites and objects are located within and around the proposal (which includes 3 scar trees)*
- The MPW Stage 2 Terrace PAD and the Tertiary Terrace (between MA10 and MA14) are deemed to be of moderate archaeological potential*
- Four sites (MA5, MA8, MA9 and MA14) have been assessed as having moderate - high archaeological significance*
- One site and one area (MA6 and PAD2 respectively) have been assessed as having high archaeological significance*
- Direct impacts would be incurred to MA6, MA7, MA10, MA14, MPW Stage 2 Terrace PAD and the Tertiary Terrace as part of the Proposal*
- Direct impacts to sites MA1, MA2, MA3, MA4, MA5 and MA9 would be incurred during Early Works and managed as part of the MPW Concept Approval*
- Management of PAD2 would be undertaken as part of the MPE Stage 1 Proposal.*

245. The Department's Stage 2 Assessment Report acknowledges that:

- "Impacts to Aboriginal objects and items are not avoided due to the requirement to import fill, remediate the site from contamination and install drainage infrastructure";*
- "The proposed works will not impact on MA8 (scar tree), while the 2 remaining scar trees (MA6 and MA7) will be removed. The Applicant has committed to relocating these trees to Tharawal Local Aboriginal Land Council (TLALC) property. This approach is supported, and a condition has been recommended to ensure salvage is undertaken appropriately";*
- "(in addition) It is recommended that a salvage strategy be developed in consultation with OEH and with relevant Registered Aboriginal Parties (RAPs) prior to any impacts to Aboriginal objects and sites";*
- Impacts to MPW Stage 2 Terrace PAD and the Tertiary Terrace (between MA10 and MA14) would need to be salvaged.*

246. The Department's Stage 2 Assessment Report recommended that a Cultural Heritage Salvage Report be required which *"includes details of any archival recording, further archaeological research either undertaken or to be carried out, and archaeological excavations (with artefact analysis and identification of a final repository for finds), must be prepared in accordance with any guidelines and standards required by OEH"*.

#### Non-indigenous heritage

247. The Department's Stage 2 Assessment Report identified that the current proposal has no additional impacts to non-indigenous items as all heritage items on the site were removed as part of the Stage 1 works. However, the proposal would *"result in further disturbance to Moorebank Cultural Landscape and historical associations with the area"*.
248. The Department's Stage 2 Assessment Report recommended the *"implementation of an unexpected finds procedure to outline procedures for managing site works in the event of finds"*.

#### *Commission's consideration*

249. The Commission accepts the conclusions of the Department's assessment report and recommendations relating to other issues, as outlined in paragraphs 244-248, above because impacts to indigenous and non-indigenous heritage are largely contained to sites of low or moderate archaeological significance, with appropriate mitigation and management measures.
250. Based on the material, the Commission finds that the impacts of the Development Application on indigenous and non-indigenous heritage can be managed with appropriate consultation, mitigation and management measures.
251. For the reasons set out above, it is also the Commission's view that the subject site is suitable for the proposed development.

### **5.8 The public interest and Objects of the EP&A Act**

252. A relevant object of the EP&A Act to the Application is to facilitate ecologically sustainable development (**ESD**). The Commission notes that section 6(2) of the *Protection of the Environment Administration Act 1991* provides that ESD requires the effective integration of social, economic and environmental considerations in decision-making processes, and that ESD can be achieved through the implementation of:
- (a) the precautionary principle;
  - (b) inter-generational equity;
  - (c) conservation of biological diversity and ecological integrity; and
  - (d) improved valuation, pricing and incentive mechanisms.

#### *The Department's consideration of the public interest and the objects of the EP&A Act*

253. With regard to the objects of the EP&A Act the Department's Stage 2 Assessment Report stated that the objects of the EP&A were considered as part of the assessment of MPW Stage 2 Development Application by:
- Object A: *"The project would facilitate a mode-shift of the transportation of freight from road to rail-based transport, would result in an overall reduction in greenhouse gas emissions and road congestion and provide for increased productivity and capacity of the freight network and relieve pressure on roads around Port Botany. Impacts on biodiversity, amenity and traffic arising from the proposal can be appropriately managed and mitigated"*
  - Object C: *"The site is identified as an intermodal terminal site of strategic importance in government policy and the proposal is therefore consistent with the strategic vision for*

*the site. The MPW project would improve freight logistics within Sydney, NSW and interstate and would therefore have significant positive economic impacts”*

- Object E: *“The proposal includes the clearing of existing native vegetation, including threatened ecological communities and other habitat for native species. The principle of the removal of vegetation within the main body of the MPW site was approved as part of the MPW Concept consent. To compensate for these actions, the proposal includes the creation of biodiversity conservation areas along the Georges River, which is established as a biodiversity offset under the MPW Concept consent”*
254. The Department’s MPW Stage 2 Assessment Report identified the following sustainability initiatives and measures as important in demonstrating the principles of ESD:
- *“water harvesting, including roof water collection on all warehouses*
  - *re-use of waste water, e.g. for toilet flushing, landscape irrigation and wash-down areas*
  - *energy efficiency design measures (such as lighting types and controls, general control systems, compressors, variable speed drives for fans/pumps etc)*
  - *measures to minimise heating, ventilation and air-conditioning demand (such as use of natural cooling vents and doors to control air movement, insulation, routine maintenance, and economy cycles that exchange ambient air to help control indoor temperature)*
  - *installation of energy efficient conveyors and automatic sorting systems*
  - *use of warehouse management systems (enabling multi-tasking of mobile equipment, optimising storage locations, and allowing integration of energy management systems and other management systems)*
  - *review of potential renewable energy sources, such as solar energy”.*
255. With regard to the principles of ESD, the Department’s MPW Stage 2 Assessment Report concluded that:
- “The Department has considered the project in relation to the ESD principles. The precautionary and inter-generational equity principles have been applied in the decision-making process by a thorough assessment of the environmental impacts of the project.... the proposal is consistent with ESD principles and the Department is satisfied the proposed sustainability initiatives will encourage ESD, in accordance with the objects of the EP&A Act provided conditions are imposed to ensure the ESD commitments are delivered as part of the development.”*
256. With regard to the public interest the Department’s Stage 2 Assessment Report concluded that: *“the proposal is in the public interest and recommends that the application be approved subject to conditions”.*

*Commission’s consideration of the public interest and the objects of the EP&A Act*

257. In determining the public interest merit of the MPW Stage 2 Development Application, the Commission has had regard to the objects of the EP&A Act, including the principles of ESD.
258. The Commission accepts the conclusions of the Department outlined in paragraphs 252-256 because the Department has assessed the MPW Stage 2 Development Application and demonstrated compliance with the relevant objects.
259. The Commission is satisfied that the MPW Stage 2 Development Application has effectively integrated social, economic and environmental considerations in the decision-making process. The Commission accepts that the MPW Stage 2 Development Application is consistent with the ESD principles (a) – (d) identified in paragraph 252.
260. Under section 1.3 of the EP&A Act, the Commission considered the relevant objects to this Application, which included:

- a) *“to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State’s natural and other resources;*
  - b) *to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment;*
  - c) *to promote the orderly and economic use and development of land;*
  - e) *to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage);*
  - f) *to promote good design and amenity of the built environment;*
  - g) *to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants;*
  - i) *to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State; and*
  - j) *to provide increased opportunity for community participation in environmental planning and assessment.”*
261. The Commission considers that the benefits of the MPW Stage 2 Development Application include compliance with and realisation of NSW Government strategic planning for freight distribution and infrastructure in Western Sydney, Greater Sydney and NSW, including the aim to increase the rail share of freight transport in NSW.
262. The Commission considers that the benefits of the MPW Stage 2 Development Application, subject to the conditions of consent, include improved stormwater management, including the development of OSD basins outside of the riparian corridor, refinements to the layout and operation of the MPW Project Site, and remediation of historic contamination identified on the MPW Project Site.
263. The Commission considers that the impacts of the MPW Stage 2 Development Application include increases to local traffic patterns, noise, changes to local air quality and impacts to biodiversity and riparian vegetation, but that these increases are manageable and consistent with the approved impacts for the MPW Concept Plan.
264. In relation to the consideration of MPW Stage 2 Development Application, the Commission finds that the consistency with the objects of the EP&A Act has been demonstrated, as it will promote the orderly and economic use of the land for warehousing through long-term leasing and development of the MPW site for inter and intra state freight transport purposes.
265. The Commission finds that the MPW Stage 2 Development Application is in the public interest because it:
- demonstrates consistency with the objects of the EP&A Act, in particular, by promoting the orderly and economic use and development of the land consistent with relevant strategic planning, as referred to in paragraphs 65-70
  - is consistent with principles of ESD because a precautionary approach has been adopted in assessing and managing the likely impacts, including measures to increase the sustainable operation of MPW
  - will allow for the development of an integrated intermodal facility to improve management of the predicted need for increased intrastate and interstate freight facilities.

## **6. HOW THE COMMISSION TOOK COMMUNITY VIEWS INTO ACCOUNT IN MAKING ITS DECISION**

266. The views of the community were expressed through:

- public submissions and comments received as part of public exhibition process, as set out in paragraphs 19-22, and
- members of the public who spoke at the public meeting or sent written submissions during or after that meeting, as set out in paragraphs 36-38.

267. In summary, views expressed by the community raised a number of significant concerns about the impact of the Concept Modification and Development Application on local traffic intensity and safety, community health impacts and changes to the MPW Concept Plan.

268. The Commission carefully considered all of these views as part of making its decision. The way in which these concerns were taken into account by the Commission is set out in Section 5 above.

## **7. CONCLUSION: THE COMMISSION'S FINDINGS AND DETERMINATION**

269. The Commission has carefully considered the Material before it.

270. For the reasons set out below and in paragraphs 261-265 the Commission finds that consent for the Development Application should be granted – subject to conditions. Specifically, the Commission finds that the Development Application should be granted because the:

- proposed intermodal has significant strategic merit as an important part of the future of freight distribution in Western Sydney, Greater Sydney and NSW. The NSW Freight and Ports Plan notes that intermodals within Greater Sydney are '*critical for increasing the utilisation of the rail freight network, particularly containers to and from Port Botany*'. Moorebank Intermodal is also identified as regionally significant freight and logistics precinct in land use and infrastructure planning for NSW and Greater Sydney. This includes *Building Momentum: State Infrastructure Strategy* and *Western City District Plan*.
- delivery of Moorebank Intermodal projects will contribute to the NSW Government's strategic aim to increase the rail share of freight transport in NSW.
- potential impacts to the local road network and road safety have been appropriately conditioned to mitigate and manage impacts from increased traffic from both the construction and operation of MPW, as set out in paragraph 94.
- amendments to the project layout, and stormwater plans including an increase to the riparian corridor and incorporation of urban sensitive water design have been appropriately conditioned to mitigate and manage impacts, set out in paragraphs 132, 136 and 160.
- conditions manage construction and operation phase impacts to an appropriate degree that any residual and ongoing effects of the proposal are considered acceptable.
- The Development Application is in the public interest, as set out in paragraph 265.

271. As noted above, at paragraph 270, the Commission has determined that the Development Application should be granted subject to conditions. These conditions are designed to:

- prevent, minimise and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the development.

272. The reasons for the Decision are given in this Statement of Reasons for Decision, dated 11 November 2019.



**Dianne Leeson (Chair)**  
Member of the Commission



**Alan Coutts**  
Member of the Commission



**John Hann**  
Member of the Commission