



30 October 2019

Moorebank Precinct West Concept Proposal (SSD 5066 MOD 1)

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 modification application from Sydney Intermodal Transport Alliance (**SIMTA**), as Qube Holdings Limited (**Applicant**), to modify the Moorebank Precinct West Concept Plan SSD 5066 MOD 1 (**MPW Concept Modification**).
2. The Commission is the consent authority for the MPW Concept Modification 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:
 - the MPW Concept Modification constitutes State significant development under section 4.36 of the EP&A Act as MPW has a Capital Investment Value (**CIV**) in excess of \$50 million and is for the purpose of warehousing and distribution centres; and
 - the Department received an objection to the MPW Concept Modification from Liverpool City Council (**Council**), as well as more than 25 submissions from the public objecting to the MPW Concept Modification.
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 Concept Modification.
4. On 12 May 2019, the Commission also received from the Department a State significant development application from SIMTA for Moorebank Precinct West Stage 2 (SSD 7709) (**MPW Stage 2 Development Application**), which was assessed by the Department concurrently with the MPW Concept Modification. A separate Statement of Reasons for the determination on MPW Stage 2 Development Application will follow.

1.1 Site and locality

5. 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.
6. The Moorebank Intermodal Terminal Precinct is divided into two sites: Moorebank Precinct East (**MPE**) and Moorebank Precinct West (**MPW**). Approval for Moorebank Intermodal Precinct East - Concept Plan (MP10_0193), was granted on 29 September 2014 (**MPE Concept Plan**) for an import/export port shuttle freight terminal with associated warehousing and estate works. Approval for Moorebank Intermodal Precinct West - Concept Proposal & Stage 1 Early Works (SSD 5066) (**MPW Concept Plan**), was granted on 3 June 2016, for an import/export port shuttle freight terminal and a separate interstate/intrastate freight terminal and associated warehousing and estate infrastructure and related works.

7. The Department's *Moorebank Precinct West Concept Proposal State Significant Development Modification Assessment (SSD 5066 MOD1) (Department's Concept Modification Assessment Report)* described the MPW site as **(MPW Project Site)** (Figure 2):

"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 generally flat to gently undulating at an elevation of approximately 15 m AHD and slopes down to the Georges River, which has steep banks in some locations. Past activities have altered the landform, particularly at the 'dust bowl'. The site also contains a number of water bodies/ ponds."

8. The Department's Concept Modification Assessment Report identified that the MPW 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".*

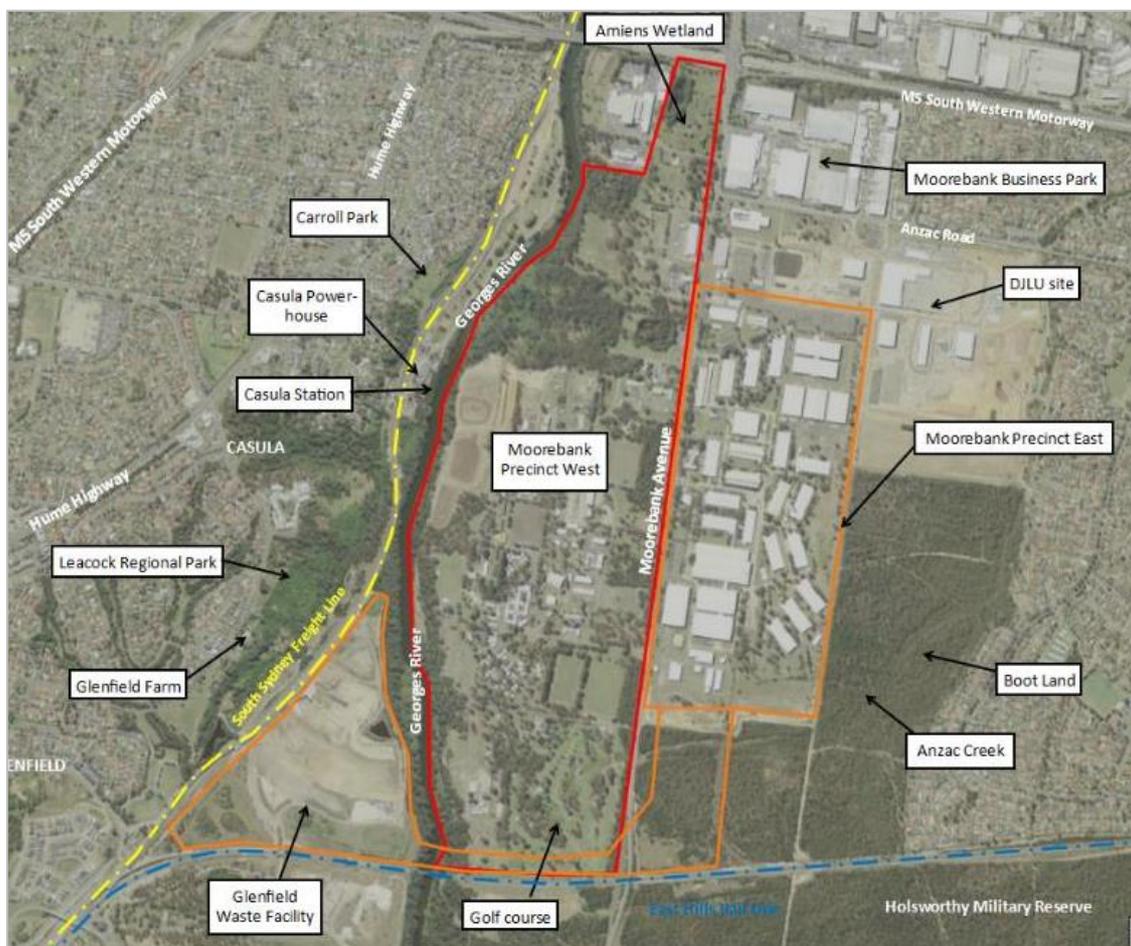


Figure 1: MPW Project Site location Source: Department's Concept Modification Assessment Report

1.2 Background to MPW Concept Modification

9. On 10 December 2015, the MPW Concept Plan was referred to the then Planning Assessment Commission for determination under Ministerial delegation dated 14 September 2011.
10. The Department's *Major Project Assessment: Moorebank Intermodal Terminal Moorebank Avenue, Moorebank (SSD-5066)*, dated December 2015, stated:

"The concept proposal comprises:

 - *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 300,000m² 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 for a total 1.05 million TEU comprising 500,000 TEU for interstate freight and 550,000 TEU for IMEX freight, subject to conditions of consent.

1.3 Summary of MPW Concept Modification

12. The Department's Concept Modification Assessment Report identified that the initial application to modify the approved MPW Concept Plan (**Superseded MPW Concept Modification**) was amended by the Applicant in response to submissions received during public exhibition. The revision to the Superseded MPW Concept Modification, being the MPW Concept Modification now before the Commission for determination, was then publicly exhibited as set out in paragraph 18.
13. The MPW Concept Modification before the Commission proposes to modify the approved MPW Concept Plan to allow:
 - *"Importation of approximately 1,600,00m³ 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”.*

1.4 Stated need for MPW Concept Modification

14. The Applicant stated in its *Moorebank Precinct West Intermodal Terminal Facility Concept Plan Approval (SSD 5066) Modification (Concept Modification Report)*, dated June 2016, that:

“The MPW Concept Plan EIS and supporting documentation identified the need for bulk earthworks at the MPW site as part of the MPW Project. At the time of preparation, the environmental assessments anticipated that all of the fill material required for the MPW Project could be sourced from spoil within the MPW site with the exception of fill material to be imported to the MPW site for the purposes of remediation of onsite contamination. However more detailed investigations have recently established a substantial deficit of fill material, requiring fill material to be imported to the MPW site from offsite sources.

A modification to the MPW Concept Plan Approval is therefore sought to permit the import, placement and stockpiling of 1,600,000 m³ of clean fill material for the MPW Project as part of the Early Works. This modification would be required to support future stages of development for the MPW Project.”

15. In its meeting with the Commission and during the site inspection, as set out in paragraphs 30 to 33 below, 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 on the MPW Project Site.

2. THE DEPARTMENT’S CONSIDERATION OF THE CONCEPT MODIFICATION

2.1 Key steps in Department’s consideration of the MPW Concept Modification

16. The Department publicly exhibited the Superseded MPW Concept Modification and made the documentation publicly available on its website from 7 July 2016 to 22 August 2016. The Department received 365 submissions during the exhibition period, including 351 from individuals, nine from NSW government agencies and five from local stakeholder groups.
17. On 5 December 2016, the Applicant submitted to the Department its *Moorebank Precinct West - Concept Modification Response to Submissions - SSD 5066 MOD1 (Concept Modification RtS)*.

18. As the Concept Modification RtS included an amended iteration of the Superseded MPW Concept Modification (that is, the MPW Concept Modification now before the Commission) there was an exhibition of the MPW Concept Modification from 14 December 2016 to 24 February 2017. The Department received 193 submissions during the exhibition period, including 182 from individuals, seven from NSW government agencies and four from local stakeholder groups.
19. A summary of the key issues raised in submissions to the Superseded MPW Concept Modification and the MPW Concept Modification received by the Department during the exhibition periods is provided in Table 1.

Table 1: Summary of key issues raised in Public Submissions on the Modification Application and Concept Modification RtS Source Department's Concept Modification Assessment Report

Issue	% of Submissions Superseded MPW Concept Modification	% of Submissions MPW Concept Modification
Traffic Impacts	64	51
Pollution	34	28
Noise	32	22
Sustainability	29	87
Health Impacts	29	25
Air Quality	29	17
Environment/ Ecological Impacts	26	27
General Objection	12	13
Fill importation	10	16
Hours of Operation	7	5
Cultural/ Heritage Impacts	2	4
Light Spill	1	8
Visual Impacts	1	6

20. On 12 May 2019, the Department prepared a Concept Modification Assessment Report in respect to the MPW Concept Modification.

2.2 The Department's Concept Modification Assessment Report

21. The Department's Concept Modification Assessment Report identified the key issues for the MPW Concept Modification as the:
 - importation of fill
 - revised layout, construction phasing and interaction between MPW and MPE sites
 - subdivision of the MPW site
 - traffic
 - ecological and environmental issues

22. The Department's Concept Modification Assessment Report identified that:
- *“additional requirements in the Concept consent ‘Terms of Approval’ are necessary to ensure the site is designed and developed to protect ecological values and local amenity*
 - *additional detail is required on the precinct-wide design, particularly for stormwater treatment and detention*
 - *further assessment is required as part of future development applications to update predicted impacts, taking into account precinct-wide activities (i.e. construction and operation on both the MPW and MPE sites)*
 - *additional management and mitigation measures are required to address potential environmental impacts and community concerns.”*
23. The Department's Concept Modification Assessment Report concluded that “[a]lthough there are significant matters to be addressed and resolved as part of future development applications for the design, construction and operation of the MPW site, the Department considers that the proposed modification is approvable subject to the recommended conditions of consent”.
24. On 18 October 2019, the Commission asked the Department to update the Department's recommended conditions of consent for the MPW Concept Modification so that they reflected the Department's recommended conditions of consent for the MPW Stage 2 Development Application. These updates were to the Department's recommended conditions B2 (a) (i) and (ii) concerning the riparian corridor.
25. On 22 October 2019, the Department updated and re-issued to the Commission the Department's recommended conditions of consent for the MPW Concept Modification per the Commission's request of 18 October 2019.

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 and 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, including the MPW Concept Modification and MPW Stage 2 Development Application, the nature of upgrades to 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 Commissioner 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 the MPW and proposed amendments to the Department's recommended 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 Project sites. This inspection included the northern boundary of the MPW Project Site, adjacent to the ABB Complex industrial facility (**ABB Site**), 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 and copies of figures and maps tabled at the Commission's meeting were made available on the Commission's website on 11 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 ongoing objection to the Moorebank Intermodal Terminal 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 Commissioner 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 present were offered the opportunity to provide written comments to the Commission within seven days after the public meeting. A summary of issues

raised by speakers at the meeting and in written comments to the Commission is provided below.

37. The Commission accepted written comments up until 3 July 2019. A total of 29 comments 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 comments 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. 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.
40. 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.
41. On 12 August 2019, the Commission wrote to the Department seeking confirmation of whether the Applicant's suggested amendments to the recommended 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.
42. On 14 August 2019, the Commission received a revised visual project description from the Applicant which identified the top of bank estimates as set out by the Applicant. The additional information included a calculation of the area of the MPW Project Site, in square metres, that would be impacted if the Department's interpretation of riparian zones and recommended conditions of consent regarding location and design of on-site detention basins were imposed. This revised visual project description was published on the Commission's website on 15 August 2019.
43. On 9 September 2019, the Department provided a memorandum which considered:
 - the Applicant's requested amendments to the recommended conditions of consent for the MPW Concept Modification and the MPW Stage 2 Development Application, and
 - the Applicant's revised visual project description, dated 14 August 2019.

5. THE COMMISSION'S CONSIDERATION

5.1 Material considered by the Commission

44. In determining the MPW Concept Modification, the Commission has carefully considered a range of assessment documentation and prior approvals, in particular (**the material**):
 - the MPW Concept Plan
 - the Concept Modification Application SSD 5066 MOD1
 - the MPW Stage 2 Development Application SSD 7709

- *Major Project Assessment; Moorebank Intermodal Terminal Moorebank Avenue, Moorebank (SSD-5066) (Department’s MPW Concept Plan Assessment Report)*, prepared by the Department and dated 10 December 2015, and 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, prepared by Arcadis and dated June 2016, and its accompanying appendices
- all public and government agency submissions on the Concept Modification Report
- Concept Modification RtS, prepared by Arcadis and dated 5 December 2016, and accompanying appendices
- all public submissions and 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)*, prepared by Arcadis and dated August 2017, and accompanying appendices
- all public submissions and Government agency responses to the Concept Modification Supplementary RtS
- *MPW Concept Modification (No. 1) – Consolidated assessment clarification responses*
- the Department’s Concept Modification 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 Department’s memorandum, dated 19 July 2019, regarding riparian corridor and project staging
- 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*, prepared by Aspect Environmental and dated 14 August 2019, and accompanying appendices, and
- 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

45. According to the Department’s MPW Concept Modification Assessment Report, the MPW Concept Modification has been lodged pursuant to section 4.55(2) of the EP&A Act. In this regard the Department’s Concept Modification Assessment Report stated that “*the application can be characterised as a modification, as the proposed changes*”

to the approved Concept Proposal:

- would not significantly increase the overall environmental impacts of the project as approved (while recognising there would be an increase in temporary construction impacts due to fill importation and placement)
- would involve only a small disturbance outside the already approved construction area for an intersection upgrade to provide access to the development and service the local road network
- would not alter the purpose of the proposal for an IMT facility and associated warehouse estate and accordingly the proposed modification is substantially the same development as originally approved.

Therefore, the Department is satisfied the proposed modification is within the scope of section 4.55(2) of the EP&A Act and does not constitute a new development application. Accordingly, the Department considers that the application should be assessed and determined under section 4.55(2) of the EP&A Act.”

46. The Applicant’s Concept Modification Report did consider whether the MPW Concept Modification was substantially the same as the approved MPW Concept Plan. This report stated:

“Overall, the proposed modification will maintain the MPW Concept Plan as approved under SSD_5066 and will not alter the approved land use as an IMT and warehousing facility. The works required as part of Early Works for the MPW Project have been further refined and it has been identified that works to raise the MPW site are required to achieve the desired stormwater outcomes, meet geotechnical requirements, and minimise offsite disposal of contaminated waste materials.”

47. The Commission, having regard to the material before it, finds that the MPW Concept Modification is consistent with the requirements of section 4.55(2) for the reasons provided by the Department in paragraph 45.

48. In determining the MPW Concept Modification, the Commission has taken into consideration the following relevant mandatory considerations, as provided in section 4.15 of the EP&A Act (**mandatory considerations**):

- the provisions of all:
 - relevant environmental planning instruments
 - relevant 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 of the Department has notified the Commission that the making of the proposed instrument has been deferred indefinitely or has not been approved)
 - planning agreements that have been entered into under section 7.4 of the EP&A Act, and draft planning agreements that a developer has offered to enter into under section 7.4, and
 - the Environmental Planning and Assessment Regulations 2000 (**Regulations**) to the extent that they prescribe matters for the purposes of section 4.15(1) of the EP&A Act,that apply to the land to which the Application relates
- the likely impacts of the MPW Concept Modification, 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 Relevant Environmental Planning Instruments

49. The Department's Concept Modification Assessment Report provided consideration and assessment of the environmental planning instruments (**EPIs**) that apply to the MPW Concept Modification. The following EPIs were identified as relevant:

- *State Environmental Planning Policy No 19 – Bushland in Urban Areas*
- *State Environmental Planning Policy No 33 – Hazardous and Offensive Development*
- *State Environmental Planning Policy No 44 – Koala Habitat Protection*
- *State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)*
- *State Environmental Planning Policy (Infrastructure) 2007*
- *State Environmental Planning Policy (State & Regional Development) 2011 (SRD SEPP) and*
- *Liverpool Local Environmental Plan 2008 (Liverpool LEP).*

50. With regard to the EPIs, set out in paragraph 49 above, the Department's Concept Modification Assessment Report stated that "*Department undertook a comprehensive assessment against these EPIs in its original assessment of the Concept Proposal and is satisfied that the proposal remains consistent with them, except for the proposal to raise building heights above the height controls in the LLEP.*"

51. With regard to *State Environmental Planning Policy No 19 – Bushland in Urban Areas*, the Department's MPW Concept Plan Assessment Report stated that:

"State Environmental Planning Policy No. 19 - Bushland in Urban Areas (SEPP 19) aims to protect bushland within urban areas because of its value to the community, aesthetic value and its value as a recreational, educational and scientific resource.

An assessment of biodiversity impacts was provided as part of the EIS. The Department accepts that vegetation clearing is inevitable for the proposal to proceed. This would require clearing of 52.7ha of threatened ecological communities, however this would be refined during detailed design. A biodiversity offset package has been developed which includes three sites to offset the impacts to threatened vegetation communities and species...

The Department considers that with appropriate mitigation measures, the aims and objectives of SEP 19 have been met".

52. With regard to *State Environmental Planning Policy No 33 – Hazardous and Offensive Development*, the Department's MPW Concept Plan Assessment Report stated that:

"The Department acknowledges that the intermodal facility may handle containers that contain goods that may be considered hazardous and offensive. However, the concept proposal does not seek approval for development involving potentially hazardous and offensive development. The specific location of land use activities that may involve the storage of goods or works of this nature would be determined in future development applications.

The Department is satisfied that the proposed development is not a hazardous or offensive development under SEPP 33, and that all necessary assessments under the SEPP 33 will be undertaken for future development applications".

53. With regard to *State Environmental Planning Policy No 44 – Koala Habitat Protection*, the Department’s MPW Concept Plan Assessment Report stated that:

“State Environmental Planning Policy No 44 - Koala Habitat Protection aims to encourage the conservation and management of natural vegetation that provide habitat for koalas to reverse the trend of koala population decline.

The EIS indicates that given fragmentation of vegetation across the main site, koala habitat may be limited to the riparian zones along the Georges River, much of which would be protected under a [sic] EM3 Environmental Management zone (part of a concurrent Planning Proposal) along the eastern bank....

The Department considers the proposed mitigation measures, in particular the retention of riparian vegetation along the eastern bank of the Georges River, would ensure the aims and objectives of SEPP 44 are met”.

54. With regard to *State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)*, the Department’s MPW Concept Plan Assessment Report stated that:

“State Environmental Planning Policy No 55 - Remediation of Land (SEPP 55) is the primary environmental planning instrument guiding the remediation of contaminated land in NSW. SEPP 55 aims to:

- provide a state-wide planning approach to the remediation of contaminated land;*
- identify when consent is required or not required for a remediation work;*
- specify certain considerations that are relevant to applications for consent to carry out remediation works; and*
- require that remediation work meet certain standards and notification requirement....*

The Department considers that the contaminated lands can be appropriately managed in subsequent applications and as such, considers the site would be suitable for its future intended use as an intermodal facility subject to the implementation of the RAP measures and management controls during the construction and operation of the facility. The concept proposal and early works is therefore considered to satisfactorily address the requirements of SEPP 55”.

55. With regard to *State Environmental Planning Policy (Infrastructure) 2007*, the Department’s MPW Concept Plan Assessment Report stated that:

“The aim of State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) is to improve regulatory certainty, facilitate the effective state wide delivery of infrastructure by providing greater flexibility in the location of infrastructure and service facilities, allowing the development of surplus government land, identifying relevant environmental assessment categories for development, identifying relevant matters to be considered and providing for consultation with relevant public authorities.

Clause 81 Development Permitted with Consent includes rail freight terminals, rail freight sidings or rail intermodal facilities. The proposal is for a rail intermodal terminal and would require a connection into the SSFL which is an ARTC owned/operated line. The proposal is consistent with this clause as it is considered to be development required with consent.

Clause 104 Traffic-generating development applies to the proposed development as the proposal involves more than 8,000m² in floor space. In this regard, and in accordance with clause 104(3) of the Infrastructure SEPP, TfNSW (including RMS) were given written notice of the SSD application and due consideration was given to its comments”.

56. With regard to *State Environmental Planning Policy (State & Regional Development) 2011 (SRD SEPP)* the Department’s MPW Concept Plan Assessment Report stated that:

“The proposal is State significant development given it is development for the purpose of an intermodal facility with a capital investment value (CIV) in excess of \$30 million under clause 19 (Rail and related transport facilities) of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011”.

57. With regard to the intention to raise building heights beyond the controls established in the Liverpool LEP, the Department’s Concept Modification Assessment Report stated that the Department was satisfied that:

- *“the Applicant has adequately addressed clause 4.6(3) of the LLEP”*
- *“the proposed development as modified would be consistent with the objectives for the IN1 General Industrial Zone which include provision of a wide range of industrial and warehouse land uses and to minimise any adverse effect of industry on other land uses”*
- *“the contravention of the development standard does not raise any matter of significance for State or regional environmental planning”.*

58. Separate to the Department’s Concept Modification Assessment Report, by letter dated 23 October 2019 the Department considered the *Greater Metropolitan Regional Environmental Plan No 2 - Georges River Catchment (REP 2)* and stated that it was satisfied that:

- *“subject to the comprehensive suite of conditions recommended for this proposal — relating to for instance stormwater, drainage, erosion and sediment control, biodiversity, riparian corridor buffer protection, and construction and operational environment management generally — the proposal would be consistent with the objects and principles outlined in the SEPP [i.e. REP 2].”*

59. In particular, the Department noted the specific planning principle of REP 2 that states that:

“disturbance of the bank or foreshore along the Georges River and its tributaries is to be avoided and those areas and any adjoining open space or vegetated buffer area must be protected from degradation”

would be enforceable under the Department’s recommended conditions.

60. The Department advised that its recommended conditions of consent would allow for enforcement of this requirement by *“protecting a riparian corridor along the Georges River, and reflect the requirement under the SEPP to consider, for example, whether the development provides a ‘40 metre minimum buffer width from the edge of the gorge or the top of the banks of the Georges River and its tributaries on freehold land that has not been previously developed or cleared’ as well as the needs to ‘reduce the loss of riparian*

vegetation and to remove invasive weed species’, ‘minimise damage to river banks and channels so as to reduce bank erosion’ and ‘increase or maintain terrestrial and aquatic biological diversity and to provide fauna habitat and corridor’.”

Commission’s consideration

61. The Commission accepts the Department’s assessment and additional information, as set out in paragraphs 49 to 60, and finds that the MPW Concept Modification would be consistent with the relevant EPIs, because:
- the EPIs identified in paragraph 49 were considered as part of the approval of the MPW Concept Plan and the MPW Concept Modification is substantially the same as the approved MPW Concept Plan
 - the MPW Concept Modification remains consistent with the consideration of the EPIs considered in the Department’s MPW Concept Plan Assessment Report and the Department’s letter of 23 October 2019
 - the MPW Concept Modification is consistent with the objectives for land zoned as IN1 General Industrial Zone, as defined in the Liverpool LEP, and
 - the contravention of development standards regarding building height were appropriately managed.

5.4 Relevant Strategic plans

62. The Department’s Concept Modification Assessment Report identified three strategic plans as relevant to the MPW Concept Modification and MPW Stage 2 Development Application. These plans are the *Building Momentum: State Infrastructure Strategy 2018 – 2038 (INSW 2018)*, *Future Transport Strategy 2056 (2018)*, *NSW Freight and Ports Plan (2018)*, and *A Metropolis of Three Cities – the Greater Sydney Regional Plan*.
63. With regard to the *Building Momentum: State Infrastructure Strategy 2018 – 2038 (INSW 2018)*, the Department’s Concept Modification Assessment Report stated:
- “The Moorebank Intermodal Precinct 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’ to alleviate existing congestion on the road network around the site.”*
64. With regard to the *Future Transport Strategy 2056 (2018)* and the *NSW Freight and Ports Plan (2018)*, the Department’s Concept Modification Assessment Report stated:
- “the Future Transport Strategy 2056 (2018) emphasises the need for safe, efficient and sustainable movement of freight, and sets a series of future directions for investigation including expanding intermodal rail capacity in Western Sydney. The subsequent NSW Freight and Ports Plan (2018) 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’.*
65. The *Greater Sydney Commission’s A Metropolis of Three Cities – the Greater Sydney Regional Plan* identified 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”.

66. With regard to the *A Metropolis of Three Cities – the Greater Sydney Regional Plan*, the Department’s Concept Modification Assessment Report stated:

“The Greater Sydney Commission’s A Metropolis of Three Cities – the Greater Sydney Regional Plan notes 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”.

Commission’s consideration

67. The Commission has reviewed the MPW Concept Modification with regard to relevant strategic planning documents, as set out in paragraphs 62 to 66. The Commission considers that the MPW Concept Modification is consistent with the identified targets and principles these strategies describe because the MPW Concept Modification as amended will enable the development of MPW, which will provide an important precinct to facilitate the storage and distribution of freight through Port Botany and to both intrastate and interstate receivers.

5.5 Likely impacts of the Concept Modification to the natural and built environments

5.5.1 Site Elevation and Fill Importation

Public and Council comments

68. The Commission heard concerns from the Council, speakers at the public meeting, and received written comments regarding the impacts of importing approximately 1,600,000 m³ of fill to elevate the MPW Project Site – principally that this was a significant deviation from the approved MPW Concept Plan which permitted importation of approximately 46,130 m³ of fill.
69. Concerns were raised by speakers at the public meeting and in written comments to the Commission regarding the impacts of the MPW Concept Modification on:
- local and regional traffic patterns and road safety, including the impact of the significant increase in heavy vehicle movements to service the facility, a potential for extended construction hours, and the lack of transparency and suitability of the traffic modelling
 - urban amenity, including the impact of removing vegetation and increasing the proposed development density on the likely urban heat island (**UHI**) effects and the changes to visual impacts with the MPW Project Site
 - downstream flooding impacts
 - noise impacts of the construction and operation of MPW. Those concerns included a significant increase in industrial noise in the local area and associated adverse health impacts
 - air quality, including an increase in air pollution associated with importing the fill material and ongoing air quality issues from high volumes of diesel emissions, and

- biodiversity, including impacts to the local Koala population and the inability for biodiversity offsets to compensate for cleared habitat.

Applicant's consideration of site elevation and fill importation

Justification of site elevation and fill importation

70. The Applicant identified during its meeting with the Commission that due to the flat topography of the MPW Project Site that additional elevation, provided by importing enough fill to elevate the site by approximately three metres, was required to effectively manage stormwater impacts.
71. The Applicant identified that the need to elevate the MPW Project Site became apparent during the detailed design of the MPW Project Site, after the approval of the MPW Concept Plan.

Assessment of traffic impacts

72. The Applicant undertook an assessment of potential construction and operational traffic impacts generated by MPW Concept Modification. This assessment identified five key intersections as relevant for assessing the impacts of the MPW Concept Modification:
 - Intersection 1 - M5 Interchange/Moorebank Avenue
 - Intersection 2 - Bapaume Road/Moorebank Avenue
 - Intersection 3 - Anzac Road/Moorebank Avenue
 - Intersection 4 - Northern access: MPW Access Road/Moorebank Avenue
 - Intersection 5 - Southern access: Chatham Avenue/Moorebank Avenue intersection
73. The Applicant's Concept Modification Report identified that, with regard to local traffic network movements, *"the majority of construction traffic would enter the MPW site via the Chatham Avenue/Moorebank Avenue intersection (southern access) and exit via the northern access. However, the proposed layout provides flexibility for all movements (exit and entry) at both the northern and southern access points"*.
74. The Applicant's Concept Modification Report identified that, with regard to regional traffic network movements, *"the majority of vehicles would travel to and from the site via the M5 Motorway. A small number of trucks would head south from the MPW site to the Glenfield Waste Facility (located on Cambridge Avenue) to dispose of unsuitable materials; however, no trucks bringing clean fill material to the MPW site would be permitted to access the site via this route. Some light vehicles would travel to the site via Cambridge Avenue with other employees and light vehicles accessing the site via the M5 Motorway, Anzac Road and Moorebank Avenue. Access to and from the site would be via Moorebank Avenue"*.
75. The Applicant's Concept Modification Report identified that *"Traffic impacts generated by the Modification Proposal in isolation for key access roads and intersections were analysed using the SIDRA traffic analysis software (version 7). The following conclusions were reported:*
 - *The existing intersections 1, 2 and 3 would operate satisfactorily at level of service C or better in both AM and PM peak hour period during the construction period.*
 - *The intersections 4 and 5 would operate at level of service B in both AM and PM peak periods. The SIDRA analysis indicated that construction traffic from the proposed*

access points would not adversely impact through traffic on Moorebank Avenue.

The analysis determined that no upgrades are required at intersections 1, 2 and 3 due to the addition of the Modification Proposal construction traffic. The impact of the construction traffic is anticipated to be minor at intersections 4 and 5.”

76. The Applicant’s Concept Modification Report concluded that:

- *“[Construction] Traffic forecasts generated for the Modification Proposal in isolation were calculated. It was concluded that the traffic impacts created by the Modification Proposal in peak periods are relatively minor compared to existing traffic volumes on Moorebank Avenue”*
- *“Overall, the SIDRA analysis indicates that construction traffic from the proposed access points, in consideration of surrounding cumulative construction works would not adversely impact through traffic on Moorebank Avenue.”*

77. The Applicant’s Concept Modification RtS identified that:

- *“Key traffic impacts associated with the Amended Modification Proposal were attributed to the importation of clean general fill, which is scheduled to be undertaken as part of Stage 2 of the MPW Project. The highest number (per day) of truck movements (heavy vehicles) anticipated for the construction of the MPW Stage 2 Proposal are expected to be attributed to the importation of fill, with approximately 740 truck movements (i.e. 1,480 trips) per day”*
- *“Analysis undertaken to measure potential impacts at key intersections indicate that construction traffic during peak morning and afternoon periods the Amended Modification Proposal would result in only an additional 90 vehicle movements per day over a short duration (in the context of the overall development) which could be adequately managed through controls to be included within the CEMP for the MPW Project (refer to REMM 1B, identified within the MPW Concept Approval). Overall, subject to the implementation of the REMMs (MPW Concept SRtS), the impacts of the Amended Modification Proposal could be adequately managed and would not be substantially above those identified in the MPW Concept Approval [under current operating hours].”*
- *“Operational traffic impacts associated with the Amended Modification Proposal additional to those in the MPW Concept Approval were identified to be attributed to the interaction between the MPW and MPE sites. The intersection which would be potentially affected by additional movements associated with this activity is at the Moorebank Avenue / Anzac Road (proposed MPW site entrance) intersection, which is identified to be upgraded under the MPW Concept Approval and future stages of development. Subject to the implementation of these upgrades the operational traffic impacts of the Amended Modification Proposal (and future stages of development) are considered to be able to be adequately managed.”*
- *“An assessment on wider network volumes show the Moorebank Avenue and M5 Motorway interchange would perform satisfactorily during the AM and PM peak hours in 2030 both with and without the predicted traffic generated by the MPW Project. The Hume Highway and M5 Motorway interchange is predicted to operate at an unsatisfactory level of service (LoS F) for the PM peak hours with or without the generated traffic by the MPW Project”.*
- *“Overall, only a minor contribution to congestion is predicted throughout the road*

network due to the traffic generated by the MPW Project. Furthermore, there are no significant intersection performance changes between the 'with' and 'without' the MPW Project scenarios. This is because the network in 2030 is generally predicted to be already congested based on general background traffic growth predictions".

Assessment of urban amenity impacts, visual impacts and landscaping

78. The Applicant's Concept Modification Report identified, with regard to urban amenity and UHI effects, that no *"change is proposed in the Amended Modification Proposal to the operational aspects and impacts assessed and approved in the MPW Concept Approval"* and that the assessed amenity impacts are consistent with those contained in the approved MPW Concept Plan.
79. As part of the Concept Modification Report the Applicant assessed the impact of changing the site elevation as it relates to visual impacts, and the importation of suitable clean fill to achieve the proposed increase in site elevation. This assessment included consideration of the change in visual impacts associated with maintaining planned building heights while increasing the site elevation.
80. The Applicant's Concept Modification Supplementary RtS identified that UHI effects comprise two key forms: surface UHI effect and atmospheric UHI effect. The Concept Modification Supplementary RtS stated that:
- *MPW Concept Modification "would result in an increase in impervious areas and would, therefore, have the potential to result in surface UHI. A landscape plan has been prepared for the MPW Stage 2 Proposal and is presented in Appendix E of the EIS, which outlines the proposed strategy for retaining vegetation and revegetating areas to the greatest extent possible. Further, a conservation area will be retained to the west of the Proposal site minimising the potential for the Proposal to result in surface UHI. Some surface UHI may be experienced (particularly during summer months), however this would generally be restricted to localised areas with the Proposal site." and*
 - *"Atmospheric UHI is typically a result of high density urban development (with buildings located closely to one another), as well as from waste heat from energy consumption. The warehouse layout provided for the Proposal allows for a low-moderate density industrial use. Further, warehouses have a substantially lower energy demand per square metre than residential or commercial buildings. Machinery and equipment would have a power requirement; however, this would be substantially lower than that of the building power demand. The potential for the Proposal to contribute to atmospheric UHI is, therefore, considered to be low".*
81. The Applicant's Concept Modification Supplementary RtS identified that *"the proximity of Georges River and large vegetated areas (to the south and east of the Proposal site) will ameliorate UHI occurring within the area. The potential UHI effects from the Proposal are therefore considered to be minor. In addition, a variety of both large and small tree forms is proposed to both reduce the heat island effect and create a naturally appearing landscape treatment"*.
82. The Applicant's Concept Modification Supplementary RtS also identified that the landscape plans for the MPW Project Site *"are proposed to integrate the development with the surrounding environment using tree, shrub and groundcover species that are local to the area to create habitat opportunities and links to surrounding habitat. The focus of the landscape works includes:*

- *The integration of the Moorebank Avenue frontage*
 - *Landscape works associated with internal roads and warehouses*
 - *Landscape interface with the vegetation conservation areas*
 - *Further detail regarding landscape design is provided in Landscape design plans for the Amended Proposal*.
83. The Applicant's Concept Modification RtS identified that a visual impact assessment, including a detailed light spill assessment, was undertaken to inform the assessment of the MPW Concept Plan. This visual impact assessment concluded that impacts are predicted to range from negligible to moderate/high for different receptors during construction and operation, with the highest level of impacts associated with the presence of tall construction cranes and receptors on the elevated areas to the west of the Georges River.
84. The Applicant undertook a visual impact assessment of the MPW Concept Modification, which concluded that the:
- *"Amended Modification Proposal would not result in significant changes to the visual landscape to that already assessed as part of the MPW Concept Approval. Overall the additional height would generally result in consistent visual impacts already identified and assessed as part of the MPW Concept Approval. Therefore, the outcomes and recommendations of the assessment undertaken for the MPW Concept Approval are still considered relevant and appropriate for the assessment of the Amended Modification Proposal", and*
 - *"No additional mitigation measures are required for the Amended Modification Proposal".*

Assessment of construction and operational noise impacts

85. The Applicant's Concept Modification Report identified that the *"MPW Concept Plan Approval included a Noise and Vibration Impact Assessment (NVIA) (SLR Consulting, 2014) which assessed the noise and vibration impacts associated with construction and operation of the MPW Project and the Early Works. No further assessment of the noise and vibration impacts associated with the Early Works was included.... as the activities identified as occurring during Early Works... were consistent with the activities assessed for Early Works within the MPW Concept Plan EIS."*
86. The Applicant's Concept Modification Report identified that:
- *"Construction noise associated with the Modification Proposal was assessed in accordance with the ICNG [Interim Construction Noise Guideline] within the Noise and Vibration Impact Assessment.*
 - *"Noise levels at sensitive receivers were predicted, assuming that all plant is operating simultaneously, with a modelled sound power level (SWL) of 128 dBA over the area of impact. The predicted noise levels are presented in Table 17 for standard hours. No exceedance of the NMLs for the MPW Project are predicted as a result of the Modification Proposal works during standard construction hours, with the exception of a 1 dB(A) exceedance at Casula, which is not perceptible to the average human ear."*
87. The Applicant's Concept Modification Report considered the cumulative noise impacts associated with the MPW Concept Modification, and concluded that:

- “The worst-case cumulative construction noise levels at sensitive receivers, during standard construction hours, are presented...No exceedance of the NMLs for the MPW Project are predicted during the cumulative construction noise scenario, with the exception of a 2 dB(A) exceedance at Casula, which is not perceptible to the average human ear.”
- “increases in road traffic noise levels along the M5 Motorway and along Moorebank Avenue north of the M5 interchange are considerably less than 2 dBA, which represents a minor impact that is considered barely perceptible to the average person. In accordance with the RNP [Road Noise Policy], no mitigation of traffic noise levels is warranted.”

88. The Applicant’s Concept Modification RtS identified that:

- “additional potential noise impacts of the Amended Modification Proposal not assessed within the MPW Concept Approval include the adjustment to final building formation levels of the MPW site and the changes to function of the IMT facility. Both of these activities are scheduled to be undertaken during Stage 2 of the MPW Project, and an indicative worst-case scenario modelling these impacts during this stage has been developed. The adjustment to building formation levels under the Amended Modification Proposal is anticipated to result in impacts that are generally consistent with those identified in the MPW Concept Approval. These noise impacts are considered to be able to be managed through the OEMP [Operation Environment Management Plan] to be prepared for future stages of development...”
- “The noise and vibration impacts that would have previously been associated with the Stage 1 (Early Works) phase under the original Modification Proposal, would now be included within Stage 2 of the MPW Project as per the Amended Modification Proposal. Further assessment has been undertaken to measure any additional noise impacts generated as a result of Amended Modification items. The results of this assessment indicate that the Amended Modification Proposal would not generate any additional exceedances to relevant criteria from that originally proposed under the MPW Concept Approval.... As outlined within the Modification Report, noisy activities, including crushing, are to be restricted to standard construction hours, while concluding that low noise generating activities would be permissible during out of hours works.”

Assessment of changes in air quality and impacts to human health

89. The Applicant undertook a *Regional Air Quality Impact Assessment* and a *Local Air Quality Impact Assessment* as part of the Concept Modification Report to assess the likely change in air quality associated with the MPW Concept Modification.

90. The Applicant’s Concept Modification RtS identified that “[k]ey additional activities impacting air quality impacts during the MPW Project that were not assessed in the MPW Concept EIS include the import, placement and stockpiling of approximately 1,600,000 m³ of clean general fill. Under the Amended Modification Proposal, the importation of clean general fill is to be undertaken during Stage 2 of the MPW Project”.

91. The Applicant’s Concept Modification Report identified that:

- “The predicted increase in annual average PM₁₀ is generally less than 1 µg/m³ at all receptors and when combined with background, there are no cumulative exceedances of the impact assessment criteria for annual PM₁₀
- Background concentrations of PM_{2.5} already exceed the NEPM AAQ [National Environment Protection (Ambient Air Quality) Measure] reporting standard, therefore

cumulative predictions are also above the standard at all receptors, however, the modelling shows a relatively minor increase in annual average PM_{2.5} (less than 0.6 µg/m³) at all receptors

- *Statistical analysis shows that additional exceedances of the 24-hour PM₁₀ impact assessment criteria, beyond what is caused by the existing background air quality, is limited to one sensitive receptor and the risk would be 1 additional exceedance day per year*
- *Additional exceedances of the 24-hour PM_{2.5} NEPM AAQ reporting standard, beyond what is caused by background, would be limited to 1-2 additional days per year*
- *There are no predicted exceedances of the annual average TSP [Total Suspended Particulate] or dust deposition impact assessment criteria”.*

92. The Applicant’s Concept Modification Report concluded that “[c]onsistent with previous air quality assessments undertaken for the MPW Concept Plan, the potential air quality impacts are expected to be low risk and short-term in nature, given the implementation of the mitigation measures outlined within the following section”.

93. The Applicant’s Concept Modification RtS identified that:

“An assessment of potential air quality impacts of the Amended Modification Proposal was undertaken (refer to Section 7.1.7 of this RtS). It was identified within this assessment that the importation of clean general fill would potentially result in construction air quality impacts including generating dust emissions. Dispersion modelling results for this activity indicated that the construction phase emissions would comply with all relevant impact assessment criteria. The predicted increase in annual average PM₁₀, PM_{2.5}, TSP and dust deposition are considered minor, when compared against existing background conditions”.

94. The Applicant’s Concept Modification RtS concluded that “[s]ubject to the implementation of the mitigation measures outlined below, air quality impacts associated with the Amended Modification Proposal are expected to result in no additional impact to those already assessed in the MPW Concept Approval”.

Assessment of biodiversity impacts

95. The Applicant undertook an ecological impact assessment to inform the assessment of the MPW Concept Plan. This ecological impact assessment identified significant biodiversity values on the MPW site, including three threatened ecological communities, two threatened flora species and potential habitat for 25 threatened fauna species.

96. The Applicant’s Concept Modification Report stated that the “*area of impact of the Modification Proposal is greater than the approximate footprint for Early Works, however the vegetation of the additional areas is similar to that which will be disturbed by Early Works, comprising scattered native and introduced trees and shrubs over mown grassland and developed areas. The area of impact lies within areas previously surveyed for the Concept Plan Approval*”.

97. The Applicant’s Concept Modification Report stated “*A number of indirect impacts on biodiversity values, particularly in adjoining areas of native vegetation, could potentially arise as a result of the Modification Proposal. Edge effects, weed invasion, sedimentation and erosion, noise (impacts on fauna), dust pollution and ecological light pollution were all considered with regard to the impact of Modification activities and surrounding works. It was concluded that with the implementation of appropriate*

management measures, any impacts to biodiversity from Modification activities relating to these aspects will be minor given the nature of the works in question and the context of the surrounding environment”.

98. The Applicant’s Concept Modification RtS concluded that “[a]ssessment of impacts for biodiversity.... revealed that the Amended Modification would not generate a level of impact that wouldn’t be adequately managed or mitigated through implementation of mitigation measures already prescribed under the MPW Concept Approval”.

Applicant’s conclusions on fill importation and increasing site elevation

99. The Applicant’s Concept Modification Report concluded that “[t]he potential environmental, social and economic impacts, both direct and cumulative, have been identified and thoroughly assessed as part of this Modification Proposal. It has been determined that the Modification Proposal would result in a minor intensification of activity associated with the Early Works, however, this would be of a short duration and would be managed with minimal environmental impact through the implementation of the mitigation measures”.

Department’s consideration of site elevation and fill importation

100. The Department’s Concept Modification Assessment Report identified that the potential impacts associated with the importation of a sufficient volume of clean fill to raise the MPW Project Site would overlap with the consideration of changes in impacts from traffic, noise, site hydrology, air quality, visual amenity and biodiversity.
101. The Department’s Concept Modification Assessment Report recommended “*conditions that the importation of contaminated fill be prohibited, finished ground levels not exceed 16.6 m AHD, and clearing and earthworks be phased to minimise dust and erosion and associated water quality and ecological impacts. Future development applications should demonstrate development would be unaffected by residual contamination, and long-term site management and monitoring (including of per- and poly-fluoroalkyl substances) would be unaffected by fill placement”.*

Assessment of traffic impacts

102. The Department’s assessment of the MPW Concept Modification identified that traffic impacts would occur in two distinct categories: construction traffic and operational traffic.

Construction related traffic impacts

103. Regarding construction traffic, the Department’s Concept Modification Assessment Report stated that:
- “the proposed large increase in fill importation results in a significant increase in heavy vehicle movements. In view of this and the assumptions made in the MOD RtS traffic assessment, the Department recommends conditions that a future development application for the importation of fill includes an assessment of construction traffic impacts (including cumulative impacts taking into account construction approved for the MPE site) and identifies appropriate management measures, as impacts on Moorebank Avenue and associated intersections would vary...”*
104. As outlined earlier in paragraph 74, the Applicant’s Concept Modification Report noted a small number of truck movements from MPW to the Glenfield Waste Facility located on Cambridge Avenue.

The Department's Concept Modification Assessment Report identified that *“Condition E12 of the Concept consent prohibits heavy vehicles associated with the MPW using Moorebank Avenue south, with the intent of preventing heavy vehicle movements along Cambridge Avenue.*

105. To manage the potential traffic impacts to Cambridge Avenue the Department's Concept Modification Assessment Report recommended that *“the prohibition on heavy vehicle movements along Cambridge Avenue remain”*.
106. The Department's Concept Modification Assessment Report stated that the *“Department is satisfied that construction traffic and access impacts can be managed through Construction Traffic and Access Plans (CTAMPs) prepared for future development applications, provided these:*
 - *incorporate the Applicant's commitments (above)*
 - *include RMS requirements*
 - *address cumulative impacts as per the Department's recommendation”*.

Operational traffic related impacts

107. Regarding operational traffic, the Department's Concept Modification Assessment Report identified that:
 - *“If an increase in warehousing GFA was proposed as a result of the expansion of the warehousing footprint over the original southern rail terminal footprint, environmental impacts including cumulative traffic impacts would increase. As noted earlier, the Department recommends a general condition that all future development applications provide cumulative assessments for construction and operation of the overall Moorebank Intermodal Precinct.”*
 - *“The proposed transfer of containers between the MPW and MPE sites would result in an increase in traffic volumes at, and in between, the MPW and MPE site entrances. As the distance between the site entrances is only 400 m and this stretch of Moorebank Avenue also includes the DJLU signalised entrance, there is potential for truck queueing at intersections and impacts on public use of Moorebank Avenue by vehicles and pedestrians”*
108. The Department's Concept Modification Assessment Report stated that as *“potential impacts on Moorebank Avenue through traffic and impacts on the Moorebank Avenue/ MPE and DJLU intersections were not assessed as part of the Modification Application, the Department's recommended general condition... would ensure that future development applications include:*
 - *assessment of cumulative traffic impacts*
 - *demonstration that overall cumulative construction and operational impacts would not increase*
 - *show public access arrangements including vehicle access between Anzac Road and Cambridge Avenue, public transport and pedestrian/cyclist connections”*

Assessment of urban amenity impacts, visual impacts and landscaping

109. The Department's Concept Modification Assessment Report stated that *“Urban Heat Island (UHI) effects would result from placement of fill over the site (outside the conservation area/ riparian corridor) as all existing vegetation would be cleared including canopy trees, and existing permanent/ semi-permanent water bodies would be filled”*.

110. The Department's Concept Modification Assessment Report identified that "[t]he assessments undertaken for the Concept EIS were based on, amongst other matters, proposed gross floor areas (GFAs) for warehousing. However, as these GFAs were not specified in the Concept consent, the Department recommends the following condition. The maximum GFAs for the following uses apply:
(a) 300,000 m² for the warehousing and distribution facilities
(b) 800 m² for the freight village."
111. The Department's Concept Modification Assessment Report also identified "[i]n addition to an increase in operational impacts such as traffic and noise, any substantial increase in the overall warehousing floor area would result in an increase in hard surfaces and a corresponding decrease in landscaped area and the area available for stormwater treatment. Warehouse development proposed under MPW Stage 2 (215,000 m² of the approved (sic) 300,000 m² GFA) is shown within the northern half of the site which would be a substantial increase in density in this location and result in increased UHI impacts. This would not have been envisaged at the time of the Concept consent".
112. The Department's Concept Modification Assessment Report concluded that UHI effects, "would result from placement of fill over the site (outside the conservation area/ riparian corridor) as all existing vegetation would be cleared including canopy trees, and existing permanent/ semi-permanent water bodies would be filled.
113. To manage the potential increased impact from higher density development, the Department's Concept Modification Assessment Report recommended the inclusion of conditions E17A and E17B to the conditions of consent for the approved MPW Concept Plan. The Department's Concept Modification Assessment Report states: "These conditions will require all future development applications on the MPW site to incorporate the principles of the water sensitive urban design (**WSUD**), and the NSW Government Architect's Greener Places policy."
114. The Department's Concept Modification Assessment Report identified that the increased visual impacts associated with increasing the elevation of the MPW Project Site would be partially mitigated by areas of remnant vegetation and that the "[p]reservation of a minimum 40 m wide, vegetated riparian corridor as required under Condition E16 from the top of the highest bank of the Georges River is therefore important for site screening as well as riparian habitat connectivity".
115. The Department's Concept Modification Assessment Report acknowledged "that there could be some variation in the volume of uncompacted fill brought to the site to achieve the proposed site levels depending on the characteristics of the fill material (e.g. rock size) and compaction rates. To ensure that visual impacts are no greater than identified, the Department recommends a condition that the total volume of uncompacted fill brought to the site must not exceed 1,600,000 m³ unless it can be demonstrated in future development applications that this would not result in finished ground levels exceeding 16.6 m AHD".
116. The Department's Concept Modification Assessment Report recommended a condition (E17A) requiring "future development applications include an assessment of the visual impact of the raised landform, built form (materials and finishes) and urban design (height, bulk and scale) including lighting and signage when viewed from residential areas, and include details of measures to mitigate impacts".

Assessment of offsite flooding and hydrology

117. The Department's Concept Modification Assessment Report identified that *"The ABB site would be up to 3 m below the filled MPW site, hence overland flows to the south would be blocked. There is an existing stormwater pipe through the ABB site and, as part of the MPW Stage 2 Application, a new outlet is proposed to the Georges River within the Endeavor Energy easement which is adjacent to the ABB site"*.
118. The Department's Concept Modification Assessment report states in relation to offsite flooding that: *"Although the Department shares ABB's concerns, the Concept consent Condition E20 (sic) [E21] requires future development applications to assess impacts on surface flows, changes to flooding behaviour and the capacity of stormwater drainage structures. The Department is satisfied that this requirement would identify any required upgrading of stormwater infrastructure on the ABB site to minimise impacts from the placement of imported fill"*.

Assessment of noise impacts

119. The Department's Concept Modification Assessment Report identified that *"assessment of noise and vibration impacts on residential receivers was included in the Modification Report (June 2016) for the Early Works (Stage 1) combined with fill importation activities, i.e. trucking, unloading, crushing of oversized material, fill stockpiling, placement and compaction. Cumulative impacts with construction of MPE Stage 1 (rail line and terminal) were also considered"*.
120. The New South Wales Environment Protection Authority's (**EPA's**) submission on the MPW Concept Modification, dated 25 July 2017, concluded that:
"The EPA considers that the conditions outlined in the Development Consent for Early Works (Stage 1) issued for application number 5066, dated 3 June 2016, adequately cover the environmental issues of noise and air quality in regard to the proposed modification".
121. The Department's Concept Modification Assessment Report considered the changes in operational noise as result of the MPW Concept Modification and stated: *"The Department considers that:*
- the layout of the development could be designed to minimise noise impacts on sensitive receivers*
 - the conservation area/ riparian corridor provides a buffer between the development and the residential area to the west and the MPE site warehouses would provide shielding to the east*
 - onsite mitigation measures to address any residual impacts could be identified through assessments in future development applications.*
 - ...the Department recommends that future development applications provide cumulative (MPW + MPE) construction and operational noise impact assessments."*

Assessment of air quality and human health impacts

122. The Department's Concept Modification Assessment Report recognised that air quality and potential associated impacts on human health were a key community concern and identified that, with regard to air quality: *"health issues are addressed through the recommendations relating to dust, fill quality...."*.

123. To address this concern, the Department recommended “a condition that vegetation clearing and earthworks (including fill importation and placement) under a future development application be phased to minimise dust impacts. The Department also recommends a condition that there is no long term stockpiling or stockpiling of imported fill for use as part of a subsequent future development application in order to... minimise dust”.
124. The EPA submission on the MPW Concept Modification, dated 25 July 2017, concluded that:
“The EPA considers that the conditions outlined in the Development Consent for Early Works (Stage 1) issued for application number 5066, dated 3 June 2016, adequately cover the environmental issues of noise and air quality in regard to the proposed modification”.

Assessment of biodiversity impacts

125. The Department’s Concept Modification Assessment Report identified “*that the location of imported fill should not result in impacts (including indirect impacts) on the biodiversity values of the riparian corridor/ conservation area/ biodiversity offset areas. The Department’s recommended conditions relating to the design of fill batters and maintenance access (for MPW Stage 2) and dust, erosion and sedimentation... would ensure there were no direct or indirect impacts on biodiversity values in these areas”.*
126. The Department’s Concept Modification Assessment Report identified that an “*updated Biodiversity Assessment Report (BAR dated 20/3/2019) which included reference to Koala use trees in accordance with the latest OEH guidelines ‘A review of koala tree use across New South Wales’ (OEH 2018) was submitted as part of the MPW Stage 2 Application. This included supplementary Koala survey results which detected Koala scats within the south-eastern boundary of the MPW site and within the adjacent Boot land... to the east, with one Koala being recorded by infrared camera in the Boot land east of the MPE site”.*
127. The Department’s Concept Modification Assessment Report identified that “*the site must not prevent provision of vegetated wildlife corridors linking the Georges River riparian corridor and Moorebank offset area, with the Wattle Grove offset area... and recommends a condition to this effect. In line with OEH’s recommendation, the Department also recommends a condition that all future development applications include an assessment of the impact of the development on core Koala habitat and provide a detailed assessment of options to minimise impacts”.*
128. The Department’s Concept Modification Assessment Report concluded that “*[e]arthworks over the entire site would mean it would not be possible to retain any existing trees in the long term. The Department notes that the MPW Stage 2 Application proposes warehouse estate development on the northern part of the site, with warehouse development on the southern part of the site subject to a future Stage 3 development application(s)..... the Department recommends a condition for phased vegetation clearing and earthworks which would assist in tree retention (including Koala use trees) in the short term”.*
129. The Department’s Concept Modification Assessment Report concluded that as “*all vegetation within the developable area would be cleared, the Department recommends setbacks from the riparian corridor, provision for wildlife corridors and minimising impacts on core Koala habitat”.*

Commission's consideration of site elevation and fill importation

Consideration of traffic impacts

130. The Commission acknowledges the public's and Council's submissions and concerns regarding the traffic modelling undertaken by the Applicant and RMS. The Commission acknowledges that practical differences in modelling methodologies may exist. However, the Commission considers that the Applicant and RMS modelling provides an appropriate assessment of the expected construction and operational traffic impacts.
131. The Commission acknowledges the public concern regarding the extension of construction hours and potential impact this may have on heavy vehicle traffic entering and exiting the MPW Project Site. The Commission considers the Department's recommended conditions of consent, which set out the detailed design and assessment requirements for future development applications, will effectively manage the traffic impacts for all future development applications for the MPW Project Site.
132. During a meeting between the Commission and RMS, as set out in paragraph 28, RMS 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.
133. It was also confirmed that RMS was satisfied that the Applicant's financial contribution, through the negotiated planning agreement, to upgrades to the local and regional road network was appropriate to address the expected traffic impacts which would not be managed by road works undertaken by the Applicant.
134. The Commission accepts the assessment and conclusions of the Department, as set out in paragraphs 103 to 108, and RMS, outlined above, because the traffic-related impacts have been appropriately identified and suitable amendments made to the Department's recommended conditions of consent for the MPW Concept Plan to ensure all traffic impacts, including cumulative impacts, are assessed with the identified likely impacts mitigated and managed through reasonable and appropriate conditions.
135. Based on the material, the Commission finds that the construction and operational traffic impacts of the MPW Concept Modification are not significantly greater than the impacts considered as part of the approved MPW Concept Plan 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 operational traffic is largely consistent with the assessed and approved operational traffic impacts considered as part of the assessment of the MPW Concept Plan
 - the potential changes to construction and operational traffic impacts, including cumulative impacts, is required to be fully assessed as part of any future development application, including the current MPW Stage 2 Development Application, and
 - impacts to the regional road network will be appropriately managed through road upgrades undertaken by RMS and funded by the Applicant through the planning agreement.

Consideration of urban amenity impacts, visual impacts and landscaping

136. The Commission recognises the importance of achieving appropriate urban amenity outcomes, such as visual, hydrological and ecological impacts, for large developments with extensive impervious surfaces and large format buildings, including the planned development for the MPW Project Site, which can have significant urban heat island effects.
137. The Commission accepts the conclusions of the Department, as outlined in paragraphs 109 to 116 above, because although the MPW Project Site has been designed to deliver a specific industrial function, that function needs to incorporate good urban design elements, including the principles of WSUD, and outcomes to appropriately mitigate and manage potential adverse amenity impacts to adjacent and proximate receivers, including residential developments.
138. The Commission considers that appropriate landscaping within the built precinct is likely to ensure an appropriate urban amenity outcome. The Commission considers the Department's recommended conditions of consent, which set out the detailed design and assessment requirements for future development applications, are likely to effectively manage the landscaping and urban amenity outcomes for all future development applications made in respect of the MPW Project Site.
139. The Commission acknowledges that the elevation of the MPW Project Site may change the likely visual impacts from nearby receivers, in particular those located to the west of the MPW Project Site. However, the Commission considers that the level of visual impact will not be significantly different from the approved MPW Concept Plan (see paragraph 78) and that these impacts can be mitigated through the Department's proposed conditions of consent.
140. Based on the material, the Commission finds that the changes in the impact to urban amenity are acceptable because the planned higher development density in the northern portion of the MPW Project Site is not substantially different from the nature and extent of the impacts considered as part of the approved MPW Concept Plan (see paragraph 72). The Commission considers the recommended conditions of consent, which set out the detailed design and assessment requirements for future Development Applications, are likely to effectively manage the amenity impacts for all future Development Applications for the MPW Project Site.

Consideration of offsite flooding and hydrology

141. The Commission acknowledges the statements by the Department regarding the flooding and hydrological impacts of the MPW Concept Modification, as set out in paragraphs 117 to 118.
142. The Commission accepts the assessment and conclusions of the Department (see paragraphs 117 and 118) and finds that the changes in the impact to offsite flooding will be appropriately managed by the Department's recommended conditions of consent, which set out the detailed design and assessment requirements for future development applications to effectively manage the offsite flooding impacts for all future Development Applications for the MPW Project Site.

Consideration of noise impacts

143. The Commission accepts the assessment and conclusions of the Department, as outlined in paragraphs 119 to 121 because they provide a satisfactory assessment of the likely change in construction and operational noise impacts associated with the MPW Concept Modification. The Commission accepts that noise impacts are capable of being mitigated and managed through reasonable and achievable methods to be established as part of the assessment of subsequent development applications.
144. The Commission accepts that the scope of the MPW Concept Modification is limited with regard to changes in the predicted construction and operational noise impacts. Accordingly, the Commission considers that beyond the amended assessment requirements set out in the Department's Concept Modification Assessment Report, no additional assessment requirements or conditions are required.
145. The Commission acknowledges the EPA's position that the existing conditions of consent for the MPW Concept Plan will adequately manage noise and air quality for the MPW Concept Modification as set out in paragraph 124.
146. Based on the material, the Commission finds that although the MPW Concept Modification may change the predicted construction and operational noise associated with developing and operating MPW site, this change is unlikely to be significantly elevated from the noise impacts assessed as part of the MPW Concept Plan (see paragraph 79). The Commission also finds that the overall nature and source of the noise impacts considered as part of the approved MPW Concept Plan remain largely unchanged and can be effectively managed by the Department's recommended conditions, as accepted by the EPA, and captured as part of the assessment requirements for future development applications.

Consideration of air quality and human health impacts

147. The Commission accepts the assessment and conclusions of the Department, as outlined in paragraphs 122 to 124, because they provide a satisfactory assessment of the likely source of air quality impacts and the associated potential impacts on human health, inclusive of reasonable and achievable methods for managing these impacts to be established through the assessment of subsequent development applications.
148. The Commission acknowledges the EPA's submission, as set out in paragraph 124, regarding the adequacy of the current conditions of consent for the MPW Concept Plan to manage and assess the potential air quality impacts associated with the MPW Concept Modification.
149. Based on the material, the Commission finds that the MPW Concept Modification would not result in a significant increase in the predicted construction and operational air quality impacts associated with the approved MPW Concept Plan. The Commission also finds that the likely changes to the nature and extent of air quality impacts can be effectively managed by the recommended conditions and captured as part of the assessment requirements for subsequent development applications.

Consideration of biodiversity impacts

150. The Commission accepts the assessment and conclusions of the Department, as outlined in paragraphs 125 to 129 above, because the identified impacts to biodiversity are consistent with the approved MPW Concept Plan and where potential new impacts have been identified, the Department has provided reasonable and achievable methods

for managing these impacts through the recommended conditions attached to the MPW Concept Modification, including assessment requirements for subsequent development applications.

151. The Commission acknowledges the Department's conclusion that the conditions of consent are likely to ensure minimal additional direct or indirect impacts to the biodiversity values of the riparian corridor, conservation areas and biodiversity offset areas, as set out in paragraph 125. The Commission considers that the recommended conditions of consent, that will also apply to future development applications, will appropriately manage and reduce the extent of indirect impacts associated with the construction and operation of MPW.
152. Based on the material, the Commission finds that the MPW Concept Modification has an acceptable impact on biodiversity in the construction and operational phases. While the Commission acknowledges that ongoing assessment on the MPW Project Site has identified Koalas as being present, the assessment and management requirements set out in the recommended conditions of consent are suitable to manage impacts to Koalas.

Commission's conclusions regarding site elevation and fill importation

153. The Commission acknowledges that the change in site elevation has implications for other potential impacts associated with the MPW Concept Modification, including changes to traffic patterns, site hydrology and stormwater management, visual amenity, biodiversity, noise, landscaping and air quality as set out in paragraphs 130 to 152.
154. The Commission accepts the conclusions of the Department, as outlined in paragraphs 100 to 129, because although the elevation of the MPW Project Site will alter the potential impacts associated with developing 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.
155. The Commission considers that the Department's recommended conditions for managing fill quality are reasonable to ensure the development is unaffected by residual contamination issues by the importation of fill as set out in paragraph 101.
156. Based on the material, the Commission finds that changes to the site elevation and revisions to the MPW layout are acceptable because:
 - the elevation of the MPW Project Site will allow for improvements in the stormwater management system, benefitting both the function of the MPW Intermodal facility and downstream receivers while facilitating the development and operation of the MPW intermodal facility, as set out in paragraphs 188 to 191 below, and
 - the site elevation and revisions to the layout of the MPW Project Site are not substantially different from the nature and extent of the impacts considered as part of the approved MPW Concept Plan.

5.5.2 Revised Site Layout, Construction Phasing and Interaction between MPW and MPE

Public and Council comments

157. Council raised in its meeting with the Commission its preference for the MPW Project Site to incorporate a greater range of industrial and commercial uses, identifying that

the intermodal facilities were utilising a large amount of the zoned industrial land in the Liverpool Local Government Area, which could limit further industrial development.

158. Concerns were raised by speakers at the public meeting and in written comments regarding the MPW Concept Modification in relation to:
- uncertainty of timing, the extent of road upgrades, the lack of transparency and suitability of the traffic modelling, and
 - 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 the revised site layout, construction phasing and interaction between MPW and MPE

Justification for changes to the construction staging and site layout

159. The Applicant's Concept Modification Supplementary RtS set out the justification for the project staging, stating that the staging of future development applications would allow for "alteration to future staging of the MPW Project for the purposes of addressing market demand".

160. The Applicant's Concept Modification Supplementary RtS also stated, with regard to the construction staging that:

"Since the preparation of the MPW Concept Approval EIS, the previously proposed phasing of the MPW Project has changed, to align with constructability and operational efficiencies at the MPW site.... This alternative approach would facilitate for additional warehousing to be operating on the MPW site earlier, thereby providing greater opportunity for the transfer of containers to on-site warehousing rather than external sources. This would contribute to a reduction in the amount of traffic generated by the Proposal at this stage, as opposed to a smaller warehousing operation identified for Stage 2, within the MPW Concept Approval EIS....

The amendments to staging have been undertaken to better structure and sequence the development from both an operational efficiency with environmental impacts to be managed through the implementation of mitigation measures..."

161. The Applicant's Concept Modification Supplementary RtS also stated, with regard to the revised site layout that:

"the Amended Modification Proposal includes several alterations to the functional uses supporting the approved land use of the MPW Concept Approval. These alterations include the freight village, truck loading area and OSDs.

The freight village for the Amended Modification Proposal has been relocated to an area previously identified for warehousing, at the northern end of the MPW site, directly adjacent to the drainage channel (that leads to the northern OSD) and western perimeter road (refer to Figure 6-2). The land previously identified for the freight village is identified for warehousing under the modified layout.

The revised layout for truck parking would see the original area identified for truck parking used for warehousing. Truck parking areas would now be more efficiently integrated into the IMT facility, with an additional area on the northern part of the Proposal site for emergency storage if necessary".

162. The Applicant raised during its meeting with the Commission that the Department's recommended conditions of consent did not provide the required flexibility to manage the delivery of fill resources and undertake a complex construction operation, including ongoing site remediation works, without significant ongoing project modifications.

Assessment of riparian width and connectivity

163. Regarding the MPW Concept Modification, the Applicant stated their preference for deleting proposed condition E16A, which would require the Applicant to ensure: *"All future Development Applications must demonstrate that onsite detention basins are located outside the riparian corridor and the outlets have been designed to minimise impacts on the riparian corridor."*

Assessment of stormwater management & flooding

164. The Applicant's Concept Modification Report assessed that the:
- *"existing drainage system, being retained for the Early Works activities, has stormwater generally conveyed via pits, pipes and open channels in a north-westerly direction across the MPW site and discharged into the Georges River. Only one of the existing stormwater pipe networks discharges elsewhere (into Anzac Creek). Based on the local topography, a number of land areas surrounding the MPW site partially drain into the site through open channels, box culverts, natural drainage lines and overland flows during differing rainfall events."*
 - *"area of impact for the Modification Proposal is greater than the approximate footprint for Early Works, however land use activities including site preparation (clearing, topsoil stripping and stockpiling) are similar in nature to that approved for Early Works. The proposed Modification would result in an intensification of activities associated with Early Works, which would result in an intensification of erosion and sedimentation impacts previously identified for Early Works"*.
165. The Applicant's Concept Modification Report identified a range of mitigation strategies to improve the stormwater management, including:
- *"A soil and water management plan (or equivalent) would be developed before work begins in the conservation area. This plan would include erosion and sediment control plans (ESCPs) and procedures to manage and minimise potential environmental impacts associated with developing this area"*
 - *"Site compounds, stockpiling areas and storage areas for sensitive plant, equipment and hazardous materials would be located above an appropriate design flood level, which would be determined based on the duration of the construction works"*
 - *"Biofiltration and detention basins that form part of the proposed stormwater management strategy would be excavated at the first phase of development, with the intention that the excavated basins would be used as temporary construction phase sedimentation basins. Once these construction phase basins become operational, these temporary construction phase sedimentation basins could be developed into the permanent biofiltration and detention basins"*

166. The Applicant's Concept Modification Report concluded that *"potential impacts on stormwater associated with the Modification Proposal represent a minor increase from those assessed for the Early Works under the MPW Concept Plan EIS, RtS and SRtS. Through the implementation of the mitigation measures approved for the MPW Concept Plan identified above, stormwater impacts associated with the Modification Proposal are expected to be generally consistent with the impacts predicted within the MPW Concept Plan EIS"*.
167. The Applicant's Concept Modification RtS identified that:
- *"All flows running from the developed site would be discharged via site drainage infrastructure directly into the Georges River and Anzac Creek. Further assessment has been undertaken to assess the impact associated with increased flood risk from importing clean general fill to site, as part of the Amended Modification Proposal."*
 - *"Regional flood risk from the Georges River would be minimised during construction as the area of disturbance would be consistent with the MPW Concept Approval development footprint which is located above the 1% AEP Flood extent."*
 - *"the placement and spreading of clean general fill to facilitate site drainage requirements was identified to have the potential to increase the flood risk to both the site and surrounding properties. Flood modelling results indicated that potential flood impacts associated with the Amended Modification Proposal would, up to a 100 year ARI event, be negligible, and very limited for a PMF event. Furthermore, it is considered that the importation of clean general fill would result in a considerable improvement to stormwater management across the MPW site."*
168. The Applicant's Concept Modification RtS concluded that *"that all stormwater and flooding impacts associated with the Amended Modification Proposal up to the 1% AEP event are negligible, with a 0.01m predicted increase in the PMF Events, meaning that all stormwater and flooding impacts associated with the Amended Modification Proposal are manageable"*.

Interaction between MPW and MPE sites

169. The Applicant's Concept Modification RtS identified that increased interaction between the MPW and MPE sites was being sought to facilitate *"transfer of operational vehicles between the MPW and MPE sites for the purposes of container handling between the IMT's and warehouses on each site"*.
170. The Applicant's Concept Modification RtS identified that increasing this interaction would *"enable warehousing on the MPW site to be used for activities associated with freight using the IMEX and Interstate terminals within the MPW site or the MPE site, would enable and encourage operational efficiencies. In addition, traffic that would otherwise enter the local road network, resulting in external traffic network impacts, would be reduced as the vehicle movements would instead remain within the local proximity of the MPW Project"*.
171. The Applicant's Concept Modification RtS concluded that *"this interface has previously been assessed as part of the cumulative assessment provided in the MPW Concept Approval"* and that no further assessment was required.

Department's consideration of the revised site layout, construction phasing and interaction between MPW and MPE

Assessment of hydrology and stormwater management

172. The Department's Concept Modification Assessment Report identified that the "[m]anagement of MPW and MPE stormwater would require the construction, operation and maintenance of treatment systems to protect water quality in the Georges River and Anzac Creek as well as the construction, operation and maintenance of onsite detention for flood mitigation purposes". This management system is expected to be integrated across both the MPW and MPE Project Sites.
173. The Department's Concept Modification Assessment Report concluded "*the Department supports the expanded [OSD] footprint provided this does not encroach into the riparian corridor. This design is preferable to the long, narrow and presumably deep southern basin shown in the approved layout. The Department's view is that this, and the other OSD basins and stormwater treatment systems, should be designed in accordance with WSUD principles (as per the recommended addition to Condition E17)*".

Assessment of riparian connectivity and corridor width

174. The Department's Concept Modification Assessment Report stated that "[i]n its submission on the Modification Application, DPI noted that the proposal included a 25m wide riparian corridor and that this was not in accordance with Condition E16 which requires a minimum of 40 m along the site. The Applicant's RtS stated that this would be increased to 40m".
175. The Department's Concept Modification Assessment Report identified that "*there is no consistent description of the buffer zone or buffer distance between the Georges River and proposed development. Documentation refers to the "conservation area", "riparian corridor" and "offset area". The Concept EIS RtS (May 2015) states that the conservation area extends east of the 1% AEP flood extent line as shown in Figure 14. As the 1% AEP flood extent line was not included in the layout provided in the MOD RtS it is unclear whether this is still the case*".
176. In its submission on the Concept Modification RtS "*DPI commented that the impacts on riparian corridor connectivity along the Georges River resulting from an additional basin outlet were significantly larger than those outlined in the Concept EIS and alternative options should be considered. If the southern basin was necessary, further detail and justification of the width of outlet channels should be provided and options investigated to minimise impacts on the river bank profile and riparian connectivity*".
177. The Department's Concept Modification Assessment Report identified that "[t]o eliminate any doubt as to compliance with Condition E16 and the location of the landward extent of the riparian corridor, the Department recommends that future development applications provide detailed drawings demonstrating provision has been made for a minimum 40 m vegetated riparian zone from the top of the bank of the Georges River and that this requirement form part of Condition E16".
178. The Department's Concept Modification Assessment Report recommended amendments to condition E16 and the addition of conditions E16A, which set out the in-principle requirements for the establishment and management of the identified riparian corridor, requiring that:
- OSDs are designed to minimise impacts to the riparian corridor

- riparian corridor remains vegetated, and
 - required OSDs are designed to be located outside the riparian vegetation.
179. The boundaries of the riparian corridor and the detailed design and location of the required OSD basins would be assessed as part of the assessment for MPW Stage 2 Development Application.
180. However, on 22 October 2019, the Commission requested the Department provide revised recommended conditions of consent (see paragraph 25). In those revised recommended conditions of consent provided by the Department, proposed condition 18B stated that:

The site must include 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.

Assessment of interaction between MPW and MPE

181. The Department's Concept Modification Assessment Report notes that the Council raised several concerns regarding the the Modification including:
- adverse impacts on the local and surrounding community,
 - the inadequacy of technical reports,
 - MPW and MPE should be considered together to address cumulative impacts, and one master plan for the entire precinct.
182. The Department's Concept Modification Assessment Report notes following a review of information presented in the SRtS, the Council provided the following comments:
- *"there were still significant concerns about the veracity of assessments undertaken with regards to both traffic (including intersections modelling assumptions) and noise impacts (including exacerbation of impacts due to temperature inversions)*
 - *a precinct-wide masterplan covering both the MPW and MPE IMT facilities is required to enable a vigorous and comprehensive assessment of the whole precinct to provide clarity on the overall cumulative impacts of the entire development on the surrounding area*
 - *access to neighbouring properties, pedestrian and cycle routes and crossing points need to be maintained and there should be provision for pedestrian movements between MPW and MPE".*
183. The Department's Concept Modification Assessment Report states *"the Department shares LCC's [Liverpool City Council's] concerns regarding inconsistencies in the Applicant's environmental impact assessments and agrees that precinct-wide (MPW + MPE) layouts, design drawings and cumulative impact assessments (including those relating to fill importation) are required to:*
- *confirm overall impacts and appropriate management and mitigation measures*
 - *ensure the development is designed in accordance with current practice and relevant guidelines".*

184. The Department's Concept Modification Assessment Report "recommends three general conditions, that future development applications:
- provide details on staging of construction and operation (i.e. staging of construction and operation within MPW Stage 2 and MPW Stage 3)
 - assess cumulative impacts for construction and operation (both with the MPE site and within the MPW site)
 - provide an overall Precinct layout and design drawings including for access (pedestrian and vehicle), stormwater management and landscaping, describe the relationship and interaction between MPW and MPE infrastructure and outline management and maintenance arrangements".

Assessment of construction phasing

185. The Department's Concept Modification Assessment Report states that "reducing construction stages through potentially only two future development application could result in additional impacts and an increase in the magnitude of impacts predicted, due to an increase in the area of disturbance and intensity on construction at any one time".
186. The Department's Concept Modification Assessment Report's states that the Department does not consider that adequate information was presented in the RtS in relation to construction phasing. In addition, the Department does not consider reliance on the Concept EIS assessment of impacts adequate because:
- "the staged construction footprints have changed, construction activities have changed (fill importation and placement), the layout has changed and interaction between the MPW and MPE sites is proposed, and
 - cumulative impacts need to be assessed using updated construction programs for both the MPW and MPE sites."
187. The Department's Concept Modification Assessment Report's states that "the Department recommends a general condition requiring provision of staging details for all future applications. This condition also includes a requirement to document how the staging of development complies with all Concept conditions including those recommended for this Modification Application, e.g:
- phased vegetation clearing and earthworks
 - assessment of traffic impacts associated with fill importation."

Commission's consideration of the revised site layout, construction phasing and interaction between MPW and MPE

188. The Commission acknowledges that the MPW Concept Modification may result in a change to the MPW Project Site hydrology and stormwater behaviour as the intermodal facility is developed and operated. To manage the extent of this impact, the Commission considers that it is reasonable to adopt appropriate parameters and principles in the design and layout of the stormwater management system, as set out in paragraph 173.
189. The Commission accepts the conclusions of the Department, as outlined in paragraph 172 to 184 above, as it recognises the importance of ensuring an effective and representative assessment of the impacts to the MPW Project Site's hydrology and flood risk.
190. The Commission considers the recommended conditions of consent, which set out the detailed design and assessment requirements for future development applications, and relocation of the OSD's outside the riparian corridor, will effectively manage the

hydrological and flooding impacts for all future Development Applications for the MPW Project Site as set out in paragraphs 172 to 173.

191. Based on the material, the Commission finds that the Department's recommended conditions for the MPW Concept Plan provide adequate capacity to ensure hydrological and flooding impacts are appropriately assessed and that the hydrological impacts of the MPW Concept Modification can be suitably assessed as part of the MPW Stage 2 Development Application.
192. The Commission recognises the importance of maintaining a suitably defined and managed riparian corridor in mitigating and managing the potential biodiversity impacts, as discussed at paragraphs 150 to 152, and obtaining appropriate urban design and amenity outcomes as discussed at paragraphs 136 to 137. Accordingly, as set out in paragraphs 174 to 177, the Commission considers that the Department has recommended an appropriate process and justification for the establishment of a riparian corridor and management of allowable activities within the retained riparian vegetation.
193. The Commission has considered the Applicant's request to delete proposed condition E16A and finds that the retention of an adequately defined and protected riparian corridor is important in mitigating and managing a range of environmental and amenity factors. The Commission considers, as set out in paragraph 173, that OSD basins should not encroach into the riparian corridor.
194. The Commission finds that the Department's recommended conditions referenced in paragraph 184 are appropriate in establishing the interaction of MPW and MPE as they will require the provision of an overall precinct layout and assess the cumulative impacts for both sites.
195. The Commission accepts the Department's statement in paragraph 185 that reducing construction stages through potentially only two future development application could result in additional impacts. The Commission acknowledges that the Department does not consider that adequate information was presented in the RtS in relation to construction phasing. The Commission also notes that the Department does not consider reliance on the Concept EIS assessment of impacts adequate as set out on paragraph 186.
196. The Commission finds that the Department's recommended condition referenced in paragraph 187 is appropriate in managing impacts associated with construction staging as it will require the provision of staging details for all future applications including how the staging of development complies with all Concept conditions.

Commission's conclusion regarding the revised site layout, construction phasing and interaction between MPW and MPE

197. The Commission has considered the Applicant's request to amend the Department's recommended conditions of consent with regard to the restriction of site disturbance and fill importation until stabilisation can be confirmed. The Commission finds that the Department's recommended conditions, as discussed at paragraph 178 and 184, provide suitable flexibility and that the MPW Project Site is a suitably large enough area of land to adequately plan and provide certainty for the carrying out of proposed construction and site works.

198. Based on the material, the Commission finds that the revisions to the MPW site layout, construction phasing and interaction between MPW and MPE, are acceptable because:
- the MPW layout will provide for appropriate protection of sensitive features, such as riparian vegetation, management of amenity impacts to relevant residential development
 - the layout will foster the effective development of the MPW Intermodal Facility
 - appropriate conditions can be imposed to ensure outcomes, and
 - condition E29 will require the Applicant to describe the relationship and interaction between MPW and MPE. This includes the provision of a precinct-wide layout and design and demonstration that there will be no overall increase in cumulative construction and operational environmental impacts.

5.5.3 Subdivision

Public and Council comments

199. The Commission heard concerns from Council, speakers at the public meeting, and received written comments regarding community concerns associated with allowing subdivision of the MPW Project Site, principally that this was a significant deviation from the approved MPW Concept Plan and that it demonstrated the Applicant's intention to sell part of the MPW Project Site.

Applicant's consideration of subdivision

200. The Applicant's Concept Modification Supplementary RtS identified that *"the inclusion of subdivision within the Amended Modification Proposal is for the purpose of the MPW site to facilitate long-term leases for individual tenants using the site's approved facilities. Any of the lots created would be subject to the provisions of the MPW Concept Approval, this Amended Modification Proposal and any relevant stage approvals"*.
201. The Applicant's Concept Modification Supplementary RtS also stated that *"As discussed in Section 6 of the MPW Stage 2 RtS, subdivision of the Proposal site is not to be undertaken as part of the Proposal. It is acknowledged that the subdivision proposed in the EIS would not be consistent with the minimum lot requirements outlined in the Liverpool LEP. As such, the subdivision of the MPW site should it occur in the future, would be undertaken as part of a separate planning application."*

Department's consideration of subdivision

202. The Department's Concept Modification Assessment Report stated that the *"Department does not object in principle to subdivision as part of a future development application, however, notes that under the LLEP, the minimum lot size for the MPW site is currently 120 ha. The entire MPW site is approximately 220 ha"*
203. The Department's Concept Modification Assessment Report recommended *"that any subdivision application should comply with the LLEP minimum lot size, demonstrate the nexus between the intermodal terminal and warehousing, provide a management and maintenance program for estate infrastructure, and nominate a single entity responsible for implementing the program"*.
204. The Department's Concept Modification Assessment Report also recommended a *"condition that any future development application for subdivision:*

- *demonstrates compliance with Condition 15, i.e. that the nexus between the intermodal terminal and warehousing is maintained*
- *includes a subdivision plan showing estate infrastructure including for firefighting (e.g. hydrants)*
- *provides a management and maintenance program for estate infrastructure*
- *nominates a single entity responsible for implementing the management and maintenance program.”*

Commission’s consideration of subdivision

205. The Commission accepts the conclusions of the Department, as outlined in paragraphs 202 to 204, because although the MPW Project Site is of a suitable size to accommodate subdivision, appropriate controls are required to minimise and ensure effective management of the MPW Project Site. This includes measures to ensure that subdivision of the MPW Project Site does not enable industrial uses beyond the use as a rail freight terminal considered as part of the approved MPW Concept Plan.

5.6 The public interest and Objects of the EP&A Act

206. A relevant object of the EP&A Act to the MPW Concept Modification 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

207. The Department’s Concept Modification Assessment Report considered the relevant matters under the EP&A Act and principles of ESD, and concluded that *“the proposed modification does not substantially change the nature of the development or use of the site and it supports the broader project benefits and their contribution to the public interest, including employment and shifting freight to rail thereby reducing the impact of heavy vehicles on the road network”*.

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

208. In determining the public interest merits of the MPW Concept Modification, the Commission has had regard to the objects of the EP&A Act.

209. The Commission accepts the conclusion of the Department, outlined in paragraph 207, because the MPW Concept Modification will facilitate employment and shifting freight to rail thereby reducing the impact of heavy vehicles on the road network.

210. The Commission is satisfied that the MPW Concept Modification has effectively integrated social, economic and environmental considerations in the decision-making process. The Commission accepts that the MPW Concept Modification, subject to the conditions of consent, is consistent with the ESD principles (b) – (d) identified in paragraph 206.

211. The Commission considers that the benefits of the MPW Concept Modification, subject to the conditions of consent, include improved stormwater management, including the development of OSD basins outside of the riparian corridor, and refinements to the layout and operation of the MPW Project Site.
212. The Commission considers that the impacts of the MPW Concept Modification include increases to local traffic patterns, noise, changes to local air quality and impacts to biodiversity and riparian vegetation, but that these increases are minor and consistent with the approved MPW Concept Plan.
213. The Commission finds that the MPW Concept Modification 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 62 to 67, and
 - it is consistent with principles of ESD by assessing and managing the likely impacts of the MPW Concept Modification, including measures to increase the sustainable operation of MPW and to conserve and improve areas of retained riparian vegetation and habitat for threatened species.

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

214. The views of the community were expressed through:
 - public submissions and comments received (as part of exhibition and as part of the Commission's determination process), as set out in paragraphs 16 to 20 and paragraphs 36 to 38.
 - 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 to 38.
215. In summary, views expressed by the community raised a number of significant concerns about the impact of the MPW Concept Modification, including local traffic intensity and safety, community health impacts and changes to the MPW Concept Plan.
216. The Commission carefully considered all of these views in reaching its decision. How the Commission took these concerns into consideration during its decision-making process is set out in **section 5** above.

7. CONCLUSION: THE COMMISSION'S FINDINGS AND DETERMINATION

217. The Commission has carefully considered all the material before it.
218. For the reasons set out below, the Commission finds that consent for the MPW Concept Modification should be granted subject to conditions. Specifically, the Commission finds that consent for the MPW Concept Modification should be granted because it would not:
 - alter the purpose of the proposal for an IMT facility and associated warehouse estate, as set out in paragraph 45,
 - result in an unacceptable increase in impacts associated with the development and operation of MPW, as set out in paragraphs 153 to 156, and 197 to 198, and
 - As set out in paragraph 213, the MPW Concept Modification is in the public interest, because

- it promotes the orderly and economic use and development of the land consistent with relevant strategic planning, and
- it assesses and manages the likely impacts of the MPW Concept Modification, including measures to increase the sustainable operation of MPW and to conserve and improve areas of retained riparian vegetation and habitat for threatened species.

219. As noted above at 218, the Commission has determined that consent for the MPW Concept Modification should be granted subject to conditions (**Decision**). These conditions are designed to:

- update and amend the environmental assessment requirements for future development applications on the site
- set and update standards and performance measures for acceptable environmental performance.

220. The reasons for the Decision are given in this Statement of Reasons for Decision, dated 30 October 2019.



Dianne Leeson (Chair)
Member of the Commission



Alan Coutts
Member of the Commission



John Hann
Member of the Commission