

## COUNCIL ASSESSMENT REPORT

<b>Panel Reference</b>	PPS-2018SSW027
<b>DA Number</b>	DA-611/2018
<b>LGA</b>	Liverpool City Council
<b>Proposed Development</b>	<p>Construction and operation of a Marina (Georges Cove Marina). The development consists of:</p> <ul style="list-style-type: none"> <li>• A maritime building which will house a dry berth facility providing 250 berths, a function centre, tourist, entertainment, recreation and club facilities, a petrol storage tank (60,000 litres) and a diesel storage tank (60,000 litres).</li> <li>• A wet berth facility for 186 craft (including casual berths) which will consist of a marina basin, rock protection of the basin and foreshore, including embellishment and revegetation of the river foreshore, construction of a navigation channel, construction of public recreational facilities on the foreshore, floating berths and walkways, fuel pumping facilities, sewage pumpout facilities and emergency berth access.</li> <li>• Construction of three external car parking areas and basement car park providing a total of 637 car spaces.</li> <li>• A private marina clubhouse.</li> <li>• Associated works and support infrastructure including power, water and sewerage.</li> </ul>
<b>Street Address</b>	LOT 70 DP 1254895 146 NEWBRIDGE ROAD, MOOREBANK NSW 2170
<b>Applicant/Owner</b>	BENEDICT INDUSTRIES PTY LTD
<b>Date of DA Lodgement</b>	8 August 2018
<b>Number of Submissions</b>	Eight (8) submissions
<b>Recommendation</b>	Refusal
<b>Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development 2011</b>	<ul style="list-style-type: none"> <li>• Proposal has a CIV over \$30million (Clause 2 Schedule 7)</li> <li>• Proposal is a particular designated development being a Marina (Clause 7 Schedule 7)</li> </ul>
<b>List of all relevant s4.15(1)(a) matters</b>	<ul style="list-style-type: none"> <li>• <i>List all of the relevant environmental planning instruments: Section 4.15(1)(a)(i)</i> <ul style="list-style-type: none"> <li>○ State Environmental Planning Policy No 19 – Bushland in Urban Areas</li> <li>○ State Environmental Planning Policy No.33 – Hazardous and Offensive Development</li> <li>○ State Environmental Planning; Policy No.55 - Remediation of Land;</li> <li>○ State Environmental Planning Policy (Coastal Management) 2018</li> <li>○ State Environmental Planning Policy (Infrastructure) 2007;</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ State Environmental Planning Policy – (State and Regional Development) 2011</li> <li>○ Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment;</li> <li>○ Liverpool Local Environmental Plan 2008</li> <li>• <i>List any proposed instrument that is or has been the subject of public consultation under the Act and that has been notified to the consent authority: Section 4.15(1)(a)(ii)</i> <ul style="list-style-type: none"> <li>○ Nil</li> </ul> </li> <li>• <i>List any relevant development control plan: Section 4.15(1)(a)(iii)</i> <ul style="list-style-type: none"> <li>○ <i>Liverpool Development Control Plan 2008.</i> <ul style="list-style-type: none"> <li>○ <i>Part 1: General Controls for All Development.</i></li> <li>○ <i>Part 2.10 – Moorebank East (Benedict Sands)</i></li> </ul> </li> </ul> </li> <li>• <i>List any relevant planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4: Section 4.15(1)(a)(iia)</i> <ul style="list-style-type: none"> <li>○ <i>No planning agreement relates to the site or proposed development.</i></li> </ul> </li> <li>• <i>List any relevant regulations: 4.15(1)(a)(iv)</i> <ul style="list-style-type: none"> <li>○ <i>Consideration of the provisions of the National Construction Code of Australia.</i></li> </ul> </li> </ul>
<b>List all documents submitted with this report for the Panel's consideration</b>	<ol style="list-style-type: none"> <li>1. Recommended conditions of consent</li> <li>2. General Terms of Approval – NRAR</li> <li>3. General Terms of Approval – DPI Fisheries</li> <li>4. General Terms of Approval – NSW EPA</li> <li>5. General Terms of Approval – NSW RFS</li> <li>6. General Terms of Approval - TfNSW</li> <li>7. Plans of the Proposal</li> <li>8. EIS and supporting documentation <ol style="list-style-type: none"> <li>a. Appendix A1 – SEAR 912 (2015)</li> <li>b. Appendix A2 – SEAR 912 (2018)</li> <li>c. Appendix B1 – Georges River Marina plans (MFA 2015)</li> <li>d. Appendix B2 – Boundary definition (JMD 2018)</li> <li>e. Appendix C1 - Preliminary Marina concept design and environmental assessment (Worsley Parsons 2010)</li> <li>f. Appendix C2 – Flood reports (NPC 2015)</li> <li>g. Appendix D1 – Preliminary Investigation of Contamination (EMM 2015)</li> <li>h. Appendix D2 – Supplementary preliminary investigation (EMM 2016)</li> <li>i. Appendix D3 – Remediation action plan (EMM 2016)</li> <li>j. Appendix D4 – Preliminary site investigation (DP 2018)</li> <li>k. Appendix D5 – Landfill Gas monitoring (DP 2019)</li> <li>l. Appendix D6 – Acid Sulfate soil management plan</li> </ol> </li> </ol>

	<p>(Benedict 2012)</p> <p>m. Appendix D7 – Site audit report 282 (Swane 2019)</p> <p>n. Appendix D8 – Laboratory reports (2017-2018)</p> <p>o. Appendix E1 – Flora and fauna assessment (TEC 2010)</p> <p>p. Appendix E2 – Terrestrial Ecology assessments (EMM 2015)</p> <p>q. Appendix E3 – Aquatic ecology aspects and environmental assessment (MPR 2015)</p> <p>r. Appendix E4 – update of aquatic ecology impact report (MPR 2015)</p> <p>s. Appendix E5 – Bushfire assessment (EMM 2015)</p> <p>t. Appendix E6 – Biodiversity assessment (EMM 2019)</p> <p>u. Appendix E7 – Assessments of significance (EMM 2019)</p> <p>v. Appendix F1 – Transport planning assessment (EMM 2015)</p> <p>w. Appendix F2 – Traffic signal design warrant report (EMM 2016)</p> <p>x. Appendix F3 – Navigation assessment (EMM 2016)</p> <p>y. Appendix F4 – Construction access routes and traffic impact assessment (EMM 2018)</p> <p>z. Appendix G1 – Projection estimates of plant heights of potential native vegetation reconstruction plantings (Ecohort 2010)</p> <p>aa. Appendix G2 – Visual Impact Assessment (RLA 2010)</p> <p>bb. Appendix G3 – Addendum visual impact review (RLA 2015)</p> <p>cc. Appendix G4 – Landscape plan (Ecohort 2018)</p> <p>dd. Appendix H1 – Noise and vibration impact assessment (EMM 2019)</p> <p>ee. Appendix I1 – Air quality assessment (TAS 2011)</p> <p>ff. Appendix I2 – Air quality and greenhouse gas assessment (TAS 2015)</p> <p>gg. Appendix J1 – Aboriginal archaeological assessment (MDCA 2004)</p> <p>hh. Appendix J2 – Aboriginal heritage (EMM 2015)</p> <p>ii. Appendix J3 – Non-indigenous heritage assessment (Heritech 2003)</p> <p>jj. Appendix J4 – Non-indigenous heritage (EMM 2015)</p> <p>kk. Appendix K1 – Waste Management Plan (Benedict 2016)</p> <p>9. Voluntary Planning Agreement (VPA) agreed between Liverpool City Council and Tanlane Pty Ltd on 11 June 2008.</p> <p>10. DEP meeting minutes</p> <p>11. Cover Letter from Ecological Consultant</p> <p>12. Landscape Plan from Ecological Consultant</p> <p>13. Landscape Plan from Ecological Consultant with sections</p> <p>14. Stormwater Concept</p> <p>15. Response to Flooding Concerns</p> <p>16. Revised site boundaries for the purpose of this DA</p> <p>17. Additional noise assessment</p> <p>18. Air Quality Assessment</p> <p>19. Applicant Response to TfNSW correspondence (March 2020)</p> <p>20. Applicant Response to TfNSW correspondence (May 2020)</p> <p>21. Applicant Response to TfNSW correspondence (July 2020)</p>
<b>Clause 4.6 requests</b>	N/A

<b>Summary of key submissions</b>	<ul style="list-style-type: none"> <li>• There is little local infrastructure to support such a development, there is no reason for this development.</li> <li>• There are no details on the bank stabilisation construction works. Our concern is the wave rebounding on the concrete walls being proposed along the foreshore, which will cause bank erosion on the other side of the Georges River.</li> <li>• This development would be aesthetically pleasing to the area. The application would encourage more jobs. This area desperately needs revamping and this proposal offers a place for the community to be proud of. This proposal is long overdue.</li> <li>• We consider that the development would have a positive effect on the visual qualities compared to the site's current use. As local residents we would like to have a land/water interface and to enjoy the Georges River. We believe, the proposed Marina would become a thriving local community hub and we can only foresee all range of public benefits.</li> <li>• The marina is a great idea and I totally support the development. All of my family and friends agree that it would be great for the community and we need more infrastructure in the Liverpool area.</li> <li>• Moorebank Residents' Action Group would like to record our support for the Georges Cove Marina. As a group of more than 1000 members we are excited by and supportive of the prospect of opening up the Georges River for recreation in Moorebank. This project would finally signify the move from heavy industry to a modern, well planned, residential community. Please don't hesitate to contact me should you require anything further.</li> </ul>
<b>Report prepared by</b>	Development Assessment
<b>Report date</b>	19 February 2021

### Summary of s4.15 matters

Have all recommendations in relation to relevant s4.15 matters been summarised in the Executive Summary of the assessment report? **Yes**

### Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report?  
*e.g. Clause 7 of SEPP 55 - Remediation of Land, Clause 4.6(4) of the relevant LEP* **Yes**

### Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report? **Not Applicable**

### Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S7.11EF)?  
*Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Area may require specific Special Infrastructure Contributions (SIC) conditions* **Not Applicable**

### Conditions

Have draft conditions been provided to the applicant for comment? **Yes**  
*Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report*

## **1. EXECUTIVE SUMMARY**

### **1.1 Reasons for the report**

The proposed development for the construction and operation of a marina has a capital investment value that exceeds \$30 million for the purposes of 'General Development' and is a 'particular designated development' with respect to Clause 2 and Clause 7 of Schedule 7 of the SEPP (State and Regional Development) 2011, respectively.

Consequently, the subject Development Application is referred to the Sydney Western City Planning Panel for determination in accordance with State Environmental Planning Policy (State and Regional Development) 2011.

### **1.2 The proposal**

Construction and operation of a Marina (Georges Cove Marina). The development consists of:

- A maritime building which will house a dry berth facility providing 250 berths, a function centre, tourist, entertainment, recreation and club facilities, a petrol storage tank (60,000 litres) and a diesel storage tank (60,000 litres).
- A wet berth facility for 186 craft (including casual berths) which will consist of a marina basin, rock protection of the basin and foreshore, including embellishment and revegetation of the river foreshore, construction of a navigation channel, construction of public recreational facilities on the foreshore, floating berths and walkways, fuel pumping facilities, sewage pump out facilities and emergency berth access.
- Construction of three external car parking areas and basement car park providing a total of 637 car spaces.
- A private marina clubhouse.
- Associated works and support infrastructure including power, water and sewerage.

The proposal is identified as Designated Development pursuant to Environmental Planning and Assessment Act 1979.

The proposal is also identified as Nominated Integrated Development and Integrated Development pursuant to the Environmental Planning and Assessment Act 1979 for the purposes of the:

- Water Management Act 2000 (Natural Resources Access Regulator);
- Protection of the Environment Operations Act 1997 (NSW Environment Protection Authority);
- Fisheries Management Act 1994 (NSW Department of Primary Industries - Fisheries NSW); and
- NSW Rural Fires Act 1997 (NSW Rural Fire Service).

Liverpool City Council is the consent authority and the Sydney Western City Planning Panel has the function of determining the application

### **1.3 The site**

The subject site is identified as Lot 70 in DP 1254895 being No.146 Newbridge Road, Moorebank.

### **1.4 The issues**

The key issues which emerged during the assessment process include:

- Flooding Impacts;
- Access and Traffic Impacts;
- Noise Issues;
- Contamination Issues;
- Air Quality Issues.

The above issues have been addressed and are discussed in detail throughout this report.

### **1.5 Exhibition of the proposal**

The development application was placed on public exhibition for 30 days between 29 August 2018 to 28 September 2018 in accordance with Liverpool Development Control Plan 2008 (LDGP 2008). A total of 4 submissions were received to the proposed development.

However, due to the submission to Council of a revised EIS given the original EIS was based on outdated SEARs, the application was re-exhibited for 30 days on 3 July 2019 to 1 August 2019 and for a second occasion on 3 July 2019 to 1 August 2019.

A total of 4 submissions were received. The matters raised in the submissions are canvassed later in the report.

### **1.6 Conclusion**

The subject Development Application has been assessed having regard to the matters of consideration pursuant to Section 4.15 of the Environmental Planning and Assessment Act 1979 and is considered satisfactory except for SEPP 55 and, as such, the subject application is recommended to be determined for refusal

## **2. SITE DESCRIPTION AND LOCALITY**

### **2.1 The site**

The subject site is located on the southern side of Newbridge Road, Moorebank and is irregularly shaped with a total site area of approximately 22.3 hectares.

A site locality plan is included as Figure 1 below.



**Figure 1: Aerial photograph of the site**

The application for the Marina is on the southern portion of Lot 70 DP 1254895 (146 Newbridge Road, Moorebank). The proposal development will utilise about 13 ha of Lot 70 DP 1254895.

Figure 2 details the portion of Lot 70 DP 1254895 to be utilised for the Marina.



**Figure 2: Aerial photograph of southern portion of the site.**

The marina site is in a generally flat landscape typical of the Georges River floodplain. Currently, the marina site is largely made up of a dredge pond created by the extractive industry operations. The surface level of the marina site was 2.8m before extractive industry operations started. Surveying records indicate that the marina site sloped gently from the riverbank (approximately 2m AHD) to approximately 4m AHD along the western boundary of the marina site.

Existing vehicular access to Lot 70 DP 1254895 is from Newbridge Road. This access will be decommissioned and vehicular access to the marina site will only be permitted via the approved road link and bridge to Brickmakers Drive.

## 2.2 The locality

The site is located adjacent to the Georges River to the east, Newbridge Road to the north and Georges Fair residential estate to the west. Land to the east of the Georges River is located within the Canterbury Bankstown Local Government Area and is characterised as expansive recreational open space.

A residential development is planned to the immediate north of the marina site on part Lot 70 DP 1065574. A concept plan showing the future development of Lot 70 DP 1254895 is shown in Figure 3.



**Figure 3: Concept plan Moorebank Cove Residential Development**

It should be noted that series of applications to develop this part of the site have been lodged with Council; as follows:

#### DA-24/2017

- On 24 February 2020, DA-24/2017 Stage 1: Subdivision of the site to create 3 superlots (being superlot 1, 2 and 3); Stage 2: Subdivision of superlot 2 into residue lots (for future residential lots, drainage reserves and a public reserve/open space for dedication to Council); site remediation works, bulk earthworks, road and drainage and infrastructure construction and connect to services and pedestrian bridge was determined as deferred commencement by the Local Planning Panel.

An operational consent was issued for DA-24/2017 on 24 June 2020.

#### DA-519/2017

- Subdivision of proposed lots 1-4 (in DA-24/2017) into 45 Torrens title Lots, the construction of 45 residential dwellings including associated landscaping works and landscaping works to linkage park that is to be dedicated to Council.

Consent was issued on 17 September 2020.

#### DA-758/2017

- Subdivision of proposed lots 5, 6 and 11 (in DA-24/2017) into 43 Community title Lots and the construction of 43 residential dwellings including associated landscaping works

Consent was issued on 20 November 2020.

#### DA-319/2018

- On 18 April 2018, a development application was submitted to Council seeking consent for 13 lot community title subdivision including the construction of residential dwellings.

The application is currently under assessment.

#### DA-580/2018

- On 31 July 2018, a development application was submitted to Council seeking consent for 9 lot community title subdivision including the construction of residential dwellings.

The application is currently under assessment.

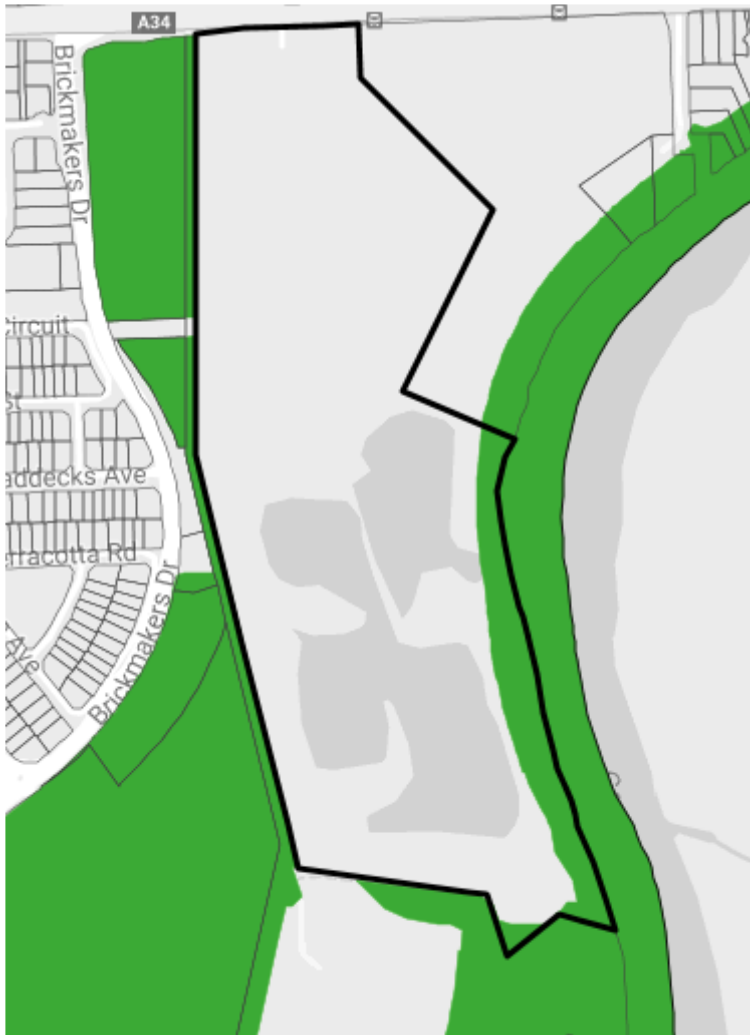
The site is also bounded to the south by Lot 6 Newbridge Road, Moorebank. On 11 September 2015, the Planning Assessment Commission (the Commission) granted Project Approval for the Materials Recycling Facility (MP05\_0157) for the Lot 6. On 8 October 2015, the Council and Benedict commenced objector appeals under s.75L of the EPA Act against the PAC decision to grant the MRF approval. The Court, in hearing the appeal, decided to grant approval (appeal No. 2016/159652) in 14 July 2017. On 27 May 2016, the PAC granted approval for a Modification to the Project Approval for the inclusion of an additional condition specifying the approval lapsing date. The approval lapsing date is 1 September 2018.

## 2.3 Site affectations

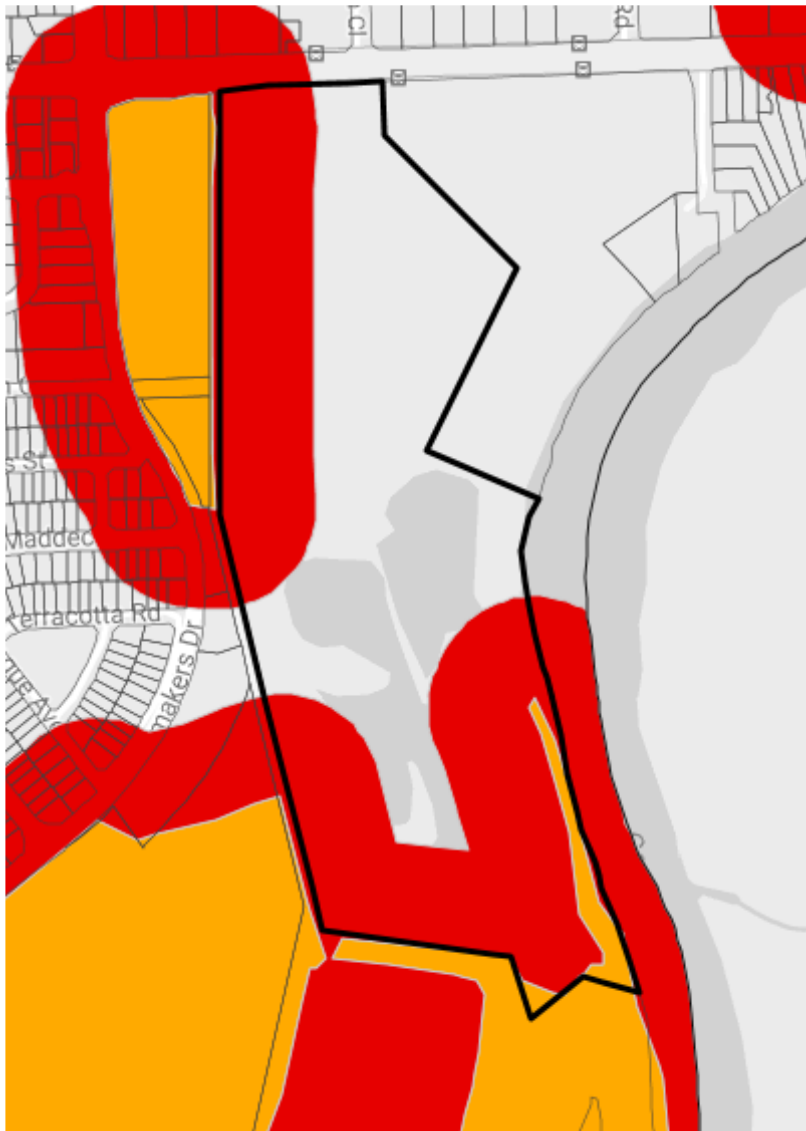
The subject site has number of constraints, which are listed below:

- Flood affected;
- Bushfire Prone;
- Contains Acid Sulfate Soils; and
- Contains Environmentally Significant Land.

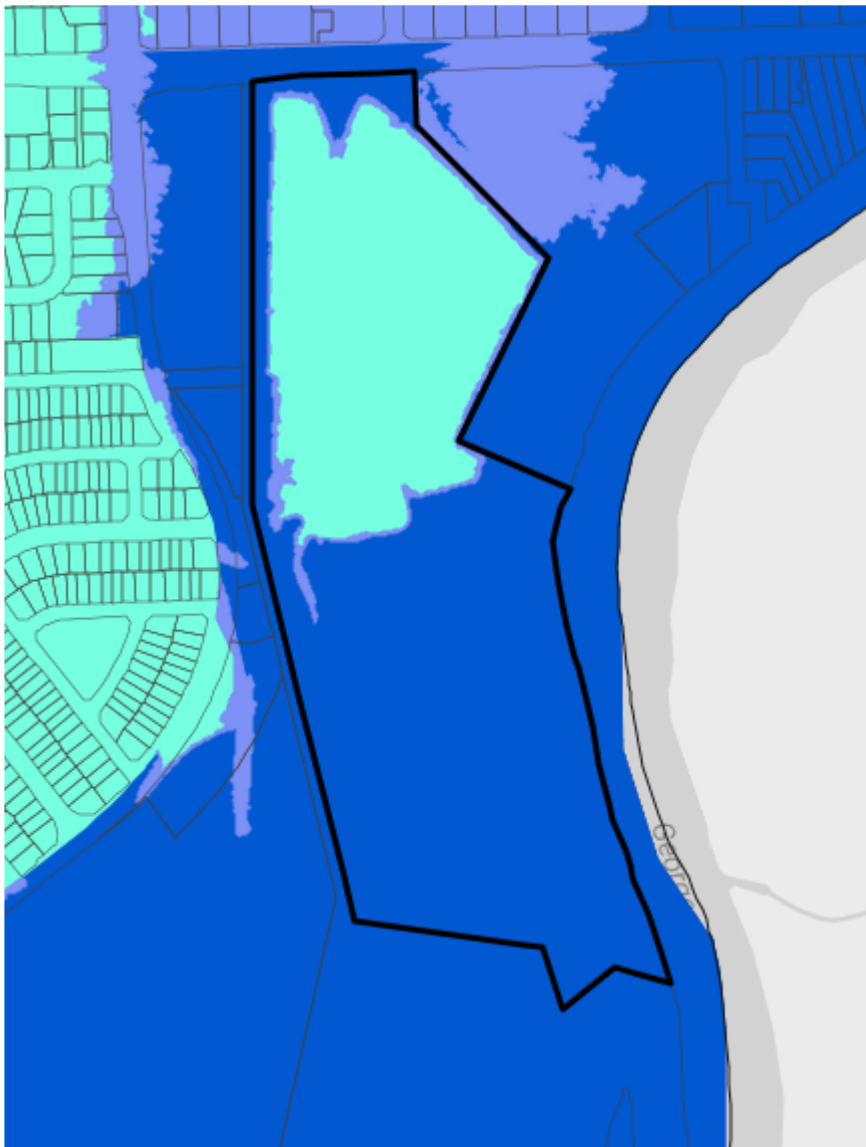
Maps showing these affectations are below:



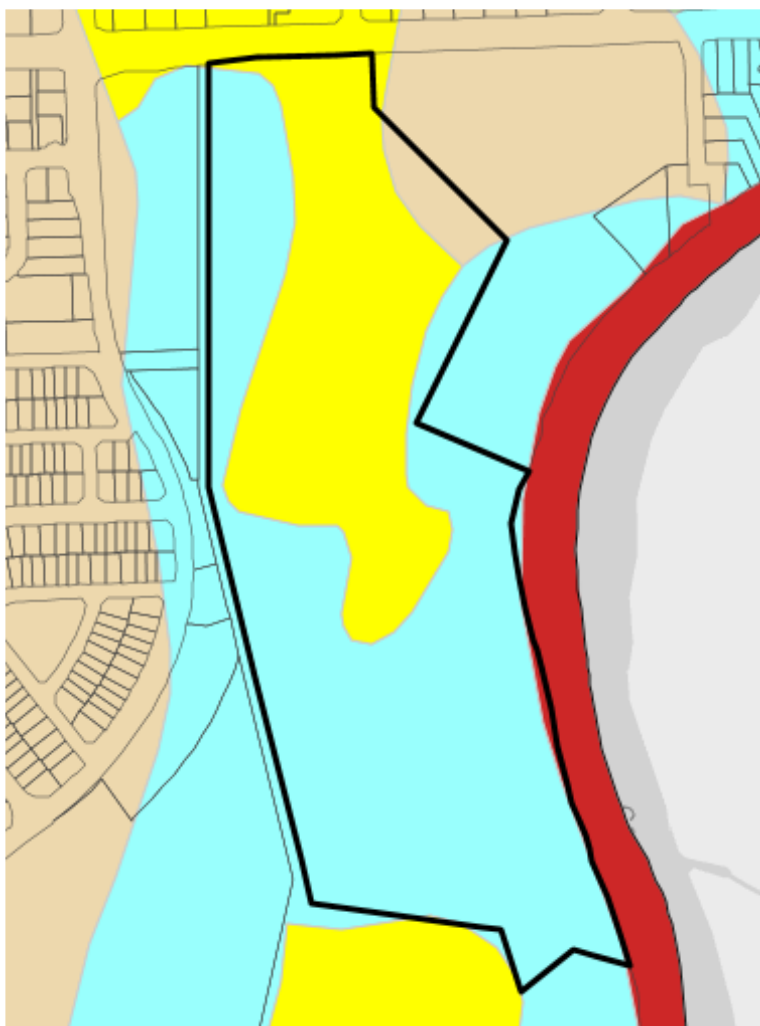
**Figure 4: Map showing Environmentally Significant Land**



**Figure 5: Map showing Bushfire Prone Land**



**Figure 6: Map showing Flood Prone Land**



**Figure 7: Map showing Acid Sulfate Soils**

## **2.4 Active Planning Proposals**

### RZ-5/2018

- On 6 July 2018, a planning proposal was submitted to Council seeking consent to enable residential development within the land zoned RE2 Private Recreation by amending Part 7 Division 2 and Schedule 1 (Additional permitted uses) of the Liverpool Local Environmental Plan 2008.

The rezoning application is under assessment.

### RZ-9/2017

- On 18 October 2017, a planning proposal was submitted to Council seeking consent to amend the Floor Space Ratio and Height of Buildings and permitted uses on site.

The rezoning application is under assessment.

### RZ-1/2019

- On 13 February 2019, a planning proposal was submitted to Council seeking consent for a zone boundary adjustment to extend the R3 Medium Density Residential Zone boundary southwards to incorporate the site (a further

approximate 0.41 ha of land currently zoned as RE2 Private Recreation). This will enable future subdivision of the R3 area and allow for nine additional residential allotments on the land which would otherwise remain unused within the Moorebank Cove Residential Estate.

### **3. BACKGROUND**

#### **3.1 Currently approved site activities**

In 1993, the Land and Environment Court granted consent for the extraction of sand from the overall site (Lot 7) via dredging and dry extraction methods.

The consent for the sand extraction was granted by the New South Wales (NSW) Land and Environment Court in *Maron Investments Pty Limited v Liverpool City Council* [1993] NSWLEC25 on 31 March 1993. The approval requires the rehabilitation of the site (Lot 70) on cessation of extractive industries with the importation and processing of waste materials permitted to fill empty cells and return these areas to their natural landform.

The extractive industries on the site are reaching the end of their economic life. The quarry consent and Environmental Protection Licences permit the restoration of the site back to natural surface levels via the importation of waste materials. Approval of the marina proposal will remove this need.

Final restoration of the site has not yet commenced and the dredge ponds created from the sand extraction operations remain. However, the final years of dredge operations have anticipated the development of the marina and current configuration of the dredge pond closely meets the requirements of the proposed marina basin.

Development of the marina requires the use of the dredge basin which would be largely unfilled.

This will greatly reduce the quantity of virgin excavated natural material (VENM) that would be needed to restore the site back to natural surface levels. However, some VENM and rocks (but no other waste materials) will still be imported to assist with shaping the marina basin, restoring landforms and for bank armouring.

#### **3.2 Other associated approvals**

The following approvals are associated with the planned activities:

- DA-1552/2006 was approved by Council on 24 April 2007 for the construction of a road bridge connecting the marina site to Council land. The consent did not involve connection to Brickmakers Drive. The road bridge required an easement to enable a right of carriageway over an existing portion of an access handle adjacent to Lot 7 DP 1065574.
- DA-1552/2006 was subject to Class 4 legal proceedings in the NSW Land and Environment Court. The judgment in *Moorebank Recyclers Pty Ltd v Liverpool City Council* [2009] NSWLEC 100 concluded that the consent was valid. The matter was appealed in the NSW Court of Appeal with judgment made in *Tanlane Pty Ltd v Moorebank Recyclers Pty Ltd* [2008] NSWSC 1341 which was dismissed.

- Subsequent legal proceedings in the Supreme Court which sought to grant an easement over Moorebank Recycler's land pursuant to Section 88K of the Conveyancing Act 1919 were heard in *Tanlane Pty Ltd v Moorebank Recyclers Pty Ltd (No 2)* [2011] NSWSC 1286. The matter was appealed in the NSW Court of Appeal in *Moorebank Recyclers Pty Ltd v Tanlane Pty Ltd* [2012] NSWCA 445. The judgment granted an easement for the purposes of construction, maintenance, repair and use over the access handle associated with Lot 6 DP 1065574 with an additional order in relation to compensation to the owner of Lot 6 for the imposition of that easement.
- DA-1552/2006/B was approved by Council on 30 July 2014 seeking consent to amend the design of the bridge to maintain consistency with court orders. This DA is considered to be substantially commenced as per the Court Order
- DA-61/2014 was approved by Council on 8 August 2014 for the use of a road bridge (approved under DA-1552/2006) to enable vehicular access to a marina development (under DA-846/2012).
- DA-61/2014/A was submitted to Council seeking consent to change the description of proposed development to the approved DA (1552/2006). On 11 July 2016, the modification application was approved by Council. However, was deemed to be invalid because there was no owner's consent to the modification application.
- DA-222/2015 was approved by Council on 17 February 2016 for the construction of a retaining wall along the western boundary and removal of vegetation at 124 and 146 Newbridge Road, Moorebank.
- DA-510/2016 was approved on 5 October 2016 for the construction of a retaining wall at 146 Newbridge Road, Moorebank.
- DA-843/2018 was approved on 2 July 2020 for proposed stratum subdivision of Lot 6 in DP 1065574 into two lots and use of both the road bridge and link road over Lots 6 in DP 1065574 and lots 309 & 310 in DP 118048. The purpose of stratum subdivision is to facilitate the construction of the link road and road bridge approved under DA-1552/2006 and to enable dedication of the bridge and link road to LCC as a public road. The stratum subdivision involves air space over a portion of the 'pan-handle' of Lot 6 the proposed stratum subdivision to create airspace easement over Lot 6.

The alignment, design, construction and use of the link road have been approved by Council under DA-1552/2006 (as modified) and DA-843/2018. This is shown in Figure 8 below.



**Figure 8: Location of easement on Lot 6 DP 1065574**

A Voluntary Planning Agreement (VPA) pursuant to Section 93F of the EP&A Act was agreed between Liverpool City Council and Tanlane Pty Ltd on 11 June 2008 (see Attachment 9). The VPA applies to the marina site and contains a series of contributions/works which are summarised below:

- Embellishment of river foreshore land;
- Dedication of river foreshore land to Council subject to a 50 metre wide easement for maritime vessel access as well as two easements for the drainage of water;
- Development of a Vegetation Management Plan;
- Completion of works described in the Vegetation Management Plan;
- Conduct maintenance works described in the Vegetation Management Plan;
- Construction of a Bike/Pedestrian path through the river foreshore land;
- Construction of passive recreation facilities on the river foreshore land;
- Dedication of a drainage channel;
- Construction and dedication of a road bridge over drainage channel, embankment and road to Brickmakers Drive;
- Construction and dedication of Pedestrian Access to Newbridge Road and a pedestrian path within the public verge along the entire length of the land frontage to Newbridge Road;
- Dedication of an easement over land for access for the purpose of allowing Council to undertake maintenance to the river foreshore land.

Council are currently working through an amendment to the existing Planning Agreement. This amendment was initiated by the proponent, Tanlane Pty Limited.

The purpose of the amendment is to make specific changes to the Planning Agreement to ensure that it aligns with the current development plans for the

precinct.

The amendment includes a range of administrative updates to the agreement, most notably inclusion of new clause numbers following the update to the Act.

Key changes proposed in the works schedule is provided below:

<b>Item</b>	<b>Comment</b>	<b>Status</b>
1e. Dedication of River Foreshore Land to Council as identified on annexure 1	<p>The Planning Agreement replaced the dedication of river foreshore land with the granting of an easement in perpetuity for public access to the open space. This amendment is proposed given that Council does not accept the applicants proposed on-site containment strategy for contaminated materials on this land.</p> <p>Council have identified concern about the trigger for completion.</p>	Generally agreed
New Item: 4b. Construction and dedication of Bike/"Pedestrian Path Link from the edge of the R3 Land through the RE2 Land to the Foreshore Land, as shown on the plan attached as Annexure 1 as marked as "H".	<p>This item addresses the connection around the marina. This would be have been catered for previously by the bridge across the entrance which has been deleted.</p> <p>Council have identified concern about the trigger for completion.</p>	Generally agreed
7. Construction and dedication of road bridge over drainage channel, embankment and road to Brickmakers Drive as shown on the plan attached as Annexure 1 and marked as "F".	Clarification related to the need to acquire the stratum lot for the road bridge.	Generally agreed
9. Dedication of an easement over the Land for access for the purpose of allowing Council to undertake maintenance to the River Foreshore Land more or less in the position on the plan attached as Annexure 1 marked as "I".	This item has been deleted. Not required as dedication no longer required based on changes to item 1e above.	Generally agreed

Furthermore, the proponent has proposed a change to the time for completion. This would see the current development related trigger change to a specific timeframe from execution of the Planning Agreement. Council has identified a preference to retain a development related trigger. This matter is still undergoing discussion.

### **3.3 Previous Georges Cove Marina Development Application**

#### **3.3.1 First Marina Application**

The first application for the proposed Georges Cove Marina by Benedict Industries (acting for the owner, Tanlane Pty Ltd) was made to Liverpool City Council (Development Application DA-846/2012). The environmental impact statement (EIS) supporting this application was prepared in accordance with Director General's Environment Assessment Requirements (DGR 563) received on 29 July 2011.

An EIS (Benedict 2012) and application for development of the marina was submitted to Liverpool City Council and the Department of Planning in January 2012.

The assessment of the proposal included public exhibition of the Georges Cove Marina EIS (Benedict Industries 2012). The development application was placed on public exhibition on three separate occasions from 28 March 2012 to 3 May 2012, 9 May 2012 to 8 June 2012 and from 3 July 2013 to 2 August 2013. Each exhibition period observed a minimum 30 day public exhibition period in accordance with the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) and the DCP. A total of six separate submissions were received. Four expressed support for the proposal and two submissions, from the same author (Moorebank Recyclers) raised specific objection to vehicular access arrangements.

Consent for the Georges Cove Marina was granted to Tanlane Pty Ltd by the Sydney West JRPP on 22 August 2014 (JRPP Reference Number 2012SYW035).

The validity of the consent was challenged by the proposal's sole objector, Moorebank Recyclers, in the NSW Land and Environment Court. This was on the basis that Benedict (acting for the owner, Tanlane Pty Ltd) did not technically comply with Clause 7 (2) of State Environmental Planning Policy No 55—Remediation of Land (SEPP No 55) as described below.

In his 18 March 2015 judgement, Justice Preston CJ ruled in favour of the objector, declaring that the Consent was invalid because the application did not include a "Preliminary Investigation" of contamination and, therefore, that the JRPP could not have, in the judge's view, properly considered the application. The judge ruled that Tanlane should commission a Preliminary Investigation, reapply for a consent and supply the Preliminary Investigation to the JRPP as part of the application.

As a result of this ruling, Benedict is re-applying for consent for the proposed Georges Cove Marina, 146 Newbridge Road, Moorebank. The proposal is unchanged from that approved by the JRPP on 22 August 2014 and includes a Preliminary Investigation of Contamination.

#### **3.3.2 Second Marina Application**

The second application for the proposed Georges Cove Marina by Benedict Industries (acting for the owner, Tanlane Pty Ltd) was made to Liverpool City Council

(Development Application DA-781/2015).

As a result of above ruling, DA-781/2015 was supported by a preliminary investigation of contamination prepared by EMGA Mitchell McLennan Pty Limited (Report J14149RP1) on 28th July 2015.

Following an assessment of the application, the applicant submitted a Supplementary Preliminary Investigation (Report J14149RP1, Final) prepared by EMM Consulting dated 11th March 2016.

The environmental impact statement (EIS) supporting this application was prepared in accordance with Director General's Environment Assessment Requirements (DGR 912) received on 24 April 2014.

An EIS (Benedict 2015) and application for development of the marina was submitted to Liverpool City Council and the Department of Planning in August 2015.

The assessment of the proposal included public exhibition of the Georges Cove Marina EIS (Benedict Industries 2015). The development application was placed on public exhibition on two separate occasions from 4 November 2015 to 4 December 2015 and from 4 May 2016 to 3 June 2016. Each exhibition period observed a minimum 30 day public exhibition period in accordance with the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) and the DCP. A total of eight separate submissions were received. Six expressed support for the proposal and two submissions (Moorebank Recyclers and Bankstown City Council) raised specific objection to vehicular access arrangements.

Consent for the Georges Cove Marina was granted to Tanlane Pty Ltd by the Sydney West JRPP on 29 September 2016 (JRPP Reference Number 2015SYW155).

DA-781/2015 was later subject to a third-party appeal by Moorebank Recyclers Pty Ltd under Section 79(5) of the Environmental Planning and Assessment Act 1979, known as *Moorebank Recyclers Pty Ltd v Benedict Industries Pty Ltd [2018] NSWLEC 1089*. The Orders of the Court were that the appeal was upheld, resulting in DA-781/2015 being refused on 28 February 2018. In summary, the Commissioner found that:

- The contamination reports and Remediation Action Plan were deficient and did not provide sufficient information to enable the consent authority to undertake its planning functions in accordance with Clause 7 of SEPP 55. Consequently, the Commissioner was not satisfied that Clause 7.9(3)(c)(i) of the LLEP 2008 had been addressed in relation to the potential environmental impacts of the development.
- Concerns regarding water quality impacts associated with the opening of the marina basin were also raised. More specifically, there was concern that the applicant had not demonstrated whether water quality in the dredge pond will cause an unacceptable impact to water quality of Georges River. However, the Commissioner confirmed that the NSW EPA was responsible for ensuring that the water quality of the Georges River would not be adversely impacted.
- Concern was raised that proper dimensions of the development site are not available. More specifically, DP 1065574 identifies the site as having a

boundary as the Mean High Water Mark (MHW) of the Georges River. However, as the exact boundary dimension is not shown in DP 1065574, the development site is taken to be any land above the present MHW. As a consequence, Commissioner Brown raised concern that owner's consent had not been obtained for any work associated with the Marina on land below the present MHW.

- The development is deficient with respect to Clause 101 of SEPP Infrastructure. In particular, no consideration was given to provide vehicular access to the land from a road other than a classified road (Newbridge Road), for the purposes of construction traffic. Nonetheless, the Commissioner was satisfied that vehicular access to the land for construction traffic could be achieved via the provision of the road bridge and link road approved under DA-1552/2006 rather than Newbridge Road, as proposed.

As a result of this ruling, Benedict is re-applying for consent for the proposed Georges Cove Marina, 146 Newbridge Road, Moorebank. The proposal is relatively unchanged from that approved by the SWCPP on 29 September 2016 except for removal of a bridge.

### 3.3.3 Joint Regional Planning Panel Briefing Meetings

A briefing meeting was held with the SWCPP on 9 December 2019. The following matters were raised by the SWCPP:

- *The Panel notes the judgment of Commissioner Brown in Moorebank Recyclers Pty Ltd v Benedict Industries Pty Ltd [2018] NSWLEC 1089. The issues identified in that judgment will need to be examined carefully including the issue of construction traffic. The Panel understands that the boundaries of the site have been adequately identified to resolve the issue the Commissioner identified as arising under clause 50(1) of the Regulations. That should be discussed in the assessment report.*

**Comments:** The issue of construction traffic has been discussed in Section 6.1.5 of this Report.

The issue concerning the boundaries of the site has also been addressed. On 8 July 2019, a plan of redefinition of Lot 7 in DP 1065574 was registered so that the site is now legally defined as Lot 70 DP 1254895. As part of the plan of redefinition, the common boundary of the site is defined as the MHW of the Georges River as per DP 189774.

The plan of redefinition provides proper dimensions of the common boundary juxtaposed against the present MHW. Having regard to the plan of redefinition and letter from JMD Development Consultants, it is considered that the proposed Marina (including rock armouring along the Georges River) is wholly within the development site.

- *The Panel notes that clause 104 of the Infrastructure SEPP requires the consent authority to consider "any potential traffic safety, road congestion or parking implications of the development".*

**Comments:** The application was referred to Transport for NSW (TfNSW) for comments pursuant to Clause 104 of SEPP Infrastructure.

TfNSW raised no concern in relation to traffic safety, road congestion or parking implications of the development. TfNSW has identified that the development once constructed is likely to meet the warrant for traffic signals at the intersection of Newbridge Road/Link Road.

A deferred commencement condition has been imposed by TfNSW for the detailed design of the intersection to be approved by TfNSW prior to any operational consent (see Attachment 6). Council's Traffic Branch has raised no objection with this deferred commencement condition.

- *The issue of water management on site and the potential impact on the Georges River are important noting clause 8 of the Georges River REP and the requirements of the Coastal Management Act.*

**Comments:** The issue of water management on site and the potential impact on the Georges River are addressed in 6.1.4 and 6.1.7 of this Report.

- *The provisions of SEPP 55 must be adhered to. The Panel requires an audit statement to verify that the remediation work described in the remedial action plan will rehabilitate the site to render it suitable for the proposed use (as provided for by the applicable EPA guidelines). To the extent that the audit statement is conditional the Panel will need to be satisfied that it is appropriate that the work required by the conditions in the statement be deferred until after development consent is granted or whether that assessment work should be done prior to determination. The audit statement should address any relevant matters with relevance to the presence of acid sulphate soils on the site.*

**Comments:** The issue of land contamination on site are addressed in 6.1.3 of this Report. It is considered that this issue remains unresolved and is the basis for the recommendation of refusal.

- *The Panel would like to be satisfied that any impacts relevant to ecological impact under clauses 7.6 and 7.9 of the Liverpool LEP are assessed as required by those clauses and any potential for impacts on threatened or endangered flora or fauna are considered, as well as any issues arising under the Water Management Act due to the earthworks adjacent to the Georges River.*

**Comments:** These issues are addressed in Section 6.1.3 of this Report. Furthermore, it should be noted that the application was referred to NRAR as Nominated Integrated Development under the Water Management Act 2000. NRAR has issued its GTAs for the proposed development (see Attachment 2).

- *The design should address energy efficiency including solar panels and battery storage.*

**Comments:** The applicant has indicated that they are willing to install 40 kW of solar capacity. A condition will be imposed on any consent granted that requires the applicant to incorporate energy efficiency measures such as solar panels.

### 3.3.4 Design Excellence Panel

The application was considered by the Council's Design Excellence Panel on 12 September 2019.

Panel Comments	Council Response
<b>Context</b>	
<ul style="list-style-type: none"> <li><i>The Panel understands that there are unresolved court matters related to environmental (and other) factors of this proposal, and notes that these matters are subject to Council assessment.</i></li> </ul>	Council concurs.
<ul style="list-style-type: none"> <li><i>Given the potential for additional development in area, this marina could offer good retail and other facilities for the local neighbourhood. However, the cumulative impacts of future developments to the north and south of the subject site and increased traffic generation and access around this site need to be resolved /addressed by Council.</i></li> </ul>	Council concurs.
<ul style="list-style-type: none"> <li><i>The Panel, however supports the project as a positive contribution to the public nature of the waterfront development, its enhanced retail and public facilities subject to the recommendations below.</i></li> </ul>	Council concurs.
<ul style="list-style-type: none"> <li><i>The panel supports the proposed staging of the works.</i></li> </ul>	Council concurs.
<b>Built Form and Scale</b>	
<ul style="list-style-type: none"> <li><i>The Panel supports the design of the building (including its size, shape and form), as an appropriate and well-resolved functional marina facility.</i></li> </ul>	Council concurs.
<b>Sustainability</b>	
<ul style="list-style-type: none"> <li><i>Consider the incorporation of Photovoltaic and battery storage technology, to generate power for lighting and electricity purposes on-site, including electrically powered lifts for boats. This includes (if not implemented during initial building construction), future proofing the building to later incorporate photovoltaic panels (e.g. space for integrating panels onto the large north-east facing rooftop).</i></li> </ul>	The applicant has indicated that they are willing to install 40 kW of solar capacity. A condition will be imposed on any consent granted that requires the applicant to incorporate energy efficiency measures such as solar panels.
<ul style="list-style-type: none"> <li><i>Include drought tolerant and low maintenance species, within the planting schedule (i.e. within the Landscape Plans).</i></li> </ul>	The applicant has submitted a Landscape Concept Plan and Landscape Cross Sections (see Attachment 12 and 13) that includes drought tolerant species.

<b>Landscape</b>	
<ul style="list-style-type: none"> <li><i>The Landscape Concept Plan submitted is unresolved and lacks sufficient detail for a project of this scale.</i></li> </ul>	<p>An updated Landscape Plan and Landscape Cross Sections (see Attachment 12 and 13) was provided by the applicant.</p>
<ul style="list-style-type: none"> <li><i>A detailed set of Concept Landscape Plans (for DA standard) are to be prepared by an AILA Registered Landscape Architect. The plans must show more context, clearly define the proposed design detail at each relevant interface and boundary (including the riverfront), and must provide detail of the proposed materials and finishes, in plan and typical cross sections</i></li> </ul>	<p>An updated Landscape Plan and Landscape Cross Sections (see Attachment 12 and 13) was provided by the applicant.</p> <p>The landscape plan relates to the foreshore land that is the subject of the VPA. Landscaping of this area will be further detailed as part of the VPA process.</p> <p>A cover letter has also been provided (see Attachment 11) that explains how the landscape plan was developed and what it intends to achieve.</p>
<ul style="list-style-type: none"> <li><i>The Panel strongly encourages meaningful integration of indigenous heritage into the waterfront landscape and how it relates to the building and marina. This may be achieved through combining some of the following: planting, paving, material specification, spatial design, artworks, naming and so on.</i></li> </ul>	<p>Noted. Embellishment of waterfront land to be undertaken in accordance with the VPA.</p>
<b>Amenity</b>	
<ul style="list-style-type: none"> <li><i>It is understood that the previous Panel recommended a bridge (pedestrian and cyclists) which was accommodated to ensure seamless connectivity across the foreshore. The Proponent noted at this Panel meeting that Council had recommended removal of this bridge (due to potential on-going maintenance issues and the need for elongated ramps etc for DDA access). In the absence of this bridge, the walkway/ pedestrian route across the entire frontage of the development should be reconsidered as noted below.</i></li> </ul>	<p>Correct. The existing VPA executed by Tanlane and Council required a bridge to be provided over the channel to provide seamless connection along the RE1 zoned land for pedestrians and bicycles. An amendment has been made to the existing VPA by the applicant to remove the bridge. In its place, a new item will be added to the VPA which requires the “construction and dedication of Bike/Pedestrian Path Link from the edge of the R3 Land through the RE2 Land to the Foreshore Land, as shown on the plan attached as Annexure 1 as marked as “H”. This item addresses the connection around the Marina. This new connection is shown on a revised plan that the applicant has sent through for Council consideration.</p>
<ul style="list-style-type: none"> <li><i>The Panel acknowledges that since the DA was approved, the bridge has</i></li> </ul>	<p>See comments above</p>

<p><i>been deleted from the design based on feasibility, maintenance, spatial impacts and requisite clearance height issues. The Panel is satisfied with the alternate route (i.e. along the building frontage) as an active transport corridor, provided that public access is maintained at all times.</i></p>	
<ul style="list-style-type: none"> <li><i>Overall, this is a function-driven building and is well resolved as a functional marina facility. The sleeving and generosity of the public walkway works well, however the pedestrian route located along the waterfront (in front of the marina building) needs to be further developed to privilege the pedestrian experience over any conflicts generated by the function of the marina, and outdoor dining/entertainment infrastructure that is likely to spill out onto the pathway.</i></li> </ul>	<p>See comments above.</p>
<ul style="list-style-type: none"> <li><i>The walkway/pedestrian route needs to be an unimpeded minimum width of 4m, for the entire journey and Council should consider creating an easement to protect the public right of way along this route to provide for a continuous connection along the waterfront in lieu of the original bridge.</i></li> </ul>	<p>The pedestrian/cycle path and the riverfront pedestrian/cycle paths will be 2.5 m or 3.0 m wide to meet the Council's Moorebank East DCP design width standard.</p>
<b>Safety</b>	
<ul style="list-style-type: none"> <li><i>The Panel recommends compliance with CPTED principles, whilst still ensuring that the ground plane remains open and inviting for people.</i></li> </ul>	<p>A condition will be imposed on any consent granted that requires the CPTED to be incorporated into the development.</p>
<b>Conclusion</b>	
<p><i>The proposal is supported by the DEP, subject to the submission of the required landscape Plans and must return to the panel, with all feedback incorporated or addressed.</i></p> <p><i>The Panel may elect to undertake a desk top review of the amended submission.</i></p>	<p>Council considers that the development is not considered to be unacceptable in the form proposed.</p>

#### **4. DETAILS OF THE PROPOSAL**

The proposed development includes the construction and operation of the following main elements:

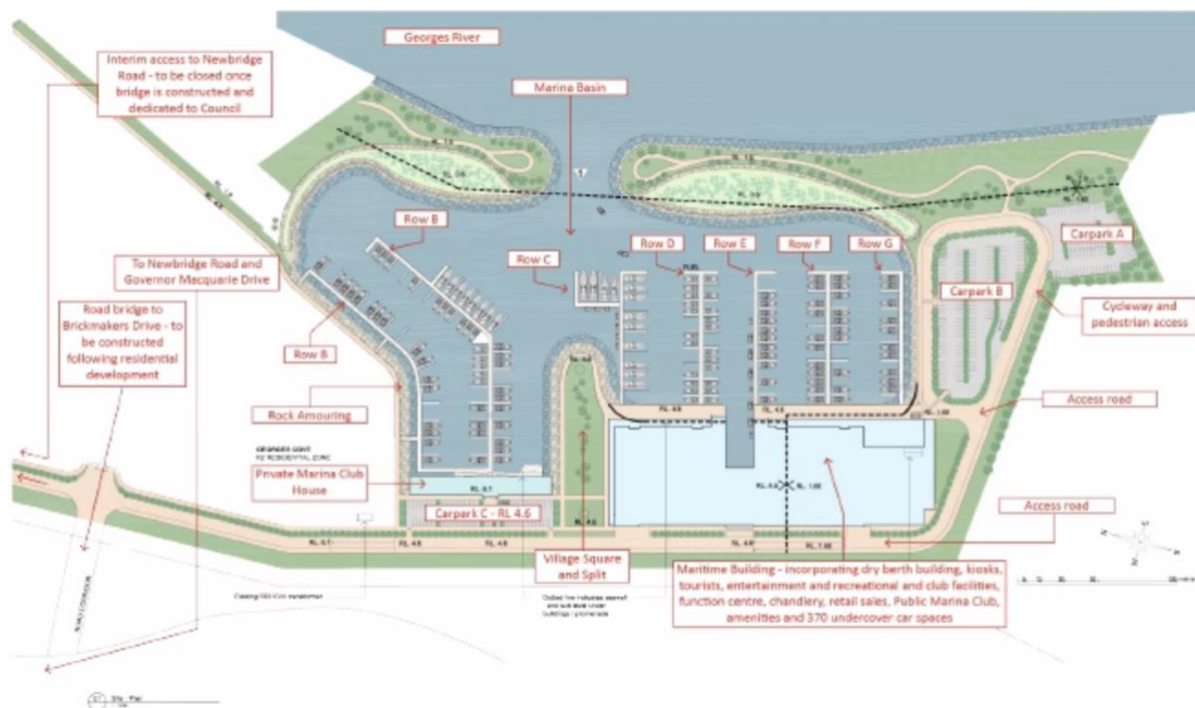
- 1) The Maritime Building located near the western boundary of the marina site. This structure will house:
  - a) a dry berth facility providing 250 berths for small craft;
  - b) a function centre;
  - c) tourist, entertainment and recreational and club facilities; and
  - d) a petrol tank (about 60,000 L) and a diesel tank (about 60,000 L).
- 2) A wet berth facility for 186 small craft (including casual berths) which will consist of:
  - a) a marina basin;
  - b) rock protection of the basin and foreshore including embellishment and revegetation of the river foreshore;
  - c) construction of public recreational facilities on the foreshore including bike paths, barbeque facilities and shelters;
  - d) floating berths and walkways;
  - e) fuel pumping facilities;
  - f) sewage pump out facilities; and
  - g) emergency berth access.
- 3) Three external car parking areas and basement car parking providing a total of 637 car spaces;
- 4) A Private Marina Clubhouse;
- 5) All associated works and support infrastructure - including power, water and sewerage;
- 6) A site access road;
- 7) Installation of traffic control signals at the intersection of Brickmakers Drive and the link road accessing the site.



**Figure 9: Artist's impression (Source: Marina EIS)**



**Figure 10: Artist's impression view from eastern bank of Georges River (Source: Marina EIS)**



**Figure 11: Georges Cove Marina – Key Elements (Source: Marina EIS)**

## 4.1 The Maritime Building

The Maritime Building will include the areas listed below:

Maritime Building area	Area (m <sup>2</sup> ) <sup>1</sup>
Dry berth store	5,946
Circulation	3,119
Hardstand storage	1,848
Small craft display	1,606
Function centre	1,355
Kiosks, commercial, tourist and recreational and club facilities	1,202
Undercroft - kiosks, commercial, tourist and recreational and club facilities	543
Public marina club lounge	450
Amenities	271
Workshops	249
Marina office	151
Function centre - kitchen	110
Function centre - bar/servery	96
<b>Sub-total (gross floor area)</b>	<b>16,946</b>
Carparking	11,994
Function centre - terrace	1,059
Public marina club lounge - terrace	127
<b>Total</b>	<b>30,127</b>

*Note: 1. Areas are preliminarily based on the initial concept stage and may vary depending on the final mix of use determined in the internal fit out and designs to be undertaken at construction certificate stage.*

The Maritime Building will comprise a concrete slab, steel framing, and colourbond cladding and has been architecturally designed to minimise visual impacts. The building will have a maximum height of 24.4 m AHD (from FFL 4.6 m AHD). The colours of the cladding (light greys and other suitable colours) were determined in consultation with visual assessment expert, Richard Lamb to minimise visual impact (see Attachment 8aa). In addition, panelling on the outside of the building will include a large component of translucent panels to maximise the use of natural light within

the interior of the dry store building.

Blade walls will be a prominent architectural feature of the Maritime Building, seeking to create significant visual articulation of the building elevation when viewed from the public domain. The blade walls will traverse from ground level and will protrude past ridge height to create visual interest, which in combination with the substantial surface area and glazing, will create a modern appearance.

Significant attention has been paid to ensure that the design and implementation of the project maximises the connectivity between the marina/maritime precinct as well as the kiosks, tourist, entertainment, recreational and club facilities and function centre to provide the best outcome for the entire development and the planned Mirvac Georges Cove residential development to the north.

Roof water will be harvested and stored in a large tank for irrigation and ground maintenance purposes as well as for use in grey water applications such as toilet flushing.

#### **4.1.1 Dry Berth Facility**

The dry berth facility has been designed to accommodate approximately 250 small craft between 4m and 8m long.

Type	Boat length	Number of dry berths
Small craft	≥4 m to <6 m	125
Small craft	≥6 m to <8 m	125
Total		250

Boat launching and retrieval from the facility will be undertaken by a lifting device assisted by a large forklift or internal gantry crane which will operate on the ground floor of the dry berth facility. The forklift/gantry crane will remove small craft from the vertical lift for placement into the racking system in the building.

Dry berth facilities provide significant advantages over wet berths including:

- reduced maintenance and repair costs due to reduced exposure to the weather and the effects of saltwater corrosion;
- reduced environmental impact from the effects of anti-foul on boats' hulls as the small craft will be stored out of the water and so will not require anti-foul;
- reduced costs for owners from savings due to not having to use anti-foul; and
- quick and easy launching and retrieval, eliminating the need for trailering and storing on residential premises and removing the inconvenience and stress associated with towing and parking trailers as part of the normal launching and retrieval of small craft. Normal operations in such facilities involve the booking of launching and retrieval times in a similar fashion to booking tee off times for a round of casual golf.

#### **4.1.2 Function Centre**

The function centre will include shared amenities and marina offices. These will cater for corporate events, weddings, celebrations and the like, in a similar fashion to traditional function centres.

#### **4.1.3 Kiosk, commercial, tourist, recreational and club facilities**

The kiosk, commercial, tourist, recreational and club facilities will be in the northern and eastern portion of the Maritime Building and will service casual visitors using the wider marina, including the Marina Spit Park between the main Maritime Building and the Private Marina Clubhouse. This is detailed further in the report.

#### **4.1.4 Public Marina Clubhouse**

The Public Marina Clubhouse portion of the Maritime Building will incorporate a public marina club lounge and a terrace for public marina members. This will be a separate clubhouse to the Private Marina Clubhouse. The Public Marina Club facilities will include male and female showers, change and locker rooms, bar and server facilities and a dining space.

#### **4.1.5 Chandlery, retail area and small craft sale showroom**

The chandlery, retail area and small craft sale showroom will be split into two main areas within the Maritime Building:

- the chandlery and retail area will provide for all the maritime, hardware and supplies required for day-to-day boat maintenance; and
- the small craft sales showroom and sales administration.

#### **4.1.6 Workshop**

A workshop will provide service and maintenance facilities for marina club members. The workshop will only be able to accommodate up to four small craft (i.e craft less than 15 m long).

#### **4.1.7 Fuel storage**

Separate tanks storing about 60,000 L of diesel and about 60,000 L of petrol will be installed on the hardstand at RL 7.3 and well above 1:100 year flood levels.

### **4.2 Wet berth (floating) facility**

The wet (floating) berth facility is described below. The wet berth facility design was guided by the Australian Standard (AS) 3962-2001, Guidelines for Design of Marinas.

#### **4.2.1 Marina Basin**

The marina basin will be about 150 m wide east to west and 350 m long north to south. The basin will open to the Georges River with a short entrance channel that will be 40 m to 50 m wide.

The marina basin will provide wet berths for small craft and vessels as listed below:

Type	Boat length	Number of wet berths
Small craft	≥8 m to <10 m	52
Small craft	≥10 m to <12 m	110
Small craft	≥12 m to <15 m	20
Vessels	≥15 m to <18 m	2
Vessels	<20 m	2
Vessels	≥20 m	0
<b>Total wet berths</b>		<b>186</b>

The marina basin has been designed to alleviate the potential for the formation of poorly flushed corners and will assist to maintain good water quality and visual appearance.

The marina basin will be located on a relatively straight section of the Georges River. These sections are generally more stable and less prone to the significant variations in flow velocity at bends in the river. These velocity variations typically result in sediment deposition on the inside of the bend and significant erosion on the outside of the bend. The location of the marina will provide more stable bank and bed conditions and less potential for sedimentation in the marina basin or entrance.

As described above, the marina basin will be formed by filling parts of the existing quarry basin to shape it to the final landform.

#### **4.2.2 Floating berths and walkways**

A floating berthing system is proposed rather than fixed jetties because it will be more convenient to users (including people with a disability) and will minimise the visual impact of the berths, particularly at low tide.

The marina berths will comprise a floating system of walkways, with finger units branching off at right angles to the walkways, creating the berthing pens and providing access alongside the moored boats. The floating berths will be held in place by flexible lines that extend to the basin bed which will stretch when flood loads occur, or will be attached to pylons (of a sufficient height to allow for floods) driven into the base of the basin.

The walkway widths will satisfy the requirements of AS 3962-2001, ie:

- walkways less than 100 m long will be at least 1.5 m wide;
- walkways 100 m to 200 m long will be at least 1.8 m wide; and
- walkways more than 200 m long will be at least 2.4 m wide.

The fingers leading from the walkways will be from 0.9 to 2 m wide. This will be dependent on the nominated size of the boat that the berth is servicing. These finger widths will comply with the AS 3962-2001 requirement for the purposes of safe embarkation and disembarkation. The finger length will equal the length of the longest boat that may use the berth.

The final widths of walkways and fingers may vary to a minor degree depending on the proprietary flotation system adopted for the marina, of which there are a number to select from, and the final detailed design.

#### **4.2.3 Casual public berths**

In addition to permanent berths, the marina will be accessible to the public who are generally making use of the marina facilities to pick-up and drop-off passengers during marina business hours.

#### **4.2.4 Channel and fairways**

A navigation channel at least 40 m wide will be created. This is well in excess of the minimum channel width required for safe navigation.

Adequate widths will be provided for boat manoeuvring at the fuel and sewage pump-out facilities and so that the berths are visually aesthetic. No mooring or anchoring will be allowed within the navigation channel or within the marina basin other than in the berths.

The width of internal channels ('fairways') within the marina will vary depending on the size of the craft in the adjoining berths. As a minimum, and as recommended by AS 3962-2001, fairways will be 1.5 times the length of the longest boat using that fairway.

#### **4.2.5 Foreshore embellishment and road armouring**

An important component of development will be foreshore embellishment and rock armouring for protection. These works will include:

- removal of surface waste and fill on the foreshore;
- removal of noxious weeds; and
- restoration and enhancement of vegetation in keeping with indigenous species.

The foreshore works will be protected by rock revetment to protect the stretch of the river foreshore from the effects of flooding and erosion. These works will be carried out in accordance with the VPA agreed between Liverpool City Council and Tanlane Pty Limited on 11 June 2008. The VPA requires a detailed vegetation management plan (VMP) to be submitted to Council. There is already a financial security mechanism and legally binding agreement in place to procure these works prior to the dedication of this embellished foreshore zone back to Council once they are completed.

#### **4.2.6 Signage**

The details and locations of proposed signage do not form part of this application and will be confirmed at construction certificate stage. The signage will likely include:

- individual marina berths including restricted berths where applicable;
- casual public berthing;
- maintenance holding area;
- no berthing or tie up;
- fuel/pumpout berths and safety instructions on usage;
- fire/safety notices; and
- placarding of fuel storage facilities.

#### **4.2.7 Provision of services to berths**

The wet berths will be supplied with potable water, power, lighting and communications (telephone, internet and cable television). These services will be available to the berths via low service pedestals (approximately 900 mm tall). The service pedestals will be located at the junctions between fingers and the walkway. On the longer runs of the walkway, where there are no fingers, pedestals with lights only will be provided at a spacing of about 10 m.

Services to the pedestals will be supplied from the land-based infrastructure via pipework and conduits which will run down the access gangway (incorporating flexible couplings). These will be fitted under the floating walkway deck and will be out-of-view but accessible for inspection and maintenance.

#### **4.2.8 Security gates**

The main walkways of the marina will be available to the public during marina opening hours. Access control gates will be located at the walkways leading to the marina berths. These will control access 24 hours a day. Access control gates will also be located at the base of each gangway. These will be locked at night to provide security, particularly against vandalism, property damage and theft.

A key card system (or similar) will be available to boat owners and marina staff to operate the security gates.

#### **4.2.9 Fuel wharf**

Fuel bowzers will be located on the dedicated fuel wharf on the end of berth row D. Fuel bowzers will be installed in accordance with the requirements of relevant authorities. In particular, the following requirements will be met:

- at least two fire extinguishers will be provided, selected from the following type and minimum size:
  - 9 kg dry chemical type;
  - 9kg halogenated hydrocarbon type; and
  - 9 L foam type.
- drip trays will be provided under and around the bowzers. Trays will be of sufficient size to hold any jerry cans being filled;
- a holding tank will be provided onsite to collect and retain the wastes from the drip trays;
- provision will be made for regular emptying and disposal of the holding tank contents to a licensed system or site;
- oil/fuel booms will be provided to contain any accidental fuel spillage; and
- oil absorbent material will be provided to absorb petroleum products spilt on the water surface.

AS 3962-2001 notes the need for particular precautions when supplying fuel over water, such as use of double containment lines. All of these precautions will be adopted in the design and installation of relocated facilities.

#### **4.2.10 Sewage pump-out**

The facility will incorporate a water supply for rinsing. The sewage pump out system will not have holding tanks in order to prevent an odour problem and normal cleaning

and maintenance will ensure that there will be no other odour problems associated with the facility.

A sewage pump out facility will be located adjacent to the fuel facilities to facilitate and encourage proper sewage disposal from boats. The pump out facility will discharge into the existing sewer connections on Lot 70. The co-location of the sewage pump out facilities with fuel facilities will result in high utilisation rates.

There are various proprietary pump out systems available with a choice of pump size. Due to the number of connection points, and the pumping distance from the furthest berths to shore, the pump will be a vacuum type, enclosed and appropriately acoustically shielded to meet the project sound goals. A vacuum pump moves sewage by creating a vacuum between the hose nozzle and an accumulator tank. When the accumulator tank is full, the vacuum is reversed, sending pressurised air into the tank and pushing the sewage out to the sewer for disposal.

The sewage pump out unit will incorporate a pump and accumulator tank located on the marina walkway adjacent to the pump out berths. The pump out unit will be approximately 1.5 m long by 1 m wide by 1.3 m tall (dependant on the system selected), and enclosed within a cabinet. When not in use, the pump out nozzle will be stored in a receptacle incorporating a drip tray. Only one user can be pumped out at any one time and marina staff will activate and manage pump out of all vessels.

The sewage pump out facilities will be for the use of all boats at the marina. The NSW Government has a policy requiring sewage holding tanks in all recreational boats fitted with a toilet so boats are generally expected to be fitted with an on-board holding tank allowing the sewage pump out to be used.

As the entire lot at 146 Newbridge Road will be connected to the sewerage main prior to development, the marina will be connected onto that upgraded connection. Based on consultation with Sydney Water, it is understood that sewage from the pump out facility can be discharged to the main sewers, as long as the discharge does not exceed 2 L/s. This far exceeds the anticipated discharge from the pump out facility.

#### **4.2.11 Bilge water pump-out**

All marina berth holders will be inducted and supplied with a complimentary bilge water absorbing pad as part of the rules and regulations of the marina. Bilge absorbing pads will absorb any oil from the bilges. The bilge water will be disposed appropriately.

The discharge of bilge water within the marina basin will be prohibited. Signage to this effect will be displayed throughout the marina. A floating boom will be maintained at the site to contain any surface pollutants in the event of an accidental leakage of bilge water.

#### **4.3 Private Marina Clubhouse**

The private marina clubhouse will include the areas listed below:

Private Marina Clubhouse area	Area (m <sup>2</sup> ) <sup>1</sup>
Private Marina Clubhouse	216
Circulation	216
Kiosk	123
Amenities	108
Brokerage	72
Marina office	36
<b>Sub-total (gross floor area)</b>	<b>771</b>
Private Marina Clubhouse - terrace	194
Small craft store	117
Small craft circulation and ramp	278
Circulation on pontoons	221
Barbeque area	392
Kiosk - terrace	150
<b>Total</b>	<b>2,124</b>

*Note: 1. Areas are preliminarily based on the initial concept stage and may vary depending on the final mix of use determined in the internal fit out and designs to be undertaken at construction certificate stage.*

The Private Marina Clubhouse will provide the cornerstone for the marina precinct and will provide the waterfront access for the future Mirvac Georges Cove residential development on the northern portion of Lot 7 (subject to separate development applications and approvals). The Private Marina Clubhouse will include office space, dining areas, amenities and access to the wet berths.

The Private Marina Clubhouse will use steel and Colourbond materials to create a modern, outdoor lifestyle feel. It will incorporate large glassed areas to utilise natural light wherever possible. It will have a maximum height of 13.1 m AHD from a FFL 2.8 m AHD.

As with the Maritime Building, all of the roof water from the clubhouse will be harvested and stored in a large tank for irrigation and ground maintenance purposes, as well as use in grey water applications such as toilet flushing.

#### **4.4 Marina Spit Park**

The Marina Spit Park will be between the main Maritime Building and the Private Marina Clubhouse facilities. It will be a grassed area with some plantings that will be accessible to the public and will be surrounded by a path, including a section facing the marina basin.

#### **4.5 Public recreation facilities on the foreshore**

The following public recreation facilities will be constructed on the river foreshore and, once complete, will be dedicated back to Council under the terms of the VPA:

- a bike/pedestrian path; and
- passive recreation facilities (e.g. picnic tables).

An access easement will be dedicated over land on the marina site to allow Council to undertake maintenance of the foreshore land.

Council are currently working through an amendment to the existing Planning Agreement. This amendment was initiated by the proponent, Tanlane Pty Limited.

The amendment will result in the granting of an easement in perpetuity for public access to public recreation facilities in place of the dedication of land to Council.

As a result, access easements will not be required as the land will be retained in private ownership as part of the VPA amendment.

## **4.6 Access and parking**

### **4.6.1 Public Access**

Public access to the marina (by car, bicycle and on foot) will be provided during normal operating hours from Brickmakers Drive.

Access to the wet berths will be controlled by access control gates.

Equipment and products to the marina will be delivered by road during normal working hours, Monday to Friday. Given that public use of the marina will be highest on weekends, no significant access conflicts are envisaged.

The Maritime Building, Private Marina Clubhouse and wet berth walkways design will comply with relevant disability access standards through the extensive use of ramps and the floating berth configuration.

### **4.6.2 Site access**

Vehicular access from Brickmakers Drive to the proposed marina will be provided. The design, construction and use of the link road have been approved by Liverpool City Council (DA-843/2014 and DA 1552/2006 (as modified)).

The construction of this bridge and associated works will meet the VPA requirement for the construction and dedication of a road bridge over the drainage channel, embankment and road to Brickmakers Drive.

A combined pedestrian and cycle access path from Brickmakers Drive will be constructed along the northern side of the link road. This will be the primary pedestrian and cycle access route between the marina site and Newbridge Road.

The path along the link road will extend to the Georges River foreshore. In combination with the proposed foreshore path within the Flower Power site (to the north east) these paths will provide public access to the Georges River foreshore from the marina site to the recreation area on Davy Robinson Drive.

## **4.7 Hours of operation**

The proposed hours of the marina berthing operations are as follows:

- Seven days a week, 7.00 am to 10.00 pm.

It is proposed that the Private Marina clubhouse, Marina Function Centre and associated venues be permitted to operate from 7 am to 12 midnight.

The proposed construction hours are:

- Monday to Friday: 7.00 am to 5.00 pm; and
- Saturday: 7.00 am to 1.00 pm.

No construction will take place on Sundays or public holidays.

## **5. STATUTORY CONSIDERATIONS**

Development consent is required under Part 4 of the EP&A Act 1979, pursuant to the provisions of the Liverpool LEP, relevant EPIs and the Liverpool DCP. Liverpool City Council is the consent authority and the Sydney Western City Planning Panel is the determining authority.

### **5.1 Designated Development**

The proposed development has been identified as 'Designated Development' pursuant to Section 4.10 of the EP&A Act 1979 which is prescribed in part as follows:

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#### ***"4.10 Designated development***

*(1) Designated development is development that is declared to be designated development by an environmental planning instrument or the regulations."*

Pursuant to Clause 23 of Schedule 3 of the Environmental Planning and Assessment Regulation 2000, 'Marinas' are outlined in part as follows:

#### ***"23 Marinas or other related land and water shoreline facilities***

*(1) Marinas or other related land or water shoreline facilities that moor, park or store vessels (excluding rowing boats, dinghies or other small craft) at fixed or floating berths, at freestanding moorings, alongside jetties or pontoons, within dry storage stacks or on cradles on hardstand areas:*

*(a) that have an intended capacity of 15 or more vessels having a length of 20 metres or more, or*

*(b) that have an intended capacity of 30 or more vessels of any length and:*

*(i) are located in non-tidal waters, or within 100 metres of a wetland or aquatic reserve, or*

*(ii) require the construction of a groyne or annual maintenance dredging, or*

*(iii) the ratio of car park spaces to vessels is less than 0.5:1, or*

*(c) that have an intended capacity of 80 or more vessels of any size.*

*(2) Facilities that repair or maintain vessels out of the water (including slipways, hoists or other facilities) that have an intended capacity of:*

*(a) one or more vessels having a length of 25 metres or more, or*

*(b) 5 or more vessels of any length at any one time."*

The proposal has an intended capacity exceeding 80 vessels of any size and therefore, the application is considered to be Designated Development.

An Environmental Impact Statement (see Attachment 8) has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) – Attachment 8b to this Report.

## **5.2 Nominated Integrated Development and Integrated Development**

Pursuant to Section 4.46 of the EP&A Act 1979, the application is defined as 'Integrated Development,' and 'Nominated Integrated Development.' Concurrence pursuant to the applicable legislation was sought from the following authorities:

- Natural Resources Access Regulator (NRAR) - *Water Management Act 2000 (Nominated Integrated Development)* as the proposal requires a Controlled Activity Approval pursuant to s91 of the Water Management Act 2000;
- NSW Environmental Protection Authority (EPA) – *Protection of the Environment Operations Act 1997 (Nominated Integrated Development)* as it requires a licence for scheduled development work and/or scheduled activities pursuant to Part 3.2 of the POEO Act 1997; *and*
- Fisheries NSW – *Fisheries Management Act 1994* as the proposal requires a permit to cover harm of marine vegetation pursuant to Section 205 of the Fisheries Management Act 1994.
- NSW Rural Fire Service (RFS) – as the proposal requires authorisation under section 100B of the Rural Fires Act 1997 for a special fire protection purpose.

General Terms of Approval have been issued by each authority.

## **5.3 Threatened Species Conservation Act 1995 (NSW)**

The provisions of the Threatened Species Conservation Act 1995 are not applicable as there are no threatened animal or plant species located in the area of the development, nor does the development site constitute a significant part of the habitat of such species. It can therefore be concluded that there would be no significant effect on threatened species, populations or ecological communities or their habitats arising from the construction or use of the proposed development.

## **5.4 Environment Protection and Biodiversity Conservation Act 1999 (Cth)**

The Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) requires approval from the Commonwealth Minister for the Environment for actions that will have a significant effect on matters of national environmental significance, including identified threatened species. The proposal would not have an impact on matters of national environmental significance as listed in the EPBC Act and accordingly, a referral is not required to the Commonwealth Minister for the Environment.

## **6. ASSESSMENT**

The development application has been assessed in line with the relevant matters of consideration prescribed by Section 4.15 of the *Environmental Planning and Assessment Act 1979* and the *Environmental Planning and Assessment Regulation 2000* as follows:

## 6.1 Section 4.15(1)(a)(1) – Any Environmental Planning Instrument

The proposal has been assessed with due regard to relevant legislation and planning instruments cited as follows:

- 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.55 - Remediation of Land;
- State Environmental Planning Policy (Coastal Management) 2018
- State Environmental Planning Policy (Infrastructure) 2007;
- State Environmental Planning Policy – (State and Regional Development) 2011
- Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment;
- Liverpool Local Environmental Plan 2008

### 6.1.1 State Environmental Planning Policy No.19 – Bushland in Urban Areas

State Environmental Planning Policy No. 19 – Bushland in Urban Areas (SEPP 19) aims to protect and preserve bushland within the urban areas and maintain its value to the community as part of the natural heritage and its aesthetic value and recreational, educational and scientific resource.

SEPP No.19 includes the following relevant definition:

“**bushland** means land on which there is vegetation which is either a remainder of the natural vegetation of the land or, if altered, is still representative of the structure and floristics of the natural vegetation.”

The marina site both adjoins and contains land zoned RE1 Public Recreation under LLEP 2008. Accordingly, Council is required to undertake a merit assessment of the proposed development against Clause 6 *Consent to disturb bushland zoned or reserved for public open space* and 9 *Land adjoining land zoned or reserved for public open space*. Following are tables summarising the matters for consideration in determining development application and compliance:

6 Consent to disturb bushland or reserved for public open space	Comment
(1) A person shall not disturb bushland zoned or reserved for public open space purposes without the consent of the council.	The site includes RE1 land alongside the Georges River, zoned for Public Recreation.  The EIS describes the bushland proposed to be disturbed as part of the marina development seeks approval for the marina development.
(2) Nothing in subclause (1) requires development consent for the disturbance of bushland where it is being disturbed: (a) for the purposes of bushfire hazard reduction,	Not applicable as the disturbance of bushland is not for the listed purposes.
(b) for the purpose of facilitating recreational use of the bushland in accordance with a plan of management referred to in clause 8 of this Policy,	Not applicable as the disturbance of bushland is not for the listed purposes.

(c) for the purpose of constructing, operating or maintaining: (i) lines for electricity or telecommunication purposes, or (ii) pipelines to carry water, sewerage or gas or pipelines licensed under the <i>Pipelines Act 1967</i> , or	Not applicable as the disturbance of bushland is not for the listed purposes.
(d) for the purpose of constructing or maintaining main roads.	Not applicable as the disturbance of bushland is not for the listed purposes.
(3) Pursuant to section 30 (4) of the Act, the provisions of sections 84, 85, 86, 87 (1) and 90 of the Act apply to and in respect of development referred to in subclause (1) in the same way as those provisions apply to and in respect of designated development.	The applicant acknowledges that the provisions of the Act apply to and in respect of development referred to in subclause (1) the same was as those provisions apply and in respect to designated development.
(4) A consent authority shall not consent to the carrying out of development referred to in subclause (1) unless: (a) it has made an assessment of the need to protect and preserve the bushland having regard to the aims of this Policy,	The consent authority has been furnished with an EIS which includes a biodiversity assessment. This assessment provides the information required for the consent authority to make a determination.  Assessments of significance have been completed for the communities which constitute bushland in accordance with the SEPP (River Flat Eucalypt Forest and Swamp Oak Floodplain Forest). The assessments of significance concluded that the proposed activity will not result in significant impacts on the species or ecological communities.
(b) it is satisfied that the disturbance of the bushland is essential for a purpose in the public interest and no reasonable alternative is available to the disturbance of that bushland, and	The need to disturb the bushland is required to facilitate the development of the site for the purpose of the Marina development. There is no reasonable alternative to the disturbance of the bushland.
(c) it is satisfied that the amount of bushland proposed to be disturbed is as little as possible and, where bushland is disturbed to allow construction work to be carried out, the bushland will be reinstated upon completion of that work as far as is possible.	A Voluntary Planning Agreement has been executed with the property owner and Council and contains work which requires the property owner to re-vegetate the river foreshore in accordance with a Vegetation Management Plan (VMP) to be submitted in accordance with the agreement.

<b>9 Land adjoining land zoned or reserved for public open space</b>	<b>Comment</b>
1) This clause applies to land which adjoins bushland zoned or reserved for public open space purposes.	The site adjoins and contains RE1 Public Recreation land.
(2) Where a public authority: (a) proposes to carry out development on land to which this clause applies, or (b) proposes to grant approval or development consent in relation to development on land to which this clause applies,  the public authority shall not carry out that	The application involves granting of development consent on land to which this clause applies.

development or grant the approval or development consent unless it has taken into account:	
(c) the need to retain any bushland on the land,	<p>A Voluntary Planning Agreement has been executed with the property owner and Council and contains work which requires the property owner to re-vegetate the river foreshore in accordance with a Vegetation Management Plan (VMP) to be submitted in accordance with the agreement.</p> <p>The VMP needs to demonstrate how weeds will be removed and the site managed into the future.</p>
(d) the effect of the proposed development on bushland zoned or reserved for public open space purposes and, in particular, on the erosion of soils, the siltation of streams and waterways and the spread of weeds and exotic plants within the bushland, and	A VMP is to be prepared as mandated by the Voluntary Planning Agreement. In consideration with the general terms of approval issued from DPI Water; DPI Fisheries and NSW Environmental Protection Authority, the overarching VMP and other approval required to carry out work would sufficiently address these matters.
(e) any other matters which, in the opinion of the approving or consent authority, are relevant to the protection and preservation of bushland zoned or reserved for public open space purposes.	The VMP is considered to be sufficient in preserving and embellishing bushland areas with the intent to enhance these areas for public benefit.

The provisions of SEPP 19 are considered to have been satisfactorily addressed.

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

State Environmental Planning Policy No.33 – Hazardous and Offensive Development (SEPP 33) aims to identify measures to be employed to reduce the impact of the development, to ensure there is sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact.

Two separate tanks storing 60,000 L of diesel and 60,000 L of petrol will be installed on the Maritime Building hardstand at RL 7.3 m and well above 1:100 year flood levels. The proposal does not include storage of any significant quantities of other types of fuels or of hazardous chemicals on the marina site although small quantities may be used in the workshop and for facility maintenance.

The fuel tanks would be located approximately 50 metres from the boundary of the marina site. When utilising the screening method in the Applying SEPP 33 Guideline, the consultant reported that the proposed facility did not qualify as a potentially hazardous development. Therefore, a preliminary hazard analysis (PHA) was not required.

### **6.1.3 State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)**

The objectives of SEPP 55 are:

- to provide for a state wide planning approach to the remediation of contaminated land.
- to promote the remediation of contaminated land to reduce the risk of harm to human health or any other aspect of the environment.

Under the above SEPP, Council must consider:

- whether the land is contaminated.
- if the land is contaminated, whether it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the proposed use.

The relevant legislation is clause 7 of State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55).

Clause 7 of SEPP 55 provides:

### **7 Contamination and remediation to be considered in determining development application**

*(1) A consent authority must not consent to the carrying out of any development on land unless—*

- (a) it has considered whether the land is contaminated, and*
- (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

*(2) Before determining an application for consent to carry out development that would involve a change of use on any of the land specified in subclause (4), the consent authority must consider a report specifying the findings of a preliminary investigation of the land concerned carried out in accordance with the contaminated land planning guidelines.*

*(3) The applicant for development consent must carry out the investigation required by subclause (2) and must provide a report on it to the consent authority. The consent authority may require the applicant to carry out, and provide a report on, a detailed investigation (as referred to in the contaminated land planning guidelines) if it considers that the findings of the preliminary investigation warrant such an investigation.*

*(4) The land concerned is—*

- (a) land that is within an investigation area,*
- (b) land on which development for a purpose referred to in Table 1 to the contaminated land planning guidelines is being, or is known to have been, carried out,*
- (c) to the extent to which it is proposed to carry out development on it for residential, educational, recreational or child care purposes, or for the purposes of a hospital—land—*
  - (i) in relation to which there is no knowledge (or incomplete knowledge) as to whether development for a purpose referred to*

*in Table 1 to the contaminated land planning guidelines has been carried out, and*  
*(ii) on which it would have been lawful to carry out such development during any period in respect of which there is no knowledge (or incomplete knowledge).*

The following documents relating to land contamination matters accompanied DA-611/2018 on lodgement:

- 'Preliminary Investigation of Contamination Proposed Georges Cove Marina' (Report J14149RP1, Version V1, Final) prepared by EMGA Mitchell McLennan Pty Limited dated 28th July 2015 – see Attachment 8g;
- Supplementary Preliminary Investigation Proposed Georges Cove Marina (Report J14149RP1, Version V3, Final) prepared by EMM Consulting dated 11th March 2016– see Attachment 8h;
- Remediation Action Plan Proposed Georges Cove Marina (Report J14149RP1, Version V2, Final) prepared by EMM Consulting dated 11th March 2016– see Attachment 8i;
- Preliminary Site Investigation Proposed Rezoning (Area 1) and Georges Cove Marina (Area 2) 146 Newbridge Road, Moorebank (Project 71459.10, Document No. R.001.Rev1, File name 71459.10.R.001.Rev1.PSI, Revision 1) prepared by Douglas Partners Pty Ltd dated 28th May 2018 – see Attachment 8j;

All documents underlined above are documents that were submitted with and deemed to be satisfactory by Council for DA-781/2015. These documents were also the subject of the third-party appeal by Moorebank Recyclers Pty Ltd. The preliminary site investigation report (Douglas Partners 2018) was undertaken following this approval and considers the potential for contamination within the marina site and includes additional information on the potential for asbestos to occur and an assessment of landfill gas (see Attachment 8j to this Report).

These documents were referred to Council's Environmental Health Officer for comments. However, it remained unclear whether the more recent Preliminary Site Investigation report prepared by Douglas Partners Pty Ltd addressed the Court's findings. For these reasons, it was requested that any submitted EIS must require the preparation and submission of a Stage 2 Detailed Site Investigation (DSI) report and revised Remediation Action Plan (RAP) prepared by a suitably qualified contaminated land consultant.

It was also requested that the RAP be accompanied by a Section B Site Audit Statement and Site Audit Report prepared by an NSW EPA Accredited Site Auditor.

In response, the following reports were submitted by the applicant to further the assessment of SEPP 55:

- Landfill Gas Monitoring, November 2018 Proposed Rezoning (Area 1) and Georges Cove Marina (Area 2) 146 Newbridge Road, Moorebank (Project 71459.10, 71459.10.R.004.Rev 2) prepared by Douglas Partners Pty Ltd dated 28th February 2019 – See Attachment 8k;

- Site Audit Report 282 by Dr Ian Swane Remediation Strategy for Proposed Georges Cove Marina Development at 146 Newbridge Road, Moorebank NSW 2170 (Document No. 1, Revision: Final) dated 27th April 2019– See Attachment 8m;
- Site Audit Statement No. 282 prepared by Dr Ian Swane dated 27th April 2019– See Attachment 8m;

The Applicant did not furnish Council with a Stage 2 Detailed Site Investigation report and revised Remediation Action Plan prepared by a suitably qualified contaminated land consultant. The Site Audit Report and Statement was prepared with consideration of existing documentation that has been reviewed and originally deemed by Council as insufficient to be satisfied that Clause 7(1) of SEPP 55 has been addressed. However, upon further consideration, Council's Environmental Health Officer considers the submitted response to be acceptable in this case.

Firstly, upon further review of Clause 7(1) of SEPP No. 55, there is no specific requirement for a Stage 2 DSI of the land to be considered prior to granting of a consent. The requirement for a Stage 2 DSI is referenced under Clause 7(3) of SEPP No. 55 which states that 'the applicant for development consent must carry out the investigation required by subclause (2) and must provide a report on it to the consent authority. The consent authority may require the applicant to carry out, and provide a report on, a detailed investigation (as referred to in the contaminated land planning guidelines) if it considers that the findings of the preliminary investigation warrant such an investigation'.

In this regard, it is recognised that Clause 7(3) of SEPP No. 55- Remediation of Land states that the consent authority may require the detailed investigation (as referred to in the contaminated land planning guidelines) if it considers that the findings of the preliminary investigation warrant such an investigation. The term 'may' in Clause 7(3) of SEPP No. 55- Remediation of Land implies that consideration of a detailed investigation is discretionary based upon the findings of the preliminary site investigation.

SEPP No. 55- Remediation of Land requires contamination investigations to be undertaken in accordance with the contaminated land planning guidelines titled 'Managing Land Contamination Planning Guidelines SEPP 55- Remediation of Land' (1998) published by the Department of Urban Affairs and Planning and Environmental Protection Authority. These Guidelines offer further guidance in the application of SEPP No. 55- Remediation of Land. More specifically, page 16 of the Guidelines state:

*'A preliminary investigation is an important step in deciding whether a more detailed investigation is needed. Where the results of a preliminary sampling program demonstrate the potential for, or the existence of contamination, a detailed investigation should be undertaken; not necessarily after the preliminary investigation but before the new use commences'.*

In this case, to assist Council in its discretion as to whether a detailed investigation is required prior to determination of this application, the Applicant has furnished Council with a site audit statement and a site audit summary report. A site audit is an independent review of any or all stages of the site investigation process, conducted in accordance with the CLM Act. A site audit may review a preliminary investigation,

a detailed investigation, a remedial action plan, or a validation report. As a general principle, a Site Audit is only necessary when the planning authority:

- believes on reasonable grounds that the information provided by the proponent is incorrect or incomplete;
- wishes to verify the information provided by the proponent adheres to appropriate standards, procedures and guidelines; and
- does not have the internal resources to conduct its own technical review.

Site Audit Report 282 as prepared by Dr Ian Swane contains the results of a Statutory Site Audit for the proposed Georges Cove Marina development. The purpose of the site audit was to determine whether:

- The nature and extent of the contamination had been appropriately determined;
- The Remedial Action Plan was appropriate for a proposed residential land use; and
- The marina site can be made suitable for the land uses required by the proposed Georges Cove Marina development if it was remediated in accordance with the submitted RAP.

According to Dr Swane, the site audit was undertaken in accordance with the provisions of the NSW Contaminated Land Management Act 1997. The technical reports reviewed as part of this audit included those that were submitted to as part of its assessment of land contamination matters relating to the development application.

The Site Auditor verified that the nature and extent of contamination at the Marina site did not meet Data Quality Objectives considered appropriate by the NSW EPA for a Detailed Site Investigation. Despite these data gaps, Dr Swane confirmed that contamination issues that presently exist at the Marina site are capable of being addressed and for the site to be remediated in a feasible and practical manner to a condition suitable for its intended land uses.

The Site Auditor concluded that the Marina site can be made suitable for the land uses proposed by the marina development if the site is remediated in accordance with the EMM 2016 RAP subject to compliance with the following conditions:

1. *Prior to the commencement of remediation work, a detailed design program is completed involving:*
  - a) *A building design for the proposed development. Elements of the design relevant to the remediation of the site include, among other things, site layout plans, elevations and plan views, cross-sections, foundation design, use of suspended slabs and natural ventilation under buildings, areas to be sealed by pavement and building slabs, and buried service corridors.*
  - b) *An earthworks plan for the proposed development. Elements of this plan relevant to the remediation of the site include, among other things, a detailed earthworks design, plans showing the areas of the site to be excavated and filled, the types of fill needing to be imported to the site, construction strategies, material management procedures, and accurate surveys of the existing and final ground surface.*

- c) *Data gap investigations for Area 2 and other fill areas at the site based on the needs of the project design in 1(a) and the earthworks plan in 1(b). The investigations are to involve asbestos in soil, groundwater quality along southern boundary and soil gas monitoring. The quality of existing fill that is to remain at the site also needs to be assessed in accordance with EPA guidance. The data obtained by these investigations is to be documented in a detailed site investigation (DSI) report.*
  - d) *Preparation of a RAP Addendum that is to include documentation that address the data gaps identified in the SAR. This should include, among other things, environmental criteria, an Asbestos Management Plan, an acid sulphate soil management plan, an environmental management plan, protocols for opening the pond to the Georges River, material tracking from cradle-to-grave, contingency planning, validation and monitoring program.*
  - e) *A Long-Term Environmental Management Plan (LTEMP) for the ongoing management of contamination that is to remain at the site.*
2. *No remediation work is to commence until a Section B SAS has been issued by the Site Auditor concluding that the DSI report, the detailed plans and strategies provided by the RAP Addendum, and the draft LTEMP meet NSW EPA guidance and address the Secretary's Environmental Assessment Requirements (SEAR 912) issued to Council on 9/10/18.*
3. *If a LTEMP is required by the adopted remediation strategy, no remediation work is to commence until written in-principal approval of the draft LTEMP is provided by the Site Auditor and Council.*
4. *Any modification to the RAP Addendum should not be implemented without prior written approval of the Site Auditor and Council.*
5. *Following the completion of remediation work at the site, a Section A SAS is issued by the Site Auditor confirming that the site is suitable for its intended land uses prior to commencement of the built form in that area. If a LTEMP is required by the remediated site, the Section A SAS can only be issued following the Site Auditor's receipt of written approval of the final version of the LTEMP'.*

The Site Auditor confirmed that the Site Audit Report addressed the requirements of SEPP No. 55- Remediation of Land.

As part of Site Audit Statement No. 282, Dr Swane certified that the site can be made suitable for residential with minimal opportunity for soil access, including units, park, recreational open space, playing field, and commercial/industrial if remediated in accordance with the submitted RAP, subject to compliance with Points 1-5 above. The Site Auditor also confirmed that a Stage 2 DSI report must be provided to address potential data gaps between the submitted Preliminary Site Investigation reports and the RAP.

In considering this advice, Council notes that Section 3.4.5 of the Guidelines for the NSW Site Auditor Scheme (3rd Edition) published by the NSW EPA specifies that *'where the site audit statement states that future assessment or remediation of the site is required – for example, if development is proposed on an area where contaminated soils were contained – it must also state whether the assessment or*

*remediation should be audited by an accredited site auditor*'. The Guidelines also indicate that the requirement for additional site assessments may be imposed as conditions on the Site Audit Statement by an accredited site auditor.

Furthermore, when considering the advice of the auditor, the GTAs received from the NSW EPA proved to be pertinent to the consideration of site contamination (See Attachment 4 of this Report). Of note, the NSW EPA has specified that a DSI should be required as part of the GTAs and that the Remedial Action Plan (RAP)/Long Term Environment Management Plan (LTEMP) be updated to address any of the findings, and the process overseen by a site auditor.

Given the above, in spite of the data gaps in the existing documentation, based upon the Site Auditor's advice as well as GTAs from NSW EPA, it is believed that sufficient information has been submitted for Council to be satisfied that Clauses 7(1), 7(2), 7(3) and 7(4) of State Environmental Planning Policy No. 55- Remediation of Land have been addressed. No objections are therefore raised with the proposed development, subject to conditions of consent.

Conditions of consent have been imposed that would require the Applicant to engage a Site Auditor accredited under the Contaminated Land Management Act 1997 (CLM Act) to review and approve the proposed design, staging and timing of the Stage 2 DSI which is to be prepared by a suitably qualified and experienced contaminated land consultant prior to commencement of site remediation.

Prior to implementation of the revised RAP, the recommended conditions of consent would require the Applicant to engage a Site Auditor accredited under the Contaminated Land Management Act 1997 to review the revised RAP and issue a Section B Site Audit Statement certifying that the site can be made suitable for the proposed land use if remediated in accordance with the RAP or managed in accordance with the Long-Term Environmental Management Plan (LTEMP).

Prior to issue of an interim or final Occupation Certificate, the recommended conditions of consent would require a copy of a detailed Validation Report prepared by a suitably qualified contaminated land consultant to be submitted to Liverpool City Council, Principal Certifying Authority, Appropriate Regulatory Authority and Site Auditor accredited under the Contaminated Land Management Act 1997. Furthermore, the recommended conditions of consent would require a Section A2 Site Audit Statement and Site Audit Report prepared a Site Auditor accredited under the Contaminated Land Management Act 1997 to certify the suitability of the land for the proposed use subject to compliance with the LTEMP.

In summary, the recommended conditions of consent require preparation of the Stage 2 Detailed Site Investigation, revised Remediation Action Plan, Section B Site Audit Statement, Site Validation Report, Long-Term Environmental Management Plan and Section A2 Site Audit Statement prior to the new use commencing at the site which is consistent with the requirements outlined in the aforementioned Guidelines.

Notwithstanding this, due to the complexity of the development, it was recommended that Council's Development Planning Section engage a legal representative who has suitable experience in planning and site contamination matters to review and verify the adequacy of the proposed conditions of consent. A review of the recommended conditions by two legal representatives concludes that Council is of the view that:

*(a) Due to conclusion in the Site Audit Statement being contingent upon numerous and varied additional reports to be prepared, the consent authority (being the Sydney Western City Planning Panel (SWCPP)) cannot be satisfied that:*

*(i) the land will be suitable after remediation for the purpose proposed by the DA; and*

*(ii) that the land will be remediated before the land is used for that purpose.*

*(b) In the Site Audit Statement, Dr Swane has identified numerous gaps within the reports arising from preliminary site investigations, but concludes that those matters can be addressed by further documentation and in an RAP addendum. However, addressing those matters in additional documents does not overcome the deficiencies which Dr Swane identified within the reports arising from preliminary site investigations.*

*(c) Given the numerous gaps in the report concerning preliminary investigations, those investigations do not satisfy the requirement that they be carried out in accordance with the contaminated land planning guidelines as required by clause 7(2) of SEPP 55.*

*(d) On that basis, if consent is granted based on those current documents, the consent authority is exposed to a risk that any consent arising from incomplete reports arising from preliminary investigations may be declared void.*

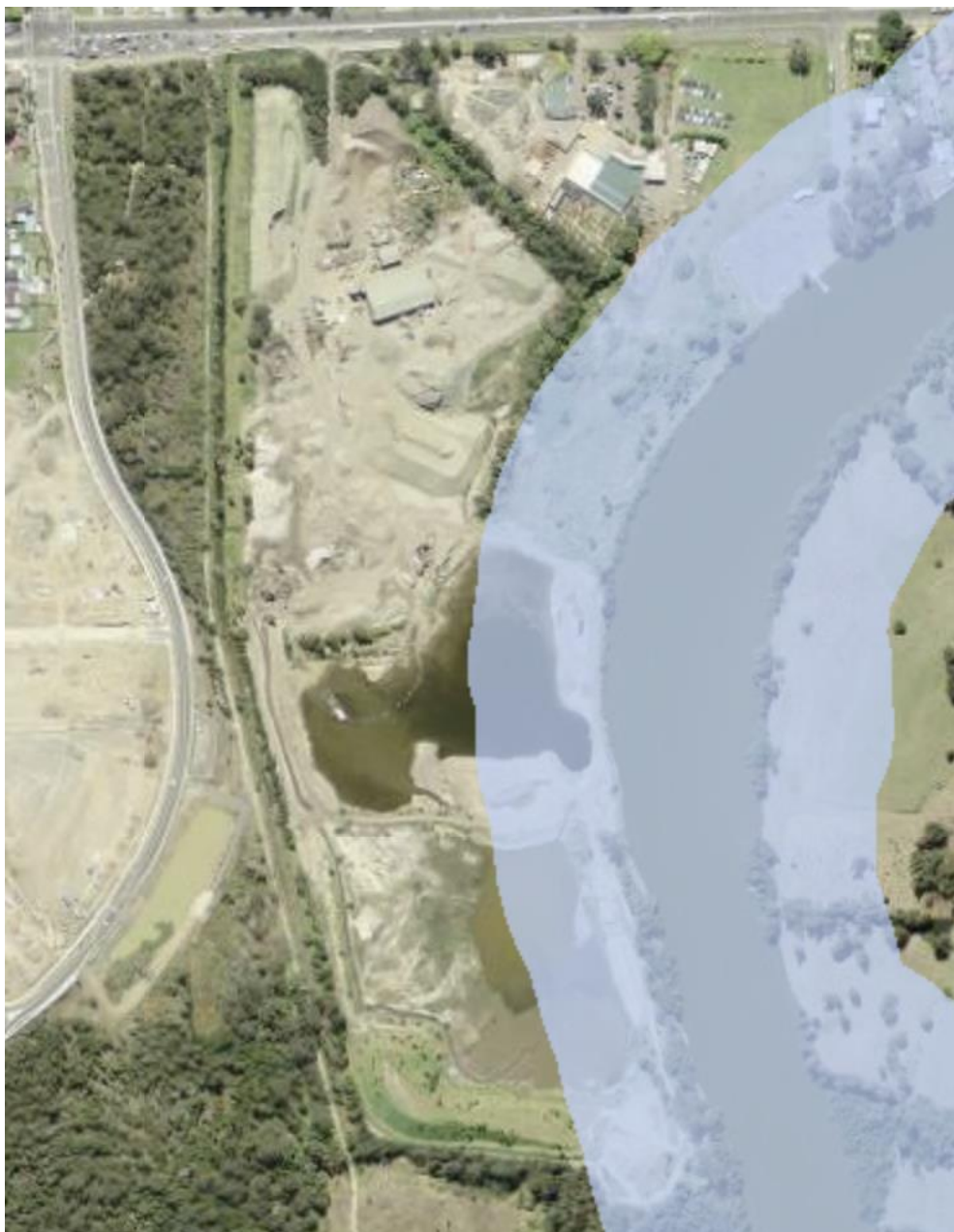
Given the above, whilst Council's Environmental Health Section has raised no objections with the submitted documentation, the Parties have obtained independent advice into the matters raised and following consideration of legal advice, Council's position remains that the legal test has not been satisfied. For this reason, the development application cannot be supported due to unresolved legal position on matters concerning SEPP 55.

#### **6.1.4 State Environmental Planning Policy (Coastal Management) 2018**

The proposed development is within the area mapped as a coastal environment area, coastal use area as well as a coastal wetlands proximity area so SEPP (Coastal Management) 2018 applies to the development.



**Figure 12: Proximity area for coastal wetlands (Source: NSW Department of Planning and Environment)**



**Figure 13: Coastal Environment Area (Source: NSW Department of Planning and Environment)**



**Figure 14: Coastal Use Area (Source: NSW Department of Planning and Environment)**

Accordingly, Council is required to undertake a merit assessment of the proposed development against Clause 11 *Development on land in proximity to coastal wetlands or littoral rainforest*, Clause 13 *Development on land within the coastal environment area* and Clause 14 *Development on Land within the coastal use area*.

Following are tables summarising the matters for consideration in determining development application and compliance:

<b>11 Development on land in proximity to coastal wetlands or littoral rainforest</b>	<b>Comment</b>
(1) Development consent must not be granted to development on land identified as “proximity area for coastal wetlands” or “proximity area for littoral rainforest” on the <i>Coastal Wetlands and Littoral Rainforests Area Map</i> unless the consent authority is satisfied that the proposed development will not significantly impact on—	
(a) the biophysical, hydrological or ecological integrity of the adjacent coastal	The results of hydrological model shown that the water level increase of 0.1 m for local

wetland or littoral rainforest, or	<p>catchment flooding area is considered minor.</p> <p>Only small areas of poor condition vegetation communities will be removed for the proposed marina. However, such removal or indirect impacts are not considered important for the long-term survival of the ecological communities in the locality. The VPA and associated VMP will provide measures to improve vegetation within the marina site.</p>
(b) the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest.	<p>The NSW EPA would be responsible for ensuring that water quality would not be adversely affected as a result of the marina opening.</p> <p>Accordingly, breakthrough of the bank from the marina to the Georges River would not significantly affect the water quality of either receiving waters.</p> <p>Furthermore, the operation of the marina would not have a significant impact on the water quality in the Georges River.</p> <p>Stormwater treatment devices will be installed to ensure any runoff entering the water from the site has been treated.</p> <p>Management strategies will also be in place to ensure that any discharge from boating activities (i.e. bilge water) is regulated.</p>
(2) This clause does not apply to land that is identified as “coastal wetlands” or “littoral rainforest” on the <i>Coastal Wetlands and Littoral Rainforests Area Map</i> .	This land is not mapped as “coastal wetlands” or “littoral rainforest” on the Coastal Wetlands and Littoral Rainforest Area Map.

<b>13 Development on land within the coastal environment area</b>	<b>Comment</b>
(1) Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following—	
(a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,	<p>The land within the coastal environment area is predominantly land which is highly modified due to historical use of the area for extractive industry activity.</p> <p>The results of hydrological model shown that the water level increase of 0.1 m for local catchment flooding area is considered minor.</p> <p>Only small areas of poor condition vegetation communities will be removed for the proposed marina. However, such removal or indirect impacts are not considered important for the long-term survival of the ecological communities in the locality. The VPA and associated VMP will provide measures to improve vegetation on land within the coastal environment area.</p>

<p>(b) coastal environmental values and natural coastal processes,</p>	<p>The bank of the Georges River will be stabilised as part of the proposed application. However, it is not considered that these structures would interrupt coastal processes such as tidal flow.</p> <p>The maintenance of the general bank alignment will ensure that natural coastal processes continue unimpeded.</p> <p>The stormwater treatment measures and the measures in the VMP will contribute to maintaining and improving environmental values and natural coastal processes.</p>
<p>(c) the water quality of the marine estate (within the meaning of the <i>Marine Estate Management Act 2014</i>), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1,</p>	<p>The water quality of the marine estate, in this instance, lands in the immediate proximity of the coastal waters of the State, would not significantly be impacted by the marina development. Appropriate mitigation measures will be incorporated in design to provide stormwater treatment for water flows to and from the marine estate.</p> <p>There are no sensitive coastal lakes (identified in Schedule 1) near the development.</p>
<p>(d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,</p>	<p>Construction as part of the proposed foreshore works requires consent from NSW Fisheries for the harming of marine vegetation. NSW Fisheries have given GTAs for these works.</p> <p>Most of the site is devoid of vegetation, with the original native vegetation been removed during current and past land use practices.</p> <p>Removal of some remaining trees and native vegetation do not comprise a significant area of canopy within the locality and consequently do not comprise a significant area of foraging habitat within the locality.</p> <p>The proposed landscaping within the coastal environment area will, on balance, improve the existing capacity of the land to support appropriate habitat.</p> <p>The proposed marina development is unlikely to significant impact on native flora and fauna in the project area.</p>
<p>(e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,</p>	<p>No existing public open space. However, the foreshore is zoned RE1 public recreation and the following public recreation facilities will be constructed on this land under the terms of the VPA:</p> <ul style="list-style-type: none"> <li>• a bike/pedestrian path; and</li> <li>• passive recreation facilities (e.g.</li> </ul>

	picnic tables).
(f) Aboriginal cultural heritage, practices and places,	Aboriginal sites have not been recorded and are not likely to exist in the marina site.
(g) the use of the surf zone.	There is no surf zone near the marina site.
(2) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that—	
(a) the development is designed, sited and will be managed to avoid an adverse impact referred to in subclause (1), or	See below.
(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or	The development is designed, sited and will be managed to minimise impacts as described above in the responses to subclause (1).
(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.	The development is designed, sited and will be managed to mitigate impacts as described above in the responses to subclause (1). This will include the preparation of through mechanisms such as the VPA and a construction environmental management plan.
(3) This clause does not apply to land within the Foreshores and Waterways Area within the meaning of <i>Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005</i> .	This land is not within the Foreshores and Waterways Area within the meaning of Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.

<b>14 Development on land within the coastal use area</b>	<b>Comment</b>
(1) Development consent must not be granted to development on land that is within the coastal use area unless the consent authority—	
(a) has considered whether the proposed development is likely to cause an adverse impact on the following—	
(i) existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability	No existing public open space. However, the foreshore is zoned RE1 public recreation and the following public recreation facilities will be constructed on this land under the terms of the VPA: <ul style="list-style-type: none"> <li>• a bike/pedestrian path; and</li> <li>• passive recreation facilities (e.g. picnic tables).</li> </ul>
(ii) overshadowing, wind funnelling and the loss of views from public places to foreshores,	The overall visual effects of the development on its visual catchment are low to moderate. The views from existing residential areas to the foreshore will be very restricted due to foreground vegetation and buildings.
(iii) the visual amenity and scenic qualities of the coast, including coastal headlands	The scenic quality of the visual catchment of the development as it currently exists is low to moderate quality. The marina development and the residential development will increase the scenic quality.  The buildings associated with the marina are not within the coastal use area. The development in the coastal use area is generally at ground level and comprises improvements such as parking bays,

	cycleway and landscaping.
(iv) Aboriginal cultural heritage, practices and places,	Aboriginal sites have not been recorded and are not likely to exist in the marina site.
(v) cultural and built environment heritage, and	There are no heritage items in the project area which meet local or State historic listing criteria. Furthermore, no indication of structures such as, wharfs, jetties or retaining walls were identified and no maritime historic structures related to the Georges River.
(b) is satisfied that—	
(i) the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or	See above.
(ii) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or	The development is designed, sited and will be managed to minimise impacts referred to in paragraph (a).
(iii) if that impact cannot be minimised—the development will be managed to mitigate that impact, and	See above.
c) has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development.	The development has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development. It is noted that buildings associated with the marina development are not within the coastal use area.
(2) This clause does not apply to land within the Foreshores and Waterways Area within the meaning of <a href="#">Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005</a> .	This land is not within the Foreshores and Waterways Area within the meaning of Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.

The Coastal Management SEPP does not map a coastal vulnerability area but there is a general provision within the SEPP (Clause 15), which requires:

***15 Development in coastal zone generally—development not to increase risk of coastal hazards***

*Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.*

Land within the site which is mapped as being within the coastal wetlands proximity area, coastal environment area or coastal use area constitutes the 'coastal zone' as defined by section 5 of the Coastal Management Act 2016.

Clause 15 of the Coastal Management SEPP therefore applies to these portion of the marina site.

As indicated above, the proposed marina development would not cause adverse impacts on biophysical, hydrological, ecological, quantity and quality of water, visual amenity and public access to the Georges River foreshore.

Appropriate mitigation measures have been implemented such as VPA and management plans to minimise potential impacts and minimise risk of coastal hazards.

Furthermore, the Coastal Management SEPP includes a general provision that coastal management programs should be considered

***16 Development in coastal zone generally—coastal management programs to be considered***

*Development consent must not be granted to development on land within the coastal zone unless the consent authority has taken into consideration the relevant provisions of any certified coastal management program that applies to the land.*

The Georges River Coastal Zone Management Plan 2013 was certified under the Coastal Protection Act 1979.

The Georges River Estuary CZMP doesn't make any specific recommendations with regards to coastal protection works (one of the triggers for RSD). However, the CZMP does have a strong focus on water quality, and ecological values.

In this case, although there are no detailed designs of these at this stage, bank stabilisation will consist of large rocks placed along the foreshore with a significant area of estuarine vegetation on the inside of the revetment wall along the full length of the marina. The river side revetment will provide a significant area of hard surface and hollows for marine flora and fauna to establish and flourish.

The provisions of the Coastal Management SEPP are considered to have been satisfactorily addressed.

**6.1.5 State Environmental Planning Policy (Infrastructure) 2007**

Relevantly, the follow provisions of SEPP (Infrastructure) 2007 are required to be addressed with the application:

Clause 101 Development with frontage to a classified road

The proposal has a frontage to a classified road. Relevantly, subclause (2)101 reads as follows:

*(2) The consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that—*

- (a) where practicable and safe, vehicular access to the land is provided by a road other than the classified road, and*
- (b) the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of—*
  - (i) the design of the vehicular access to the land, or*
  - (ii) the emission of smoke or dust from the development, or*
  - (iii) the nature, volume or frequency of vehicles using the classified road to gain access to the land, and*
- (c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to*

*ameliorate potential traffic noise or vehicle emissions within the site of the development arising from the adjacent classified road.*

A construction certificate has been approved for the link road bridge and an application for a construction certificate for the link road has been lodged.

The *Construction Access Routes and Traffic Impact Assessment* was prepared subsequent to the NSW LEC (1089, 2018) decision (See Attachment 8y to this Report). It addresses the matters raised by the NSW LEC. It finds that:

*Newbridge Road carries significant proportions of heavy vehicle traffic at all times of the day. Many large trucks use the road as a primary access route for the large number of industrial sites located within industrial precincts in Moorebank. Due to the high existing level of truck traffic usage, Newbridge Road is generally less sensitive than Brickmakers Drive to accommodating additional truck traffic in terms of the related residential amenity and other environmental traffic impacts.*

And

*Due to the five-tonne load limit imposed by Liverpool City Council on Brickmakers Drive, the road has virtually no heavy vehicle traffic at most times of the day. Consequently, the route is generally more sensitive to adverse impacts from additional future truck traffic to residential amenity than Newbridge Road.*

However, it goes on to say that construction access across the Link Road bridge does not have site traffic capacity or traffic safety constraints – and that it will be used by construction traffic once commissioned.

In summary, the construction traffic assessment post-dates the NSW LEC decision and supports the ongoing use of the existing site access road, with its accompanying deceleration lane on Newbridge Road, as is a suitable and practical site access prior to the commissioning of the link road bridge.

This access road serviced the recycling facility and quarry on the site and has been by trucks transporting up to 400,000 tonnes per year of material, far more trucks than would be required for construction of the marina.

Given the above, access to the site via Newbridge Road is likely to be more practicable and safer for construction traffic than Brickmaker's Drive.

#### Clause 104 Traffic generating development

The proposal includes a club and recreational facilities and parking for in excess of 200 vehicles; which is identified in Schedule 3 of State Environmental Planning Policy (Infrastructure) 2007 as a traffic generating development.

Relevantly, subclause (3)104 reads as follows:

*(3) Before determining a development application for development to which this clause applies, the consent authority must—*

- (a) give written notice of the application to RMS within 7 days after the application is made, and*

(b) *take into consideration—*

- (i) *any submission that RMS provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, RMS advises that it will not be making a submission), and*
- (ii) *the accessibility of the site concerned, including—*
  - (A) *the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and*
  - (B) *the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and*
- (iii) *any potential traffic safety, road congestion or parking implications of the development.*

The application was referred to Transport for NSW (TfNSW) for comments pursuant to Clause 104 of SEPP Infrastructure.

The documentation indicates that by the time the development is constructed and operational, the growth of the background traffic will likely meet the signal warrant for the Brickmakers Drive and Link Road intersection. In this regard, as the development is likely to meet the warrants for installing traffic signals, installation of traffic signals at this intersection is supported by TfNSW.

As a result, TfNSW has raised no objection to the proposed development subject to the following deferred commencement condition (see Attachment 6 to this Report):

- 1) *The applicant is to obtain in-principle approval for the installation of traffic control signals at the intersection of Brickmakers Drive and new Link Road. In order to obtain in-principle approval, the applicant is required to submit the design of the proposed traffic control signals at the intersection of Brickmakers Drive and new Link Road in accordance with the TfNSW requirements. The Traffic Control Signal (TCS) plans shall be drawn by a suitably qualified person and endorsed by a suitably qualified practitioner.*

*The submitted design shall be in accordance with Austroads Guide to Road Design in association with relevant TfNSW supplements (available on [www.rms.nsw.gov.au](http://www.rms.nsw.gov.au)). The certified copies of the signal design and civil design plans shall be submitted to TfNSW for review and approval. Documents should be submitted to [Development.Sydney@rms.nsw.gov.au](mailto:Development.Sydney@rms.nsw.gov.au)*

TfNSW have also provided draft requirements of consent to be included as deferred commencement condition including a requirement for the developer to enter into a Works Authorisation Deed (WAD) for the installation of traffic control signals at the intersection of Brickmakers Drive and new Link Road. It also requires the traffic control signals to become operational prior to the issue of any occupation certificate for the development.

The provisions of the Infrastructure SEPP are considered to have been satisfactorily addressed.

#### **6.1.6 State Environmental Planning Policy – (State and Regional Development) 2011**

State Environmental Planning Policy – State and Regional Development 2011 confers functions on Joint Regional Planning Panels to determine development applications. Clause 2 of Schedule 7 of the EP&A Act 1979 specifies development

that has a capital investment value of more than \$30 million is to be determined by a JRPP.

In addition, Clause 7 specifies that particular designated development including marinas are to be determined by the SWCPP.

#### **6.1.7 Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment (deemed SEPP).**

The Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment generally aims to maintain and improve the water quality and river flows of the Georges River and its tributaries.

When a consent authority determines a development application planning principles are to be applied (Clause 7(2)). Below is a summary of the matters for consideration in determining development application (Clause 8 and Clause 9).

<b>Clause 8 General Principles</b>	<b>Comment</b>
When this Part applies the following must be taken into account:	
(a) the aims, objectives and planning principles of this plan	The proposed development seeks to maintain and improve the water quality of the Georges River.
(b) the likely effect of the proposed plan, development or activity on adjacent or downstream local government areas	The proposal provides soil and erosion control measures, embellish river foreshore land and provide site drainage facilities. Therefore, it will improve the environmental performance of the marina site.
(c) the cumulative impact of the proposed development or activity on the Georges River or its tributaries	<p>A Vegetation Management Plan is to be prepared for the site which will embellish the river foreshore land along the Georges River.</p> <p>Conditions recommended from the NSW EPA, DPI Water and DPI Fisheries contains requirements which would address contamination, vegetation, aquatic impact, erosion and sediment control and existing basin water.</p>
d) any relevant plans of management including any River and Water Management Plans approved by the Minister for Environment and the Minister for Land and Water Conservation and best practice guidelines approved by the Department of Urban Affairs and Planning (all of which are available from the respective offices of those Departments)	<p><b>Biodiversity of the Georges River Catchment</b></p> <p>The development will assist biodiversity in the Georges River catchment by restoring the existing extractive industry site to provide habitat in the RE1 foreshore zone. The foreshore area will be embellished and stabilised with a rockwall and be revegetated with native species in accordance with a Vegetation Management Plan as required by the VPA.</p> <p><b>Georges River Catchment Built Environment and Foreshore Access</b></p>

	<p><b>Study</b></p> <p>This study identified planning and management measures to improve the scenic environment and access to the waterways. In a specific local context it is noted that the Boat ramp on Davey Robinson Drive was identified as demonstration site for future development and enhancement. The demonstration sites are intended to illustrate the widest range of development and design opportunities for foreshore improvements, to consider access, recreation, built form, environment, cultural heritage and scenic quality.</p> <p>The proposed marina development meets the main criteria for future development as reflected in the suggested demonstration sites as it will:</p> <ul style="list-style-type: none"> <li>• provide a range of levels of access to the river;</li> <li>• enhance the natural values and recreational amenity of the foreshore areas and reduces adverse impacts on the waterway;</li> <li>• provide existing or potential links between access points and recreation areas;</li> <li>• link existing open space with foreshore bushland and enhance the riparian zone;</li> <li>• build on existing programs and projects in the area;</li> <li>• enhance the focus on the river;</li> <li>• improve the ecological environment by controlling access; and</li> <li>• have significant scenic amenity values.</li> </ul> <p><b>Georges River Catchment: Better Practice Guidelines for Foreshore Works</b></p> <p>The proposed development would be consistent with the principles set out in these guidelines.</p>
(e) the <i>Georges River Catchment Regional Planning Strategy</i> (prepared by, and available from the offices of, the Department of Urban Affairs and	The proposal would meet the initiatives of this strategy.

Planning)	
(f) all relevant State Government policies, manuals and guidelines of which the council, consent authority, public authority or person has notice	The proposed development has been issued with general terms of approval by the NSW Environmental Protection Authority, DPI Water and DPI Fisheries
(g) whether there are any feasible alternatives to the development or other proposal concerned	The marina site currently accommodates an extractive industry. The locality has been rezoned to accommodate for residential, business and recreational uses which is in keeping with the surrounding residential area. Alternative land uses were outlined in the EIS.
Clause 9 Specific Principles	Comment
(1) Acid sulphate soils	The marina site has been identified on the LLEP map as containing acid sulfate soils. An acid sulfate soil management plan has been provided.
(2) Bank disturbance	No disturbance of the bank or foreshore along the Georges River and its tributaries is proposed other than during construction when the marina entrance will be opened and rock armouring that will be installed as part of foreshore embellishment.
(3) Flooding	The marina site is flood prone and this is addressed in the flooding section later in this report.
(4) Industrial discharges	There will be no industrial discharges from the marina site.
(5) Land degradation	The proposed development will provide a stable landform with appropriate drainage, including along the foreshore. Erosion prevention and sediment control measures will be implemented during construction.
(6) On-site sewage management	The marina site will be connected to the sewer mains
(7) River-related uses	River foreshore land to be embellished as per the VPA.
(8) Sewer overflows	A sewer pump out facility is proposed for the marina development.
(9) Urban/stormwater runoff	Drainage details to be provided as a condition of consent.
(10) Urban development areas	Flooding controls to be implemented.
(11) Vegetated buffer areas	River foreshore land to be embellished as per the VPA which will include vegetation enhancement.
(12) Water quality and river flows	An assessment has been made which confirms that the proposed development would have an unlikely impact on water quality, subject to compliance with the remediation action plan.
(13) Wetlands	River foreshore land to be embellished as per the VPA.

## Clause 11 Planning Control Table

### 15 Marinas And Slipways

A Vegetation Management Plan is to be prepared for the site which aims to embellish the river foreshore land along the Georges River. Conditions recommended from the NSW EPA, DPI Water and DPI Fisheries contain requirements which would address contamination, vegetation, aquatic impact, erosion and sediment control and existing basin water.

It is considered that the proposal satisfies the provisions of the GMREP No.2 and would have minimal impact on the Georges River Catchment.

#### 6.1.9 Liverpool Local Environmental Plan 2008

##### Permissibility

The subject site (Lot 70 DP 1254895) is part zoned B6 Enterprise Corridor, R3 Medium Density Residential, SP2 Infrastructure, Public Recreation RE1 and Private Recreation RE2 pursuant to the Liverpool Local Environmental Plan 2008 (LLEP 2008).

The “marina site” is zoned RE1 Public Recreation and RE2 Private Recreation.

An extract from the LLEP zoning map is shown below:

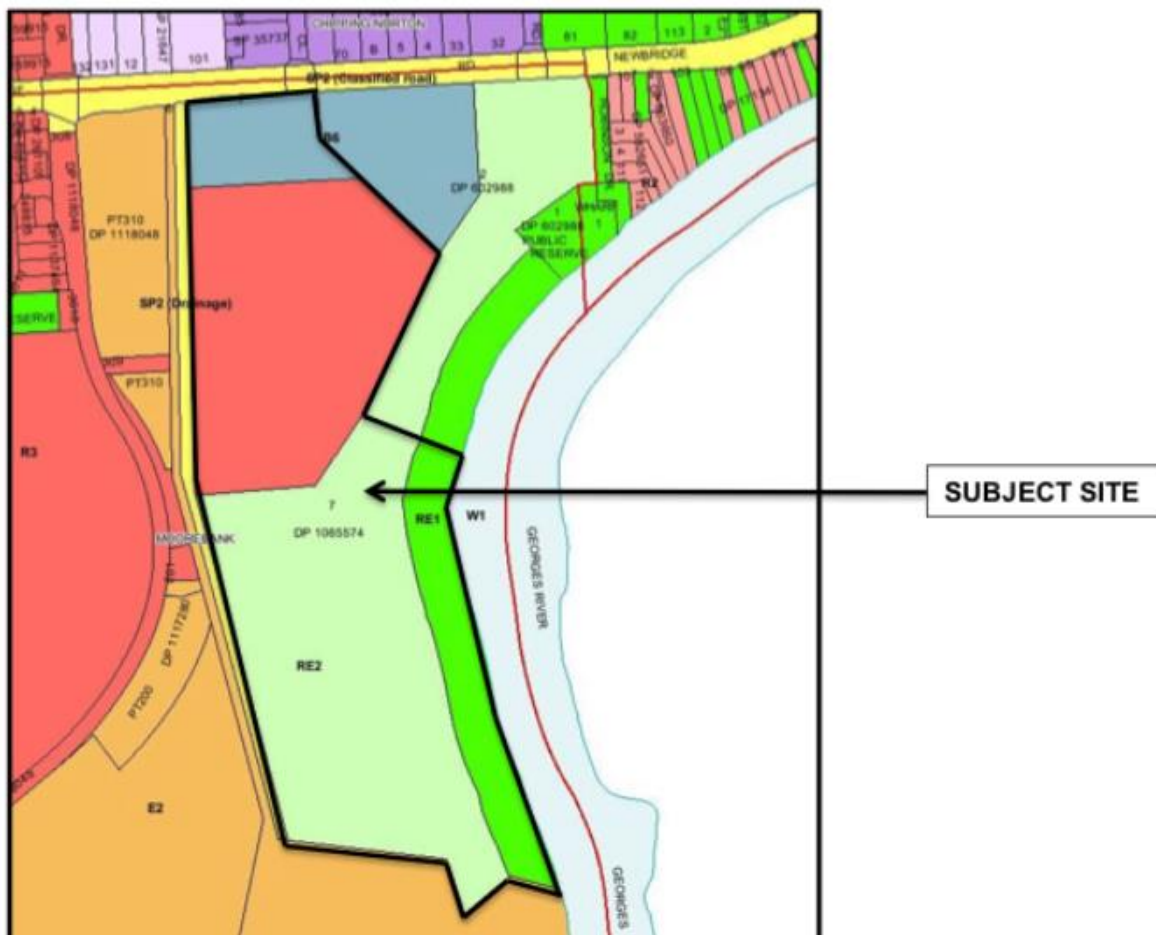


Figure 15: Liverpool LEP zoning Map (Source Liverpool City Council)

The proposed development is suitably defined as a ‘marina’ which is defined as follows:

***“marina means a permanent boat storage facility (whether located wholly on land, wholly on a waterway or partly on land and partly on a waterway), and includes any of the following associated facilities:***

- (a) any facility for the construction, repair, maintenance, storage, sale or hire of boats,*
- (b) any facility for providing fuelling, sewage pump-out or other services for boats,*
- (c) any facility for launching or landing boats, such as slipways or hoists,*
- (d) any car parking or commercial, tourist or recreational or club facility that is ancillary to the boat storage facility,*
- (e) any berthing or mooring facilities.”*

The proposal involves the short- and long-term storage of vessels on land adjoining the Georges River. Functions carried out at the site are consistent with the facilities detailed in the land use definition. Accordingly, the proposal is permitted in the applicable zones, only with Development Consent.

## **Objectives**

The objectives of the zones are outlined as follows:

### *“Zone RE1 Public Recreation*

- To enable land to be used for public open space or recreational purposes.*
- To provide a range of recreational settings and activities and compatible land uses.*
- To protect and enhance the natural environment for recreational purposes.*
- To provide sufficient and equitable distribution of public open space to meet the needs of residents.*
- To ensure the suitable preservation and maintenance of environmentally significant or environmentally sensitive land.*

### *“Zone RE2 Private Recreation*

- To enable land to be used for private open space or recreational purposes.*
- To provide a range of recreational settings and activities and compatible land uses.*
- To protect and enhance the natural environment for recreational purposes.*
- To enable land uses that are compatible with, and complimentary to, recreational uses.”*

With respect to the objectives of the zone, the following comments are offered:

- The current activities being carried out at the site for the purposes of extractive industries and resource recovery are to cease operation and all existing infrastructure would be removed in preparation for the development.
- The proposed marina is considered to be an appropriate form of development in keeping with the recreational use of the area as reflected in the zoning of the land.
- The proposal is considered to be a significant project for Liverpool and would be a high quality design benchmark and an iconic development for the local area and the greater region.
- The proposed development is considered an appropriate form of development for the site with a number of measures which would mitigate the impacts identified during the assessment process.
- The proposed development represents a significant opportunity to reactivate an inaccessible and highly degraded stretch of the Georges River and would seek to

return the natural landscape to the community through a development that enables active and passive forms of recreation.

- The proposal represents substantial economic and social benefits for the Liverpool and the greater community and maintains the environmental quality of the area and embellishment of the riverine character of the land.

It is considered that the proposal is consistent with the relevant objectives for the zones.

## **Principal Development Standards**

The following development standards apply to the proposal development:

### Clause 4.1 – Minimum subdivision lot size

Subdivision of the site is not proposed as part of this application. Subdivision of the site was approved under DA-24/2017.

### Clause 4.3 - Height of buildings

Clause 4.3(2) - Height of buildings states the following:

*(2) The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.*

The subject site contains a partial maximum height requirement of 15 metres and 21 metres. The majority of the proposed buildings at the site are to be located on land identified within the maximum height requirement of 21 metres.

The proposed maritime building maintains the largest built form. At basin level of 2.8m AHD, the maritime building achieves a maximum height of 23.8m AHD. With consideration of architectural blade walls, the maritime building will have a maximum height of 24.4m AHD which represents a maximum building height of 21.6 metres.

The proposal will exceed the maximum building height by 0.6 metres. Notwithstanding, consideration of architectural roof features is outlined in LLEP 2008 Clause 5.6 which enables such roof features to exceed the height of buildings development standard with consent.

### Clause 5.6 – Architectural Roof Features

Clause 5.6 states:

*(2) Development that includes an architectural roof feature that exceeds, or causes a building to exceed, the height limits set by clause 4.3 may be carried out, but only with development consent.*

*(3) Development consent must not be granted to any such development unless the consent authority is satisfied that:*

*(a) the architectural roof feature:*

*(i) comprises a decorative element on the uppermost portion of a building, and*

*(ii) is not an advertising structure, and*

*(iii) does not include floor space area and is not reasonably capable of modification to include floor space area, and*

*(iv) will cause minimal overshadowing, and*

*(b) any building identification signage or equipment for servicing the building (such as plant, lift motor rooms, fire stairs and the like) contained in or supported by the roof feature is fully integrated into the design of the roof feature”*

The portion of the building that exceeds the maximum building height meets this criteria.

The blade wall is a prominent architectural feature of the maritime building which seeks to create significant visual articulation of the building elevation when viewed from the public domain. The blade walls traverse from ground level with protrusion past ridge height to create visual interest with the combination of substantial surface area for glazing to create a modern appearance.

Council's Design Excellence Panel has reviewed the proposal in accordance with Councils adopted Design Excellence Panel Charter, and is supportive of the design.

It is considered that the increase in building height is relatively minor and relates to architectural roof features which seeks to create visual distinction having regard to the bulk and scale of the proposed development. Accordingly, the use of the architectural roof feature is supported in this instance.

#### Clause 4.4 - Floor space ratio

Clause 4.4(2) states the following:

*(2) The maximum floor space ratio for a building on any land is not to exceed the floor space ratio shown for the land on the Floor Space Ratio Map.*

The floor space ratio applicable to the “marina site” is 0.25:1.

The subject site has a total area of 22.3 hectares. The “marina site” has an area of 13 ha, however the area in which the FSR of 0.25:1 applies is 9.85 ha. The proposal involves a development footprint of 131,470m<sup>2</sup> and has a gross floor area of 17,717m<sup>2</sup> (i.e excluding car parking and terraces and balconies with outer walls less than 1.4m high). It, therefore, will have a floor space ratio of 0.18:1 which would meet this requirement.

#### Clause 5.1 - Relevant acquisition authority

Portions of the subject property are zoned SP2 Infrastructure for drainage purposes and RE1 Public Recreation under the LLEP 2008. Council is required to acquire these portions of land and a Voluntary Planning Agreement has been executed between the landowner and Council to facilitate the dedication of the required land.

However, as discussed elsewhere, Council are currently working through an amendment to the existing Planning Agreement. The VPA will be amended so that dedication of the foreshore land (i.e. RE1 zoned land) will be removed and replaced with the granting of an easement in perpetuity for public access to the open space.

Relevantly, Council has requested that the applicant insert a clause in the VPA that means Council is not obligated to acquire the land under Clause 5.1 of LLEP 2008.

### Clause 5.1A - Development on land intended to be acquired for a public purpose

The proposal involves earthworks to enable the rehabilitation of the site and establishment of a seawall which is consistent with Clause 5.1A. Moreover, recreation areas are proposed along this portion of land comprising of grassed open space, footpaths and a passive recreation facilities. It is considered that that the proposal has met these requirements.

### Clause 5.7 - Development below mean high water mark

Clause 5.7 prescribes the following:

- (1) The objective of this clause is to ensure appropriate environmental assessment for development carried out on land covered by tidal waters.*
- (2) Development consent is required to carry out development on any land below the mean high water mark of any body of water subject to tidal influence (including the bed of any such water).*

The river foreshore is to be embellished for the purposes of recreational land and will provide for a basin entry of approximately 40 to 50 metres in width leading into the marina.

A tidal hydrodynamic model for tidal movements in the Georges River from Picnic Point, downstream of the marina site, to Lansvale upstream of the Chipping Norton lakes system (and upstream of the marina site) was developed by Worley Parsons. The Worley Parsons assessment report (see Attachment 8e) found that:

- The model results indicated that a high degree of exchange will occur between the river and the marina, due to the relatively wide marina entrance. The river is approximately 80 m wide in this location, while the entrance is at least 40 m wide. The water levels in the marina mimic those in the river, indicating that the entrance does not control flows entering and leaving the marina basin.
- The model indicated that flow velocities due to tidal flows were low. Velocities in the marina basin were below 0.05 m/s and velocities in the river adjacent to the proposed marina were generally less than 0.3 m/s.
- Although the tidal flow velocities are low, other factors also affect bank stability. The 1.5 year ARI flow is considered to be the “bank forming” flow, during which velocities will likely be higher than those during tidal flow conditions. Waves generated by boats on the river also affect bank stability. The bank protection will be designed to withstand these forces.

Furthermore, the applicant has also given consideration to the impact of sea level rise on the proposed marina development, including the potential for tidal inundation and future flood planning levels on the site with sea level rise.

Having regard to tidal inundation, the applicant considers that the boating infrastructure will not be adversely affected by sea level rise because the boat berths are floating structures and fixed infrastructure including walkways are set more than 1 metre above tidal levels.

Having regard to the future flood planning levels on the site with sea level rise, the applicant claims that the sea level rise is accommodate in the freeboard allowance in the flood planning level.

#### Clause 5.9 - Preservation of trees or vegetation

A series of ecological assessments have been completed for the marina site. While the proposal will require the removal and modification of small areas of terrestrial habitat, it will result in an overall improvement in the quality and amount of available habitat within the site, in part due to the implementation of the VPA and associated VMP.

#### Clause 7.6 - Environmentally Significant Land

Clause 7.6(2) prescribes the following:

*“(2) Before determining an application to carry out development on environmentally significant land, the consent authority must consider such of the following as are relevant:*

- (a) the condition and significance of the vegetation on the land and whether it should be substantially retained in that location,*
- (b) the importance of the vegetation in that particular location to native fauna,*
- (c) the sensitivity of the land and the effect of clearing vegetation,*
- (d) the relative stability of the bed and banks of any waterbody that may be affected by the development, whether on the site, upstream or downstream,*
- (e) the effect of the development on water quality, stream flow and the functions of aquatic ecosystems (such as habitat and connectivity),*
- (f) the effect of the development on public access to, and use of, any waterbody and its foreshores.”*

The subject site has been identified as having environmentally significant land being the RE1 – Public Recreation land. The proposed development associated with this land is mandated by the Voluntary Planning Agreement, which requires amongst other things to revegetate the land with endemic species.

#### Clause 7.7 - Acid Sulfate Soils

Clause 7.7(3) states the following:

*“(3) Development consent must not be granted under this clause for the carrying out of works unless:*

- (a) an acid sulfate soils management plan has been prepared for the proposed works in accordance with the Acid Sulfate Soils Manual and has been provided to the consent authority, and*
- (b) a copy of the plan and a copy of the development application have been provided to the Director-General of the Department of Environment and Climate Change and the consent authority has considered any comments of the Director-General made within 21 days after those copies were provided to the Director-General.”*

The subject site is identified on the LLEP 2008 Acid Sulfate Soils map. An Acid Sulfate Soil Management Plan (see Attachment 8I) had been submitted in support of the subject application. It is noted that the site is currently licensed by the EPA for the disposal of acid sulfate soils as well as virgin excavated natural materials

(VENM). Moreover, such information has been prescribed in conditions recommended from the NSW EPA.

The provisions of Clause 7.7 have therefore been satisfied.

#### Clause 7.8 - Flood Planning

Clause 7.8(3) prescribes the following:

*“(3) Development consent must not be granted to development on flood prone land (other than development for the purposes of residential accommodation) unless the consent authority is satisfied that the development:*  
*(a) will not adversely affect flood behaviour and increase the potential for flooding to detrimentally affect other development or properties, and*  
*(b) will not significantly alter flow distributions and velocities to the detriment of other properties or the environment, and*  
*(c) will enable the safe occupation and evacuation of the land, and*  
*(d) will not have a significant detrimental affect on the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of any riverbank or watercourse, and*  
*(e) will not be likely to result in unsustainable social and economic costs to the flood affected community or general community as a consequence of flooding, and*  
*(f) if located in the floodway, will be compatible with the flow of flood waters and with any flood hazard on that floodway.”*

An extensive flood assessment as well as detailed hydraulic modelling has been undertaken by Worley Parsons, Cardno and NPC (see Attachments C1 and C2) and submitted with the application.

The detailed flood impact assessment undertaken by the applicant demonstrated that the proposed development will not adversely impact flood behaviour and will not adversely impact on the flood behaviour on adjacent properties, which is considered satisfactory.

The proposed marina structures are located outside the main flood flow areas and are located in a flood storage area with low velocities. As such, there is no adverse impact on flood flow distributions and velocities. This has been demonstrated by the flood impact assessment undertaken by the applicant.

Flooding in the Georges River has a 12 hour warning time issued by the Bureau of Meteorology for severe flooding; as such considerable flood warning time will be available to allow for an orderly evacuation. The proposed marina will have a site emergency response flood plan and will be managed on site by the manager of the marina. In addition, there is refuge available in the upper floors of the main building, which is above the PMF level. The site emergency response flood plan would be formulated in detail as required by Council's proposed consent conditions.

The proposed marina development will incorporate rock walls around the marina basin perimeter and on the outer walls along the river. This will stabilise the banks and prevent erosion. As the flood velocities are low, any erosion potential would be low.

As the development does not cause any significant change to the flow distribution and velocities, the development would not induce any new instability in the riverbank.

There will be a low rate of siltation in the marina basin due to sediment laden flood flow. The estimated rate of siltation in the marina basin is approximately 120mm over 100 years. This will not cause any significant problems as a siltation allowance of 300mm has been incorporated into the selection of the design depth of the basin.

The proposed marina has been designed to minimise the potential flood related damages in terms of the building form, materials selection and adopted floor levels. Also, flood safety has been an important design principle. The proposed development is in accordance with the NSW Government Floodplain Development Manual and thus, along with the above design approach, ensures that the development offers a sustainable approach to the social and economic costs of the local and general community. Importantly, it does not require significant additional flood related infrastructure or resources to support the proposed development.

The development is not located within a floodway however it still is compatible with the flood flow and hazard. The buildings have been specifically located west of the main flood flows and designed to comply with its flood hazard and the associated requirements of LLEP 2008 and LDGP 2008 for example, the building structures will be constructed from flood compatible building components. The building design would incorporate piles and columns capable of resisting the flood forces. A well designed building would be able to resist the hydraulic loads from a flood in the proposed conditions.

Conditions have been recommended requiring a report to be submitted from a certified engineer at the construction certificate stage confirming these requirements have been satisfied. The proposal therefore has satisfied the provisions of Clause 7.8.

#### Clause 7.9 - Foreshore building line

Clause 7.9 is prescribed in part:

- “ (2) Subject to the other provisions of this Plan, development may be carried out, with development consent, for the purposes of a building on land in the foreshore area only if:*
- (a) the levels, depth or other exceptional features of the site make it appropriate to do so, or*
  - (b) the development involves the extension, alteration or rebuilding of an existing building that is erected wholly or partly in the foreshore area and the consent authority is satisfied that the building as extended, altered or rebuilt will not have an adverse impact on the amenity or aesthetic appearance of the foreshore, or*
  - (c) the development is for the purposes of any of the following:*
    - (i) boat sheds,*
    - (ii) sea walls,*
    - (iii) wharves, slipways, jetties,*
    - (iv) waterway access stairs,*
    - (v) swimming pools at or below ground level (existing),*
    - (vi) fences,*
    - (vii) picnic facilities, cycleways, walking trails or other outdoor recreation facilities.*
- (3) Development consent must not be granted to development referred to in subclause (2) unless the consent authority is satisfied that the development:*

*(a) will contribute to achieving the objectives for development in the zone in which it is to be carried out, and*  
*(b) will be compatible in its appearance with the surrounding area, as viewed from both the waterway concerned and the adjacent foreshore areas, and*  
*(c) will not cause environmental harm, such as:*  
*(i) pollution or siltation of the waterway, or*  
*(ii) an adverse effect on surrounding uses, marine habitat, wetland areas, flora or fauna habitats, or*  
*(iii) an adverse effect on drainage patterns, and*  
*(d) will not cause congestion of, or generate conflicts between, people using open space areas or the waterway, and*  
*(e) will not compromise opportunities for the provision of continuous public access along the foreshore and to the waterway, and*  
*(f) will maintain any historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance of the land on which the development is to be carried out and of surrounding land.”*

The site is identified with a foreshore building line as set out in the LLEP 2008 and specifically applies to the land that is zoned RE1 Public Recreation. The only works within the RE1 Public Recreation zone are those associated with the restoration of the river foreshore and recreational facilities such as footpaths, picnic shelters, bike paths, etc. as prescribed in the Voluntary Planning Agreement executed between the land owner and Liverpool City Council.

Consequently, the development will comply with this requirement.

#### Clause 7.31 – Earthworks

Clause 7.31(3) prescribes the following:

*(3) Before granting development consent for earthworks, the consent authority must consider the following matters:*  
*(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,*  
*(b) the effect of the proposed development on the likely future use or redevelopment of the land,*  
*(c) the quality of the fill or the soil to be excavated, or both,*  
*(d) the effect of the proposed development on the existing and likely amenity of adjoining properties,*  
*(e) the source of any fill material and the destination of any excavated material,*  
*(f) the likelihood of disturbing relics,*  
*(g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.*

The site has been subject to extractive industry for a number of years and in its current state is highly degraded. As part of the original Development Consent granted for extractive industry activities at the site, the rehabilitation of the land was also approved in ensuring that the site be returned to a restored landform. The proposed development utilises part of the existing landform to create the marina basins as well as some works to accommodate the proposed development.

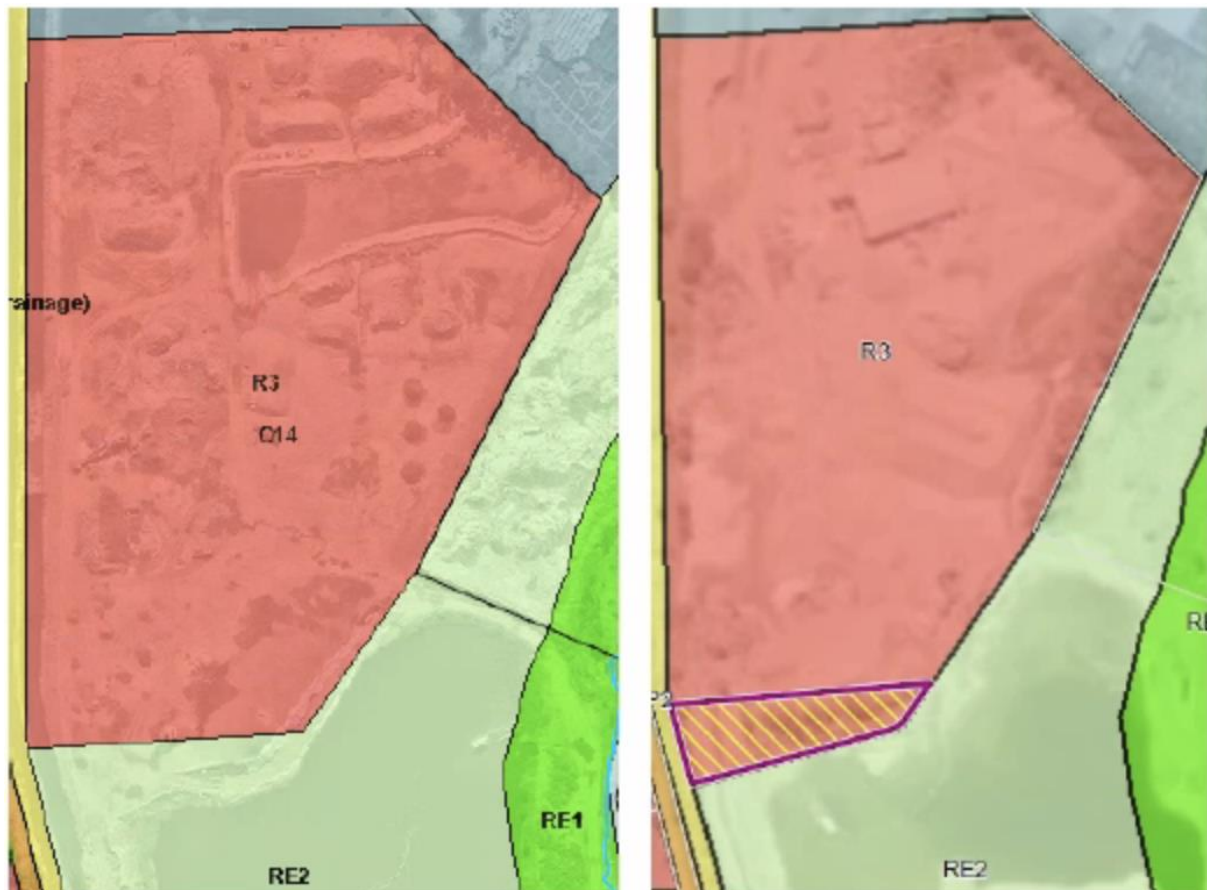
Concurrence approvals issued from DPI Water, EPA and DPI Fisheries contain numerous requirements for vegetation, earthworks and water quality. Council's

heritage officer has advised that there are no identified Aboriginal sites and that the site is highly disturbed that there is practically no possibility of in-situ Aboriginal cultural heritage deposits.

## **6.2 Section 4.15(1)(a)(ii) - Any Draft Environmental Planning Instrument**

Council staff have prepared a planning proposal (RZ-1/2019) to rezone and amend development standards for land parcels at 146 Newbridge Road, Moorebank. The draft instruments are described as Draft Amendment 85 of Liverpool Local Environmental Plan 2008 to rezone and amend development standards for land located at 146 Newbridge Road, Moorebank. The Draft Amendment 85 of LLEP 2008 was exhibited between 1 October 2020 to 16 October 2020.

The planning proposal seeks to amend the Liverpool Local Environmental Plan (LLEP) 2008 to rezone a part of the site from RE2 Private Recreation to R3 Medium Density Residential. The planning proposal seeks to amend the floor space ratio (FSR) development standard from 0.25:1 to 0.65:1 and the height of building (HOB) development standard from 21 metres to 8.5 metres. The planning proposal also seeks an amendment to the minimum subdivision lot size from 10,000sqm to 300sqm. The planning proposal would facilitate the development of approximately 9 dwellings up to 2-storeys in height.



**Figure 16: Current and Proposed Land Zoning Map (site shown in yellow hatching)**

The proposed development is not inconsistent with the provisions of Draft Amendment 85 of LLEP 2008.

### 6.3 Section 4.15(1)(a)(iii) - Provisions of any Development Control Plan

The following parts of DCP 2008 are applicable to the proposed development:

- Part 1 – General Controls for all Development;
- Part 2.10 – Moorebank East (Benedict Sands).

Compliance with the above components of DCP 2008 are addressed in the table below:

<b>PART 1 – GENERAL CONTROLS FOR ALL DEVELOPMENT</b>		
<b>CONTROLS</b>	<b>PROVIDED</b>	<b>COMPLIES</b>
2. TREE PRESERVATION	This has been addressed in the assessment above under Clause 5.9 of LLEP 2008.	Yes
3. LANDSCAPING	The revegetation of the river foreshore is to be carried out in accordance with a VMP which forms part of the executed VPA applying to the site.	Yes
4. BUSHLAND AND FAUNA HABITAT PRESERVATION	This has been addressed in the assessment above under Clause 5.9 of LLEP 2008.	Yes
5. BUSHFIRE RISK	A bushfire assessment report (see Attachment 8s) has been submitted with the application as the site is identified as bushfire prone land. GTAs have been issued by the RFS.	Yes
6. WATER CYCLE MANAGEMENT	<p>The proposed Maritime Building and the Private Marina Clubhouse would harvest roof water for storage and utilisation from large storage tanks on site. Additionally, the design of the marina basin has incorporated the construction of large wetlands for treatment of storm water run-off from the development.</p> <p>Stormwater run-off from the site would be directed to the large stormwater channel running along the eastern boundary of the subject site.</p>	Yes
7. DEVELOPMENT NEAR CREEKS AND RIVERS	<p>The proposed development is identified as Nominated Integrated Development for the purposes of the Water Management Act 2000 required under Section 91 of the Environmental Planning and Assessment Act 1979. The application was referred to NRAR of which general terms of approval were issued for the purposes of a Controlled Activity Approval.</p> <p>In addition, GTAs were issued from the NSW EPA and DPI Fisheries. Moreover, as part of the Vegetation Management Plan, embellishment of foreshore land is</p>	Yes

**PART 1 – GENERAL CONTROLS FOR ALL DEVELOPMENT**

	required. It is anticipated that the VMP would be prepared in accordance with the general terms of approval and the applicable controls in this clause.	
8. EROSION AND SEDIMENT CONTROL	Erosion and sediment control measures will be implemented during construction. There will be no discharges to natural watercourses prior to the thorough testing and certification of the water quality of the marina basin prior to the opening of the marina basin to the Georges River as detailed in the remediation action plan.	Yes
9. FLOODING RISK	Flooding risk has been addressed in the assessment under Clause 7.8 of LLEP 2008.	Yes
10. CONTAMINATION LAND RISK	This has been addressed in the SEPP 55 assessment above.	Yes
11. SALINITY RISK	<p>The applicant has undertaken an investigation in accordance with the NSW Department of Natural Resources Guidelines (Western Sydney Salinity Code of Practice, 2003).</p> <p>A detailed salinity assessment has not been carried out as the ground water conditions are noted to be dictated by the site being in a flood plain and directly adjacent to the Georges River.</p>	Yes
12. ACID SULFATE SOILS RISK	Refer to assessment under Clause 7.7 of LLEP 2008	Yes
13. WEEDS	As part of the Voluntary Planning Agreement, the applicant is required to embellish the river foreshore including the removal of noxious weeds. These works are to be detailed in a Vegetation Management Plan required by the VPA applying to the site.	Yes
14. DEMOLITION OF EXISTING DEVELOPMENT	No demolition of any existing buildings is proposed as part of this development application	Yes
15. ON-SITE SEWERAGE DISPOSAL	The site will be connected to Sydney Water reticulated sewer	Yes
16. ABORIGINAL ARCHAEOLOGY	Studies have been carried out which confirm that there are no indigenous or non-indigenous heritage or archaeological sites on site.	Yes
17. HERITAGE AND ARCHAEOLOGICAL SITES	The application was accompanied with studies undertaken by Mary Dallas Consulting Archaeologists and Heritech Pty Ltd (see Attachments 8gg and 8ii) for aboriginal archaeology and non-indigenous relics respectively.	Yes

<b>PART 1 – GENERAL CONTROLS FOR ALL DEVELOPMENT</b>		
	Both reports indicated that there was no archaeological or heritage values in existence on the site.	
18. NOTIFICATION OF APPLICATIONS	The proposal was placed on public exhibition. This is discussed later in this report.	Yes
20. CAR PARKING & ACCESS	A total of 637 parking spaces are provided. Council's Traffic Engineering Department has reviewed the proposal and notes that sufficient demonstration has been made that the total contingent of parking is sufficient for the needs of the proposed development. In addition, the access to the site from an internal road connecting to the approved road bridge is included in this application as is the connection of the link road to Brickmakers Drive. The access to Newbridge Road will be discontinued.	Yes
22. ENERGY CONSERVATION	In addition, the maritime building in particular will incorporate significant use of translucent/clear panels to provide the maximum amount of natural light to use inside the structure. Additional energy saving features will be detailed in the construction certificate and detailed design stage.	Yes
25. WASTE DISPOSAL AND RE-USE FACILITIES	A Waste Management Plan has been submitted (see Attachment 8kk).	Yes
26. OUTDOOR ADVERTISING	No advertising structures are proposed as part of the subject application.	Yes

<b>PART 2.10 – DEVELOPMENT IN MOOREBANK EAST</b>		
<b>CONTROLS</b>	<b>PROVIDED</b>	<b>COMPLIES</b>
2.1 Street Network	Information has been submitted which demonstrates that vehicular access from Brickmakers Drive to the proposed marina can be provided. Moreover, the information submitted indicates that roads to be constructed as part of this application would be consistent with the DCP.	Yes
2.2 Pedestrian and Cyclist Amenity	As part of the Voluntary Planning Agreement, pedestrian/cycleway access is to be provided throughout the site including provision for a road bridge from Brickmakers Drive to the site and along the river foreshore area with connection to Newbridge Road to the north.	Yes
2.4 Open Space	Access to recreation areas with frontage to the Georges River will be made with the embellishment of the river foreshore and construction of a pedestrian/cycleway and granting of easement for public access as	Yes

PART 2.10 – DEVELOPMENT IN MOOREBANK EAST		
	required by the Voluntary Planning Agreement (as proposed).	
2.6 Foreshore Access	Access to recreation areas with frontage to the Georges River will be made with the embellishment of the river foreshore and construction of a pedestrian/cycleway and granting of easement for public access as required by the Voluntary Planning Agreement (as proposed).	Yes
2.7 Drainage	Drainage channel to service the development is to be provided as part of the Voluntary Planning Agreement.	Yes

The proposed development is considered satisfactory in respect to the LDGP 2008.

#### 6.4 Section 4.15(1)(a)(iia) - Any Planning Agreement or any Draft Planning Agreement

A Voluntary Planning Agreement (VPA) pursuant to Section 93F of the EP&AA 1979 has been executed between Liverpool City Council and Tanlane Pty Ltd dated 11 June 2008. The VPA applies to the subject site and contains a series of contributions/works which are summarised as follows:

1. *Embellishment of river foreshore land;*
2. *Dedication of river foreshore land to Council subject to a 50 metre wide easement for maritime vessel access as well as two easements for the drainage of water;*
3. *Development of a Vegetation Management Plan;*
4. *Completion of works described in the Vegetation Management Plan;*
5. *Conduct of maintenance works described in the Vegetation Management Plan;*
6. *Construction of a Bike/Pedestrian Oath through the river foreshore land*
7. *Construction of passive recreation facilities on the river foreshore land*
8. *Dedication of a drainage channel;*
9. *Construction and dedication of a road bridge over drainage channel, embankment and road to Brickmakers Drive;*
10. *Construction and dedication of Pedestrian Access to Newbridge Road and a pedestrian path within the public verge along the entire length of the land frontage to Newbridge Road; and*
11. *Dedication of an easement over land for access for the purpose of allowing Council to undertake maintenance to the river foreshore land.*

The VPA contains the timeframes for completion of the various items and are noted to be activated either by the registration of subdivision of residential land or on completion of embellishment of river foreshore land.

It is likely that the items outlined in the VPA would be carried out in conjunction with the construction of the proposed development, which will include:

- Removal of waste and fill, visible surface waste on foreshore, contamination;
- Stabilisation of the river bank/wall;
- Removal of noxious weeds;

- Restoration and enhancement of vegetation in keeping with indigenous species;
- Construction of the pathway along the entire length of the river foreshore area;
- Street furniture comprising of benches and covered areas; and
- Flood free vehicular access

Council are currently working through an amendment to the existing Planning Agreement. This amendment was initiated by the proponent, Tanlane Pty Limited.

The purpose of the amendment is to make specific changes to the Planning Agreement to ensure that it aligns with the current development plans for the precinct.

The amendment includes a range of administrative updates to the agreement, most notably inclusion of new clause numbers following the update to the Act.

Key changes proposed in the works schedule is provided below:

Item	Comment	Status
1e. Dedication of River Foreshore Land to Council as identified on annexure 1	<p>The Planning Agreement replaced the dedication of river foreshore land with the granting of an easement in perpetuity for public access to the open space. This amendment is proposed given that Council does not accept the applicants proposed on-site containment strategy for contaminated materials on this land.</p> <p>Council have identified concern about the trigger for completion.</p>	Generally agreed
<p>New Item:</p> <p>4b. Construction and dedication of Bike/"Pedestrian Path Link from the edge of the R3 Land through the RE2 Land to the Foreshore Land, as shown on the plan attached as Annexure 1 as marked as "H".</p>	<p>This item addresses the connection around the marina. This would be have been catered for previously by the bridge across the entrance which has been deleted.</p> <p>Council have identified concern about the trigger for completion.</p>	Generally agreed
7. Construction and dedication of road bridge over drainage channel, embankment and road to Brickmakers Drive as shown on the plan	Clarification related to the need to acquire the stratum lot for the road bridge.	Generally agreed

attached as Annexure 1 and marked as "F".		
9. Dedication of an easement over the Land for access for the purpose of allowing Council to undertake maintenance to the River Foreshore Land more or less in the position on the plan attached as Annexure 1 marked as "I".	This item has been deleted. Not required as dedication no longer required based on changes to item 1e above.	Generally agreed

Furthermore, the proponent has proposed a change to the time for completion. This would see the current development related trigger change to a specific timeframe from execution of the Planning Agreement. Council has identified a preference to retain a development related trigger. This matter is still undergoing discussion.

## **6.5 Section 4.15(1)(a)(iv) – The Regulations**

As the proposal is designated development, the Secretary of the Department of Planning and Environment issued SEARs for the proposed development on 9 October 2018 (see Attachment 8b).

Council is satisfied that the EIS addressed all the requirements outlined in the SEARs.

## **6.7 Section 4.15(1)(b) – The Likely Impacts of the Development**

### **7.1 Impacts on the Natural Environment**

#### **7.1.1 Flooding Impacts**

The Cardno flood impact assessment identified a 100-year flood level of RL 5.6m AHD at the subject site. Council's DCP requires that the floor level of a commercial building is no lower than the 6.1m AHD (1% AEP plus 500mm freeboard).

However, the Marina Club building has floor levels at RL 2.8m AHD (Level 1) and RL 6.1m AHD (Level 2) and Level 1 of the Maritime Building has a floor level of RL 4.6m AHD while the higher levels have floor levels at RL 7.3m, 10.525m and 14.71m AHD.

The applicant was requested to amend the drawings to demonstrate that the floor levels of these buildings are not lower than 6.1m AHD.

The applicant submitted a letter prepared by Tooker & Associates (see Attachment 15) relating to the building floor levels of the proposed Marina development. The letter provides assessment of the floor levels against objectives of Section 9 of the Liverpool DCP 2008:

- Having regard to the Marina Club building, Level 1 will not have any offices or storage of valuable possessions that can be damaged by floods, ie it is non-habitable floor area. While Level 1 is below the 5% AEP flood level, it is as high as practical for its use, ie small boat storage (which needs to minimise the elevation from the water for boats to be moved by hand) and a

viewing/barbeque area to be used by patrons accessing moored boats from the marina's floating berths.

The materials and finishes on this floor will consist of flood proof materials and finishes which will minimise any flood damage. It will consist of a viewing area in which all furniture will be made of materials resistant to water damage and will be fixed to the floor. All service to this floor will come from Level 2 above. The boat storage area will have a permeable façade which will prevent the small boats from being washed away during a flood event.

- Having regard to the Maritime building, Level 1 has nominated uses which are ancillary to a marina including kiosks, commercial, tourist, recreational and club facilities along with boat storage. Level 1 includes habitable uses, with minor offices and storage of valuable possessions. Although upon receiving a flood warning, there will be ample opportunity to move 'valuable possessions' to higher levels in the Maritime Building above 6.1m AHD.

Level 1 will have materials and finishes consisting of flood proof materials and finishes which will minimise any flood damages. It will consist of a kiosk/café and viewing area in which all furniture will be made of materials resistant to water damage. There would be limited valuable possessions stored on this level and these could be readily relocated to floors above RL 6.1m AHD. No storage will be provided for important data or difficult to replace materials on this level. The boat storage area will have a permeable façade which will prevent the boats from being washed away in a flood.

In summary, the floor levels in the Marina Club and Maritime Building below RL 6.1m AHD will meet the objectives of Section 9 of the Liverpool DCP 2008 and have uses and flood proofing which will not result in a significant increase in the risk to life and flood damages nor on flood impacts on adjacent properties.

The letter was referred to Council's Flooding Engineering Section for review. No objection is raised to the proposed floor levels of the maritime building or marina club building, subject to conditions of consent.

The flooding impacts of the development are discussed under Clause 7.8 of LLEP 2008.

### **7.1.2 Air Quality**

The air quality assessment prepared by Todoroski Air Sciences dated 14th December 2011 (see Attachment 8ee) referred to air quality criteria adopted from the 'Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales' prepared by the Department of Environment and Conservation NSW dated 2005.

Minor revisions were made to this document in November 2016 (see Attachment 8ff) which resulted in a more recent document titled 'Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales' being published by the NSW EPA in January 2017. As a result, it was requested that the existing air quality assessment was revised to reference the more recent 'Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales' being published by the NSW EPA in January 2017.

Furthermore, it was noted that submitted air quality assessment considers off-site residential receivers. However, it is also noted that the future residential receivers on the northern Tanlane land have not been considered as part of the submitted air quality assessment. In this regard, it was requested that the applicant submit an air quality assessment which consider the potential amenity impacts of the proposed construction and operation of a Marina on the residential dwellings proposed in the R3 zoned land to the north of the site.

A response was prepared by Todoroski Air Sciences dated 30 January 2020 (see Attachment 18). The response indicates that the dust generating activities associated with the Project would typically produce dust particles in the larger size fractions (typically PM10 and TSP) via means of handling of soils, vehicles travelling on unpaved surfaces during construction and from the occasional sanding within the workshop for boat maintenance during operation.

Smaller particles (PM2.5 emissions) are typically generated via a means of combustion and is not a significant pollutant associated with the Project. The dust emission sources at the Project would be managed via the proposed mitigation measures which include watering dusty areas and haul roads and fitting sanders with an extraction system.

These mitigation measures are effective to ensure the operation of the marina does not cause any significant increase in the ambient dust levels and would thus be able to comply with the new particulate impact assessment criteria in the more recent 'Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales' being published by the NSW EPA in January 2017.

Also, to assess the potential for air quality impacts in the northern Tanlane land, the maximum predicted level in the modelling domain (approximately 3x3km surrounding the Project site) has been analysed (Appendix A of Attachment 8ee). This value is applied to the estimated worst-case emission rates for the operation of the Project to assess potential impacts.

The predicted ground level concentrations are below the relevant criteria for all assessed pollutants in the modelling domain and thus would not impact the land to the north of the site.

The NSW EPA did not raise any concerns regarding air quality.

### **7.1.3 Terrestrial Ecology**

A flora and fauna assessment was completed in 2004 by Total Earth Care as part of the 2006 rezoning application. This information was incorporated and updated in the flora and fauna assessment undertaken for the Georges Cove Marina EIS in 2011 (See Attachment 8o).

Desktop ecological searches were completed within a 5 km radius from the project area in 2004 and 2011. Three field surveys (23 August 2004, 11 January 2005 and 5 September 2011) were also undertaken.

The 2011 assessment recorded 87 plant species, including 49 introduced species. Four plant communities were identified. Of the four, two met the description of endangered ecological communities (EECs) listed under the TSC Act: River Flat Eucalypt Forest and Swamp Oak Floodplain Forest.

An assessment of significance under Section 5A of the EP&A Act was not completed for the EECs as only a small area of each occurs within the project area and these areas are degraded. Four plant species of regional significance were identified: Blue Box (*Eucalyptus baueriana*), River Peppermint (*Eucalyptus elata*), Fringed Wattle (*Acacia fimbriata*) and Gosford Wattle (*Acacia prominens*). These occurred along the western and southern drainage channels. None of these are listed as Rare or Threatened Australian Plants (ROTAP) species or threatened species under the TSC Act or the EPBC Act.

No threatened fauna species were identified during the surveys. However, the riparian woodland along the Georges River was considered to provide potential habitat for number of species recorded in the adjacent Boral site (ERM 2002):

- Cumberland Plain Land Snail (*Meridolum corneovirens*);
- Eastern Bentwing Bat (*Miniopterus schreibersii oceanis*);
- Southern Myotis (*Myotis macropus*);
- Eastern Freetail-bat (*Mormopterus norfolkensis*);
- Yellow-bellied Sheathtail Bat (*Saccolaimus flaviventris*); and
- Grey-headed Flying Fox (*Pteropus poliocephalus*).

An assessment of significance under Section 5A of the EP&A Act was completed for potential impacts on the Eastern Freetail-bat and Yellow-bellied Sheathtail Bat. The assessment concluded that potential impacts would not be significant on these species. The 2011 assessment concluded that the proposed marina is unlikely to have a significantly impact on native flora and fauna in the marina site.

EMM completed updated ecological searches on 8 April 2015 and prepared a supplementary flora and fauna assessment to accompany DA-781/2015 (See Attachment 8r). An additional eight threatened species that could occur in the area were identified during the searches, which had not been considered in the previous assessments:

- Australasian Bittern (*Botaurus poiciloptilus*);
- Eastern Osprey (*Pandion cristatus*);
- Koala (*Phascolarctos cinereus*);
- *Marsdenia viridiflora* R. Br. subsp. *viridiflora* population;
- Netted Bottle Brush (*Callistemon linearifolius*);
- Scarlet Robin (*Petroica boodang*);
- Spotted Harrier (*Circus assimilis*); and
- Tadgell's Bluebell (*Wahlenbergia multicaulis*) population.

All the species listed above were considered to have low potential or are unlikely to be impacted by the proposed development.

Recent records also occur in proximity to the project area for the following species:

- Little Lorikeet (*Glossopsitta pusilla*) – recorded adjacent to the marina site;
- Varied Sittella (*Daphoenositta chrysoptera*) – recorded on the other side of the Georges River; and
- Little Eagle (*Hieraaetus morphnoides*) – recorded adjacent to the marina site.

As these species are highly mobile and habitat is available in areas adjacent to where they were recorded, the impacts of the proposed development on these species will be minimal.

Site surveys completed for the earlier assessments were not adequate to identify some of the threatened flora and fauna species that could occur. To compensate for this, and as no nocturnal surveys were completed, the assessment assumed that threatened microbats would occur at the marina site. It is considered that all threatened species that have the potential to occur at the site have now been adequately assessed and impacts are unlikely to be significant.

No significant impacts to threatened species, populations and communities are anticipated from the construction and operation of the marina. Therefore, an SIS is not required.

Most recently, Biosis prepared a biodiversity assessment for a separate planning proposal for the site (See Attachment 8t). This included a site survey on 11 January 2018. The areas of River Flat Eucalypt Forest and Swamp Oak Floodplain Forest on the marina site were mapped as part of this assessment. This vegetation all occurs along the bank of the Georges River. These vegetation communities are listed as endangered under the Biodiversity Conservation Act. Both communities were found to be in low condition.

The Biosis assessment also recorded six hollow-bearing trees and one stag. A total of thirteen hollows were recorded among the six hollow-bearing trees and the stag. Some hollows observed were small enough to provide potential roosting habitat for microbats, which may occur within the study area, however most hollows are considered more suitable for common fauna species including Common Brushtail Possum, *Trichosurus vulpecula*. Moderate levels of coarse woody debris were also identified throughout the areas of River flat Eucalypt Forest EEC.

The Biosis assessment noted that a pair of White-bellied Sea Eagles (*Haliaeetus leucogaster*) had been recorded hunting along the Georges River by Total Earth Care (2011). This species was listed as vulnerable in 2016 under the former Threatened Species Conservation Act 1995, and is now listed under the Biodiversity Conservation Act.

In regards to the EECs, Biosis recommended:

- impact to these areas containing EEC should be avoided where feasibly possible;
- hollow-bearing trees should be retained if possible; and
- impacts to River-flat Eucalypt Forest, Swamp Oak Floodplain Forest and the White-bellied Sea-eagle, listed under the Biodiversity Conservation Act should be assessed with a five-part test.

In line with the recommendations of Biosis, assessments of significance have been completed for River Flat Eucalypt Forest, Swamp Oak Floodplain Forest and the White-bellied Sea-eagle.

The assessments of significance concluded that the proposed activity will not result in significant impacts on the species or ecological communities. These assessments of significance are provided in Attachment 8u.

The characteristics of Swamp Oak Floodplain Forest were also compared with the listing and conservation advice for Coastal Swamp Oak (*Casuarina glauca*) Forest of NSW and South-east Queensland (TSSC 2018), listed in 2018 as an endangered ecological community. Swamp Oak Floodplain Forest at the site does not represent this community as the patch size is less than 0.5 ha. Accordingly, no further assessment of this ecological community is required.

Council's Natural Environment Officer has reviewed the EIS and concludes that the application can be approved subject to conditions of consent. In addition, General Terms of Approval have been issued by DPI Water and DPI Fisheries and the EPA.

#### **7.1.4 Aquatic Ecology**

An aquatic ecology assessment was completed by Marine Pollution Research in (2010) – See Attachment 8r. The assessment included a review of literature and water quality monitoring data as well as field studies to identify the aquatic ecological attributes of the marina site and surrounds. The work conducted in 2010 was reviewed in April 2014 to determine if there have been any changes to the aquatic environment that would change the findings of the original assessment. The preliminary investigation of contamination also considered potential ecological risks, particularly to the aquatic and marine environment.

The aquatic ecology field surveys included:

- a preliminary survey on 11 August 2004;
- a detailed survey of aquatic habitats on 30 April 2007;
- an aquatic ecology survey of the quarry pond on 30 May 2007; and
- a short site visit on 14 April 2015 to inspect the current state of the aquatic ecology habitats.

Aquatic habitats identified at the marina site include:

- earth banks and masonry intertidal banks on the Georges River edge which support small stands of Grey Mangrove (*Avicennia marina*) and River Mangrove (*Aegiceras corniculatum*);
- intermittent shallow sub-tidal banks along the toe of the intertidal bank which support small patches of seagrass (*Zostera capricorni*);
- riparian cover along the unnamed creek to the south of the marina site which is freshwater for most of its length, with grassy banks; and
- three drainage ponds (these ponds have now been combined to form a single pond) which contains benthic sediment, water pools and pond riparian edge habitats.

One of the quarry ponds was brackish and supported vigorous growth of *Ruppia* spp. The quarry ponds also support a number of fish species including the Dusky Flathead (*Platycephalus fuscus*), Mullet (*Mugil cephalus*) and introduced species including the European Carp (*Cyprinus carpio*) and Mosquito Fish (*Gambusia affinis*) that also occur in the Georges River.

No species listed under the FM Act or the EPBC Act were noted or observed during the field surveys. Given the aquatic habitats available, none are considered likely to occur. While individual saltmarsh plants were identified along the margins of the internal waterways, these were not considered to form a viable saltmarsh

community, which would meet the description of the EEC listed under the TSC Act.

While the Georges River once supported a thriving oyster farming industry there are now no aquaculture activities in the Georges River. The closest aquaculture operations are located in Botany Bay - native Sydney Rock and triploid Pacific oyster farming in Woollooware Bay and Mulloway farming off Silver Beach.

It was concluded in 2010 that the marina can be constructed and operated without any significant impact on river water quality. This was confirmed by the 2014 review. There may be some impacts from the construction of the marina to aquatic ecosystems and species, particularly from opening the pool to the river. However, the proposal will result in an overall increase in the area and diversity of aquatic habitat in the locality.

### **7.1.5 Water Quality Impacts**

A water quality assessment was completed for the marina site and proposed development (Worley Parsons 2010) – See Attachment 8e. The Georges River encompasses a large part of the Sydney urban area catchment and, therefore, receives pollutant loads from urban runoff and sewage overflows/discharges from the sewerage system and sewage treatment works.

Other than the Georges River or groundwater inflow (see below), potential pollutant sources in the marina will be from runoff from the land, copper from antifouling paints on the hulls and uncontrolled discharge of sewage from craft while at the marina berths (discharge of sewage will be banned). Therefore, the key pollutants considered in the water quality assessment were copper, suspended solids, nitrogen and phosphorus. Water quality in the marina was modelled for these parameters. Particular attention was paid to stormwater quality as well as the impact of copper leaching from antifouling. Water quality trigger values were identified with reference to the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ 2000).

Based on water quality testing, the water quality in the quarry is of a similar quality to that in the Georges River. Breakthrough of the bank from the marina to the Georges River would not significantly affect the water quality of either bodies. The water quality assessment recommends the following measures:

- The incorporation of water sensitive urban design elements provides stormwater treatment to reduce nitrogen, phosphorus, TSS and heavy metals.
- Bilge and sewage pump-out facilities would be provided in the proposed marina. It is expected that there will still be a small amount of illegal discharge. This pollutant load was modelled and due to the high flushing rate of the marina through the tidal cycle, nutrients will not accumulate in the basin; and
- Modelling of copper concentrations indicates that the development of the marina would not have a significant impact on the existing copper concentrations in the Georges River and the predicted concentrations would allow 90 to 95% of species to inhabit the marina per the ANZECC/ARMCANZ (2000) guidelines for the protection of aquatic ecosystems.

With the implementation of the proposed environmental management measures, and the Remediation Action Plan, it is considered that the proposed marina will not degrade water quality of the Georges River.

The Environmental Impact Statement Georges Cove Marina, Moorebank Volume 1 (Report J180179, RP1, v3) prepared by EMM Consulting dated 24th May 2019 included additional information relevant to the dredge pond's water quality. According to EMM Consulting, recent water quality monitoring in the dredge pond and Georges River indicated that:

- Concentrations of contaminants identified in the Preliminary Investigation of Contamination and Supplementary Preliminary Investigation posing high environmental risk (ammonia, total nitrogen, total phosphorus, lead, mercury and pyrene) generally no longer exceeded the applicable default trigger values. In circumstances where these values are exceeded, EMM Consulting confirmed that the levels were lower than background concentrations in the Georges River and therefore did not pose additional risk;
- There was no evidence that significant concentrations of these contaminants were being leached from the dredge pond sediment.

EMM Consulting attributed the decreased contaminant concentrations in dredge pond water to a combination of:

- The cessation of dredging in the pond that resulted in high suspended solid concentrations and followed by leaching of contaminants from particles in the water column;
- Removal of extraction and recycling activities from the northern portion of Lot 7 with corresponding improvement in the water quality of surface water runoff entering the pond; and
- Improvement in groundwater quality due to the removal of the hotspot on the northern portion of the site.

Council's Environmental health Officers have reviewed the application and raise no objections subject to conditions of consent. Similarly, General Terms of Approval have been issued by the NRAR and DPI Fisheries.

#### Potential Water Quality Impacts Raised During Appeal

During the Land and Environment Court appeal, expert advice on aquatic ecology and water quality was provided by Mr Paul Anink for Benedict and Dr Ian Campbell for Moorebank Recyclers Pty Ltd. The appellant's representative claimed that the proposed strategy for the marina's opening was flawed and did not conform with the ANZECC Guidelines or NSW Government Guidelines. More broadly, it was suggested that the proposal would not minimise pollution of the Georges River or protect, restore or maintain ecological processes, natural systems and biodiversity in the watercourse.

Dr Campbell believed that water quality within the dredge ponds would not achieve the ANZECC Guideline trigger values without substantial remediation. During the appeal, Dr Campbell and Mr Anink agreed that an additional water quality sampling program was to be developed and endorsed by the NSW EPA and include field

filtering of samples for dissolved metal analysis. However, Dr Campbell also raised concerns that once the marina was constructed, pressure would be placed on regulatory agencies to accept a project which only partially met the requirements. Commissioner Brown rejected this assertion and confirmed that the NSW EPA would be responsible for ensuring that water quality would not be adversely affected as a result of the marina opening.

General Terms of Approval have been issued by the NSW EPA for DA-611/2018 (see Attachment 4). The EPA requires the proponent to comply with all of their General Terms of Approval (GTA) “prior to, during and at the completion of construction and, if required, during the operation of the marina”. The listed GTA’s specify that written approval from the EPA will be required before the breakthrough of the marina lake to the Georges River and that this approval will be contingent on their appraisal of the report on the results of the analysis of the water quality from the marina.

## **7.2 Impacts on the Built Environment**

### **7.2.1 Traffic, Parking and Vehicular Access Impacts**

#### Existing Access

Newbridge Road is adjacent to the northern boundary of Lot 70. It provides an east-west arterial road past the proposed development. At present, access to the quarry site is via a left in, left-out access at Newbridge Road. This incorporates a RMS approved deceleration and turn in lane.

There is adequate space on site to enable heavy vehicle manoeuvring and parking for all the quarry staff and visitors. No traffic issues have been identified in relation to the existing operations.

#### Site Access

Access to the marina site will be via an approved link road and road bridge from Brickmakers Drive to the site. It is proposed to construct an intersection between the link road and Brickmakers Drive as part of this application. This intersection is approximately 300m south of Newbridge Road and is proposed to be a signalised intersection. Further discussion of this element of the proposal is identified below.

All internal site roads will comply with Council’s design standards and AS 2890.1.

The construction of the road bridge connecting from the subject site to Brickmakers Drive was approved by Council on 24 April 2007 in DA-1552/2006 (as modified). An easement burdens Moorebank Recyclers land (Lot 6 DP 1065574) for access from the site to Brickmakers Drive.

The subject application does not seek consent for the use of the bridge as this aspect has been considered by Council in DA-843/2018.

#### Construction Traffic

According to EMM Consulting, there will be no adverse traffic capacity, traffic safety or road congestion impacts from construction traffic using the existing Newbridge Road site access. Therefore, marina construction traffic should be permitted to have

continuing use of the existing vehicular access via Newbridge Road until the alternative access via The Link Road is opened to traffic.

### Traffic Generation

There will be a total of 637 car parking spaces at the marina site. This parking will be a combination of 267 surface level car parking spaces located in parking areas A, B and C and 370 undercover car parking spaces located in two basement car park levels within the Maritime Building.

In 2026 without any development, Newbridge Road/Government Macquarie Drive/Brickmakers Drive intersection will operate approximately 35% and 5% over capacity, with a LOS F and D, in the AM and PM peak respectively. The longest queuing will occur on the western approach (citybound) which are over 500m during the AM peak and on the eastern approach (outbound) close to 500m during the PM peak. The average delays in the respective AM and PM peak hour are 85 seconds and 49 seconds respectively.

SIDRA modelling was undertaken by the applicant to compare the traffic impacts at the Newbridge Road/Government Macquarie Drive/Brickmakers Drive intersection for the subject development against the traffic impacts due to all five developments in 2026:

- Moorebank Cove Residential (DA-24/2017, DA-519/2017, DA-758/2017, DA-319/2018 and DA-580/2018)
- Moorebank Recycling Facility (MP05\_0157)
- Georges Cove Marina (DA-611/2018)
- Georges Cove Marina Residential (RZ-5/2018)
- Benedict B6 Corridor Mixed use Development (RZ-9/2017)

With the marina development during the AM peak hour, the intersection will be slightly impacted with an increase of 1.5s average delay and approximately 15m longer queue during the AM peak. The queuing will be higher during the PM peak. Also, during the PM peak, the LOS will change from D to E although the degree of saturation is only increased by less than 5%. The average delay will increase marginally on both the peak periods.

With the additional cumulative traffic, the average delay will increase by an additional 32 s (37% over the baseline) and 49s (99% over the baseline) in the AM and PM peak respectively. Although for the AM peak the capacity will increase marginally, during the PM peak, the intersection will become 23.8% more saturated with performance worsening to LOS F. Queuing at the eastern approach will also increase significantly by over 400m.

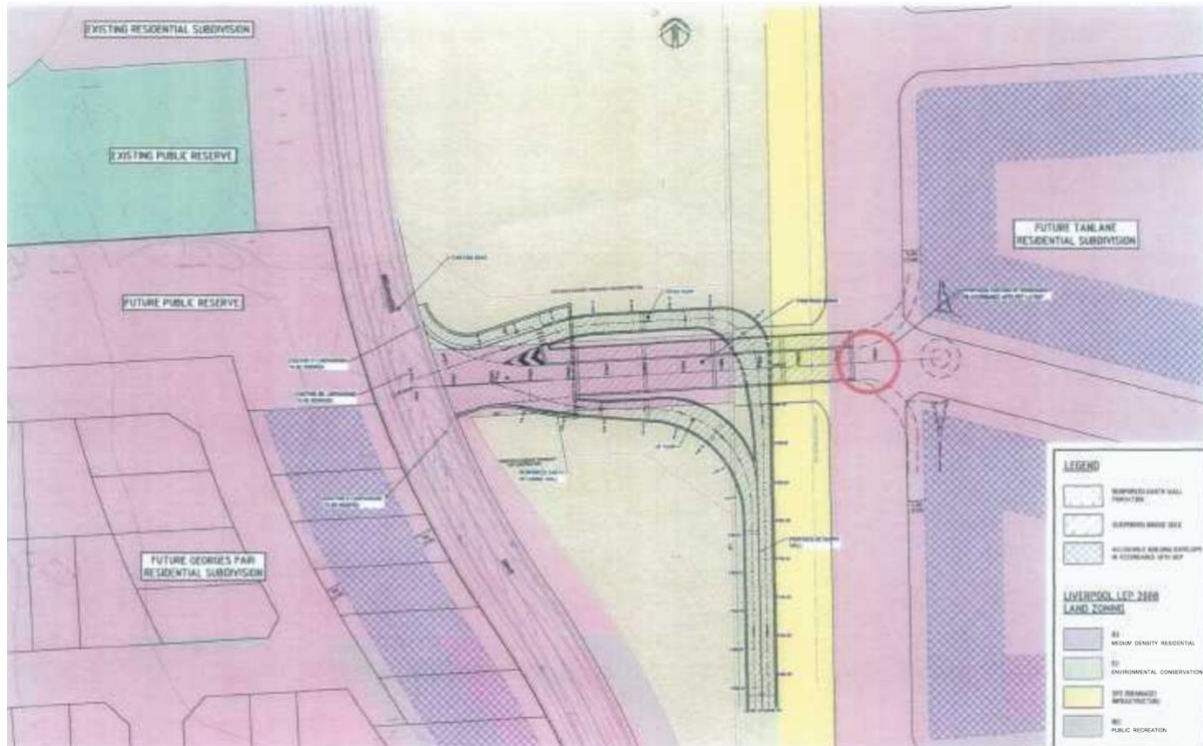
A comparison of the traffic impact between the subject development and cumulative development reveals that during the AM peak, the average delay and queuing will increase significantly due to the cumulative impact. During the PM peak, all the modelled parameters will increase, most notably queuing on the eastern approach will increase by over 400m.

In summary, the subject development alone does not have a significant impact on the performance of the Newbridge Road/Governor Macquarie Drive/Brickmakers Drive intersection which will be the case for the cumulative development traffic.

TfNSW as well as Council's Traffic Branch has raised no objection to the proposed development, subject to conditions.

### Brickmakers Drive / Link Road Intersection

NSW Land and Environment Court proceedings (NSW LEC 30141, 2013) considered an intersection design prepared by Cardno (2013a) for the link road intersection on Brickmakers Drive.



**Figure 17: Annexure 3 of NSW Land and Environment Court proceedings (NSW LEC 30141, 2013)**

On 21 January 2014, a modification application to DA-1552/2006 was lodged seeking consent to amend the design of the bridge to maintain consistency with court orders. This was approved on 30 July 2014.

Since then, a construction certificate has been approved for the link road bridge and an application for a construction certificate for the link road has been lodged.

EMM predicted that by the time the development is constructed and operational around the year 2027-2028, the growth of the background traffic will likely meet the signal warrant for the Brickmakers Drive and Link Road intersection.

Council's preference is for traffic signals at this intersection. In this case, the TfNSW support traffic signals given that the marina development will warrant traffic signals once it has been constructed and is in operation.

On this basis, TfNSW has raised no objection to the proposed development subject to the following deferred commencement condition:

- 1) *The applicant is to obtain in-principle approval for the installation of traffic control signals at the intersection of Brickmakers Drive and new Link Road. In order to obtain in-principle approval, the applicant is required to submit the design of the proposed traffic control signals at the intersection of Brickmakers Drive and new*

*Link Road in accordance with the TfNSW requirements. The Traffic Control Signal (TCS) plans shall be drawn by a suitably qualified person and endorsed by a suitably qualified practitioner.*

*The submitted design shall be in accordance with Austroads Guide to Road Design in association with relevant TfNSW supplements (available on [www.rms.nsw.gov.au](http://www.rms.nsw.gov.au)). The certified copies of the signal design and civil design plans shall be submitted to TfNSW for review and approval. Documents should be submitted to [Development.Sydney@rms.nsw.gov.au](mailto:Development.Sydney@rms.nsw.gov.au)*

TfNSW have also provided draft requirements of consent to be included as deferred commencement condition including a requirement for the developer to enter into a Works Authorisation Deed (WAD) for the installation of traffic control signals at the intersection of Brickmakers Drive and new Link Road. It also requires the traffic control signals to become operational prior to the issue of any occupation certificate for the development.

Council's Traffic and Transport department are satisfied with this approach and have recommended conditions of consent.

In consideration of traffic impacts, the proposed development is considered to be satisfactory.

## **7.2.2 Visual Impacts and Urban Design**

The marina site is located on a broad, low-lying floodplain of the Georges River. Currently, the northern portion of Lot 70 is used for processing and recycling activities and the southern portion (i.e the marina development site) is used for sand extraction. The marina site has been cleared of vegetation except along the site boundaries. As a result, the landform of the marina site has been extensively modified and has low visual amenity as a result of clearing and existing land uses.

The marina site has low external visibility due to the relatively level landscape in which it is located, as well as the presence of screening vegetation along the property boundaries and the river. This screening prevents views to the site from surrounding land uses and the river.

A visual impact assessment was undertaken by Richard Lamb and Associates in 2010 (see Attachment 8aa). The assessment included the development of computer generated photomontages using the design drawings and plans for the marina site. The photomontages were used to assess the potential visual impacts of the proposed development. Given the recent residential development to the west of the site, an Addendum Visual Impact Review was prepared by Richard Lamb and Associates in 2015 (see Attachment 8bb). This included re-visiting the marina site and the locality and assessing the potential for change in impact on views from the selected locations.

The following potentially impacted vistas were identified:

- the Georges River itself or from the banks of the river directly to the east of the development; and
- from the Georges Fair residential development directly to the west of the marina site.

The visual assessment concluded that the overall visibility of the structures and activities on the project area would be minimal based on the heights of the proposed buildings. Mitigation of these minor impacts will include screen planting using appropriate tree species on the eastern boundary of the marina site adjacent to the river as part of foreshore embellishment and the use of appropriate colours and materials for the Maritime Building and Private Marina Clubhouse.

Overall, the proposed development will result in an improvement to the vista when viewed from the river. In this regard, it is considered that the development would have a positive effect on the visual qualities compared to the site's current use.

The 2015 review of the visual assessment found that project area and proposed development remain the same as assessed in 2010, aside from minor changes as a result of continued quarrying activity. The only significant change in the visual environment has been the development of the Georges Fair residential estate to the west, the residential component of which is nearing completion.

The review confirmed that the proposed development will have minimal external visibility. The Maritime Building will be partly visible over the trees on the boundary between the Georges Fair residential estate and the proposed development. However, the overall visibility from this area will be lower than had been assessed in 2010 as a result of predominantly two-storey residential development on the Georges Fair residential estate which minimises potential views and confines them to the fringe along a short section of Brickmakers Drive.

The continued development of Georges Fair will further reduce the visual exposure of the proposed development compared to the 2010 assessment. Therefore the visual impacts of the proposed development remain low to moderate.

### **7.2.3 Noise Impacts**

EMM Consulting Pty Limited was commissioned to prepare a Noise and Vibration Impact Assessment, dated 4th April 2019, for the proposed marina development (see Attachment 8dd). Potential noise and vibration issues identified include: noise and vibration associated with construction activities; noise associated with marina operations including boat movements and refuelling; music and patron noise from the restaurant and function centre precinct; and noise associated with increased traffic to/from the site during construction and operation.

According to the consultant, noise and vibration was assessed at the nearest representative noise sensitive properties (R1-R10). Existing ambient noise levels were adopted from previous assessments undertaken of the site.

Project noise trigger levels were selected as the more stringent of the intrusive and amenity criteria as per the NSW EPA's Noise Policy for Industry (2017). Road traffic noise and sleep disturbance impacts were also considered in accordance with the NSW Department of Environment, Climate Change and Water (DECCW) Road Noise Policy (2011).

Music and patron noise was assessed with consideration for the Office of Liquor Gaming and Racing LA10 noise criteria. EMM Consulting Pty Limited also referred to the NSW Department of Environment and Climate Change (DECC) Interim Construction Noise Guidelines (ICNG) (2009) in their assessment of noise from construction works. The NSW Department of Environment and Conservation (DEC)

guideline Environmental Noise Management– Assessing Vibration: A Technical Guideline (2006) was also consulted as part of the vibration assessment.

EMM Consulting Pty Limited predicted compliance at all assessment locations during all periods, with the exception of R10 during the evening period for calm and adverse weather conditions. The predicted noise level above the adopted criteria at R10 is caused by boat movements directly south of this assessment location. The applicant indicated that it is anticipated that noise controls (eg buffers, architectural noise screening etc) would be incorporated in the future Moorebank East residential development (represented by R10) which would mitigate marina noise activity.

Similarly, noise levels were predicted to satisfy the sleep disturbance criteria at all assessment locations. It was reported that exceedances associated with patron and music noise can be mitigated/managed by limiting the low frequency noise output of the public address system or increasing the glazing thickness, or a combination of both at the project detailed design stage. Exceedances at receiver R10 (future residential location within Moorebank Cove residential estate) were apparently related to patron noise from external balconies at the Marina Clubhouse. EMM Consulting Pty Limited suggested that there was scope to reduce patron noise levels with appropriate management.

Predicted construction noise exceedances will require mitigation. Predicted construction noise levels are below the ICNG (2009) highly noise affected 75 dB NML at all residential assessment locations for all construction activities. Similarly, management and mitigation measures should be implemented to minimise vibration impacts during the construction phase of the development. Predicted traffic noise levels from vehicles accessing the marina will satisfy the RNP allowance criterion of no more than 2 dB increase where existing traffic noise is above acceptable levels.

Noise management and mitigation measures are proposed including:

- A 2 metre high acoustic barrier to the west of the Marina Clubhouse car park;
- Partial acoustic screening will be installed on the north balconies of the marina clubhouse and marina building. The screening will be operable to allow additional acoustic screening during large functions;
- Music noise from the function centres will be managed and/or mitigated to limit low frequency noise in 31.5 and 63 Hz octave band centre frequencies. This can be achieved by fitting the public address system with a noise limiter or increasing the glazing thickness at function centres, or a combination of both measures; and
- A noise management plan will be implemented, outlining procedures for patron management.

A noise management plan and community consultation program were also recommended for the construction phase of the proposed development.

The Noise and Vibration Impact Assessment was reviewed by the EPA who raised concerns with a number of aspects of the Noise Impact Assessment (NIA) for the proposed development including:

- *the NIA has not appropriately derived the applicable Noise Policy for Industry (EPA, 2017) Project Noise Trigger Levels (PNTLs).*

- *With the application of appropriate PNTLs, the NIA predicts significant exceedances of these levels at the future Moorebank East Residential Development immediately to the north of the proposed development.*
- *The NIA suggests that the principal source of noise impacts will be from vessel operations in the marina and that pathway (barriers etc) and receiver-based controls (architectural design) at the residential development will be required to mitigate impacts.*
- *The NIA also predicts exceedances of the Interim Construction Noise Guideline (EPA, 2009) noise management levels for construction and the normal criteria imposed by Liquor and Gaming NSW for the marina function centre.*
- *The applicant has not adequately considered noise controls to minimise impacts to the future Moorebank East Residential Development*

Following a meeting on 23rd October 2019 between the Applicant and representatives from the NSW EPA and Council, additional information was provided regarding the background noise levels and project noise trigger levels referenced in the 'Georges Cove Marina Noise and Vibration Impact Assessment' (Report Number: J180179 RP4, Version v1 Final) prepared by EMM Consulting dated 4th April 2019 (see Attachment 17).

The NSW EPA reviewed this additional information prior to issuing General Terms of Approval for the proposed development. Consequently, it is the EPA's view that *the proponent has been unable to demonstrate that the noise impacts from the marina on the MERD can be appropriately mitigated at the source to ensure an acceptable level of impact. As a result, the EPA is unable to derive noise limits to protect the MERD from noise impacts from the marina and noise limits for this receiver have not been included in the GTAs.*

*If Council issues development consent for this proposal, it is recommended that these impacts are addressed through the planning process. The EPA recommends that the planning approval includes a requirement for the preparation of an Operation Noise Management Plan that identifies, based on detailed design, how the proposed noise limits in the GTAs will be achieved and how the measures outlined in the information provided in relation to the acoustic assessment on 7 November 2019 will be effectively incorporated into the operation of the Marina to ensure that potential impacts at the MERD are minimised to the extent practicable.*

*In addition, it is recommended that Council imposes land use planning controls on any approval for the MERD to ensure that it is designed and constructed to achieve satisfactory internal noise levels. It is also recommended that Planning Certificates issued under section 10.7 of the Environmental Planning and Assessment Act 1979 for residential premises within the MERD identify that the premises may be impacted by noise from the Marina and that in some instances windows and doors may need to be maintained in the closed position to provide a satisfactory level of noise amenity. These premises will require mechanical ventilation to satisfy Building Code of Australia fresh air requirements with windows closed. This will ensure that prospective purchasers are made fully aware of the potential for noise intrusion.*

Conditions are recommended on the consent for DA-611/2018 that address the concerns raised by NSW EPA. In particular, a condition will be imposed that requires

a Noise Management Plan to be prepared prior to the issue of an Occupation Certificate for the development. The Noise Management Plan must identify and implement strategies to minimise noise from the proposed development and incorporate.

Also, the above comments provided by the EPA have been noted against the property to be considered in the assessment of any application for subdivision or development of the northern part of the subject site for residential purposes. In this case, any such application will be required to prepare an acoustic report that identifies acoustic measures which would ensure internal noise levels of any dwellings impacted by the marina complies with the relevant noise criteria.

In addition to this, the EPA also has advised that *“the planning approval includes suitable hours of operation restrictions on both the private marina club house and the restaurant / function centre, and noise limits based on the criteria normally applied by NSW Liquor and Gaming in liquor licences.”* Council has also recommended conditions of consent that restrict both the hours of operation of the private marina club house and the restaurant/function centre. Noise limits for licensed premises have also been imposed as conditions of consent.

Given the mitigation measures proposed, noise impacts from the proposed marina are considered to be satisfactory.

## **7.2.4 River Navigation Impacts**

The subject application was referred to the Transport for NSW and no objection has been raised.

Rock armouring will be installed along the marina foreshore to protect the bank against the effects of waves and vessel wake. Armouring will span approximately 550 m along the marina foreshore and there will be a 40 m wide marina entrance.

A floating silt curtain along the length of the works will be installed to contain and control silt and sediment runoff during construction. The silt curtain will be approximately 3–5 m from the shore. Georges River is approximately 125 m wide at this point and therefore, it is unlikely that commercial or recreational boating activities will be affected by these works. The silt curtain will be marked by buoys and, being close to the bank, will not be a significant safety hazard.

The physical layout of Georges Cove Marina will have very little impact on river navigation as the entire development will be outside of the Georges River channel. No structures of any kind will be erected in the river channel.

Currently, boats are launched backwards at Davey Robinson boat ramp. These craft either remain at idle in the river channel while the trailers are parked or manoeuvre across to the public jetty where they are tied up to await the return of the driver after parking the vehicle and boat trailer. In either case, a considerable portion of the channel can be occupied with boats manoeuvring at low speed, often in reverse. These boats present safety risks in the river channel.

Boats entering the river from the marina will do so via an entrance about 40 m wide. They will be travelling forward, will not need to wait in the river for the car driver to return, and will quickly integrate with any other boat traffic on the river (subject to speed limits).

As this stretch of the George's River is not speed limited, it is considered appropriate that a 'Boating Management Plan' be conditioned as part of the consent which will address, but not be limited to:

- internal speed limits within the marina basin;
- identification of laneways for navigation throughout marina basin with respect to type of size of watercraft; and
- identify appropriate means of access/egress from the marina basin to the Georges River as well as speed.

It is considered that the proposed marina would operate satisfactorily with appropriate measures in place which address river navigation as well as management practices within the basin for safety of all users.

## **7.2.5 Heritage Impacts**

### Aboriginal heritage

In 2004, Mary Dallas Consulting Archaeologists undertook an Aboriginal archaeological assessment and field survey of the project area accompanied by a site officer from the Gandangara Local Aboriginal Land Council (GLALC). No Aboriginal archaeological sites were identified in the project area during background research or the survey. Due to past land use disturbances and major sub-surface destruction on the project area, it was concluded that there was little to no potential for buried deposits.

The applicant reviewed the 2004 assessment in April 2015 and completed an updated search of the Aboriginal Heritage Information Management System (AHIMS) register. The search of AHIMS register covered a 1 by 2 km area. This confirmed that Aboriginal sites have not been recorded, and are not likely to exist, in the project area. No further field survey was required because the project area is the same as that surveyed for the 2004 assessment.

The 2004 assessment and updated AHIMS register search fulfil the requirements of the due diligence guidelines. Therefore, no further investigation is required for the project area.

Council's heritage officer concurs with this assessment.

### Non-Aboriginal heritage

A non-Aboriginal heritage assessment was undertaken by Heritech Consulting in 2003. The assessment involved historical research and a field survey of the project area. The marina site was noted to be extensively disturbed by previous operations on the north of the marina site and sand processing operations on the south of the marina site. No historic items or areas of archaeological potential were identified in the project area.

The applicant reviewed the 2003 assessment in April 2015. This included searching relevant statutory historic heritage databases to determine if protected heritage items have been listed in the project area. Aerial imagery from 1943 was referenced to identify any historic items or potential archaeological deposits. No historical items were identified within the project area.

No listed historic heritage items will be impacted by the project. It is unlikely to have archaeological potential as the project area has been highly disturbed. Therefore, no further investigation or field surveys are required.

Council's heritage officer concurs with this assessment.

### **7.3 Social and Economic Impacts**

The proposed development is considered to provide for substantial social benefit. These benefits include:

- The proposal would see the cessation of extractive industries on the subject site which has degraded the land and rendered it inaccessible to the public for a number of years. The current use is incompatible with the surrounding context of the area which is predominantly characterised with residential development and natural vegetation. The current impact of traffic generation from heavy vehicles and noise, dust and air emanation would cease on conclusion of extractive industry activities at the site.
- The approval granted for the site enables the rehabilitation of the land with waste material to facilitate the formation and return of the land to its natural landform. Waste management uses would not be carried out as a result of the proposed development and would therefore remove the continued environmental impact of what is essentially an industrial use.
- The proposal is considered to be a significant project for Liverpool and would exhibit a high quality design benchmark and be an iconic development for the local area and the greater region.
- The proposed development represents a significant opportunity to reactivate an inaccessible and highly degraded stretch of the Georges River and would seek to return the natural landscape to the community through a development.
- The development would provide for numerous active and passive forms of recreation that represents substantial economic and social benefits for the Liverpool and the greater community.
- The development encourages a new recreational facility to the area with casual public berths for small craft and water taxis to pick-up and drop-off passengers and access provisions from the marina facilities. Public access to fuel and sewage pump out facilities would be made available to boat users and thereby encourage patronage to the area.
- The development would be made accessible for all people and those with a disability.
- The development would increase the environment quality of the area through managed revegetation with species endemic to the area. The ongoing management of these areas along the river foreshore coupled with the provision of embellished public open space in the form of pedestrian and cycleway, bridge and street furniture would provide a sense of place for the area and create ownership of residents and users of the development.

- The proposed development is anticipated to increase economic activity of retail sales of marine equipment, leisure activities and recreational uses by way of function/receptions spaces, food and beverage option both casual and high-end and storage of vessels.
- The number of construction employees would vary over the duration of the project dependant on the particular activities taking place at any one time. It is expected that between and 35 equivalent full time construction jobs would be created over the construction period.
- The proposed would increase local employment opportunities in management, brokerage and chandlery sales, marine staff, workshop, the function centre and food and beverage operators.

## **6.8 Section 4.15(1)(c) – The Suitability of the Site for the Development**

The land is zoned for open space both in public and private recreation. The proposed development is in keeping with the vision of the site as anticipated in the zoning of the land and support and complements the surrounding uses identified for the Moorebank East precinct.

The proposed development has demonstrated that the potential impacts have been addressed and a number of measures and safeguard are to be implemented to manage any impacts. The development would seek to embellish the area both in terms of the natural and built environment through the agreement of Council and the property owner with works that would see the land return to the community with a high quality outcome.

The proposed development represents an opportunity to rehabilitate the highly degraded site which is currently used for extractive industry. The cessation of this industrial use and expedition of the rehabilitation of the site is a significant benefit for the land and would fast track the use of the land for the benefit of the community.

However, as noted in the SEPP 55 discussion, there is an outstanding legal test regarding Clause 7 of SEPP 55 that remains to be resolved with the application. Despite the merits of the development, the site is not considered to be suitable for the development, in terms of land contamination matters.

## **6.9 Section 4.15(1)(d) – Any submissions made in relation to the Development**

### **(a) Internal Referrals**

The following comments have been received from Council's Internal Departments:

Internal Department	Status and Comments
Building	No objection, subject to conditions
Landscaping	No objection, subject to conditions
Environmental Health	No objection, subject to conditions
Land Development Engineering	No objection, subject to conditions
Traffic Engineering	No objection, subject to conditions
Flooding	No objection, subject to conditions
Traffic	No objection, subject to conditions
Heritage	No objection, subject to conditions
Community Planning	No comment
Property Services	No comment
Economic Development Unit	Supported

### (b) External Referrals

The following comments have been received from External agencies:

External Department	Status and Comments
Natural Resources Access Regulator – <i>Water Management Act 2000 (Nominated Integrated Development)</i> ;	General Terms of Approval issued
Environmental Protection Authority – <i>Protection of the Environment Operations Act 1997 (Nominated Integrated Development)</i> ;	General Terms of Approval issued
Department of Primary Industries - Fisheries	General Terms of Approval issued
Transport for NSW (TfNSW)	General Terms of Approval issued
Police	No objection raised subject to conditions.
Endeavour Energy	Recommendations made
Sydney Water	No objections, subject to conditions
Department of Planning and Environment	SEARs issued. No matters of State Significance raised in submissions.
NSW Rural Fire Service	No objections raised. Bushfire Safety Authority issued.

### (c) Community Consultation

The development application was placed on public exhibition for 30 days between 29 August 2018 to 28 September 2018 in accordance with Liverpool Development Control Plan 2008 (LDCP 2008). A total of 4 submissions were received to the proposed development.

However, due to the submission to Council of a revised EIS given the original EIS was based on outdated SEARs, the application was re-exhibited for 30 days on 3

July 2019 to 1 August 2019 and for a second occasion on 3 July 2019 to 1 August 2019.

A total of 4 submissions were received. The matters raised in the submissions and a response to each are provided below:

- *There is little local infrastructure to support such a development, there is no reason for this development.*

**Comment:** Conditions will be imposed on any consent granted for utilities services to be provided prior to the use of the site for the purpose of a marina development.

- *There are no details on the bank stabilisation construction works. Our concern is the wave rebounding on the concrete walls being proposed along the foreshore, which will cause bank erosion on the other side of the Georges River.*

**Comment:** The application has been amended to include the rock protection wall along the foreshore of the marina site. The impact of the project on bank stability was assessed by Worley Parsons. It was found that “the marina would result in additional craft using the adjacent stretch of water in the Georges River compared to current conditions, however this would not necessarily impact the river banks, as the reach is already currently heavily used at high speeds.

*The marina design incorporates bank stabilisation works (on the Liverpool LGA side of the river), which would be an improvement on the existing scenario, where the river bank is eroding. The bank stabilisation works would be undertaken in consideration of the boat generated waves in the river, hence resulting in a more stable stretch of foreshore.”*

Council’s engineers have raised no concerns about the potential for an increase in bank erosion on the Bankstown LGA side of the river. It is also noted, that GTAs have been issued by NRAR.

- *This development would be aesthetically pleasing to the area. The application would encourage more jobs. This area desperately needs revamping and this proposal offers a place for the community to be proud of. This proposal is long overdue.*

**Comment:** Noted. This submission supports the proposed development.

- *We consider that the development would have a positive effect on the visual qualities compared to the site’s current use. As local residents we would like to have a land/water interface and to enjoy the Georges River. We believe, the proposed Marina would become a thriving local community hub and we can only foresee all range of public benefits.*

**Comment:** Noted. This submission supports the proposed development.

- *The marina is a great idea and I totally support the development. All of my family and friends agree that it would be great for the community and we need more infrastructure in the Liverpool area.*

**Comment:** Noted. This submission supports the proposed development.

- *Moorebank Residents' Action Group would like to record our support for the Georges Cove Marina. As a group of more than 1000 members we are excited by*

*and supportive of the prospect of opening up the Georges River for recreation in Moorebank. This project would finally signify the move from heavy industry to a modern, well planned, residential community. Please don't hesitate to contact me should you require anything further.*

**Comment:** Noted. This submission supports the proposed development.

## **6.7 Section 4.15(1)(e) – The Public Interest**

The proposed development is consistent with the zoning of the land and would represent a high quality development that accommodates active and passive recreational uses. Moreover, the proposal involves works which would embellish the site and surrounds to create attractive public places for the benefit of the community. In addition, these works seek to enhance the environmental quality of the area. The operation of the proposed marina would contain a number of safeguards and measures which would manage the impacts identified in the assessment.

In addition to the social and economic benefit of the proposed development, it is considered to be in the public interest.

## **7 CONCLUSION**

In conclusion, the subject Development Application has been assessed having regard to the matters of consideration pursuant to Section 4.15 of the Environmental Planning and Assessment Act 1979 and is considered satisfactory except for SEPP 55 and, as such, the subject application is recommended to be determined for refusal; as follows:

- 1) The proposed development is inconsistent with the provisions of Clause 7 – Contamination and Remediation of State Environmental Planning Policy No. 55 – Remediation of Land in that insufficient evidence has been submitted to satisfy the consent authority that the land will be remediated so as to be made suitable for the purpose proposed by the DA, pursuant to the provisions of Section 79C(1)(a)(iv) and 79C(1)(c) of the Environmental Planning and Assessment Act 1979.

## **8 ATTACHMENTS**

1. Recommended conditions of consent
2. General Terms of Approval – NRAR
3. General Terms of Approval – DPI Fisheries
4. General Terms of Approval – NSW EPA
5. General Terms of Approval – NSW RFS
6. General Terms of Approval - TfNSW
7. Plans of the Proposal
8. EIS and supporting documentation
  - a. Appendix A1 – SEAR 912 (2015)
  - b. Appendix A2 – SEAR 912 (2018)
  - c. Appendix B1 – Georges River Marina plans (MFA 2015)
  - d. Appendix B2 – Boundary definition (JMD 2018)
  - e. Appendix C1 - Preliminary Marina concept design and environmental assessment (Worsley Parsons 2010)
  - f. Appendix C2 – Flood reports (NPC 2015)
  - g. Appendix D1 – Preliminary Investigation of Contamination (EMM 2015)

- h. Appendix D2 – Supplementary preliminary investigation (EMM 2016)
- i. Appendix D3 – Remediation action plan (EMM 2016)
- j. Appendix D4 – Preliminary site investigation (DP 2018)
- k. Appendix D5 – Landfill Gas monitoring (DP 2019)
- l. Appendix D6 – Acid Sulfate soil management plan (Benedict 2012)
- m. Appendix D7 – Site audit report 282 (Swane 2019)
- n. Appendix D8 – Laboratory reports (2017-2018)
- o. Appendix E1 – Flora and fauna assessment (TEC 2010)
- p. Appendix E2 – Terrestrial Ecology assessments (EMM 2015)
- q. Appendix E3 – Aquatic ecology aspects and environmental assessment (MPR 2015)
- r. Appendix E4 – update of aquatic ecology impact report (MPR 2015)
- s. Appendix E5 – Bushfire assessment (EMM 2015)
- t. Appendix E6 – Biodiversity assessment (EMM 2019)
- u. Appendix E7 – Assessments of significance (EMM 2019)
- v. Appendix F1 – Transport planning assessment (EMM 2015)
- w. Appendix F2 – Traffic signal design warrant report (EMM 2016)
- x. Appendix F3 – Navigation assessment (EMM 2016)
- y. Appendix F4 – Construction access routes and traffic impact assessment (EMM 2018)
- z. Appendix G1 – Projection estimates of plant heights of potential native vegetation reconstruction plantings (Ecohort 2010)
- aa. Appendix G2 – Visual Impact Assessment (RLA 2010)
- bb. Appendix G3 – Addendum visual impact review (RLA 2015)
- cc. Appendix G4 – Landscape plan (Ecohort 2018)
- dd. Appendix H1 – Noise and vibration impact assessment (EMM 2019)
- ee. Appendix I1 – Air quality assessment (TAS 2011)
- ff. Appendix I2 – Air quality and greenhouse gas assessment (TAS 2015)
- gg. Appendix J1 – Aboriginal archaeological assessment (MDCA 2004)
- hh. Appendix J2 – Aboriginal heritage (EMM 2015)
- ii. Appendix J3 – Non-indigenous heritage assessment (Heritech 2003)
- jj. Appendix J4 – Non-indigenous heritage (EMM 2015)
- kk. Appendix K1 – Waste Management Plan (Benedict 2016)
- 9. Voluntary Planning Agreement (VPA) agreed between Liverpool City Council and Tanlane Pty Ltd on 11 June 2008.
- 10. DEP meeting minutes
- 11. Cover Letter from Ecological Consultant
- 12. Landscape Plan from Ecological Consultant
- 13. Landscape Plan from Ecological Consultant with sections
- 14. Stormwater Concept
- 15. Response to Flooding Concerns
- 16. Revised site boundaries for the purpose of this DA
- 17. Additional noise assessment
- 18. Air Quality Assessment
- 19. Applicant Response to TfNSW correspondence (March 2020)
- 20. Applicant Response to TfNSW correspondence (May 2020)
- 21. Applicant Response to TfNSW correspondence (July 2020)