



## ASSESSMENT REPORT

### WOOLOOWARE BAY TOWN CENTRE CONCEPT PLAN MP 10\_0229 MOD 5

#### 1. INTRODUCTION

This report is an assessment of a request to modify the approved Concept Plan (MP 10\_0229) for the redevelopment of the Cronulla Sharks site (now known as the Woollooware Bay Town Centre - WBTC) in the Sutherland Shire local government area. The request has been lodged by JBA Urban Planning on behalf of Bluestone Property Solutions Pty Ltd (the Proponent), pursuant to section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

It seeks approval to amend a condition imposed by the then Planning Assessment Commission which requires a 40-metre wide vegetated riparian corridor to be provided along the site's Woollooware Bay frontage. The amended condition would exclude part of the football stadium, known as Family Hill, from the riparian corridor and adopt a revised landscape plan which includes non-riparian uses such as pathways, play areas and turf.

OEH and DPI raised concern that the proposed non-riparian uses would compromise the function of the riparian corridor. Both agencies stressed the importance of maintaining the requirement to provide a 40-metre vegetated riparian corridor at this location, to enhance and protect the biodiversity values of the adjoining wetlands and Towra Point Aquatic Reserve (TPAR), in accordance with the Commission's original determination.

The Department has undertaken a merit assessment of the proposal and considers some development, including access ways, Family Hill and essential utility infrastructure can be supported within the riparian corridor. However, the proposed turf and other landscape areas, should not. These works have not been offset in accordance with current policy guidance and would potentially result in a diminished environmental outcome for the adjoining wetlands and TPAR compared to the existing approval and current accepted standards.

The Department has also recommended a new Modification requiring the Proponent to consider alternative locations for the proposed playground. The Department supports the proposed playground but considers more appropriate sites should be considered as it is currently located underneath transmission lines, within the riparian corridor in a relatively isolated part of the site.

Overall, the Department considers the modification is approvable subject to the recommended terms of approval.

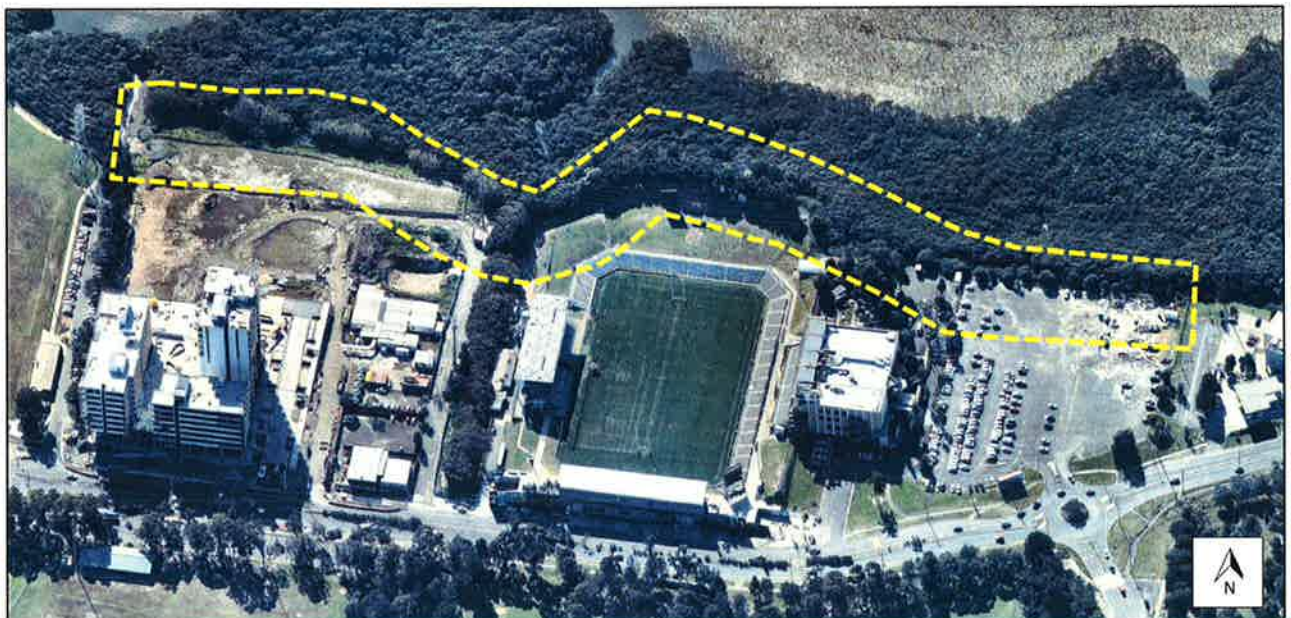
#### 2. SUBJECT SITE

The site is located between Captain Cook Drive and the foreshore at the southern end of Woollooware Bay (refer to **Figure 1**). The site contains the recently approved WBTC comprising a mixed retail and residential development integrated with the Cronulla Sutherland Leagues Club (the Club). The first stage of the residential precinct in the western part of the site is currently under construction. No buildings works have commenced in the retail precinct in the eastern part of the site.



**Figure 1 – Site Location**

This modification request relates primarily to a proposed riparian corridor along the northern boundary of the site, adjoining Woollooware Bay and TPAR. The proposed corridor is traversed by power lines and is subject to an associated easement. It also includes mangroves at the northern boundary with Woollooware Bay, a bitumen car parking area on its eastern side, the northern part of the stadium (known as 'Family Hill'), and former playing fields on its western side (now cleared in association with the residential building works) (**Figure 2**).



**Figure 2 – Aerial view of site and approximate location of riparian corridor**

### 3. APPROVAL HISTORY

#### Concept Plan Approval

On 27 August 2012, the Commission approved a Concept Plan (MP 10\_0229) for a new WBTC, comprising a retail centre integrated with upgraded club facilities, eight residential flat buildings comprising up to 600 apartments, upgrade of the existing football stadium and adjoining facilities, and associated carparking and landscaping.

A key issue in the assessment of the application was the need for an appropriate riparian corridor along the northern boundary of the site, adjoining Woolooware Bay.

In its original assessment of the Concept Plan, the Department concluded the proposed riparian corridor and setbacks were acceptable in terms of protecting the adjoining wetland and the TPAR. The Department supported the following (shown in **Figure 3**):

- a 30-metre riparian corridor over the eastern part of the site, including a boardwalk, pedestrian path, and screening vegetation
- a riparian corridor and playground at the western end of the site with setbacks to the foreshore ranging from 43 metres to 63 metres. The inner 30 metres included riparian planting, pontoons/decks and a large turfed area. The remainder included a children's playground, covered barbecue (BBQ) facilities and pathways
- a 21-metre setback on the western side of the tidal creek to be used as bio retention swales and a path
- retention of Family Hill in its current form.

The Department also noted that the provision of boardwalks and structures, such as bioswales within the riparian corridor are supported where they do not negatively impact on the function of the riparian corridor. However, details such as required planting and location of stormwater measures, would need to be further considered as part of future applications.

In its determination of the Concept Plan, the Commission also considered the riparian corridor. The Commission noted the strong recommendations from Council and agencies that a 40-metre riparian corridor should be provided. The Commission's report also noted that while the Proponent agreed to increase the buffer on the western side of the site, they committed to a 31-metre buffer only, due to the design constraints associated with a loading dock.

The Commission considered that further improvements to the Proponent's design could be achieved, and accordingly, included Modification B2 to the Concept Plan, requiring a 40-metre-wide vegetated riparian corridor, except for a 35-metre-wide section near the retail loading dock, as follows:

#### ***B2 Riparian Setback***

*The vegetated riparian buffer corridor, to be provided along the foreshore, must be a minimum of 40 metres wide, except for the 70 metres stretch adjacent to the retail loading dock, where the vegetated riparian buffer corridor must be a minimum of 35 metres wide.*

The condition imposed by the Commission does not permit non-riparian recreational uses such as the paly areas, picnic facilities, BBQs, seating and open turf areas as shown in the approved Landscape Concept Plan (**Figure 3**). Therefore, compliance with the condition requires substantial amendments to the landscape plan, including the removal of much of the 'Family Hill' area within the stadium.





**Figure 3 – Approved Landscape Concept Plan (but subject to amendment by Modification B2)**



### Modifications

The Concept Plan approval has been modified on four occasions, and is the subject of two modification requests currently under assessment, as shown in **Table 1**.

**Table 1 – Modification Applications**

MOD	Summary of Modification Requests	Date Approved
1	<ul style="list-style-type: none"> <li>amendments to approved building envelopes</li> <li>increase area of outdoor deck for club building</li> <li>administrative changes to the approval</li> </ul>	14 July 2014
2	<ul style="list-style-type: none"> <li>building envelopes for three new residential flat buildings, serviced apartment/hotel building, function rooms, community rooms, additional car parking and a landscaped podium to the eastern precinct</li> <li>a Sharks Centre of Excellence added to the western grandstand, with new administration training and sports-related facilities</li> </ul>	Under assessment
3	<ul style="list-style-type: none"> <li>increase in maximum gross floor area and maximum gross building area, and adjustments to the building envelopes</li> </ul>	14 March 2016
4	<ul style="list-style-type: none"> <li>refinement to the car parking rate for visitors in the residential precinct</li> </ul>	26 October 2015
6	<ul style="list-style-type: none"> <li>internal and external design changes to the retail precinct</li> </ul>	2 August 2016
7	<ul style="list-style-type: none"> <li>internal and external design changes to the retail precinct</li> </ul>	Under assessment

### Project Approval

On 20 August 2013, the Commission approved a Stage 1 Project Application (MP 10\_0230) for a new retail centre and refurbishment of the existing Club building.

The Project Approval incorporated landscaping of the riparian setback area adjacent to the retail development. The landscape plans were approved (**Figure 4**), subject to Condition C24 which requires the plan to be updated with additional riparian planting.



**Figure 4 – Approved Project landscape plans (subject to amendment by Modification C24)**

The Department notes the approved landscape plans for the Project Approval are different to the proposed concept landscape plans. The Proponent will therefore need to submit a modification request to amend the project approval, following the determination of this request.

### Modifications

The Project Approval has been modified on four occasions and is also the subject of a modification request currently under assessment. **Table 2** provides a summary of the modifications.

**Table 2: Summary of Modifications**

<b>MOD</b>	<b>Modification</b>	<b>Date Approved</b>
1	<ul style="list-style-type: none"> <li>reconfigure Levels 1, 3 and 4 of the retail building and amend the subdivision plans</li> </ul>	10 February 2014
2	<ul style="list-style-type: none"> <li>minor modification to the subdivision plans</li> </ul>	8 April 2016
3	<ul style="list-style-type: none"> <li>internal and external changes to the design of the retail precinct</li> </ul>	2 August 2016
5	<ul style="list-style-type: none"> <li>Modifications to stratum subdivision plan</li> </ul>	29 March 2017
6	<ul style="list-style-type: none"> <li>Modification to stratum subdivision plan</li> </ul>	Under Assessment

## **4. PROPOSED MODIFICATION**

The proposed modification seeks to amend Condition B2 to exclude Family Hill from the corridor and specify the corridor be provided in accordance with the NSW Office of Water (NOW) guidelines and the approved landscape plans. Compared with Condition B2, the proposed modification would provide flexibility to allow provision of structures and recreational facilities within the riparian corridor. The amended condition would read as follows:

### ***B2. Riparian Setback***

*The ~~vegetated~~ riparian buffer corridor, to be provided along the foreshore, must be a minimum of 40 metres wide, except for the 70 metres stretch adjacent to the retail loading dock, where the vegetated riparian buffer corridor must be a minimum of 35 metres wide **and the Family Hill area, which is excluded from the provision of any riparian corridor. The riparian corridor is to be provided generally in accordance with the NSW Office of Water 'Guidelines for riparian corridors' and the approved landscape drawings.***

The proposal also seeks to modify the approved landscape plans. The modified landscape plans, as shown in **Figure 4**, provide a 35-metre to 40-metre-wide corridor as required by Condition B2, but seek to include infrastructure and facilities within the corridor, comprising:

- a children's playground with accessible equipment
- BBQ, picnic and seating areas
- an open turf area in the western part of the foreshore park
- a shared pedestrian/bicycle path along the foreshore (including two viewing platforms)
- pedestrian pathways
- boardwalk/platform and other landscaping adjacent to the retail entry
- access road and emergency vehicle turning area
- crane pads and access to service the electrical power lines.

The majority of structures, including the playground, turfed recreation area, BBQ facilities, seating and pathways, would be located in the outer riparian corridor, more than 20 metres from the mean high-water mark (MHWM).

The inner riparian corridor (comprising 20 metres of the 40-metre riparian zone) is proposed to be fully vegetated with saltmarsh and riparian planting. This excludes a small segment of pathway to the west of the drainage channel to allow Ausgrid access to an existing easement and electrical

assets, and a minor segment of the shared pathway around the retail/club precinct and Family Hill to provide access along the foreshore path.

The proposal also includes:

- re-contouring of most of the riparian corridor to remove seawalls, to provide a more gradual rise from the mangrove areas
- additional riparian planting outside the riparian corridor within the wider site, and other planting and rehabilitation within the waterway to the north of the site, to offset the impacts of the development on the corridor
- changes to the setback to the tidal creek, including the provision of new fitness pods and re-aligned pathways
- an additional condition requiring details of viewing platforms and shade structures to be provided at the future Development Application stage.

The Proponent provides the following justification for the modifications:

- It was always intended that Family Hill be retained in its current form. It would be unreasonable to expect part of the existing stadium to be converted to a fully vegetated riparian corridor, significantly disrupting its function
- The revised design is generally in accordance with the NOW guidelines, which permit non-riparian functions such as recreational infrastructure within a riparian zone, subject to offsetting by additional riparian planting elsewhere on the site. Additional riparian planting has been provided accordingly
- The proposed riparian corridor provides a substantial net improvement to the current situation (there is currently no buffer to the existing mangroves)
- The ecological assessment submitted with the proposal finds the amended landscaping concept will provide similar benefits to those of the approved scheme
- The proposed active recreational uses, including a disabled access park, and shared bicycle and pedestrian paths, provide significant public benefits for the local community
- Ausgrid requires vehicular access and crane pads to service its infrastructure
- Detailed plans and planting schedules are provided to resolve conflicting advice from agencies, and reduce ambiguity at the future DA stage.

An extract of the proposed modified Landscape Concept Plan is reproduced below (refer to **Figure 5**).







## 5. STATUTORY CONSIDERATION

### 5.1 Section 75W

The project was originally approved under Part 3A of the EP&A Act. The project is a transitional Part 3A project under Schedule 2 to the EP&A (Savings, Transitional and Other Provisions) Regulation 2017. The power to modify transitional Part 3A projects under section 75W of the Act as in force immediately before its repeal on 1 October 2011 is being wound up, but as the request for this modification was made before the 'cut-off date' of 1 March 2018, the provisions of Schedule 2 (clause 3) continue to apply. Consequently, this report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may approve or disapprove the carrying out of the project under section 75W of the EP&A Act.

The Department is satisfied that the proposed changes are within the scope of section 75W of the EP&A Act, and the proposal does not constitute a new application.

### 5.2 Approval Authority

The Minister for Planning is the approval authority for the request. However, the Independent Planning Commission (Commission) may determine the request under delegation.

## 6. CONSULTATION AND SUBMISSIONS

### 6.1 Exhibition

The Department publicly exhibited the proposal and consulted with Sutherland Shire Council (Council), Department of Primary Industries (DPI), and the Office of Environment and Heritage (OEH) about the proposed modification. The Department also notified surrounding residents and landowners of the request.

**Council** noted the importance of the internationally significant RAMSAR wetland at Towra Point. Although Council advised it did not object to providing greater passive recreation within the foreshore, it raised concerns that the Proponent had not provided sufficient information to demonstrate the proposed modification would still ensure protection of the adjoining wetland in accordance with the primary function of the vegetated riparian corridor.

**DPI** does not support the proposed modification. DPI notes the approved 35 metre to 40 metre vegetated riparian setback is a significant compromise on the 100 metre requirement for aquatic reserves recommended in the *DPI Fisheries Policy and Guidelines for Fish Habitat Conservation and Management 2013* (Fisheries Guidelines), and recommends there be no further reduction in the riparian corridor.

DPI considers the 100-metre requirement of the Fisheries Guidelines is more relevant to the proposal than the less stringent requirements of *DPI Water's Guidelines for Controlled Activities on Waterfront Land* (NOW Guidelines), as its key objective is the protection of the values of the Towra Point Aquatic Reserve.

Therefore, DPI recommends all proposed play and turf areas be deleted from the required 40 metre riparian corridor, and any access pathways be constructed of permeable materials to the minimum width possible.

DPI also recommends additional saltmarsh plantings within the riparian corridor. It provided further advice on proposed plantings, impacts from changes to the landform and MHW, offset planting, the mangrove boardwalk, design of the drainage channel and swale planting.

**OEH** does not support the proposed modification. OEH advises that a fully vegetated riparian corridor of at least 40 metres should be provided to enhance and protect the biodiversity values of the adjoining foreshore wetlands and the Towra Point Aquatic Reserve. It also notes the proposal is inconsistent with the NOW Guidelines, which require the inner 50 percent of the riparian corridor be fully vegetated with endemic species and exclude shared pathways, boardwalks and recreational infrastructure.

OEH also considers there is inadequate riparian planting within the development site to offset the non-riparian uses within the outer 50 percent of the riparian corridor. This is also contrary to the NOW Guidelines.

Eleven **public** submissions were received in objection to the proposal, including a submission from the Cronulla Dunes and Wetlands Protection Alliance. The key issues raised in the public submissions include:

- the use of the riparian corridor for recreational activities
- adverse environmental impacts on the adjoining wetlands and the TPAR
- reduction in the width of the riparian corridor
- introduction of non-riparian uses and structures
- inadequate offset planting for encroachments into the riparian corridor
- impacts on water quality and mangroves areas
- destruction of the animal habitat.

## **6.2 Response to Submissions**

Following notification of the modification request, the Department placed copies of all submissions received on its website, and requested the Proponent provide a response to the issues raised in the submissions.

The proponent submitted a's Response to Submissions (RtS) report on 13 December 2016, and supplementary responses on 22 May 2017, 31 July 2017, 8 August 2017 and 25 September 2017. The RtS and supplementary responses included:

- amendments to the location of structures on the outer riparian corridor (in excess of 20 metres from MHWM), resulting in a fully vegetated, inner riparian corridor consisting of saltmarsh and riparian planting, except for some pathway encroachments
- additional riparian planting outside the riparian corridor within the wider site to offset the non-riparian uses in the outer riparian corridor
- provision of a mangrove rehabilitation area in the waterway to the north of the site adjoining the riparian corridor
- further clarification regarding the location of MHWM and saltmarsh planting, detailed design matters, flood mitigation works, and access and maintenance of electrical power lines.

The Department made the RtS and supplementary responses publicly available on its website and consulted with Council and the relevant agencies on numerous occasions during the assessment process. Following receipt of the RtS and further responses, Council and the agencies provided the following advice on their outstanding concerns and final opinion.

**Council** is generally supportive of the proposed foreshore landscape works, subject to suggested refinements (which can be addressed through conditions), as follows:

- staging and delivery of a bridge
- tree removal and retention
- design requirements for lighting, landscaping, pathway and playground design.

**DPI** reiterated all of its previous concerns and recommended all turf and play areas be deleted.

**OEH** reiterated its view that the proposed scheme is substantially inconsistent with the NOW Guidelines and recommended the request be refused.

## 7. ASSESSMENT

### 7.1 Impacts on riparian and aquatic environment

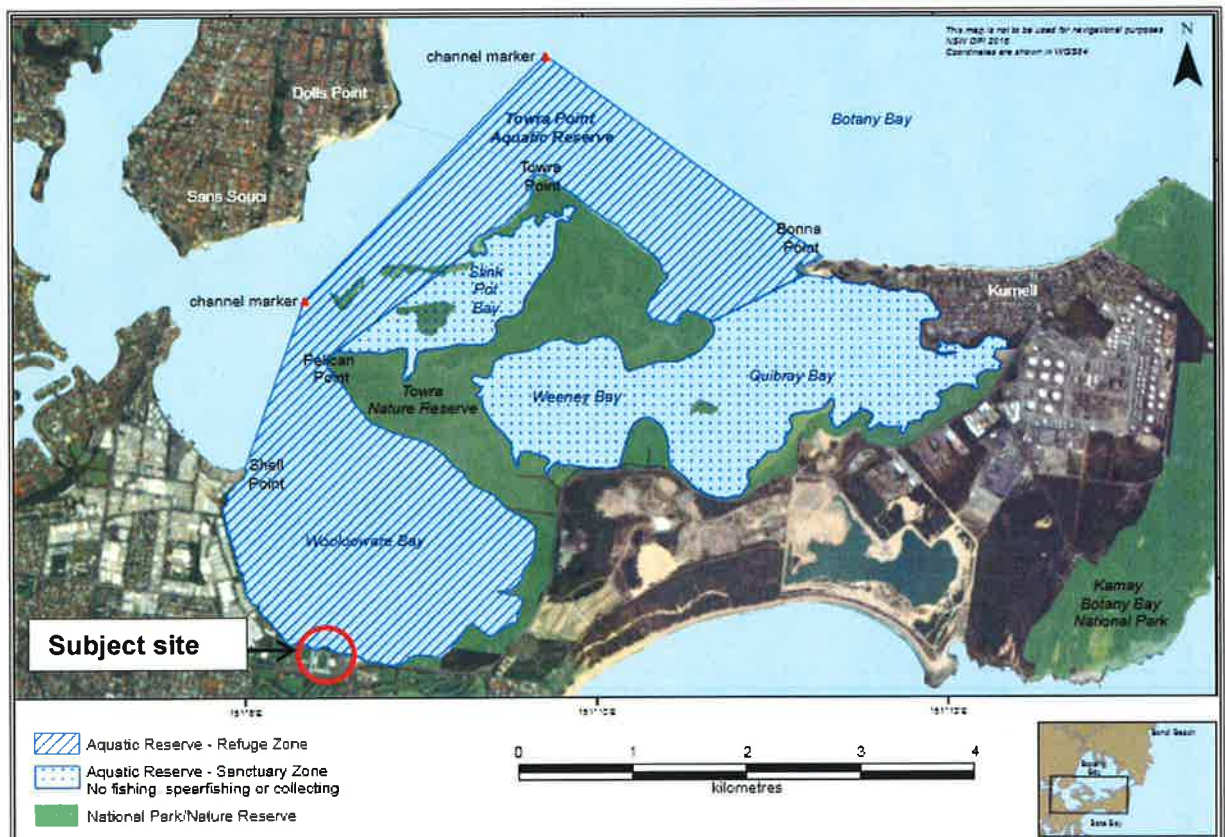
To assess whether the proposed non-riparian uses are appropriate within the riparian buffer corridor, the Department has considered the environmental values of the adjoining wetlands and TPAR, the current policy setting, and the offset requirements for the proposed works. Based on these findings, the Department has then undertaken a merit assessment of the proposed works within the riparian corridor.

#### 7.1.1 Environmental Values of the Wetlands, Current Policy Setting and Offset Requirements

##### Towra Point Nature Reserve and Towra Point Aquatic Reserve

The Towra Point Nature Reserve (TPNR) is a protected nature reserve of 603 hectares situated on the southern shores of Botany Bay. The TPNR is protected under the Convention on Wetlands of International Importance (the Ramsar Convention), and is an important breeding ground for vulnerable, protected and endangered species. The TPNR is administered by NSW National Parks and is located within 450 metres of the subject site.

The TPAR is located in the surrounding waterways. It is the largest aquatic reserve in NSW, covering 1,400 hectares. The TPAR provides important habitat for fish, invertebrates, migratory seabirds, seagrasses, and mangroves. It also protects the adjoining TPNR and is identified as a priority site in the NSW Government's marine biodiversity program. The TPAR immediately adjoins the site's northern boundary and riparian corridor (**Figure 6**).



**Figure 6** – Towra Point Aquatic Reserve and Towra Point Nature Reserve

The Department notes DPI's advice that climate change and associated sea level rise are the most significant threats to marine biodiversity within the region. To mitigate those threats, estuarine wetlands within and adjacent to aquatic reserves (such as Towra Point), need adequate riparian buffer zones to be able to retreat upslope with sea level rise. The provision



of infrastructure within riparian corridors reduces the ability to provide saltmarsh habitat which is important to provide environmental safeguards and allow for habitat to retreat upslope.

The Department, therefore, acknowledges the significant environmental values of Towra Point and considers that any changes to the riparian corridor do not compromise the environmental values of the TPNR and TPAR.

#### Policy Guidance and Applicable Guidelines

There are two key policies which provide guidance for the provision of riparian corridors. The Department has considered the applicability of the following policies to the proposed modification.

#### *1. DPI Fisheries Policy and Guidelines for Fish Habitat Conservation and Management 2013*

DPI advises that it considers the Fisheries Guidelines to be the most relevant guidance for the provision of riparian zones to protect the values of the aquatic reserve.

The policy provides that NSW DPI will generally require riparian buffer zones of 100 metres to be established for developments adjacent to TYPE 1 habitats, such as the TPAR. The policy also provides that installation of infrastructure, terraces, retaining walls, cycleways, pathways and grass verges within a riparian buffer zone shall be avoided or minimised and riparian buffer zones be clearly delineated.

DPI recommends there be no further compromises to the riparian zone by infrastructure provision, on the basis that the approved 35 to 40 metre vegetated riparian setback is already a significant compromise on the 100-metre requirement.

The Fisheries Policy is applied by DPI when it considers applications under the *Fisheries Management Act 1994* (NSW), including Part 4 integrated DAs referred to DPI. Those applications include development within aquatic reserves incorporating dredging, aquaculture or removal of marine vegetation. However, the Fisheries Policy has limited applicability to the subject Part 3A approval which involves very little development within the aquatic reserve. The Department also notes that DPI has always advised that a 40-metre riparian zone is appropriate for this site and has never sought a wider riparian zone.

The Department, therefore, considers the policy provides limited guidance relevant to the width of the riparian zone, in this case. However, the Department notes the policy provides clear guidance on avoiding or minimising the provision of infrastructure, including pathways in the riparian zone.

#### *2. DPI Water's Guidelines for Controlled Activities on Waterfront Land (NOW Guidelines)*

The Proponent has sought to include the requirements of the NOW Guidelines into the proposed amended Condition B2.

The NOW Guidelines apply to all controlled activity approvals under the *Water Management Act 2000* (NSW), including development on waterfront land. The Department, therefore, considers the NOW Guidelines provide the most relevant guidance for development of the site in relation to the provision of riparian zones.

The NOW Guidelines came into effect just before approval of the Concept Plan and, therefore, were not fully considered in detail in the assessment process. However, they have now been established for many years, and are the accepted standard for the assessment of riparian corridors for waterfront development.

The NOW Guidelines were introduced to ensure that waterfront land is protected and maintained through the provision of riparian corridors, whilst allowing flexibility in permissible uses in riparian corridors to allow waterfront land to be used for a range of activities.

The NOW Guidelines recommend a 40-metre vegetated riparian zone (VRZ) on sites fronting wetlands, and provide guidance on the provision of infrastructure within the VRZ.

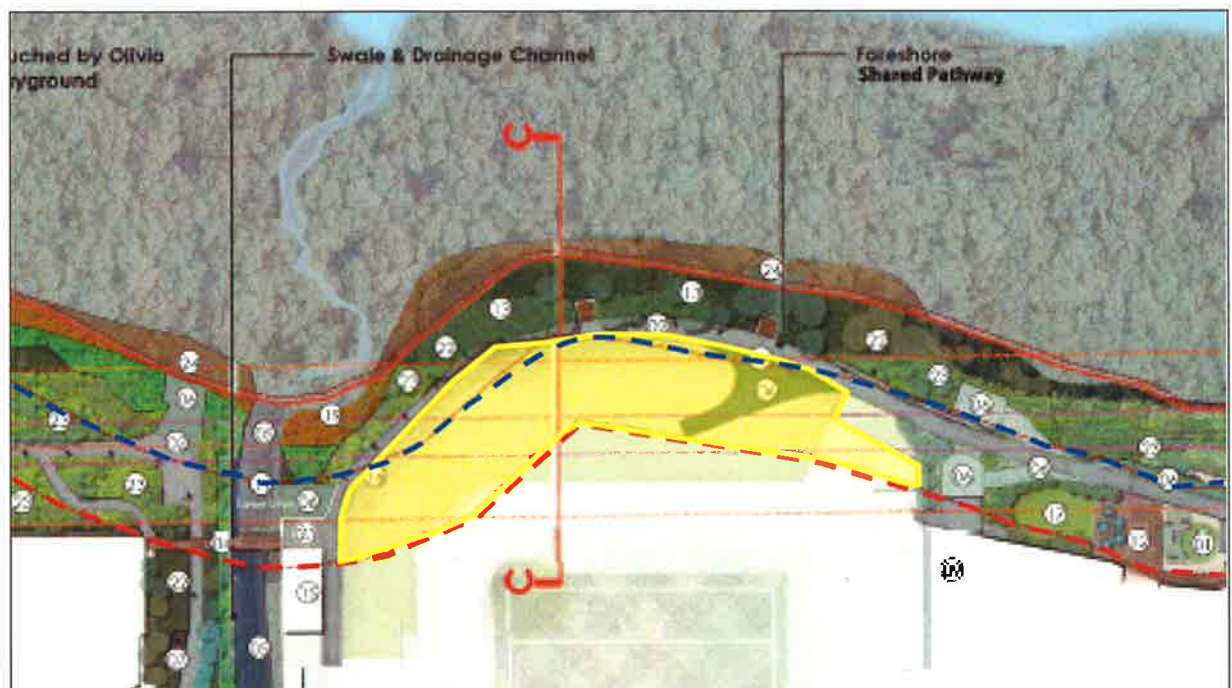
The NOW Guidelines provide that the inner 50 percent of a VRZ should be fully protected and vegetated, with cycle ways/paths and some stormwater management permitted in the outer 50 percent. The NOW Guidelines also allow some non-riparian corridor works within the outer 50 percent of a VRZ, if an equivalent area within the site connected to the riparian corridor is provided to offset the encroachment. The offset area must be fully protected and vegetated with native, endemic riparian plant species.

#### Offset Requirements

OEH and DPI have raised concerns with the proposal on the basis that it does not provide adequate offsets and is, therefore, inconsistent with the NOW Guidelines. They also raised concerns about offsetting for Family Hill and new infrastructure development.

#### *Family Hill*

The existing, tiered seating area at the northern end of Family Hill Toyota Stadium, encroaches on the outer 50 percent of the 40 metre VRZ and a small part of the inner 50 percent. The area of encroachment is 3,065 m<sup>2</sup> and is shown in **Figure 7**.



**Figure 7:** Area of Family Hill within the required 40 metre riparian corridor

The request seeks to exclude Family Hill from the riparian corridor, so it can be retained as part of the stadium, and excluded from any offsetting requirements under the NOW Guidelines.

As described above, the NOW Guidelines permit some non-riparian uses within the outer 50 percent of a VRZ, provided an equivalent offset area is included within the site.

The proposal includes on-site offsets for other proposed non-riparian uses, including the playground and turf areas, but not for Family Hill. The Proponent advises that the exclusion is on the basis that Family Hill was never intended to form part of a riparian zone despite being located within the 40-metre riparian corridor. Further, the Proponent advises that Family Hill

does not form part of the request and will continue in its current form, unaffected by the landscaping works.

OEH objects to the proposal on the basis that it is inappropriate to exclude Family Hill from the riparian corridor without appropriate offsets elsewhere on the site. DPI also advises that if Family Hill is proposed to be retained for recreation, it should be offset elsewhere on the site.

The Department acknowledges that it was always envisaged to retain Family Hill in its current state. However, the Department notes the Concept Plan Approval applies to the entire site, including the existing stadium and Family Hill. Therefore, the Department considers it is appropriate to include Family Hill within the riparian corridor to ensure the potential impacts of the development across the entire site are fully assessed.

The Department considers the significant level of development across the wider site warrants an appropriate riparian buffer along the entire length of the waterfront. The Department, therefore, considers the NOW Guidelines should be applied to the entire waterfront setback area, and Family Hill be included within the VRZ for the purpose of calculating appropriate offsets.

#### *Other non-riparian uses*

In addition to the retention of Family Hill, the proposal seeks to include new non-riparian development within the riparian zone. The proposed development, extent of encroachments, and offsetting requirements of the NOW Guidelines are set out in **Table 3**.

**Table 3: Proposed non-riparian development**

<b>Proposed development</b>	<b>Location</b>	<b>NOW Guidelines</b>	<b>Area</b>
Pathways	inner VRZ	not permitted	632 m <sup>2</sup>
Turf areas	outer VRZ	permitted with offset	1,038 m <sup>2</sup>
Recreation Infrastructure	outer VRZ	permitted with offset	1,543 m <sup>2</sup>
Permeable Paving associated with Ausgrid infrastructure	inner and outer VRZ	permitted with offset in outer VRZ	868 m <sup>2</sup>
Total Development Area	inner and outer VRZ		4081 m <sup>2</sup>

The Department notes the NOW Guidelines permit pathways within the outer VRZ without any offset and, therefore, raises no issues regarding the proposed pathways within the outer VRZ.

The NOW Guidelines do not permit pathways within the inner VRZ. The Department, therefore, considers that if pathways within the inner VRZ are approved, as a minimum requirement of the approval, the pathways should be offset.

The proposed development, therefore, generates a total offset requirement of 7,146 m<sup>2</sup>, including the 4,081 m<sup>2</sup> offset in addition to 3,065 m<sup>2</sup> required for offsetting Family Hill.

#### Proposed Offsets

The Proponent advises that the proposal includes the following riparian planting outside the riparian corridor to offset the proposed non-riparian development within the corridor (see **Figure 8**):

- 3,722 m<sup>2</sup> on site riparian planting
- 2,252 m<sup>2</sup> off-site riparian planting



However, OEH and DPI raise concerns about the above proposed offset plantings:

- DPI advises that the Proponent has included vegetation adjacent to the drainage channel in the 3,722 m<sup>2</sup> offset, compared with the area surrounding the drainage channel which was approved with, and required a vegetated riparian corridor itself. The vegetated riparian corridor is in addition to the main corridor required along the northern boundary and cannot be included as offset for encroachments on the northern corridor.
- OEH and DPI advise that the proposed off-site should not be considered an offset as it is outside the development site, on land owned by RMS and, therefore, inconsistent with the NOW Guidelines, which require offsets to be provided on-site.

The Department agrees with DPI that the riparian corridor adjacent to the drainage channel is required in addition to the main riparian corridor and it is unreasonable to consider it as an offset for encroachments on the main riparian corridor. Riparian planting in this part of the site equates to 1,946 m<sup>2</sup>, so that, effectively only 1,776 m<sup>2</sup> of on-site planting is provided to offset encroachments on the main 40 metre corridor.

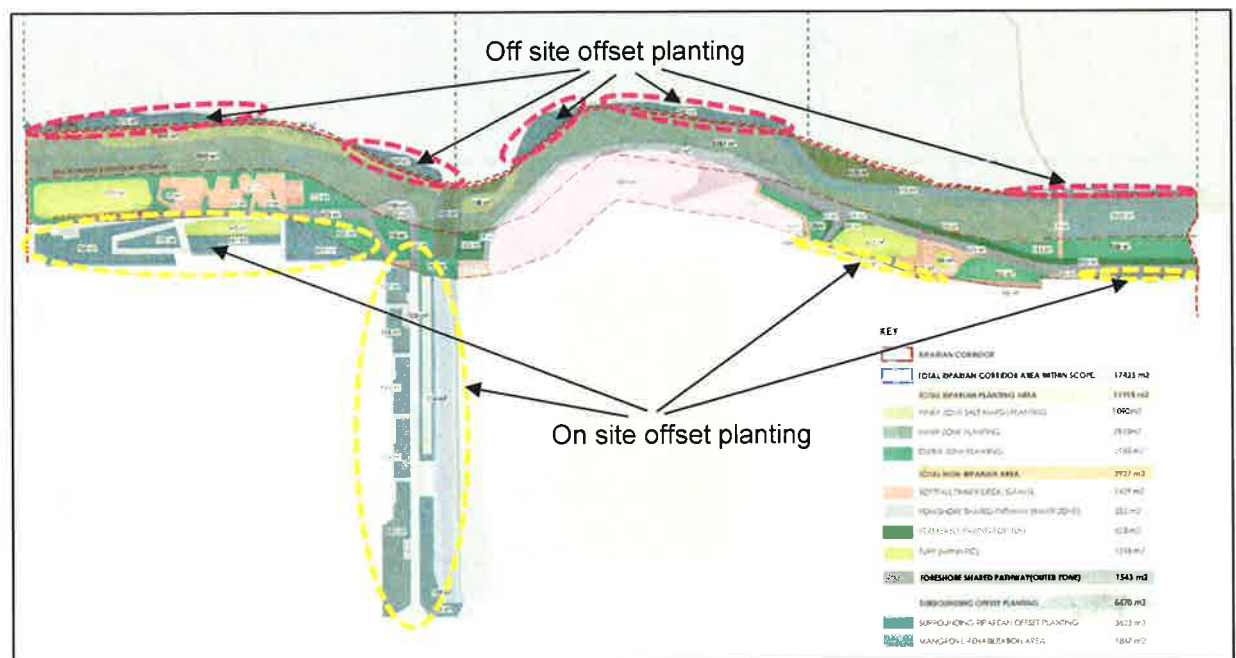


Figure 8: Location of proposed offset planting

To supplement the proposed on-site planting, the Proponent also seeks to provide off-site planting within the TPAR, subject to the consent of RMS as land owner. Rehabilitation of this area is proposed as the Proponent contends that the actual current MHWL is further to the north than the mapped MHWL, and has been degraded by weeds and rubbish dumping associated with previous uses of the land.

The Department recognises that rehabilitation of any degraded areas to the north of the site would result in positive environmental outcomes for the riparian environment and the TPAR. However, the Department considers any degradation of the land just to the north of the site boundary would have arisen due to previous uses encroaching on the boundary. Therefore, it is reasonable that the Proponent rehabilitate those areas as part of the landscaping works to remedy any damage caused by the previous use. The Department does not consider rectification of these previously degraded area gives rise to those areas qualifying as offsets for other encroachments within the riparian corridor.

### Conclusion

The Department acknowledges the significant environmental values of the site and adjoining wetlands. It also notes the NOW Guidelines provide clear guidance on the provision of riparian corridors and offsets for any non-riparian uses within the corridor.

Applying the NOW Guidelines, the Department concludes that the proposal requires offset planting of 7,146 m<sup>2</sup>, but it only incorporates 1,776 m<sup>2</sup> of on-site offset planting. The proposed non-riparian works would, therefore, not be offset in accordance with the NOW Guidelines, and would potentially result in a diminished outcome for the adjoining wetlands and TPAR compared with the Concept Plan Approval and current standards. Given the proposed works have not been offset in accordance with the NOW Guidelines, the Department has assessed the merits of the proposed non-riparian uses below.

### **7.1.2 Environmental impacts of proposed works**

#### Pathways and Access

The NOW Guidelines permit the provision of pathways within the outer VRZ without any offset and therefore no issues are raised about the proposed pathways within the outer VRZ. However, OEH raised concern with the proposed pathways within the inner riparian corridor as they are not permitted under the NOW Guidelines.

The Department notes that the partial encroachment of the pathway on the inner riparian corridor is unavoidable due to the location of Family Hill. However, the pathway has been designed to be located as far as possible from the waterway to minimise its impacts and the proposal incorporates sufficient planting on other parts of the site to offset the pathways in the inner riparian corridor.

The Department also considers the shared pathway and cycleway provide an important link to the existing shared pathway along the Woollooware Bay foreshore, resulting in improved connectivity and amenity for the community. The two, small viewing platforms adjacent to the pathway at Family Hill are also supported as part of this infrastructure. The Department also supports the inclusion of emergency vehicle access in conjunction with the pathways as it would provide an essential service.

The Department notes that DPI and Council do not object to the proposed pathways and the detailed design of the pathways can be considered during the assessment of future applications. The Department's assessment therefore concludes the encroachment of the pathways and access on the inner riparian corridor would be appropriately offset and the pathways would provide improved access along the Woollooware Bay frontage.

#### Family Hill

The proposal seeks to exclude Family Hill from the riparian corridor. The Proponent argues that Family Hill was always intended to be retained in its current form and it would be unreasonable to expect part of the existing stadium to be converted to a fully vegetated riparian corridor.

Although the proposal does not incorporate sufficient offsets for the retention of Family Hill, the Department considers Family Hill should be retained in its current form. Family Hill is an important piece of recreational infrastructure that has served the wider community for many years. It would be unreasonable to require Family Hill to be converted to a fully vegetated riparian zone, significantly disrupting the overall function of the existing stadium, particularly given no physical works are proposed in this area.

The Department also considers, revegetation of other parts of the riparian corridor, as recommended later in this report, would result in an appropriate environmental outcome for the adjoining wetlands and TPAR. The Department also notes Council raised no concerns with the retention of Family Hill and OEH, DPI did not specifically object to its retention, subject to the area being included within the VRZ for calculating offsets.

### Playground

OEH and DPI do not support the provision of the playground, within the riparian corridor. Council support the works subject to conditions ensuring the ecological function of the corridor is not compromised.

The Department supports the provision of a playground within the development site as it would provide a high level of public benefit. However, the Department raised concerns about the proposed location of the playground as it would sit underneath high voltage powerlines, within the riparian corridor in a relatively isolated part of the site. This may potentially deter future users of the facility, particularly with regard to increased electromagnetic field exposure.

As such, the Department requested the Proponent to investigate alternative sites for the proposed playground. The Proponent advised that it would be difficult to relocate the playground onto other parts of the site, given the current extent of approved works. The Proponent also argues the proposed location is the most appropriate location for the playground. However, the Proponent suggested that the Department impose a new Modification requiring, consideration of alternative locations for the proposed playground.

The Department accepts the suggested condition, and considers that alternative sites should be considered as it would be preferable to locate the playground away from the transmission lines, outside the riparian corridor in a more visible location on the site. This would ensure its use by future residents and the broader community is maximised. The Department has therefore recommended a new modification accordingly.

### Turf area

The proposal seeks approval for a large area of open turf area within the riparian corridor, under the high voltage transmission lines. OEH and DPI do not support the provision of the turf areas within the riparian corridor.

The Department notes that there are large open play areas located immediately to the west of the site which would provide an alternative recreation area for future residents. In addition, there are extensive playing fields immediately to the south of the site on the opposite side of Captain Cook Drive. The Department therefore considers residents of the development would have good access to recreational open space and the proposal does not give rise to a specific need to provide additional open space areas within the riparian corridor.

In addition, the site is constrained by the electrical transmission lines which traverse the site above the proposed turf area. The Department considers that the location of turf area close to the high voltage electrical transmission lines may deter future users from the site.

The Department also notes the proposed turf areas has not been offset and effectively split the inner riparian zone from the proposed offset planting area. This would reduce the effectiveness of the offset area to function as part of the riparian corridor. The Department considers the design is inconsistent with the NOW Guidelines which require offset areas to be connected to the riparian corridor, allowing habitat to retreat upslope with sea level rise. The Department therefore does not support the proposed turf area within the riparian corridor.

### Other landscape areas

Non-riparian landscaping is proposed adjacent to the rear of the retail centre, including two turf areas, a large mounded turf embankment and a large deck area. The Department notes the main purpose of the works is to denote the retail entrance and to activate the frontage. However, the Department considers the extent of the proposed non-riparian works is excessive given the environmental considerations for the site.

The Department notes approved the landscape plans for this part of the site (**Figure 4**) incorporate a single pathway connecting to the main foreshore path, as well as two areas of native turf planting. In light of the existing approval, the Department considers that non-riparian



landscaping in this part of the site should be restricted to a single connecting pathway, with a small amount of native turf planting on either side of the path. This would allow riparian planting to be maximised while still providing for appropriate pathways and an entry in to the retail component of the development.

#### Utility Infrastructure

The request was amended to incorporate crane pads within the inner and outer riparian corridors to facilitate Ausgrid's maintenance of electrical power lines which traverse the site. The Department notes the proposed crane pads and access thereto would be constructed of permeable paving to allow water penetration and some plantings within the pavement, thereby minimising their environmental impacts.

Department notes Ausgrid did not comment on the need for the pads following exhibition of the request will or provide evidence to confirm it requires the pads. The Department, therefore, recommends inclusion of a future assessment requirement to confirm the pads are required by Ausgrid for maintenance of transmission lines.

Subject to Ausgrid's confirmation, the Department supports the inclusion of the crane pads within the inner and outer riparian corridors, given the essential nature of infrastructure maintenance. Furthermore, construction of access structures for an electricity transmission or distribution network is permitted without consent under *State Environmental Planning Policy (Infrastructure) 2007*.

The proposal is not able to incorporate offset planting for the pads in addition to offset planting for Family Hill and access paths. Nonetheless, the environmental impacts of the permeable pads are considered acceptable, given the transmission lines span above the riparian corridor and the need to maintain essential infrastructure.

#### Conclusion

While the Department considers some development, including access ways, 'Family Hill' and essential utility infrastructure should be supported within the riparian corridor, other development, including the turf areas and other landscape areas, should not. The Department agrees with OEH and DPI's position that these works have not been offset in accordance with current policy guidance and would potentially result in a diminished environmental outcome for the adjoining wetlands and Towra Point Aquatic Reserve (TPAR) compared to the existing approval and current accepted standards.

The Department supports the proposed playground, but considers alternative sites should be investigated, as the playground is currently proposed to be located under high voltage powerlines, within the riparian corridor in a relatively isolated part of the site. The Department considers alternative site should be considered to ensure its future use is maximised.

## **7.2 Design details - planting, landform, access ways, and stormwater infrastructure**

Council and agencies raised concerns with some of the specific design details of the future landscaping. Concerns related to planting details, landform changes, pathway and road design, and stormwater infrastructure.

In addition, Council advises it is preferable that the Concept plans include a high level of detail to avoid confusion, uncertainty and debate at DA stage about what was envisaged and the quality of the outcome.

The Department considers that as the landscape plans are at a concept level only and as the plans will change significantly, given it is recommended that the playground, turf areas, and other landscaping be deleted and replaced with riparian plantings, it is therefore appropriate that the detailed design be a matter for future Development Applications.

However, the Department has considered the key concerns raised by agencies with respect to the design details and where appropriate, has recommended future environmental assessment requirements to provide further guidance for future development assessment.

#### Planting

The concept landscape plans include planting schedules which propose a range of riparian plantings. DPI raised concern that saltmarsh planting on the site has not been maximised. DPI advises the primary objective of the riparian plantings adjacent to Towra Point Aquatic Reserve is to return saltmarsh to the site to enhance the productivity of the Aquatic Reserve and therefore a commitment to plant saltmarsh on the site as a priority over other riparian plantings should be provided. Concerns were also raised that additional mangrove planting should not occur along the northern boundary if this activity requires removal of sediment to achieve an appropriate tidal height for mangrove growth. Council made very specific recommendations for species selection, planting densities and irrigation.

The Department notes that final planting details will be considered as part of a future development application and the Department therefore recommends a future environmental assessment requirement that final landscape plans and planting details be designed to maximise saltmarsh planting in consultation with DPI. The Department considers all other planting, species, density and irrigation details are a matter for determination by Council at the DA stage in consultation with DPI. The Department also recommends the Vegetation Management Plan be updated to reflect the changes to the landscape scheme.

#### Landform changes

The existing landform includes a level car park area and level playing fields which drop steeply down to the mangrove wetlands. The proposal includes recontouring of the landform to provide a more gradual slope rising from the mangroves.

The revised request also proposes to make changes at the northern boundary of the site. Specifically, it is proposed to remove fill and sediment to reinstate the previous mean high-water level along the site boundary, as the existing mean high water level does not correspond to the surveyed boundary.

The Department is supportive of the provision of a more gradual landform slope as the design would allow habitat retreat in association with sea level rise, which is considered essential for maintaining biodiversity and the wetlands in the long run.

However, the Department also notes concerns raised by DPI that sediment should not be removed just to lower the MHWL or to achieve additional mangrove planting along the northern boundary. Rather, DPI recommends that the existing MHWL should be retained and areas above high tide be planted with saltmarsh as discussed above. The Department also notes that removal of sediment in some of these areas may require removal of existing mangroves and riparian vegetation which is not supported.

The Department considers there is no need to remove sediment just to achieve a mean high watermark consistent with the existing surveyed boundary, or to achieve additional mangrove planting. Rather, any changes to the landform should be designed to ensure the best long term environmental outcomes for the riparian corridor and therefore should:

- maximise saltmarsh planting,
- provide a gradual landform slope as far as possible, and
- retain existing mangrove and riparian vegetation where possible.

To guide the assessment of future Development Applications, the Department recommends a future environmental assessment requirement, to ensure changes to the landform are designed in accordance with the above principles.

### Pathways and access design

Council and DPI raised concerns about the design of the pathways and access including:

- DPI advises pathways and access roads should be constructed of permeable material and constructed at minimum widths required, however Council considers pathways should be widened to a minimum width of 3.5 metres and should be constructed of concrete paving
- boardwalks through the mangroves should be designed and constructed to avoid or minimise impacts through the boardwalk
- as the foreshore area will be owned and managed in perpetuity the Strata Corporation of the adjoining apartments, an easement will be required in favour of Council to ensure the bike path and accessways will be publicly accessible.

The Department considers the final design of the pathways and associated infrastructure should be determined balancing the environmental impacts to the riparian corridor and the adjoining wetlands and the need to provide safe and useable public access way. The Department considers the final design of the access pathways, boardwalk, and the need for an easement are matters that can be determined by Council at the development application stage. Council, as the responsible authority for delivering and maintaining most access pathways in the local area, is best placed to make final design determinations in this regard. The Department also notes existing condition 20 requires mangroves not be harmed in upgrading the mangrove boardwalk.

Council also raised a concern regarding the timing of delivery of the pedestrian bridge over the drainage channel connecting Stage A2 with Stage B. As the bridge is a critical element in the flood evacuation strategy for the residential precinct, Council has requested a condition requiring the bridge be delivered as part of Stage A2, rather than being delayed to Stage B. The Department agrees with Council and has therefore included a condition to specify the required timing for delivery of the bridge.

### Stormwater Infrastructure

The proposed modification includes details of the design of the drainage channel, and the sequencing of flood mitigation works associated with the Stage 3 residential DA.

Council initially advised it does not support the shoring along the drainage channel by sheet pile method and advised its preferred design outcome is a batter slope.

However, the Proponent considers the sheet pile method a better design option as it would minimise the risk of exposing of contaminated soil and electrical cables, and reduce maintenance issues associated with the distribution of debris during tidal movement. The Proponent investigated design options to mitigate the visual impact of the proposed sheet piling including planting along the top of the sheet piling that includes ground cover and other similar vegetation that will spill over the wall, and stepping the sheet piling so that planting can be incorporated between each step.

Council subsequently raised no further concerns regarding the detailed design of the drainage channel and advised the detailed design of the channel has been resolved through plans and conditions associated with the Stage 3 residential Development Application.

DPI also raised an issue in relation to stormwater management, advising that the saltmarsh areas are not to be considered a buffer for the mangroves to improve water quality any runoff into the saltmarsh areas should already be treated.

In response, the Proponent has advised that saltmarsh will not be used as a mechanism to filter or treat stormwater runoff and that expert advice from project stormwater engineer has confirmed that water quality targets will be met before stormwater is discharged into the saltmarsh areas.



The Department is satisfied that the design of the drainage channel, flood mitigation and stormwater infrastructure works can be adequately addressed at the DA stage.

## 8. CONCLUSION

The Department has assessed the modification request and supporting information in accordance with the relevant requirements of the EP&A Act.

The Department has considered the environmental values of the adjoining wetlands and TPAR, current policy settings and the offset requirements for the proposed works. Based on these findings, the Department considers some development, including access ways, 'Family Hill' and essential utility infrastructure can be supported within the riparian corridor.

However, other development, including the proposed turf areas and other landscape areas, should not. These works have not been offset in accordance with current policy guidance and would potentially result in a diminished environmental outcome for the adjoining wetlands and Towra Point Aquatic Reserve (TPAR) compared to the existing approval and current accepted standards.

The Department has also recommended a new Modification requiring the Proponent to consider alternative locations for the proposed playground. While the Department support the proposed playground, alternative sites should be considered away from the transmission lines, outside the riparian corridor and in a more visible location. This would ensure its use by future residents and the broader community is maximised.

The Department therefore considers that the project is approvable, subject to the majority of the riparian corridor being vegetated in accordance with the then Planning Assessment Commission's original recommendation. This assessment report is hereby presented to the Commission for determination.

Recommended by:



Anthony Witherdin  
**Director**  
**Modification Assessments**

Recommended by:



Anthea Sargeant 7/3/18  
**Executive Director**  
**Key Sites and Industry Assessments**