

Woolooware Bay Town Centre section 75W (Landscaping Amendments) – Further Response to Submissions

Response to Department of Primary Industries

Comment	Proponent's Response
The proponent has not adequately addressed the issue of the protection of the Towra Point Aquatic Reserve through the provision of buffers and offsets.	As noted in the submitted Response to Submissions (RtS) report, the proposed scheme creates a substantial riparian buffer where currently there is no buffer at all, and minimal or no ecological functioning. The proposed landscaping scheme incorporates a variable 40 metre wide buffer and 3,623m² of offset planting as well as a 1,847m² area of mangrove rehabilitation to provide protection to Towra Point Aquatic Reserve.
	The landscape concept plan shows that a total of 11,955m² of riparian planting can be accommodated within the buffer, which is 69% of the total area. In addition to this, 1,090m² of saltmarsh planting will also be provided. Through the combination of offset, riparian and saltmarsh planting, the proposed landscaping scheme will substantially increase biodiversity along the foreshore over current circumstances, and will ensure that the ecological values of Towra Point Aquatic Reserve are protected and enhanced.
DPI re-iterates the protection and enhancement of the biodiversity and productivity values of Towra Point Aquatic Reserve should be achieved by adhering to the requirement of a 40 metre vegetated riparian setback and/or relevant offsets.	As noted above, a variable 40 metre buffer incorporating 11,955m² of vegetation and 3,623m² of offset planting has been provided, in addition to 1,847m² of mangrove rehabilitation. Viewed holistically, this extensive provision of riparian planting and commitment to mangrove rehabilitation will protect and enhance the biodiversity and productivity values of Towra Point Aquatic Reserve.
	The Ecological Assessment Report submitted with the RtS Report found that the proposed planting will result in an improved ecological outcome in relation to both the biodiversity and productivity values of Towra Point Aquatic Reserve.
	The proposed landscaping and the appropriate treatment of stormwater will ensure that existing vegetation adjacent to the site is protected and local fauna are provided with additional habitat. The proposed scheme has been prepared in recognition of the significance of Towra Point Aquatic Reserve, and provides a significant and substantial improvement over current circumstances on and adjacent to the site (as documented in the Ecological Assessment Report submitted with the RtS Report). Active management of the foreshore area throughout the occupation of Woolooware Bay will ensure that the ecological significance of the area is maintained.

Comment **Proponent's Response**

It should be noted that this 40m is a significant compromise on DPI Fisheries Policy and Guidelines for Fish Habitat Conservation and Management (2013).

The proposed landscaping scheme provides a variable 40 metre wide buffer, consistent with the determination of the Department of the 100m riparian setback for aquatic reserves recommended in Planning and Environment and the Planning Assessment Commission in the original Concept Plan (MP10 0229).

> Development in accordance with the building envelopes approved under the Concept Plan has commenced on the site. There is therefore no ability to achieve a 100 metre setback on the site, nor is this likely to be a realistic, reasonable or achievable outcome on any site within the Woolooware Bay catchment.

> In addition to this, the ecological advice submitted in support of the RtS report demonstrated that a 100 metre setback is not inherently necessary to achieve the desired ecological outcomes. This finding was supported by field work undertaken in the surrounding area, which illustrated that satisfactory ecological outcomes have been achieved elsewhere in the area where setbacks of much less than 100m, and less than 40m. have been provided.

As noted above, DPI Fisheries notes that "the mangrove forest in Towra Point Aquatic Reserve adjacent to this site is mostly in excellent condition" - despite a total lack of any riparian buffer or appropriate management.

The variable 40 metre buffer is maintained in this application in accordance with the approved Concept Plan (as proposed to be modified) and has been designed to ensure general compliance with the Policy and Guidelines for Fish Habitat Conservation and Management (2013) as well as the NSW Office of Water Guidelines for riparian corridors on waterfront land ('the NOW Guidelines').

Comment	Proponent's Response
Buffers	
There is a 70 m section of the foreshore adjacent to the retail loading dock where the vegetated riparian corridor must be a minimum of 35m wide, this should also be uninterrupted vegetation to allow for habitat connectivity with the reserve.	A 35 metre buffer is provided adjacent to the retail loading dock, in accordance with the approved Concept Plan. The majority of this area will be comprised of riparian and saltmarsh planting, with the exception of the pathway. This pathway is essential to maintain access and connectivity along the foreshore. As outlined in the RtS report and accompanying documentation, the proposed modification seeks to establish a landscape Concept Plan that is generally in accordance with the NOW Guidelines; and which provides an environmental outcome that is superior to the current
	The proposed planting (to be detailed in future separate applications) will provide habitat connectivity along the foreshore and within Towra Point Aquatic Reserve (where no such connectivity now exists) by providing an increased area of native vegetation with a direct connection to both the existing mangroves, as well as the additional planting to be provided as part of the proposed landscaping. This is a significant and substantial improvement on the current environment where there is minimal or no ecological value.
Offsets	
Where interruption of the vegetated setback is to occur, all offsets should be located on the proposal site, should be connected to the riparian corridor and should not be located on land beyond the Mean High Water (i.e. not out into the bay).	3,623m² of offset riparian planting will be provided as part of the proposed landscaping, as well as a 1,847m² mangrove rehabilitation area connected to the riparian corridor. Whilst the location of some of the offset planting and mangrove rehabilitation is a variation on the desire expressed by DPI, this offset planting nonetheless provides environmental benefit as it will increase biodiversity in the area and contribute to the preservation of Towra Point Aquatic Reserve. Overall, 2,175m² of offset planting is provided in excess of the required offsets under the NOW Guidelines.
Saltmarsh	
There should be a firm commitment to plant saltmarsh on this development site and to formally determine designated saltmarsh areas, including what is required to obtain the optimal levels for saltmarsh survival. There also needs to be allowances for saltmarsh moving upslope with sea level rise.	The supplementary plans prepared by Habit8 outline that there is adequate area for saltmarsh to move upslope in the event of sea level
	rise, especially given the relatively gentle slopes above the designated areas of saltmarsh.
	Planting of saltmarsh has been carefully considered by the proponent and the project team in recognition of the important function of this vegetation in maintaining biodiversity in the area. The proponent commits to ensuring that all measures are explored and implemented to support the growth of saltmarsh on the site.
	These measures are being developed in consultation with expert ecologists and will be detailed as part of the future separate detailed application for approval of the landscaping works.
Saltmarsh areas must not be considered a buffer for the mangroves to improve water quality. The runoff into the saltmarsh areas should already be treated.	Where saltmarsh is provided, it will not be used as a mechanism to filter or treat stormwater runoff. Expert advice provided by the project stormwater engineer has confirmed that water quality targets will be met before stormwater is discharged into the saltmarsh areas.

Comment	Proponent's Response
Saltmarsh will not survive below the MHW but the plans indicate	As part of the amended landscape plans, the applicant commits to mangrove rehabilitation below the MHWM. As a result, saltmarsh planting will only occur above the MHWM and at the optimal level for saltmarsh growth.
Other	
Where boardwalks are to be located through mangroves, harm of mangroves should be avoided or negligible.	This comment is noted. Works to construct the proposed mangrove boardwalk will seek to minimise or avoid impacts on existing mangroves by careful location and design in consultation with appropriate experts.
Sheet piling should only occur adjacent to the substation.	Sheet piling is proposed to occur along the length of the drainage channel to ensure that adequate flood mitigation measures are in place prior to the occupation of Stage 3 of the residential development. To achieve this outcome, sheet piling is required along the length of the channel and has been selected to minimise excavation of contaminated soil. The provision of this flood mitigation measure has been discussed extensively with Sutherland Shire Council following submission of the Stage 3 Residential DA and represents the most appropriate outcome for the site. A number of design options will be investigated as part of the future detailed landscaping application to achieve a positive outcome for the sheet piling, including but not limited to: Incorporating planting along the top of the sheet piling that includes ground cover and other similar vegetation that will spill over the wall, creating a 'green wall' effect; and stepping the sheet piling so planting can be incorporated between each step.
The proponent should advise why swale planting is proposed within the inner riparian area, and why it is proposed to be established to the north of the proposed saltmarsh planting.	Swale planting has been relocated to be generally within the outer riparian zone and will now be provided to the north of the all-abilities playground.
The proponent should provide details on the total inner and outer riparian areas, and the total encroachment by pathways into the inner riparian area.	A detailed breakdown of all riparian planting and non-riparian planting was provided at Section 4.1 of the submitted RtS report and has been updated to reflect the amendments to the proposed landscaping scheme (refer to Table 1 of the covering letter). This calculation provides the total area of the riparian corridor, riparian planting, pathways, non-riparian planting and offset planting in accordance with the NOW Guidelines and is derived from the submitted Concept Landscape Masterplan prepared by Habit8.
There are large inconsistencies between the various reports and plans including the size of the area of saltmarsh and other riparian vegetation to be planted and where the different types of vegetation are to be planted. Correct and consistent figures, maps and plans needs to be provided.	As noted above, a detailed breakdown of all planting and non-riparian uses was provided in the submitted RtS report and has been reproduced to reflect the updated landscape plans. These figures are derived from the Concept Landscape Masterplan prepared by Habit8 submitted for approval.
The proponent should provide details of the dimensions of the extended access road. The pathway and access roads should be constructed of permeable materials and be constructed at the minimum widths required.	Detail of all pathways, including the extended access road, is provided in the indicative drawings at Attachment C of the covering letter. Detail of construction materials will be provided as part of the future development application.

Response to Office of Environmental and Heritage

Comment	Proponent's Response
OEH maintains the view that a fully vegetated riparian buffer of at least 40m is required to ensure protection of the high biodiversity values of the adjoining foreshore wetlands of Woolooware Bay. As previously advised, the riparian buffer setbacks required by Concept Plan approval condition B2 specify that 'any departure from the 40m (vegetated riparian) buffermust be minimised'.	The proposed buffer is a variable 40 metres, in accordance with Condition B2 of the Concept Plan. This buffer has been designed to achieve consistency with the NOW Guidelines, in turn providing for significant community benefits as well as ecological improvements. Extensive vegetation has been provided within the buffer to ensure that the biodiversity value of Towra Point Aquatic Reserve is protected and maintained. Furthermore, planting and mangrove rehabilitation will be provided to offset any non-riparian uses within the buffer as required under the NOW Guidelines.
OEH does not concur with the RTS statement (presumably based on the opinion of Gunninah Environmental Consultants) that 'a prescribed riparian buffer is not inherently necessary for the treatment and management of stormwater and mitigation of any subsequent impacts on aquatic habitat.'	Fieldwork and a study of existing conditions in the Woolooware Bay area by Gunninah Environmental Consultants has determined that the quality of riparian planting and associated landscaping are key to managing stormwater and ensuring that any impacts on aquatic habitat are minimised, rather than providing a buffer that meets a numeric standard. Consistent with this advice, the landscaping scheme incorporates a variety of riparian planting and other landscaping elements to ensure that stormwater is appropriately treated and that any impacts on Towra Point Aquatic Reserve are minimised.
 In addition, around 300m² of the 'Family Hill' area within the VRZ has been excluded from the riparian corridor. The proposed exclusion of the 3,065m² 'Family Hill' area from the riparian corridor is not 	Shared pathways and boardwalks are provided to facilitate access along the foreshore for future residents and members of the community. In particular, the cycleway provides an important connection between the existing cycle path that will connect Cronulla through to Homebush. As noted in the submitted Response to Submissions report, the constraints of the site make it unavoidable that small segments of pathway are provided within the inner 50% of the buffer. This is as a result of the need to provide Ausgrid access to their easement as well as to provide continuous access along the foreshore without encroaching on Family Hill. The updated scheme has reduced the area of pathways within the inner zone to a total of 632m² and it is noted that the extensive amount of offset planting and mangrove rehabilitation to be provided adequately compensates for any encroachment into the inner riparian zone. As noted in the submitted Response to Submissions report, Family Hill does not form part of the foreshore landscaping works. This is because Family Hill is an important part of the stadium that is utilised by spectators on match day and was never intended to be included within the considerations of a buffer. To protect the safety and security of the stadium, the northern perimeter of Family Hill is secured by a fence. As a result of this existing use, any encroachment to Family Hill has not been considered as it would compromise the existing use of the area as well as the security of the stadium.

Comment Proponent's Response

- OEH recommends the necessity '...to maintain access to their (Ausgrid) existing easement and assets' via the proposed pathways be discussed with Ausgrid. It should be noted that access to transmission lines in the eastern half of the site does not appear to require new pathways.
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In the eastern portion of the site, the pathway provides Ausgrid with access to their substation located adjacent to the existing stormwater

Non-riparian uses proposed within the outer riparian buffer are not appropriately or adequately offset elsewhere within the development site. Only 2,748m² of the outer riparian zone is proposed to be vegetated. Offsetting of non-riparian uses within the remaining 8,742m² of the outer riparian zone (which includes the 'Family Hill' area) is limited to 3,524m² 'of native planting...(in land) adjoining the riparian buffer'. As noted previously by OEH, around half of this 'land' (1,847m²) is outside the site area, below the mean high water mark (i.e. under water during high tides), and owned by Roads and Maritime Services (i.e. not the proponent).

Offset planting is required for all non-riparian uses within the buffer zone, including non-riparian vegetation, recreation infrastructure and permeable paving for grass but excluding pathways in accordance with the NOW Guidelines.

There is a total of 3,295m² of non-riparian uses within the buffer zone (excluding all pathways) and 5,470m² of planting and a mangrove rehabilitation area will be provided to offset this. This results in 2,175m² of excess offset planting and rehabilitation works and is detailed in the covering letter. Whilst some of this planting is located on land owned by Roads and Maritime Services, it is directly connected to the riparian corridor and will achieve the environmental benefit the NOW Guidelines seek to promote, therefore is deemed to be acceptable.

As noted above, Family Hill is and always has been excluded from the application to protect the existing use of the stadium.

While providing some minor improvements to the previously proposed landscaping amendments, OEH considers the revised landscaping amendments to remain in substantial conflict with the Riparian Guidelines. OEH recommends DPE refuse the proposed modifications to the Concept Plan.

In preparing the original RtS, the proponent has undertaken a significant redesign of the landscaping scheme to adhere to the NOW Guidelines where possible, whilst continuing to provide the significant benefit that the foreshore park, all-abilities playground and cycle path will bring to the wider Sutherland community. These principles have continued to guide the revised landscaping scheme submitted for approval. Riparian planting will be provided for 69% of the total riparian corridor area, with non-riparian uses to be designed to be sympathetic to the sensitive ecological environment of Towra Point Aquatic Reserve.

Response to Sutherland Shire Council

Comment	Proponent's Response
Councils key concern in its review of the proposed MOD is to ensure that the documentation submitted is consistent with (albeit at a different level of detail) the works the applicant is seeking approval from Council as part of the Stage 3 Residential development (DA16/1068), as the area the subject of the DA overlaps with the area relevant to the MOD.	Noted.
The Concept Landscape plans submitted to the DPE comprises two components – namely the Landscape Concept Masterplan and the Illustrative Landscape Pans (DPE website titles). From discussion with the proponent, it is understood that the Illustrative Landscape Plans are for information purposes only and will not form part of the plans referenced as part of the modified Concept Approval.	Correct. The proponent is seeking consent for the plans included as part of the Landscape Concept Masterplan, no approval is sought for the indicative plans provided. The indicative plans have been provided to assist the Department with their assessment of the modified landscaping concept.
Council is seeking clarification from DPE in terms of what relevance these plans have. For example, Drawing No. L006 shows a proposed sheet pile wall along the side of the drainage channel. This wall is not Council's preferred outcome for the drainage channel, with the applicant having been advised that a gentle batter slope is preferred.	It is clarified that the complete package of Landscape Concept Plans is sought to be approved, superseding the existing approved plans as relevant. As set out above, and separately conveyed to Council, the proposed sheet pile wall provides the most suitable solution for managing flooding on the site without significantly compromising the existing ground level and therefore impacting contaminated soil.
The issue of the sheet pile wall versus the batter slope is further exacerbated by the cross-sections shown in the Concept Landscape Masterplan set. Cross-sections D and F (plan reference L007 and L008) show a batter slope in one part of the channel and the shored wall on the other (respectively). The plans are therefore contradictory. It is noted that these sections are not proposed to form part of the plan amendments the proponent is seeking under Condition B1. This is despite the fact that plan L005 (which is listed in Condition B1) has the subject cross-sections shown on it.	as part of this modification application. The sheet pile wall (shored wall) will terminate to the south of the pedestrian bridge (shown in Section D). As a result, the plans are not contradictory.
Council is querying the reason why the complete set of plans contained in the Concept Landscape Masterplan (as opposed to a select few) are not intended to form the new Concept Approval plans (Condition B1). There is considerable supporting information in these plans that Council would like to incorporate as part of the approval.	

Comment	Proponent's Response
Flooding	
The proposed lower bridge across the drainage channel has not been included in the flood model submitted to Council with DA16/1068. Final design parameters of the bridge would need to be confirmed by the flood consultant (WMAwater) to ensure that they do not adversely affect flood behaviour prior to Council accepting this design. The proposed MOD drawings in this regard are therefore indicative only or should be modified once flooding design parameters are determined.	Noted.
the approvals the proponent is seeking. Failure to do so will result in further MOD applications to regularise works that are no longer consistent. The key issue to finalise first is the flooding. Once the extent of works required to the channel has been approved, the landscape treatment of the channel and associated foreshore / riparian area can be confirmed.	Flood mitigation works to the existing stormwater channel comprising sheet piling are being undertaken as part of the Stage 3 DA currently under assessment. The proposed sheet piling has been shown in the Landscape Concept Masterplan for completeness and the works will not be inconsistent with the Concept Plan (as proposed to be modified). This has been conveyed separately to Council through the assessment of the Stage 3 DA.
NSW Office of Water Guidelines	
The NOW Guidelines require that non-riparian uses are generally excluded from the inner 20m of the 40m riparian zone. The proposed Concept Landscape plans generally comply with this guideline, in that play areas, turfed areas, shade structures and BBQs are located outside this inner 20m zone. While walkways and cycleways are located within the inner 20m, these are permitted under the NOW guidelines.	Noted.
	Noted.

Comment	Proponent's Response
The electricity easement that runs through the park restricts the size of trees that can be planted in the riparian zone. By placing turfed area and playground etc within the 40m riparian zone, under the HV lines and off-setting this by planting trees to the south of the HV lines outside the 40m riparian zone, a greater height and diversity of tree species can be achieved.	
In balancing the encroachments into the 40m zone against the offsets provided beyond the 40m riparian zone, the proposal is positive in terms of the overall environmental benefits.	Noted.
Amended Landscape Concept Masterplan	
	Noted. The matters raised by council are detailed and will be addressed in the future separate application for the approval of the landscaping.
	Noted. This information is a detailed landscaping feature and further information will be provided with the future separate application for the landscaping.
Timing of Landscape Works	
undertaken as part of DA16/1068 (Stage 3 Residential), rather	As outlined previously to Council, a holistic approach is being adopted for the design and delivery of landscaping on the Woolooware Bay site. This approach has been discussed with Council over a number of years. The landscaping between the townhouses and drainage channel will be included in the wider landscaping application. This will ensure that an integrated approach to landscaping is achieved, and the timing of the works is reflective of the staging of development across the broader site.
In addition, the salt marsh area and banks in front of the townhouses must be stabilised quickly after the works are completed.	Noted.

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The proposed plant schedule is not appropriate and alternative species should be required. Council has advised the proponent of these requirements and can make the revised schedule available to the DPE if it requires.	Proponent's Response The final planting schedule will be provided with the future separate application.
Vegetation Management Plan	
The previous VMP was dated February 2013 and has not been updated. The proponent has previously been advised by Council that this requires updating to reflect changes to the proposed landscape scheme. The VMP is critical for long term management of what will be a publicly accessible space. Close coordination between the VMP and the plant schedule in the landscape plans is also required.	The Vegetation Management Plan (VMP) is a moving document, updated as necessary throughout the development process. Given the need to more comprehensively update the VMP pending the future landscaping scheme to be submitted under a future separate application, it is more appropriate that the VMP is updated at that time.
Gunninah Ecological and Environmental Outcomes & Assessi	ment
Concern is raised in terms of the accuracy of the report. For example, the plan included between pages 1 and 2 from Aspect Studios is a superseded plan. The plan is no longer relevant to the report or the project.	The plan from Aspect was included as reference to demonstrate how the scheme now proposed has been modified from what originally submitted.
The report is silent regarding any detail or plan concerning which trees are proposed to be removed or retained, particularly with respect to the mangroves. This same issue has been raised with the Stage 3 Residential DA (DA16/1068).	This is a detailed matter which is being addressed separately under the Stage 3 DA.
Easement	
Approvals granted to date state that the foreshore park will be owned and managed in perpetuity the Strata Corporation of the adjoining apartments and that the foreshore bike path and park will be publicly accessible. This will require the establishment of an easement or another form of instrument in favour of Council facilitating public access. A condition should be included stating this requirement.	Noted, this is a detailed matter which can be conditioned as part of any future separate application for the landscaping.

Comment	Proponent's Response
Amendment to Conditions	
The proposed plan amendments for B1 outlined in the JBA Response to Submissions Section 75W to Concept Plan (MP10_0229) are not acceptable at present. This is on the basis of the points raised above with respect to the inconsistency of works in the channel and the potential for change to the excavation and landscape works adjacent. Whilst it is appreciated that the Concept Approval is reasonably high level, there needs to be a degree of certainty for Council in what is being approved.	The proposed Landscape Concept Plans are considered suitable and appropriate.
Clarification is also sought regarding plan L012. The Concept Landscape Masterplan drawings are number L002 – L0011 and the Illustrative Landscape Plans are numbered L002 – L007. Has the plan been accidentally omitted from the MOD or is the L012 plan reference by JBA an error?	
Summary	
Overall, Council is supportive of the proposed foreshore landscape works, subject to some suggested minor refinements.	Noted.
Resolution to the flooding works to the channel as part of DA16/1068 should in turn enable resolution of the landscape works in this area. How this is coordinated in terms of the timing of the proposed MOD is a matter for the DPE to consider.	Noted. As outlined separately to Council, the proposed sheet piling of the drainage channel is the most suitable solution, therefore is appropriate to be reflected on the Landscape Concept Plans.
Clarification regarding the extent of documentation and detail that will form part of the modified Concept Approval is sought. In the absence of any further plans and information, Council requests to have its concerns addressed by conditions in the modified Concept Approval to ensure that a quality, coordinated outcome is achieved.	