



Woollooware Bay Town Centre section 75W (Landscaping Amendments) – Response to Sutherland Shire Council Submission

Key Issue	Response
<p>Council has no objection to the configuration of the foreshore area being changed to facilitate greater passive recreation activity if it can be demonstrated that the primary purpose of the vegetated riparian buffer envisaged under the Concept Plan can still be achieved. Council sees the key benefits of the vegetated riparian buffer being:</p> <ul style="list-style-type: none"> the management of stormwater discharge and surface flows; the provision of a physical barrier to the adjoining wetland for its protection, and the provision of habitat for fauna. 	<p>The amended landscaping scheme retains a 40 metre wide riparian corridor, the inner 50% of which is vegetated (with the exception of some small segments of path) with riparian planting. The remainder of the riparian corridor is a mixture of riparian and non-riparian planting, as well as recreational facilities such as a playground and BBQ area. This is in accordance with the NSW Office of Water (NOW) <i>Guidelines for riparian corridors on waterfront land</i> ('the NOW Guidelines').</p> <p>All planting within the area has been deliberately selected to achieve the objectives of a riparian corridor, being to:</p> <ul style="list-style-type: none"> Appropriately manage stormwater discharge and flows. Provide physical protection to the adjoining mangroves and Towra Point Reserve. Provide a habitat for existing fauna. <p>The proposal includes measures to ensure that stormwater discharge and surface flows are appropriately managed, as well as provides substantial additional habitat for native fauna on land which currently does not provide any habitat for native fauna.</p> <p>In addition to this, recreation infrastructure has been deliberately designed to ensure that the objectives of the riparian corridor can be met. To offset this, riparian planting has been provided where possible and in excess of the amount required to offset the non-riparian uses.</p>
<p>The Director-General's Environmental Assessment report dated June 2012, prepared by the (then) Department of Planning and Infrastructure, originally recommended approval of some minor works within the buffer zone. The following comment was made:</p> <p><i>"provision of boardwalks and structures such as bio-swales within the riparian corridor is supported where they do not negatively impact upon the function of the riparian corridor"</i></p> <p>It would be relevant to apply the above principle to determine the acceptability of the proposed works within the riparian zone, i.e. additional works within the riparian zone should only be deemed acceptable where they do not negatively impact upon the function of the riparian corridor.</p>	<p>To determine whether works within the riparian corridor would not negatively impact upon its function, the ecological assessment prepared by Gunninah interrogated the rationale for specifying a particular width for riparian corridors as well as present environmental conditions around Woollooware Bay.</p> <p>The specialist ecological advice provided by Gunninah suggests that a prescribed riparian buffer width is not inherently necessary for the treatment and management of stormwater adjoining aquatic environments, nor is a particular width necessary to mitigate any impacts on aquatic habitat. Instead, it is considered that the quality of riparian planting within a riparian buffer will have the greatest impact on adjoining aquatic environments. Further to this, fieldwork undertaken around Woollooware Bay demonstrates that the existing aquatic environment, comprising both the mangroves and Towra Point Aquatic Reserve, remains in good condition despite the presence of relatively small riparian buffer areas.</p> <p>As a result of this finding, the amended proposal provides significant riparian planting within the inner riparian buffer comprising a number of species which have been deliberately selected as they are complementary to the existing Coastal Saltmarsh and Swamp Oak Floodplain Forest vegetation communities, or are well represented in similar areas on the Kurnell Peninsula. The plants have been selected for their riparian qualities and comprise a total of 11,464m². In addition to this, 3,524m² of offset riparian planting is also provided as part of the proposed works.</p>

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	<p>It is considered that both the quality and quantity of the planting proposed will ensure that the function of the riparian buffer – to protect the adjoining aquatic environment – will not be compromised. Further to this, all structures proposed within the outer riparian buffer will be constructed using materials that maximise permeability and will be designed to allow the appropriate flow of stormwater through the site.</p>
<p>The proponent has not provided any quantifiable data to demonstrate that the presence of structures, paths, picnic facilities, playground equipment and grassed areas will not have a negative effect on ensuring that the riparian zone can achieve its intended functions. In the absence of this information, the precautionary principle should be applied, and the vegetated riparian zone should remain primarily vegetated, as per the original approved concept landscape plan. A less formal and more natural foreshore landscaped space would appear the most logical way to maximise the functionality of a vegetated riparian buffer.</p>	<p>In accordance with NOW Guidelines, the inner riparian zone is proposed to be primarily vegetation with the exception of some small encroachments and the design of the foreshore park has been amended to be of a less formal and a more natural landscaped space. This design has been informed by the specialist ecological advice prepared by Gunninah, which investigated existing conditions at similar sites along Woollooware Bay. This investigation resulted in a significant amount of evidence (documented at Appendix C) that satisfactory ecological outcomes have been achieved for the aquatic environment where a minor riparian buffer is provided in other instances.</p> <p>Further to this, the investigation noted that despite relatively small riparian buffers being provided in some areas, the aquatic environment continues to thrive. This indicates that the existing environment around Woollooware Bay is resilient and that the proposed riparian buffer will be able to appropriately maintain and protect the aquatic environment, being both the mangroves and Towra Point Aquatic Reserve.</p>
<p>The need for a high “quality” vegetated riparian buffer is of increased importance given that the Concept Plan was approved with a riparian buffer zone less than the 40m width recommended by Council and the NSW Office of Water.</p>	<p>Planting within the riparian corridor has been deliberately selected to complement surrounding native vegetation. All planting species are consistent with coastal saltmarsh and swamp oak floodplain forest vegetation communities, and/or are well represented in similar areas on the Kurnell Peninsula. A full schedule of the plant species is provided in the Landscape Plans prepared by Habit8 at Appendix B. In total, 11,464m² of riparian planting is provided within the buffer – which is equivalent to 67% of the area of the buffer. In addition to this, 3,524m² of offset planting is provided outside the buffer, resulting in a total of 18,613m² of planting as part of the proposed landscaping.</p> <p>The 35 metre buffer was provided in front of the retail precinct following a considered assessment by the Department of Planning and Environment as well as the Planning Assessment Commission.</p>
<p>The subject site adjoins an area of undisputed environmental sensitivity, marked by its proximity to the areas identified as internationally significant RAMSAR wetland at Towra Point. The implementation of best practice design principles should be expected and there should be certainty that the vegetated buffer zone achieves the aims envisaged under the concept plan before modifications are approved.</p>	<p>In recognition of the surrounding environment, the design of the amended landscaping proposal incorporates best practice principles for landscape design as well as generally adheres to the NSW Office of Water <i>Guidelines for riparian corridors on waterfront lands</i>. The inner riparian corridor is vegetated with riparian planting (with the exception of some minor unavoidable segments of pathways), whilst the outer riparian corridor contains some recreation facilities. The majority of non-riparian uses within the riparian corridor have been offset by 3,524m² of planting in other locations on the site. In this way, the proposed landscaping seeks to protect the ecological value of the adjoining Towra Point Reserve whilst utilising appropriate parts of the site for recreation and associated community benefit. As a result of this deliberate design, the vegetated buffer zone continues to manage appropriate stormwater flows, provide a physical barrier to Towra Point Reserve and maintain habitat for local fauna. This is a significant improvement to the existing conditions on the site, which provide no stormwater mitigation, protection to Towra Point Aquatic Reserve or habitat. A detailed ecological assessment is appended at Appendix C.</p>

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<p>The Concept Approval also included various conditions of consent that relate to public domain and landscape requirements and ecological considerations. The Ecological Commitments contained in Schedule 5 of the Concept Approval are also relevant to the proposed landscape amendments. Council trusts that these commitments will be enforced by the Department when making the decision on this application.</p>	<p>Throughout the design and development of Woollooware Bay, the Ecological Commitments outlined in Schedule 5 of the Concept Approval have been upheld. Specific to this application, revegetation, including the conceptual revegetation works proposed as part of this amendment, will be undertaken using local provenance species. In particular, the plants selected for the proposed landscaping within the riparian corridor are all consistent with Coastal Saltmarsh or Swamp Oak Floodplain Forest communities.</p> <p>As part of this proposed modification, the proponent commits to ensuring that future management is responsible for ongoing maintenance and care of the foreshore landscaping in order to ensure that the ecological value of the mangroves and Towra Point Aquatic Reserve is protected and maintained.</p> <p>In addition to this, the proponent also commits to incorporating opportunities for public education through signage about the ecological value of the mangroves and Towra Point Aquatic Reserve as part of the future detailed design for the landscaping.</p>

Woollooware Bay Town Centre section 75W (Landscaping Amendments) – Response to Department of Primary Industries Submission

Key Issue	Response
DPI recommends that no further encroachment be permitted within the current vegetated riparian buffer corridor. The modification, as proposed, would have significant impacts on the Towra Point Aquatic Reserve. DPI is available to meet with staff from the Department of Planning and Environment or the proponent to discuss its concerns.	The site does not currently provide a vegetated riparian buffer and the Concept Plan (as modified) will provide an enhanced outcome through the provision of a carefully designed vegetated riparian buffer. The proposed riparian buffer has been provided generally in accordance with the NOW Guidelines and does not constitute an encroachment. The amended landscape concept plans have incorporated a significant amount of riparian planting within the inner riparian area, with all structures located outside this area. In this way, it is considered that any impacts on Towra Point Aquatic Reserve would be minimised as demonstrated in the ecological assessment prepared by Gunninah at Appendix C .
DPI further advises that while the current proposal relies on DPI Water's <i>Controlled Activities Guidelines</i> , guidance from DPI Fisheries is more relevant to this proposal.	Noted. The redesign of the proposed landscaping and subsequent assessment has prioritised guidance from DPI Fisheries.
DPI Water Comments	
The proposed modification includes significant infrastructure within the inner riparian area of the buffer zone, inconsistent with the Guidelines.	The amended modification has been significantly redesigned generally in accordance with the Guidelines to ensure that all infrastructure is located outside of the inner riparian area, as shown in the Landscape Drawings at Appendix B . The bioretention swales in the riparian zone are to be planted and managed as freshwater wetland habitat, which will complement the function of the riparian buffer. In addition to this, the proposed planting is a substantial increase over what is existing on the site as well as what was previously approved as part of the Concept Plan.
Some of the proposed offsets for development within the vegetated riparian zone are not consistent with the Guidelines.	A 40 metre riparian buffer is provided, the inner zone of which is vegetated with riparian planting (with minor unavoidable segments of path) and additional planting and recreation infrastructure provided in the outer zone. This width and distribution of uses is consistent with the Guidelines and, also in accordance with the Guidelines, 3,524m ² offset riparian planting has been located adjacent to the riparian corridor, both to the south of the riparian corridor and to the north of the corridor adjoining the mangroves. Based on the assessment of the Guidelines in the Response to Submissions report, it is considered that this planting satisfactorily offsets the non-riparian uses within the corridor.
If the Family Hill area is proposed to be used for recreation, this area should be offset elsewhere at the site.	The Family Hill area does not form part of this application. The use of Family Hill as a turfed area associated with the stadium will continue in its current state and is unaffected by the proposed landscaping works, consistent with the original intent of the Concept Plan Approval.
The development of the riparian corridor should take into account constraints relating to the Ausgrid Electricity transmission line easement.	The riparian corridor has been redesigned with consideration for the Ausgrid Electricity transmission line easement, with predominantly non-riparian uses located within the easement. As a result of this easement, a small part of the inner riparian area accommodates an access pathway.
DPI Fisheries Detailed Comments	
The reduction in the proposed riparian buffer zone is inconsistent with DPI Fisheries' aquatic habitat protection guidelines. In order to provide adequate protection to high value aquatic habitats, DPI Fisheries' <i>Policy and Guidelines for Fish Habitat Conservation and Management 2013</i> recommend a 100m setback adjacent to TYPE 1 aquatic habitats, such as aquatic reserves. Fisheries NSW proposed a 100m setback at the time of the original development proposal. The	The amended scheme maintains a 40 metre wide riparian buffer zone, consistent with the determination of the Department of Planning and Environment and the Planning Assessment Commission in the original Concept Plan. The ecological advice provided by Gunninah considers that a 100 metre setback is unrealistic and unachievable,

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40m riparian buffer zone approved at the concept stage was a significant compromise on the recommended setbacks.	particularly as surrounding environmental conditions demonstrate that a 100 metre setback has not been provided yet satisfactory ecological outcomes are still achieved. The 40 metre buffer is maintained under this application and the design has been amended to ensure general compliance with the NOW Guidelines.
The proposed modification further encroaches on recommended setbacks for TYPE 1 habitats, as do the pathways, boardwalks and playground proposed for the buffer zone.	<p>The amended proposal maintains the 40 metre wide riparian buffer zone approved as part of the Concept Plan and incorporates recreation facilities within the outer riparian area generally in accordance with the NOW Guidelines.</p> <p>The ecological advice provided by Gunninah indicates that the proposed landscaping will not adversely affect TYPE 1 habitats and that the provision of significant riparian planting and stormwater treatments is likely to improve the condition of Towra Point Aquatic Reserve.</p>
Maintaining adequate buffer zones is particularly important adjacent to Towra Point Aquatic reserve. Towra Point Aquatic Reserve is one the most important aquatic reserves in the state due to the unique range of habitats it protects, including fish nursery areas essential to regional fisheries, and the fact that it is adjacent to and complements the only Ramsar wetland in the Sydney region. Currently the primary objective of a NSW Government priority project, the Hawkesbury Shelf Marine Bioregion Assessment, is to enhance marine biodiversity conservation in this region. Towra Point Aquatic Reserve is one of the priority sites that are being considered in this assessment.	The proponent accepts and agrees with these comments from DPI Fisheries. As described above, the specialist ecological advice prepared by Gunninah finds that an adequate buffer zone is provided and that a particular width of this area is not inherently necessary for the protection of the Towra Point Aquatic Reserve. It is considered that the proposed riparian planting is likely to improve the current condition of the foreshore, and therefore contribute to improve ecological outcomes for Towra Point Aquatic Reserve and the native fauna that rely on the habitat it provides. The proposed quality and quantity of riparian planting has been proposed in recognition of the significance of Towra Point Aquatic Reserve and active management of the foreshore area throughout the occupation of Woollooware Bay will ensure that its ecological significance is maintained.
A threat and risk assessment has shown that climate change and associated sea level rise is the most significant threat to marine biodiversity within the Hawkesbury Shelf Marine Bioregion. To mitigate this threat, estuarine wetlands within and adjacent to aquatic reserves such as Towra Point need adequate buffer zones to be able to retreat upslope with sea level rise.	The inner riparian buffer provides at least 20 metres for the mangroves to be able to retreat upslope with future sea level rise, with scope for further growth beyond this in response to future sea level rise. In the ecological assessment (Appendix C), it is found that the landscaping proposal will be able to appropriately respond to future sea level rise and will minimise any environmental impacts as a result of future sea level rise.
As stated above, the 40m setback already approved is a significant compromise on protection for high-value aquatic habitat. Where, as here, development is proposed adjacent to Towra Point Aquatic Reserve, a priority site in the NSW Government's marine biodiversity conservation program, it is critical not to further compromise environmental safeguards.	<p>It is considered that the amended design has carefully incorporated environmental safeguards to ensure the high-value aquatic habitat of Towra Point Aquatic Reserve is maintained. The riparian planting and careful design of structures for the foreshore park has deliberately tried to achieve a balance between ensuring a good ecological outcome as well as providing community benefit associated with the Woollooware Bay development.</p> <p>It is noted that the proposed works are constrained by the size of the existing site and site layout approved as part of the Concept Plan. On this basis, offset riparian planting is provided generally in accordance with the NOW Guidelines and management of the community will ensure that appropriate environmental management measures are implemented.</p>
The vegetated 40m buffer zone is essential to protect and enhance the biodiversity of the Aquatic Reserve, and is already a compromise on the buffer zone widths for Aquatic Reserves. It is well established that marine protected areas need to be supported by high quality management of adjacent lands.	As noted above, it is considered that the proposed riparian buffer will be protected and enhance the biodiversity of Towra Point Aquatic Reserve. Through the provision of 11,464m ² of riparian and coastal saltmarsh planting, the proposed landscaping will ensure that existing vegetation is protected and local fauna are given additional habitat for nesting and foraging. In addition to this, the ongoing operation of Woollooware Bay will ensure that the foreshore area is appropriately managed and will incorporate opportunities for community involvement in conservation of the aquatic environment.
Contrary to what is stated in the proponent's s75W modification report, the mangrove forest in	It is noted that the mostly excellent condition of the adjoining mangroves observed by DPI Fisheries staff is

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Towra Point Aquatic Reserve adjacent to this site is mostly in excellent condition, apart from the long-term poor litter management practices at this site, which should be remediated as part of the site redevelopment. Fisheries staff have not observed any weeds growing in mangrove forest at this site. The saline, intertidal environment of mangrove habitat does not support the growth of terrestrial weeds.	despite the lack of any appropriate management of the area and no riparian buffer being provided. The proposed landscaping will provide a significant improvement on the current state of the site as well as ensure that ongoing management of the area will prevent the spread of litter, which is clearly evident along the foreshore currently.
The proposed modification will reduce saltmarsh habitat. The current proposed reduction of the buffer zone and proposed infrastructure within the remnant will reduce the area of saltmarsh habitats and adjacent riparian vegetation compared with that approved at concept design stage. These saltmarsh habitats are important to provide food for fish and enhance the biodiversity of adjacent mangrove habitats. Reducing saltmarsh habitat has a significant impact on the environmental value and function of the riparian buffer zone.	The amended proposal provides an increase in the amount of coastal saltmarsh habitat as well as riparian vegetation from the previous modification. It is considered that the proposal is able to provide an appropriate riparian buffer alongside community recreation uses that will benefit future residents and locals in the surrounding Woollooware area. As a result of the planting provided, it is considered that there will be no impact on food for fish or the biodiversity of the adjacent mangrove habitats.
Research has shown that saltmarsh behind mangroves enhances the biodiversity of the mangrove forest habitats. In addition, saltmarsh communities provide large volumes of food for fish and contribute to the sustainability and value of the local fisheries. The annual economic output for recreational fishing in the Sydney Region, which includes Botany Bay, is over \$1 billion. This recreational fishery relies on adequate and protected fish and invertebrate nursery areas.	In response to this, the amended design of the landscaping includes 2,710m ² saltmarsh planting behind the mangroves along the majority of the eastern part of the foreshore as well as a significant amount along the western part of the foreshore and extending down the existing stormwater channel. It is considered that this coastal saltmarsh planting will adequately support the existing mangroves and provide food for fish. As a result of this, it is considered that the proposed works will have no impact on recreational fishing.
Saltmarsh has been declared an Endangered Ecological Community under the <i>Threatened Species Conservation Act 1995</i> due to habitat loss, and some of the largest losses have occurred in the Botany Bay catchment. Specifically, Woollooware Bay has lost 63% of saltmarsh between 1940 and 1994 and a further 14% between 1999 and 2008. In order to reverse this decline, riparian buffer zones need to be adequate to allow saltmarsh communities to retreat upslope.	It is intended that the additional coastal saltmarsh planting proposed will contribute to the rehabilitation of this Endangered Ecological Community and that the provision of the riparian buffer, where previously there was none, will allow saltmarsh communities to be protected and enhanced.
The proposed modification will impact on saltmarsh communities in the following ways:	-
<ul style="list-style-type: none"> The public path is now situated approximately 18-21 metres closer to the edge of the Aquatic Reserve, with BBQ facilities, a public play facility and a grassed area now included in the area that was previously proposed by the proponent as a 30m wide riparian buffer zone predominantly vegetated with saltmarsh species. The proposed modification reduces the width of the proposed saltmarsh planting adjacent to the Aquatic Reserve to approximately 8-12 metres. 	The amended modification has set back all pathways and recreation infrastructure to at least 20 metres from the Mean High Water Mark. A 20m wide unimpeded riparian buffer zone is provided adjacent to the Aquatic Reserve, including a significant amount of salt marsh planting is proposed adjacent both to the residential precinct and the Retail/Club precinct.
<ul style="list-style-type: none"> The proposed relocation of the public path closer to the mean high water mark is accompanied by an increase in the height of the landform. This significantly reduces the scope for sensitive aquatic habitats to retreat during sea level rise. The previously considered design incorporated some scope for aquatic habitat retreat. Sea level rise is a significant threat to aquatic habitats, and a riparian zone of adequate width is needed to allow habitat to retreat upslope, particularly adjacent to a marine protected area. 	The amended proposal has relocated the public path further back from the Mean High Water Mark and the overall design has incorporated a more gradual slope in the landform to maintain the natural topography as much as possible. It is considered by Gunninah that this design will allow for habitat retreat and will have an improved impact from the current situation on the site.

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<ul style="list-style-type: none"> In the retail precinct area the vegetated buffer areas has been changed to a grassed area with a significant amount of infrastructure 	<p>The landscaping adjacent to the retail precinct has been redesigned so that the grassed area is significantly reduced in size and all infrastructure is located in the outer riparian buffer, with the exception of some small segments of pathway.</p>
<p>DPI Fisheries recommends that any public path and other infrastructure should be located 40 metres from the mean high water mark and the path should be made of permeable materials. The remaining area within the 40 metre riparian buffer zone should be vegetated with the majority of vegetation consisting of saltmarsh. This area should be continuous to allow for habitat connectivity with the Aquatic Reserve and within the riparian zone itself. Interrupting the connectivity as is proposed in the current application will significantly reduce the biodiversity value of the riparian zone.</p>	<p>Whilst it is recognised that DPI Fisheries has developed a benchmark for the preservation of aquatic environments, it is considered that the outcome that would be achieved in accordance with this proposal will maintain the function of the riparian buffer, whilst providing for the recreational needs of the community.</p> <p>Continuous unimpeded riparian planting is provided along the width of the site within the 20 metre inner riparian buffer and a significant amount of saltmarsh planting is proposed within the riparian corridor and has been located to maximise opportunities for habitat connectivity. It is intended that all materials to be used will be selected to maximise permeability and ensure there is no impact on the adjoining habitat.</p>
<p>The modification does not include alternatives for recreational structures outside the 40 metre riparian buffer zone. DPI Fisheries acknowledges that appropriately designed recreational infrastructure can add significant public value to this development site. However, the proposed modification does not consider alternatives to provide structures for recreational use outside the 40 metres riparian buffer zone currently required by the concept plan approval. The 40 metre buffer has been part of the concept approval since 2012, and the development guidelines underlying that buffer from DPI Fisheries and DPI Water (discussed below) have been in place in similar form for several years before that. Under the circumstances, and particularly given the importance of the site and its proximity to Towra Point Aquatic Reserve, DPI Fisheries recommends that alternative sites for recreational infrastructure be investigated.</p>	<p>The amended design has considered alternatives for the location of recreation structures, with the majority of structures now being located in the outer riparian area to maximise opportunities for riparian planting close to Towra Point Aquatic Reserve.</p> <p>In relation to locating recreation structures elsewhere on the development site, it is considered that there is no other appropriate place where such facilities could be located and deliver the same benefit to both future residents and the surrounding local community. By locating the recreation structures on the foreshore, the development ensures that public access will be maintained to both these facilities as well as the wider foreshore area.</p> <p>An alternative location for the recreation facilities is prevented by the building envelopes approved as part of the Concept Plan and consequent development of the site. One alternative is that no recreation infrastructure is proposed, which is considered to provide an inferior outcome to the current proposal as the community would be deprived of the opportunity to access an enhanced foreshore that provides recreation facilities as well as significant rehabilitation works.</p>
<p>Any necessary seawalls should not harm mangroves within Towra Point Aquatic Reserve. Detailed designs for an environmentally friendly seawall have not been provided at this stage. Any interruption of the intertidal zone with a seawall should be avoided in the first instance. If an environmentally friendly seawall is a necessity, it should cause no harm to mangroves within Towra Point Aquatic Reserve.</p>	<p>No seawall is proposed along the foreshore as part of this modification application.</p>

Woolooware Bay Town Centre section 75W (Landscaping Amendments) – Response to Office of Environment and Heritage Submission

Key Issue	Response
As you are aware, OEH has provided substantial advice at the Concept Plan and subsequent development stages of this development, highlighting the need to address the potential impacts on the high biodiversity values of the adjoining foreshore wetlands of Woolooware Bay which form part of Towra Point Aquatic Reserve. Key to the protection of these areas is the provision of an adequate and effective riparian buffer. OEH is of the view that a fully vegetated riparian buffer of at least 40m is required and notes Concept Plan approval condition B2 which was specified by the Planning Assessment Commission (PAC) on the basis that <i>'any departure from the 40m (vegetated riparian) buffer ... must be minimised'</i> .	A riparian buffer of 40m is provided, with vegetation provided within the majority of the inner area generally in accordance with the Guidelines. It is considered that recreation infrastructure within the 40 metre buffer have been minimised, with only 20% of the area within the riparian corridor comprised of non-riparian uses.
The primary rationale advanced by the proponent in support of the proposed modification is that it is 'generally in accordance' with the 2012 <i>Guidelines for Riparian corridors on Waterfront Land</i> (Riparian Guidelines). This is not supported as it is OEH's understanding that: The inner 50 per cent of the riparian buffer (or vegetated riparian zone [VRZ]) must be fully protected and vegetated with native endemic riparian plants. The proposed landscape modifications include pathways, boardwalks, BBQ areas, education platforms/pontoons, and active recreation areas which are not permitted within inner VRZ.	The amended proposal has provided full vegetation within the inner 50 per cent of the riparian buffer, with the exception of minor segments of pathway which traverse the inner area as a result of the need to provide access to the Ausgrid easement as well as compliant access along the foreshore park. The amended design has deliberately located all structures outside of this inner riparian area in order to be compliant with the Guidelines.
Non-riparian uses are only permitted within the outer riparian corridor, if 'the average width of the VRZ can be achieved over the length of the watercourse within the development site'. OEH notes the total non-riparian area (which must include the 2,675m ² 'Family Hill' area of the existing stadium) is around 6,899m ² while the proposed riparian offset area is only 3,021m ² . OEH also notes more than half of the proposed riparian offset area (1,680m ² is outside the development area on 'land' below the Mean High Water Mark and owned by Roads and Maritime Services.	Offset riparian planting has been maximised within the constraints of the site, with a total of 3,524m ² of offset planting provided in locations that connect to the corridor, in accordance with the Guidelines. This results in an excess of 22m ² above the amount required to offset the 3,502m ² of non-riparian uses. It is noted that this calculation does not include the Family Hill area, which will remain unchanged and does not form part of this application as originally envisaged in the Concept Plan Approval. It is considered that this proposal is acceptable on the basis that high quality planting is provided throughout the waterfront area, complemented by recreation facilities that will allow the wider community to enjoy the foreshore area. Whilst the provision of these facilities results in a reduced amount of riparian planting, they are considered an integral part of the benefits that Woolooware Bay seeks to deliver to the wider community. In addition to this, all non-riparian structures have been sensitively designed to ensure they do not inhibit the ecological function of the riparian corridor.
No specific information is provided detailing why the Ausgrid management requirements for overhead power lines cannot be achieved within the required riparian buffer.	There is an existing easement for access to the benefit of Ausgrid over the site. This is in order for Ausgrid to be able to access their existing services on the site for maintenance. For this reason, it is unavoidable Ausgrid is provided access and as a result a path is provided within the proposed landscaping to permit this.

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<p>The riparian buffers of surrounding development were approved prior to the commencement of the Riparian Guidelines (or the preceding 2008 <i>NSW Office of Water Guidelines for Controlled Activities</i>).</p>	<p>It is acknowledged that surrounding developments were approved prior to the commencement of the Guidelines, however the ecological investigation undertaken by Gunninah has determined that the condition of the environment adjoining these developments is in good condition. This is despite a small riparian buffer being provided. This demonstrates that satisfactory ecological outcomes can be achieved in the absence of a formal riparian buffer. Despite this, no informal or reduced buffer is proposed. Rather, the proposal seeks to balance the protection of ecological values with recreation benefits for the wider community. As the proposed amended will include a significant riparian buffer adjoining the mangroves and Towra Point Aquatic Reserve, it is considered that any environmental impact will be minimised.</p>
<p>No information is provided on the objectiveness of the cited consultation process, in particular whether the importance of the required buffer in protecting the adjoining high biodiversity areas was addressed.</p>	<p>As noted in the initial modification application, consultation was undertaken prior to the preparation of the modification application. This included meetings with Sutherland Shire Council, the Department of Planning and Environment, Office of Environment and Heritage, Fisheries NSW and Ausgrid. The previous landscape drawings were provided for comment to both Fisheries NSW and Office of Environment and Heritage prior to the submission of the application. Communication was received from OEH to state that no comment would be provided on the landscaping scheme, whilst no communication was received from Fisheries NSW.</p> <p>Throughout the consultation process, stakeholders were invited to make comment on the application of the NOW Guidelines, protection of vegetation, flooding and the location of recreation infrastructure. The outcome of these discussions with stakeholders was then incorporated into the design of the previous modified scheme.</p>
<p>OEH considers the proposed modifications substantially conflict with the Riparian Guidelines and do not achieve the 'balanced outcome' advocated by the proponent. OEH recommends DPE refuse the proposed modification and refer to detailed advice provided by the Department of Primary Industries- Office of Water on the interpretation and application of the Riparian Guidelines.</p>	<p>The amended proposal has deliberately adhered to the Guidelines by ensuring that a vegetated inner riparian area is provided and non-riparian uses located in the outer riparian area. These non-riparian areas are offset by planting connected to the riparian buffer both to the north and south. Through the provision of 11,464m² of riparian planting and 3,524m² of offset planting as well as the significant area provided for recreation, it is considered that the proposal will maintain the function of the riparian buffer and protect the adjoining mangroves and Towra Point Reserve, whilst providing a significant community benefit for future residents of Woollooware Bay as well as the surrounding Sutherland community.</p>