C6 Design Criteria for Warriewood Valley Release Area		
C6.1 Integrated Water Cycle Management	**Proposed**	**Complies**
1. Water Management Report and Accompanying Plans • The Water Management Report, submitted with the application, must demonstrate how the water cycle will be managed and integrated with the development. The Water Management Report is to be prepared by appropriately qualified professionals and certified by an experienced and qualified engineer specialising in hydraulics. It is to be in accordance with Council's Warriewood Valley Urban Land Release Water Management Specification (February 2001 as amended) and relevant legislation taking into account the Narrabeen Lagoon Flood Study (September 2013 as amended) and the Pittwater Overland Flow Flood Study (2013 as amended).	A Water Quality Monitoring Plan was approved under DA N0398/17. A revised Water Quality Monitoring Plan has been submitted as part of the subdivision, refer to **Annexure 9.**	Complies
2. Flooding - The flood levels are to be determined as part of the Water Management Report. The information to be obtained includes: • the 50% Annual Exceedance Probability (AEP) flood levels with climate change impacts including sea level rise combined with increase rainfall volume; • the 20% AEP flood levels with climate change impacts including sea level rise combined with increase rainfall volume; • the 1% AEP flood levels with climate change impacts including sea level rise combined with increase rainfall volume; • the Flood Planning Level (FPL) - equal to the 1% AEP flood level plus freeboard (as defined within clause A1.9 of this DCP) with climate change impacts including sea level rise combined with increase rainfall volume; • the Probable Maximum Flood (PMF) level with climate change impacts including sea level rise combined with increase rainfall volume; • the flow velocities for the 1% AEP flood and Probable Maximum Flood with climate change impacts including sea level rise combined with increase rainfall volume; and • the Flood Category and Flood Hazard Classification as defined in clause A1.9 of this DCP with climate change impacts including sea level rise combined with increase rainfall volume.	Development Application (N0398/17) which sought consent for the civil works including cut and fill to create a suitable building platform for future development, private road, drainage works and environmental management works This approval was based in part on the following documents which informed the consideration of flooding and the creek line corridor requirements: • Cardno (2018a) "Flood Impact Assessment, 2 Macpherson Street, Warriewood", *Final Report*, Revision 2, prepared for the Meriton Group, 24 January 2018, 32 pp + Apps. • Cardno (2018b) "2 Macpherson Street, Warriewood, Revised Response to Statements of Facts and Contentions", *Letter Report*, prepared for the Meriton Group, 10 December 2018, 35 pp. • Cardno (2018c) "2 Macpherson Street Warriewood - PMF Flood Condition and Time of Isolation Assessment ", *Letter Report*, prepared for the Meriton Group, 11 December 2018, 9 pp. The proposed 24 Lot Community Title Subdivision does not change the development conditions which were assessed previously as documented in the aforementioned reports. Therefore, it can be concluded that the three approved reports address the Council's flooding and the creek line corridor requirements and inform the assessment of the Development Application for a 24 Lot Community Title Subdivision.	Complies
3. Likely flood impacts from the development must also be assessed and where required, mitigated.		
4. The filling of land will only be permitted where it can be demonstrated within the Water Management Report that: • there is no net decrease in the floodplain volume of the floodway or flood storage area within the property, for any flood event up to the 1% AEP flood event and the PMF event including climate change considerations for both design events; and/or • there is no additional adverse flood impact on the subject and surrounding properties and flooding processes for any flood event up to the PMF event including climate change impacts.		
5. The Water Management Report must identify the minimum floor level requirements for development in accordance with the Flood Hazard and Flood Category applicable to the proposed land use specified in Flood Risk Management Policy.		
6. The subdivision of land requires the building platforms for each additional allotment to be created at or above the Flood Planning Level (plus climate change). The Plan of Subdivision is to include the Flood Planning Level (plus climate change) for each new allotment created.		

Creekline Corridor 1. Creekline corridors in the Warriewood Valley Release Area are to be restored to a 'natural watercourse' that results in healthy ecosystems whilst maintaining their capacity for flood conveyance during high flows as stipulated in the Warriewood Valley Urban Land Release Water Management Specification (2001). The creekline corridors are intended to fulfil a multi-functional purpose, containing the pedestrian and cycle network.	Noted - Landscaping Works proposed as part of the application include: • Kerb to lot boundary – inclusive of turf, paths and streetscape. A Landscape Early works package was approved under DA N0398/17. A revised Landscape Plan that illustrates the extent of works has been submitted as part of the subdivision, refer to **Annexure 10.**	Complies
2. Where a creek passes through/aligns/abuts a Sector, buffer area or development site, the creekline corridor is to generally comprise a total width of 100 metres, comprising of a 50 metre wide Inner Creekline Corridor (being 25 metres either side of the centreline of the creek) and an Outer Creekline Corridor 25 metres wide each side of the Inner Creekline Corridor.	Noted - 50 metre set back to the creek required: 25 metre public land / 25 metre private land.	Complies
3. The 50-metre-wide Inner Creekline Corridor (25m either side of the centreline of the creek), to be brought into public ownership, is a corridor that contains the creek, floodway and flora and fauna habitat. The Inner Creekline Corridor is to be designed and constructed to contain the 1% Annual Exceedance Probability (AEP) flow plus climate change. Detailed engineered plans are to be submitted with the application depicting the creek construction.	Noted - 50 metre set back to the creek required: 25 metre public land / 25 metre private land.	Complies
4. The 25 metre Outer Creekline Corridor (commonly known as the 'private buffer strip') to be provided on each side of the Inner Creekline Corridor is to be retained in private ownership and is to perform the functions of part water quality control and a fauna/flora corridor (Lawson & Treloar, 1998). The private buffer strip is to be a multifunctional corridor, appear to be part of the public domain, and may contain: • the pedestrian path/cycleway sited above the 20% AEP flood level to reduce the incidence of flood damage to a manageable level and achieve a satisfactory safety level for regular use. The location of the pedestrian path/cycleway is variable to ensure connectivity with existing sections of the path and retention of vegetation. The alignment of pedestrian paths/cycleways and associated landscaping must provide adequate sightlines for cyclists; • water quality control ponds; • other water quality treatment measures; and/or • roads and other impervious areas traditionally sited in the public domain, for up to 25% of the outer Creekline Corridor area subject to merit assessment.	Noted - 25 metre private buffer has been provided.	Complies
5. Any part of residential lots, dwellings, garages, fences and other vertical built structures are not permitted within the 25-metre-wide Outer Creekline Corridor.	Noted – Refer to Indicative Building Envelope Plan (BEP). BEP demonstrates that future dwellings can comply.	Can Comply
6. A landscape plan for the Inner and Outer Creekline Corridors is to be prepared and submitted with the application. Extensive stands of Casuarina glauca, groves of Eucalyptus robusta with other native feature trees, an indigenous understorey and ground covers are to comprise a minimum of 75% of the total creekline corridor area. Native groundcovers should be used as an alternative to lawn.	Noted – This will be addressed in the DA for future dwellings.	Can Comply
Stormwater Drainage Management • The design of the stormwater management system (quantity and quality) is to be included in the integrated water cycle management scheme for the development.	A WSUD strategy for the site was prepared within the approved Early Works Development Application (N0398/17) The internal lot catchments discharge via kerb outlets into the gutter to be collected via stormwater inlet pits containing Stormwater360 Enviropods (or approved equivalent) and	Complies
• A piped stormwater drainage system network is to be designed for a 5% AEP flood event including climate change impacts. A failsafe flood overflow system for flood events greater than a 5% AEP flood is to be		

provided and managed. Appropriate system blockages are to be included in the stormwater drainage system design. • The stormwater pipe drainage system network is to include private inter-allotment drainage systems that are to be connected to the public drainage system. Stormwater drainage easements will be required over all inter-allotment drainage systems and where a public stormwater drainage system traverse's private property. The required easements are to be shown on the Plan of Subdivision.	then drain into the proposed Bio-retention/raingardens. This allows the water to be treated and discharged at rates acceptable to Northern Beaches Council. For more information relating to the WSUD and MUSIC modelling for the site refer to AT&L's Early Works DA Report approved under Development Application (N0398/17).	
Water Quality Management, Assessment and Monitoring 1. All development stages are to meet or exceed the water quality acceptance criteria within the Warriewood Valley Urban Land Release Water Management Specification (2001) for site discharges. Validation of the acceptance criteria is required by water and sediment quality monitoring and reporting	A Water Quality Monitoring Plan was approved under DA N0398/17. A revised Water Quality Monitoring Plan has been submitted as part of the subdivision, refer to **Annexure 9.**	Complies
2. Sediment and pollution control facilities are to be designed, installed and maintained so that upon completion of construction the facilities will prevent, discourage and intercept accidental and deliberate discharge of harmful substances in Warriewood Valley waterways.	Suitable erosion and sediment controls have been approved under DA N0398/17.	Complies
Groundwater 1. The Water Management Report must identify the depth of the groundwater table. If groundwater is to be managed as a result of excavation/basements/stormwater or flood mitigation measures on the proposed development, the groundwater management measures are to be detailed in the report.	Refer to Civil Works Package in **Annexure 6 & 7** for further details.	Complies
Greywater Reuse 1. In the event that greywater reuse is proposed as part of the integrated water cycle management scheme, the on-site treatment, disposal and/or reuse of greywater must: • demonstrate scheme feasibility; • comply with all relevant State and Federal regulatory requirements and the referenced guidelines; and • achieve current NSW Health Accreditation (where accreditation is necessary).	Not Proposed	Not Applicable
2. Blackwater reuse systems and onsite disposal are not permitted on sewered lands.	Not Proposed	Not Applicable
3. All premises must maintain a connection to the Sydney Water centralised sewerage waste disposal system.	Noted - New development will be connected to Sydney Water sewer system.	Can Comply
C6.2 Natural Environment and Landscaping Principles		
1. Landscaping Principles • Ensure that landscape design and planning is part of a fully integrated approach to site development. • Be sensitive to the site attributes and context, such as streetscape character, natural landform, soils, existing vegetation, views, land capability, and drainage. • Development must be designed to maximise the restoration, retention and preservation of indigenous trees, shrubs and groundcovers, as well as natural features, including wildlife corridors, fauna habitats, rock features and watercourses. • Provide planting schemes that reinforce the framework of endemic canopy trees with supplementary plantings species suitable for the understorey and groundcover. These may include species that have high ornamental qualities and/or provide food and habitat for native fauna and/or have aromatic flowers and foliage. In areas of high sensitivity only locally indigenous tree species should be used for the canopy. • Create visually pleasing environments that integrate the built form of the development into the natural and cultural landscapes of the Warriewood Valley.	Noted - Landscaping Works proposed as part of the application include: • Kerb to lot boundary – inclusive of turf, paths and streetscape. A Landscape Early works package was approved under DA N0398/17. A revised Landscape Plan that illustrates the extent of works has been submitted as part of the subdivision, refer to **Annexure 10.**	Complies

• Manage the micro-climate through the provision of canopy trees for shade resulting in the reduction in the buildings energy consumption. • Deep soil areas are areas of soil unobstructed at any point by buildings or structures above or below the ground. Deep soil areas have important environmental benefits, such as allowing the infiltration of rain water into the water table and reduction of stormwater runoff, promoting healthy growth of large trees with large canopies and protecting existing mature trees. • Maximise landscaped areas for on-site infiltration of stormwater. • Integrate and form linkages with parks, reserves and transport corridors. • Complement the functions of the street e.g. reinforce desired traffic speed and behaviour; consider lines of sight for pedestrians, cyclists and vehicles promote safety and casual street surveillance. • Satisfy maintenance and utility requirements and minimise their visual impact. For example, undesirable visual elements such as blank walls, service areas, loading docks, and electrical sub-stations are adequately screened by shrub and tree plantings of suitable species at appropriate spacings. • Paving, structures, fencing and wall materials complement the architectural style and finishes of the buildings on the site.		
2. Integration with Creek line Corridor and the Public Domain – For land adjoining creekline corridors, buffer strips and reserves, preference should be given to local species identified as food sources for native fauna. Refer to the species lists contained in the Warriewood Valley Landscape Masterplan and Design Guidelines (Public Domain). If the development site contains a section of Creekline Corridor, a landscape plan for the Creekline Corridor must be prepared. Details are to include: • the creek and floodway, particularly the Inner Creekline Corridor, being designed and constructed to contain the 1% Annual Exceedance Probability (AEP) flow; • a planting schedule (location, density and plant selection) to facilitate flora and fauna habitat; • the location of the pedestrian path/cycleway within the Outer Creekline Corridor, where practicable, and above the 20% AEP flood level; • if relevant, the location of any water quality control ponds and other water quality treatment measures; • extensive stands of Casuarina glauca, and groves of Eucalyptus robusta with other native feature trees, indigenous understorey and ground covers, which are to comprise a minimum of 75% of the total creekline corridor area; • creekline interface such as details of boulder retaining walls instead of sheer block walls or steep batters; and • the landscaping treatment of the 25-metre-wide Outer Creekline Corridor to appear as part of the public domain.		
3. The alignments of pedestrian paths/cycleways and associated landscaping must provide adequate sightlines for cyclists		
4. Any part of residential lots, dwellings, garages, fences and other vertical built structures (wholly or in part) must not encroach into the 25-metre-wide Outer Creekline Corridor.		
Landscaping of existing and proposed Public Road Reserves 1. Planting within the existing or proposed public road reserve is to be in accordance with the Warriewood Valley Landscape Masterplan and Design Guidelines (Public Domain).	Noted – Can comply	Can comply

Landscaped Area 1. A landscape plan documenting the proposed landscape treatment and planting species as selected from the Warriewood Valley Release Area Landscape Masterplan and Design Guidelines (Public Domain) (as amended), is to be submitted with the Development Application.	Noted – This will be addressed in the DA for future dwellings.	Complies
2. Due to the smaller lot sizes anticipated in Warriewood Valley and the resultant smaller dimensions of landscaped area, areas intended for landscaping should be predominately areas of deep soil. Minor overhangs and protrusions such as Juliette balconies will be considered on merit. Planter boxes and rooftop gardens are not considered to be areas of deep soil.		
3. In designing and siting dwellings, the following principles should be adhered to: areas intended for landscaping should be predominately areas of deep soil; • the location of deep soil areas should, where possible, facilitate the retention of existing trees and vegetation; • basement car parking should be contained within the building footprint where possible to maximise areas of deep soil planting (refer to figure 1 below); and • deep soil areas should be co-located with areas of private open space or communal open space, in the case of residential flat buildings and multi dwelling housing, to provide shade and amenity for residents.		
C6.4 The Road System and Pedestrian and Cyclist Network		
The Road System 1. A traffic analysis report and road plans and sections for the Sector, buffer area or development site, demonstrating that the outcomes within this control will be achieved, must be prepared by a suitably qualified professional and submitted with the application. The road plans must comply with the relevant specifications and cross sections in Council's Warriewood Valley Roads Masterplan.	A Traffic Impact Assessment has been submitted as part of the Development Application. Refer to **Annexure 14.**	Complies
2. The design and construction of the road and pedestrian network shall, regardless of the form of subdivision and future ownership of the road(s), provide full pedestrian and vehicular access and on-street parking and function as a public road network.		
Design Requirements 1. A single access point to each sector, buffer area or development site serviced by a roundabout or other on-street traffic management facility (if necessary) is to be provided with vehicular access to individual lots within the subdivision being from internal roads within that subdivision. Internal roads linking separate existing sites are to be provided.	The subdivision design allows for future residential lots to be access from within the site via the private internal road. A Traffic Impact Assessment (TIA) has been submitted as part of the Development Application. Refer to **Annexure 14.**	Complies
2. The street pattern must provide direct, safe, and convenient pedestrian and cyclist access from housing and employment areas to public transport stops and to areas of open space, services and other facilities. Connectivity within the sector, buffer area or development site is required to ensure the majority of dwellings are within walking distance to bus stops		
3. The street layout and design is to consider opportunities for the retention of existing significant trees within the road reserve where possible. Trees may be incorporated with small, informal spaces that provide opportunities for 'greening of the street'.		
4. All roads in Warriewood Valley must be designed with traffic calming devices to lower vehicle speeds, which may incorporate pavement treatment and enhanced landscaping. The provision of safe crossing areas is required. All roads and any traffic calming devices in Macpherson Street, Warriewood Road, Ponderosa Parade, Garden Street and Boondah Road must be able to cater for ultra-low floor articulated buses. The road system is to cater for adequate vehicular access for waste removal services.		

Subdivision adjoining an existing public road 1. Where the subdivision adjoins an existing public road reserve, plans are to be submitted for the intersection treatment to the public road reserve and any works within the public road reserve including road pavement, vertical kerb and gutter, footpaths and cycleways (minimum 1.5m wide footpath or a minimum 2.1m wide where a cycleway is required).	Development Application (N0398/17) approved the civil works including cut and fill to create a suitable building platform for future development, private road, drainage works and environmental management works.	Complies
2. All works associated with the intersection treatment (except those identified under the Warriewood Valley Section 94 Development Contributions Plan as amended) and any works within the public road reserve are to be carried out at full cost to the developer.	Noted	
Pedestrian and Cyclist Network 1. A pedestrian and cyclist network is to be provided in accordance with the Warriewood Valley Landscape Masterplan & Design Guidelines (Public Domain).	No cycleway link is proposed for this site under the Warriewood Valley Development Contributions Plan Amendment 16, Revision 3, 2018. A pedestrian pathway has been provided from kerb to lot boundary as part of this application. Refer to Landscape Package at **Annexure 10** for further information.	Complies
2. The pedestrian/cycleway link should be located off road, where practical. Where a pedestrian/cycleway link is located in: • a public reserve, the minimum width is 2.5 metres; and • the road verge adjacent to the road carriageway, the minimum width is 2.1 metres.		
3. The location of the pedestrian path/cycleway is variable within the creekline corridor to ensure connectivity with existing sections of the path and facilitate retention of vegetation so long as the pedestrian path/cycleway is sited above the 20% AEP flood level to reduce the incidence of flood damage to a manageable level and achieve a satisfactory safety level for regular use. The alignment of the pedestrian/cycleway network must provide adequate sightlines for cyclists.		
4. Where a pedestrian/cyclist link is identified within or adjoining a sector, buffer area or development site, the applicant is to identify on their development drawings the location for this infrastructure. The pedestrian/cycleway network must be accompanied by appropriate landscaping and vegetation. Details of the proposed landscaping and vegetation must accompany any development application.		
Access Driveways 1. Driveways shall be designed and constructed to: • provide safe access and reduce the impacts of stormwater run-off to any public land; • the minimum practical pavement width needed to facilitate access and turning movements; and • minimise the area of impervious pavement within the land.	A TIA has been submitted as part of the Development Application, refer to **Annexure 14.** As stated in the TIA, the design of the internal driveways is required to be in accordance with the Australian Standard AS/NZS 2890.1-2004: Parking Facilities - Off-Street Car Parking. • The internal driveways must be contained within the driveway corridor. • The minimum width of the driveway corridor for single dwellings is required to be 3 metres. As shown in Plan C020 in **Annexure 6**, each driveway is contained within the driveway corridor and has a minimum width of 3 metres. It should be noted, driveway design for each lot will be subject to a separate approval.	Complies

<table>
<tr><td>2. The cost for Access Driveways construction and maintenance and adjustment of any utility service is the responsibility of the Applicant.</td><td>Noted</td><td>Noted</td></tr>
<tr><td>Access Driveway Location

1. Access Driveways shall be designed and located to provide adequate sight distance to maximise pedestrian and vehicular safety as follows:
• minimum clear distance along the road frontage edge of kerb of 50 metres for 40 and 50 km/h speed limit roads measured from a point on the centreline of the driveway 2.5 metres from the face of kerb; and
• minimum clear distance along the frontage footway of 5 metres, measured from a point on the centreline of the driveway 2.5 metres from the edge of footway area closest to property boundary.</td><td>As shown in Plan C020 in Annexure 6, access driveway locations have been shown on the plan. Refer to Annexure 6 & 7 for further information.</td><td>Complies</td></tr>
<tr><td>2. For corner allotments, the closest point of the Access Driveway shall be located at the maximum practical distance from the intersection of the adjoining roads, being no closer than 6m from the tangent point at the kerb.</td><td>As shown in Plan C020 in Annexure 6, access driveway locations have been shown on the plan. Refer to Annexure 6 & 7 for further information.</td><td>Complies</td></tr>
<tr><td>3. The location of Access Driveways is to maximise the retention of trees and native vegetation in the public road reserve.</td><td>Tree retention maximised next to access driveways.</td><td>Complies</td></tr>
<tr><td>4. Access Driveways located in front of adjoining properties will be considered on merit, based on Council's consideration of the site constraints.</td><td>Not applicable – Proposed lots have frontage to communal open space</td><td>Not applicable</td></tr>
<tr><td>Access Driveway design, widths and profiles

1. The maximum width of an Access Driveway for dwelling houses, dual occupancies and secondary dwellings shall be as follows:

<table><tr><th>Distance Building Line to Boundary</th><th>Minimum Width at Boundary</th><th>Width at Kerb</th></tr><tr><td>Nil to 3.5m</td><td>3.0m</td><td>Width at the boundary plus 0.5m</td></tr><tr><td>Greater than 3.5m to 6.5m</td><td>4.0m</td><td>4.5m</td></tr></table></td><td>As stated in the TIA, the design of the internal driveways is required to be in accordance with the Australian Standard AS/NZS 2890.1-2004: Parking Facilities - Off-Street Car Parking.
• The internal driveways must be contained within the driveway corridor.
• The minimum width of the driveway corridor for single dwellings is required to be 3 metres.

As shown in Plan C020 in Annexure 6, each driveway is contained within the driveway corridor and has a minimum width of 3 metres.

It should be noted, driveway design for each lot will be subject to a separate approval.</td><td>Noted</td></tr>
<tr><td>2. Access Driveway profiles shall conform to the profiles as illustrated in Appendix 10 - Driveway Profiles. The Access Driveway is to be structurally adequate for its intended use. All structural elements within the road reserve must be certified by a Structural Engineer. In addition, where the land is identified on the Landslip Hazard Map, the design of all structural elements must satisfy the Landslip Hazard Controls.</td><td>Indicative access driveways are shown on Civil Plans at Annexure 6 & 7.</td><td>Complies</td></tr>
<tr><td>3. Access Driveways are to be in accordance with:
• Australian Standard AS/NZS 2890.1-2004: Parking Facilities Part 1: Off-Street Car Parking.
• Australian Standard AS/NZS 2890.2-2002: Parking Facilities – Part 2: Off-Street Commercial Vehicle Facilities except as qualified in this control.</td><td>Indicative access driveways are shown on Civil Plans at Annexure 6 & 7.</td><td>Complies</td></tr>
<tr><td>4. Turning movements are to be in accordance with the turning paths for a B85 vehicle (Australian Standard AS/NZS 2890.1-2004: Parking Facilities - Part 1: Off-Street Car Parking).</td><td>Indicative access driveways are shown on Civil Plans at Annexure 6 & 7.</td><td>Complies</td></tr>
</table>

5. Provision is to be made for vehicles to enter and leave the site in a forward direction, where: • the internal driveway grade exceeds 1:4 (V:H); • the land abuts a roadway subject to high pedestrian use (e.g. School, Commercial Centre); and/or • driveways are more than 30m in length.	The site is currently serviced by Macpherson Street which will support access to and from the site. Pedestrian and vehicular ingress/egress to the site is proposed via a one-way road system which will comprise a 7.5-metre-wide access road (private residential street to be retained within community title ownership) with pavement on either side providing access to the development from Macpherson Street. Vehicles can enter and leave the site in a forward direction. The proposed civil works have been approved under DA N0398/17	Complies
6. Access Driveways are to match in with adjacent constructed footpaths or alternatively adjacent constructed footpaths are to be adjusted to provide a continuous surface with no trip points with a maximum 1:14 (V:H) transition.	Noted – See response above Access Driveway design for each lot will be subject to a separate approval	Noted
C6.5 Utilities, Services and Infrastructure Provision		
1. New development including the creation of new allotments is to be fully serviced by electricity, reticulated water and sewer, gas and communications.	Services including sewer, water, power, telecommunications and gas will be made available to each lot. Internal reticulation will be coordinated at the Construction Certificate (CC) stage of works and applications to the relevant authorities made.	Complies
2. All services, including telecommunications and cable television, are to be provided underground, within the road reserve (proposed and/or existing) and on the development site itself including lots being created by the subdivision. The undergrounding of the services is at the full cost to the developer.		
3. Common trenching of services is encouraged, and consideration must be given to the location of underground services and landscape planting.	Noted - Services will be provided underground.	Complies
4. All development is to be designed and constructed to allow internal access for telecommunications, intelligent lighting and home automation facilities from underground street electrical and telecommunications cabling without costly retro-fitting. Buildings are to be designed to enable sufficient riser capacity and sufficient space within ceilings to permit connection to a central point for communications wiring for televisions, telephones, satellite, computers and burglar alarms. Consideration should be given to the provision of a "patch panel" in dwellings. This is a central point for communications wiring with conduits to various points such as living rooms and bedrooms.	Relevant services will be provided to each lot. Refer to Civil Plan C020.	Complies
5. Infrastructure integral to the development must take into consideration that the water management facilities and the internal road network are likely to remain in private ownership, including access arrangements and lifecycle costs associated with the maintenance and management of the infrastructure.	The approved private access road into the site will be privately owned and managed. As part of this application the private access road will be registered as a community title lot.	Complies
6. Infrastructure required for the development not listed in the Warriewood Valley Section 94 Plan, is to be provided by the proponent and will not be subject to credit against the developer contributions payable to Council. This includes works within Council's (existing or proposed) public road reserve.	Noted	Noted
C6.7 Landscape Area (Sector, Buffer Area or Development Site)		
1. Where a sector, buffer area or development site has a frontage to a creek, a minimum 35% of the site area is to be landscaped area.	Development site has a frontage to a creek. Approximately 10,891sqm or 51% of the site area is landscaped.	Complies

2. Where the sector, buffer area or development site has no frontage to a creek, a minimum 25% of the site area is to be landscaped area.	Not applicable – Development site fronts creek.	Not applicable
3. The minimum landscaped area directly impacts on site storage requirements for the overall water cycle management of a sector, buffer area or development site based on the Warriewood Valley Urban Land Release Water Management Specification (2001). This policy assumes 50% impervious area for a sector, buffer area or development site, therefore the Water Management Cycle model must account for the quantum of built upon area. Where the proposal's impervious area exceeds 50%, a reassessment of the site storage requirements should be undertaken and measures to address the difference must be clearly outlined.	The Impervious % of road reserve is 72.5% (raingardens have been counted as impervious area). The road reserve was approved under DA N0398/17. Refer to Early Works Da Package for additional information.	Complies
4. Landscaped areas are to be predominately areas of deep soil to allow the infiltration of rain water to the water table to reduce stormwater runoff, promote the healthy growth of large trees with large canopies and protect existing mature trees. Deep soil areas are areas of soil unobstructed by buildings or structures above or below the ground. The location of deep soil areas should, where possible, facilitate the retention of existing trees and vegetation	Refer to Landscape Early works package approved under DA N0398/17 for additional information	Complies
C6.8 Residential Development Subdivision Principles		
Subdivision Principles 1. The design of the subdivision should be generally consistent with the following key principles: • Sectors, buffer areas and development sites with an effective lot width less than 60 metres should ideally pursue opportunities for site amalgamation to facilitate orderly planning and development outcomes and the efficient use of land. • The subdivision layout including the lot size must respond to the physical characteristics particular to each sector, such as slope and existing significant vegetation, and site constraints including bushfire risk. • The subdivision layout is to incorporate adequate pedestrian, cycle and vehicle links to the road network, public transport nodes, pedestrian/cyclist network and public open space areas. • Roads should adjoin creekline corridors and open space areas to facilitate surveillance, provide access to and prevent isolation and degradation of these spaces. • Lots must have the appropriate area, dimensions and shape to accommodate the housing product proposed as well as canopy trees and other vegetation, an private outdoor open space, rainwater tanks, vehicular access and onsite parking. • Lots are to be orientated to optimise solar access for dwellings and areas of private open space. Widest or deepest lots are to be oriented with north to the front, with the narrowest orientated with north to the rear. • Larger lots should be located on corners.	As stated in the SEE, this Development Application seeks consent for the 24 Lot Community Title Subdivision; 22 of these lots will be future residential lots. The development site has an approximate width of 128m, therefore will not require site amalgamation. The development site is subject to a number of environmental constraints which have influenced the extent of land identified for future residential development. The subdivision plan has been designed to allow for future residential development to proceed without the need for built development to extend into the 25-metre outer creek zone; The proposed lots in the subdivision will maintain a 10-20 metre managed asset protection zone (APZ). The APZ will generally be cleared of existing vegetation. The landscaping works proposed as part of the application include back of kerb to property boundary and streetscape works. A pedestrian pathway has been provided from kerb to lot boundary as part of this application. A one-way road system which will comprise a 7.5-metre-wide access road (private residential street to be retained within community title ownership) with pavement on either side providing access to the development from Macpherson Street has been approved under DA N0398/17. The approved road, adjoins a public reserve. The proposed lots range in size between 240 sqm to 389 sqm, with lot frontages between 10 to 28m. The proposed subdivision layout plan is provided in **Annexure 2.**	Complies

	The lot sizes and configurations will allow for a range of dwelling types to be built; 18 of the 22 proposed residential lots would have direct access to the public road network; 4 of the proposed residential lots will be benefited by a 4.0m wide access and service easement. All the proposed residential lots are greater than 225 metres in area and have a lot width that is equal to or greater than 9m. An Indicative Building Envelope Plan (Refer to **Annexure 3**) has been submitted and demonstrates that future residential dwellings can be accommodated on the site. The proposed lots have been orientated in an east west direction facing the public reserve. Larger lots are located on the corners. Refer to **Annexure 2** for the proposed Subdivision Layout.	
2. Lots should be rectangular. Where lots are irregular in shape, they are to be large enough and orientated appropriately to enable a future dwelling to meet the controls in this DCP.	All the proposed residential lots are greater than 225 metres in area and have a lot width that is equal to or greater than 9m. The majority of lots are rectangular in shape. An Indicative Building Envelope Plan (Refer to **Annexure 3**) has been submitted and demonstrates that future residential dwellings can be accommodated on the site.	Complies
3. Lots less than 225m² in size or less than 9m wide are to be rear loaded, except where it can be demonstrated that: • rear access is not practical due to the size or shape of the development site; or • there will be no adverse impact on streetscape amenity and on-street parking.	Not applicable – Proposed lots range in size between 240 sqm to 389 sqm, with lot frontages between 10 to 28m.	Not applicable
4. The minimum width of a rear loaded lot is to be 4.5 metres.	Not applicable – rear loaded lot not proposed	Not applicable
Street Network 1. The design of the internal street network should: • establish a traditional grid street network pattern to facilitate walking and cycling and enable direct local vehicle trips; • encourage a low speed traffic environment; • optimise solar access opportunities for dwellings; • respond to the natural site topography to minimise cut and fill; • seek to retain significant trees or areas of bushland; and • provide frontage to and maximise surveillance of open space areas and riparian corridors.	The site is currently serviced by Macpherson Street which will support access to and from the site. Pedestrian and vehicular ingress/egress to the site is proposed via a one-way road system which will comprise a 7.5-metre-wide access road (private residential street to be retained within community title ownership) with pavement on either side providing access to the development from Macpherson Street. The proposed civil works have been approved under DA N0398/17	Complies
Lot Diversity Requirements 1. A range of residential lot types (varying in area, frontage, depth and access) should be provided to ensure a mix of housing types and dwelling sizes.	Noted – Refer to proposed Subdivision Layout in **Annexure 2.**	Complies

<table>
<tr>
<td>2. Not more than 40% of the lots created through a subdivision proposal may be of the same lot type. Every development application for subdivision must be accompanied by a Lot Mix table showing the lot types, number and percentage of the overall total.</td>
<td>A lot Mix Table has been provided as part of the application see below.

Refer to Annexure 3 - Indicative Building Envelope Plan.

<table>
<tr><th>Lot Number</th><th>Lot Area (m²)</th><th>Site Coverage (m²)</th><th>%</th><th>Landscaped Area (%)</th><th>POS Area (m²)</th></tr>
<tr><td>1</td><td>294</td><td>94</td><td>32.0</td><td>68.0</td><td>10.0</td></tr>
<tr><td>2</td><td>240</td><td>92</td><td>38.3</td><td>61.7</td><td>10.0</td></tr>
<tr><td>3</td><td>257</td><td>124</td><td>48.2</td><td>51.8</td><td>10.0</td></tr>
<tr><td>4</td><td>279</td><td>139</td><td>49.8</td><td>50.2</td><td>10.0</td></tr>
<tr><td>5</td><td>281</td><td>138</td><td>49.1</td><td>50.9</td><td>10.0</td></tr>
<tr><td>6</td><td>274</td><td>133</td><td>48.5</td><td>51.5</td><td>10.0</td></tr>
<tr><td>7</td><td>267</td><td>127</td><td>47.6</td><td>52.4</td><td>10.0</td></tr>
<tr><td>8</td><td>260</td><td>121</td><td>46.5</td><td>53.5</td><td>10.0</td></tr>
<tr><td>9</td><td>253</td><td>116</td><td>45.8</td><td>54.2</td><td>10.0</td></tr>
<tr><td>10</td><td>246</td><td>110</td><td>44.7</td><td>55.3</td><td>10.0</td></tr>
<tr><td>11</td><td>388</td><td>128</td><td>33.0</td><td>67.0</td><td>10.0</td></tr>
<tr><td>12</td><td>295</td><td>113</td><td>38.3</td><td>61.7</td><td>10.0</td></tr>
<tr><td>13</td><td>232</td><td>93</td><td>40.1</td><td>59.9</td><td>10.0</td></tr>
<tr><td>14</td><td>257</td><td>109</td><td>42.4</td><td>57.6</td><td>10.0</td></tr>
<tr><td>15</td><td>272</td><td>131</td><td>48.2</td><td>51.8</td><td>10.0</td></tr>
<tr><td>16</td><td>273</td><td>133</td><td>48.7</td><td>51.3</td><td>10.0</td></tr>
<tr><td>17</td><td>273</td><td>133</td><td>48.7</td><td>51.3</td><td>10.0</td></tr>
<tr><td>18</td><td>273</td><td>133</td><td>48.7</td><td>51.3</td><td>10.0</td></tr>
<tr><td>19</td><td>273</td><td>133</td><td>48.7</td><td>51.3</td><td>10.0</td></tr>
<tr><td>20</td><td>273</td><td>128</td><td>46.9</td><td>53.1</td><td>10.0</td></tr>
<tr><td>21</td><td>389</td><td>96</td><td>24.7</td><td>75.3</td><td>10.0</td></tr>
<tr><td>22</td><td>240</td><td>92</td><td>38.3</td><td>61.7</td><td>10.0</td></tr>
</table>
</td>
<td>Complies</td>
</tr>
<tr>
<td>3. Lot type is determined by lot width. Lot width is measured from one side boundary to the other at the primary street front building line not including access handles. Lots of different lot types must have to have a difference in their lot widths of at least 2 metres.</td>
<td>The proposed lots range in size between 240 sqm to 389 sqm, with lot frontages between 10 to 28m. Lots 3 – 10 and 13 -20 each have a lot width of 10m.</td>
<td>Complies</td>
</tr>
<tr>
<td>4. Not more than 20% of any block length is to be of front-loaded lots less than 9 metres wide to avoid the streetscape being visually dominated by garages and to reasonably optimise on street parking opportunities.</td>
<td>The proposed lots have lot frontages between 10-28m. Indicative Building Envelope Plan shows garages that have been integrated into the building.

The design of the dwelling will be addressed in a separate development application.</td>
<td>Complies</td>
</tr>
</table>

<table>
<tr><td>Titling arrangements

1. The design of the subdivision must consider the future ownership, access and management of the internal road network, water management facilities and any other infrastructure associated with the development that, in turn, informs the form/type of subdivision proposed.</td><td>The works proposed under this application include:
• Proposed Lot 1 – Private access loop road;
• Proposed Lots 2 – 23 – future residential lots under community title; and
• Proposed Lot 24 – Land to be dedicated to Council, being the 25-metre inner creek line corridor.</td><td>Complies</td></tr>
<tr><td>2. Details of proposed requirements for services and infrastructure, including garbage collection and emergency services, access and maintenance necessary for the subdivision to function are to accompany the development application.</td><td>Services and infrastructure have been included in this application. Refer to the Civil plans at Annexure 6 & 7. Emergency services and garbage trucks using the private loop road were considered and approved as part of the early works DA.</td><td>Complies</td></tr>
<tr><td colspan="3">C6.9 Residential Land Subdivision Approval Requirements</td></tr>
<tr><td>1. The land subdivision approval process is to be consistent with the requirements of the table below:

<table><tr><th>Approval Pathway</th><th>Pathway 1: DA for subdivision</th></tr><tr><td>Application</td><td>Proposed lots equal to or greater than 225 square metres in area, and with a lot width equal to or greater than 9 metres.</td></tr><tr><td>Plans required</td><td>Plan of Subdivision showing the building envelope for each lot is required. Plans of each dwelling are not required, as these will be included as part of any future Development Application or Complying Development Certificate.</td></tr><tr><td>Section 88B restriction on dwelling design</td><td>No</td></tr><tr><td>Timing of subdivision (registration of the subdivision with Land and Property Information)</td><td>Prior to approval of any land use including residential development.</td></tr></table></td><td>All 22 proposed lots have an area greater than 225sqm and lot width greater than 9 metres.

A Building Envelope Plan (BEP) has been submitted as part of the application. Refer to Annexure 3.

Registration of each lot can be conditioned as part of the consent.</td><td>Complies</td></tr>
<tr><td>Pathway 1 – Application for subdivision only

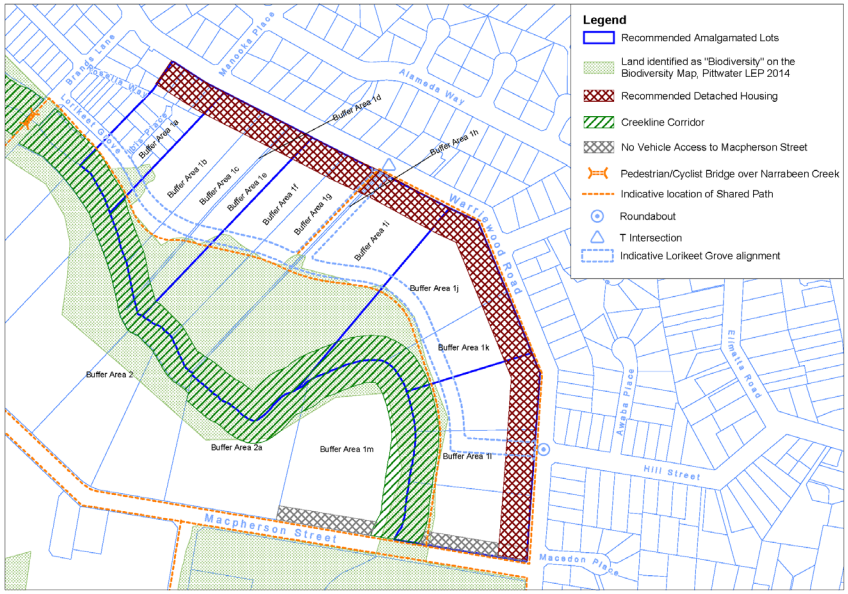
If a Plan of Subdivision incorporating a Building Envelope Plan is provided with the Development Application, it must be in accordance with the following:

• The Building Envelope, shown on the Plan of Subdivision, should be at a legible scale and include the following elements:
  • maximum permissible building envelope (including site coverage for a Complying Development Certificate), specifying setbacks, storeys and articulation zones;
  • landscaped areas and deep soil areas;
  • preferred location of private open space;
  • driveway location and location of any hardstand areas;
  • garage size (single or double) and location; and
  • zero lot line boundaries.</td><td>A Building Envelope Plan (BEP) is provided with the Development Application.

The BEP shows setbacks, first floor and second floor storeys, garage locations, landscaping areas, private open space areas ad driveway locations.

The BEP demonstrates that future dwellings can comply with the building requirements specified in Councils Requirements.

Refer to Annexure 3 for BEP.</td><td>Complies</td></tr>
</table>

C6.10 Additional Specifications for development of Buffer Area 1a to 1m		
Location of Pedestrian and Cycleway Network 1. The alignment of the pedestrian and cycleway network is to be generally in accordance with the Indicative Layout Plan below.  	Not applicable – not based on subject site.	Not applicable.