

ITEM 7

POST EXHIBITION - REVIEW OF DCP CHAPTERS RELATING TO MANAGEMENT OF VEGETATION

On 17 October 2022 Council considered a report proposing house-keeping amendments to three Chapters of Wollongong Development Control Plan (DCP) 2009 that contain controls for the management of vegetation and resolved to exhibit the updated draft DCP Chapters. On 7 November 2022 Council considered a report proposing the consolidation of three tree policies into one draft Tree Management Council Policy to guide the management of trees on both private and Council owned land and resolved to exhibit the draft Policy and customer guide.

The draft Tree Management Policy, draft customer guide and draft DCP Chapters were exhibited concurrently between 14 November and 19 December 2022. The purpose of this report is to provide feedback in relation to the exhibited draft DCP Chapters and recommend Council adopt the updated Chapters. A separate report has been being prepared for Council to consider the exhibited draft Tree Management Policy and associated customer guide.

RECOMMENDATION

The following updated chapters of the Wollongong Development Control Plan 2009 be adopted and a notice be published on Council's website –

- a. Chapter E17: Preservation and Management of Trees and Vegetation.
- b. Chapter E18: Native Biodiversity Impact Assessment.
- c. Chapter B6: Development in the Illawarra Escarpment.
- d. Appendix 4: Definitions.

REPORT AUTHORISATIONS

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ATTACHMENTS

- 1 Overview of Exhibited House-Keeping DCP Amendments
- 2 Summary of Submissions
- 3 Updated Wollongong DCP 2009 Chapter - E17: Preservation and Management of Trees and Vegetation
- 4 Updated Wollongong DCP 2009 Chapter - E18: Native Biodiversity Impact Assessment
- 5 Updated Wollongong DCP 2009 Chapter - B6: Development in the Illawarra Escarpment
- 6 Updated Wollongong DCP 2009 Chapter - Appendix 4: Definitions

BACKGROUND

Trees and vegetation management is regulated by various State and Federal legislation, State Environmental Planning Policies and the Wollongong DCP 2009. Since commencement of the Wollongong DCP in 2010, several legislative and Council policy changes have occurred to the management and conservation of trees and vegetation. A review of relevant chapters of Wollongong DCP 2009 has been undertaken to reflect contemporary legislative and policy amendments.

Wollongong DCP 2009 has been reviewed to bring it into alignment with relevant legislative changes and to reflect the objectives of Council's key strategic plans. All Wollongong DCP 2009 Chapters referencing repealed legislation including the *Native Vegetation Act 2003*, *Threatened Species Conservation Act 1995*, *Nature Conservation Trust Act 2001*, Part 6 of the *National Parks and Wildlife Act 1974*; SEPP (Vegetation in non-rural areas) 2017 or Clause 5.9 of Wollongong LEP 2009 (also repealed by the Land Management and Biodiversity Conservation reforms) were identified for review. Specifically, the following Wollongong DCP 2009 Chapters were identified for amendment -

- Chapter E17: Preservation and Management of Trees and Vegetation.
- Chapter E18: Threatened Species Impact Assessment.

- Chapter B6: Development in the Illawarra Escarpment.
- Appendix 4: Definitions.

Wollongong DCP 2009 Chapter E17: Preservation and Management of Trees and Vegetation outlines Council's requirements for the preservation and management of trees and other vegetation, including the pruning and removal of trees.

Chapter E18: Threatened Species Impact Assessment provides information and assistance to applicants and decision makers who may be required to consider the effect of a proposed development, activity or action on threatened species, populations and endangered ecological communities, or their habitats.

Chapter B6: Development in the Illawarra Escarpment provides guidelines for the subdivision of land and the siting and design of buildings within the Illawarra Escarpment.

An overview of the house-keeping amendments recommended for each Chapter is outlined as Attachment 1.

On 17 October 2022 Council considered a report proposing house-keeping amendments to three Chapters of Wollongong DCP 2009 containing controls for the management of vegetation and resolved as follows -

- 1 *The following updated draft chapters of the Wollongong DCP 2009 be exhibited for a minimum period of 28 days –*
 - a *Chapter E17: Preservation and Management of Trees and Vegetation.*
 - b *Chapter E18: Native Biodiversity Impact Assessment.*
 - c *Chapter B6: Development in the Illawarra Escarpment.*
 - d *Appendix 4: Definitions.*
- 2 *Following the exhibition period, a report outlining the submissions received during the exhibition period be prepared for Council to consider concurrently with the Tree Management Policy, including any post exhibition revised amendments for adoption.*

Trees and vegetation located on private and public lands are currently managed under three separate Council policies. A separate review has been conducted to simplify and consolidate these policies and to develop customer guidelines that are aligned with the principles of the Urban Greening Strategy 2017 – 2037. On 7 November 2022 Council considered a report proposing the consolidation of three tree policies into one draft Tree Management Council Policy to consistently guide the management of trees on both private and Council owned land. Council resolved that:

- 1 *The following proposed draft documents be placed on public exhibition for a minimum of 28 days and concurrently with the recently endorsed review of the Vegetation Chapters of the Wollongong Development Control Plan 2009 -*
 - a *Tree Management Policy.*
 - b *Managing trees in Wollongong – A customer guide.*
- 2 *Following the exhibition period, a report outlining the submissions received during the exhibition period be prepared for Council to consider including any post exhibition revised amendment for adoption.*

PROPOSAL

The draft Tree Management Policy, draft "Managing Trees in Wollongong – A customer guide", and the draft updated DCP 2009 Chapters were exhibited concurrently between 14 November and 19 December 2022. As a result of the public exhibition a total of 44 submissions were received.

This report will address submissions on the draft DCP Chapters. A separate report addresses the submissions received on the draft Policy and customer guide.

Draft Updated DCP Chapters

Overall, 33 submissions commented on one or more aspects of the exhibited draft DCP Chapters. Following is a summary of the key issues raised by the community in relation to the exhibited DCP Chapters. A summary of submissions relating to the DCP Chapters exhibited is included as Attachment 2.

Table 1 - Draft Wollongong DCP 2009 Key Issues Raised

Issue raised	Implications for DCPs
Revision to Definition of “tree” re tree heights and trunk diameters viz a viz the need for permits – submissions received both in support and in opposition.	Draft Tree Management Policy position is to proceed with updated definition, which will be reflected in the Wollongong DCP 2009 chapters.
<p>Deep planting for development proposals should be encouraged on the street frontage, not the rear of lots.</p> <p>Developments in the Wollongong city area and surrounds should push back off the pavement leaving room for future trees in the streets – it’s fast becoming ‘uglified’ by blocks of high rise with narrow footpaths. Each block should have landscaping and community recreation/ community gardens and areas of town squares, green spaces and meeting places easily accessed by people living in these high rise apartment blocks.</p>	<p>Wollongong DCP 2009 Chapter B1 Residential Development currently contains setback controls for general residential development and residential flat buildings, and Chapter E6 Landscaping contains landscaping controls.</p> <p>Additionally, the Apartment Design Guide provides consistent planning and design standards for apartments across the State. It provides design criteria and general guidance about how development proposals can achieve the nine design quality principles identified in SEPP 65 (<i>State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development</i>).</p> <p>No additional set back or landscaping DCP controls are recommended as a result of the exhibition.</p>
Roof top planting should be required, or at least encouraged, on all buildings of 3 storeys or more.	Wollongong DCP 2009 Chapter E6 Landscaping currently does encourage the use of green roof planting and green walls, particularly where this forms part of a communal open space arrangement in a mixed use development, and for non-residential development in the Wollongong City Centre.
The Draft Policy should recognise the importance of maintaining solar efficiency of residential homes and explicitly include provisions to prune branches (without Council approval) or remove trees (with an approval process) that compromise solar efficiency of roof photovoltaic collectors, clothes lines, swimming pools, private open space living areas and other passive solar design elements. The Draft Policy is clear on the benefits of shade but ignores the equally important benefits of the sun.	<p>The Draft Tree Management Policy position is that Council will not prune trees for the sole purpose of improving solar access.</p> <p>The implication of this draft Policy is that the onus is on the individual to work within the constraints specific to their site, and hence no additional Wollongong DCP 2009 objectives and controls are recommended as a result of the exhibition.</p>

Issue raised	Implications for DCPs
<p>Policy and tree selection process should reflect the achievement of desired environmental outcomes, such as increased biodiversity, native bird habitat and safety/creation, wetland resilience and expansion, weed control, water quality for our creeks and lake, climate change.</p>	<p>New legislation defines habitat trees and vegetation for protection, to achieve desired environmental outcomes.</p> <p>This updated legislation has been included in the house-keeping updates to the relevant Wollongong DCP 2009 Chapters, now specifically declaring trees and other vegetation under Part 3 of State Environmental Planning Policy (Biodiversity and Conservation) 2021 and for development under the <i>Environmental Planning and Assessment Act 1979</i>. Where a tree or other vegetation is declared in the DCP Chapter, a person must not clear vegetation without a permit granted by Council or a development consent.</p>
<p>Would encourage Council to investigate further policy options to address tree planting requirements for both developers and land owners in new subdivisions to ensure the future canopy cover will align with Council's Urban Greening Strategy.</p> <p>Please favour local native species in tree selection - they have the added benefit of shared evolution with the rest of the biodiversity of the Illawarra. The replacement of weed trees is also essential to protect EECs and bushland generally.</p> <p>Residents should be given further encouragement and guidance to plant/replant their gardens with local native plants, to form wildlife corridors within the city. Also to educate local people of the dangers of planting inappropriate exotic species.</p> <ul style="list-style-type: none"> • Have local native/indigenous species comprise at least 50% of the species in the 'palette of species' for urban greening. • Have a target of at least 75% of all trees planted under the Urban Greening Strategy being local native species, regardless of the proportions in the 'palette of species'. • Employ a methodology for species selection that prioritises local natives as the default option, Australian (non-local natives) as the second-best option and exotic species as the third-best option. 	<p>Wollongong DCP 2009 Chapter B2 Residential Subdivision currently contains objectives and controls relating to street tree planting. Wollongong DCP 2009 Chapter E6: Landscaping currently contains objectives and controls relating to landscaping requirements for new subdivisions.</p> <p>Under the draft Tree Management Policy Council plantings will follow the "right tree right place" approach. When tree condition indicates time for replacement in public parkland near Endangered Ecological Communities (EECs) or bushland, they will be replaced with appropriate species for the site (prioritising local endemics).</p> <p>Council encourages planting of natives and weed control through publications available on the website and at the Customer Service Centre such as "Grow Local Guides".</p> <p>Approximately 88% of trees and vegetation planted in the public domain as a result of Council's Urban Greening Strategy and Natural Area restoration work are native species.</p>

Issue raised	Implications for DCPs
<p>2. Appendix 4 Definitions:</p> <ul style="list-style-type: none"> • Arborist – should delineate between an Operational Arborist and a Consulting Arborist and the level of AQF requirement. • Tree Protection Zone – should detail this term if from AS4970 based on industry accepted calculations. SRZ should also be included. • The term Project Arborist should also be detailed based on AS4970. 	<p>Agreed – definitions have been updated</p>
<p>Section 6.4: on longer projects a mid point inspection isn't enough. This point should read for (b) "or as directed by the Project Arborist on jobs longer than six months".</p>	<p>Agreed – change made to (b) to read:</p> <p>"At mid point of the construction phase, or as directed by the Project Arborist on jobs longer than six months".</p> <p>Additionally, "Certification from a qualified arborist may also be required" changed to "Certification from an AQF level 5 Arborist must be obtained..." to strengthen this control.</p>
<p>No rationale is provided for the changes to the new section 11.7 of Chapter E17, removing the requirement to lodge a Development Application for removal of sixteen (16) or more trees on lands excluding lands zoned either E2, E3 or E4, or for removal of six or more trees or clearing of other native vegetation on land zoned either E2, E3 or E4. Such a requirement should be retained or made more stringent.</p>	<p>Wollongong DCP 2009 controls amended to reflect updated legislation and Policy - any private land owner can apply to remove trees. Any tree above 5m or 30cm diameter on private land has to go through an approval gate – consent for removal. Each tree is assessed on its condition (health and structure).</p> <p>Developing land (buildings and infrastructure) triggers a development application process which also has an approval gate for proposed tree removal.</p> <p>No additional tree removal DCP objectives or controls are recommended as a result of the exhibition.</p>
<p>The Exempt Tree Species List at Appendix 1 should be modified to include a small number of additional highly invasive exotic species that as yet are not widely present as large trees in the region. The species are Chinese Celtis (<i>Celtis sinensis</i>) and Japanese Flowering Cherry (<i>Prunus serrulata</i>), both of which are spreading rapidly around the region and need to be actively managed to prevent them from replacing indigenous trees.</p>	<p>The exempt tree species list allows for control without an approval gate. If these trees require control on Council owned land, a coordinator can consent to their removal. On private land the permit process applies. These species are currently not included on the South East Weed Strategy Priority Weed list. The Wollongong DCP 2009 will be reviewed and future updated in line with any updates to the South East Weed Strategy Priority Weed list.</p>

Issue raised	Implications for DCPs
<p>The term 'habitat tree' is defined in the section of Definitions and Acronyms in Chapter E17 but is nowhere else referenced in Chapter E17. For the term to have any regulatory force, it needs to be used within Chapter E17, for example in the definition of 'Declared vegetation' which could be revised to specifically reference 'habitat trees'.</p>	<p>A key purpose of DCP Chapter E17 is to "declare" trees and vegetation under SEPP (Biodiversity and Conservation) 2021 and for development under the EP&A Act 1979. Where a tree or vegetation is "declared" in this Chapter, permission is required via a permit issued by Council or development consent to clear. The definition of declared vegetation does include vegetation that represents habitat or likely habitat.</p> <p><i>Declared vegetation means any of the following types of vegetation -</i></p> <ul style="list-style-type: none"> • <i>Native vegetation within areas mapped in the Wollongong Local Environmental Plan (LEP) 2009 Natural Resources Sensitivity layer, or</i> • <i>Vegetation that represents habitat or likely habitat for threatened species populations and endangered ecological communities as defined within the Biodiversity Conservation Act 2016 and/or Environment Protection and Biodiversity Conservation Act 1999.</i> <p><i>Habitat tree means any tree which is a nectar feeding tree, roost and nest tree or a hollow-bearing tree which is suitable for nesting birds, arboreal marsupials (possums), micro-bats or which support the growth of locally indigenous epiphytic plants such as orchids.</i></p> <p>Wollongong DCP 2009 Chapter E18 Native Biodiversity Impact Assessment will also apply whenever a tree is assessed as being a habitat tree that has threatened species implications.</p>
<p>Please minimise concrete including driveways and maximise soft areas to assist run off.</p>	<p>Wollongong DCP 2009 Chapter B1 Residential Development contains Site Coverage and Landscaped Area objectives and controls to limit the building footprint and ensure adequate provision is made for landscaped areas, deep soil zones, permeability and private open space.</p>
<p>Dangerous Trees - big developers can clear huge amounts of vegetation and zoning areas, but the average person can't remove a dangerous tree near their dwelling. You should be able to remove a tree near your dwelling and have conditions around contributing to an organisation that replants in an appropriate space.</p>	<p>Under current Wollongong DCP 2009 controls, each tree is assessed by a qualified arborist within an internationally recognised risk framework. The Tree Permit process considers the risk an individual tree may pose to people or substantial property.</p> <p>The updated Tree Management Policy proposes a change to the tree permit system – tree replacement for trees removed on private land is mandatory and consistent with the replacement practice on public land. In circumstances where a tree can't be replaced on privately-owned property, an additional fee is payable as part of the tree permit application and will be used to fund tree planting on public land where the tree can be maintained throughout its life by Council.</p>

Issue raised	Implications for DCPs
There should be special protection for any trees with nesting hollows. Often these irreplaceable old growth specimens will house up to five different species nesting hollows. Tree plantings take decades before coming into their own.	Habitat protection is covered by environmental laws referenced in the updated Tree Management Policy which inform existing and proposed tree management operations.
The Mitigation Hierarchy three step approach of “avoid, minimise, offset” provides developers with a process that allows for the removal of trees and vegetation irrespective of its biodiversity, habitat values or benefits to citizens. The Council should campaign vigorously against the implementation of the Mitigation Hierarchy approach.	The NSW Biodiversity Conservation Act establishes a hierarchy for dealing with the impact of development on biodiversity values – first by way of avoidance of impacts, second by minimisation of them and for offsetting as a last resort. The Mitigation Hierarchy is embedded in the legislation.

In addition to the submissions received, relevant divisions within Council were also consulted. The following issue was raised by Council’s Legal team in relation to the exhibited draft Chapter E17: Preservation and Management of Trees and Vegetation:

Table 2 – Council Officer Feedback

Issue raised	Implications for DCP
Section 11 (7-d) of the exhibited Chapter E17 requires a DA for the removal of certain vegetation - this is contrary to the updated legislation under the SEPP which has introduced a permit system for the removal of trees and vegetation.	Section 11 (7-d) deleted, in line with the updated legislation.

Attachments 3 to 6 contain the recommended updated WDCP 2009 Chapters as a result of the review and public exhibition feedback.

CONSULTATION AND COMMUNICATION

As part of the review, internal consultation was undertaken with relevant Council divisions to understand how the DCP Chapters are referenced, with the aim of incorporating improvements. Stakeholder consultation was undertaken with Council’s Environment, Landscaping, Development Assessment, Subdivision, Land Use Planning and Legal divisions to inform the Wollongong DCP 2009 review.

The DCP provisions adopted by other local government areas were also reviewed to inform the preparation of amendments to Wollongong LEP 2009 in relation to the management of trees and vegetation.

The draft Tree Management Policy, draft “Managing Trees in Wollongong – A customer guide”, and the draft updated DCP 2009 Chapters were exhibited between 14 November and 19 December 2022. The Engagement Plan for the public exhibition of the draft tree Management Policy and associated DCP Chapters was as follows:

Stakeholder	Engagement Methods
Individuals, groups, or organisations with an interest in the project.	Briefings; letterbox drops, EHQ page, EHQ tools
Private landowners	Media (including social media), library info EHQ page, feedback form
Residents	Media (including social media), library info EHQ page, feedback form
Environment/conservation groups	Email, EHQ page, feedback form
Bushcare groups	Email, EHQ page, feedback form
Register of interest – environment	E-newsletter, EHQ page, feedback form
Neighbourhood Forums & NIRAG	Email, EHQ page, feedback form
Arboriculture Industry – Local service providers	Direct engagement with Consultants, Email, EHQ page, feedback form
Endeavour Energy	Email, EHQ page, feedback form

Copies of the suite of documents were made available at -

- All Council libraries;
- Council's Customer Service Centre, Ground Floor Administration Building, 41 Burelli Street Wollongong; and
- Council's website www.our.wollongong.nsw.gov.au

Social media was used as follows: Facebook posts promoting the exhibition were published on 21 November, 22 November and 14 December 2022, as well as an Instagram post on 21 November 2022.

Council officers also briefed the Neighbourhood Forums (NF1, NF7, NF5, NF4, NF8) at their November/December meetings and attended the Greenplan Sales Day at the Wollongong Botanic Gardens on Friday 18 November 2022 to distribute information, answer questions and encourage people to make a submission.

Two online information sessions were conducted on 6 December 2022 to provide information about the proposed changes and answer questions. These online information sessions were attended by 17 community members and were well received.

Relevant Divisions within Council were also advised of the exhibition.

As a result of the exhibition Council's exhibition web page received 966 views and 305 documents were downloaded. Overall 44 submissions were received in response to the combined exhibition of the draft Policy and customer guide and draft DCP Chapters, with 33 submissions commenting on one or more aspects of the exhibited draft DCP 2009 Chapters.

PLANNING AND POLICY IMPACT

This report contributes to the delivery of Our Wollongong Our Future 2032 Community Strategic Plan Goal 1 *"We value and protect our environment"*. It specifically delivers on the following –

- 1.1 The community is actively involved in the expansion, improvement and preservation of our waterways, green corridors and other natural areas connecting the escarpment to the sea.
- 1.2 Manage and effectively improve the cleanliness, health, biodiversity of land and water including creeks, lakes, waterways and oceans.

CONCLUSION

A review of vegetation management Chapters of the Wollongong Development Control Plan 2009 has been conducted and the need for house-keeping amendments identified in line with updates to relevant legislation and Council policy.

It is recommended that Council adopt the updated Wollongong DCP 2009 Chapters - E17: Preservation and Management of Trees and Vegetation; E18: Native Biodiversity Impact Assessment; B6: Development in the Illawarra Escarpment; and Appendix 4: Definitions.

Review of Wollongong Development Control Plan 2009: Various Chapters – Trees and Vegetation

An overview of the house-keeping amendments recommended for each Chapter is outlined below –

Chapter E17: Preservation and Management of Trees and Vegetation – changes proposed include -

- Updates to reflect the extent of the legislation changes and the aims and objectives of the *Environmental Planning & Assessment Act* (EP&A Act) and the SEPP (Biodiversity and Conservation) 2021.
- Removal of reference to WLEP 2009 Clause 5.9 (repealed with the legislation changes).
- Replace references to “prescribed” trees and vegetation with “declared” to reflect current legislation.
- Inclusion of an additional objective “Apply the Mitigation Hierarchy to tree and other vegetation management within the Wollongong LGA and where impacts are unavoidable facilitate adequate compensation for tree removal and cleared vegetation to ensure no long-term net loss of vegetation is incurred”, as outlined in the current legislation.
- Inclusion of updated information on approval pathways, consistent with current legislation.
- Updates to reflect changes to other relevant legislation, update Council Policy and guidelines.
- Update to “Exemptions for approvals” to reflect clearing of rural land under the Local Land Services Act 2013, and lands deemed certified under a Biodiversity Certification Agreement or subject to a Conservation Agreement.
- Strengthening of controls to exclude certain trees and vegetation from exemptions to DCP controls (threatened or Endangered Ecological Community (EEC); heritage; conservation or other agreement/restriction in place).
- Introduction of updated definition of “Tree”: taller than 5 metres or diameter at ground level >300mm (30cm) will require a permit.
- Correction of text errors.
- Restructured to be more logical and consistent with other DCP chapters recently reviewed and updated.

Chapter E18: Threatened Species Impact Assessment - changes proposed include -

- Proposed name change for chapter to “Native Biodiversity Impact Assessment”, to better reflect broader intent of legislative changes (i.e. overall biodiversity impacts).
- Updates to reflect the extent of the legislation changes and the aims and objectives of the EP&A Act and the SEPP (Biodiversity and Conservation) 2021.
- Objectives strengthened to refer to biodiversity, updated legislation requirements and reflect the ‘Mitigation Hierarchy’ of avoid, minimise, and mitigate impacts and introduce a mechanism for compensation where impacts to biodiversity are unavoidable, as outlined in the current legislation.

- Inclusion of updated information on approval pathways, consistent with current legislation.
- Updates to reflect changes to other relevant legislation, policy and guidelines.
- Strengthening of controls to include protection of conservation lands and consideration of Biodiversity Certification.
- Updates to survey requirements for the preparation of flora and fauna impact assessments and the assessment of impacts on threatened species and/or threatened ecological communities.
- Update of definitions.
- Summaries of legislation deleted.
- Restructured to be more logical and consistent with other DCP Chapters recently reviewed and updated.

Chapter B6: Development in the Illawarra Escarpment - changes proposed include -

- Introduction of a new objective in line with Chapter E17 "Encourage Biodiversity Stewardship Agreements".
- Change "existing cleared site" references to "legally cleared site" to reflect the possibility of future Biodiversity Certification of land proposed for development.
- Current reference to 7 Part Test updated to "5 Part Test".

Appendix 4: Definitions- changes proposed include -

- Deletion or updates to selected definitions

Summary Table of Submissions

Name/Origin	Comments
Neighbourhood Forum 7	<p>There are a number of positives in the Draft Policy, including the: -</p> <ul style="list-style-type: none"> • Foundation principle of Right Tree Right Place, • Revisions to tree heights and trunk diameters viz a viz the need for permits.
Neighbourhood Forum 5	<p>Propose:</p> <ul style="list-style-type: none"> • Deep planting for development proposals should be encouraged on the street frontage, not the rear of lots. • Roof top planting should be required, or at least encouraged, on all buildings of 3 storeys or more.
Neighbourhood Forum Alliance	<p>There are a number of positives in the Draft Policy, including the:</p> <ul style="list-style-type: none"> • Foundation principle of Right Tree Right Place; • Revisions to tree heights and trunk diameters viz a viz the need for permits. <p>Propose:</p> <ul style="list-style-type: none"> • Deep planting for development proposals should be encouraged on the street frontage, not the rear of lots. • Roof top planting should be required, or at least encouraged, on all buildings of 3 storeys or more. <p>The Draft Policy should recognise the importance of maintaining solar efficiency of residential homes and explicitly include provisions to prune branches (without Council approval) or remove trees (with an approval process) that compromise solar efficiency of roof photovoltaic collectors, clothes lines, swimming pools, private open space living areas and other passive solar design elements. The Draft Policy is clear on the benefits of shade but ignores the equally important benefits of the sun.</p> <p>The impact of climate change should be included as a factor in the tree selection process. The achievement of desired environmental outcomes, such as increased biodiversity, native bird habitat and safety, wetland resilience and expansion, weed control, water quality for our creeks and lake.</p>
Northern Illawarra	<p>Propose:</p> <ul style="list-style-type: none"> • Deep planting for development proposals should be encouraged on the street frontage, not the rear of lots.

Name/Origin	Comments
Residents Action Group	<ul style="list-style-type: none"> Roof top planting should be required, or at least encouraged, on all buildings of 3 storeys or more. <p>The Draft Policy should recognise the importance of maintaining solar efficiency of residential homes and explicitly include provisions to prune branches (without Council approval) or remove trees (with an approval process) that compromise solar efficiency of roof photovoltaic collectors, clothes lines, swimming pools, private open space living areas and other passive solar design elements. The Draft Policy is clear on the benefits of shade but ignores the equally important benefits of the sun.</p>
The National Trust of Australia (NSW) – Illawarra Shoalhaven Branch	<p>The Illawarra Shoalhaven Branch is concerned with the lack of potential canopy cover in new urban development releases. The reduction in lot sizes, combined with larger building footprints provides less opportunity for tree planting and future canopy cover. We would encourage Council to investigate further policy options to address tree planting requirements for both developers and land owners in new subdivisions to ensure the future canopy cover will align with Council’s Urban Greening Strategy.</p> <p>In addition, the Illawarra Shoalhaven Branch supports in principle the ‘housekeeping’ updates made to the DCP chapters E17: Preservation and Management of Trees and Vegetation, E18: Threatened Species, B6: Development in the Illawarra Escarpment and Appendix 4.</p>
Moore Trees	<p>1.The current height of three (3) metres and/or with a girth of twenty (20) centimetres or more, measured at a distance of one hundred (100) centimetres above the ground should be retained as is.</p> <p>The WCC Policy change document states that the reason to increase the height limit is to reduce workload. The contradiction is clear though. Less red tape, less trees, less trees reaching maturity. This is no Green Plan. Surrounding LGA areas prescribed tree height limits – 3 to 6m. Should Council change the prescribed tree height to 5 metres, it would place WCC in the top three places. Does Wollongong City Council want to be seen as a leader in urban tree removal?</p> <p>2.Appendix 4 Definitions:</p> <ul style="list-style-type: none"> Arborist – should delineate between an Operational Arborist and a Consulting Arborist and the level of AQF requirement. Tree Protection Zone – should detail this term if from AS4970 based on industry accepted calculations. SRZ should also be included. The term Project Arborist should also be detailed based on AS4970. <p>3.Section 6.4: on longer projects a mid point inspection isn’t enough. This point should read for (b) “or as directed by the Project Arborist on jobs longer than six (6) months”. Point (c) should be retained.</p>

Name/Origin	Comments
Urban Biodiversity Illawarra	<p>Draft changes to Development Control Plan chapters relating to trees and vegetation</p> <p>UBI generally supports the proposed changes, with the following reservations and suggestions:</p> <ul style="list-style-type: none"> No rationale is provided for the changes to the new section 11.7 of Chapter E17, removing the requirement to lodge a Development Application for removal of sixteen (16) or more trees on lands excluding lands zoned either E2, E3 or E4, or for removal of six (6) or more trees or clearing of other native vegetation on land zoned either E2, E3 or E4. Such a requirement should be retained or made more stringent. The term 'habitat tree' is defined in the section of Definitions and Acronyms in Chapter E17 but is nowhere else referenced in Chapter E17. For the term to have any regulatory force, it needs to be used within Chapter E17, for example in the definition of 'Declared vegetation' which could be revised to specifically reference 'habitat trees.' At present the definition of 'Declared vegetation' does not specifically reference 'habitat trees.' A concerted campaign of community education is needed to prevent further canopy loss due to the increase in height of trees that can be removed without a permit from 3m to 5m. For many people a 'big tree' is anything over about 4m tall. Enforcement and compliance efforts relating to unauthorised removals of trees over 5m need to be significantly stepped up to protect remaining canopy trees on private property, and to avoid giving an impression that 'anything goes'. Approval to remove trees over 5m needs to be more tightly managed and restricted. We are still seeing huge numbers of trees over 5m removed from private property with Council approval, as documented in the tree removal register. <p>Where patently unsuitable species such as <i>Magnolia grandiflora</i> cultivars are planted widely despite their drought-susceptibility and nonindigenous trees are planted at Hooka Point directly adjacent to bush regeneration activities and remnant vegetation, suggests that the purported 'right tree in the right place' approach is, in at least some cases, recommending the wrong trees. Use of cultivars of indigenous species (e.g. <i>Elaeocarpus reticulatus</i> 'Prima Donna', <i>Tristaniopsis laurina</i> 'Luscious', <i>Syzygium australe</i> 'Big Red') should also be avoided where possible, which may introduce genetic pollution to areas of natural vegetation.</p> <p>UBI asks that the Tree Management Policy and the Urban Greening Strategy be used as an opportunity to develop and promote Wollongong as a 'Rainforest City' with the following policy priorities:</p> <ul style="list-style-type: none"> At every opportunity, use policy settings to protect, preserve and restore native vegetation and ecological communities. Have local native/indigenous species comprise at least 50% of the species in the 'palette of species' for urban greening. Have a target of at least 75% of all trees planted under the Urban Greening Strategy being local native species, regardless of the proportions in the 'palette of species'.

Name/Origin	Comments
	<ul style="list-style-type: none"> Employ a methodology for species selection that prioritises local natives as the default option, Australian (non-local natives) as the second-best option and exotic species as the third-best option. <p>The Exempt Tree Species List at Appendix 1 should be modified to include a small number of additional highly invasive exotic species that as yet are not widely present as large trees in the region. The species are Chinese Celtis (<i>Celtis sinensis</i>) and Japanese Flowering Cherry (<i>Prunus serrulata</i>), both of which are spreading rapidly around the region and need to be actively managed to prevent them from replacing indigenous trees.</p>
Community Member	<p>Need to focus on habitats rather than single trees, wherever possible in our city. All new habitats should contain trees, shrubs and grasses, native to this area and residents should be given further encouragement and guidance to plant/ replant their gardens with local native plants, to form wildlife corridors within the city.</p> <p>We are facing an extinction crisis in Australia : the loss of many native species and the reduction in populations of others. This will eventually impact on humans. As the climate is dramatically changing, we need to grow local to avoid shortages of fresh food and this needs more, healthy and sustained pollinators. Urgently need larger populations of bees and other species which assist pollination.</p>
Community Member	<p>We should not be making it easier for Wollongong residents to remove trees on their property by changing the definition of a tree (for pruning and removal purposes) to be 5 meters tall, rather than the previous 3 meters. This change will not increase canopy! It seems designed to placate the tree haters once again or create less work for some Council employees.</p> <p>People need a permit to clear native vegetation, vegetation that provides habitat or likely habitat for threatened species, populations and endangered ecological communities, or vegetation in riparian zones. This is particularly important because some indigenous tree species that provide vital habitat and biodiversity don't reach 5m in height. I would be happy if exotic trees up to 5 meters could be removed without a permit as long as they were replaced with local native trees.</p>
Community Member	<p>Key theme missing throughout the document is habitat creation, which can be easily added in a few words at key points. Given where we live and the wildlife crisis across Australia that is a Federal focus right now this should be a primary consideration for the right tree, right place approach, bringing WCC in line with the current political environment.</p> <p>1. "Trees selected for planting should be the largest tree species which are compatible with the growing space and surrounding infrastructure."</p>

Name/Origin	Comments
	<p>It would be better to replace trees with the largest, most appropriate habitat-creating species of a size most compatible with the growing space and surrounding infrastructure. This would then allow you to consider the wildlife you have in or want to attract to an area. For example, from planting the right trees at my house I have gone from having nothing but minor birds in my yard to having stick insects, preying mantis, bower birds, crimson rosella, koel, nesting wattle birds, magpie larks, black faced cuckoo shrikes etc visiting my garden. All of these species also use the gum in my neighbours yard along with possums, fig birds and native bees.</p> <p>2. "Council will also continue to plant exotic species in certain situations that meet the right tree / right place approach and contribute to species diversification creating a more resilient Urban Forest."</p> <p>It would be better adding after the right tree/right place approach "where no suitable local native species will provide adequate habitat creation and urban canopy. This will contribute to species diversification creating a more resilient Urban Forest."</p> <p>3. "Objectives of tree planting include optimising canopy cover, activating spaces, increasing active transport, providing shade / heat mitigation, and increasing public amenity." Need to also include "habitat creation". The right trees provide habitat creation for marsupials, birds, insects and humans.</p> <p>Could also improve tree canopies by making developers plant on their rooves/put parkland on top. This includes trees using cell technology. The Canopy, Lane Cove is a perfect example of what can be achieved with this approach. https://thecanopylanecove.com.au/</p>
Community Member	<p>There are a number of positives in the Draft Policy, including the: -</p> <ul style="list-style-type: none"> • Foundation principle of Right Tree Right Place, • Revisions to tree heights and trunk diameters viz a viz the need for permits.
Community Member	<p>I urge Council to consult with experts in local bush rehabilitation to compile a list of species that accompanies the tree management policy, that are NOT to be planted on public or private land, or if prohibition is not within Council's role, then at least a strong recommendation in a list of species that should NOT be planted within the LGA.</p> <p>Please favour local native species in tree selection - they have the added benefit of shared evolution with the rest of the biodiversity of the Illawarra. The replacement of weed trees is also essential to protect EECs and bushland generally.</p>
Community Member	<p>A key change in Wollongong City Council's draft Tree Management Policy and Development Control Plan is changing the requirement to prune or remove a tree from three metres and over to five metres and over. It is stated that this change is to shift resources from</p>

Name/Origin	Comments
	<p>administering permits for small trees to protecting larger canopy trees, and also in response to the finding that 86% of customers who responded to a survey were unsatisfied with the current tree permit process. Our concerns with this amendment are as follows:</p> <p>1. Whilst the intention of the policy change is to make it easier for residents to manage their properties and make good decisions about trees, it is unknown if it will encourage people to plant new trees on their property. Further, there is no way to know if there is a net loss or gain in trees, as it will be unknown how many trees between three and five metres have been removed.</p> <p>Data stating the number of tree removal and pruning applications made in the previous 12 months for trees 3 to 5 metres and above 5 metres is not contained in the plan. It is also unclear if there are intentions to continue to collect this data in the future. In meeting targets to increase the number of trees in the city and at a time when it is vital that we meet our climate targets, Wollongong Council should make it more difficult for residents to remove trees, not easier.</p> <p>2. The proposed change undermines the importance of small to medium sized trees, which have a number of crucial roles, and threatens <i>WCC's Climate Change Mitigation Plan. Theme 5: Trees and Vegetation Goal: Our ecosystems and waterways are enhanced, our urban areas are cooler and greener and our community is connected to our natural environment.</i></p> <p>Trees in the 3 to 5 metres range have numerous benefits to the environment. Native, flowering trees and shrubs provide habitat and food for native animals and birds. They provide shade, protection, a cooling effect, reducing reliance on power for air conditioning and heating, and contribute to council's commitment to climate change. Importantly these trees, if of the correct species, will grow into larger trees, providing further benefits.</p> <p>In the Illawarra and Shoalhaven regions, councils have varying policies regarding the size of the tree requiring an application to prune or remove. While the less populated LGAs of Kiama and Shoalhaven require permits for tree removal of over 5 metres, Shellharbour LGA who is more urbanised like Wollongong LGA, still requires a permit to prune or remove trees over 3 metres.</p>
Community Member	<ul style="list-style-type: none"> • The change in height (from 3m to 5m) for small trees and shrubs that can be removed, we agree with. • Council needs to use policy to preserve, protect and restore native vegetation and ecological communities. There needs to be a focus on both temperate rainforest preservation and preservation of our remnants of subtropical rainforest, the latter of which we don't think enough is being done to protect. • At least 60% of the species in the "palette of species" for urban greening should be local native species, and at least 75% of all trees planned under the Urban Greening Strategy should be local native species.

Name/Origin	Comments
	<ul style="list-style-type: none"> There also needs to be more of a focus in promoting the value of local biodiversity.
Community Member	Object - The policy seems to reduce the controls on pruning/ removing trees from having to ask for consent on a tree that was 3 meters to now increasing the tree height to 5 metres.
Community Member	<p>The only significant change to the Tree Management Policy is to appear to make it easier for private landowners to remove trees between 3-5 metres. The consequence will be fewer trees growing to over 3 metres and a reduction in the future urban canopy's height and maturity. For wildlife the difference between 3 and 5 metres is significant for nesting and protection from predators and vehicles.</p> <p>Why are there no protections for native vegetation, particularly trees between 3 and 5 metres, of which there are hundreds of subtropical rainforest species endemic to this area's unique geography?</p> <p>The knock-on effect for wildlife and biodiversity will be significant if trees between 3 and 5 metres are now removed in large numbers due to the new freedoms given to residents, and no doubt developers in critical suburbs adjacent to the escarpment (e.g., Mt Keira, Mt Pleasant, Thirroul, Dapto) on private property. The only benefit appears to be reduced staff workloads in Wollongong Council for tree management - odd given rising council rates in this area. No reference to climate change or biodiversity loss and the critical role of AGED trees for carbon capture and storage. Trees need to be allowed to grow above 3 metres (indeed 5 metres) to lock in greenhouse gases and the notion that private residents are now free to reduce the stock of trees between 3-5 metres goes against the government targets for a low carbon transition. Tree Assets "aging" is not a "compounding issue" seeking a solution (page 2). It is something to celebrate and encourage.</p> <p>The section in 'Wollongong DCP 2009 Chapter E17: Preservation and Management of Trees and Vegetation Summary of Proposed Changes' New Objective: "Apply the Mitigation Hierarchy to tree and other vegetation management within the Wollongong LGA, and where impacts are unavoidable facilitate adequate compensation for tree removal and cleared vegetation to ensure no net loss of vegetation is incurred". There is a real threat here to existing vegetation that is mature stock as there appears to be limited safeguards about what constitutes 'unavoidable' and whether native flora will be emphasised in this compensation. What form will this compensation take? If financial, what safeguards are there for native flora to be planted to replace removed trees and cleared vegetation. Many species are simply not available in large enough quantities and in the right conditions to replace existing biodiversity. Why is the definition of 'habitat tree' not pertinent to trees below 5 metres (p.3)? This is critical to understand the importance of trees</p>

Name/Origin	Comments
	in the 3-5 metre range and will impact wildlife if ill-defined. Where is the evidence to support the conclusion that trees between 3-5 metres are not critical for wildlife as habitat?
Community Member	<p>People in our street won't plant any native trees possibly because they are unfashionable or they can't prune or cut them down. People should be made to plant natives or edible/ fruit trees.</p> <p>Please minimise concrete including driveway and maximise soft areas to low runoff into our ocean habituate and global warming.</p> <p>Please make developments in the Wollongong city area and surrounds push back off the pavement leaving room for future for trees in the streets, its fast becoming uglified by blocks of high rise with narrow footpaths. Each block should have landscaping and community recreation/ community gardens and areas of town squares, green spaces and meeting places easily accessed by people living in these high rise apartment blocks. Very sad to see this cheap and nasty town planning when we have the opportunity to make a beautiful city. Terrible town planning. Why?</p>
Community Member	3m to 5m height exemption change is sensible.
Community Member	<p>Keep the give back to the environment by replanting-stop planting and keeping huge gum trees and massive trees near buildings and houses. It is okay to say things are beautiful, but when children are being hit by branches and sticks or can't access areas due to danger or damage to one's property or valuables is due to trees being the wrong type in high human traffic areas be sensible with plans. It is all well and good until someone close to you is injured.</p> <p>Seriously big developers can clear huge amounts of vegetation and zoning areas, but the average person can't remove a dangerous tree near their dwelling. You should be able to remove a tree near your dwelling and have conditions around contributing to an organisation that replants in an appropriate space.</p>
Community Member	<p>There are many good features in the Policy, but I would suggest amending it in the following ways. Council should:</p> <ol style="list-style-type: none"> 1. prioritise growing local native species wherever possible; 2. increase availability of local native trees; 3. increase community education concerning the benefits of increased canopy cover; 4. provide more free local tubestock to ratepayers; 5. clarify what compliance measures it will take concerning trees over 5 metres.

Name/Origin	Comments
Community Member	Inclusion of Developers in the Policy - this is a massive shortcoming of the policy in light of the increased development activity occurring in the region. Consideration for developer activity should be incorporated as there have been countless examples recently where development land clearing activity has resulted in substantial damage to adjacent residential properties as a result of silt and storm water runoff. This should be an obvious risk that occurs when large trees are removed on mass as there is no longer a root system that draws water deep into the soil. If the Tree Management Policy does not include activity by developers then you will see further reduction in the tree canopy, less greening, less shade, less biodiversity and you will not realise your vision. While including developers in the policy will increase complexity it must be done! As a LGA you cannot say on one hand that private land owners have a large responsibility for increasing canopy cover, and then on the other not implement any tree management restrictions or mandates on the vast number of development activity occurring in the region. If the Council does not want to include developers in the Tree Management Policy due to political/financial impacts, then at a minimum the Council should mandate that the public land/verge in front of the developments has canopy providing trees planted to enable some semblance of the greening goal to be achieved.
Community Member	<p>I applaud all the work that has gone into this update. However I am really concerned about how the objectives can be achieved while this aspect of the DCP is so out of line with the planning guidelines controlling development in Wollongong, especially Medium Density Development.</p> <p>Surely something as simple as increasing set backs to create an adequate area of deep soil around developments to allow tree preservation and/or plantings would be possible. We are losing so many mature shade trees in the current rush to increase density of development in Wollongong. Off-sets resulting in plantings in parks will certainly benefit residents when they visit the parks, and will create habitat for native species, however they will not assist in shading our homes and streets.</p>
Community Member	<p>I agree it needs to be harder to remove trees.</p> <p>I think that council should only be planting local native trees- I was surprised that Crepe Myrtle are often used in urban areas e.g. Unanderra, when they are not indigenous. Can native trees be specified in the plan?</p>
Community Member	<p>Please prioritise biodiversity by planting local native species of trees as a default, followed by Australian native species.</p> <p>Will your stated compensation not encourage cutting of trees? There should be special protection for any trees with nesting hollows. Often these irreplaceable old growth specimens will house up to five different species nesting hollows. Tree plantings take decades before coming into their own. There should be a percentage of a block put aside for a large tree. Brisbane recommends 10 per cent.</p>

Name/Origin	Comments
Community Member	My concern is that when a block is redeveloped and many trees are removed, often they are replaced by 'landscaping' with ornamental and low quality plants instead of there being a requirement to plant local and or native plants that attract birds and insects and provide habitat.
Community Member	It would be good if council would take some control over what plants are able to be planted. There is a big push for simple plants that can easily take over an area (like Star Jasmine for example) when it comes to approving developments. Council should be favouring and pushing the use of native plants or plants that produce a fruit.
Community Member	<p>Trees planted in the Illawarra should be native to the Illawarra. "Australian native" is too broad, an acacia from Western Australia could easily become a weed in Wollongong. I feel that all trees planted should be locally native. The excellent online resource at https://finder.growingillawarranatives.org/plants/finder should be used for plant selection and also as a guide for developers.</p> <p>As the area from Kembla Grange through to Calderwood gradually fills with houses, there needs to be a minimum tree cover through the new suburbs. There are already too many subdivisions where the roof of one house almost touches the next, with no vegetation of any kind in between.</p>
Community Member	<p>Overall I support the contents however I suggest that there should be additional material inserted into the policy that deals with the impact of trees shading solar panels installed on the roof of domestic property, and the impact of trees eliminating the benefit of winter sun to provide passive heating.</p> <p>Roof top solar will continue to increase and is an important contribution to the production of clean renewable energy in the context of reducing climate change. The policy rightfully details the benefits of providing shade in the urban community, however it does not address the problem of when that shade blocks out the sun on solar panels or eliminate the benefit of warming a house in winter. There should be some provision in the policy that allows council to allow tree pruning and/or removal to maintain solar electricity production and winter warming.</p> <p>Where this is the reason that allows the removal of a tree I suggest that the owner of the property be required to plant a greater number of trees elsewhere (eg 3 or 5 trees). If they can't be located on the property owner's land, then the property owner would pay to have these trees planted on public land as part of Council's enhanced tree planting program. I think some recognition in the policy that roof top solar needs to be maintained without shading is especially relevant for properties close to the escarpment which already lose winter sun in the middle of the afternoon. Winter sun is lower in the northern sky in the middle of the day and trees which are close to and north and north west of a property block out winter sun and can almost eliminate solar collection in winter when it is</p>

Name/Origin	Comments
	<p>most needed to supply energy , and for heating a home. This is particularly relevant for houses which are built with passive solar architecture design. These houses are deliberately built to allow winter sun into the home to provide passive heating. The reality is that trees are planted or self seed and grow in locations that then cause unwanted shading in winter. Where trees grow after the build and block out the winter sun it defeats the intention and expenditure incurred to build a house designed to receive winter sun and the installation of solar panels.</p>
Community Member	<p>Indigenous species should always be promoted as first choice - and the reasons for this (best adapted to the climate, zero weed risk, habitat and wildlife value, Indigenous cultural values) should be made clear.</p> <p>There needs to be more education about the importance of native vegetation and the benefits it brings. There is a fear that native vegetation is a bushfire risk - with rainforest species, the opposite is true. The “neat and tidy” approach of having lawn under a few trees also encourages noisy miners. This information needs to include plant communities under 5m in height e.g. hind dune vegetation. So much of this has been lost already - we need to focus on regeneration and home owners can contribute to this by planting low-growing, low-maintenance Indigenous plants in their gardens. With appropriate education, this is likely to be highly popular.</p> <p>Local Indigenous species should be first choice everywhere, not just close to existing natural areas. In this way, new natural areas can be created. This can be supported through the excellent “tiny forests” initiative. However it’s also a good way of mitigating the vegetation-clearing damage of subdivisions.</p> <p>There really is no excuse for planting exotics - and “Australian native” is a Colonial concept. It’s time we moved past that and started behaving as though we’re on Dharawal Country. There is no need to “trial” Alphitonia, Podocarps etc. They have been growing successfully here for tens of thousands of years and are already popular street trees both here and in Sydney.</p> <p>I’m very concerned about increasing the height of native trees that can be removed without a permit. I don’t understand what’s to prevent the new saplings, intended to replace (ha ha ha) mature trees cut down on building and subdivisions, just being removed by the new owners since they are invariably under 3m when planted. So the “two for one” policy is unworkable and ineffective and needs replaced with something effective, such as a target canopy cover percentage.</p>
Community Member	<p>The term ‘Tree Management and Vegetation Permit’ should not become the non-descriptive ‘Permit’. The permit’s name should define its purpose.</p>

Name/Origin	Comments
	<p>Declared tree: the definition should be 3 metres or a diameter of 20 cm (200mm) at base to protect tree species that may be smaller along the coastal plain due to wind pruning and other factors.</p> <p>The Mitigation Hierarchy three step approach of “avoid, minimise, offset” provides developers with a process that allows for the removal of trees and vegetation irrespective of its biodiversity, habitat values or benefits to citizens. This will lead to the complete destruction of plant life, the fauna its supports and quality of life in areas set aside for building and construction. The Council should campaign vigorously against the implementation of the Mitigation Hierarchy approach.</p>
Community Member	<p>I like the focus on the urban forest and the Council's intention to encourage private land owners to plant more trees. However I would like a far more comprehensive plan to promote natives indigenous to the Illawarra. I believe the Council should ONLY be encouraging local indigenous natives - and that doesn't just apply to trees, but all plantings. We have a wonderful, diverse botanical gene pool to draw from, and we should be encouraging local natives for habitat, biodiversity and the protection of our beautiful bushland. Council Policy should be to actively encourage local natives in ALL areas of the LGA, not just in areas adjacent to existing natural areas.</p> <p>I would encourage the Council to do MUCH more to educate the LGA on the benefits of growing Illawarra native trees and plants. Also to educate local people of the dangers of planting inappropriate exotic species.</p>
Community Member	<p>Council Policy and supporting guidance should prioritize local native trees, not only in areas close to an existing natural area or riparian zone. The DCP and Tree Management documentation should prioritize growing local native species in every urban context to support the protection, restoration and re-establishment of biodiversity corridors and connections across the LGA.</p>



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Trees and Vegetation

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1 INTRODUCTION

Trees and vegetation play an important role in the urban landscape, delivering significant long term benefits for our City and community wellbeing. Effective management depends upon appropriately regulated pruning and removal of trees and vegetation, as well as the long term retention, protection and growth of existing vegetation and new plantings.

2 PURPOSE

The purpose of this Chapter is to outline Council's requirements for the preservation and management of trees and other vegetation (including pruning and removal). It establishes a framework for the submission of applications relating to -

- The management of trees and vegetation
- The provision of permits and development approvals for vegetation clearing and tree removal and pruning
- Compensation for tree and vegetation removal.

It specifically declares trees and other vegetation under State Environmental Planning Policy (Biodiversity and Conservation) 2021 and for development under the Environmental Planning and Assessment Act 1979. Where a tree or other vegetation is declared in this Chapter, a person must not clear vegetation without a permit granted by Council or a development consent. Council can only issue a permit for the removal or pruning of native vegetation that is below the Biodiversity Offset Scheme (BOS) threshold.

3 LAND TO WHICH THIS CHAPTER APPLIES

This Chapter of the DCP applies to all lands within the City of Wollongong Local Government Area.

4 DEVELOPMENT TO WHICH THIS CHAPTER APPLIES

Assessment and approval pathways for tree removal, pruning or vegetation clearing depend on the purpose, nature, location and extent of vegetation clearing proposed.

This Chapter of the DCP applies to trees and vegetation (whether indigenous/endemic, exotic or introduced species) –

1. On all Non-Rural land (land in any zone other than RU1 – RU4) within the Wollongong LGA, where the proposed pruning, clearing or removal does not exceed the Biodiversity Offsets Scheme (BOS) threshold trigger. If the proposed removal or pruning exceeds the BOS threshold trigger, it requires an approval from the Native Vegetation Panel - refer to SEPP (Biodiversity and Conservation) 2021.
2. On Rural land (land zoned RU1-RU4), where the proposed pruning, clearing or removal is associated with a development that requires development consent from Council.

Section 10 of this Chapter identifies types of trees and works that do not require Council approval.

Two application processes are relevant to Council's assessment and approval for declared trees and vegetation:

1. Permit to remove trees and/or vegetation (generally for individual/small scale tree removal and pruning in urban areas) - refer to Council's website for guidance on policies and procedures;
2. Development consent via either Complying Development or Development Application.

5 OBJECTIVES

1. The objectives of this part of the DCP are to:
 - a) Protect trees within the City of Wollongong Local Government Area.
 - b) Protect and enhance native vegetation, habitat for native fauna and biodiversity.

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- c) Protect and enhance native vegetation for its scenic values and to retain the unique visual identity of the landscape.
- d) Conserve trees of ecological, heritage, aesthetic and cultural significance.
- e) Conserve significant stands of remnant vegetation.
- f) Manage non-native vegetation in accordance with its cultural heritage and landscape significance.
- g) Ensure that any new development considers and maximises the protection of existing vegetation in the site planning, design, development, construction and operation of the development.
- h) Identify trees and other vegetation that may be pruned or removed without the necessity for a Permit or development consent.
- i) Apply the Mitigation Hierarchy to tree and other vegetation management within the Wollongong LGA, and where impacts are unavoidable facilitate adequate compensation for tree removal and cleared vegetation to ensure no net loss of vegetation is incurred.

6 RELATED LEGISLATION

The following key legislation is related to this Chapter, noting that it is the applicant's responsibility to be familiar with, and comply with, all legislation current at the time of an application -

- Environmental Planning and Assessment Act 1979.
- Biodiversity Conservation Act 2016.
- National Parks and Wildlife Act 1974.
- Fisheries Management Act 1994.
- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth).
- NSW State Environmental Planning Policy (Biodiversity and Conservation) 2021.
- NSW Biodiversity Conservation Regulation 2017.

Note: It is an offence to harm or pick protected species, threatened species, populations or endangered ecological communities (EECs) under the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994*, without appropriate approvals or exemptions. The *Environment Protection and Biodiversity Conservation Act 1999* also prescribes offences for unapproved significant impacts on threatened species and threatened ecological communities. Prosecutions can result in significant penalties including fines and imprisonment.

7 RELATIONSHIP TO OTHER DCP CHAPTERS

This Chapter should be read in conjunction with Chapter E18: Native Biodiversity Impact Assessment, which relates to biodiversity and includes consideration of impacts to both flora and fauna and their interaction with landscape elements that sustain a diverse ecosystem.

8 APPROVAL PATHWAYS

8.1 Tree Clearing, Removal or Pruning that Require Approval

A person must not undertake clearing, pruning or removal of a declared tree or vegetation without development consent through a Development Application, or a Permit granted by Council. This section identifies what trees or vegetation are "declared" and sets out the approval process used by Council to assess applications.

Applications to Council for tree and/or vegetation clearing, removal and pruning are received by Council in the form of a **Permit Application** (where the Biodiversity and Conservation SEPP applies) or a **Development Application** (under Part 4 of the EP&A Act), unless the land is zoned for Rural purposes (RU1, RU2, RU3 or RU4) and the proposed clearing is not associated with a development application.

Any proposed clearing of vegetation on Rural land (zoned RU1-RU4) that is not associated with a Development Application is referred to NSW Local Land Services – Council cannot process these

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applications. The NSW Government's online mapping tool must also be checked to determine if the proposed clearing will trigger the NSW Biodiversity Offset Scheme and require an application to the NSW Native Vegetation Panel.

8.2 Declared Trees or Other Vegetation - Permission is Required

This section declares trees and other vegetation for the purposes of the Biodiversity and Conservation SEPP 2021 and Part 4 of the Environmental Planning and Assessment Act 1979.

The species or kinds of trees and vegetation that are declared are -

1. Trees within the Wollongong LGA that are not identified in this Chapter as Exempt.
2. Native vegetation within areas mapped on Council's Plant Community Type Vegetation Map.
3. Vegetation that represents habitat or likely habitat for threatened species, populations, and endangered ecological communities as defined within the Biodiversity Conservation Act 2016.
4. Vegetation identified as a heritage item or within the curtilage of a heritage item, as identified under the Wollongong LEP 2009.
5. Vegetation located within a riparian zone or within 40 metres of the top bank of a creek, river, watercourse, wetland, stream or other aquatic habitat.

8.3 Tree/Vegetation Clearing, Removal or Pruning that Requires a Development Application

A Development Application (DA) is required for the tree/vegetation clearing, removal or pruning if the tree or vegetation is a type declared in Section 8.2 above, and any of the following apply -

- The proposed clearing, removal or pruning is part of an application for other building work or development that requires a DA under Part 4 of the Environmental Planning and Assessment Act 1979.
- Trees or Vegetation identified as a heritage item of local significance or forms part of a heritage item of local significance in Schedule 5 of Wollongong Local Environmental Plan 2009 and the activity is not determined to be 'minor development'
- Vegetation mapped as coastal wetlands and littoral rainforests area under the State Environmental Planning Policy (Resilience and Hazards) 2021.

If the Development Application will impact **native vegetation**, the NSW Government online tool should be checked to determine if the proposed clearing will trigger the Biodiversity Offsets Scheme (NSW Biodiversity Conservation Act 2016). Should the application trigger the Biodiversity Offset Scheme threshold, the DA will need to be accompanied by a Biodiversity Development Assessment Report in accordance with the Biodiversity Conservation Act requirements, prepared by an accredited assessor.

Tree and other vegetation management associated with a development must be undertaken in accordance with the Mitigation Hierarchy - Avoid, Minimise and then Offset (see Chapter E18 for further information on the Mitigation Hierarchy and Council's policies for further information on Council's offsetting requirements)

8.4 Tree Clearing, Removal or Pruning that Require a Permit

A Permit Application is required for the clearing and/or pruning of a declared tree on all non-rural land (i.e. land in any zone other than RU1-RU4) whenever the works are not for the purposes of a new development and development consent does not apply (NSW Biodiversity and Conservation SEPP 2021). If a development application has been approved for the removal of a tree, a Permit is not required for that tree.

In accordance with the NSW Biodiversity and Conservation SEPP 2021, a person must not injure, clear or prune vegetation declared under this DCP without a permit granted by Council, except in accordance with the exemptions outlined in Section 10.

The NSW Government's online tool must be checked to ensure the proposed clearing does not trigger the NSW Biodiversity Offset Scheme. Should the proposed clearing of native vegetation exceed the Biodiversity Offset Scheme threshold, an application must be made to the NSW Native Vegetation Panel, established under the Local Land Services Amendment Act 2016. Council can only issue a Permit for the removal or pruning of native vegetation that is below the Biodiversity Offset Scheme threshold.

9 COMPENSATORY PLANTING / OFFSETTING

To maintain urban tree canopy cover, the applicant may be required to undertake compensatory activities to offset the impacts incurred through an approval to clear vegetation. These activities may be guided by any offsetting policy that Council has and may include payment of a fee to Council, for Council to undertake tree replacement on Council owned/managed land on behalf of the applicant or replacement of the vegetation with a suitable local native tree species in an appropriate location within the private property (refer to Council's website for applicable policies and guidelines).

10 EXEMPTIONS FROM APPROVALS

1. Neither a Permit or Development Consent is required for the pruning, removal, or injury of any tree or other vegetation in the following situations, provided the work is carried out in accordance with NSW WorkCover NSW Code of Practice: Amenity Tree Industry 1998 and the guidelines in Australian Standard AS 4373-2007 Pruning of Amenity Trees:
 - a) Clearing of trees and vegetation on rural zoned land (zones RU1-RU4) that is authorised under the Local Land Services Act 2013 (LLS Act).
 - b) Where a complying development application is lodged under and can satisfy the criteria of SEPP (*Exempt and Complying Development Codes*) 2008. Applicants should refer to the SEPP for details. Any removal associated with development or to facilitate development will require a Development Application if it cannot meet the requirements of the SEPP.
 - c) Clearing of trees and vegetation in accordance with the NSW Rural Service 10/50 Vegetation Clearing Scheme Code of Practice.
 - d) Clearing of vegetation that is authorised by A Property Vegetation Plan under the (former) Native Vegetation Act 2003, or Conservation Agreement, or lands deemed certified under a Biodiversity Certification Agreement, as administered by the relevant authority.
 - e) Where a declared tree has been approved for removal or management under a previous development consent (i.e. where such vegetation is within the building envelope or the surrounding curtilage of the building envelope).
 - f) Where a declared tree is included in Council's Exempt Tree Species List in Appendix 1 to this Chapter (excluding trees within the curtilage of a heritage item or heritage conservation area) or is listed in the South East Regional Strategic Weed Management Plan as a priority weed or other weed of concern.
 - g) Where bushfire hazard reduction work is undertaken, authorised by the NSW Rural Fire Service under the *Rural Fires Act 1997*.
 - h) Where action is required or authorised to be done by or under the *Electricity Supply Act 1995*, the *Roads Act 1993* or the *Surveying and Spatial Information Act 2002* or other Statutory Authorities.
 - i) Where a declared tree is located within a State Forest or on land reserved for sale as a timber forest reserve under the *Forestry Act 1916*.
 - j) Where a declared tree is within an approved plantation meeting the criteria of the *Plantation and Reafforestation Act 1999*.
 - k) *Where action is carried out by Council, State Emergency Service, Rural Fire Service, or another infrastructure authority/emergency service authority in response to an emergency (i.e. where there is an immediate threat of injury to persons or damage to property).
 - l) Any works to make safe a declared tree where there is an immediate threat of injury to persons or damage to property, either during or within 48 hours following a severe weather event. – Refer to note below.
 - m) Where the subject tree has been grown specifically for its edible fruit.
 - n) Where the works are undertaken by Council or a contractor acting on behalf of Council on Council owned or controlled land, including but not limited to lands within a sportsground, park, reserve, road reserve, riparian corridor.

***Note:** A Permit Application or Development Application must be lodged with Council for the removal or further pruning of a tree within 72 hours from the date of the emergency pruning works for any tree

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upon private land.

Exclusions from Exemptions

This Section does not apply to any declared tree or vegetation which -

- Is classified as being part of a vulnerable, threatened or endangered ecological community, or provides (or has the potential to provide) habitat for native fauna, or fauna classified as vulnerable or threatened under the relevant Act;
- Is located on a site that is classified as containing vulnerable, threatened or endangered ecological communities;
- Is, or forms part of, a heritage item or is within a heritage conservation area;
- Is required to be retained by the conditions of a development consent or a Section 88B restriction on the use of the land or positive covenant instrument.

11 FURTHER INFORMATION: PERMIT APPLICATION AND DEVELOPMENT APPLICATION

1. A Permit is required from Council for cutting down, pruning, removal or injury of any declared tree that is not exempt or is not associated with development requiring development consent.
2. A Permit is also required for any dead or dying tree.
3. Pruning of major structural roots or anchor roots is also subject to a Permit.
4. Permits are not suitable as a means to facilitate development, complying or otherwise.
5. Permits cannot approve the removal of a tree that is required to be retained by a development condition of consent. An application to modify the development consent will be needed in this instance.
6. Applicants should refer to the policies and procedures on Council's website or contact Council's Customer Service Centre for further information on the application process and assessment criteria.
7. The lodgement of a Development Application is required for the cutting down, pruning, removal, or injury of trees or other vegetation in the following situations:
 - a) Any development requiring tree removal that cannot be carried out in accordance with *SEPP (Exempt and Complying Development Codes) 2008* including the Part 3 General Housing Code and 3A Rural Housing Code.
 - b) Any tree and/or other vegetation identified as an item of heritage significance or located on land identified as containing an item of heritage significance, in Schedule 5 of Wollongong Local Environmental Plan 2009, unless Council is satisfied that the proposed tree works are of a minor nature or are for the maintenance of the heritage item and/or would not adversely affect the heritage significance of the heritage item.
 - c) Trees and/or other vegetation on land affected by *State Environmental Planning Policy (Resilience and Hazards) 2021*.
 - d) ~~Vegetation that represents habitat or likely habitat for threatened species, populations and threatened ecological communities as defined within the Biodiversity Conservation Act 2016 and/or the Environment Protection and Biodiversity Conservation Act 1999.~~

12 DEVELOPMENT APPLICATION – LODGEMENT REQUIREMENTS

1. The following information is required to be submitted with any Development Application:
 - a) Application form - completed and signed by all relevant property owners. This includes all property owners on land to which the subject tree(s) is situated, who must sign the application form or alternatively, an attached supporting letter must be provided which authorises the lodgement of the application for any works on the subject tree(s).
 - b) Details of the proposed number, species, age and size (i.e. height, trunk diameter, canopy spread) of tree(s) and/or other vegetation proposed to be removed / pruned.

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- c) Full written details as to the reasons for the proposed pruning or removal of the tree(s) and/or other vegetation.
 - d) A full description of existing trees and other vegetation upon the site.
 - e) Payment of the prescribed application fee.
 2. If a tree is growing near a common property boundary, ownership will be determined by identifying which side of the boundary the majority of the trunk's diameter exists at ground level.
 3. Where a property is in a Strata Plan under the *Strata Schemes (Freehold Development) Act 1973* or the *Strata Schemes (Leasehold Development) Act 1986*, the written consent and Body Corporate seal is required from the Body Corporate which authorises the lodgement of the application for the specific type of works to be undertaken.
 4. Council may require additional supporting information for an application, including the following:
 - a) Arborist's report;
 - b) Tree survey;
 - c) Flora and fauna impact assessment report;
 - d) Geotechnical or structural engineer's reports;
 - e) Bushfire assessment report;
 - f) Plumber's report;
 - g) Details of proposed root barriers; and/or
 - h) Medical Certificate from a Medical Practitioner in cases where the removal or pruning of a tree is requested due to quality of life issues (e.g. allergies).
 5. An Arborist who can prepare reports is a person who is eligible for membership as a 'Consulting Arborist' with the National Arborists Association of Australia or the Institute of Australian Consulting Arboriculturists and who has obtained a Level 5 Certificate in Horticulture/Arboriculture or equivalent.
 6. In cases where a tree has caused damage to a sewer, the application must include written evidence from a licensed plumber stating the extent of the problem. This is necessary given that damage to a sewer is often unidentifiable from the natural ground surface level.
 7. In all cases, all costs associated with providing any required additional information shall be borne by the Applicant.

13 TREE AND VEGETATION MANAGEMENT AS PART OF A DEVELOPMENT PROPOSAL

1. As part of the assessment of a Development Application for buildings where existing trees or other native vegetation are on the site, Council will determine if the trees should be retained, can be removed or if modifications need to be made to the layout of buildings and driveways. This will be determined using criteria for evaluation of significant trees and vegetation. The Development Application must be supported by an Arborist Report that complies with Council's requirements.
2. Generally for a tree to be retained reference must be made to Australian Standard AS4790-2009 Protection of Trees on Development Sites.
3. Where Council has issued a Development Consent for a structure or building, any tree with its base within three (3) metres of that building or structure on the subject land may be removed without further application to Council, provided the Council's Tree Management Officer is satisfied before the tree is removed that its base is within the three (3) metre limit.
4. If it has been determined that a tree or trees are to be retained, a tree protection zone must be established. This will include a fenced off area which must be maintained throughout the construction period and shall be exclusive of any buildings, footings, excavation, retaining walls, materials storage, services, level changes or hard surfaces in the zone. **Certification from an AQF level 5 Arborist must be obtained** at the following stages of the development:
 - a) Before commencement of construction;
 - b) At mid point of the construction phase, **or as directed by the Project Arborist on jobs longer than six**

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months ; and

- c) At completion of the construction phase.
- 5. Larger sites should use a Council approved Landscape Management Plan or a Vegetation Management Plan to maintain trees on regular basis. Where an approved Landscape Management Plan (detailing the proposed management methods) does not exist approval should be sought from Council as part of a development application. A Vegetation Management Plan may be required where there is significant vegetation present

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Declared tree is defined as -

- a) Five (5) metres or more in height; or
- b) Have a diameter of 30 cm (300mm) or more measured at ground level.

Declared vegetation means any of the following types of vegetation:

- Native vegetation within areas mapped in the Wollongong Local Environmental Plan (LEP) 2009 Natural Resources Sensitivity layer, or
- Vegetation that represents habitat or likely habitat for threatened species populations and endangered ecological communities as defined within the Biodiversity Conservation Act 2016 and/or Environment Protection and Biodiversity Conservation Act 1999, or
- Vegetation identified as a heritage item or within the curtilage of a heritage item, as identified under the Wollongong LEP 2009; or
- Vegetation within an Aboriginal Place, or
- Vegetation within the core riparian zone of a riparian corridor as defined in Wollongong LEP 2009 and DCP 2009 Chapter E23 or considered waterfront land under the Water Management Act 2000.

Habitat tree means any tree which is a nectar feeding tree, roost and nest tree or a hollow-bearing tree which is suitable for nesting birds, arboreal marsupials (possums), micro-bats or which support the growth of locally indigenous epiphytic plants such as orchids.

Height means the distance measure vertically between the horizontal plane of the lowest point of the base of the tree which is immediately above ground and the horizontal plane of the uppermost point of the tree.

Injury means damage to a tree and includes:

- Lopping and topping,
- Poisoning, including applying herbicides and other plant toxic chemicals to a tree or spilling of oil, petroleum, paint, cement, mortar and the like onto the root zone,
- Cutting, tearing, breaking or snapping of branches and roots that is not carried out in accordance with accepted arboricultural practices or is done for invalid reasons, including vandalism,
- Ringbarking, scarring the bark when operating machinery, fixing objects by nails, staples or wire or fastening materials that circle and significantly restrict the normal vascular function of the trunks or branches,
- Damaging a tree's root zone by compaction or excavation, asphyxiation including unauthorised land filling or stockpiling of materials around the tree trunk, and / or
- Underscrubbing, unless carried out by hand tools such as brushcutters and the like.

State Policy means State Environmental Planning Policies, or any other state documents or policy having the same statutory effect, however described.

APPENDIX 1 EXEMPT TREE SPECIES LIST

Common Name	Botanical Name
African Olive	<i>Olea europaea</i> subsp. <i>cuspidata</i>
Alder	<i>Alnus</i> species
Black Locust	<i>Robina pseudoacacia</i>
Box Elder	<i>Acer negundo</i>
Camphor Laurel	<i>Cinnamomum camphora</i>
Canary Island Date Palm	<i>Phoenix canariensis</i>
Hackberry or Sugarberry	<i>Celtis occidentalis</i>
China Doll	<i>Radermachera sinica</i>
Chinese Tallow	<i>Triadica sebifera</i> [<i>Sapium sebiferum</i>]
Cocos or Queen Palm	<i>Syagrus romanzoffiana</i>
Coral Tree	<i>Erythrina x sykesii</i>
Cotoneaster	<i>Cotoneaster</i> species
Domestic Fruit Trees	
Golden Cypress Pine	<i>Cupressus macrocarpa</i> 'Brunniana'
Honey Locust	<i>Gleditsia triacanthos</i>
Kaffir Plum	<i>Harpephyllum caffrum</i>
Golden Rain Tree	<i>Koelreuteria paniculata</i>
Liquidambar	<i>Liquidambar</i> species
Norfolk Island Hibiscus/Itchy Pod Tree	<i>Lagunaria patersonii</i>
Oleander	<i>Nerium oleander</i>
Pepper Tree	<i>Schinus areira</i>
Poplar	<i>Populus</i> species
Privet	<i>Ligustrum</i> species
Radiata Pine	<i>Pinus radiata</i>
Rubber Tree	<i>Ficus elastica</i>
Silky Oak	<i>Grevillea robusta</i>
Umbrella Tree	<i>Schefflera actinophylla</i>
Willow	<i>Salix</i> species
Yellowwood	<i>Nageia falcatus</i>



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DEFINITIONS AND ACRONYMS

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1 INTRODUCTION –

The Wollongong Local Government Area (LGA) is biologically diverse and contains a high number of ecological communities, native plants and animals that play an important role in the natural landscapes of the city.

Council has acknowledged the value of biodiversity and the role of Council and the community in its protection and preservation in the Community Strategic Plan Goal 1 “We value and protect our environment” and in the Sustainable Wollongong Strategy. This Development Control Plan (DCP) Chapter supports the Wollongong Local Environmental Plan (WLEP) 2009 by guiding development outcomes which align with our responsibility to manage and protect native flora and fauna, threatened species populations and endangered ecological communities.

2 PURPOSE

The purpose of this Chapter is to establish a framework for the submission of applications relating to development, activities or actions that have the potential to adversely impact on native biodiversity. It prescribes Council’s requirements relating to flora and fauna impact assessments, and threatened species and threatened ecological community surveys and reports, including the Test of Significance and Biodiversity Development Assessment Reports (BDARs).

3 LAND TO WHICH THIS CHAPTER APPLIES

This Chapter of the DCP applies to all lands within the Wollongong Local Government Area (LGA).

4 DEVELOPMENT TO WHICH THIS CHAPTER APPLIES

This Chapter applies to development, activities and actions that may impact on biodiversity including both development requiring consent under Part 4 of the *Environmental Planning and Assessment Act 1979*, and tree/vegetation clearing for which a permit is sought under the NSW State Environmental Planning Policy (Biodiversity and Conservation) 2021. It does not apply to activities under Part 5 of the *Environmental Planning and Assessment Act 1979*.

This Chapter also provides guidance on biodiversity assessment associated with Planning Proposals under Part 3 of the *Environmental Planning and Assessment Act 1979*.

5 OBJECTIVES

The objectives of this DCP Chapter are to:

1. Protect and enhance biodiversity in the Wollongong LGA, including threatened species, populations, ecological communities and corridors for flora and fauna;
2. Provide a consistent framework to assess applications which propose the clearing, removal or pruning of native vegetation/trees;
3. Ensure the impacts of development/vegetation clearing on biodiversity are managed through the Mitigation Hierarchy, with an emphasis on avoidance, and then if unavoidable, minimisation in accordance with the relevant legislation, policy and Council’s commitment to protect and enhance biodiversity;
4. Support compensation mechanisms where impacts to biodiversity are unavoidable.

6 RELATED LEGISLATION

The following key legislation is related to this Chapter, noting that it is the applicant’s responsibility to be familiar with, and comply with, all legislation current at the time of an application -

- Environmental Planning and Assessment Act 1979.

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- Biodiversity Conservation Act 2016.
- National Parks and Wildlife Act 1974.
- Fisheries Management Act 1994.
- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth).
- NSW State Environmental Planning Policy (Biodiversity and Conservation) 2021.
- NSW Biodiversity Conservation Regulation 2017.

Note: It is an offence to harm or pick protected species, threatened species, populations or endangered ecological communities (EECs) under the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994*, without appropriate approvals or exemptions. The *Environment Protection and Biodiversity Conservation Act 1999* also prescribes offences for unapproved significant impacts on threatened species and threatened ecological communities. Prosecutions can result in significant penalties including fines and imprisonment.

7 RELATIONSHIP TO OTHER DCP CHAPTERS

This Chapter should be read in conjunction with Chapter E17: Preservation and Management of Trees and Vegetation. Chapter E18 relates to biodiversity and includes consideration of impacts to both flora and fauna and their interaction with landscape elements that sustain a diverse ecosystem, in contrast to Chapter E17, which relates only to the preservation of trees and other vegetation.

8 APPROVAL PATHWAYS

A person must not undertake clearing, pruning or removal of a declared tree or vegetation without development consent through a Development Application, or a Vegetation Clearing Permit granted by Council (see Chapter E17).

Applications to Council for tree and/or vegetation clearing, removal and pruning are received by Council in the form of a **Development Application** (under Part 4 of the EP&A Act 1979) or a **Vegetation Clearing Permit Application** (where NSW SEPP – Biodiversity and Conservation 2021 applies). Some variations and exemptions to these approval pathways exist - these are detailed in Section 9 below.

Note: Applicants should also consider any implications under the State Environmental Planning Policy (Resilience and Hazards) 2021 by referring to associated mapping to determine if any impacts have the potential to occur in mapped coastal wetlands or littoral rainforests.

9 CONTROLS

9.1 Native Biodiversity Impacts Associated with a Development Application

- 9.1.1 A **Development Application** submitted to Council must demonstrate that any clearing, pruning or removal of a declared tree or vegetation associated with a development is to be undertaken in accordance with the **Mitigation Hierarchy** – of first avoid, then minimise, then offset. This means that the first priority is to avoid impacts of a proposal on biodiversity values. Where impacts cannot be avoided, a reasonable attempt must be made to minimise any impact. When all feasible measures have been taken to avoid and minimise the impacts, offsets should be used to compensate for any remaining impacts.
- 9.1.1.1 **Avoid:** Applicants must undertake the following measures to avoid biodiversity impacts associated with any development - careful site selection or actions taken through the design, planning, construction and operational phases of the development to completely avoid impacts on biodiversity values, or certain areas of biodiversity. Refer to the Biodiversity Assessment Method (BAM) for operational guidance.
- 9.1.1.2 **Minimise:** Where impacts cannot be avoided, measures are to be applied throughout the development planning and design and the operational life cycle which seek to reduce the residual impacts of development on biodiversity values. Mitigation measures must be genuine and be able to demonstrate that they will result in improvement or no net loss in perpetuity or for the life of the development and associated impacts.

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9.1.1.3 **Offset:** Offset measures must be undertaken to compensate for any residual significant, adverse impacts that cannot be avoided and / or minimised, in order to achieve no net loss or a net gain of biodiversity and biodiversity values.

9.1.2 If the Development Application (DA) will impact **native vegetation**:

- The NSW Government online tool should be checked to determine if the proposed clearing will trigger the Biodiversity Offsets Scheme (BOS) (See sections 9.4 and 9.5).

9.2 Native Biodiversity Impacts that are not associated with a Development Application

9.2.1 Applicants seeking to clear, prune or remove a declared tree(s) or vegetation that is not associated with a development application, must check the NSW Government's online tool to determine if the proposed clearing triggers the Biodiversity Offsets Scheme (BOS).

9.2.2 Where the BOS is not triggered applicants must apply to Council for a **Vegetation Clearing Permit**.

9.2.3 If the proposed clearing of native vegetation exceeds the BOS threshold, Council is not the appropriate regulatory authority for these activities and an application must be made to the NSW Native Vegetation Panel.

9.2.3 Exemptions to the requirement for a Vegetation Clearing Permit Application apply where the land is zoned for Rural purposes (RU1, RU2, RU3 or RU4). Council is not the appropriate regulatory authority for these activities. Advice regarding approval must be sought from the NSW Local Land Services.

9.3 Flora and Fauna Assessments

Flora and fauna assessments are required to be conducted and corresponding reports prepared and submitted to Council under the following circumstances-

1. For developments proposed under Part 4 of the *Environmental Planning and Assessment Act 1979* where direct or indirect impacts are anticipated to native biodiversity, including prescribed impacts as defined under the *Biodiversity Conservation Regulation 2017*.
2. For native vegetation clearing activities not associated with other development for which a Vegetation Clearing Permit is required and, where the clearing relates to -
 - (a) Threatened species, and/or threatened ecological communities (listed under the *Biodiversity Conservation Act 2016*), and/or
 - (b) Fauna habitat e.g. hollow-bearing trees, and/or
 - (c) Lands identified in the Wollongong LEP 2009 Natural Resources Sensitivity–Biodiversity Layer, and/or
 - (d) Lands identified in the Wollongong LEP 2009 Illawarra Escarpment Map, and/or
 - (e) Lands zoned as C2, C3 or C4, and/or
 - (f) Vegetation within 40m of a watercourse.

Flora and fauna assessment reports must be prepared by a suitably qualified expert and in accordance with the NSW Government 'Threatened Species Survey and Assessment Guidelines and Field Survey Methods'.

A flora and fauna assessment will assist Council in determining the potential impacts of a development/ clearing and whether the BOS is applicable to the development.

9.4 Biodiversity Offsets Scheme (BOS)

The *Biodiversity Conservation Act 2016* and the corresponding *Biodiversity Conservation Regulation 2017* outline the framework for addressing impacts on biodiversity from development and clearing, based on the

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Mitigation Hierarchy of avoid, minimise and offset impacts. They provide a mechanism to offset any residual impacts to biodiversity above prescribed thresholds through application of the BOS.

For all activities likely to have biodiversity impacts proposed to be conducted under Part 4 of the *Environmental Planning and Assessment Act 1979* and/or a Vegetation Clearing Permit (issued under the State Environmental Planning Policy (Biodiversity and Conservation) 2021) applicants must determine if the BOS applies through application of the Biodiversity Values Map and Threshold (BMAT) tool. Relevant Development Applications and Applications for Vegetation Clearing Permits should be accompanied by a BMAT report.*

* The accuracy of the BMAT tool report is dependent on the accuracy of the information input into the tool. In this regard applicants must provide the total development footprint including that which is required for construction. Council may request resubmission of the reports if there is any uncertainty about the accuracy of information.

9.5 The Biodiversity Assessment Method (BAM) and Biodiversity Development Assessment Reports (BDARs)

For proposed activities associated with a development application, once it is determined that the BOS applies, the applicant must engage an accredited assessor to apply the Biodiversity Assessment Method (BAM) to the proposal.

After applying the BAM, the accredited person will prepare a Biodiversity Development Assessment Report (BDAR) if required.

As the consent authority Council will consider the information in the BDAR when deciding whether to approve the development proposal and any appropriate conditions required to mitigate the identified impacts. Any required changes to the proposed activities are likely to necessitate amendments to the BDAR.

It is Council's preference that any impacts incurred as a result of development undertaken in the Wollongong LGA be offset by actions in the Wollongong LGA, such as purchasing and retiring credits that have been generated in Wollongong.

If Council is satisfied with the BDAR and the measures proposed to avoid and minimise biodiversity impacts and the development is approved, Council will issue conditions of consent that will include a requirement for the applicant to:

- retire any applicable biodiversity credits to offset the residual impact on biodiversity values of the number and class specified in the report, or
- make a payment to the Biodiversity Conservation Fund to the value of the credits in accordance with the offsets payment calculator.

Any conditions of consent must be complied with before any development is carried out that would impact on native biodiversity values.

Note: the NSW Government has requested that any non-compliant BDAR be referred to them for reporting and auditing purposes.

9.6 Test of Significance

Where the proposed activities relate to impacts on threatened species and/or threatened ecological communities but do not trigger the BOS vegetation clearing threshold, applicants must complete a 'Test of Significance' (5 part test) in accordance with Section 7.3 of the *Biodiversity Conservation Act 2016*.

Tests of significance must be prepared by a suitably qualified expert in accordance the NSW Government Threatened Species Test of Significance Guidelines, and Threatened Species Survey and Assessment Guidelines and Field Survey Methods.

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If the 'Test of Significance' assessment indicates that there will be or is likely to be a significant impact, the applicant must carry out an assessment according to the BAM and the [BAM Operational Manual](#) and prepare a BDAR.

Vegetation Clearing Permit applications, wherein the activities are determined to have a significant impact, will be refused.

9.7 Serious and Irreversible Impacts (SAILs)

The BOS recognises that there are some impacts to biodiversity that the community expects will not occur, such as impacts to threatened entities that are most at risk of extinction from potential development. These are defined as Serious and Irreversible Impacts (SAILs). In preparing a BDAR the assessor is required to provide information on SAILs that may be incurred as a result of the proposed activities.

The principles for determining SAILs are detailed in the NSW government SAIL guidance document. The most current list of SAIL candidates and triggers should be referenced from the NSW BioNet Threatened Biodiversity Data Collection database.

Key Council considerations for SAILs:

1. Council is responsible for deciding whether the impact from the development or activity is likely to be serious and irreversible;
2. Council MUST refuse a development application where a SAILs is determined likely.

Note: The lack of full scientific certainty should not be used as a defence in postponing measures to prevent environmental degradation. Therefore, applications should adopt a precautionary principle that is guided by -

- a) Careful evaluation to avoid serious or irreversible damage to the biodiversity, in particular threatened species, and
- b) An assessment of the risk weighted consequences of various options.

9.7.1 Guiding Principles for Serious and Irreversible Impacts in the Wollongong Context

Whilst it is acknowledged that every site and case will have its own unique circumstances that will need to be considered, the following four guiding principles provide a framework for assessing SAIL in Wollongong and reflect expectations for activities that have the potential to impact on Critically Endangered Ecological Communities -

1) AVOID

The primary goal is to avoid further loss of Critically Endangered Ecological Communities or other SAIL entities due to development. SAIL entities are already at high risk of extinction in the immediate future as determined by the NSW Scientific Committee and their inclusion as SAIL candidate entities. Additional loss will result in further decline and greater risk of extinction.

The applicant for the proposed activity must demonstrate measures to avoid any impact upon SAIL entities. Loss of developable land and commercial non-viability are not a consideration when assessing SAIL.

2) MITIGATE

Where impacts to the SAIL entity cannot be avoided, the applicant must demonstrate measures to mitigate any impacts (direct and indirect). Mitigation measures must be genuine and be able to demonstrate that they will result in improvement or no net loss of the SAIL entity in perpetuity or for the life of the development.

3) MAINTAIN

The applicant must demonstrate that the viability and functionality of the SAIL patch/connectivity is maintained or improved as a result of the development.

Part E – General Controls – Environmental Controls

Chapter E18: Native Biodiversity Impact Assessment

4) OFFSET

Any offsetting of unavoidable impacts on the SAI entity are to occur within the Wollongong LGA.

9.8 Local Compensatory Requirements

Notwithstanding the requirements of the BOS, applicants may be required to undertake compensatory activities to offset the proposed impacts incurred through an approval to clear vegetation and/or incur impacts to native biodiversity. This is to ensure that there is no long-term net loss of native biodiversity across the LGA. These activities may be guided by Council's biodiversity offsetting/compensatory policies and may include payment of a fee to Council to fund biodiversity remediation activities on Council owned/managed land on behalf of the applicant, or replacement of the vegetation with suitable local native vegetation species in an appropriate location within the private property.

9.9 Proposals That Require a Variation to Controls

Any proposal that involves variations to the development controls in this Section of the DCP or offsetting should be discussed through Council's pre-lodgement consultation process before submitting a development application.

9.10 Protection of Conservation Lands

Development must not adversely impact upon existing or planned conservation lands including -

- a) Conservation zoned lands under the Wollongong LEP 2009;
- b) Conservation lands established under Biodiversity Certification Agreements;
- c) Biodiversity Stewardship sites;
- d) Biobanking sites;
- e) Sites with registered Conservation or Wildlife Refuge Agreements; and
- f) NPWS estate.

The introduction of stormwater or other indirect impacts may result in negative impacts on these sites, which are established to improve biodiversity outcomes. Consequently, development must be planned and implemented to avoid any adverse impacts upon conservation lands. Where a proposed development is determined to impact on conservation lands Council will refuse the application.

9.11 Planning Proposals

Planning Proposals must be prepared in accordance with Council's Planning Proposal Policy, which includes preservation and conservation of the environment as a priority. Anticipated future development should be designed in accordance with the Mitigation Hierarchy established by the *Biodiversity Conservation Act 2016*; firstly avoid, then minimise impacts on existing vegetation and ecosystems as a priority. In most instances a Biodiversity Constraints Assessment will be required to inform Planning Proposals. Applicants must advise Council where future BDARs and/or offsetting requirements are anticipated.

9.12 Biodiversity Certification

Council encourages developers to investigate and pursue Biodiversity Certification for Planning Proposals where the future anticipated development is likely to result in impacts to native biodiversity values, in particular threatened species, threatened ecological communities and/or their habitat.

It is Council's preference that any offsets undertaken as a result of conservation measures through Biodiversity Certification in the Wollongong LGA occur within the Wollongong LGA.

Council may consider dedication (ownership and management) of Biodiversity Stewardship sites established through Biodiversity Certification.

If a development is located in an area that is already subject to Biodiversity Certification, the development application must be in accordance with the certification.

DEFINITIONS AND ACRONYMS

BAM: Biodiversity Assessment Method established under the *Biodiversity Conservation Act 2016*.

BDAR: Biodiversity Development Assessment Report prepared in accordance with the *Biodiversity Conservation Act 2016*.

Biodiversity: The same meaning as defined in the *Biodiversity Conservation Act 2016*.

Biodiversity values: The same meaning as defined in the *Biodiversity Conservation Act 2016* and *Biodiversity Conservation Regulation 2017*.

Biodiversity offset: measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimised and / or rehabilitated or restored, in order to achieve no net loss or a net gain of biodiversity. See also mitigation hierarchy.

BMAT: Biodiversity Values Map and Threshold Tool.

BOS: Biodiversity Offsets Scheme established under the *Biodiversity Conservation Act 2016*.

DA: Development application under Part 4 of the *Environmental Planning and Assessment Act 1979*.

Endangered ecological community (EEC): Ecological communities that face a very high risk of extinction in the near future as listed under NSW State and/or Commonwealth threatened species legislation.

Endangered population: An isolated population of a species that faces a very high risk of extinction in the near future as listed under NSW State and/or Commonwealth threatened species legislation.

Endangered species: A species that faces a very high risk of extinction in the near future as listed under NSW State and/or Commonwealth threatened species legislation.

Environmentally Sensitive Land: Conservation Zones, land within 40m of a mapped watercourse, and LEP Clause 7.2 and/or 7.8 mapped lands.

Indirect Impacts: Impacts that occur when the proposal affects native vegetation and threatened species habitat beyond the development footprint or within retained areas (e.g. transporting weeds or pathogens, dumping rubbish). This includes impacts from activities related to the construction or operational phase of the proposal and prescribed impacts.

Key threatening process: Threats that adversely affect threatened species, populations or ecological communities, or could cause species, populations or ecological communities to become threatened as listed under NSW State and/or Commonwealth threatened species legislation.

Mitigation Hierarchy -

- Avoid, minimise, offset. This means that the first priority is to avoid impacts of a proposal on biodiversity values. Where impacts cannot be avoided, a reasonable attempt must be made to minimise any impact. When all feasible measures have been taken to avoid and minimise the impacts, offsets should be used to compensate for any remaining impacts.
- Avoid: measures taken by an applicant such as careful site selection or actions taken through the design, planning, construction and operational phases of the development to completely avoid impacts on biodiversity values, or certain areas of biodiversity. Refer to the BAM for operational guidance.
- Minimise: a process applied throughout the development planning and design life cycle which seeks to reduce the residual impacts of development on biodiversity values.

Part E – General Controls – Environmental Controls

Chapter E18: Native Biodiversity Impact Assessment

- Offset: measures taken to compensate for any residual significant, adverse impacts that cannot be avoided and / or minimised, in order to achieve no net loss or a net gain of biodiversity and biodiversity values.

Native Vegetation: Native vegetation is defined under the Part 5A, Division 1 Section 60B of the *Local Land Services Act 2013*.

Native Vegetation: For the purposes of this section of the DCP, native vegetation means any of the following types of plants native to New South Wales -

- (a) trees (including any sapling or shrub or any scrub).
- (b) understorey plants.
- (c) groundcover (being any type of herbaceous vegetation).
- (d) plants occurring in a wetland.

A plant is native to New South Wales if it was established in New South Wales before European settlement.

Prescribed Native Vegetation -

- Remnant or regrowth native vegetation
- Native vegetation planted for the purpose of environmental or habitat rehabilitation or restoration
- Threatened species or ecological communities

Note: That this does not include native vegetation within a standard landscaped residential garden unless they meet the definition of a prescribed tree in DCP Chapter E17.

SAIL: Refers to serious and irreversible impacts – see section 6.7 of the *Biodiversity Conservation Regulation 2017*.

Threatened ecological community (TEC): ecological communities listed as critically endangered, endangered or vulnerable under NSW State or Commonwealth threatened species legislation.

Threatened species: Any individual species listed as critically endangered, endangered or vulnerable under NSW State or Commonwealth threatened species legislation.



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1 INTRODUCTION

1. This chapter of the DCP provides guidelines for the subdivision of land and the siting and design of buildings within the Illawarra Escarpment.
2. This chapter of the DCP reflects the findings and recommendations of the *Commission of Inquiry into the Long Term Planning and Management of the Illawarra Escarpment May 1999* report by Commissioner William Simpson and the subsequent, *Illawarra Escarpment Strategic Management Plan (2005)*, *Illawarra Escarpment Land Use Review Strategy 1 June 2007* and *Illawarra Escarpment Explanatory Document 1 June 2007*, prepared by HLA Envirosciences Pty Ltd on behalf of Council.
3. The chapter applies to all lands within the Illawarra Escarpment generally at or above the RL 50 metre contour level extending upwards to the top of the escarpment with a 150 metre buffer (ie as shown in Figure 1). This chapter applies to lands within the Illawarra Escarpment zoned either: RU1 Primary Production, RU2 Rural Landscape, RU4 Rural Small Holdings, E1 National Parks and Nature Reserves, E2 Environmental Conservation, E3 Environmental Management, E4 Environmental Living and SP 2 Infrastructure under *Wollongong Local Environmental Plan 2009 (WLEP 2009)*.
4. This chapter of the DCP should be read in conjunction with WLEP 2009 and other parts of this DCP, especially Part E of the DCP.
5. Figure 1 below shows the boundaries of the Illawarra Escarpment within the City of Wollongong Local Government Area.

2 OBJECTIVES

1. The key objectives of this part of the DCP are to:
 - (a) Protect and maintain the visual character and high scenic environmental quality of the Illawarra Escarpment;
 - (b) Protect and conserve the cultural heritage of the Illawarra Escarpment, including places of Aboriginal cultural heritage significance;
 - (c) Protect and conserve items of environmental heritage, including former coal mines and villages;
 - (d) Ensure development is designed to minimise any potential visual impact upon the escarpment, when viewed from key vantage points throughout the LGA;
 - (e) Ensure development is consistent with the principles of Ecologically Sustainable Development, especially inter-generational equity; bearing in mind the unique environmental characteristics of each specific locality within the escarpment area;
 - (f) Ensure that development is restricted to legally cleared sites within the escarpment slope and foothill areas only and any such development is well designed to minimise potential bush fire, land instability, flooding and or drainage hazard risks;
 - (g) Ensure that any new development makes provision for adequate water supplies and an environmentally acceptable waste water treatment system and stormwater drainage;
 - (h) Ensure access roads to development are designed to minimise any adverse visual impact on the escarpment and to ameliorate any potential soil erosion or land instability impacts; and
 - (i) Ensure that electricity and telecommunications infrastructure is provided in a cost effective but environmentally sensitive manner.
 - (j) Facilitate land owners to enter into Biodiversity Stewardship Agreements to manage land for conservation outcomes and create offset sites to generate biodiversity credits.



Figure 1: Illawarra Escarpment in the City of Wollongong Local Government Area

3 DEFINITIONS

Development Opportunity Envelope identifies a building envelope that ensures that development is not visible from important viewing locations for that section of the escarpment.

Visibility is a measure of the extent to which the escarpment may be visible from surrounding locality taking into account the period of the view, view distance and context of the view. The underlying rationale for this aspect of the visual quality analysis is to analyse the visibility of the escarpment by precinct and identify key viewpoints necessary for visual absorption capacity and Development Opportunity Envelope identification. Distance plays a strong influence on visibility as the preparation of the view frame occupied by the escarpment decreases with distance. In addition atmosphere influences tend to reduce the level of contrast between development disturbances and the escarpment landscape.

Visual absorption capacity is an estimation of the capacity of a particular locality of landscape to absorb development without creating a significant change in visual character or a reduction in scenic environmental quality of the locality. The capacity to visually absorb development is primarily dependent on landform, vegetation and existing development. A major factor influencing visual absorption capacity is the level of visual contrast between the proposed development and the existing elements of the landscape in which the proposal is occupied. For example, flat or gently sloping open forest has a higher capacity to visually absorb development than strongly undulating cleared escarpment ridges and escarpment slopes. Further, if visually prominent development already exists on the escarpment then the capacity of the locality to absorb an additional development is higher, than a similar section of the escarpment that has a natural undeveloped visual character.

4 ESCARPMENT PRECINCTS WITHIN THE CITY OF WOLLONGONG LOCAL GOVERNMENT AREA

The *Illawarra Escarpment Land Use Review Strategy* divided the Illawarra Escarpment within the city into ten (10) distinct precincts, namely:

1. Marshall Mount / Calderwood Precinct – This precinct is the southern most precinct and highest precinct of the Illawarra Escarpment and extends northwards from the Wollongong City LGA southern boundary with Shellharbour City Council to Huntley Colliery / Avon Colliery at Bong Bong Pass;
2. West Dapto Bowl Precinct – This precinct extends northwards from Bong Bong Pass in the south to Mt Kembla and the Farmborough Heights ridgeline above Kembla Grange;
3. The Heights Precinct – This precinct includes the contained concave landform between the Mt Kembla footslopes and Mt Nebo footslopes and includes the suburbs of Farmborough Heights, Unanderra and Cordeaux Heights and the catchments of Allans Creek and Charcoal Creek and the lower catchments of American Creek and Brandy and Water Creek;
4. Mt Kembla Precinct – This precinct includes the elevated, closed and contained landscape of the suburbs of Mt Kembla and Kembla Heights and is located within the side slopes and tributary floor of American Creek, which runs parallel to the Cordeaux Heights ridgeline to the east and the escarpment to the west;
5. Mt Keira Precinct – This precinct covers the elevated footslopes of Mt Keira extending from Mt Nebo and the O'Briens Road ridgeline, Figtree in the south, through the Mt Keira Road ridgeline, West Wollongong to the Keiraville / University of Wollongong ridgeline in the north;
6. Balgownie Valley Precinct – This precinct is a contained concave distinct valley extending further back from the coastal plain to the escarpment between the prominent landforms of Mt Keira and Brokers Nose. The suburbs of Keiraville, Mt Ousley, Mt Pleasant and Balgownie occur within this precinct;
7. Coastal Ridges Precinct – This precinct extends from Brokers Nose in the south to the vegetated ridgeline separating Thirroul and Austinmer in the north and the suburbs of Tarrawanna, Corimal, Russell Vale, Woonona Heights, Bulli and Thirroul occur in this precinct;
8. Cliff Coast Precinct – This precinct extends from the vegetated elevated ridgeline adjacent to Mountain Road, Thirroul in the south to the end of the escarpment adjacent to the School of Arts at Clifton in the north and includes the suburbs of Austinmer, Coledale, Wombarra, Scarborough and Clifton;
9. Stanwell Precinct – This precinct includes the headlands and valleys between Clifton and Bald Hill and includes the suburbs of Colecliff and Stanwell Park; and
10. Maddens Plain Precinct – This precinct is located within undulating perched heathland above the escarpment adjacent to the existing Illawarra and Boomerang Golf Courses.

5 VISUAL IMPACT ASSESSMENT

5.1 General

1. The *Illawarra Escarpment Strategic Management Plan* recognises the significant scenic and aesthetic value of the escarpment and includes several objectives, principles and actions to conserve these values:

‘Protect and conserve the cultural heritage of the escarpment including not only physical items but the scenic and aesthetic values that inspire people and draw them to the Illawarra for tourism and recreation’ (p.4).

‘Identify areas of natural or scenic aesthetic attraction that add to the overall ‘value’ of the escarpment. Whilst one person’s perceived value is different to another’s, there seems uniform appreciation amongst the community that the ‘naturalness’ and scenic quality of the escarpment is a valuable asset that needs to be protected.’ (p.17).

‘Development proposals, controls, conditions of consent and management policies should seek to preserve, protect and reinforce the scenic attributes of each high quality area.’ (p.47)
2. Development in any precinct of the escarpment will require an appropriate visual impact assessment to be undertaken early in the design phase.
3. Visual impact assessment involves two main steps:
 - (a) Identification of a Development Opportunity Envelope for the subject site; and
 - (b) Visual impact assessment of the potential impact of the proposed development.
4. The Development Opportunity Envelope is determined based on Key Vantage point view locations that have been nominated for each escarpment precinct. These view locations are contained in Appendix 1. Also included in Appendix 1 are guidelines relating to the visual absorption capacity and the potential for development opportunity envelopes within each precinct.

5.2 Development Opportunity Envelope

1. Development will only be permitted where it is contained within a Development Opportunity Envelope. The Development Opportunity Envelope identifies the limits of development and form that may enable satisfaction of the net gain in the scenic and aesthetic values of the escarpment.
2. Identifying the Development Opportunity Envelope requires assessment of the following aspects:
 - (a) Size of the cleared portion of the site;
 - (b) Slope of the land;
 - (c) Height of surrounding vegetation;
 - (d) Type and composition of surrounding vegetation (e.g. closed rainforest, open forest, woodland, grassland);
 - (e) Length of the clearing up the slope of the escarpment;
 - (f) Angle of line of sight over foreground vegetation from nominated key viewing locations; and
 - (g) Interception point of the line of sight from nominated key viewing locations, on the canopy of the vegetation behind and / or above the cleared site.
 - (h) The assessment will require input of the sightlines from Key viewing locations by a Registered Surveyor.
3. The vertical limit of the Development Opportunity Envelope shall be defined as no greater than 66% of the height of the forest trees providing foreground screening adjacent to the Development Opportunity Envelope.

5.3 Visual Impact Analysis

1. The potential visual impact of a proposed development within a precinct may be assessed by considering a combination of two factors:

- (a) Visibility of the development; and
 - (b) Visual absorption capacity of the landscape to absorb the development.
- 2. An assessment of the visual impact of a proposed development must take into consideration the following elements:
 - (a) Key viewpoints;
 - (b) Period of view;
 - (c) Context of view; and
- 3. Extent of view.

5.3.1 Key Viewpoints

- 1. Key viewpoints / vantage areas that need to be considered for any development have been nominated for each precinct. These are included in Appendix 1.
- 2. Views of the escarpment from local roads closer than 4km are considered to be of a local visual nature. All other views are considered to be of regional visual significance.

5.3.2 Period of View

- 1. The view is either
 - (a) Intermittent if it will be viewed from a car travelling along a road; or
 - (b) Stationary if the proposal can be viewed from a fixed location or for an extended period of time.

5.3.3 Context of View

- 1. The context of the view relates to where the proposed development is being viewed from. For instance the context will be different if viewed from a house where views can be considered for an extended period of times, as opposed to a glimpse obtained from a moving vehicle.

5.3.4 Extent of View

- 1. The extent to which various components of a development would be visible is critical. For example, if the visibility assessment is of a development proposal in escarpment forest, it may be considered to have a local scale visual impact, whereas if a development proposal is located in another area of the escarpment, it may be considered to have escarpment scale visual impact.
- 2. The capacity of the landscape to absorb development is to be ranked as high, medium or low, with a low ranking representing the highest visual impact upon the scenic environmental quality of the specific locality, since there is little capacity to absorb the visual impact within the landscape.

5.4 Visual Impact Assessment Report

- 1. A Visual Impact Assessment report may be required to be submitted with a Development Application for certain developments, including new dwelling-houses or subdivisions. Therefore, it is recommended that a formal pre-lodgement meeting be organised with Council's City Planning Division to determine whether a visual impact assessment report will be required for the specific development proposal.
- 2. A Visual Impact Assessment report may also be required for any proposed alterations and additions to an existing dwelling or the erection of new outbuildings. This will be at the discretion of the Manager or the Area Manager of the City Planning Division depending upon the nature of the proposal and exact location of the subject site within the escarpment.
- 3. The Visual Impact Assessment report should be prepared by a suitably qualified and experienced environmental planning consultant or landscape architect with expertise in visual impact analysis/assessment.
- 4. Development will only be supported where the Visual Impact Assessment report demonstrates that a Development Opportunity envelope is available and the development will not generate an adverse visual impact upon the scenic environmental quality of the relevant escarpment precinct. In certain cases the

Visual Impact Assessment report and accompanying architectural plans must identify any recommended visual impact mitigation measures including (but not necessarily limited to) additional landscaping treatment, building design measures and / or recommended selective external finishes/ materials.

6 ABORIGINAL HERITAGE

6.1 General Advice

1. The Illawarra Escarpment contains a number of recorded Aboriginal sites and places of Aboriginal cultural heritage significance, including walking tracks and sites containing rock shelters, axe grinding grooves, open campsites, and scarred trees. However, there may be many more undiscovered or unrecovered sites/ places of cultural heritage significance.
2. Where a site falls within an "area of potential Aboriginal heritage significance", prospective applicants are required to undertake a search of the NSW Department of Environment and Climate Change's (DECC) Aboriginal Heritage Information Management System (AHIMS) database, in order to determine whether their subject site contains any recorded Aboriginal object and / or Aboriginal place of cultural heritage significance.
3. If the AHIMS database indicates that the site contains a recorded Aboriginal object or an Aboriginal place of significance, the preparation of an Aboriginal Archaeological and Cultural Heritage Assessment report will be required.
4. The Aboriginal Archaeological and Cultural Heritage Assessment report will be required to be prepared in accordance with the requirements of the Aboriginal Heritage chapter in Part E of this DCP.

7 HERITAGE (EUROPEAN)

7.1 General Advice

1. The Illawarra Escarpment Heritage Assessment 2007 report (prepared by Mayne – Wilson & Associates and Heritage Futures in association with Godden Mackay Logan) confirmed that the escarpment contains a large number of significant natural and man made items of environmental heritage.
2. It is recommended that applicants obtain a Section 149 Planning Certificate from Council to confirm whether the subject site contains an item of environmental heritage or is within a heritage conservation area under Schedule 5 of *Wollongong Local Environmental Plan 2009*.
3. If the subject site contains an item of environmental heritage or is within a heritage conservation area, a heritage impact assessment report will be required to accompany any Development Application for a subdivision or development upon the subject site.
4. The preparation of the heritage impact assessment report must be carried out in accordance with the requirements of the Heritage Chapter in Part E of this DCP.

8 THREATENED SPECIES IMPACT ASSESSMENT

8.1 General Advice

1. The Illawarra Escarpment contains several endangered ecological communities and a large number of threatened flora and fauna species and their supporting habitats.
2. At the formal pre-lodgement meeting, Council staff will provide assistance on what endangered ecological communities, threatened flora and / or fauna species or population or their habitat are known to be within the locality of the subject site. However, the applicant should also undertake a review the DECCW Threatened Species website for threatened flora and fauna species, endangered populations and endangered ecological communities; and the ATLAS of NSW Wildlife / Bionet for threatened species, ecological communities.
3. A flora and / or fauna impact assessment report is required where:
 - (a) There is a potential impact upon the identified threatened species either directly or indirectly.
 - (b) There is proposed direct or indirect impacts on native vegetation or fauna habitats such as water bodies, water courses or dams.
 - (c) For any proposal which may have an effect on "Matters of National Significance" under the

Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

4. Any required flora and / or fauna impact assessment report shall be prepared in accordance with the requirements set out in Wollongong DCP 2009 Chapter E18.

9 GEOTECHNICAL / LAND INSTABILITY ISSUES

9.1 General Advice

1. A geotechnical report will be required for the majority of development upon lands within the Illawarra Escarpment, except in certain cases where previous geotechnical investigations have conclusively proven that a particular site or locality is not subject to any slope instability impacts.
2. The geotechnical report is required to be prepared by a suitably qualified and experienced geotechnical engineer.
3. The geotechnical report shall be prepared in accordance with the requirements of the Geotechnical Guidelines chapter contained in Part E of this DCP.

10 SUBDIVISION REQUIREMENTS

10.1.1 Site Analysis

10.1.2 Objectives

- (a) To ensure site analysis is the first step in the design of any proposed subdivision within the Illawarra Escarpment.
- (b) To ensure any proposed subdivision takes into account a range of natural constraints including slope, topographical, landform, bush fire hazard risk, geotechnical constraints and / or any man – made constraints.
- (c) To ensure any proposed subdivision retains significant remnant trees or other vegetation, especially foreground screening vegetation and any building envelopes are located below visually dominant ridge lines, in order to maintain the scenic environmental quality of the locality.
- (d) To ensure a proposed subdivision is designed to mitigate against any potential adverse impact upon any endangered ecological community or threatened flora or fauna species.
- (e) To ensure that subdivision design takes into account any identified Aboriginal archaeological site or culturally significant heritage site.

10.1.3 Development Controls

1. Site analysis should be the first step in the design of any subdivision.
2. The site analysis should consider both the natural and man-made constraints. In this respect, the following factors should be taken into consideration as part of the subdivision design:
 - (a) The slope and orientation of the subject site;
 - (b) Site constraints such as topography / landform, geotechnical issues, flood prone land, bush fire hazard, acid sulphate soils, threatened flora or fauna species or endangered ecological communities;
 - (c) Retention of special features such as significant remnant trees or other vegetation, views to / from the site, protection of visually dominant ridge lines, scenic environmental quality of the site and surrounding locality, protection of riparian vegetation;
 - (d) Archaeological conservation and cultural heritage issues;
 - (e) Availability of reticulated water and sewerage, electricity supplies and telecommunications;
 - (f) Provision of suitable stormwater drainage line;
 - (g) The relationship of the proposed subdivision layout with the existing subdivision pattern and character of the surrounding locality;

- (h) Solar access and daylight access for future dwellings in the subdivision; and
- (i) Road layout and access arrangements taking into account the surrounding local road network in the locality and the topographical constraints of the site whilst minimising any potential visual impact upon the scenic environmental quality of the escarpment.

10.2 Minimum Allotment Subdivision Size

10.3 Objective

- (a) To ensure any proposed subdivision complies with minimum subdivision allotment size requirements under Wollongong Local Environmental Plan 2009.

10.3.1 Development Controls

1. Any proposed subdivision shall be in accordance with the minimum subdivision allotment size requirement under *Wollongong Local Environmental Plan 2009* and the relevant Lot Size Map applying to the subject site.

10.4 Subdivision Layout and Building Envelopes

10.5 Objectives

- (a) To ensure the subdivision layout and associated building envelopes for future dwellings are designed to suit the natural landform and topography of the site.
- (b) To ensure building envelopes within subdivisions are located to the rear of any landform bench and behind any foreground screening protection, in order to maintain the high scenic environmental quality of the locality, when viewed from key viewing locations identified within each specific escarpment precinct.

10.5.1 Development Controls

1. The subdivision layout and associated building envelopes must be designed to suit the natural landform, rather than altering the landform to accommodate the subdivision and any future dwelling and other out buildings.
2. Any proposed subdivision must be sited below the sight lines from the key viewing locations `within the specific escarpment precinct as identified in Appendix 1. In this respect, building envelopes are to be contained within areas identified as a Development Opportunity Envelope following visual assessment (Refer to Section 5). The building envelope should be located at the rear of any landform bench and behind any foreground screening vegetation, in order to minimise any adverse local or regional visual impacts, when viewed from key viewing locations.
3. Driveways, roads and drainage works must be designed and sited to have minimum visual impact and minimum impact on the natural landform.

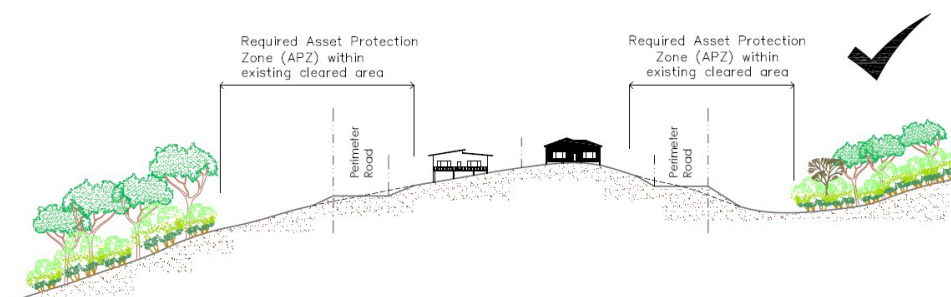


Figure 2: Subdivision layout with Perimeter Road and Asset Protection Zones (APZ)

4. Building envelopes must be sited having regard to any existing remnant vegetation, landscape features,

- topographical and slope constraints.
5. The proposed building envelope shall be restricted to legally cleared areas of the site only.
 6. The building envelope should ensure all ancillary outbuildings such as garages or sheds and other ancillary structures are consolidated within the surrounding curtilage of the dwelling-house on each lot. This will assist in ameliorating any potential adverse visual impact from the development upon the escarpment.
 7. The building envelope shall exclude any required building line setback and any easements truncating the site.
 8. The creation of Asset Protection Zones (APZ) as per the requirements of the *"Planning for Bush Fire Protection guidelines 2006"* must not be achieved by the removal of remnant vegetation. Any APZ must be restricted only to legally cleared portions of the land within the subject site. Therefore, a lower subdivision lot yield may be realised, notwithstanding the indicative minimum subdivision lot size requirement contained in the WLEP 2009 Lot Size Map.
 9. The removal of remnant vegetation within the escarpment will generally not be permitted, except in exceptional circumstances where a proposed access road requires the removal of a very limited number of trees (but not foreground screening trees) to accord with the requirements of the *"Planning for Bush Fire Protection guidelines 2006"*. Any such tree clearing will be restricted to parts of the site which are below key view sight lines for the specific precinct. The clearing of foreground screening trees or remnant vegetation on ridgelines or the escarpment upslope will not be supported. Therefore a redesign of the subdivision layout plan will be required to ensure the protection of foreground screening trees, or remnant vegetation on ridgelines, knolls and upper escarpment slopes.
 10. The building envelope and the proposed location of the private access road shall be shown on the required site plan and / or subdivision plan accompanying the Development Application. The site plan / subdivision plan shall show all existing easements or other restrictions on the use of the land and also include natural contour levels (at 2 metre intervals) of the subject site.
 11. A tree survey plan shall also be provided in support of any Development Application where tree clearing is proposed, to enable the provision of suitable vehicular access to a lot. Any tree survey plan should identify the extent of remnant vegetation on the site and must specifically identify the tree species and number of trees proposed to be removed. The tree survey plan must also show natural contour levels at 2 metre contour intervals, to assist Council in assessing the suitability of the proposed access arrangement and whether the proposed limited tree removal is acceptable.
 12. In the event that Council ultimately supports a proposed subdivision, a condition of consent will be imposed requiring a restriction on the use of land pursuant to the provisions of Section 88B of the *Conveyancing Act 1919* which shows the building envelope for each lot within the subdivision, as well as any new easements or restrictions.

10.6 Access Road Requirements

10.7 Objectives

- (a) To ensure all allotments have direct access to a dedicated public road or access via a private access handle to a dedicated public road.
- (b) To ensure all roads are designed to avoid aligning with ridgelines or other visually dominant parts of a site and should be positioned behind foreground screening vegetation.
- (c) To minimise the visual impact of access roads by restricting the extent of vegetation clearing, especially with regard to foreground vegetation and by limiting the colour finishes on roads.
- (d) To ensure all access roads, bridges and culverts are designed to cater for a range of vehicle types, including bush fire fighting trucks and other emergency vehicles.

10.7.1 Development Controls

1. All allotments shall have direct access to a dedicated public road or access via a private access handle or right of carriageway to a dedicated public road. Access handles for battleaxe allotments must be retained in the private ownership of either one allotment or a number of allotments with reciprocal rights of carriageway created pursuant to Section 88B of the *Conveyancing Act 1919*. No more than three (3) battleaxe lots may be serviced by a shared private access road or reciprocal rights of carriageway.

2. All lots must be provided with an all-weather vehicular access road with direct access to and from a dedicated public road.
3. All public or private access roads / rights of carriageway should be designed to avoid aligning with ridgelines and should be positioned behind screening vegetation.
4. The colour finish of any private access road or right of carriageway shall be of muted bushland or earthen tones such as dark greys, dark greens or browns. Light grey and white coloured finish surfaces are not permitted.
5. The maximum length of a private access road or shared right of carriageway (i.e. for up to 3 dwellings / lots) shall be 600 metres, as measured from the nearest public road to the identified building envelope for each lot. This requirement shall be shown on the subdivision plan accompanying the Development Application.
6. A minimum vertical clearance of 4 metres is along the access road required from any overhanging obstruction, such as tree canopies / branches.
7. The minimum road pavement width of a shared private access road for up to three (3) battle axe allotments shall generally be 4 metres except where the access is greater than 200 metres in which case, a 6 metre road pavement width is required.
8. A loop road shall be provided around any building envelope dwelling upon land within the escarpment or alternatively, a turning circle with a minimum 12 metre outer radius shall be provided on the site, in close proximity to the building envelope for a future dwelling house.
9. Within bush fire hazard areas, access to allotments shall be in accordance with the requirements of the NSW Rural Fire Service "Planning for Bush Fire Protection 2006 guidelines", including the provision for satisfactory access and manoeuvring of fire fighting vehicles.
10. The maximum gradient for a sealed road shall not exceed 15 degrees and the maximum gradient for an unsealed road shall not exceed 10 degrees. The maximum cross fall of any road shall not exceed 10 degrees.
11. Any bridge or culvert structure over a creek or natural drainage line shall be designed and constructed to cater for a minimum 15 tonne emergency fire fighting truck.

10.8 Road Design and Construction Requirements

10.8.1 Objective

- (a) To ensure all subdivisions are designed to provide satisfactory public and private access roads for all types of vehicles, especially fire fighting trucks and other emergency vehicles.

10.8.2 Development Controls

1. The minimum road design and construction requirements for public roads and private access roads shall be in accordance with Table 1 below.

Table 1: Road type characteristics and construction requirements

ROAD TYPE	MINIMUM ROAD CARRIAGEWAY WIDTH (m)	MINIMUM VERGE WIDTH EACH SIDE (m)	MINIMUM ROAD RESERVE WIDTH(m)
Public Road servicing less than 30 dwellings / lots.	7.5 metres	3.5 metres with upright kerbing	14.5 metres
Cul-de-sac (Public Road)	7.5 metres with a minimum 12 metre wide cul-de-sac bulb	3.5 metres with upright kerbing	14.5 metres

Minor Public Road / Access Way servicing a maximum 10 dwellings / lots	6 metres	3.5 metres with roll- over kerbing	13 metres
Private Access Road /Right of Carriageway Battle – axe handle servicing a maximum of 3 dwellings / lots	4 metres (ie where the access handle is less than 200 metres in length) 4 metres but enlarged to 6 metres (ie with 20 metre long passing bays) at every 200 metre interval along the access road / ROW, to enable fire fighting trucks to access the lot(s), whilst also allowing resident vehicles to exit the site during bush fire emergencies	NA	6 metres (ie where the access road is less than 200 metres in length) or 8 metres (ie where the access road is greater than 200 metres in length and requires passing bays)

Additional Requirements:

- (1) Refer to Council's Subdivision Code for general subdivision design and the construction requirements for roads, stormwater drainage, utility services and other infrastructure.
- (2) Road carriageways must be widened at bends to allow for wider vehicular travel paths (Austroads Turning Templates)
- (3) Roads should be designed to provide visual interest in the streetscape through kerbs (where appropriate), landscaping and paving treatments. The road design should be compatible with the existing road pattern in the locality.
- (4) The minimum spacing of staggered intersections in a local road network should be 20 metres.

10.9 Requirement for Upgrading of Poorly Constructed or Unformed Public Roads

10.9.1 Objective

- (a) To ensure all lots have suitable, safe and efficient access to and from public roads and that all road and stormwater drainage infrastructure works are properly constructed.

10.9.2 Development Control

1. All allotments in a subdivision must gain direct access to / from a properly formed public road. In areas where the subdivision fronts a poorly constructed or unformed public road, the subdivision will be subject to the construction of full kerb and gutter, stormwater drainage, full or half road construction and sealing in addition to the provision of nature strips with a 3% cross fall to the roadway.

10.10 Servicing Arrangements

10.10.1 Objectives

- (a) To ensure the provision of infrastructure servicing / utilities is carried out in accordance with the requirements of Council and the relevant infrastructure servicing authority.
- (b) To maximise the opportunities for shared (common) trenching and to reduce constraints on landscaping within road reserve verges.

10.10.2 Development Controls

1. Consultation with infrastructure servicing authorities is recommended at an early stage in the planning process to ensure that all allotments can be appropriately serviced by electricity supplies, telecommunications and whether or not Sydney Water will be able to provide reticulated water supplies and / or sewerage services to the subdivision.
2. The submission of documentary evidence from Sydney Water is required at the time of Development Application lodgement which indicates whether reticulated water supplies and / or reticulated sewage supplies may be provided to the subdivision.
3. Documentary evidence is required from an electricity infrastructure provider which confirms the requirements for the provision of electricity supplies to the subdivision.
4. The subdivision plan should provide details of the location of any required electricity sub-stations.
5. Telecommunication services are to be provided to all proposed lots. The submission of documentary evidence from a telecommunications carrier will be required for any approved subdivision prior to the release of the Engineering Construction Certificate.
6. Where a subdivision is approved, a condition of consent will be imposed requiring the submission of a Notice of Requirements from Sydney Water Corporation to Council prior to the release of the Engineering Construction Certificate for the proposed subdivision. Additionally, a separate condition of consent will be imposed requiring the submission of a Section 73 certificate from Sydney Water Corporation prior to the release of the final Subdivision Certificate.
7. Conditions of consent will be imposed requiring the submission of documentary evidence from an electricity provider and telecommunications carrier that satisfactory arrangements have been made for the provision of electricity supplies and telecommunications to the subdivision.

10.11 Subdivision upon Bush Fire Prone Land

10.11.1 Objectives

- (a) To ensure any subdivision upon land classified as bush fire prone land is designed to minimise the potential bush fire hazard risk.
- (b) To ensure any subdivision upon bush fire prone land is designed to provide an efficient and safe road network which minimises potential bottle-necks.
- (c) To ensure any subdivision upon bush fire prone land is designed to minimise the siting of future dwellings away from ridge tops and other steeply sloping land, especially upslope lands, within saddles or narrow ridge crests.
- (d) To provide accessible public refuge areas, wherever practicable.
- (e) To ensure each subdivision upon bush fire prone land is designed to provide satisfactory asset protection zone (APZ) separation distances from the bush fire hazard and guarantee that future dwellings are capable of achieving conformity with the "deemed-to-satisfy" requirements of the Building Code of Australia.

10.11.2 Development Controls

1. Any proposed subdivision upon land classified as bush fire prone land will require the lodgement of an Integrated Development Application under Section 91 of the *Environmental Planning and Assessment Act 1979* since the formal concurrence of the NSW Rural Fire Service (RFS) will be required pursuant to the requirements of Section 100B of the *Rural Fires Act 1997*. The Integrated Development Application will be referred to the RFS Headquarters to determine whether a Bush Fire Safety Authority will be issued under Section 100B of the *Rural Fires Act 1997*.
2. Any proposed subdivision upon bush fire prone land is required to comply with the requirements of the NSW Rural Fire Service publication titled *Planning for Bush Fire Protection 2006*. A bush fire impact assessment report will be required to be submitted with a Development Application which proves that the proposed subdivision fully complies with requirements of the *Planning for Bush Fire Protection 2006*. The bushfire impact assessment report shall be prepared by a suitably qualified and experienced consultant.
3. The bush fire impact assessment report shall be prepared by a suitably qualified and experienced

consultant. Refer to the Bushfire Management chapter in Part E of the DCP.

11 DWELLING AND OUTBUILDING DESIGN REQUIREMENTS

11.1 Dwelling Siting and Orientation

11.1.1 Objectives

- (a) To ensure development maintains the scenic environmental quality of the surrounding locality.
- (b) To prevent the siting and orientation of any new building upon any prominent ridgeline or hilltop.
- (c) To encourage new buildings to be well designed to suit the natural landform, topographical and other constraints of a site as well as preserve native trees and other vegetation, wherever possible.

11.1.2 Development Controls

- 1. The footprint of any dwelling and ancillary outbuildings or structures shall be restricted to the approved subdivision building envelope / Development Opportunity Envelope for the subject site. In cases of any existing allotment where building envelopes have not been identified, proposed buildings shall be restricted to legally cleared areas of the site only.
- 2. Buildings are to be orientated within the building envelope having regard to detailed site analysis.
- 3. The siting of any dwelling and / or outbuildings shall either be behind foreground screening remnant tree stands or within the lower part of a site whereby the building has no or little visibility from key viewing locations in the specific escarpment precinct.

11.2 Maximum Floor Space Ratio / Density

11.2.1 Objective

- (a) To ensure any dwelling-house or other building complies with the maximum floor space ratio requirements under Wollongong Local Environmental Plan 2009.

11.2.2 Development Control

- 1. The maximum floor space ratio for dwelling-houses or other development within the escarpment shall be consistent with the relevant Floor Space Ratio Map contained in *Wollongong Local Environmental Plan 2009*.

11.3 Maximum Building Height

11.3.1 Objectives

- (a) To ensure the height of any dwelling-house or other building complies with the height provisions contained in Wollongong Local Environmental Plan 2009.
- (b) To maintain the landscape character and scenic environmental quality of the specific precinct within the Illawarra Escarpment.

11.3.2 Development Controls

- 1. The maximum building height for dwelling-houses and other ancillary outbuildings within the escarpment shall be in accordance with the relevant Height of Buildings Map contained in *Wollongong Local Environmental Plan 2009*.
- 2. Dwelling-houses should generally be restricted to a single storey height and broken up into a series of pavilion forms, which step down the slope of the site.
- 3. Two-storey dwelling-houses and other buildings will only be permitted in circumstances where the building envelope is either screened by foreground remnant vegetation or is within a valley floor / lower escarpment slopes and the proposed building will have no or little visibility from key viewing locations in the specific escarpment precinct.

11.4 Minimum Building Separation Distance

11.4.1 Objectives

- (a) To ensure the development is sympathetic with the landscape character and scenic environmental quality of the locality.
- (b) To provide sufficient separation distances between dwelling-houses, secondary dwellings and rural land uses, in order to minimise any potential adverse land use conflicts and / or additional pressures on adjoining agricultural activities.
- (c) To minimise potential conflicts within the rural / non-urban zones and land uses within adjoining zones.
- (d) To preserve and maintain satisfactory native vegetation buffer screen planting along property boundaries.

11.4.2 Development Control

1. Buildings must be sited in a manner that provides spatial separation between neighbouring properties, in order to provide privacy, avoid overshadowing and enable vegetative buffers between dwellings.

11.5 Building Form and Construction

11.5.1 Objectives

- (a) To ensure development is sympathetic with the landscape character and scenic environmental quality of the specific precinct within the Illawarra Escarpment.
- (b) To prevent the siting and orientation of any new building upon any prominent ridgeline or hilltop.
- (c) To encourage new buildings to be well designed to suit the natural landform, topographical and other constraints of a site as well as preserve native trees and other vegetation, wherever possible.

11.5.2 Development Controls

1. The gross floor area of any first floor of a two-storey dwelling-house should not exceed 70% of the gross floor area of the ground floor, in order to reduce the potential bulk of a dwelling-house.
2. For any sloping site with a gradient of 10% (6 degrees) or more, the dwelling-house shall be split level or of a raised timber floor construction, rather than a slab on ground construction.
3. Large dwellings (e.g. greater than 150m² on one floor) are to be split level or have their bulk broken down into two or more pavilion forms to lessen their scale and obtrusiveness.
4. A variety of roof forms (except flat roof designs), setbacks of upper floors, split floor levels, balconies, verandahs and/or eave overhangs shall be utilised to minimise building bulk.
5. Facades are to have a variety of light and shade provided by balconies, balustrades, awnings, screens, pergolas, decks and eaves.
6. Any proposed solar energy collector panels are to be positioned to minimise any potential visual impact from reflectivity of the panels from key sight line locations in the specific escarpment precinct.

11.6 External Building Materials and Finishes

11.6.1 Objectives

- (a) To ensure all dwellings and other buildings are constructed of external building materials and colour finishes which reinforce the landscape character of the Illawarra Escarpment.
- (b) To ensure all buildings are constructed of external building materials which comply with the requirements of the NSW Rural Fire Service Planning for Bush Fire Protection 2006 guidelines and Australian Standard AS 3559-1999: Construction of Buildings in Bush Fire Prone Areas.

11.6.2 Development Controls

1. Dwelling-houses should be constructed with external building materials which reinforce the coastal woodland / rainforest character of the Illawarra Escarpment.
2. External building materials may include dark face brickwork, rendered or bagged masonry, stone, glass, weatherboard and metal cladding. Highly reflective untreated wall or roof materials will not be supported.
3. All external building materials must comply with the requirements of NSW Rural Fire Service *Planning for Bush Fire Protection* 2006 guidelines and Australian Standard AS 3559 – 1999 *Construction of Buildings in Bush fire Prone Areas*.
4. All external wall materials/ finishes should be subtle, natural colours such as mid to dark greens, mid to dark browns or dark greys. Primary vibrant colours are to be restricted to highlights and trims, which are only visible in close proximity to the development and not from any key vantage point.
5. Lightly coloured or highly polished reflective material should be avoided to minimise any potential visual impact.
6. The colour of the roof shall complement the colour of the building façade but must be restricted to either a mid to dark green, mid to dark brown or dark grey colour finishes. The use of lightly coloured or unpainted roofing materials will not be supported.

11.7 Ancillary Outbuildings

11.7.1 Objectives

- (a) To ensure the siting of ancillary outbuildings is within the curtilage of the main dwelling-house.
- (b) To ensure any outbuilding is located behind foreground vegetation and below any visually dominant ridgeline or hilltop

11.7.2 Development Controls

1. The siting of outbuildings shall be within the curtilage of the main dwelling-house and restricted to any approved building envelope/ Development Opportunity Envelope, in order to minimise potential visual impacts.
2. The siting of outbuildings is to be behind any foreground vegetation and below any visually dominant ridgeline or hilltop.
3. The design, building form, external building materials and colours of all outbuildings should be integrated with the external appearance of the main dwelling-house.
4. Large agricultural storage sheds and the like are generally not appropriate for the escarpment area except in situations where the site is fully screened by foreground remnant vegetation or is situated within a lower part of the site. Secondly, the site for any large agricultural storage shed must be below the key viewing area sight lines for the specific escarpment precinct.

11.8 Dwelling- houses and other buildings upon bush fire prone land

11.8.1 Objectives

- (a) To ensure any dwelling-house, secondary dwelling or other development upon bush fire prone land is designed to minimise the potential bush fire hazard risk.
- (b) To minimise the siting of any dwelling-houses or secondary dwellings away from ridge tops and other steeply sloping land, especially upslope lands, within saddles or narrow ridge crests.
- (c) To ensure each dwelling-house, secondary dwelling or other development residential subdivision is designed to provide satisfactory asset protection zone (APZ) separation distances from the bush fire hazard and guarantee that all dwellings are capable of achieving conformity with the “deemed-to-satisfy” requirements of the Building Code of Australia.

11.8.2 Development Controls

1. Any Development Application for a dwelling-house or any other buildings upon land classified as bush fire prone land (i.e. under the RFS Bush Fire Prone Land Map (BFPLM)) must conform to all of the requirements and specifications contained in the NSW Rural Fire Service publication titled *"Planning for Bush Fire Protection guidelines 2006"*.
2. A bush fire impact assessment report will be required to be submitted with a Development Application which demonstrates that the proposed development complies with the requirements of the *"Planning for Bush Fire Protection guidelines 2006"*. The bush fire impact assessment report shall be prepared by a suitably qualified and experienced consultant.
3. Any Development Application for a proposed development within the flame zone or where the proposal involves an alternate solution under the *"Planning for Bush Fire Protection guidelines 2006"*, will generally be referred to the district RFS Fire Control Centre for appropriate review and comment.

12 GENERAL REQUIREMENTS

12.1 Fencing

12.1.1 Objective

- (a) To ensure fencing is of a design that is sympathetic with the scenic environmental quality of the locality.

12.1.2 Development Controls

1. Appropriate forms of fencing include post and wire or timber post and rail fencing. Front palisade fencing in a dark green or mid to dark brown colour may be suitable in certain circumstances.
2. Light coloured fencing or metal sheeting fencing is not supported.
3. Retaining walls, courtyard walls, fences and garden walls are to be of neutral or earthy colours.

12.2 Landscaping

12.2.1 Objectives

- (a) To retain remnant native vegetation wherever possible, in order to maintain the landscape character and scenic environmental quality of the specific precinct within the Illawarra Escarpment.
- (b) To encourage the use of native species indigenous to the Illawarra Region, especially rainforest species with a low bush fire hazard risk, wherever possible.
- (c) To ensure all new buildings are sited and designed to protect and preserve native vegetation and all construction works incorporate appropriate measures to protect native trees and understorey vegetation from damage.

12.2.2 Development Controls

1. All new dwelling-houses and other new buildings must incorporate appropriate landscape planting which help to soften the built form, retain the scenic character of the area, shelter the dwelling against undesirable climate conditions, maintain privacy and protect against potential soil erosion problems.
2. The following issues must be considered as part of the required landscape plan for any new dwelling or outbuilding:
 - (a) Remnant vegetation should be retained, particularly significant trees on the site.
 - (b) Native rainforest species with a low bush fire hazard risk which are indigenous to the Illawarra should be used, wherever possible.
 - (c) Development should maximise habitat values and connectivity between bushland area through its siting, design and landscape treatment.
 - (d) Vegetation to be retained onsite should be clearly marked to avoid accidental damage.
 - (e) All construction works and materials (including stockpiling; fencing; installation of services;

equipment e.g. site sheds and machinery; earthmoving equipment and skips for waste) are to be located away from vegetation to be retained onsite.

- (f) In bushfire prone areas, landscaping must be provided in accordance with the Bushfire Management chapter in Part E of the DCP. Where a Bushfire Assessment report recommends the removal of vegetation to achieve APZ requirements, these requirements must be reflected on the landscape plan and the accompanied arborist report.
- (g) Site landscaping must be integrated with stormwater management controls.
- (h) All imported topsoil, fill or mulch must be free of weed species (including noxious weeds).

12.3 Storm water Drainage / Flooding

12.3.1 Objectives

- (a) To minimise stormwater drainage run-off impacts upon downstream properties.
- (b) To limit post development discharges to pre-development levels.
- (c) To provide a sustainable stormwater drainage and water quality environment incorporating both natural and man-made landscape features and which is aesthetically pleasing.
- (d) To encourage water sensitive urban design initiatives to maintain or enhance the water quality in watercourses.
- (e) To ensure any development upon flood prone land is in accordance with the requirements of the Floodplain Management chapter in Part E of the DCP.

12.3.2 Development Controls

1. A detailed stormwater drainage concept plan together with calculations is required to be submitted with the Development Application.
2. The proposed stormwater drainage system for the subdivision shall be designed in accordance with the requirements of the Stormwater Management and Water Sensitive Urban Design chapters in Part E in this DCP and shall incorporate water sensitive urban design techniques, wherever possible, in order to minimise runoff and restrict discharge from the site.
3. All stormwater drainage systems are to be designed to prevent public access to any hazardous drainage and water quality facilities.
4. The discharge of stormwater runoff must be restricted into a lawful point of discharge such as a natural watercourse or waterway to which the development site naturally drains or existing stormwater drainage systems as agreed to by Council.
5. Where there is no existing lawful point of discharge, the developer must:
 - (a) Dedicate the discharge point to Council's connecting reserves or easements that provide legal continuity from the site to an off-site legal point of discharge into a natural watercourse or waterway or suitable public stormwater drainage system and
 - (b) Construct the necessary connecting drainage works.
6. For downward sloping sites away from public roads or watercourses, written evidence is required from downstream property owners which confirms their agreement for stormwater drainage pipes and associated creation of necessary easements through their properties, in order to guarantee that satisfactory arrangements have been made for stormwater drainage from the site. Documentary evidence of the downstream owner's consent to the creation of a necessary stormwater drainage easement and associated pipelines is required at the time of lodgment of the Development Application.
7. Any development upon a site which is identified as "flood hazard – affected" by Council's Property database system must comply with the requirements of Chapter E13: Floodplain Management in Part E of the DCP and the NSW Floodplain Development Manual.

12.4 Water Supply

12.4.1 Objectives

- (a) To ensure any dwelling within the Illawarra Escarpment is provided with sufficient water supply to cater for domestic water and livestock watering requirements.
- (b) To ensure a separate dedicated water supply storage tank is provided for fire fighting purposes in accordance with the NSW Rural Fire Service *"Planning for Bush Fire Protection guidelines 2006"*.

12.4.2 Development Controls

1. The provision of an on-site (non-reticulated) water supply system with a minimum storage capacity of 100,000 litres is required for each dwelling. The water supply is recommended to comprise of a number of underground and above ground rainwater tank(s), in order to provide some flexibility in catering for both domestic water supply and livestock watering requirements.
2. The provision of a dedicated water supply storage tank for fire fighting purposes is also required for each dwelling, as per the NSW Rural Fire Service *Planning for Bush Fire Protection guidelines 2006*.
3. The full details of the proposed water supply systems shall be submitted with the Development Application.

12.5 Waste Water Management / Treatment Systems

12.5.1 Objectives

- (a) To ensure the protection of the environment including groundwater, surface water, land and vegetation through the selection of an appropriate on-site sewage management system for the site.
- (b) To prevent potential public health risks from on-site sewage disposal.

12.5.2 Development Controls

1. For lands unserved by reticulated sewerage supplies, a waste water treatment system is required to be provided in accordance with the On-site Sewage Management Systems chapter in Part E of the DCP.
2. The full design details of the proposed waste water management system are to be submitted with the Development Application for any dwelling-house or other development.

12.6 Waste Management

12.6.1 Objectives

- (a) To minimise the volume of waste generated during the demolition and construction phases of development through re-use and recycling and the efficient selection and use of resources.
- (b) To minimize demolition waste by promoting adaptability in building design and focusing upon end of life deconstruction.
- (c) To provide appropriately located, sized and accessible waste storage facilities.
- (d) To ensure all subdivisions are designed to provide suitable storage for waste and recycling bins within the public road reserve.

12.6.2 Development Controls

1. Any development must be designed to ensure compliance with the requirements of the Waste Management chapter in Part E of the DCP.
2. All subdivisions must be designed to enable the suitable provision for waste facilities. In cul-de-sacs, the head of the cul-de-sac must be designed to provide sufficient road reserve width (footpath area), in order to enable the storage of garbage and recycling bins without hindering access to adjacent properties.

3. Battle axe allotments shall provide sufficient area within the battle axe access handle to cater for the provision of garbage and recycling bins. This garbage and recycling bin storage area shall be provided within 2 metres of the adjoining public road.
4. Applicants are also encouraged to liaise directly with staff from Council's Waste Services Section of the City Works Division, in order to guarantee satisfactory waste service arrangements are available and to minimise potential future problems arising from poorly designed waste and recycling storage facilities.

12.7 Riparian Corridor Management

12.7.1 Objectives

- (a) To protect urban creeks and riparian corridors from further degradation and improve their environmental function.
- (b) To conserve, enhance and protect existing native riparian vegetation, wherever possible.
- (c) To maintain or enhance the stability of the bed and banks of a watercourse.
- (d) To minimise 'edge effects' at the riparian corridor / urban interface by the provision of a suitable riparian corridor width.
- (e) To ensure riparian land management measures are compatible with floodplain risk management objectives.

12.7.2 Development Control

Any proposed subdivision or development on, in or within 40 metres of any bed of a river, creek or intermittent watercourse, lake or estuary will be subject to compliance with the requirements of Chapter E23 Riparian Corridor Management in this DCP.

12.8 Basix (Energy and Water Smart Homes)

12.8.1 General

1. The BASIX Certificate identifies the energy and water saving features to be incorporated into the development. A BASIX Certificate is required for a dwelling-house or secondary dwelling. A BASIX Certificate is also required for alterations and additions to an existing dwelling-house where the estimated cost of construction is \$50,000 or more as well as a swimming pool / spa for a dwelling where the capacity of the pool or spa is 40,000 litres or more.
2. A BASIX Certificate can only be obtained via the NSW Department of Planning BASIX website at www.basix.nsw.gov.au. The BASIX Certificate is issued after a BASIX assessment has been satisfactorily completed using the web-based planning tool.
3. The BASIX Certificate must be obtained prior to lodgment of the Development Application or the Complying Development Application. The BASIX commitments are also required to be shown on the relevant architectural plans submitted with the Development Application or the Complying Development Application. The specifications accompanying the architectural plans must also identify the BASIX commitments. The BASIX commitments must include factors such as wall insulation and water saving showerheads and taps.

13 REFERENCES

HLA-Envirosciences Pty Ltd. 2007. *Illawarra Escarpment Explanatory Document*, 1 June 2007, prepared for Wollongong City Council

HLA-Envirosciences Pty Ltd. 2007. *Illawarra Escarpment Land Use Review Strategy*, 1 June 2007, prepared for Wollongong City Council

NSW Rural Fire Service. 2006. *Planning for Bushfire Protection 2006*, NSW State Government

Wollongong City Council. 2005. *Illawarra Escarpment Strategic Management Plan*.

Appendix:1 Key View Point Locations for Each Precinct within the Illawarra Escarpment

Precinct 1 – Marshall Mount / Calderwood Precinct

1. Any proposal to develop within the Marshall Mount / Calderwood precinct must be accompanied by a Visual Impact Assessment of the proposed development, taking into account both the local and regional context.
2. The landscape within the Marshall Mount / Calderwood precinct has varying capacity to visually absorb development. The elevated clearings on the 220m contour are highly visible from a distance. The steep slope angle and visible grass surface limits identification of areas to site development within these cleared areas.
3. The North Marshall Mount Valley is a contained landscape with a high visual absorption capacity and Development Opportunity Envelope potential.
4. The ridgelines adjacent to Huntley Colliery provide landform screening and a high visual absorption capacity and development opportunity envelope potential and hence as a consequence, provide the ability to carefully site development. The siting of development at the rear of landform benches and the planting of foreground screening forests on beach fronts may help the site achieve a high visual absorption capacity and development opportunity envelope potential.
5. Bong Bong pass mine stockpile site is a highly visible site which if not carefully managed or developed inappropriately, may pose a significant visual impact when viewed from various key viewpoints in the precinct and beyond.

Table 2: Precinct 1 – key view point GPS Coordinates [MGA (GDA 94)]

Location	Easting	Northing
Cleveland Road	292666	6178571
Marshall Mount Road	295290	6176379
Marshall Mount Road	293308	6175129
Marshall Mount Road	292374	6174461

Precinct 2 – West Dapto Bowl

1. Any proposal to develop within the West Dapto Bowl precinct must be accompanied by a Visual Impact Assessment report of the proposed development, taking into account both the local and regional context.
2. The landscape within the West Dapto Bowl precinct has varying capacity to visually absorb development. Clearings within the escarpment associated with the Wongawilli colliery development are indistinct in the landscape in this area therefore the area has a high visual absorption capacity and a high Development Opportunity Envelope potential.
3. Clearings within the escarpment associated with rural residential development from Wongawilli through Dombarton to Redalls Road are highly visible from a distance. The development opportunity envelope potential for rural residential development will be restricted to legally cleared sites where foreground screen planting exists or where foreground screen planting revegetation works can effectively screen the site.

Table 3: Precinct 2 - key view point GPS Coordinates [MGA (GDA 94)]

Location	Easting	Northing
Farmborough Road	298936	6184885
Fairloch Park	298976	6184782
Canterbury Road	300646	6183615
West Dapto Road	298848	6183454
West Dapto Road	297349	6183372
West Dapto Road	296646	6182696
West Dapto Road	294888	6182490
Bong Bong Road	294607	6181025
Bong Bong Road	294292	6180728
Diamond Brothers Reserve	296667	6181093
Cleveland Road	294786	6179689

Precinct 3 – The Heights

- Any proposal to develop within The Heights precinct must be accompanied by a Visual Assessment report of the proposed development, taking into account both the local and regional context.
- The landscape within the Heights precinct is highly visible from a distance. Any development will be limited to legally cleared sites which are capable of being screened through with appropriate revegetation works.

Table 4: Precinct 3 - key view point GPS Coordinates [MGA (GDA 94)]

Location	Easting	Northing
Derribong Drive	300858	6186799
Staff Road	300462	6186169
Waples Road	299580	6185375
Farmborough Road	298936	6184885
Fairloch Park	298976	6184782
Kotara Crescent	300895	6184478
Canterbury Road	300646	6183615

Precinct 4 – Mt Kembla

- Any proposal to develop within the Mount Kembla precinct must be accompanied by a Visual Impact Assessment report of the proposed development taking into account the local context only.
- The landscape within the Mt Kembla precinct has a high capacity to absorb development owing to its contained landscape and hence, a high Development Opportunity Envelope potential exists.

3. There are no key viewing points required to be considered in this precinct and hence only localised views occur.

Precinct 5 – Mount Keira

1. Any proposal to develop within the Mt Keira precinct must be accompanied by a Visual Impact Assessment report of the proposed development, taking into account both the local and regional context.
2. There were few opportunities for future development on cleared land within this precinct, with the exception of the Kemira Colliery area located on the eastern slopes above Keiraville.
3. Clearings within the landscape associated with the Kemira colliery development are indistinct in the landscape and as a consequence the land has a high visual absorption capacity and Development Opportunity Envelope potential.

Table 5: Precinct 5 - key view point GPS Coordinates [MGA (GDA 94)]

Location	Easting	Northing
Derribong Drive	300858	6186799
Staff Road	300462	6186169
Bourke Street	306323	6191935
Guest Park	306128	6192409
Meadow Street Reserve	305915	6194343
Francis Street	306223	6194798

Precinct 6 – Balgownie Valley

1. Any proposal to develop within the Balgownie Valley precinct must be accompanied by a Visual Impact Assessment report of the proposed development, taking into account both the local and regional context.
2. The landscape within the Balgownie Valley precinct has varying capacity to visually absorb development. Clearings within the escarpment associated with the Corimal colliery development are indistinct in the landscape and provide a high capacity to absorb development with careful siting of the Development Opportunity Envelope.

Table 6: Precinct 6 - key view point GPS Coordinates [MGA (GDA 94)]

Location	Easting	Northing
Mount Ousley Road	306048	6191160
Northgate Centre	306197	6191145
Bourke Street	306323	6191935
Guest Park	306128	6192409

Precinct 7 – Coastal Ridges

1. Any proposal to develop within the Coastal Ridges precinct must be accompanied by a Visual Impact Assessment report of the proposed development, taking into account both the local and regional context.
2. A number of clearings within the escarpment associated with the South Bulli Colliery development have long slope lengths on less steep slopes and are highly visible from a distance. Clearings within the escarpment associated with South Bulli colliery with foreground screening forest are less highly visible from a distance. Potential exists following revegetation works for development to be visually absorbed in the landscape, following creation of an appropriate Development Opportunity Envelope.
3. Clearings within the escarpment associated with rural residential development on escarpment benches on Bulli Pass when viewed from below are indistinct in the landscape, with a high visual absorption capacity and high a Development Opportunity Envelope potential.

Table 7: Precinct 7 - key view point GPS Coordinates [MGA (GDA 94)]

Location	Easting	Northing
Guest Park	306128	6192409
Meadow Street Reserve	305915	6194343
Francis Street	306223	6194798
Bellambi Lane	307059	6195780
Hollymount Park	307640	6196696

Location	Easting	Northing
Hollymount Park	307489	6196870
Mailbag Hollow Park	308072	6199050
Bulli Beach Surf Life Saving Club	309145	6198304
Sandon Point	309259	6199295
Thirroul Surf Life Saving Club	309254	6200791
Mountain Road	309584	6201438
Headland Avenue	310428	6202470
Woonona Beach	308907	6197385
Mount Keira Lookout	303014	6191168
Southern Gateway	307032	6201588
Panorama House	307661	6202191

Precinct 8 – Cliff Coast

- Any proposal to develop within the Cliff Coast precinct must be accompanied by a Visual Impact Assessment report of the proposed development, taking into account both the local and regional context.
- Existing residential development clearing on escarpment benches (immediately above the railway line) are relatively indistinct in the landscape with a high visual absorption capacity and a Development Opportunity Envelope potential.
- Any new development will be restricted to within existing clearings on rear of escarpment benches. The escarpment benches must have foreground screening forest to ensure that any potential developments when viewed from below is indistinct in the landscape.

Table 8: Precinct 8 - key view point GPS Coordinates [MGA (GDA 94)]

Location	Easting	Northing
Sandon Point	309259	6199295
Mountain Road	309584	6201438
Headland Avenue	310428	6202470
St James Park	310738	6203480
Coledale Beach	311100	6203981

Location	Easting	Northing
Southern Gateway	307032	6201588
Panorama House	307661	6202191

Precinct 9 – Stanwell Precinct

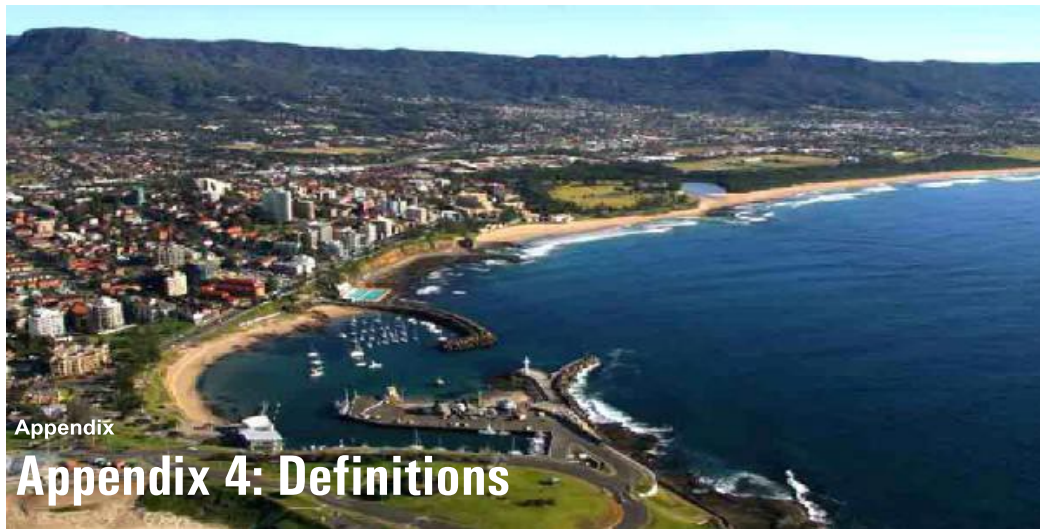
1. Any proposal to develop within the Stanwell precinct must be accompanied by a Visual Impact Assessment report of the proposed development, taking into account both the local and regional context.
2. Views of development below the railway line and within the re-entrant valley landscape of the precinct would be considered local visual impacts.
3. Development within the Stanwell precinct should be complimentary with the existing landscape and urban character.

Table 9: Precinct 9 - key view point GPS Coordinates [MGA (GDA 94)]

Location	Easting	Northing
Paterson Road	313550	6208728
Stanwell Park	314728	6210720

Precinct 10 – Maddens Plains

1. Any proposal to develop within the Maddens Plains precinct must be accompanied by a Visual Assessment report of the proposed development, taking into account both the local and regional context.
2. The low stature of the landscape vegetation and the proximity to the escarpment edge at Maddens Plains provides no screening benefit for any potential development in this landscape. The study concluded that the landscape structure provides a low visual absorption capacity with minimal to no Development Opportunity Envelope potential.



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Aboriginal Object: Means any deposit, object or other material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of an area of New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

Absorption Trench (Onsite Sewage Management): Means a trench or trenches excavated into the ground and filled with aggregate and piping or arch fabric, used for the absorption of effluent.

Absorption Trench (Stormwater): An excavation that has been filled with material or prefabricated void units that are conducive to the drainage of stormwater and which are designed to drain vertically or side-ways, into adjacent sub-surface in-situ void or fill material.

Acceptable Risk: Acceptable risk for loss of life is taken as, one order of magnitude, lower than the tolerable risk for the person most at risk, as shown in the risk matrix as published in AGS 2007. Acceptable risk for loss of property is taken as low or very low in the risk matrix as published in AGS 2007 as amended. NOTE: This does not preclude development on sites where the risk has been identified as being moderate provided that measures are taken as described in the above mentioned risk matrix as published in AGS 2007 as amended (refer to clause 5.3.(c)).

Access Handle: Means that portion of land within a battleaxe lot which has a road frontage and may contain the access driveway.

Accredited Auditor: Means a person who is accredited by a professional body approved by the Minister for Planning. Accredited auditors may act as a Principal Certifying Authority (PCA) and may issue:

- Complying Development Certificates;
- Construction Certificates;
- Compliance Certificates;
- Occupation Certificates.

Acid Sulfate Soils: Means naturally occurring sediments and soils containing iron sulfides (principally pyrite) or their precursors or oxidation products, whose exposure to oxygen leads to the generation of sulfuric acid (for example, by drainage or excavation).

Adaptable Housing: Housing that is designed and built to accommodate future changes to suit occupants with mobility impairment or life cycle needs (Australian Standard AS 4299:Adaptable Housing).

Advertising Sign: Means a sign, notice, device or representation in the nature of an advertisement, whether illuminated or not which is: (a) visible from any public road, public place or public reserve and (b) is not a road traffic signal or sign.

Advertisement: Has the same meaning as in the Act defined as a sign, notice, device or representation in the nature of an advertisement visible from any public place or public reserve or from any navigable water.

Advertising Area: Means the entire area of a sign face, including any margin, frame or embellishment which forms an integral part of the sign and in the case of an advertising structure with more than 1 sign face, the maximum surface area of the combined faces.

Advertising Structure: Has the same meaning as in the Act defined as a structure used or to be used principally for the display of an advertisement.

Aerated Wastewater Treatment System: Means a wastewater treatment system typically involving sedimentation, aerobic biological oxidation, aerobic sludge digestion and effluent disinfection with final discharge of effluent to a land application area.

Affordable Housing: Has the same meaning as in the Act defined as housing for very low income households, low income households or moderate income households, being such households as are prescribed by the regulations or as are provided for in an environmental planning instrument.

AGS (2007): Means Australian Geomechanics Society's *Practice Note Guidelines for Landslide Risk Management 2007* (AGS 2007) originally cited in *Australian Geomechanics* Vol 42 No 1 March 2007.

Agriculture: Means any of the following:

- a) Animal boarding or training establishments,
- b) Aquaculture,
- c) Extensive agriculture,
- d) Farm forestry,

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- e) Intensive livestock agriculture,
- f) Intensive plant agriculture.

Alluvium: Material eroded, transported and deposited by streams.

Allotment: Is the legal parcel of land which has been created via subdivision and registered with the Land Property Information service normally having a Lot number and a Deposited Plan number.

Alteration: Means the making structural or non-structural changes to the exterior or interior of a heritage item such as to the detail, fabric, finish or appearance. It may involve conservation, maintenance or repair works necessary to ensure the conservation, adaptive reuse or continued upkeep of a heritage building.

Amusement Centre: Means a building or place (not being part of a pub or registered club) used principally for playing:

- a) Billiards, pool or other like games, or
- b) Electronic or mechanical amusement devices, such as pinball machines, computer or video games and the like.

Animal Boarding Or Training Establishment: Means a building or place used for the breeding, boarding, training, keeping or caring of animals for commercial purposes (other than for the agistment of horses), and includes any associated riding school or ancillary veterinary hospital.

Annual Exceedance Probability (AEP): Is the probability that a flood of a given or larger magnitude will occur within a period of one year. Its reciprocal is equivalent to average recurrence interval.

Ancillary Residential Structure: Is a non habitable building ancillary to a dwelling-house and includes a garage, carport, shed, cabana, pergola, deck, swimming pool (inground and above ground), outside spa, Jacuzzi, hot tub, aviary, retaining wall, fence, shade sail, water tank etc.

Antecedent: Pre-existing conditions (eg. wetness of soils).

Application/s: Means an application for the determination of Council for development which includes an Integrated Development Application, Development Application, Section 96 Application or Section 82A Application.

Aquaculture: Has the same meaning as in the Fisheries Management Act 1994 defined as follows: Aquaculture means:

- a) Cultivating fish or marine vegetation for the purposes of harvesting the fish or marine vegetation or their progeny with a view to sale, or
- b) Keeping fish or marine vegetation in a confined area for a commercial purpose (such as a fish-out pond),
but does not include:
- c) Keeping anything in a pet shop for sale or in an aquarium for exhibition (including an aquarium operated commercially),
or
- d) Anything done for the purposes of maintaining a collection of fish or marine vegetation otherwise than for a commercial purpose, or
- e) Any other thing prescribed by the regulations (made under the Fisheries Management Act 1994).

Arborist: A qualified Arborist is a specialist in the care of trees and vegetation who is eligible for membership as a 'Consulting Arborist' with the National Arborists Association of Australia or the Institute of Australian Consulting Arboriculturalists and who has obtained a Level 5 Certificate of Horticulture / Arboriculture, with training to AQF Level 5 in Arboriculture or above, or equivalent

Areal: Variation over an area of a particular parameter.

Arterial Road: Means a road shown on the Wollongong Local Environmental Plan 2009 maps being an arterial road or a road declared to be a main road, controlled access road, secondary road or a tollway under the Roads Act 1993.

Asbestos: Means the fibrous form of those mineral silicates that belong to the serpentine or amphibole groups of rock forming minerals, including actinolite, amosite (brown asbestos), anthophyllite, chrysotile (white asbestos), crocidolite (blue asbestos) and tremolite. (OHS Regulations 2001).

Asbestos Removal Work: Means any work, in which bonded or friable asbestos material is removed, repaired or disturbed. (OHS Regulation 2001).

At-grade Car parking: Any car parking provided on the ground level of a building or at ground level outside a building.

Attached Dwelling: Means a building containing 3 or more dwellings, where:

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- (a) Each dwelling is attached to another dwelling by a common wall, and
- (b) Each of the dwellings is on its own lot of land (not being an individual lot in a strata plan or community title scheme), and
- (c) None of the dwellings are located above any part of another dwelling.

Australian Height Datum (AHD): A standard datum for expressing vertical information.

Australian Rainfall & Runoff: A technical manual providing guidance on current drainage design practice published by the Institute of Engineers Australia.

Average Recurrence Interval (ARI): Means the long-term average number of years between the occurrence of a flood as big as, or larger than, the selected event. For example, floods with a discharge as great as, or greater than, the 20 year ARI flood event will occur on average once every 20 years. ARI is another way of expressing the likelihood of occurrence of a flood event.

AUSTROADS: Means AUSTROADS: "Guide to Traffic Engineering Practice".

Average Exceedance Probability (AEP): Means the magnitude of a storm.

Average Recurrence Interval (ARI): The average period between the recurrence of a storm event of at least a given rainfall intensity. The ARI represents a statistical probability. For example, a 10 year ARI indicates an average of 10 events over 100 years. The ARI is not the period between actual events.

Backpackers' Accommodation: Means tourist and visitor accommodation:

- a) That has shared facilities, such as a communal bathroom, kitchen or laundry, and
- b) That will generally provide accommodation on a bed basis (rather than by room).

Backwater Profile: Longitudinal profile of the water surface in a stream where the water surface is raised above its normal level by a natural or artificial obstruction.

Balcony: Means an open area above ground level, not being an enclosed room or area, attached to or integrated with a dwelling for the exclusive enjoyment of the occupant or occupants of a dwelling but does not include a basement podium or roof terrace defined elsewhere within this DCP.

Basement car park: Refers to a car parking area wholly or partly accommodated underground, below a building. The roof of this space, including any solid walls on the podium, must not exceed 1.2m in height above natural ground level or finished ground level, whichever is the greatest distance.

Basement podium: Means the supporting structure over any portion of the basement for support of the structure above. The basement podium may be accessible for use from the dwelling/s it adjoins and does not include a balcony or roof terrace defined elsewhere in this DCP.

Battleaxe lot: Is a lot where only the access handle has direct road frontage.

BCA: Means the Building Code of Australia.

Beach: Refers to the sandy shore of the sea at mean high water mark.

Bed And Breakfast Accommodation: Means tourist and visitor accommodation comprising a dwelling (and any ancillary buildings and parking) where the accommodation is provided by the permanent residents of the dwelling and:

- a) Meals are provided for guests only, and
- b) Cooking facilities for the preparation of meals are not provided within guests' rooms, and
- c) Dormitory-style accommodation is not provided.

Biochemical Oxygen Demand (BOD5): Means the amount of oxygen required for the biological decomposition of organic matter, measured over a period of 5 days.

Biodiversity: The same meaning as defined in the *Biodiversity Conservation Act 2016*

Biodiversity values: The same meaning as defined in the *Biodiversity Conservation Act 2016 and Biodiversity Conservation Regulation 2017*.

Biodiversity offset: measures taken to compensate for any residual significant, adverse impacts that cannot be avoided, minimised and / or rehabilitated or restored, in order to achieve no net loss or a net gain of biodiversity. See also mitigation hierarchy.

Blackwater: Means human faeces and urine and wastewater heavily and directly contaminated with human faeces and urine generated from a toilet, urinal, bidette or bidet. Blackwater may also contain contaminated solid material, such as toilet paper. Although not strictly water-based, human faeces and urine entering a waterless composting toilet is considered as "blackwater".

Block: Refers to a group of subdivided lots, the edge of which is bound by public roads, and in some cases, public roads and public open space.

Boarding House: Means a building:

- a) That is wholly or partly let in lodgings, and
- b) That provides lodgers with a principal place of residence for 3 months or more, and
- c) That generally has shared facilities, such as a communal bathroom, kitchen or laundry, and
- d) That has rooms that accommodate one or more lodgers,

But does not include backpackers' accommodation, a group home, a serviced apartment, seniors housing or hotel or motel accommodation.

Brothel: Has the same meaning as in the Act.

Buildable land: Means land on which the erection of a building is not constrained by being flood prone, subject to instability, subject to easements or restrictions of access.

Building: Has the same meaning as in the Act defined to include part of a building and any structure or part of a structure, but not including a manufactured home, a moveable dwelling or associated structure (or part of a manufactured home, moveable dwelling or associated structure).

Building envelope: Means the three dimensional shape within which a development must fit. It defines the limits for the siting (including setbacks) and height of any buildings.

Building Footprint: Means the area of land measured at finished ground level that is enclosed by the external walls of a building or any attached balconies or terraces.

Building Height (or Height of Building): Means the vertical distance between ground level (existing) at any point to the highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like.

Building Identification Sign: Means a sign that identifies or names a building and that may include the name of a building, the street name and number of a building, and a logo or other symbol, but that does not include general advertising of products, goods or services.

Building Sustainability Index (BASIX): A web-based planning tool for the assessment of the potential performance of new residential development in terms of its energy efficiency and water usage efficiency. A BASIX certificate must be submitted with a Development Application or a Complying Development Certificate for any new residential development. BASIX is implemented under State Environmental Planning Policy (Building Sustainability Index) 2004.

Building Line or Setback: Means the horizontal distance between the property boundary or other stated boundary (measured at 90 degrees from the boundary) and:

- a) A building wall, or
- b) The outside face of any balcony, deck or the like, or
- c) The supporting posts of a carport or verandah roof,

Whichever distance is the shortest.

Building work: Means any physical activity involved in the erection of a building or alterations and additions to a building or structure.

Bulky Goods Premises: Means a building or place used primarily for the sale by retail, wholesale or auction of (or for the hire or display of) bulky goods, being goods that are of such size or weight as to require:

- a) A large area for handling, display or storage, or
- b) Direct vehicular access to the site of the building or place by members of the public for the purpose of loading or unloading such goods into or from their vehicles after purchase or hire,

But does not include a building or place used for the sale of foodstuffs or clothing unless their sale is ancillary to the sale or hire or display of bulky goods.

Bush Fire Hazard Reduction Work: Has the same meaning as in the Rural Fires Act 1997 defined as follows:

Bush Fire Hazard Reduction Work: Means:

- a) The establishment or maintenance of fire breaks on land, and
- b) The controlled application of appropriate fire regimes or other means for the reduction or modification of available fuels within a predetermined area to mitigate against the spread of a bush fire,
- c) But does not include construction of a track, trail or road.

Bushfire Prone Land: Is land that can support a bush fire or is likely to be subject to bush fire / ember attack. In general, bush fire prone land identifies vegetation types and associated buffer zones.

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Business Identification Sign: Means a sign:

- a) That indicates:
 - i) The name of the person or business, and
 - ii) The nature of the business carried on by the person at the premises or place at which the sign is displayed, and
- b) That may include the address of the premises or place and a logo or other symbol that identifies the business,
- c) But that does not include any advertising relating to a person who does not carry on business at the premises or place.

Business Premises: Means a building or place at or on which:

- a) An occupation, profession or trade (other than an industry) is carried on for the provision of services directly to members of the public on a regular basis, or
- b) A service is provided directly to members of the public on a regular basis, and may include, without limitation, premises such as banks, post offices, hairdressers, dry cleaners, travel agencies, internet access facilities, medical centres, betting agencies and the like, but does not include sex services premises.

Campervan: Means a moveable dwelling that is designed so as to be registrable as a motor vehicle under the Traffic Act 1909 and includes a camper trailer.

Car Park: Means a building or place primarily used for the purpose of parking motor vehicles, including any manoeuvring space and access thereto, whether operated for gain or not.

Caravan: Means a moveable dwelling that is designed so as to be registrable as a trailer under the Traffic Act 1909 but does not include a campervan /camper trailer.

Caravan Park: Means land (including a camping ground) on which caravans (or caravans and other moveable dwellings) are, or are to be, installed or placed.

Catchment: Area draining into a particular creek system, typically bounded by higher ground around its perimeter.

Category 1 Remediation Work: Contaminated land remediation work that requires formal development consent as per the legislative requirements under State Environmental Planning Policy No. 55 – Remediation of Land.

Category 2 Remediation Work: Contaminated land remediation work that does not require formal development consent as per the legislative requirements under State Environmental Planning Policy No. 55 – Remediation of Land.

Ceiling Height: Means the vertical distance from the ceiling level at the outside wall to natural ground level or finished ground level whichever is lower. For a 'cathedral', raked or curved ceiling, or where the roof structure of the building serves the same purpose as the ceiling of a conventional building, the ceiling height is measured as the vertical distance from the pitching point at the outside wall to natural ground level or finished ground level, whichever is lower.

Character: Has two specific elements, namely:

- a) "Existing character" relates to the current patterns of natural and urban geography which may be observed in an area; and
- b) "Desired or future character" which provides objectives for the future development of a suburb and which emphasizes the important existing features or qualities of the area that should be maintained or enhanced.

Child Care Centre: Means a building or place used for the supervision and care of children that:

- a) Provides long day care, pre-school care, occasional child care or out-of-school-hours care, and
- b) Does not provide overnight accommodation for children other than those related to the owner or operator of the centre, but does not include:
 - c) A building or place used for home-based child care, or
 - d) An out-of-home care service provided by an agency or organisation accredited by the NSW Office of the Children's Guardian, or
 - e) A baby-sitting, playgroup or child-minding service that is organised informally by the parents of the children concerned, or
 - f) A service provided for fewer than 5 children (disregarding any children who are related to the person providing the service) at the premises at which at least one of the children resides, being a service that is not advertised, or
 - g) A regular child-minding service that is provided in connection with a recreational or commercial facility (such as a gymnasium), by or on behalf of the person conducting the facility, to care for children while the children's parents are using the facility, or
 - h) A service that is concerned primarily with the provision of:

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- i) Lessons or coaching in, or providing for participation in, a cultural, recreational, religious or sporting activity, or
- ii) Private tutoring, or
- i) A school, or
- j) A service provided at exempt premises (within the meaning of section 200 of the Children and Young Persons (Care and Protection) Act 1998), such as hospitals, but only if the service is established, registered or licensed as part of the institution operating on those premises.

Civil Design: Means a design where the development includes any road, drain, excavation or fill placement which has been prepared by a civil engineer.

Civil Engineer: Means a civil or structural engineer who is a member or is eligible for membership of a professional engineering institution, is university degree qualified with a minimum of five years relevant professional practice during the last ten years as a civil engineer, and is listed on the National Professional Engineers Register, and either has or is employed by a corporation which has professional indemnity insurance of not less than \$2 million, such insurance being evidenced to Council to be in force, for the year in which any information is submitted to the Council in accordance with this policy. The professional indemnity insurance must have retroactive cover extending back to at least the engineer's first submission to Council.

Clearing Native Vegetation: Has the same meaning as in the Native Vegetation Act 2003 defined meaning any one or more of the following:

- a) Cutting down, felling, thinning, logging or removing native vegetation,
- b) Killing, destroying, poisoning, ringbarking, uprooting or burning native vegetation.

(See Division 3 of Part 3 of the Native Vegetation Act 2003 for the exclusion of routine agricultural management and other farming activities from constituting the clearing of native vegetation if the landholder can establish that any clearing was carried out for the purpose of those activities.)

Cliff-top: On land adjacent to the foreshore, is defined as that position where a change in grade of the land is evident, downwards towards the cliff edge or face.

Coastal Building Line: Is the distance a structure must be setback from the cliff top or foreshore lands.

Collection Well: Means a tank used for the collection and temporary storage of effluent discharged from a septic tank.

Communal Open Space: Means useable shared open space within the proposed development for the recreation and relaxation of all residents of a residential or mixed use development.

Community Facility: Means a building or place:

- a) Owned or controlled by a public authority or non-profit community organisation, and
- b) Used for the physical, social, cultural or intellectual development or welfare of the community,
- c) But does not include an educational establishment, hospital, retail premises, place of public worship or residential accommodation.

Community Sensitive Locations: These may include areas:

- Where occupants are located for long periods of time, for instance residences;
- That are frequented by children, for instance schools, child care centres;
- Where there are people with particular health concerns for instance hospitals, aged care centres; and
- Considered significant to indigenous communities.

Complying Development Certificate (CDC): A certificate that states a particular proposed development is complying development and (if carried out as specified in the certificate) will comply with all development control applicable to the development. A complying development certificate may be issued either by Council or an accredited certifier.

Consent Authority: Means Wollongong City Council.

Construction Certificate (CC): A certificate stating that construction drawings and specifications are consistent with the development consent and relevant construction standards such as the Building Code of Australia. A construction certificate may be issued either by the Council or an accredited certifier.

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Contaminated Land: Land in, on or under which any substance is present at a concentration above that naturally present in, on or under the land and that poses, or is likely to pose, an immediate or long term risk to human health or the environment.

Contaminated Land Planning Guidelines: Guidelines notified in accordance with section 145C of the Environmental Planning and Assessment Act 1979 (Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land).

Conveyance: A measure of the carrying capacity of the channel section. Flow is directly proportional to conveyance for steady flow. From Manning's equation, the proportionality factor is the square root of the energy slope.

Council: Means Wollongong City Council.

Corner Apartment: Is an apartment located in the corner position of a building which has frontage to two elevations.

Corner Lot: Is a lot which has a frontage to two roads on adjacent boundaries.

Covenant: A restriction on the use of land recorded on the property title and binding upon successors in title under the Conveyancing Act 1919. Covenants may be either positive (imposing positive obligations) or negative (imposing restrictions).

CPEng: Means Chartered Professional Engineer.

CPGeo: Means Chartered Professional Geologist.

Crime Prevention thought Environmental Design (CPTED): It aims to reduce the opportunities for crime by increasing the effort and risk for offenders, as well as reducing the rewards. CPTED recognises that any design strategy needs to be part of a holistic approach to crime prevention, incorporating social, environment and community development strategies.

Cross Over Apartments: Apartments with two opposite aspects and with a change in level between one side of the building and the other.

Cross Through Apartments: Apartments on one level with two opposite aspects.

Crematorium: Means a building in which deceased persons or pets are cremated, and includes a funeral chapel.

Critical Depth: If discharge is held constant and the water depth allowed to decrease, as in the case of water approaching a free overfall, velocity head will increase, pressure head will decrease, and total energy will decrease toward a minimum value where the rate of the decrease in the pressure head is just counterbalanced by the rate of increase in velocity head. This is the critical depth. More generally, the critical depth is the depth of flow that would produce the minimum total energy head, and it depends on cross section geometry and water discharge.

Critical Flow: The state of flow where the water depth is at the critical depth and when the inertial and gravitational forces are equal. When Froude $N^0 = 1.0$.

Crown Maintenance Pruning: Is defined as in Australian Standard AS 4373 –2007 "Pruning of Amenity Trees" and generally involves a reduction in tree foliage and branches by up to 10 per cent in any one (1) year with no reduction in the height of the main trunk.

Culvert: An enclosed conduit (typically pipe or box) that conveys stormwater below ground.

Cumulative Impact: The sum of the impacts from a number of different sources or over time.

Curtilage: In relation to a heritage item or conservation area, means the area of land (including land covered by water) surrounding a heritage item, a heritage conservation area, or building, work or place within a heritage conservation area, that contributes to its heritage significance.

dBA: Means the decibels of the 'A-scale' – a set of frequency -weighted scale of noise which allows for lack of sensitivity of the ear to sound at very high and very low frequencies.

DCP: Means Development Control Plan.

Dead tree: Means any tree that is no longer capable of performing any one of the following processes:

- Photosynthesis;
- Take up of water through the root system;
- Hold moisture in its cells; or
- Produce new shoots.

DECC: Department of Environment and Climate Change.

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Deep Soil Zone: Refers to an area of the site that is not to be built upon, or underneath, thereby leaving an area of deep, soft soil for substantial deep-rooted vegetation, natural vegetation and natural drainage. This area may be included in private open space but is not included in the minimum private open space area calculations.

Demolish: In relation to a heritage item, or a building, work, relic or tree within a heritage conservation area, means wholly or partly destroy, dismantle or deface the heritage item or the building, work, relic or tree.

Demolition Plan: Means a plan and / written statement which outlines the procedures to be carried out for the demolition of a building or work.

Depot: Means a building or place used for the storage (but not sale or hire) of plant, machinery or other goods (that support the operations of an existing undertaking) when not required for use.

Development: Means the construction, alteration or demolition of buildings, including swimming pools, roads, dams, ponds and drains, and the excavation and/or filling of land or any other works that requires the prior approval of Council.

Drainage: Means any activity that intentionally alters the hydrological regime of any locality by facilitating the removal of surface or ground water. It may include the construction, deepening, extending, opening, installation or laying of any canal, drain or pipe, either on the land or in such a manner as to encourage drainage of adjoining land.

Design Floor Level: A minimum floor level specified to be above standard flood level (eg 0.5 metres above).

Designated Development: Development declared as 'designate development' by Schedule 3 of the Environmental Planning and Assessment Regulation 2000.

Detailed Investigation: An investigation to define the extent and degree of contamination to assess potential risk posed by contaminants to human health and the environment and to obtain sufficient information for the development of a remedial action plan of required.

Development Opportunity Envelope: Identifies a building envelope that ensures that development is not visible from important viewing locations for that section of the escarpment.

Development site: Refers to the lands within which the development (ie the subject of the Development Application) relates.

Domestic Greywater Diversion: Means the installation and operation of a system for diverting greywater generated on sewer residential premises to a garden or lawn on those premises, but does not include the manual collection and re-use of greywater (for example, by means of a bucket or similar receptacle).

Domestic Greywater Treatment System (DGTS): Means a system that collects, treats and disinfects greywater for re-use for toilet and urinal flushing, or for use in surface irrigation in dedicated non-trafficable areas or other land application systems.

Driveway Crossing: Refers to a carriageway extending from the edge of the roadway frontage to the property boundary to connect to the first vehicular ramp or driveway encountered, and carrying one or two-way traffic.

Driveway: Refers to the carriageway contained within the development site, which carries one or two way traffic.

Dual Occupancy: Means 2 dwellings (whether attached or detached) on one lot of land (not being an individual lot in a strata plan or community title scheme), but does not include a secondary dwelling.

Dual Aspect Development: Apartments which have at least two major external walls facing in different directions, including corner, cross over and cross through apartments.

DWE: Department of Water and Energy.

Dwelling: Means a room or suite of rooms occupied or used or so constructed or adapted as to be capable of being occupied or used as a separate domicile.

Dwelling House means a building containing only one dwelling.

Earthworks: means excavation or filling.

Ecologically Sustainable Development has the same meaning as in the Environmental Planning and Assessment Act 1979 and the Protection of the Environment Administration Act 1991.

Educational Establishment means a building or place used for education (including teaching), being:

- a) A school, or
- b) A tertiary institution, including a university or a TAFE establishment, that provides formal education and is constituted by or under an Act.

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Effective Warning Time: The time available after receiving advice of an impending flood and before the floodwaters prevent appropriate flood response actions being undertaken.

Effluent Application Field (EAF) area: Means the minimum required disposal field size (ie directly wetted area) that is to be constructed within the ESD (Ecological Sustainable Development) area and has been determined in accordance with AS/NZS 1547 (2000), based on the ability of the site's soils to receive effluent without creating health risks or hydraulic failure.

Electricity Generating Works: Means a building or place used for the purpose of making or generating electricity.

Electromagnetic radiation (EMR) or electromagnetic energy (EME): The radiation in the microwave and radiofrequency band of the electromagnetic spectrum.

Embankment: The low permeability earth fill wall of a dam comprising the crest, batter slopes and foundation.

Endangered ecological community (EEC): ecological communities that face a very high risk of extinction in the near future as listed under NSW State and/or Commonwealth threatened species legislation.

Endangered population: An isolated population of a species that faces a very high risk of extinction in the near future as listed under NSW State and/or Commonwealth threatened species legislation.

Endangered species: a species that faces a very high risk of extinction in the near future as listed under NSW State and/or Commonwealth threatened species legislation.

Engineering Geologist: Means a specialist engineering geologist who is university degree qualified, is a member or is eligible for membership of a professional institution and who has achieved chartered professional status being either CPEng or CPGeo or RPGeo with Landslide Risk Management as a core competence; with a minimum of five years practice during the last ten years as an engineering geologist in regions of the Sydney Basin underlain by Narrabeen or Coal Measures geological strata or who is able to demonstrate relevant experience with similar geology and either has or is employed by a corporation which has professional indemnity insurance of not less than \$2 million, such insurance being evidenced to Council to be in force, for the year in which any information is submitted to the Council in accordance with this policy. The professional indemnity insurance must have retroactive cover extending back to at least the engineer's first submission to Council.

Entertainment Facility means a theatre, cinema, music hall, concert hall, dance hall and the like, but does not include a pub, nightclub or registered club.

Environmental Facility means a building or place that provides for the recreational use or scientific study of natural systems, and includes walking tracks, seating, shelters, board walks, observation decks, bird hides or the like, and associated display structures.

Escarpment: A cliff or steep slope, of some extent, generally separating two level or gently sloping areas.

Evapotranspiration (ET) Bed: Means a system of effluent disposal that uses the loss of water from the soil by evaporation and from plants by transpiration from beds that are essentially shallow trenches.

Excavation: Means the removal of soil or rock, whether moved to another part of the same site or to another site, but does not include garden landscaping that does not significantly alter the shape, natural form or drainage of the land.

Exempt Development: Development that is declared to be 'exempt' under Wollongong Local Environmental Plan 2009.

Exhibition Home: Means a dwelling built for the purposes of the public exhibition and marketing of New Dwellings, whether or not it is intended to be sold as a private dwelling after its use for those purposes is completed, and includes any associated sales or home finance office or place used for displays.

Exhibition Village: Means 2 or more exhibition homes and associated buildings and places used for house and land sales, site offices, advisory services, car parking, food and drink sales and other associated purposes.

Existing Ground Level: Means the ground level in existence immediately prior to the commencement of proposed building or site works.

Extractive Industry means the winning or removal of extractive materials (otherwise than from a mine) by methods such as excavating, dredging, tunnelling or quarrying, including the storing, stockpiling or processing of extractive materials by methods such as recycling, washing, crushing, sawing or separating, but does not include turf farming.

Extractive Material: Means sand, soil, gravel, rock or similar substances that are not minerals within the meaning of the Mining Act 1992.

Extreme Flood: Means an estimate of the probable maximum flood, which is the largest flood likely to ever occur.

Farm Stay Accommodation: Means tourist and visitor accommodation provided to paying guests on a working farm as a secondary business to primary production. "Extractive material" means sand, soil, gravel, rock or similar substances that are not minerals within the meaning of the Mining Act 1992.

Fill: The depositing of soil, rock or other similar extractive material obtained from the same or another site, but does not include:

- (a) The depositing of topsoil or feature rock imported to the site that is intended for use in garden landscaping, turf or garden bed establishment or top dressing of lawns and that does not significantly alter the shape, natural form or drainage of the land, or
- (b) The use of land as a waste disposal facility

Final Geotechnical Certificate: Means a certificate prepared by a geotechnical engineer or engineering geologist in accordance with form M17 of this Plan.

Final Structural Certificate: Means a certificate prepared by a structural engineer in accordance with form M16 of this policy.

Finished Ground Level: Means the level of the finished ground surface.

Flood: Is a relatively high stream flow which overtops the natural or artificial banks in any part of a stream, river, estuary, lake or dam, and/or local overland flooding associated with major drainage as defined by the FMM before entering a watercourse, and/or coastal inundation resulting from super-elevated sea levels and/or waves overtopping coastline defences excluding tsunami.

Flood Awareness: An appreciation of the likely effects of flooding and knowledge of the relevant flood warning and evacuation procedures.

Flood Compatible Building Components: A combination of measures incorporated in the design and /or construction of buildings or structures subject to flooding and the use of flood compatible materials for the reduction or elimination of flood damage.

Flood Compatible Materials: Materials used in building which are resistant to damage when inundated.

Flood Evacuation Strategy: The strategy for the evacuation of areas within effective warning time during periods of flood as specified within any policy of Council, the FRMP, the relevant State government disaster plan or advice received from the State Emergency Service (SES) or as determined in the assessment and determination of individual Development Applications.

Flood Hazard: The potential for damage to property or persons due to flooding.

Flood Liable Land: Is the area of land which is subject to inundation by the probable maximum flood (PMF).

Flood Mitigation Work means work designed and constructed for the express purpose of mitigating flood impacts. It involves changing the characteristics of flood behaviour to alter the level, location, volume, speed or timing of flood waters to mitigate flood impacts. Types of works may include excavation, construction or enlargement of any fill, wall, or levee that will alter riverine flood behaviour, local overland flooding, or tidal action so as to mitigate flood impacts.

Flood Storage: Part of the floodplain that is important for the temporary storage of floodwaters during the passage of a flood.

Floodplain: The portion of a river valley, adjacent to the river channel, which is covered with water when the river overflows during flood or inundation periods.

Floodplain Development Manual: Refers to the NSW State Government document dated April 2005 and titled "Floodplain Development Manual: The Management of Flood Liable Land."

Floodplain Management Manual (FMM): Refers to the document dated January 2001, published by the New South Wales Government and entitled "Floodplain Management Manual: the management of flood liable land" which has been superseded by the "Floodplain Development Manual: the management of flood liable land April 2005".

Floodplain Risk Management Plan (FRMP): Means a plan prepared for one or more floodplains in accordance with the requirements of the FMM or its predecessor.

Floodplain Risk Management Study (FRMS): Means a study prepared for one or more floodplains in accordance with the requirements of the FMM or its predecessor.

Floodways: Areas of the river channel and floodplain where a significant volume of water flows during flood periods. Floodways are areas which, even if only partially blocked would cause significant redistribution of flood flow, which may in turn adversely affect other areas. These areas are also generally characterised (but not always) by areas of deeper flow or the areas where higher velocities occur.

Floor Space Ratio (FSR): Is the ratio of the gross floor area of a building to the area of the site on which it is situated.

Food and Drink Premises: Means retail premises used for the preparation and retail sale of food or drink for immediate consumption on or off the premises, and includes restaurants, cafes, take away food and drink premises, milk bars and pubs.

Foreshore Area: Means the land between the foreshore building line and the mean high water mark of the nearest Foreshore building line: Is a factor of safety expressed as a height above the design flood level. Freeboard provides a factor of safety to compensate for uncertainties in the estimation of flood levels across the floodplain, such as wave action, localised hydraulic behaviour and impacts that are specific event related, such as levee and embankment settlement, and other effects such as 'greenhouse' and climate change.

Forecast (ANEF) Contour: Means the Australian Noise Exposure Forecast contours surrounding the Illawarra Regional Airport at Albion Park Rail and marked on a ANEF map which highlight the level of noise exposure from aircraft operating out of the Illawarra Regional Airport.

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Freeboard: Is a factor of safety expressed as a height above the design flood level. Freeboard provides a factor of safety to compensate for uncertainties in the estimation of flood levels across the floodplain, such as wave action, localised hydraulic behaviour and impacts that are specific event related, such as levee and embankment settlement, and other effects such as 'greenhouse' and climate change.

Frontage: Refers to the street alignment at the front of a lot.

Front Building Line: Is the perpendicular distance a building or structure is set back from the front property boundary at the primary street frontage of a lot.

Froude N°: A measure of flow instability - below a value of one, flow is tranquil and smooth, above one, flow tends to be rough and undulating (as in rapids).

Funeral Home means premises used to arrange and conduct funerals and memorial services, and includes facilities for the short-term storage, dressing and viewing of bodies of deceased persons and premises with mortuary facilities.

Gate Valve: Means a stop cock used to prevent the flow of effluent at the collection side of the suction line.

Geotechnical: Relating to Engineering and the materials of the earth crust.

Geotechnical Engineer: Means a specialist geotechnical engineer who is university degree qualified, is a member of or is eligible for membership of a professional engineering institution and who has achieved chartered professional status being either CPEng or CPGeo or RPGeo with Landslide Risk Management as a core competence; with a minimum of five years practice during the last 10 years as an geotechnical engineer in regions of the Sydney Basin underlain by Narrabeen or Coal Measures geological strata or who is able to demonstrate relevant experience with similar geology and either has or is employed by a corporation which has professional indemnity insurance of not less than \$2 million, such insurance being evidenced to Council to be in force, for the year in which any information is submitted to the Council in accordance with this policy. The professional indemnity insurance must have retroactive cover extending back to at least the engineer's first submission to Council.

Geotechnical Hazards: Means a condition with the potential for causing the movement of soil, rock or debris which may cause injury or death to persons or damage to, or destruction of property.

Geotechnical report: Means a report prepared by and/or technically verified by a geotechnical engineer or engineering geologist as defined by this DCP, which incorporates each of the elements, where applicable to the type of development, described in section 5.2 'Requirements for the preparation of geotechnical reports' of this policy.

Gradient: Slope or rate of fall of land/pipe/stream.

Granny Flat: Means the smaller of two dwellings, where:

- a) The dwellings are both on the same lot and no other dwelling is on that lot;
- b) At least one of the dwellings is occupied by the owner of the lot on which the dwellings stand.

Green roof: A roof surface that supports the growth of vegetation, comprised of a waterproofing membrane, drainage layer, organic growing medium (soil) and vegetation. Green roofs can be classified as either extensive or intensive, depending on the depth of substrate used and the level of maintenance required. Intensive green roofs are generally greater than 300mm deep and are designed as accessible landscape spaces with pathways and other features. Extensive green roofs are generally less than 300mm deep and are generally not trafficable.

Green wall: There are two main types of green walls: green facades and living walls. Green facades are simple systems where plants are grown directly into soil and trained up a frame or trellis system to cover the wall. Living walls are more complex systems where panels or pockets of vegetation are fixed directly to the wall. This is through the use of a suitable growing medium and a hydroponic system. The use of soil in a living wall is generally minimal and plants are fed primarily through nutrients in the irrigation water.

Greywater (Sullage): Means domestic wastewater excluding toilet waste and may include wastewater arising from a hand basin, shower, bath, spa bath, clothes washing machine, laundry tub, dishwasher and kitchen sink.

Greywater Diversion Device (GDD): Is a device that diverts (or diverts and collects), and directs untreated greywater to a sub-surface irrigation area.

Gross Floor Area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

- a) The area of a mezzanine, and
- b) Habitable rooms in a basement or an attic, and

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c) Any shop, auditorium, cinema, and the like, in a basement or attic,

but excludes:

- a) Any area for common vertical circulation, such as lifts and stairs, and
- b) Any basement:
 - i) Storage, and
 - ii) Vehicular access, loading areas, garbage and services, and
- c) Plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
- d) Car parking to meet any requirements of the consent authority (including access to that car parking), and
- e) Any space used for the loading or unloading of goods (including access to it), and
- f) Terraces and balconies with outer walls less than 1.4 metres high, and
- g) Voids above a floor at the level of a storey or storey above.

Ground Level (Existing) means the existing level of a site at any point.

Ground Level (Finished) means, for any point on a site, the ground surface after completion of any earthworks (excluding any excavation for a basement, footings or the like) for which consent has been granted or that is exempt development.

Ground Level (Mean) means, for any site on which a building is situated or proposed, one half of the sum of the highest and lowest levels at ground level (finished) of the outer surface of the external walls of the building.

Groundwater: Means the body of water that fills the pore spaces of the soil and subsoil and includes seepage from springs.

Group Home: Means a dwelling that is a permanent group home or a transitional group home.

Gully: Narrow ravine, small valley.

Habitable floor area: Means:

- In a residential situation: a living or working area, such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom;
- In an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.

Habitable room: Means a room used for normal domestic activities, and:

- Includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom, family room and sunroom; but
- Excludes a bathroom, water closet, pantry, walk-in wardrobe, corridor, hallway, lobby, photographic darkroom, clothes drying room and other spaces of a specialised nature occupied neither frequently nor for extended periods.

Habitable Roof Space: Is space within the roof of a building which can be used for residential purposes, where the height of the building does not exceed the ridge height specified in the height table.

Habitat Tree: Means any tree which has developed hollows in the trunk or limbs and which is suitable for nesting birds, arboreal marsupials (possums), micro-bats or which support the growth of locally indigenous epiphytic plants such as orchids.

Hazard: Is a source of potential harm or a situation with a potential to cause loss. In relation to this plan, the hazard is flooding which has the potential to cause harm or loss to the community.

Headwall: Wall constructed around inlet or outlet of a culvert.

Health Consulting Rooms means a medical centre that comprises one or more rooms within (or within the curtilage of) a dwelling house used by not more than 3 health care professionals who practise in partnership (if there is more than one such professional) who provide professional health care services to members of the public.

Health Services Facility means a building or place used as a facility to provide medical or other services relating to the maintenance or improvement of the health, or the restoration to health, of persons or the prevention of disease in or treatment of injury to persons, and includes the following:

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- a) Day surgeries and medical centres,
- b) Community health service facilities,
- c) Health consulting rooms,
- d) Facilities for the transport of patients, including helipads and ambulance facilities,
- e) Hospitals.

Heavy Industry: Means an industry that requires separation from other land uses because of the nature of the processes involved, or the materials used, stored or produced. It may consist of or include a hazardous or offensive industry or involve the use of a hazardous or offensive storage establishment.

Height: Means the number of storeys in a building which can be intersected by the same vertical line

Heritage Conservation Area: Means any area listed in Schedule 5 Part 2 of Wollongong Local Environmental Plan 2009.

Heritage Conservation Management Plan means a document prepared in accordance with guidelines prepared by the Department of Planning that documents the heritage significance of an item, place or heritage conservation area and identifies conservation policies and management mechanisms that are appropriate to enable that significance to be retained.

Heritage Impact Statement means a document consisting of:

- a) A statement demonstrating the heritage significance of a heritage item, archaeological site, place of Aboriginal heritage significance or other heritage conservation area, and
- b) An assessment of the impact that proposed development will have on that significance, and
- c) Proposals for measures to minimise that impact.

Heritage Item: Means a building, work, archaeological site or place listed in Schedule 1 of Wollongong Local Environmental Plan 1990 and the site of which is described in Schedule 1 and shown edged heavy black or edged broken heavy black on the heritage map.

Heritage Significance means historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value.

Highway Service Centre means a building or place used as a facility to provide refreshments and vehicle services to highway users, and which may include any one or more of the following:

- a) Restaurants or take away food and drink premises,
- b) Service stations and facilities for emergency vehicle towing and repairs,
- c) Parking for vehicles,
- d) Rest areas and public amenities.

Home-Based Child Care means a dwelling used by a resident of the dwelling for the supervision and care of one or more children and that satisfies the following conditions:

- a) The service is appropriately licensed within the meaning of the Children and Young Persons (Care and Protection) Act 1998,
- b) The number of children (including children related to the carer or licensee) does not at any one time exceed 7 children under the age of 12 years, including no more than 5 who do not ordinarily attend school.

Home employment: Means an occupation which is carried on in, or from a dwelling, or within or from the curtilage of a dwelling-house or residential apartment building, by the permanent residents of the dwelling, and which does not involve any of the following

- a) The employment on the premises of persons other than those residents;
- b) Interference with the amenity of the neighbourhood by reason of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products or grit, oil or otherwise;
- c) The display of goods, whether in a window or otherwise;
- d) The exhibition of any notice, advertisement or sign (other than a notice, advertisement or sign exhibited to indicate the name and occupation of those residents);
- e) The use of the premises as a brothel or bed and breakfast accommodation.

Home Business: Means a business carried on in a dwelling, or in a building ancillary to a dwelling, by one or more permanent residents of the dwelling that does not involve:

- a) The employment of more than 2 persons other than those residents, or

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- b) Interference with the amenity of the neighbourhood by reason of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil, traffic generation or otherwise, or
- c) The exposure to view, from any adjacent premises or from any public place, of any unsightly matter, or
- d) The exhibition of any notice, advertisement or sign (other than a notice, advertisement or sign exhibited on that dwelling to indicate the name of the resident and the business carried on in the dwelling), or
- e) The sale of items (whether goods or materials), or the exposure or offer for sale of items, by retail, except for goods produced at the dwelling or building,

but does not include bed and breakfast accommodation, home occupation (sex services) or sex services premises.

Home Industry: Means a light industry carried on in a dwelling, or in a building ancillary to a dwelling, by one or more permanent residents of the dwelling that does not involve:

- a) The employment of more than 2 persons other than those residents, or
- b) Interference with the amenity of the neighbourhood by reason of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil, traffic generation or otherwise, or
- c) The exposure to view, from any adjacent premises or from any public place, of any unsightly matter, or
- d) The exhibition of any notice, advertisement or sign (other than a notice, advertisement or sign exhibited on that dwelling to indicate the name of the resident and the light industry carried on in the dwelling), or
- e) The sale of items (whether goods or materials), or the exposure or offer for sale of items, by retail, except for goods produced at the dwelling or building, but does not include bed and breakfast accommodation or sex services premises.

Home Occupation: Means an occupation carried on in a dwelling, or in a building ancillary to a dwelling, by one or more permanent residents of the dwelling that does not involve:

- a) The employment of persons other than those residents, or
- b) Interference with the amenity of the neighbourhood by reason of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil, traffic generation or otherwise, or
- c) The display of goods, whether in a window or otherwise, or
- d) The exhibition of any notice, advertisement or sign (other than a notice, advertisement or sign exhibited on that dwelling to indicate the name of the resident and the occupation carried on in the dwelling), or
- e) The sale of items (whether goods or materials), or the exposure or offer for sale of items, by retail,

but does not include bed and breakfast accommodation, a brothel or home occupation (sex services).

Home Occupation (Sex Services): Means the provision of sex services in a dwelling that is a brothel, or in a building that is a brothel and is ancillary to such a dwelling, by no more than 2 permanent residents of the dwelling and that does not involve:

- a) The employment of persons other than those residents, or
- b) Interference with the amenity of the neighbourhood by reason of the emission of noise, traffic generation or otherwise, or
- c) The exhibition of any notice, advertisement or sign, or
- d) The sale of items (whether goods or materials), or the exposure or offer for sale of items, by retail, but does not include a home business or sex services premises.

Hoardings: Are structures or fences erected on or adjacent to a property to form barrier between demolition and construction sites and the public domain. Hoarding structures may consist of fencing, scaffolding and / or overhead structures as either individual elements or integrated together to form a uniform hoarding.

- A "Type A Hoarding" is a hoarding comprising of a fence.
- A "Type B Hoarding" is an overhead structure situated over footpaths.
- A "Type C Hoarding" is a full- face scaffold.

Hotel or Motel Accommodation: Means tourist and visitor accommodation (whether or not licensed premises under the Liquor Act 1982):

- a) Comprising rooms or self-contained suites, and
- b) That may provide meals to guests or the general public and facilities for the parking of guests' vehicles,

but does not include backpackers' accommodation, a boarding house, bed and breakfast accommodation or farm stay accommodation.

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Industry: Means the manufacturing, production, assembling, altering, formulating, repairing, renovating, ornamenting, finishing, cleaning, washing, dismantling, transforming, processing or adapting, or the research and development of any goods, chemical substances, food, agricultural or beverage products, or articles for commercial purposes, but does not include extractive industry or a mine.

Hydrology: A term given to the study of rainfall and runoff processes as relates to the derivation of flood discharges.

Hydrograph: A graph of flood flow against time.

Hydraulic: A term given to the study of water flow, as relates to the evaluation of flow depths, levels and velocities.

IFD: Intensity - Frequency – Duration Rainfall parameters used to describe rainfall at a particular location.

Infill Development: Refers to new urban development within an existing urban development area.

Infill Residential Subdivision: Is the subdivision of a lot of land which has a residential zoning and which is bounded by existing residential development.

Information and Education Facility: Means a building or place used for providing information or education to visitors, and the exhibition or display of items, and includes an art gallery, museum, library, visitor information centre and the like.

Integrated housing: Means development that consists of:

- The Torrens Title or Community Title subdivision of land into 5 or more lots; and
- The erection of a single dwelling-house on each of the lots created by that subdivision;

Where approval is given concurrently for the subdivision and development of the lots.

Investigation area: Land declared to be an 'investigation area' by a declaration under Division 2 of Part 3 of the Contaminated Land Management Act 1997.

Investigation order: An order issued by the NSW Department of Environment & Climate Change under Division 2 of Part 3 of the Contaminated Land Management Act 1997.

Irregular Shaped Allotment: Means an allotment which is not square or rectangular in shape.

Isohyets: Lines joining points of equal rainfall.

Isolated Lot: Means a lot which is bounded on both sides by properties (or a property and second street frontage) which comprises existing or proposed multi unit development other than a single dwelling house.

Key threatening process: threats that adversely affect threatened species, populations or ecological communities, or could cause species, populations or ecological communities to become threatened as listed under NSW State and/or Commonwealth threatened species legislation.

Land Application Area: Means the area of land intended for the disposal of effluent and includes the ecological sustainable development area.

Land Reshaping: Involves a combination of filling and excavation.

Landscaped Area Means a part of a site used for growing plants, grasses and trees, but does not include any building, structure or hard paved area.

Living Area: Means a principle living space such as a living room, dining room, family room, kitchen, rumpus room or the like which is used for normal domestic activities. It does not include a bedroom, study, bathroom, laundry, utility room or room serving a similar function.

Local Overland Flooding: Means inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.

Long-Term Site: Means a dwelling site in a caravan park that is designated as being a long-term site (ie for periods in excess of 3 months).

Lot: Refers to an individual parcel of subdivided land.

Low impact facility: Means a telecommunications facility that is exempt from state and council local planning requirements under the Telecommunications (Low – impact Facilities) Determination 1997.

Maintenance: In relation to a heritage item or a building, work, archaeological site, tree or place within a heritage conservation area, means ongoing protective care. It does not include the removal or disturbance of existing fabric, alterations, such as carrying out extensions or additions, or the introduction of new materials or technology.

Major Section: Is defined as a 'single portion of a manufactured home or relocatable home, being a portion:

- (a) That contains a total living space (excluding the living space contained in any associated structure) of at least 20 cubic metres and
- (b) That comprises all the major components of that portion of the home, including the chassis or frame, the external and internal walls, the roof and ceilings, the floors, the windows and doors, the internal plumbing and wiring, the tiling, the kitchen, bathroom and laundry fittings (other than stoves, refrigerators, washing machines and other whitegoods) and the built-in cupboards and cabinets.

Manning's n: A measure of channel or pipe roughness.

Manufactured Home: Means a self-contained dwelling (that is a dwelling that includes at least one kitchen, bathroom, bedroom and living area and that also includes toilet and laundry facilities) being a dwelling:

Manufactured Home Estate: Means land on which manufactured homes are or are to be erected.

Market: Means retail premises comprising an open-air area or an existing building used for the purpose of selling, exposing or offering goods, merchandise or materials for sale by independent stall holders, and includes temporary structures and existing permanent structures used for that purpose on an intermittent or occasional basis.

Mean High Water Mark: Means the position where the plane of the mean high water level of all ordinary local high tides intersects the foreshore, being 1.44m above the zero of Fort Denison Tide Gauge and 0.515m Australian Height Datum.

Medical Centre: Means business premises used for the purpose of providing health services (including preventative care, diagnosis, medical or surgical treatment, counselling or alternative therapies) to out-patients only, where such services are principally provided by health care professionals, and may include the ancillary provision of other health services.

Merit approach: Is an approach, the principles of which are embodied in the FMM which weighs social, economic, ecological and cultural impacts of land use options for different flood prone areas together with flood damage, hazard and behaviour implications, and environmental protection and well being of the State's rivers and floodplains.

Minor Development: Developments discharging less than 55L/S and discharging to kerb.

Mitigation Hierarchy: Avoid, minimise, offset. This means that the first priority is to avoid impacts of a proposal on biodiversity values. Where impacts cannot be avoided, a reasonable attempt must be made to minimise any impact. When all feasible measures have been taken to avoid and minimise the impacts, offsets should be used to compensate for any remaining impacts.

Mixed use development: Means a development which includes residential uses in conjunction with one or more non residential uses such as:

- Business premises;
- Commercial offices;
- Shops or other retail premises;
- Community facilities;
- Entertainment facilities; or
- Refreshment rooms.

Mound System: Means a raised effluent application system that is used where natural soils are extremely permeable and/or underlying groundwaters are seasonally close to the ground surface.

Moveable Dwelling: Is defined as:

- (a) Any tent or any caravan or other van or portable device (whether on wheels or not) used for human habitation or
- (b) A manufactured home, or
- (c) Any conveyance, structure or thing of a class or description prescribed by the regulations for the purposes of this definition.

Multi Dwelling Housing: Means 3 or more dwellings (whether attached or detached) on one lot of land (not being an individual lot in a strata plan or community title scheme) each with access at ground level, but does not include a residential flat building.

Native Flora: Means any plant-life that is indigenous to New South Wales, whether vascular or non-vascular and in any stage of biological development, and includes fungi and lichens, and marine vegetation within the meaning of Part 7A of the Fisheries Management Act 1994.

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Native Vegetation: Has the same meaning as in the Local Land Services Act 2013.

Natural Ground Level: Means the level of the ground surface prior to commencement of any construction work on the site.

Natural Ventilation: A range of techniques that combine natural airflow within building design characteristics to induce fresh air into a building and exhaust stale air. Natural ventilation is also used as a means to reduce the temperature of a building's thermal mass.

Net Floor Area: The whole of the lettable floor area of a building where the area of each floor is taken to be the floor area within the internal faces of the outside walls, excluding staircases, amenities, lifts, corridors and other public areas but including any storage areas.

Normal Depth: The depth that would exist if the flow were uniform.

Noxious Weed: Means a plant declared noxious under the *Noxious Weeds Act 1993*.

Occupation Certificate: A certificate issued by the Principal Certifying Authority that authorises the occupation and use of a new building or a change of building use for an existing building.

Offensive Industry means any development for the purpose of an industry that would, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including, for example, measures to isolate the development from existing or likely future development on other land in the locality), emit a polluting discharge (including, for example, noise) in a manner that would have a significant adverse impact in the locality or on the existing or likely future development on other land in the locality.

Office Premises means a building or place used for the purpose of administrative, clerical, technical, professional or similar activities that do not include dealing with members of the public at the building or place on a direct and regular basis, except where such dealing is a minor activity (by appointment) that is ancillary to the main purpose for which the building or place is used.

On-site Sewage Management System (OSSM) or On-site Wastewater Management (OSWM) System: Means an on-site system used for the purpose of holding or processing, or reusing or otherwise disposing of sewage or by-products of human waste.

On-site Stormwater Detention (OSD): A stormwater management practice which limits the rate of discharge from a site using outlet restriction devices. Stormwater flows in excess of the capacity of the outflow control device are temporarily stored either in tanks or surface depressions until the storm event recedes. Stormwater flows are released at a controlled rate into the public drainage system.

On-site Stormwater Retention: A stormwater management practice where on-site stormwater run off is actually captured and retained within the site for reuse or infiltration and is not released to the downstream drainage system.

Orographic: Pertaining to changes in relief, i.e. mountains.

Orthophoto: Aerial photograph with land contours, boundaries or reference grids added.

Outbuilding: A building which is ancillary to a principal residential building and includes sheds, detached garages, car ports and other buildings.

Parapet Height: The parapet level is the horizontal plane in which at least 2/3 of the length of the top of the façade of the building adjacent to the street is situated.

Parking Space: Means a space dedicated for the parking of a motor vehicle, including any manoeuvring space and access to it, but does not include a car park.

Passive Solar Energy Systems: Systems which combine the sun's energy with local climate characteristics, to achieve thermal comfort inside buildings without the use of mechanical devices.

PCA: Means principal certifying authority.

Piezometer: Means a borehole constructed with 100mm PVC perforated piping to a depth below the subsoil horizon or to the top of unweathered rock formation or below the water table, used to monitor groundwater quality.

Place of Public Worship: Means a building or place used for the purpose of religious worship by a congregation or religious group, whether or not the building or place is also used for counselling, social events, instruction or religious training.

Pluviograph: An instrument which records rainfall collected as a function of time.

PMF: Probable Maximum Flood: Flood calculated to be the maximum ever likely to occur.

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PMP: Probable Maximum Precipitation: Rainfall calculated to be the maximum ever likely to occur.

Pond-Based Aquaculture: Means aquaculture undertaken in structures that are constructed by excavating and reshaping earth, which may be earthen or lined, and includes any part of the aquaculture undertaken in tanks, such as during the hatchery or pre-market conditioning phases, but does not include natural water-based aquaculture.

Note. Typical pond-based aquaculture is the pond culture of prawns, yabbies or silver perch.

Private land: Means any land in private ownership by individuals or companies but excludes land owned or in the care, control or management of Council, a Crown Authority, government department or statutory authority.

Private Open Space: Means an area external to a building (including an area of land, terrace, balcony or deck) that is used for private outdoor purposes ancillary to the use of the building.

Preliminary investigation: An investigation to identify any past or present potentially contaminated activities and the preliminary assessment of any contaminants within the soil strata or groundwater table.

Principal Certifying Authority: The certifying authority appointed by the applicant to oversee the construction process. Only the Principal Certifying Authority may issue an Occupation Certificate.

Probable Maximum Flood (PMF): The largest flood that has been calculated to occur at a particular location, usually estimated from the probable maximum precipitation.

Probable Maximum Precipitation (PMP): The greatest depth of precipitation for a given duration meteorologically possible over a given size storm area at a particular location at a particular time of the year with no allowance made for long term climatic trends. PMP is the primary input to the estimation of the probable maximum flood (PMF).

Prostitution: Means the provision of a sexual act or sexual service in return for payment or reward.

Primary Frontage: Means:

- a) The single frontage where an allotment has a single frontage to a road;
- b) The shortest frontage where an allotment has two or more frontages to the public road;
- c) The two frontages where an allotment (not including a corner allotment) runs between two roads.

Prominent Ridgeline or Hilltop: Means a ridgeline, hilltop or slope which when viewed from a public place such as an arterial road, is a prominent feature of the natural landscape of a locality.

Pruning: Is defined as all other pruning which is not "crown maintenance pruning" and includes "crown modification" as defined in *Australian Standard AS 4373- 1996 "Pruning of Amenity Trees"*.

Public Domain: Land in public ownership which is utilised by the community at large for footpath, public open space or similar purposes.

Public Land has the same meaning as in the Local Government Act 1993 defined as any land (including a public reserve) vested in or under the control of the council, but does not include:

- a) A public road, or
- b) Land to which the Crown Lands Act 1989 applies, or
- c) A common, or
- d) Land subject to the Trustees of Schools of Arts Enabling Act 1902, or
- e) A regional park under the National Parks and Wildlife Act 1974.

Public Reserve has the same meaning as in the Local Government Act 1993.

Public Road: Has the same meaning as public road under the Roads Act 1993.

RCP: Reinforced Concrete Pipe.

Receiving Waters: A river, lake or the ocean.

Recreation Area means a place used for outdoor recreation that is normally open to the public, and includes:

- a) A children's playground, or
- b) An area used for community sporting activities, or
- c) A public park, reserve or garden or the like, and any ancillary buildings, but does not include a recreation facility (indoor), recreation facility (major) or recreation facility (outdoor).

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Recreation Facility (Indoor) means a building or place used predominantly for indoor recreation, whether or not operated for the purposes of gain, including a squash court, indoor swimming pool, gymnasium, table tennis centre, health studio, bowling alley, ice rink or any other building or place of a like character used for indoor recreation, but does not include an entertainment facility, a recreation facility (major) or a registered club.

Recreation Facility (Major) means a building or place used for large-scale sporting or recreation activities that are attended by large numbers of people whether regularly or periodically, and includes sports stadiums, showgrounds, racecourses and motor racing tracks.

Recreation Facility (Outdoor) means a building or place (other than a recreation area) used predominantly for outdoor recreation, whether or not operated for the purposes of gain, including a golf course, golf driving range, mini-golf centre, tennis court, paint-ball centre, lawn bowling green, outdoor swimming pool, equestrian centre, skate board ramp, go-kart track, rifle range, water-ski centre or any other building or place of a like character used for outdoor recreation (including any ancillary buildings), but does not include an entertainment facility or a recreation facility (major).

Regular Shaped Allotment: Means either:

- a) Allotment which is either square or rectangular in shape; or
- b) Allotment of another shape where a square or rectangular shape equivalent in area to the minimum lot size area for the allotment type could be contained within the boundaries of the allotment and includes a battle-axe shaped allotment and a corner allotment where the only deviation from the above requirements is the access handle (i.e. battle axe lot) or the splay corner (ie corner lot).

Related Land: Means land including roads and thoroughfares that could affect or could be affected by any development proposed on a site.

Reliable Access: During a flood means the ability for people to safely evacuate an area subject to imminent flooding within effective warning time, having regard to the depth and velocity of flood waters, the suitability of the evacuation route, and without a need to travel through areas where water depths increase.

Relocatable Home: Means:

- a) A manufactured home, or
- b) Any other moveable dwelling (whether or not self-contained) that comprises one or more major sections, including any associated structure that forms part of the dwelling.

Remedial Action Plan: A plan which sets the remediation strategies and measures for the remediation of identified contaminated land.

Remediation Order: A Remediation Order is made by the NSW Department of Environment & Climate Change under Division 3 of Part 3 of the Contaminated Land Management Act 1997.

Remnant Vegetation: Is the natural vegetation which still exists or, if the natural vegetation has been altered, is still representative of the structure and floristic characteristics of the natural vegetation.

REP: Regional Environmental Plan

Residential Accommodation: Means a building or place used predominantly as a place of residence, but does not include tourist and visitor accommodation.

Residential Care Facility: Means accommodation for seniors (people aged 55 years or more) or people with a disability that includes:

- a) Meals and cleaning services, and
- b) Personal care or nursing care, or both, and
- c) Appropriate staffing, furniture, furnishings and equipment for the provision of that accommodation and care, not being a dwelling, hospital or psychiatric facility.

Residential Flat Building: Means a building containing 3 or more dwellings, but does not include an attached dwelling or multi dwelling housing.

Restaurant: Means a building or place the principal purpose of which is the provision of food or beverages to people for consumption on the premises and that may also provide takeaway meals and beverages.

Restricted Premises: Means business premises or retail premises that, due to their nature, restrict access to patrons or customers over 18 years of age, and includes sex shops and similar premises but does not include hotel or motel accommodation, a pub, home occupation (sex services) or sex services premises.

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Retail Premises: Means a building or place used for the purpose of selling items by retail, or for hiring or displaying items for the purpose of selling them by retail or hiring them out, whether the items are goods or materials (or whether also sold by wholesale).

Run-Off: Stormwater running off a catchment during a storm on the catchment.

Ridge Height: Is the distance measured vertically from any point on the uppermost roof surface (not including a vent, chimney, flue, antennae or the like) to the natural ground level or finished ground level immediately below that point, whichever is lower.

Riparian Corridor: Means the area of the river or creek system that supports or has supported the unique ecosystem.

Risk: Means a measure of the probability and severity of an adverse effect to life and property.

Road means a public road or a private road within the meaning of the Roads Act 1993, and includes a classified road.

Roadside Stall: Means a place or temporary structure used for retail selling of agricultural produce or hand crafted goods (or both) produced from the property on which the stall is situated or from an adjacent property.

Roof Terrace: Means the flat roof over any portion of the building, which is both directly accessible for use from the dwelling/s it adjoins and also open to the sky, except for a pergola or similar sun control devices. A roof terrace may be designated for either private or communal open space purposes but does not include a balcony or basement podium defined elsewhere in this DCP.

Roofwater Tank: A water tank, whether aboveground or below ground, designed to store rainwater harvested from a roof area where the stored water is used to supply plumbing fixtures and appliances in order to reduce the harmful effects of stormwater on the environment and to supplement the water supply to the property.

RPGeo: Registered Professional Geologist.

Rural Industry: Means an industry that involves the handling, treating, production, processing or packing of animal or plant agricultural products, and includes:

- a) Agricultural produce industry, or
- b) Livestock processing industry, or
- c) Use of composting facilities and works (including to produce mushroom substrate), or
- d) Use of sawmill or log processing works, or
- e) Use of stock and sale yards, or
- f) The regular servicing or repairing of plant or equipment used for the purposes of a rural enterprise,
- g) Undertaken for commercial purposes.

Rural Supplies: Means a building or place used for the display, sale (whether by retail or wholesale) or hire of stockfeeds, grains, seed, fertilizers, veterinary supplies and other goods or materials used in farming and primary industry production.

Rural Worker's Dwelling: Means a dwelling, ancillary to a dwelling house on the same landholding, used as the principal place of residence by persons employed for the purpose of agriculture or a rural industry on that land.

School: Means a government school or non-government school within the meaning of the Education Act 1990.

Scour: Erosion of soil in the banks or bed of a creek, typically occurring in areas of high flow velocities and turbulence.

Seaward Building Line: Means the seaward alignment of existing dwellings adjacent to the foreshore, cliff top, beach or coastline. The seaward building line must not encroach upon the coastal building line defined elsewhere in this DCP.

Secondary Building Lines: Is the distance a structure is set back from the property boundary at the secondary street frontage in the case of a corner lot

Secondary Dwelling: Means a self-contained dwelling that:

- a) Is established in conjunction with another dwelling (the principal dwelling), and
- b) Is on the same lot of land (not being an individual lot in a strata plan or community title scheme) as the principal dwelling, and
- c) Is located within, or is attached to, or is separate from, the principal dwelling

Secondary frontage: Means:

- The longer frontages where an allotment has two or more frontages to a road; or
- The frontage that adjoins a lane where an allotment (not including a corner allotment) runs between a road and a lane. A lane is generally a roadway that is 6 metres wide or less.

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Self-Storage Units: Means storage premises that consist of individual enclosed compartments for storing goods or materials (other than hazardous or offensive goods or materials).

Semi-Detached Dwelling: Means a dwelling that is on its own lot of land (not being an individual lot in a strata plan or community title scheme) and is attached to only one other dwelling.

Seniors Housing: Means residential accommodation that consists of:

- a) A residential care facility, or
- b) A hostel, or
- c) A group of self-contained dwellings, or
- d) A combination of these, and that is, or is intended to be, used permanently for:
- e) Seniors or people who have a disability, or
- f) People who live in the same household with seniors or people who have a disability, or
- g) Staff employed to assist in the administration of the residential accommodation or in the provision of services to persons living in the accommodation,
- h) But does not include a hospital.

Septic Tank: Means a tank used for the storage or primary treatment of sewage comprising sedimentation of settleable solids, flotation of oils and fats, and anaerobic digestion of sludge.

Serviced Apartment: Means a building or part of a building providing self-contained tourist and visitor accommodation that is regularly serviced or cleaned by the owner or manager of the building or part of the building or the owner's or manager's agents.

Setback: The horizontal distance measured from an external enclosing wall (including an above ground deck, balcony and the like), a window or the eaves of a building to the:

- Allotment front boundary; or
- A window to a bedroom or living area of another dwelling.

Sewage: Means a combination of blackwater and greywater.

Sex Services: Means sexual acts or sexual services in exchange for payment.

Sex Services Premises: Means a brothel, but does not include home occupation (sex services).

Shallow Sub-surface Drip/Trickle Irrigation: Means the use of effluent applied directly to plants by drip or trickle to the soil below a 50-100mm layer of bark, wood chip or mulch.

Shop: Means retail premises that sell groceries, personal care products, clothing, music, homewares, stationery, electrical goods or other items of general merchandise, and may include a neighbourhood shop, but does not include food and drink premises or restricted premises.

Shop Top Housing: Means one or more dwellings located above (or otherwise attached to) ground floor retail premises or business premises.

Short-Term Site: Means a dwelling site within a caravan park which is designated as a short – term site for tourists for a period not exceeding 3 months.

Signage: Means any sign, notice, device, representation or advertisement that advertises or promotes any goods, services or events and any structure or vessel that is principally designed for, or that is used for, the display of signage, and includes:

- a) Building identification signs, and
- b) Business identification signs, and
- c) Advertisements,
- d) But does not include traffic signs or traffic control facilities.

Siltation: The filling or rising up of the bed of a watercourse or channel by deposited silt.

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Site: Is the parcel of land, whether comprising one or more allotments, to which an application for consent relates.

Site Area: Means the area of any land on which development is or is to be carried out. The land may include the whole or part of one lot, or more than one lot if they are contiguous to each other, but does not include the area of any land on which development is not permitted to be carried out under this Plan.

Site Audit: An independent review of completed site contamination remediation works by an accredited site auditor under the Contaminated Land Management Act 1997.

Site Audit Statement: The written statement by the accredited site auditor (under the Contaminated Land Management Act 1997) that summarises the findings of the site audit and confirms what land uses may be undertaken on the site, taking into account the nature of the remediation works completed upon the subject site.

Site Classification: Means a classification of the site in accordance with the current version of Australian Standard AS 2870 - Residential Slabs and Footings.

Site Width: Means the width of the allotment measured perpendicular to the side boundary for the full length of the building envelope. For corner allotments the site width is measured parallel to the primary street frontage.

Slope Instability: Means a condition with the potential for causing the movement of soil, rock or debris.

Social Housing: Means the development of housing for or on behalf of government and/or community organisations such as the Department of Housing and Office of Community Housing, but does not include residential development to which State Environmental Planning Policy (Seniors Living) 2004 or State Environmental Planning Policy No. 9 – Group Homes applies.

Solid Wall: Is a wall which incorporates at least 75% non transparent materials.

Spruikers: Persons located on the public way, usually associated with or employed by a Sex Services Premises, who seek to entice customers to enter the premises

Spurs: Secondary ridges typically occurring at right angles to a main ridge line, formed by stream erosion of the slopes of the main ridge.

Storey: Means a space within a building that is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but does not include:

- a) A space that contains only a lift shaft, stairway or meter room, or
- b) A mezzanine, or
- c) An attic.

Stormwater: Surface runoff generated from rainfall events.

Stacked Parking Space: Is a carparking space that relies on gaining access by passing through another carparking space.

Standard Lot: Is a lot which has a single frontage to a residential street.

Stratigraphy: The sequence of layers in which soils/rocks have been deposited.

Streetscape: Means the form, character and visual amenity of the street environment.

Street Vending: The setting up or use within the road reserve of any box, stall, stand, barrow or stationary vehicle, other than a roadside stall or mobile vending vehicle defined hereunder for the purpose of offering for sale any goods or for the pursuit of any business, calling or employment.

Structural Design: Means a design for any structure to be erected on the site (which may be in the form of drawings) having structural elements where the design makes recommendations in respect of the structural works and has been prepared by a structural engineer or civil engineer requiring certification in accordance with form M12 of this policy.

Structural engineer: Means a civil engineer or structural engineer who is a member of or eligible for membership of a professional engineering institution, is university degree qualified with a minimum of five years practice during the last ten years as a structural engineer, and is listed on the National Professional Engineers Register, and either has or is employed by a corporation which has professional indemnity insurance of not less than \$2 million, such insurance being evidenced to Council to be in force, for the year in which any information is submitted to the Council in accordance with this policy. The professional indemnity insurance must have retroactive cover extending back to at least the engineer's first submission to Council.

Structural Root Zone: is the area required for tree stability.

Structural Works: Means the elements of any structure designed by a structural engineer or civil engineer.

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Sub – Critical Flow: The state of flow where the water depth is above the critical depth. Here, the influence of gravity forces dominates the influences of inertial forces, and flow, having a low velocity, is often described as tranquil

Sub-Surface (Micro-trench) Irrigation: Means the disposal of effluent through microtrenches at a depth of between 100mm and 300mm below ground level.

Suitably Qualified Civil Engineer: A civil engineer who is included in the National Professional Engineers Register, administered by the Institution of Engineers Australia.

SULE Rating: SULE – Safe Useful Life Expectancy

The SULE rating system, based on Barrell 2001, rates existing trees on their safe useful life expectancy, and are determined in view of both the current state of health and age of the tree.

Supercritical Flow: The state of flow where the water depth is below the critical depth, inertial forces dominate the gravitational forces, and the flow is described as rapid or shooting.

Surcharge Flow: Unable to enter a culvert or exiting from a pit as a result of inadequate capacity

Surface Irrigation: Means the use of effluent applied to the ground from above ground level.

Survey plan: Is a plan prepared by a registered surveyor which shows the information required for the assessment of an application in accordance with the provisions of this Policy.

Swimming Pool: Has the same meaning as in the Swimming Pools Act 1992 as an excavation, structure or vessel that is capable of being filled with water to a depth of 300 millimetres or more, and (b) that is solely or principally used, or that is designed, manufactured or adapted to be solely or principally used, for the purpose of swimming, wading, paddling or any other human aquatic activity, and includes a spa pool, but does not include a spa bath, anything that is situated within a bathroom or anything declared by the regulations made under the Swimming Pools Act 1992 not to be a swimming pool for the purposes of that Act.

Take Away Food and Drink Premises: means food and drink premises that are predominantly used for the preparation and sale of food or drink (or both) for immediate consumption away from the premises.

Tank-Based Aquaculture: Means aquaculture utilising structures that are constructed from materials such as fibreglass, plastics, concrete, glass or metals, are usually situated either wholly or partly above ground, and may be contained within a purpose built farm or industrial style sheds or plastic covered hothouse to assist in controlling environmental factors.

Telecommunications Facility: Means:

- a) Any part of the infrastructure of a telecommunications network, or
- b) Any line, equipment, apparatus, tower, mast, antenna, tunnel, duct, hole, pit, pole or other structure or thing used, or to be used, in or in connection with a telecommunications network.

Telecommunications Network: Means a system, or series of systems, that carries, or is capable of carrying, communications by means of guided or unguided electromagnetic energy, or both.

Temporary Structure: Has the same meaning as in the Act defined as including a booth, tent or other temporary enclosure (whether or not part of the booth, tent or enclosure is permanent), and also includes a mobile structure.

The Act: Means the Environmental Planning and Assessment Act 1979.

Thermal Mass: The heat storage capacity of a given assembly or system. Generally, the heavier and denser the material is, the more heat it will store and the longer it will take to release the heat.

Third Party Advertising: The content of an advertisement which is not directly related to the actual land use or goods or services produced on the subject parcel of land to which the advertising is proposed.

Threatened ecological community (TEC): ecological communities listed as critically endangered, endangered or vulnerable under NSW State or Commonwealth threatened species legislation.

Threatened species: Any individual species listed as critically endangered, endangered or vulnerable under NSW State or Commonwealth threatened species legislation.

Topography: The natural surface features of a region.

Townhouse: Means a two storey dwelling within a multi dwelling development, which may or may not be attached to other dwellings, with separate access from the ground floor level and direct access to private open space at natural ground level.

Transpiration Pit: An excavation which has been filled with material conducive to the drainage of stormwater and which is designed to drain sideways, into the atmosphere, via a retaining medium.

Treatment plan: Means a plan explaining how treatment options will be implemented to manage the risk.

Treatment options: Means methods to control and treat the risk including but not limited to:

- Alternative forms of development such that the revised risk would be acceptable or tolerable;
- Stabilisation measures to control the initiating circumstances such that the revised risk would be acceptable or tolerable after implementation;
- Defensive stabilisation measures, amelioration of the behaviour of the hazard or relocation of the development to a more favourable location to achieve an acceptable or tolerable risk.

Tree: Is a perennial plant with a self-supporting stem or trunk, when mature, and for the purpose of this DCP means any tree (other than an exempt tree) including the roots of that tree, if it is 3 metres or more in height, or has a trunk diameter of 200mm or more at a height of 1 metre from the ground, or has a branch spread of 3 metres or more. A significant tree also includes a tree identified as a Heritage Item in Wollongong Local Environmental Plan 2009.

Tree Dripline or Zone: Means the area defined under a tree by the outer edge of the tree canopy projected to ground level.

Tree Protection Zone: The tree protection zone defines the optimal distance from the trunk of a tree that should be maintained free of development and construction activity – it is a combination of the root area and crown area requiring protection. The TPZ incorporates the structural root zone (SRZ)

Trunk Drainage: A stormwater system serving catchments larger than 15 hectares.

Tolerable risk: Means the risk which has been assessed and may be accepted provided that a treatment plan is implemented to maintain or reduce the risks.

Tourist and Visitor Accommodation: Means a building or place that provides temporary or short-term accommodation on a commercial basis, and includes hotel or motel accommodation, serviced apartments, bed and breakfast accommodation and backpackers' accommodation.

Urban Consolidation Area: Land identified in the maps in Appendix 1, which have been identified as areas where higher densities are permitted, due to their proximity to railway stations and ability to satisfy urban consolidation objectives.

Urbanisation: The change in land use from natural to developed state.

Urban Zone: For the purposes of this DCP includes a residential, commercial /business, industrial or other similar zone which contains predominately urban land uses.

Validation and Monitoring: The process of determining whether the remediation strategies and measures have been achieved during the remediation of the site.

Vehicular Ramp: Refers to a vehicular circulation carriageway which connects a driveway crossing to an internal off-street car park on a different level, or which connects two levels in a multi-level car park.

Verge: Means the part of the road reserve between the road carriageway and the boundary of adjacent lots. This may include the footpath area and includes the portion of land which accommodates the utility installations and street lighting poles.

Verifier: Means a geotechnical engineer or engineering geologist, as defined by this policy, who verifies a geotechnical report.

View Corridor: Refers to a direct line of sight provided from the public space or a road to a significant object, place or feature.

Villa: Means a single storey dwelling within a multi dwelling development, which may or may not be attached to other dwellings, with separate access from the ground floor level and direct access to private open space at natural ground level.

Virgin Excavated Material: Inert waste (eg clay, gravel, sand, soil and rock) that is not mixed with any other waste and that:

- Has been excavated from areas that are not contaminated, as the result of industrial, commercial, mining or agricultural activities, with manufactured chemicals and that does not contain sulphidic ores or soils; and
- Consists of excavated natural materials that meet such criteria as may be approved by the Department of Environment and Climate Change.

Visibility: Is a measure of the extent to which the escarpment may be visible from surrounding locality taking into account the period of the view, view distance and context of the view. The underlying rationale for this aspect of the visual quality analysis is to analyse the visibility of the escarpment by precinct and identify key viewpoints necessary for visual absorption capacity and Development Opportunity Envelope identification. Distance plays a strong influence on visibility as the preparation of the view frame occupied by the escarpment decreases with distance. In addition atmosphere influences tend to reduce the level of contrast between development disturbances and the escarpment landscape.

Visual Absorption Capacity: Is an estimation of the capacity of a particular locality of landscape to absorb development without creating a significant change in visual character or a reduction in scenic environmental quality of the locality. The capacity to visually absorb development is primarily dependent on landform, vegetation and existing development. A major factor influencing visual absorption capacity is the level of visual contrast between the proposed development and the existing elements of the landscape in which the proposal is occupied. For example, flat or gently sloping open forest has a higher capacity to visually absorb development than strongly undulating cleared escarpment ridges and escarpment slopes. Further, if visually prominent development already exists on the escarpment then the capacity of the locality to absorb an additional development is higher, than a similar section of the escarpment that has a natural undeveloped visual character.

Appendix
Appendix 4: Definitions

Warehouse or Distribution Centre: Means a building or place used mainly or exclusively for storing or handling items (whether goods or materials) pending their sale, but from which no retail sales are made.

Waste Disposal Facility: Means a building or place used for the disposal of waste by landfill, incineration or other means, including such works or activities as recycling, resource recovery and other resource management activities, energy generation from gases, leachate management, odour control and the winning of extractive material to generate a void for disposal of waste or to cover waste after its disposal.

Waste Management Facility: Means a facility used for the storage, treatment, purifying or disposal of waste, whether or not it is also used for the sorting, processing, recycling, recovering, use or reuse of material from that waste, and whether or not any such operations are carried out on a commercial basis. It may include but is not limited to:

- a) An extractive industry ancillary to, required for or associated with the preparation or remediation of the site for such storage, treatment, purifying or disposal, and
- b) Eco-generating works ancillary to or associated with such storage, treatment, purifying or disposal.

Waste Management Plan (WMP): A waste management strategy / plan for the collection, recovery and / or disposal of waste material and the recycling of materials during the demolition, construction and post construction periods. The Waste Management Plan also includes estimates of volumes of waste produced and proposed recycling or reuse strategies to be implemented in order to minimise waste material being required to be taken to a registered land fill waste disposal site.

Wastewater: Means blackwater, greywater or a combination of blackwater and greywater arising from activities such as the use of toilets, bathrooms (basins, baths and showers), kitchens and laundries.

Waterbody means a waterbody (artificial) or waterbody (natural).

Waterbody (Artificial) or Artificial Waterbody: Means an artificial body of water, including any constructed waterway, canal, inlet, bay, channel, dam, pond, lake or artificial wetland, but does not include a dry detention basin or other stormwater management construction that is only intended to hold water intermittently.

Waterbody (Natural) or Natural Waterbody: Means a natural body of water, whether perennial or intermittent, fresh, brackish or saline, the course of which may have been artificially modified or diverted onto a new course, and includes a river, creek, stream, lake, lagoon, natural wetland, estuary, bay, inlet or tidal waters (including the sea).

Watercourse: Means any river, creek, stream or chain of ponds, whether artificially modified or not, in which water usually flows, either continuously or intermittently, in a defined bed or channel, but does not include a waterbody (artificial).

Water Sensitive Urban Design (WSUD): WSUD is a philosophy which aims to mitigate environmental impacts particularly on water quantity, water quality and receiving waterways, conventionally associated with urbanisation. WSUD incorporates holistic management measures that take into account urban planning and design, social and environmental amenity of the urban landscape and stormwater management which are integrated with stormwater conveyance by reducing peak flows, protection of natural systems and water quality, stormwater reuse and water conserving landscaping. This can be achieved through a design approach that strives to maintain or replicate the natural water cycle through an incremental "treatment train" approach, through the optimisation the use of rainwater on-site whilst minimising the amount of water transported from the catchment.

Water Table: Means the surface of groundwater below the ground surface.

Waterway: Means the whole or any part of a watercourse, wetland, waterbody (artificial) or waterbody (natural).

Wetland: means:

- a) Natural wetland, including marshes, mangroves, backwaters, billabongs, swamps, sedgelands, wet meadows or wet heathlands that form a shallow waterbody (up to 2 metres in depth) when inundated cyclically, intermittently or permanently with fresh, brackish or salt water, and where the inundation determines the type and productivity of the soils and the plant and animal communities, or
- b) Artificial wetland, including marshes, swamps, wet meadows, sedgelands or wet heathlands that form a shallow waterbody (up to 2 metres in depth) when inundated cyclically, intermittently or permanently with water, and are constructed and vegetated with wetland plant communities.

Zero lot line: Refers to the situation where the wall of the dwelling has no side boundary setback on one (1) side of the allotment and the allotment is benefited by a 1 metre wide restriction on the use of the land under Section 88B of the Conveyancing Act 1919 on the adjoining parcel of land, in order to enable on-going maintenance of the wall and / or roof of the subject dwelling