#### STRATEGIC PLANNING

# Draft B4 Development Control Plan Landscaping and Biodiversity

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# Introduction

Randwick City has a rich diversity of natural, cultural and scenic landscapes including significant areas of remnant bushland, wetlands and habitat corridors. These natural assets contribute to the City's unique character and ecological significance.

Landscaping plays an essential role in integrating development into the surrounding streetscape and neighbourhood. It enhances the visual amenity and usability of sites, supports recreation and leisure, preserves natural areas and contributes to improved stormwater management, environmental performance and micro-climatic conditions. Implementing the green grid, protecting areas of bushland and biodiversity, increasing tree canopy and increasing the native and indigenous species across the LGA are key priorities of the City of Randwick environment strategy 2022 and our Local strategic Planning statement 2023.

A healthy urban forest provides significant aesthetic, ecological and environmental benefits to residents, workers and visitors to Randwick City.

The long term protection and enhancement of Randwick's urban environment - through the preservation and management of trees and vegetation is essential to achieving the goals set out in the Randwick Environment Strategy, including:

- Increasing native and indigenous plantings
- Expanding urban canopy cover
- Improving connectivity between bushland areas and habitat corridors

This Part of the DCP outlines controls for preparing landscape plans and addressing landscape design matters, including controls for development in and near areas of biodiversity significance and habitat corridors. It aligns with State Environmental Planning Policy Biodiversity and Conservation 2021 (BC SEPP), which includes provisions for the protection and preservation of trees and vegetation.

Vegetation clearing associated with development requiring consent will be assessed as part of the development assessment process and may also require additional assessment under the NSW Biodiversity Conservation Act 2016.

This Part of the DCP applies to all development that impacts existing habitat or includes landscaping and governs the clearing of vegetation that falls below the Biodiversity Offset Scheme threshold outlined in the Biodiversity Conservation Act 2016.

For the purposes of Part 2.3 of the BC SEPP, the following vegetation is declared to be vegetation to which the BC SEPP applies:

- Any vegetation on land identified as 'Biodiversity' on the Terrestrial Biodiversity Map in RLEP.
- (ii) Any vegetation on land zoned Environmental Conservations C2 in the RLEP or
- (iii) Any vegetation on Land identified as 'Biodiversity Habitat Corridor' in SSROC Connected Corridors for Biodiversity map

#### This Part of the DCP should be read in conjunction with:

- Part A Introduction and other sections
- Part B5 Preservation of Trees.

# Alignment with other planning instruments

In addition to the RLEP, the BC SEPP applies. In the event of an inconsistency between this DCP and the SEPP, the SEPP prevails to the extent of the inconsistency.

#### Note

The Sydney Green Grid is a strategic planning framework developed by the NSW Government Architect to create a connected network of green open spaces—parks, bushland, waterways, and tree-lined streets—across Greater Sydney.

Its goal is to ensure that every resident lives within walking distance of quality green space while improving urban resilience, ecological health, and liveability.

The Green Grid is given effect to the NSW planning system through the Greater Sydney Region Plan – A Metropolis of Three Cities (2018) and the Eastern City District Plan 2018.

# **General provisions**

Landscaping forms an integral part of site planning and contributes significantly to the visual quality, environmental performance, and overall amenity of development. The integration of natural and designed landscape elements supports ecological resilience, reinforces local character, and provides functional, aesthetic and microclimatic benefits to occupants and the surrounding community.

These provisions establish consistent requirements for the design, implementation and long-term maintenance of landscaped areas within all forms of development. They ensure that planting and landscape works respond appropriately to site conditions, local topography, and existing vegetation, and that they enhance the public domain and the environmental quality of the urban environment.

#### **Objectives**

- 1. Promote high quality landscape design as an integral component of the overall design of a development.
- 2. Provide landscape design and plantings that are compatible with the site and locality.
- 3. 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.
- 4. Encourage the preservation of trees and vegetation that contribute to native flora and fauna habitat.
- 5. To recognise the importance of establishing and maintaining habitat corridors as links between areas of existing remnant bushland.
- 6. To ensure there is no net loss of remnant bushland across the LGA.
- 7. To incorporate landscaping as a way of fostering environmental benefits such as mitigating the urban heat island effect, reducing flood impacts, increasing groundwater retention and improving air quality.
- 8. To provide landscaping that connects good urban design and development with urban bushland, in particular areas of high biodiversity.
- 9. To increase the number of native and indigenous plantings across Randwick city.

#### **Weed trees**

Trees species that are declared weeds under the Biosecurity Act 2015 for the Randwick LGA. must not be incorporated into any landscape plans and must be actively managed on any private land.

See Appendix B4-1 for a table of weed trees relevant to Randwick.

# 1.1. Vegetation Clearing Requiring a Permit

A permit from Council is required where:

- the clearing is not for a purpose that requires development consent;
- the trees to be cleared are covered by the Council's Development Control Plan Preservation of Trees B5; and
- the clearing is below the NSW Biodiversity Offsets Scheme threshold

# Clearing below the NSW Biodiversity Offsets Scheme threshold

The NSW Biodiversity Offsets Scheme threshold (BOS threshold) is the is point at which proposed clearing will trigger the NSW Biodiversity Offsets Scheme (BOS). When proposed vegetation clearing (or development) must be assessed under the Biodiversity Conservation Act 2016 (NSW), instead of just through council's tree/vegetation controls.

The Native Vegetation Panel must approve any clearing that exceeds the Biodiversity Offset Scheme threshold. The proposed clearing must be assessed using the Biodiversity Assessment Method

Table clearing limits for lot size Biodiversity Offset Scheme threshold

Minimum Lot size	Area of clearing
Less than 1 hectare	0.25 hectare or more
Less than 40 hectares but not less than 1 hectare	0.5 hectare or more
Less than 1,000 hectares but not less than 40 hectares	1 hectare or more
1,000 hectares or more	2 hectares or more

Threshold limits as specified under Section 7.2 of the Biodiversity conservation Regulation 2017

#### **Controls**

Under Section 2.3 of the Biodiversity Conservation SEPP Councils requires permits for clearing of vegetation that is below the requirements that trigger the Biodiversity Offset Scheme

- a) C1 Council declares the following as vegetation needing a permit from Council to clear.
  - (i) Any vegetation on land identified as 'Biodiversity' on the Terrestrial Biodiversity Map in RLEP;
  - (ii) Any vegetation on land zoned Environmental Conservations C2 in the RLEP or
- b) Any vegetation on Land identified as 'Biodiversity Habitat Corridor' in SSROC Connected Corridors for Biodiversity map
- c) The clause does not apply to the removal of undesirable weed specie as specified in the Appendix B4-1 in this DCP.
- d) This permit requirement does not apply to:
  - (i) Land zoned a National Park C1 under the Randwick LEP: and
  - (ii) land under the ownership or care, control and management of Randwick Council where the work is carried out by or on behalf of Council.
- e) A permit cannot apply to the following unless Council is satisfied that the clearing is minor in nature, for maintenance or would not adversely affect:
  - (i) a heritage item
  - (ii) within a heritage conservation area,

- f) forms part of an Aboriginal object
- g) Aboriginal place

#### Note

# **Vegetation clearing permit**

Once received by Council a permit must be determined within 28 days after the date on which the application was duly made if not been determined is taken to have been refused after the expiration of that 28-day period

**Development consent** (via a Development Application) is required for clearing of vegetation (associated with development that requires consent under Part 4 of the EP&A Act.

# 2. Landscape plan

## **Explanation**

A landscape plan is required to accompany all DAs for new buildings, as well as for significant alterations/ additions that may affect existing tree coverage or landscaped areas on the site. This requirement ensures that proposed developments contribute positively to the local environment, support urban biodiversity and maintain or enhance the visual and ecological character of the area. The landscape plan should demonstarte how the development integrates with the surrounding landscape, preserves significant vegetation

#### Note

Appendix B4-4 outlines the requirements for Landscape Plans submitted with development applications.

#### **Objectives**

- 1. Contribute positively to the desired future character of the area
- 2. Soften the built form, improve streetscape appeal, and integrate new development with surroundings
- 3. Provide appropriate private and communal open space that is green, usable, and well-shaded.

#### **Controls**

A landscape plan submitted with a DA must be prepared in accordance with Appendix B4-3, including, but not limited to, the following elements and details:

- a) Identification of all existing trees within or adjacent to the site including those on Council land. The plan must specify the location, height, condition and status of each tree (i.e proposed to be removed/retained/relocated or pruned)
- b) Documenatation of existing natural site features such as rocky outcrops, cliff lines, water bodies, sandstone retaining walls and any other significant landscape elements.
- c) Delineation of hard and soft landscaped areas and open space in relation to existing and proposed buildings and structures.
- d) Location and selection of proposed plant species, including botanical and common name
- e) Basic drainage information, including location of pits, stormwater lines, irrigation systems, hose cocks, and other relevant infrastructure.
- f) Identification of measures to manage erosion and sedimentation during and after construction, consitent with Council's Construction Water Management requirements as provided in Section 3.3 of Part B8 Water Management section of the DCP.

# 3. Landscape design

The design of landscaped areas and deep soil planting constitutes an integral component of the overall site planning for any development. Accordingly, controls governing the location, minimum size, and dimensions of landscaped areas and deep soil zones are established and incorporated within the relevant sections of the Development Control Plan (DCP) applicable to various development types, as outlined below:

- C1 Low density residential
- C2 Medium density residential
- Part E Local centres
- C10 Industrial uses
- Part D Specific sites

# 3.1. Trees on development sites

# **Explanation**

All development proposals must be designed to maintain or improve the urban forest values of the site by minimising the impact on existing tree/s and planting replacement tree/s for tree/s that are proposed for removal. This requirement applies to Council owned trees as well as trees on private or other property and adjoining land.

## **Objectives**

- 1. Preserve existing trees on development sites as part of future development
- 2. Increase canopy cover towards Randwick's tree canopy target and contribute towards the character of the area
- 3. Protect existing trees on development sites, adjoining properties or street trees in accordance with Australian Standard *AS 4970* 2009 Protection of Trees on Development Sites.

- a) The design of new buildings or alterations and additions to buildings must provide sufficient distance from existing trees (whether on the site or on adjoining land), in accordance with AS4970-Protection of trees on development sites, to ensure the tree/s' practical retention
  - i. A Tree Protection Zone must be established around existing trees to be retained before construction works can start
  - ii. No parking or storage of materials are to occur within Tree Protection Zones.
- b) Trees on public land must be protected during demolition and excavation, through the erection of hoarding and construction works in accordance with *Section 4 of AS4970*.
- c) Council will require the payment of a security deposit in relation to protection of a tree on public land if:
  - i. Development is proposed within the Tree Protection Zone of that tree or
  - ii. Council determines that the development may adversely affect the roots or crown of the tree.
- d) Developments in zones other than R1 General Residential or R2 Low Density Residential must allow for any existing overhead electrical lines to be converted into

- aerial bundled cabling or redirected underground to reduce the impact upon surrounding trees
- a) New awnings that encroach into public land must be designed to accommodate existing and proposed street trees.

# 3.2. Existing vegetation and natural features

# **Explanation**

Significant natural features and vegetation on the site, such as rocky outcrops, cliff lines, water bodies, trees, shrubs and groundcover vegetation should be retained and incorporated into the landscape design of the development.

# **Objectives**

- 1. Conserve and incorporate significant natural features and vegetation of the site as part of the landscape design
- 2. Ensure site planning responds sensitively to the natural landscape, supports ecological values, and maintains the area's visual and environmental character.

- a) Maximise the retention and protection of existing vegetation including trees, shrubs and groundcover vegetation
- b) Retain and incorporate existing natural features including sandstone and rock outcrops as landscape elements
- c) Retain and stockpile topsoil onsite for reuse in landscaped areas.

# 3.3. Selection and location of plant species

# **Explanation**

The appropriate selection and placement of plant species is essential to achieving high standards of landscape design, enhancing residential amenity, and supporting biodiversity conservation. Well-considered planting contributes to habitat creation, urban cooling, and the overall character of the development and surrounding area.

# **Objectives**

- 1. Encourage the planting of appropriate native plants to contribute to the maintenance and extension of fauna and flora habitats.
- 2. Ensure suitable plant species are selected for the existing aspect, soil and micro-climatic conditions.
- 3. Encourage use of local provenance/native species suited to site conditions.
- 4. Enhance the appearance and amenity of developments through thoughtful plant selection and placement.
- 5. Support Council's urban tree canopy targets by promoting canopy tree planting across the LGA.
- 6. Increase the protection and diversity of locally indigenous flora and fauna species across the LGA.

- a) Native species must comprise at least 60% of the plant schedule. This must include a mix of locally indigenous trees, shrubs and groundcovers selected from Appendix B4-2.
- b) As subject to the following:
  - a. Cultivars or hybrids of listed plant species are not to be counted towards this requirement
  - Landscape plans must include a planting schedule that lists all proposed plant species, quantities and indicates whether each plant species is listed in Appendix B2-1.
- c) Invasive plant species, and any species listed in Council's Undesirable Weed Species List Appendix B4-1 must not be included in the landscape design
  - a. This control may not apply to heritage-listed properties or heritage areas where an ornamental species may maintain the historical or aesthetic character of the site
- d) Enhance and connect existing fauna and flora habitats by selecting and locating plant species that support biodiversity. Use species recommended in Council's Native planting List Appendix B4-2, where relevant
- e) Where appropriate, incorporate food-growing areas (e.g. edible gardens, community plots) into the landscape design to support local sustainability and community wellbeing
- f) Select and position plants to improve environmental performance and site amenity. This includes:
  - i. Planting deciduous shade trees to regulate solar access—providing summer shade and allowing winter sunlight;
  - ii. Using vegetation to intercept glare from hard surfaces;
  - iii. Channelling air currents to improve natural ventilation;
  - iv. Providing windbreaks where beneficial; and
  - v. Using vegetation to screen noise, enhance privacy, and reduce visual impacts.
- g) All suitable trees must be planted with a minimum setback of 3.5 metres to the outside wall of a legally constructed building and at least two (2) metres from any proposed or existing drainage lines

- h) Where a tree proposed for removal under a Development Application is three (3) metres or more in height or has a canopy spread of three (3) metres or more, replacement planting must be provided on a site
- i) Replacement trees must:
  - i. Be of the same or greater canopy size at maturity as the tree being removed;
  - ii. Be confirmed by a Landscape Plan and Arborist Report;
  - iii. Be selected from Council's Desirable Species List; and
  - iv. Be planted from a minimum 45L pot sizes to ensure successful establishment.
- j) Where, in Council's opinion, there is insufficient space on site to accommodate a replacement tree of similar dimensions, the applicant may seek to contribute to offset planting on public land. Generally, for each tree removed, a minimum of three (3) off-site trees must be planted in accordance with Council's policy
- k) Each property should have at least one (1) tree (within the property boundary) where practicable. Where this cannot be achieved, compensatory planting bond / fund must be established.

#### Notes:

Refer to Appendix B4-1of this DCP Section for a list of undesirable species.

A selection of native species may be available at Council's Nursery - stock list

Council's Native Havens Manual provides a list of native species suitable to various conditions

The Grow What Where Book provides information on native plants for a variety of settings, including unusual conditions or problem areas.

#### **Local Provenance Plants**

"Local provenance plants" are native species grown from seed or propagation material that has been collected from natural populations within the same local bioregion or ecological community as the development site. The use of local provenance ensures that plantings retain the genetic integrity and adaptive characteristics of local populations, thereby supporting long-term ecosystem resilience, habitat values, and biodiversity conservation.

As per control C2 Cultivars or Hybrid plants should not be planted near remnant bushland because they can compromise the ecological and genetic integrity of native plant populations. Hybrid plants may cross-pollinate with wild native species, leading to genetic contamination and a loss of locally adapted genetic traits that are critical for long-term survival in local conditions.

Appendix B4-2 provides a list of suitable native tree, shrub and groundcover species.

#### Contribution fees for public tree planting

Contribution fees for public tree planting in lieu of on-site replacement planting are set out in Council's Fees and Charges schedule.

# 3.4. Water efficienct Landscaping

# **Explanation**

Landscape design significantly influences both quality and quantity of stormwater runoff from a site, as well as the amount of water required for irrigation. Implementing water efficient landscaping supports compliance with BASIX water conservation targets for residential development and delivers economic and environmental benefits across other development types including commercial, industrial and public open spaces.

# **Objectives**

- 1. Minimise potable mains water consumption for landscape irrigation.
- 2. Promote rainwater infiltration and reduce runoff through effective landscape design and plant selection.

- a) Maximise rainfall capture and absorption and minimise runoff, by:
  - i. reducing the extent of impervious surfaces;
  - ii. directing overland flow to permeable areas such as garden beds; and
  - iii. using semi-pervious materials for paved surfaces.
- b) Select plant species with low water requirements and deep root systems to improve drought resilience and soil stability.
- c) Avoid extensive lawn areas, which typically require more water and fertiliser than native groundcovers, shrubs, and trees.
- d) Lawns are generally not permitted, except in rear yards of detached dwellings. Native groundcovers should be used in open areas to enhance water efficiency and visual amenity
- e) Design water features to operate with non-potable water sources.
- f) Use water efficient irrigation systems, such as:
  - i. automated sub-soil drip systems,
  - ii. soil moisture and rain sensors, and
  - iii. use of non-potable water sources (e.g. rainwater tanks).
- g) Implement water conservation practices including:
  - i. Hydro zoning grouping plants with similar water needs;
  - ii. Ensuring adequate soil depth to enhance water retention and plant health.

# 3.5. Minimum soil depth for landscaping

# **Objectives**

- 1. Ensure landscaped areas provide adequate soil depth and volume to support healthy, vigorous and sustainable plant growth
- 2. Maximise canopy tree establishment, urban greening, and habitat creation through appropriate soil profiles
- 3. Enhance environmental performance by improving stormwater infiltration, reducing the urban heat island effect, and supporting local biodiversity
- 4. Contribute positively contribute to the visual amenity and character of the development and surrounding public domain through high quality landscaping.

#### **Controls**

- a) Development must provide sufficient soil depth and volume to support healthy plant growth, canopy establishment, and long-term sustainability of landscaped areas
- b) appropriate soil depths and types must be provided in accordance with the minimum soil and volume requirements outlined in Table 1.

**Table 1 – Minimum Soil Depth and Volume Requirements** 

Plant size	Minimum Soil Depth Requirements	Minimum Soil Volume per m²
Large Trees (>8m height)	1000mm	3,000 L per tree
Medium Trees (3-8m	800mm	2,000L per tree
Small trees (up to 3m	600mm	1,000L per tree
Shrubs (up to 3m in	600mm	400L per shrub
Ground cover	450mm	150L per m <sup>2</sup>
Lawn	300mm	NA

c) Where landscaping is located over structure (e.g., podiums, basements, roofs), a minimum soil depth of 1,000 mm for trees and 600 mm for shrubs must be provided, with appropriate drainage and irrigation.

#### Note

Other water conservation practices should also be considered, such as hydro zoning (grouping species with similar water needs) and providing adequate soil depth to increase water storage capacity.

# 3.6. Outdoor car parks & circulation areas

# **Explanation**

Landscaping, as an integral part of outdoor parking design, offers a variety of benefits, such as shade for parked vehicles, screening the car parks from the street and public areas and softening the visual impact of large parking areas. Landscaping in open car parks can also facilitate rainwater infiltration and help prevent stormwater runoff.

# **Objectives**

- 1. Ensure outdoor ground level car parking areas are landscaped to provide shade for parked vehicles
- 2. Improve amenity and minimise the visual impact of car parks in the streetscape and public domain
- 3. Ensure that land uses requiring at-grade car parking, such as industrial and business park uses, incorporate adequate landscaping and vegetation to improve canopy cover reduce large areas of paved surfaces and minimise the urban heat island effects.

- a) Outdoor ground level car parks containing 5 or more car spaces must incorporate landscape planting
- b) Where landscaping is required, it must be designed in accordance with the following criteria:
  - iv. Planting should be provided along the perimeter and internal to the parking area.
  - v. Perimeter planting should provide adequate screening of the car park at street level and integrate with streetscape planting
  - vi. Planting must not hinder the visibility of both drivers and pedestrians, with open sightlines maintained between the car park, public roads and paths
  - Internal planting should provide shade for vehicles. As a guide, 1 canopy tree per 4 adjoining car spaces should be provided to allow for at least a 50% canopy coverage of the car park at maturity
  - ii. Planter beds must provide adequate dimension, aeration and water to the root zones of plants and cater for tree roots and future tree growth
  - iii. The minimum pot size at installation for trees in parking areas is 100 Litres.
- c) The following plant species should be used for car parks:
  - i. Trees with tall trunks and ample shade coverage.
  - ii. Plants that do not drop fruits, branches, sap or bark.
  - iii. Plants of vigorous growth and with minimum long-term maintenance requirements.
- d) Adequate distances should be provided between planting and lighting, above ground electricity lines, footpaths, kerbs and underground services, etc.
- e) Appropriate vehicle barriers are required to protect the planter beds and plants from damage by moving vehicles
- f) The minimum pot size at installation for trees in parking areas is 100 litres. (source Bayside)
- g) Contrasting materials and finishes, including permeable paving, must be used to break up large sections of paving and to delineate pedestrian areas/crossings, entries, car parks, special use areas or at transition zones between different uses
- h) Permeable paving surfaces to driveways, car parking bays and paved areas should be priorities over non-permeable
- i) When proposing more than 5 car spaces at grade Water Sensitive Urban Design (WSUD) principles, including permeable paving, shall be included in the proposal.

# 4. Green roofs and green walls

#### 4.1. Green roofs

#### **Explanation**

A green roof is a roof top that is partially or completely covered with vegetation. It can enhance the building's appearance, reduce visual mass, improve environmental performance (e.g. thermal performance), create habitats and minimises stormwater runoff. Green roofs offer a good option for renovating and improving the amenity of existing buildings with limited landscaping.

A green roof system generally contains a waterproofing membrane and root barrier system, drainage system, filter fabric, a lightweight growing medium and plants.

Council will determine if green roofs can be considered as landscaped area on a site-by-site basis. Applications considering green roofs are encouraged to contact Council's landscape officer prior to lodgement.

## **Objective**

- 1. To encourage well designed and maintained green roofs in suitable buildings and locations
- 2. To promote ecologically sustainable approaches for sites with constraints in highly urbanised contexts to achieve an appropriate quantity of landscape area
- 3. To create additional space for urban greening, food production and private open space.

#### **Controls**

Any proposal for a green roof shall:

- a) Undertake a detailed site analysis to assess the site suitability, including consideration of the climate conditions (e.g. solar orientation and wind loads), surrounding environment and the structural capacity, age and condition of the roof, etc
- b) Suitably identify roof access (e.g. frequency and types of access), growing medium type and depth, function and type of green roof and plant schedule in accordance with the roof structural capacity
- Select native and drought/heat tolerant plant species from Council's native species list as provided in Appendix B4-2. Other species may be considered and approved by Council's landscape officers
- d) Be designed with high standard components, including waterproofing membrane, growing medium, vegetation layer, root barrier, insulation and drainage system, etc.
- e) Maximise retention and reuse of stormwater
- f) Identify the most suitable irrigation system based on growing medium characteristics and plant needs
- g) Consider integration of solar panels on the green roof
- h) Prepare a maintenance plan detailing the maintenance arrangements for the following aspects as a minimum:
  - i. Inspection and maintenance of the waterproofing roof membrane
  - ii. Drain inspection
  - iii. Care of plants and growing medium, and
  - iv. Maintenance of the irrigation system.

#### 4.2. Green walls

# **Explanation**

A green wall is a vertical garden, either free-standing or part of a building, that is partially or completely covered with vegetation.

Similar to green roofs, green walls can potentially offer a range of benefits, such as enhancing the appearance of the buildings, lowering energy consumption through increased thermal performance, reducing noise transmission, improving air quality and increasing biodiversity.

Green walls can only be considered as a supplement to the required landscaped area for any development.

# **Objectives**

- 1. To achieve well designed and maintained green walls in suitable buildings and locations.
- 2. To promote ecologically sustainable approaches for sites with constraints in highly urbanised contexts to achieve an appropriate quantity of landscape area.
- 3. To create additional space for urban greening, food production and private open space

#### **Controls**

Any proposed for a green wall shall:

- a) Design and locate green walls to suit the orientation and microclimatic conditions and enable access for maintenance
- b) Select a mix of native and ornamental species (see Appendix B4-2 for suitable native species)
- c) Provide details of the support system, demonstrating that the green wall can be removed without affecting the structural integrity or waterproofing of the building
- d) Ensure green walls are designed to function with an irrigation system using non-potable water
- e) Suitably establish control and timing of the watering system through the use of systems such as a smart irrigation system with an soil moisture alert mechanism to optimise water use
- f) Prepare a maintenance plan detailing the maintenance arrangements.

# 5. Developement and biodiversity

# 5.1. Development in or near areas of high biodiversity significance

#### **Explaination**

Areas of biodiversity significance in Randwick City are identified in the Terrestrial Biodieversity layer RLEP and are either zoned C2 Environment Conservation, identified on the RLEP Biodiversity Map or identified in the SSROC connected corridors mapping These identified sites are distributed across the City, including large areas of Eastern Suburbs Banksia Scrub (ESBS) and Acacia terminalis, listed as endangered ecological community or species under State and Commonwealth legislation.

Table 1: Areas of High Biodiversity Value in Randwick

Category	Sub category	Mapping reference
Areas of	Biodiversity Conservation Act protected areas	Biodiversity Values Map
High Biodiverusty Value	Randwick LEP Terrstrial Biodievrty	LEP digital maps
Value	South Sydney Region of Councils (SSROC) connected Corridors for Biodiversity	Digital map link

It is of vital importance for development in or adjoining these natural areas to carefully address any potential impacts on the biodiversity values at all development stages.

Council recognises the significant values of remnant vegetation and bushland areas , as well as the habitat and ecological values of revegetation and the need to protect them from the adverse impacts of surrounding development and urban stressors.

## **Note**

In NSW the Biodiversity Offset Scheme (BOS) applies to development proposals under Part 4 of the EP&A Act that involve the clearing of native vegetation.

Local development will trigger the BOS if:

- the proposed development footprint intersects land mapped on the Biodiversity Values Map (typically shown a shaded purple colour) or
- The proposal exceeds the site area clearing threshold which varies depending on the minimum lot size associated with the site.

If either of these triggers is met the applicant must submit a Biodiversity Development Assessment Report (BDAR) with the Development Application.

#### The BDAR must

Be prepared in accordance with the NSW Biodiversity Assessment Method (BAM)
 Be completed by a NSW accredited assessor formally certified to apply the BAM and prepare BDARs

## **Objectives**

The objectioves for vlopmenet in or near areas of high biodiveristy value are to:

- 1) Protect existing biodiveristy and habitat features within and adjacent to devlopment sites.
- 2) Ensure development in or adjacent to areas of biodiversity significance is designed, constructed and operated to appropriately manage the interface between the natural landscape and urban environment and protect the significant fauna and flora habitats.
- 3) Maintain and enhance ecological function and connectivity.
- 4) Protect and promote the recovery of threatened species, populations, and endangered ecological communities.
- 5) Ensure development has regard for direct and indirect impacts on biodiversity and natural areas.
- 6) Ensure landscape design elements are incoporated to provide a range of habitat features that can improve urban habitat.
- 7) Protect, regenerate and conserve the local threatened ecological communities.
- 8) Reduce the adverse impacts of light pollution on local fauna.

#### **Controls**

Development (including landscape works) in or has a boundary to, or within 20m of, areas of high biodiversity signifiance:

- a) Must not impact on the environmental processes of natural areas, such as:
  - v. erosion of soils
  - vi. siltation of streams and waterways
  - i. overland flows and stormwater runoff
  - ii. overshadowing
  - iii. removal or degradation of existing vegetation.
- b) Must consider and undertake appropriate protective measures during the design, construction and operation phases, such as:
  - vii. adequate buffer areas between any building structures and the natural areas
  - viii. ongoing management arrangements to control invasive species and maintain natural features
    - i. silt/protective fencing
    - ii. erosion and run off controls
    - iii. appropriate site access points to prevent offsite disturbances, and
- c) A minimum of 80% of the proposed trees, 90% of the proposed shrubs and 80% of the proposed grasses and groundcovers (not including turfed areas), native plants and must select suitable plant species for landscape works with consideration of the following general criteria:
  - i. Species shall not directly or indirectly jeopardise the functioning of remnant bushland areas, ie. having potential to create monocultures, affect the local native gene pool, impact on the hydrology or alter light levels;
  - ii. Species should improve on the ecological, cultural and aesthetic values of existing native plant communities and aim to link bushland remnants.
- d) Trees with hollows must be retained for habitat wherever possible to provide habitat for arboreal fauna. Consideration must be given to the potential risk of damage to public or private property as determined by a suitably qualified arborist
- e) Sites that are undeveloped should be protected to encourage natural regeneration from the existing soil seed bank.
- f) External illumination fixtures on land adjoining remnant vegetation must be directed downwards and away from reflective surfaces, avoid spill into parks, reserves and bushland and avoid shorter wavelength (blue-violet) light.

# Note

Appendix B4-3 provides a list of suitable native tree, shrub and groundcover species.

Light Pollution impacts on Australia's wildlife can be minimised by considering light fixtures which have minimal impacts upon wildlife as outlined in the National Light Pollution Guidelines for Wildlife (dcceew.gov.au)

# 6. Penalties

Clearing of vegetation that is not carried out in accordance with a valid development consent, or is not exempt under relevant planning controls will be dealt with in accordance with the relevant legislation set out below.

**Local Government Act 1993** Under Section 629 of the Local Government Act (NSW) addresses the protection of public places by prohibiting the wilful or negligent injury, damage, or disturbance of plants, animals, rocks, or soil in such areas. Penalties may apply to the injury or unnecessary disturbance of any plant, animal, rock or soil from a public place.

**Environmental Planning and Assessment Act 1979** Under Sections 9.50 and 9.51 of the court action (in addition to any pecuniary penalty) may apply to the destruction of or damage to a tree or vegetation. Offenders may be required to rehabilitate the site, plant new trees and vegetation and maintain these until maturity.

Biodiversity Conservation Act 2016 (NSW) and National Parks and Wildlife Act 1974 (NSW) – Additional penalties may apply where vegetation clearing impacts threatened species, ecological communities, or critical habitat. These offences may attract significant fines and, in serious cases, criminal prosecution.

**Environment Protection and Biodiversity Conservation Act 1999** (Cth) – Where clearing affects matters of national environmental significance (e.g. listed threatened species or migratory species), Commonwealth penalties may also apply.

Recent enforcement actions by the NSW Land and Environment Court have resulted in record fines exceeding \$1 million for unlawful clearing, reflecting the seriousness with which these offences are treated

Councils and regulatory authorities are also empowered to issue stop work orders, remediation directions, and pursue legal action where necessary

**Note:** *injury to a tree means but is not limited to:* poisoning; spilling or washing off toxic chemicals; applying herbicides to a tree or within a Tree Protection Zone; damaging tree roots using stockpiling materials, soil compaction, filling, excavation or altering soil levels within Tree Protection Zone; wounding tree trunks or the breaking or tearing of roots or branches; wounding trunks or branches by fixing objects using nails, wires, staples or similar fastening materials e.g. attaching signs, swings, platforms or cubby houses.

# Appendix B4-1: Undesirable weed species

The following species of trees are declared weeds under the Biosecurity Act 2015 as prescribed for the Randwick GA and can be removed without a permit or development consent. However, Council must be notified a minimum of seven days prior to removing any such trees.

Scientific Name	Common Name
Acacia saligna	Golden wreath wattle
Ailanthus altissima	Tree of Heaven
Caesalpinia decapetala	Mysore thorn
Celtis sinensis	Chinese celtis
Cestrum parqui	Green Cestrum
Cinnamomum camphora	Camphor Laurel
Chrysanthemoides monilifera subsp. Rotundata	Bitou Bush
Cotoneaster species	Cotoneaster
Erythrina species	Coral trees
Ligustrum lucidum	Large Leaf Privet
Ochna serrulata	Ochna
Olea europaea subsp. cuspidata; Olea europaea subsp. europa vars.	African and European Olive
Ligustrum sinense	Small Leaf Privet
Salix species	Willows
Schefflera actinophyll	Umbrella Tree
Syagrus romanzoffianum	Cocos palm

Source Sydney Weeds network

Greater Sydney Regional Strategic Weed Management Plan

# **Appendix B4-2: Native planting list**

All species on this list are generally recommended for use throughout Randwick, however, the selection of appropriate plant species for each site should be recommended by a suitably qualified landscape or bushland regeneration professional.

Alternative species may be approved by Council. It is strongly recommended that the sourcing of plant material is undertaken well in advance of any development to ensure availability of species required.

Please note that Hedging of any trees (such as Lilly Pillys) will result in their classification as shrubs for the purposes of applying these controls. Note that some of the species in the shrubs medium – large section can be classified as trees, depending on their height at maturity and number of stems.

Botanical Name	Common Name
Acacia decurrens	Sydney Green Wattle
Acacia implexa	Hickory Wattle
Acacia irrorata ssp. irrorata	Green Wattle
Acacia longissiuma	Long-leaf Wattle
Acacia parramattensis	Sydney Green Wattle
Acmena smithii	Lilly Pilly
Acronychia oblongifolia	White Aspen
Allocasuarina littoralis	Black She-oak
Allocasuarina torulosa	Forest Oak
Angophora costata	Sydney Red Gum
Angophora hispida	Dwarf Apple
Archontophoenix cunninghamiana	Bangalow Palm
Backhousia citriodora	Lemon Myrtle
Backhousia myrtifolia	Grey Myrtle
Banksia integrifolia	Coastal Banksia
Banksia marginata	Silver Banksia
Callicoma serratifolia	Black Wattle
Casuarina glauca	Swamp Sheoak
Ceratopletalum apetalum	Coachwood
Corymbia gummifera	Red Bloodwood
Cupaniopsis anacardioides	Tuckeroo
Elaeocarpus reticulatus	Blueberry Ash
Enidandra sieberi	Corkwood

Botanical Name	Common Name
Eucalyptus botryoides	Bangalay
Eucalyptus gummifera	Red Bloodwood
Eucalyptus haemastoma	Scribbly Gum
Eucalyptus piperita	Sydney Peppermint
Eucalyptus obstans	Port Jackson Mallee
Eucalyptus robusta	Swamp Mahogany
Ficus rubiginosa	Port Jackson Fig
Ficus coronata	Sandpaper Fig
Glochidion ferdinandi	Cheese Tree
Hymenosporum flavum	Native Frangipani
Livistona australis	Cabbage Palm

SHRUBS: Medium-Large	
<b>Botanical Name</b>	Common Name
Acacia binervia	Coast Myall
Acacia linifolia	White Wattle
Acacia longifolia	Sydney Golden Wattle
Acacia floribunda	White Sally Wattle
Acacia sophorae	Coastal Wattle
Acacia terminalis	Sunshine Wattle
Allocasuarina distyla	Shrubby She-oak
Banksia aemula	Wallum Banksia
Banksia ericifolia	Heath-leaved Banskia
Banksia oblongifolia	Fern-leaved Banksia
Banksia marginata	Silver Banksia
Banksia serrata	Old Man Banksia
Callistemon linearifolius	Netted Bottlebrush
Callistemon pinifolius	Pine-leaved Bottlebrush
Callilstemon salignus	Willow Bottlebrush
Ceratopetalum gummiferum	NSW Christmas Bush

SHRUBS: Medium-Large	
Cordyline stricta	Slender Palm Lily
Cyathea cooperi	Rough Tree Fern
Dicksonia antarctica	Soft Tree Fern
Eupomatia laurina	Bolwarra
Grevillea linearifolia	Linear-leaf Grevillea
Grevillea mucronulata	Green Spider Flower
Grevillea speciosa	Red Spider Flower
Grevillea sphacelata	Grey Spider Flower
Hakea dactyloides	Finger Hakea
Hakea gibbosa	Needlebush
Hakea teretifolia	Dagger Hakea
Kunzea ambigua	Tick Bush
Lambertia formosa	Mountain Devil
Leptospermum laevigatum	Coastal Tea Tree
Leptospermum polygalifolium	Yellow tea-tree
Leptospermum squarrosum	Pink tea-tree
Lomatia myricoides	River Lomatia
Melaleuca armillaris	Bracelet Honey-myrtle
Melaleuca linariifolia	Flax-leaved Paperbark

SHRUBS: Small-Medium	
Botanical Name	Common Name
Acacia myrtifolia	Myrtle Wattle
Acacia longifolia ssp. sophorae	Coastal Wattle
Acacia suaveolens	Sweet Wattle
Acacia terminalis	Sunshine Wattle
Acacia ulicifolia	Prickly Moses
Baeckea imbricata	Heath Myrtle
Baeckea linifolia	Swamp Baeckea
Banksia robur	Swamp Banksia
Banksia spinulosa	Hair-pin Banksia
Bauera rubioides	River Dog Rose

SHRUBS: Small-Medium	
Bossiaea heterophylla	Variable bossiaea
Brachyloma daphnoides	Daphne Heath
Breynia oblongifolia	Coffee Bush
Callistemon citrinus	Crimson Bottlebrush
Callistemon linearis	Narrow-leaved Bottlebrush
Correa alba	Coastal Correa
Correa reflexa	Native Fuchsia
Crowea saligna	Crowea
Darwinia fascicularis	Darwinia
Dillwynia retorta	Parrot Pea
Dodonaea triquetra	Common Hop Bush
Eriostemon austalasius	Pink Wax Flower
Grevillea linearifolia	Linear-leaf Grevillea
Grevillea mucronulata	Green Spider Grevillea
Grevillea speciosa	Red Spider Grevillea
Grevillea sphacelata	Grey Spider Grevillea
Lambertia formosa	Mountain Devil
Lasiopetalum ferrugineum	Rusty Petals
Lomatia silaifolia	Crinkle Bush
Melaleuca thymifolia	Thyme Honeymyrtle
Olearia tomentosa	Daisy Bush
Ozothamnus diosmifolius	Rice Blower
Pimelea linifolia	Slender Rice flower
Platysace lanceolata	Native Parsnip
Phebalium squamulosum	Forest Phebalium
Prostanthera incisa	Toothed Mint Bush

GRASSES and GROUNDCOVERS – Upright Grasses, Lillies, Rushes and Sedges		
Botanical Name	Common Name	
Alocasia brisbanensis	Cunjevoi	
Austrostipa pubescens	Spear Grass	
Baumea juncea	Bog Rush	

GRASSES and GROUNDCOVERS – Upright Grasses, Lillies, Rushes and Sedges	
Crinum pedunculatum	Swamp Lily
Cymbopogon refractus	Barbed Wire Grass
Dianella caerulea	Blue Flax Lily
Dianella congesta	Coastal Flax Lily
Dianella revoluta	Paroo Lily
Dichelachne crinita	Long Hair Plume Grass
Dichelachne micrantha	Short Hair Plume Grass
Echinopogon caespitosus	Tufted Hedgehog Grass
Entolasia marginata	Bordered panic Grass
Entolasia stricta	Wiry Panic Grass
Ficinia nodosa	Knobby Club Rush
Gahnia sieberiana	Saw Sedge
Imperata cyllindrica	Blady Grass
Juncus usitatus	Common Rush
Juncus krausii	Sea Rush
Lachnagrostis billardierei	Coast Blown Grass
Lomandra longifolia	Spiny-headed Mat rush
Machaerina juncea	Bare Twig-rush
Paspalidium distans	Shotgrass
Poa affinis	Tussock Grass
Rytidosperma fulvum	Wallaby Grass
Themeda australis	Kangaroo Grass
Themeda australis Coastal form	Kangaroo Grass (Coastal Form)

GRASSES and GROUNDCOVERS – Herbs and Subshrubs		
Botanical Name	Common Name	
Austromyrtus tenuifolia	Midgenberry	
Brachyloma daphonoides	Daphne Heath	
Geranium homeanum	Cranesbill	
Gonocarpus teucrioides	Germander Raspwort	
Homoranthus flavescens	Homoranthus	
Leucopogon ericoides	Pink Beard-heath	
Leucopogon juniperinus	Prickly Beard-heath	
Lomandra glauca	Pale Mat-rush	
Lomatia silafolia	Crinkle Bush	
Mirbelia rubiifolia	Heathy Mirbelia	

# **Appendix B4-3: Landscape plan requirements**

- The Landscape Plan must be prepared by a suitable qualified and experienced landscape architect.
- Plans must be drawn at a scale not less than 1:100.
- The plan must demonstrate a clear understanding of the site and its environmental context, including consideration of local conditions such as sandy soils and coastal influences.
- The plan must be prepared in accordance with Part 3 Landscape Design of this DCP.
- The Plan must include a plant species list, detailing the botanical and common names of plants, pot sizes, quantity of each species and area of origin (native, endemic, exotic).
- For properties containing or adjoining remnant vegetation, habitat corridors or areas recognised ecological significance (as identified in Section 8- Development in or near areas of high biodiversity significance) the landscape plan must align with the provisions of Section 5 of this DCP.
- The Plan must clearly identify all proposed changes to landscaped areas including:
  - Existing levels and finished levels (indicating the extent of cut and fill)
  - Provision of deep soil areas (minimum depth of 400mm).
  - Retention of existing landscaping.
  - Trees proposed for removal.
  - Details of proposed new planting (species, pot size, mature height, and quantity); and
  - Proposed surface treatments (e.g. turf, paving, etc.)

# Appendix B4-4: Guidelines for arborists' reports

Where necessary, Council will require an arborist to prepare a tree/vegetation report and the minimum accepted qualification for an arborist is the Australian Qualification Framework level 4 (AQF4).

Where trees are listed on Council's Register of Significant Trees, a report must be prepared by a qualified arborist. The minimum accepted qualification for a qualified arborist is the Australian Qualification Framework level 5 (Diploma) (AQF5).

The following information is required to be included in any Arborists' Report:

- i) Name, address, telephone number, ABN, qualifications and experience of the arborist who inspected the tree/s and prepared the report;
- ii) Address of the site, where the tree/s are located;
- iii) Who the report was prepared for, date site inspected, date report prepared and the aims of the report;
- iv) Methods and/or techniques used in the inspection;
- v) A plan (to scale) accurately showing:
  - a. location of tree/s on the subject site and any adjoining trees which may be affected by any development. Trees identified on the plan shall be named and numbered;
  - b. optimum and minimum tree protection zones if recommended by the arborist;
  - c. lot boundaries, dimensions and North point;
  - d. proposed development including services, driveways and any alteration to existing and proposed soil levels and drainage, as well as distances (in mm) between tree/s and works.
- vi) A table showing, for each tree to be pruned/removed:
  - a. number of the tree as indicated in the plan;
  - b. species name;
  - c. conservation status (whether or not is a threatened species or a component of Endangered Ecological Community);
  - d. age class;
  - e. height;
  - f. canopy width;
  - g. trunk circumference at one (1) metre above ground level;
  - h. health and condition, and estimated Safe Useful Life Expectancy.
- vii) A discussion of other relevant information, including details of tree hollows for wildlife, tree structure/defects, root form and distribution, pests and diseases and/or a Tree Hazard Assessment;
- viii) Supporting evidence such as photographs and laboratory results to confirm the presence of soil pathogens or to support soil assessment, where relevant;
- ix) Proposed replacement plantings, landscaping and/or soil remediation;
- x) Tree protection measures and a post-construction tree maintenance program which can be used as development consent conditions, should the application be approved;
- xi) Sources of information referred to in the report;
- xii) Measures to minimise impacts of proposed/approved development e.g., footing designs, excavation techniques, vents to atmosphere, etc;
- xiii) Any other relevant matters or information such as Resistograph or Picus Sonic Tomograph reports.

Qualified arborists and their contact details may be obtained from the Institute of Australian Consulting Arboriculturists (IACA) (www.iaca.org.au) or from Arboriculture Australia (www.arboriculture.org.au).

These organisations are not specifically recommended and Council will accept arborist's reports from any registered member of a nationally recognised arboriculturally organisation or association.