

Suzanne Dunford

Received by

Faith Aghanowa

Date: 15/3/24

Resolved to publish Yes / No

## PART B GENERAL PROVISIONS

### Contents

<b>B1 WASTE</b>	<b>4</b>
1.1 Demolition and Construction	4
1.2 Ongoing Management	6
1.3 Low density Residential Development	7
1.4 All Other Development	8
<b>B2 ECOLOGICALLY SUSTAINABLE DEVELOPMENT</b>	<b>15</b>
2.1 Passive Design and Thermal Safety	17
2.2 Water Conservation	19
2.3 Indoor Air Quality	20
2.4 Renewable Energy and Energy Efficiency	21
2.5 Energy Assessment	24
2.6 Nabers Commitment Agreement	25
<b>B3 LANDSCAPING, BIODIVERSITY AND VEGETATION PRESERVATION</b>	<b>27</b>
3.1 General Provisions	27
3.2 Landscaping	30
3.3 Biodiversity	35
3.4 Protecting Trees on Development Sites	38
3.5 Penalties	38
<b>B4 COASTAL RISK MANAGEMENT</b>	<b>40</b>
<b>B5 WATER MANAGEMENT</b>	<b>41</b>
5.1 Stormwater Management and WSUD	41
5.2 Flood planning	43
<b>B6 ACCESSIBILITY AND ADAPTABILITY</b>	<b>44</b>
6.1 Accessibility	45
6.2 Adaptable Dwellings	46
6.3 Universal Housing Design	47
6.4 Unjustifiable Hardship	48
<b>B7 TRANSPORT</b>	<b>49</b>
7.1 Streetscape	50
7.2 On-Site Parking	51
7.3 Loading Facilities	60
7.4 Pedestrian/Bicycle Circulation and Safety	61
7.5 Green Travel Plans	62
7.6 Traffic and Transport Management Plans	63
7.7 Car Share	64
7.8 Electric Vehicle Charging Points	65
<b>B8 HERITAGE</b>	<b>67</b>
8.1 Defining Heritage	68
8.2 Demolition & Excavation	70
8.3 Aboriginal Sites	71

8.4 Heritage Conservation Areas	74
8.5 Landscape Conservation Areas	75
8.6 Character and Streetscape	76
8.7 Siting	78
8.8 Scale and Proportion	79
8.9 Architectural style	81
8.10 Materials and colour	82
8.11 Roofs and Chimneys	83
8.12 Verandahs and Balconies	84
8.13 Garages, Parking and Site Access	85
8.14 Garden Elements	86
8.15 Building Facades	87
8.16 Detailing	88
8.17 Fencing and Gates	89
8.18 Landscaping	91
8.19 Commercial Properties	92
<b>B9 SAFETY</b>	<b>95</b>
9.1 Built Form	95
<b>B10 PUBLIC ART</b>	<b>97</b>
10.1 Public Art in the Private Domain	97
<b>B11 DESIGN EXCELLENCE</b>	<b>98</b>
11.1 Design	98
11.2 Context Analysis	99
<b>B12 SUBDIVISION</b>	<b>100</b>
<b>B13 EXCAVATION</b>	<b>102</b>
<b>B14 ADVERTISING AND SIGNAGE</b>	<b>105</b>
14.1 Design and Location	105
14.2 Site Specific Controls	108
14.3 Sign Specific Controls	112
<b>B15 PUBLIC DOMAIN</b>	<b>116</b>
15.1 Improving the Public Domain	116
15.2 Active Street Frontages	118
15.3 Arcades and Through Site Links	121
15.4 Awnings and Colonnades	123
15.5 Reflectivity	124
15.6 Shopfront Security	125
15.7 Minor Encroachments	126
<b>B16 INTER-WAR BUILDINGS</b>	<b>127</b>
<b>B17 SOCIAL IMPACT ASSESSMENT</b>	<b>131</b>
<b>ANNEXURES</b>	<b>132</b>

## B1 WASTE

This Part applies to all works requiring a development application (DA) and is to be read in conjunction with Council's relevant policies and guidelines.

### General Objectives

- (a) To support the delivery of the targets and outcomes of the *Environmental Action Plan, the Waste and Sustainable Materials Strategy 2020-2041* and the *Waste Avoidance and Resource Recovery Act 2001*.
- (b) To reduce the amount of waste generated and maximise resource recovery during the demolition, construction and ongoing management of a property.
- (c) To facilitate safe and efficient waste and recycling collection from all premises.
- (d) To ensure waste management, removal and disposal is in accordance with the relevant State Government Legislation.
- (e) To support innovative and circular solutions for avoiding waste to landfill in the built environment
- (f) Minimise ongoing operational waste management costs to property owners, occupants, and the Council
- (g) Minimise developments' waste management and collection service impacts on occupants and surrounding areas
- (h) Reduce other impacts on occupants and surrounding areas related to waste management such as traffic congestion, truck movements, greenhouse gas emissions, noise from frequent collections.

### General Controls

- (a) The *Site Waste & Recycling Management Plan (SWRMP)* is to be submitted in accordance with the *Waverley Development Application Guide*.

## 1.1 DEMOLITION AND CONSTRUCTION

### Objectives

- (a) Avoid creating construction waste wherever possible
- (b) To maximise the re-use of clean excavated material, sandstone, concrete, bricks and timber.
- (c) To minimise the amount of construction waste that is sent to landfill
- (d) To increase efficiency of development and encourage sustainable practices.
- (e) To ensure the safe removal and disposal of hazardous building materials.

### Controls

- (a) A construction waste storage area is to be located within the property boundary and is to be identified on the site plans as part of the *SWRMP*.
- (b) Separate construction waste collection bins *or* construction waste storage areas are to be provided giving consideration to slope, drainage, vegetation, access and handling requirements and may include:
  - (i) Landfill waste;
  - (ii) Recyclable waste;
  - (iii) Materials to be re-used on-site; and / or

- (iv) Excavation materials (refer to *Annexure B1-1* for common building materials that can be re-used and recycled).
- (c) Waste that can be recycled or reclaimed is to be identified in the SWRMP, as well as the intended methods for recovery and reclamation.
- (d) All sandstone must be re-used on site or reclaimed through an appropriate contractor.
- (e) Asbestos and other hazardous material is to be managed under the *Protection of the Environment Operations Act 1997*, in accordance with the provisions of Safe Work NSW, and Council's Asbestos Policy.
- (f) Materials that cannot be reused or recycled must be:
  - (i) Disposed of at a State Government approved facility and specified in the SWRMP; and
  - (ii) Disposed of via a contractor that operates in accordance with the Proximity Principle outlined in State Government Legislation.
- (g) Records are to be retained on-site demonstrating lawful disposal of waste.
- (h) Easy vehicular access to waste and recycling material storage areas must be provided and detailed in the SWRMP.
- (i) Construction materials are to be stored away from waste and recycling materials to enable easy access for waste collectors. Skip bins are to be utilised and located in accordance with Council's building waste and hoardings policy.
- (j) All materials are to be stored in way that:
  - (i) Prevents damage from the elements, and reduces odour, health risks and windborne litter; and
  - (ii) Prevents impacts to the environment under State Government Legislation (including stormwater pollution and runoff).

## 1.2 ONGOING MANAGEMENT

### Objectives

- (a) To ensure new developments and changes to existing developments are designed to minimise waste generation and maximize resource recovery.
- (b) To encourage waste storage facilities that are designed to enable source separation for recovery
- (c) To ensure waste and recycling systems are easy to use and complement Council's waste and recycling services.
- (d) To promote safe practices for storage, handling and collection of waste and recycling.
- (e) To prevent stormwater pollution that may result from poor waste and recycling storage and management practices.
- (f) To ensure waste storage areas have sufficient volume, are easily accessible, safe, hygienic and are aesthetically incorporated into the design of the development.
- (g) To prevent impacts to the environment that may result from litter, excess waste and illegal dumping.
- (h) To minimise impacts of waste and waste bins presented on public land for collection on pedestrian and vehicle access, safety and amenity
- (i) To provide flexibility to expand or reconfigure waste separation systems, so that owners and occupants have options to access a range of waste services

### Controls

- (a) Development for the purposes of any of the following must comply with Part B1.3:
  - Dwelling houses;
  - Dual occupancies;
  - Secondary dwellings;
  - Semi-detached dwellings;
  - Attached dwellings;
  - Multi-dwelling housing.
- (b) Development for the purposes of any of the following must comply with Part B1.4:
  - All other residential accommodation not listed in (a) above;
  - Tourist and visitor accommodation;
  - Commercial development; and
  - Any other development not listed in (a).

### 1.3 LOW DENSITY RESIDENTIAL DEVELOPMENT

This section applies to development for the purposes of Dwelling houses; Dual occupancies; Secondary dwellings; Semi-detached dwellings; and/or Attached dwellings.

#### 1.3.1 General Controls

- (a) Details of ongoing waste management strategy are to be documented within a *Site Waste & Recycling Management Plan (SWRMP)*.
- (b) A waste and recycling storage area for each dwelling must be located on the relevant lot in a position convenient for both users and waste collection personnel.
- (c) Sufficient space must be provided to accommodate the storage of waste and recycling likely to be generated on the premises between collections and any associated equipment.
- (d) Waste and recycling receptacles must be stored at all times within the boundary of the site and screened from the public and commercial domains unless otherwise approved by Council under Section 68 of the *Local Government Act 1993*.
- (e) All waste and recycling must be inside Council approved bins or skips, with lids closed to reduce littering, stormwater pollution, odour and vermin. Waste and recycling not presented in the correct manner will not be collected.
- (f) Council will supply and service 140L and 240L bins.
- (g) Organic waste should be either treated in a composting or worm farming system or stored in a Council approved bin or skip (refer to Annexure B1-5).
- (h) Incineration devices are not permitted.

#### 1.3.2 Amenity

- (a) Waste and recycling storage areas must be visually and physically integrated into the design of the development.
- (b) Waste and recycling storage areas must be designed and located to avoid adverse impacts on the amenity of adjoining sites including noise, odour and visual impacts.
- (c) All waste and recycling receptacles must be put out for kerb-side collection no earlier than the previous evening.
- (d) All waste and recycling receptacles must be removed from the kerb-side or laneway as soon as possible on the same day as the collection service.

#### 1.3.3 Ongoing Management

- (a) Ongoing management of the property is to be in accordance with the approved SWRMP to ensure that appropriate waste and recycling services are provided.
- (b) Waste generated by a development must not exceed the maximum permitted generation rates for the building use.

## 1.4 ALL OTHER DEVELOPMENT

This section applies to development for the purposes of the following: all residential accommodation not affected by *1.3 Low Density Residential Development* above; Tourist and visitor accommodation; Commercial development; and/or any other development.

Please note that:

- Backpacker accommodation is a commercial property use and requires a commercial waste service.
- Boarding houses/time shares/co-living housing, serviced apartments, retirement village, and independent living are residential uses and require a domestic waste service, incurring a Domestic Waste Charge.

### 1.4.1 Waste Storage Areas

#### 1.4.1.1 GENERAL CONTROLS

- (a) Details of ongoing waste management strategy are to be documented within the SWRMP and reviewed every 5 years to employ updated waste reduction strategies and technologies.
- (b) Sufficient space must be provided to accommodate the storage of waste and recycling likely to be generated on the premises between collections and any associated equipment. Minimum waste and recycling generation rates for various commercial and residential developments are provided in Annexure B1-2.
- (c) Ensure bins can be placed side-by-side (no stacking).
- (d) Bin-carting route from the storage area to the collection point is safe and convenient with no steps or steep gradients.
- (e) Waste storage rooms or areas are to be easily accessible (<30 m from collection point).
- (f) Waste rooms are not to be used for any purpose other than the storage of waste and/or waste infrastructure.
- (g) Where a door or gate opens inwards, no bins are stored within the arc of the swinging door. Where a door or gate opens outwards, the gate does not block the pathway for moving bins out to the collection point.
- (h) Waste and recycling receptacles must be stored at all times within the boundary of the site and concealed from the public and commercial domains unless otherwise approved by Council under Section 68 of the *Local Government Act 1993*.
- (i) All waste and recycling must be inside Council approved bins or skips, with lids closed to reduce littering, stormwater pollution, odour and vermin. Waste and recycling not presented in the correct manner will not be collected.
- (j) Council will supply and service 140L, 240L and 660L bins. The use of 660L bins will only be considered where:
  - (i) The collection point has enough space to present 660L bins without impacting pedestrian access to the footpath and/or driveway of the development;
  - (ii) The collection point is level; and,
  - (iii) Council waste collection vehicle can access the collection point either within the property boundary or at the kerb-side and the collection point meets requirements in Annexure B1-3.

- (k) For developments with 20 dwellings or more, or mixed use developments with more than 200sqm of commercial floor space and a minimum of 10 residential dwellings, advice must be obtained from a waste management consultant to incorporate optimal waste storage and management solutions that recover as much material as possible. Such solutions can be in the form of compactors, chute systems, and/or problem waste storage and collections. Strategies for waste minimisation, and the reduction of waste storage space are to be outlined in the SWRMP.
- (l) Additional space in the bin room is required for waste compactors, chutes, and other infrastructure to easily manoeuvre bins.
- (m) Any volume reducing equipment must be installed in accordance with the manufacturers design specifications and have a space between the unit and the walls to enable easy access for cleaning and maintenance. Compaction rates must not be set higher than 2:1.
- (n) Organic waste should be either treated in a composting or worm farming system or stored in a Council approved bin or skip (refer to Annexure B1-5).
- (o) Incineration devices are not permitted.
- (p) Waste and recycling storage rooms must be:
  - (i) Enclosed to prevent noise, odour and visual impacts;
  - (ii) Designed to store the entire fleet of bins plus 0.2m between bins to allow adequate manoeuvrability;
  - (iii) Designed with a 1.8m unobstructed clearance zone between the stored bins and the entrance for access and manoeuvrability;
  - (iv) Designed with suitable door and corridor access to enable bin movement;
  - (v) Constructed of concrete or other approved materials at least 75mm thick;
  - (vi) Finished with a smooth even surface to be easily cleaned;
  - (vii) Coved at the intersection with walls and plinths with a ramp to the doorway where necessary;
  - (viii) Graded and drained to the sewerage system and approved by Sydney Water;
  - (ix) Fitted with a close fitting and self-closing door that can be opened from within the room;
  - (x) Designed with adequate lighting and natural/mechanical ventilation;
  - (xi) Fitted with smoke detectors in accordance with the relevant Australian Standards.
  - (xii) Equipped taps supplying hot and cold water, mixed through a centralised mixing valve with a hose cock and fitted with an aerator to increase water efficiency;
  - (xiii) Designed to include a clear and easy-to-read “NO STOPPING” sign and “DANGER” sign on the external face of waste storage rooms where appropriate;
  - (xiv) Designed to ensure waste-water from the cleaning of the waste storage area and bins, is not to drain into the stormwater system; and
  - (xv) Fitted with childproof compactors or mechanical devices where used in the storage of waste.

## 1.4.1.2

#### ADDITIONAL CONTROLS RELATING TO RESIDENTIAL COMPONENTS OF DEVELOPMENT



- (a) A room or caged area with a minimum floor space of 4m<sup>2</sup> must be provided for the storage of discarded bulky items, awaiting collection. The doorway of this storage area must be at least 1.5m. The following minimum floor space requirements apply:
  - (i) Between 6 and 20 units: 4m<sup>2</sup>
  - (ii) Between 21 and 40 units: 4m<sup>2</sup> +1m<sup>2</sup> for every 10 additional units above 20 units
  - (iii) Between 41 and 100 units: 8m<sup>2</sup> + 1m<sup>2</sup> per 20 additional units above 40 units
  - (iv) Over 101 units: 12m<sup>2</sup> +1m<sup>2</sup> per 50 additional units above 100 units
- (b) Additional space is required for recycling problem waste such as textiles or electronic waste. The minimum floor space required is 1 m<sup>2</sup> per 50 units to a maximum 2m<sup>2</sup>. This space should be within or attached to the waste storage area.
- (c) Developments containing more than 3 habitable storeys must:
  - (i) Provide a system for convenient transportation of waste and recyclable material to the communal waste and recycling storage area; Provide a waste and recycling compartment/area on each floor with sufficient capacity to store at least 1 day volume of waste and recycling likely to be generated on that floor; and
  - (ii) Where a chute system is provided, both waste chute and recycling bins must be stored together in an allocated communal waste and recycling area on each floor.
- (d) Waste, recycling and garden organics receptacles must be stored at all times within a building in a designated storage room. Exceptions can be made:
  - (i) Where storage space is available at the side or back of the building, away from public accessibility, and the area can be screened from public and commercial domains; or
  - (ii) Where the storage area at the front of the property is completely enclosed with no risk of public accessibility.
  - (iii) If a waste storage area is outside of the building, the design must complement the primary building and the storage location must be >1m from windows and balconies.

1.4.1.3

ADDITIONAL CONTROLS RELATING TO COMMERCIAL COMPONENTS OF DEVELOPMENT

- (a) All new developments are to provide adequate storage for waste to accommodate future change of use, including increased waste generation rates and grease traps.
- (b) If the commercial use of the property is undecided, minimum waste and recycling generation rates must be applied as per Annexure B1-2.
- (c) Kitchens, office tea rooms, and the like are to be designed with sufficient space for the interim storage of recyclable, organic and general waste in separate receptacles.
- (d) A waste service compartment (waste and recycling area) is to be provided on each floor of the building and have sufficient capacity to store at least 1 day's volume of waste and recycling likely to be generated on that floor.
- (e) A minimum of 2m<sup>2</sup> floor space for developments under 100m<sup>2</sup> and 4m<sup>2</sup> floor space for developments over 100m<sup>2</sup> must be allocated within the building for the storage of reusable items such as crates and pallets, and bulk waste such as cardboard or soft plastics.

- (f) Separate space must be allocated for the storage of trade wastewater (within the building where applicable). Trade wastewater must be managed in accordance with a Sydney Water permit and any pre-treatment equipment such as grease traps must meet Australian standards and be properly installed and maintained.
- (g) Liquid waste from grease traps must only be removed by licensed contractors approved by Sydney Water and NSW EPA.
- (h) Waste cooking oil must be stored in sealed containers and stored in a bunded area (an area where leaking oil can't escape). Space must be allocated to store the waste cooking oil and the location must be in an area easily accessible to the oil recycler for servicing.
- (i) For commercial premises that generate 20% or more food waste, or other waste which is considered by Council to have potential amenity impacts, a daily waste collection is required, unless an alternative is agreed upon with Council.
- (j) For premises that use 660L bins or larger bins, the bins must be lockable and have wheels with working brakes.
- (k) All commercial kitchens in cafes and restaurants or similar must include space for a dishwasher to ensure plates, cutlery and crockery can be washed to reduce reliance on single use items.

#### 1.4.1.4 ADDITIONAL CONTROLS RELATING TO ALL MIXED-USE DEVELOPMENT

- (a) In addition to the relevant application of controls from B1.3.3, this section also applies to any mixed use development.
- (b) There must be at least two separate waste and recycling storage rooms or areas, one for commercial waste and recycling, and one for residential waste and recycling. Storage rooms are to be self-contained and have separate keys and locking systems. A separate bulky waste storage room is also to be provided for residents that is inaccessible to commercial premises.
- (c) Mixed-use developments that require the equivalent of 20 x 240L of Mobile Garbage Bins to store their waste and recycling must organise onsite collection or a wheel in/out service.

### 1.4.2 Access and Collection

#### 1.4.2.1 GENERAL CONTROLS

- (a) Waste and recycling storage areas must be located in a position convenient for both users and waste collection personnel.
- (b) The path for bins between the waste and recycling storage area and the vehicle collection point must be free of steps, narrow gates, vegetation, stepping-stones, loose material, and kerbs.  
Multi-residential and mixed-use development with more than 20 residential units must accommodate an on-site domestic waste collection service.
- (c) Access roads must comply with the Building Code of Australia, all relevant Australian Standards and *Annexure B1-3*.

#### 1.4.2.2 ADDITIONAL CONTROLS RELATING TO ON SITE WASTE COLLECTION

- (a) On-site waste collection is to be accommodated within a basement or at grade within the building from a dedicated collection point or loading bay that does not impede pedestrian, cycleway, or vehicle movement.
- (b) The on-site waste collection must be designed to allow collection vehicles to enter and exit the property in a forward direction and must have adequate vehicle clearance. Exceptions may be considered where the collection vehicle can back into a driveway safely without impeding pedestrian or vehicle access.
- (c) The on-site waste collection loading point is to comply with the provisions of *Annexure B1-3*.
- (d) The on-site waste collection point may be the same as, or separate to, the waste storage room. Unimpeded and level access is to be provided between the waste collection point and the loading bay.
- (e) The on-site waste collection point is to be of a sufficient size to store all bins to be collected without interruption to the functioning of the development.
- (f) The on-site waste collection point must include a bulky household waste collection point separate (or next to) to the bin collection point..

#### 1.4.2.3 ADDITIONAL CONTROLS RELATING TO WHEEL-IN AND WHEEL-OUT COLLECTION SERVICE

A wheel-in and wheel out service is subject to approval by Council and will only be approved where on-site collection is deemed not feasible for the premises. Council will consider providing wheel-in, wheel-out collection service for residential bins and bulky household waste under the following (but not limited to) circumstances:

- (d) The presentation of the bins at the property would impact on pedestrian access or other safety issues;
- (e) A roller door or similar to access the bin room or a temporary holding area is available on the boundary of the property where the bins would be collected from;
- (f) There is a maximum of 8m between the designated Council waste collection vehicle access point and designated collection point;
- (g) Collection point is accessible from the street, including from a driveway or a designated parking area;
- (h) The waste collection point does not impede traffic or pedestrian flow whilst engaged in the collection of bins/bulky waste;
- (i) Council waste collection vehicle access is available either within the property boundary or street access and meets requirements in *Annexure B1-3*; and,
- (j) The path for bins between the designated bin storage area and the vehicle collection point must have a flat surface and be free of steps, narrow gates, vegetation, stepping-stones, and loose material.

---

### 1.4.3 Amenity

---

#### 1.4.3.1 GENERAL

- (a) Waste and recycling storage areas must be visually and physically integrated into the design of the development.
- (b) Waste and recycling storage areas must be designed and located to avoid adverse impacts on the amenity of adjoining sites including noise, odour and visual impacts.
- (c) All waste and recycling receptacles must be put out for kerb-side collection no earlier than the previous evening.
- (d) All waste and recycling receptacles must be removed from the kerb-side or laneway as soon as possible on the same day as the collection service.

---

### 1.4.4 Management

---

#### 1.4.4.1 GENERAL CONTROLS

- (a) A current copy of the approved SWRMP is to be stored on site and available at all times.
- (b) Ongoing management of the property is to be in accordance with the approved SWRMP to ensure that appropriate waste and recycling services are provided.
- (c) Waste generated by a development must not exceed the maximum permitted generation rates for the building use.
- (d) Where a change of use, change of tenant or change in waste management practices will result in a variation to the SWRMP, an application is to be made to Council to revise the approved SWRMP.
- (e) The SWRMP must identify responsibility for:
  - (i) cleaning of waste receptacles and storage areas
  - (ii) for transfer of bins within the property, to the collection point and back to the storage areas.
  - (iii) regular monitoring of bins for contamination and educating residents on how to use the waste and recycling services
  - (iv) inspect, maintain and repair all waste management equipment, such as chutes, bin lifts, compactors and other equipment
  - (v) liaising with the council or the collection contractor on waste management issues and service requests.
- (f) Clear and easy to read signs identifying the different waste receptacles and where in the storage area these should be positioned must be displayed.
- (g) The building manager or owner's corporation is to review every 5 years the methods for waste storage, treatment and collection and implement any relevant changes to reduce waste and increase recycling.

---

#### 1.4.4.2 ADDITIONAL CONTROLS RELATING TO COMMERCIAL COMPONENTS OF DEVELOPMENT

- (a) All businesses must have written evidence, held on site, of a valid and current contract with a licensed collector of waste and recycling.

- (b) The waste and recycling management (including composting) and collection system, along with allocated responsibilities should be clearly outlined in contracts with cleaners, building managers and tenants and included in the SWRMP.

## B2 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

This Part applies to all development in the Waverley LGA.

Waverley Council is committed to the highest standards of environmental performance and stewardship of our local area. Council has established long-term environmental targets for Council and Community, covering greenhouse emissions, transport, climate resilience, urban ecology, water management and the sustainable management of waste and materials. Our targets are informed by the best available science and support Ecologically Sustainable Development (ESD) through the following objectives:

- Reducing greenhouse gas emissions to net zero;
- Increasing the use of renewable energy sources;
- Conserving water resources;
- Reducing reliance on mains water supply through the collection and treatment of rainwater and greywater;
- Adapting and responding to climate change to reduce community vulnerability to local climate change impacts and managing climate risks;
- Reducing waste during construction and the ongoing use of the building;
- Increasing recycling of waste and use of recycled products;
- Reducing the environmental impact from building materials through the reduction, re-use and recycling of materials, resources and building components;
- Protecting and improving local biodiversity of sites and surrounding areas.

### Residential Development and BASIX

*State Environmental Planning Policy (Building Sustainable Index: BASIX) 2004* applies to residential developments only and aims to ensure homes or apartments are designed to minimise potable water usage and energy usage.

An applicant is required to lodge a BASIX certificate with their development application with Council for:

- New residential buildings;
- Alterations and additions to existing residential buildings where the estimated construction cost of the work is more than \$50,000 and where development approval is required; and
- New swimming pool (or pool and spa) with a capacity of 40,000 litres or more.

More information is available at the following link: [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au).

### Mandatory Commercial Building Disclosure

In 2010 the Australian Government implemented a Mandatory Commercial Building Disclosure program under the [Building Energy Efficiency Disclosure Act \(2010\)](#). This program applies to commercial buildings with a net lettable floor area of 1,000sqm or more, and requires owners to disclose energy efficiency information to purchasers and lessees when the space is to be sold, leased or subleased. More information is available from the Australian Government's Department of Industry, Science, Energy and Resources (or equivalent).

### Objectives

- (a) To encourage applicants to apply principles and processes that contribute to ecologically sustainable development (ESD) in Waverley.
- (b) To ensure that the design, construction and operation of development minimises adverse impacts on the natural and built environment.
- (c) To improve the quality of life, health and wellbeing of residents and workers.
- (d) To ensure that all development will reduce water consumption and can reduce greenhouse gas emissions to net zero.
- (e) To encourage the replacement of intensive carbon power sources with low carbon and renewable energy.
- (f) To improve indoor air quality.
- (g) To ensure that waste will be reduced and to increase the use of products from recycled sources
- (h) To reduce the environmental impact from building materials through reduction, re-use and recycling of materials, resources and building components
- (i) To reduce urban heat island effect by maintaining and increasing tree canopy, permeable surfaces and deep soil.
- (j) To reduce greenhouse gas emissions from the construction of developments.
- (k) To respond to and prepare for changes in the climate and resource consumption.
- (l) To ensure that development can adapt to climate change.
- (m) To improve local biodiversity.
- (n) To accommodate changing technologies in the design of developments that will provide sustainability outcomes in the built environment for future users.

### Controls

- 1) A Statement of Environmental Effects is required to outline how the objectives of ecologically sustainable development will be achieved

**2.1 PASSIVE DESIGN AND THERMAL SAFETY**

Passive buildings are designed so that windows, walls, and floors are able to collect, store, and distribute solar energy in the form of heat in winter and reject solar heat in the summer. A passively designed house reduces the need for the use of mechanical and electrical (active heating and cooling) systems, saving energy and costs. For more information on passive design refer to: <http://www.yourhome.gov.au/passive-design>

With global warming temperatures predicted to increase a minimum of 1.5 degrees by 2030, Waverley Council is working to ensure that all new homes are built to be thermally safe to live and work in over the lifetime of the building.

**Objectives**

- (a) To encourage passive design to be integrated into every development from the design stage.
- (b) To encourage passive design through site layout, design and construction to reduce the need for active heating and cooling systems and electric lighting.
- (c) To ensure that local housing responds to regional climate conditions and remains thermally safe for occupants for the lifetime of the building:
  - a. as the climate warms
  - b. during the event of a power failure
- (d) To reduce the energy used in buildings.
- (e) To reduce peak electricity demand of developments.

**Controls**

- (a) Development is to be designed and constructed to incorporate passive design measures through site design and analysis. Refer to the Design Guidance for methods to achieve this.
- (b) Development must reduce solar heat gain with the following measures:
  - (i) Glazing on buildings must be high-performance low solar gain low-emissivity glass (single or double glazed units).
  - (ii) Skylights must be high-performance low-emissivity glass or double-glazed glass and should be ventilated.
- (c) Development must enable natural ventilation:
  - (i) Windows must be openable excluding windows that are for light ingress or privacy purposes.
  - (ii) Ceiling or wall mounted fans should be in all habitable rooms (main living areas and bedrooms). This should be notated on DA and CC plans.
- (d) Finishes must provide solar absorptance to mitigate the buildup of urban heat:
  - (i) Wall and roof finishes are to have a solar absorptance of < 0.475
  - (ii) Terracotta roofs are to have a solar absorptance of < 0.70
- (e) Development is to incorporate landscaping that provides canopy and vegetation for cooling to provide resilience during hot and dry periods.



### Design Guidance

- (f) Development is to consider:
  - (i) Physical characteristics of the site;
  - (ii) Site context, such as adjacent buildings or structures affecting the site, relationship of the site to the street, identification of key features such as views and orientation;
  - (iii) Overshadowing caused by existing buildings;
  - (iv) The orientation of true solar north, and a range of 30 degrees east and 20 degrees west of true north;
  - (v) Trees on, or affecting the site, identifying location, type, size and condition; and
  - (vi) Prevailing seasonal winds, sun and shade characteristics.
  
- (g) Development is to be orientated to achieve optimum solar access to thermal mass in winter, and shade thermal mass in summer. To achieve this:
  - (i) Shade north and west facing windows from direct summer sun with external horizontal shading devices such as awnings, upper floor balconies, eaves and overhangs; and
  - (ii) Utilise vertical shading devices such as vertical louvres or fins on east and west facing windows that consider the oblique angles of the sun.
  - (iii) The use of trees and shrubs as an additional method of shading a surface or window is encouraged.
  
- (h) Development must not unduly impact upon the ability of surrounding properties to achieve passive design strategies and solar access.
  
- (i) Insulation is to be used in external walls and roofs to reduce heat escaping from a building in winter and to maintain a lower internal temperature in summer. Position internal walls and partitions to allow for any prevailing passage of air through the building.
  
- (j) Development is to utilize operable natural ventilation to evacuate heat from roof or underfloor cavities in summer, and to retain warmth in winter. Design for cross - ventilation or stack-ventilation where possible to minimise the use of mechanical ventilation.
  
- (k) The use of green roofs or walls to reduce heat absorption and provide thermal mass to a development is strongly encouraged. Refer to *Part B3 Landscaping, Biodiversity and Vegetation Preservation* for additional information.
  
- (l) The use of trees and vegetation as an additional method of shading a roof, window or surface is strongly encouraged.

**2.2 WATER CONSERVATION**

Council is strongly committed to conserving water and improving water quality, in order to enhance water security under climate change, protect our waterways and support cooling and greening in Waverley.

Residential developments should implement measures to actively reduce potable water consumption. Residential water conservation measures are required under the State Environmental Planning Policy (Building Sustainable Index: BASIX) 2004.

**Objectives**

- (a) To encourage sustainable water use practices.
- (b) To reduce the use of potable water.
- (c) To encourage on-site water detention to prevent wastewater and runoff from entering waterways.

**Controls**

- (a) Rainwater tanks connected to outdoor use and toilets and laundry are strongly encouraged for all residential developments.
- (b) Rain tanks must be fitted with a first-flush device that causes initial run-off rainwater to bypass the tank, and
- (c) Rain tanks must be fitted with a screened rain head designed to prevent leaf litter entering into the water tank, and
- (d) Leaf-shedding grills fitted over gutters and downpipes to increase efficiency of rainwater collection are encouraged, and
- (e) All rainwater tanks plumbed for internal water use must have a filter installed to prevent sediment from entering toilets and washing machines, and
- (f) Pumps attached to the development must be housed in an enclosure that is soundproofed, and
- (g) Rain tanks must have its overflow connected to an existing stormwater drainage system that does not discharge to an adjoining property, or cause a nuisance to adjoining owners
- (h) Rain tanks must have a sign affixed to it stating the water in it is rainwater

**Design Guidance**

For more information about rainwater tanks and water conservation refer to:

- <https://www.basix.nsw.gov.au/iframe/>
- <http://www.yourhome.gov.au/water/rainwater>
- <http://yourenergysavings.gov.au/water>

## 2.3 INDOOR AIR QUALITY

National Environment Protection Measures exist to achieve ambient air quality that allows for the adequate protection of human health and well-being. Solid fuel burning is associated with adverse health effects, including respiratory effects in adults.

A systematic review on solid fuel combustion exposure and respiratory health in adults in Europe, USA, Canada, Australia and New Zealand found that reducing solid fuel burning improves air quality and improves respiratory health (Guercio et. al., 2022). Similarly, the combustion of natural gas in homes for cooking and space heating purposes is linked to 12% of asthma related cases in Australia (Knibbs et al., 2018). This is a result of chemicals such as nitrogen oxides, carbon monoxide, and sulfur dioxide, as well as particulate matter (PM<sub>2.5</sub>) and formaldehyde, all of which cause inflammation in airways which can result in asthma symptoms (Musgrave, 2020). Electrifying our homes will reduce these pollutants, improving our indoor and outdoor air quality, with significant health benefits for homes and workplaces.

This DCP chapter looks to promote human health through a reduction in polluting fuels and increased ventilation requirements.

### Objectives

- (a) To ensure that ambient air quality levels as specified in the National Environment Protection Measure (Ambient Air Quality) are met for:
  - Carbon monoxide
  - Nitrogen dioxide
  - Ozone
  - Sulfur dioxide
  - Particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>)
- (b) To improve Indoor Air Quality (IAQ) levels in the built environment, specifically for:
  - Nitrogen oxides
  - PM
  - Volatile Organic Compounds (VOCs)
  - Poly Vinyl Chloride (PVC) and
  - Mould

### Controls

- (a) All residential development must enable ventilation:
  - (i) Windows must be openable excluding windows that are for light ingress or privacy purposes.
  - (ii) Carpark ventilation required under Building Code of Australia clause F4.11 must also integrate CO monitoring and Variable Speed Drive motors.
- (b) Solid fuel heating and cooking systems are not permitted in any development.
- (c) Gas cooktops, gas ovens or gas internal space heating systems are not permitted in any residential development. Instead, electric systems should be installed and clearly marked on DA plans.

## 2.4 RENEWABLE ENERGY AND ENERGY EFFICIENCY

Waverley Council has set an ambitious target to reduce community greenhouse emissions to net zero by 2035. In order to meet this reduction target, all new homes are required to have future capacity to be an all-electric building, powered only by renewable energy.

To achieve net zero by 2035, installing natural gas appliances in new developments is not recommended.

Fluorescent and compact fluorescent lamps contain small amounts of mercury, a highly toxic agent which bioaccumulates in the environment. Recycling rates of fluorescent lamps are as low as 2% (Environment Victoria, 2022). For this reason, Waverley Council supports energy efficient alternatives to fluorescent lamps, such as Light Emitting Diodes (LEDs).

Energy efficiency measures for new residential developments are stipulated under the State Environmental Planning Policy (Building Sustainable Index: BASIX) 2004. Commercial energy efficiency measures are stipulated under the National Construction Code Section J.

### Objectives

- (a) To enable all development to contribute to net zero greenhouse emissions by 2035.
- (b) To reduce the energy demand of all developments.
- (c) To ensure a building can be 100% powered by renewable energy.
- (d) To encourage the installation and use of renewable energy technologies to reduce greenhouse emissions and peak demand.
- (e) To ensure development takes into consideration neighbouring solar technologies in the design of the building.

### Controls

#### Solar photovoltaic system and battery

- (a) The installation of photovoltaic panels with battery storage is strongly encouraged in all developments.

#### Domestic hot water

- (b) An electric hot water system is strongly encouraged in all developments. Recommended systems include:
  - Electric heat pump (most efficient)
  - Solar thermal with electric boost (most efficient)
  - Electric storage

Where a gas hot water system is proposed, specific inclusions shall be provided so that an electric hot water system can be easily retrofitted in the future. See **Design Guidelines** below for recommended requirements for different building types.

### Swimming pool heating

- (c) Recommended swimming pool heating systems include:
- Solar thermal only
  - Solar thermal boosted with electric heat pump
  - Electric heat pump

### Gas cooking and space heating

- (d) Gas cooktops, gas ovens and gas space heating systems are not permitted in residential development as outlined in WDCP *Part 2.3 Indoor Air Quality*.

### Solar access

- (e) Shading from nearby buildings and canopy trees should maintain solar access to existing photovoltaic solar panels and solar hot water heaters.

### Lighting

- (f) Recommended lighting systems include LEDs with controls, such as motion sensors, step-dim controls and daylight sensors.

For more information about renewable energy and energy efficiency refer to:

<http://www.yourhome.gov.au/energy>

<http://yourenergysavings.gov.au/energy>

[http://www.waverley.nsw.gov.au/environment/energy\\_and\\_climate\\_change](http://www.waverley.nsw.gov.au/environment/energy_and_climate_change)

## **Design Guidelines**

### Class 1 building (Single dwellings) – inclusions for future electric system

If a gas instantaneous or gas storage domestic hot water system is proposed then the following inclusions shall also be provided, so that an electric hot water system can be easily retrofitted in the future:

- i) A suitable location to place the future electric hot water system, assuming the relevant setback requirements in Section C2 Low Density Residential 2.2.2 are adhered to.
- ii) An additional electrical circuit and breaker for an electric hot water system rated at a minimum of 20 Amps shall be installed at the switchboard.
- iii) Appropriate electrical cabling in situ from the existing electrical switchboard to the future electric hot water system.

### Class 2 building (Multi-unit development) – inclusions for future electric system

If multiple gas instantaneous hot water systems or a centralised gas storage hot water system is proposed then the following inclusions shall also be provided, so that an electric hot water system can be easily retrofitted in the future:

## Ecologically Sustainable Development **B2**

- i) A suitable location and sufficient space for the future electric hot water system(s) to meet the hot water demand of the residents. This must meet all current Australian Standards for electrical and plumbing installation.
- ii) The existing capacity of the electrical switchboard can meet the electrical demand of the future hot water systems.
- iii) Appropriate electrical cabling is in situ from the existing electrical switchboard to the future electric hot water systems.

**2.5 ENERGY ASSESSMENT**

Applications which have satisfied section 2.5 *Green Star* are deemed to have fulfilled criteria under 2.5 *Energy Assessment*. An *Energy Assessment Report* is a report that demonstrates that the proposed development's predicted greenhouse gas emissions are 30 percent less than those of a reference building. A reference building is a hypothetical building of the same size, shape, floor area and glazing areas as the proposed development, but whose building fabric and building services characteristics are based on the current National Construction Code Section J deemed to satisfy provisions. Any consent will include a condition to require an Energy Assessment Report prior to the issue of any Construction Certificate.

An *Energy Assessment Report* is not required for residential-only development.

**Controls**

- (a) A commitment to the provision of an *Energy Assessment Report* must accompany a development application for new mixed use and commercial development with a cost of works of \$3 million or greater. An *Energy Assessment Report* is not required for residential-only development. The commitment is to demonstrate:
  - (i) A proposal which outlines actions that the building will take to achieve greenhouse gas emissions that are 30% less than those of a reference building; and
  - (ii) That an adequately qualified professional has been engaged at the inception of the project to ensure that integrative sustainability measures have been implemented, and that the professional has been contracted to oversee the delivery of the building to these standards.
- (b) An *Energy Assessment Report* is to be submitted prior to the issue of a construction certificate for the development.
- (c) The *Energy Assessment Report* is to include a completed Green Building Council of Australia's Green Star Design & As Built Greenhouse Gas Emissions Calculator available at <http://new.gbca.org.au/green-star/rating-system/design-and-built/> or equivalent modelling tool.  
This includes:
  - (i) Modelling of the predicted operational energy demand and greenhouse gas emissions of the proposed development.
  - (ii) Proposed solutions to reduce the predicted operational energy use and greenhouse gas emissions of the site and calculations to show the energy use and greenhouse gas emission reductions attributable to each proposed solution.
  - (iii) Potential solutions include:
    - Full electrification of building.
    - Design of site, buildings and services.
    - Commitment to purchase 100% renewable energy.
    - Use of on-site energy efficient technologies.
    - Use of on-site renewable energy technologies where feasible.

**2.6 NABERS COMMITMENT AGREEMENT**

**Background**

NABERS (the National Australian Built Environment Rating System) is a national rating tool which measures the environmental performance of a building, in particular energy and water consumption and waste impact.

A Commitment Agreement is a contract signed by a developer or owner to commit to design, build and commission a building to achieve a specific NABERS energy rating.

**Objectives**

- To ensure all development will reduce water consumption and can reduce greenhouse gas emissions to net zero
- To encourage the use of rating tools to ensure that the environmental performance of the building is verified at occupancy stage and ensure ongoing improvement over time.

**Affects:**

- i. office buildings > 1000m2 net lettable area
- ii. retail premises > 5000m2 gross lettable area
- iii. hotels > 100 rooms
- iv. residential aged care
- v. retirement living
- vi. one of the above plus mixed use

**Control**

- a) Affected buildings are to sign NABERS Commitment Energy and Water Agreements according to the schedule outlined in Table 1.

**Table 1: Minimum NABERS Commitment Agreement requirements**

<b>Building type</b>	<b>Required Commitment Agreement</b>
Office buildings > 1000 m2 net lettable area	5.5 Star Energy 4 Star Water
Retail premises > 5000m2 gross lettable area	5.5 Star Energy 4 Star Water
Hotels > 100 rooms	5.5 Star Energy 4 Star Water
Residential Aged Care <sup>1</sup>	5 Star Energy 4 Star Water

<sup>1</sup> Residential Aged Care is a form of seniors housing that falls under the Housing SEPP 2021. It includes residential care facilities in which residents receive full time care, otherwise known as nursing homes or aged care homes.



Retirement living <sup>2</sup>	5 Star Energy 4 Star Water
One of the above plus mixed use	As listed above

---

<sup>2</sup> Retirement living is a form of seniors housing that falls under the Housing SEPP 2021. It is independent living and consists of apartments or villas for seniors and people living with a disability.

**B3 LANDSCAPING, BIODIVERSITY AND VEGETATION PRESERVATION**

Trees and vegetation are an integral component of the urban environment. They provide habitat for animals, create a distinctive character for an area, visually soften the built environment and improve the natural environment through improved water infiltration, soil stability and air quality.

This part has been developed in accordance with *State Environmental Planning Policy (Biodiversity and Conservation) 2021 (B&C SEPP)* which outlines additional provisions relating to the protection and preservation of trees and vegetation. The terms ‘**vegetation**’ and ‘**clear**’ have specific meanings under the B&C SEPP. This Part adopts the definitions as outlined in the B&C SEPP.

Clearing that is ancillary to development requiring consent will be assessed as part of the development assessment process and may require further assessment and approval under the *Biodiversity Conservation Act 2016*.

This Part of the DCP regulates the clearing of vegetation that is below the Biodiversity Offset Scheme threshold referred to in the *Biodiversity Conservation Act 2016*, and specifies the species, kinds and size of trees protected from damage or removal in the Waverley local government area and for which Council may issue a Vegetation Clearing Permit.

Pruning of all trees to be carried out to Australia Standards AS 4373 – 2007 Pruning of Amenity Trees. Refer to ‘Prune’ in Definitions & Abbreviations section. Pruning in accordance with this Australian Standard prevails over any Council requirement. For the purposes of Part 2.3 of the B&C SEPP, the following vegetation is declared to be vegetation to which the B&C SEPP applies:

- (i) Any vegetation on Land identified as ‘Biodiversity’ on the Terrestrial Biodiversity Map in WLEP; or
- (ii) Any vegetation on Land identified as ‘Biodiversity Habitat Corridor’ in WDCP2022; or
- (iii) A tree identified on the Waverley Significant Tree Register; or
- (iv) A tree or vegetation that forms part of a Heritage Item or is within a Heritage Conservation Area;
- (v) Any tree that has a height of three metres or more; or
- (vi) Any tree that has a canopy spread of three metres or more.

In addition to this Part of the DCP, the *Waverley Tree Management Policy (WTMP)* and *Waverley Tree Management Guidelines (WTMG)* also outlines requirements for all tree and vegetation related activity. Please refer to the WTMP and WTMG for additional information relating to the protection of trees.

**3.1 GENERAL PROVISIONS**

**Objectives**

- (a) To ensure the conservation of trees of ecological, environmental, heritage and aesthetic significance.

- (b) To ensure development does not impact on the health of a tree on the site or adjoining properties or street trees.
- (c) To ensure all works to trees are conducted in accordance with the relevant Australian Standards.
- (d) To increase the level of canopy cover by minimising the loss of vegetation and trees.

**3.1.1 Exempt Vegetation**

The following species of trees are declared weeds under the Biosecurity Act 2015 as prescribed for the Waverley LGA 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.

Botanic Name	Common Name
<i>Ailanthus altissima</i>	Tree of Heaven,
<i>Celtis sinensis</i>	Hackberry
<i>Citrus spp</i>	Citrus
<i>Ligustrum sinense</i>	Narrow leaved Privet
<i>Ligustrum lucidum</i>	Broad leaved Privet
<i>Nerium oleander</i>	Oleander
<i>Olea europea var. africana</i>	Wild or African Olive
<i>Salix spp</i>	Willows
<i>Schefflera actinophyll</i>	Umbrella Tree
<i>Strelitzia nicolai</i>	Giant Bird of Paradise
<i>Syagrus romanzoffianum</i>	Cocos Palm
<i>Toxicodendron spp</i>	Rhus Tree

Despite any other provisions in this DCP, clearing of vegetation is exempt from the requirement to obtain a Vegetation Clearing Permit in the following circumstances:

- (i) Pruning of a hedge (hedge being defined as a group of two or more trees whether planted in the ground or otherwise, so as to form a hedge and rise to a height of at least 2.5 metres above existing ground level) by no more than 20 per cent of its height and width in any 12-month period;
- (ii) Pruning of a tree with a maximum height of below 5m.
- (iii) Removal of dead branches, palm fronds or palm fruit;
- (iv) Pruning of branches from electricity wires as required by the *Electricity Supply Act 1995*;
- (v) If Council is satisfied that there is a risk to human life or property, e.g. in response to severe storm damage or sudden branch failure. Evidence of the tree’s condition (e.g. arborist or SES report) must be produced at Council’s request. Replacement native trees must be planted if tree/s are removed;
- (vi) Works carried out by state or federal government departments or authorities under current legislative requirement; or
- (vii) If Council is satisfied that the vegetation is dying or dead and is not required as the habitat of native animals.

### 3.1.2 Vegetation Clearing Requiring a Permit

A **Vegetation Clearing Permit** is required to clear:

- (i) Native vegetation on land identified as 'Biodiversity' on the Terrestrial Biodiversity Map in WLEP; or
- (ii) Vegetation larger than 500m<sup>2</sup> on land identified as 'Biodiversity Habitat Corridor' in WDCP; or
- (iii) Any tree that has a height of three (3) metres or more; or
- (iv) Any tree that has a canopy spread of three (3) metres or more.

Note: **Development consent** (via a Development Application) is required for clearing:

- (i) Done in conjunction with development that requires consent under Part 4 of the EP&A Act;
- (ii) Of a tree listed on the Waverley Significant Tree Register;
- (iii) Of any vegetation that forms part of a Heritage Item or is within a Heritage Conservation area (refer to Clause 5.10(2) of WLEP);
- (iv) Of vegetation that is an Aboriginal object or that is located in an Aboriginal place of heritage significance.

Where a development has any potential impact on existing trees an arborist report must be submitted.

#### Tree Assessment

When an application for consent, or a Vegetation Clearing Permit is made, one of Council's qualified arborists will inspect any tree/s to be cleared and undertake a Visual Tree Assessment (VTA). This is a widely accepted arboricultural assessment based on the current health, structural integrity, useful life expectancy and visible damage of the tree. Additional criteria are also taken into consideration including:

- Landscape significance including consideration of the ecological, cultural and amenity value of trees;
- the effect on the health of the tree from pruning;
- whether the tree shows poor form and shape/vigour typical of the species;
- its location within 3 metres of a residence, main building or other significant structure;
- the occurrence (or lack of) other vegetation nearby and whether appropriate replacement species can be planted;
- whether the tree is the identified cause of structural damage to a building, ancillary structure, water main or sewer and if all alternative options of remedying the damage have been considered.

After assessment, the application will either be:

- a. approved; or approved with conditions
- b. pending; awaiting further information or supporting evidence from the applicant
- c. refused; or refused with conditions.

Any application for a Vegetation Clearing Permit should be accompanied with supporting information/evidence such as documented and photographic history of branch failures, the weather conditions at the time of the branch failure; sewer blockages etc.

Presenting this evidence with the initial application can be helpful as it will provide a more complete history of the tree. If no evidence is presented it may result in the refusal of the application.

### **Tree Replacement**

To maintain urban tree canopy cover, when a Vegetation Clearing Permit is granted to clear vegetation, the applicant may be required to replace the vegetation with an advanced approved species which is to be established on their property and maintained to maturity. Where there is insufficient space for replanting advanced vegetation the applicant may provide offset planting on public land. This may be undertaken by entering into a deed of agreement with Council. Generally, for every tree removed, the replacement of three (3) off-site trees will be required with pot size dependent on the canopy spread of the tree(s) to be removed as assessed by Council. Audit checks of replacement planting will be carried out by Council. Refer to Part 3.2.4.

### **Arborist and Other Specialist Reports**

Supporting evidence for the removal or pruning of a tree/s may require a report from a consulting arborist (AQF Level 5) where there is insufficient evidence to support the removal of a tree as assessed against the above criteria. Council may request the applicant to provide an arborist's report for more complex tree assessments such as an aerial inspection; root mapping or identification; fungal or pest problems; or internal diagnostic assessment.

Further supporting evidence may also be required from a structural engineer or licensed plumber if buildings or underground services are affected. Details of requirements for arborist and other specialist reports are listed in the appendices of the WTMG.

---

#### **3.1.3 Trees considered to pose an imminent danger**

- (a) Except for specified emergency situations, expert advice should always be obtained with respect to hazardous trees to confirm their condition.
- (b) Where a hazardous tree is removed (in an emergency situation) due to obvious instability or hazard (e.g. following a storm), Council's Tree Management must be notified prior to removal. It is recommended that evidence of the tree's condition be retained for a period of at least six (6) months after the event and produced at Council's request if needed. Such evidence might include a:
  - (i) Report by a consulting arborist including photographs; and/or
  - (ii) Written statement from the State Emergency Services, if the Service carried out the emergency work at the owner's request.
- (c) If trees are removed for the above reasons it is a requirement to plant replacement trees of a suitable native species to maintain canopy cover in Waverley. Refer to Part 3.1.4.

## **3.2 LANDSCAPING**

### **Objectives**

- (a) To enhance the amenity and visual setting of the site, streetscape, and surrounding neighbourhood.

- (b) To ensure development contributes to the urban canopy.
- (c) To retain and increase remnant populations of endemic flora and fauna.
- (d) To maximise on site stormwater infiltration and minimise off site stormwater runoff.
- (e) To minimise the adverse impacts of light pollution on local fauna.

### 3.2.1 General Controls

- (a) A Landscape Plan is required to be submitted in accordance with the *Waverley Development Application Guide* and include:
  - (i) A schedule of the common name and scientific name of species to be planted, the size and number; and
  - (ii) A plan showing the location of the plants in the schedule.
- (b) Existing significant vegetation is to be retained and enhanced.
- (c) The landscaping should maintain and increase vegetation and urban tree canopy in Waverley.
- (d) Species should be retained, selected and placed in order to help achieve the following:
  - (i) Cool buildings in summer;
  - (ii) Intercept glare from hard surfaces;
  - (iii) Channel cooling air currents into the dwelling in summer;
  - (iv) Allow sun into living rooms in cooler months; and
  - (v) Provide windbreaks where desirable.
- (e) Existing natural features including sandstone and rock features are to be retained and incorporated as landscape features on the site in order to maintain the natural character of the landscape. Sandstone walls and finishes fronting the public domain are to match the traditional pattern and colour of sandstone in the area.
- (f) Landscaping is to be designed to minimise non-porous areas and maximise on-site infiltration of stormwater. Paved areas are to be semi-porous or graded to maximise on-site infiltration.
- (g) Landscaping must relate to the building scale and assist integration of the development with the existing street character.
- (h) Landscaping should include native plant species and select and position trees to maximise control of sun and winds.
- (i) All development proposals are to be designed to eliminate the impact upon significant trees on site, street trees and trees on adjoining land including public open space and bushland.
- (j) External illumination fixtures must be directed downwards and away from reflective surfaces, avoid spill into parks, reserves and bushland and avoid short wavelength (blue-violet) light.
- (k) Utilise lightweight soil mixes that are porous, able to drain freely, and suitable for the selected plant species. Seek suitable professional advice regarding appropriate soil depths and types. As a guide, Table 1 provides minimum soil requirements.

Plant Size	Minimum Soil Requirements	
Large Trees (>8m height)	Volume	100 cubic metres
	Depth	800mm
Medium Trees (3 – 8m height)	Volume	60 cubic metres
	Depth	800mm
Small Trees (up to 3m height)	Volume	20 cubic metres
	Depth	800mm
Shrubs (up to 3m height)	Depth	600mm
Ground cover and turf	Depth	300mm

**Table 1** Minimum soil requirements

### 3.2.2 Landscape on Structures

#### Objectives

- (a) To encourage engaging communal open spaces to be created above basement or podiums, or on roof tops.
- (b) To ensure that adequate provision is made for soil depths, structural provisions to support planting, and drainage and waterproofing requirements.

#### Controls

- (i) Where set downs are provided, ensure the depth is suitable for paving thickness or the required soil depth for the proposed plants.
- (ii) Minimise visual and physical clutter through the careful design of planter beds and mounds.
- (iii) Innovative design strategies that allow integrated seating to be provided through planter beds at 450mm high are encouraged.
- (iv) Provide raised platforms or mounding to achieve greater soil depth to support planting of larger trees in appropriate areas.
- (v) Demonstrate that adequate drainage and waterproofing is provided for the species and volumes of plants and soil.
- (vi) Provide appropriate methods for capturing, storing and treating run off from landscapes on structures for reuse on the site.
- (vii) Utilise lightweight soil mixes that are porous, able to drain freely, and suitable for the selected plant species.

### 3.2.3 Green Roofs and Walls

#### Objectives

- (a) To encourage the use and installation of green roofs and walls to increase building performance, thermal comfort, fauna habitat, localised air temperature and aesthetics of the urban environment.
- (b) To encourage green roofs and walls in commercial and mixed use zones.
- (c) To encourage green roofs and walls to be integrated into existing and new developments.
- (d) To ensure green roofs are non-trafficable areas which do not cause adverse visual or acoustic privacy impacts on neighbouring properties.

#### Controls

- (a) Council will determine if a green roof will be considered as landscaped area on a site-by-site basis.
- (b) Green roofs are not to be used as recreational areas.
- (c) The selection of plant species must give consideration to sun access, wind, views, overshadowing and other environmental conditions.
- (d) Utilise lightweight soil mixes that are porous, able to drain freely, and suitable for the selected plant species. Seek suitable professional advice regarding appropriate soil depths and types.
- (e) Visual impact:
  - (i) Where a green roof or wall affects views, careful consideration is to be taken to ensure the chosen species of plants will not interrupt or diminish views from adjacent properties.
  - (ii) Green roofs must be contained within the overall building height limit.
  - (iii) Green roofs or walls are not to detract from the heritage significance of a building or heritage conservation area.
- (f) Any access is to be for servicing the green roof only.
- (g) To discourage recreational use of the roof, a balustrade at the perimeter is not permitted.
- (h) The green roof is to have a minimum soil depth of 300mm for ground covers.
- (i) Demonstrate that adequate drainage and waterproofing is provided for the species and volumes of plants and soil.
- (j) Provide appropriate methods for capturing, storing and treating run off from landscapes on structures for reuse on the site.
- (k) Consideration should be given to the strength of a waterproofing membrane through the following method:
  - (i) Flood testing
  - (ii) Electrical field vector mapping (EFVM)
  - (iii) Destructive testing.
- (l) The overall design of the green roof should minimise wind uplift.
- (m) Sub-surface drip irrigators should be used to direct moisture to plant roots.
- (n) Irrigation should be provided from rainwater harvesting, treated grey water or treated black water.



---

### 3.2.4 Tree Canopy

#### Objectives

- (a) To protect and increase tree canopy of the LGA.
- (b) To preserve and enhance landscape character.
- (c) To maintain habitat for native fauna.
- (d) To capture the cooling benefits of canopy.
- (e) To support the *Waverley Community Strategic Plan 2022-2032* minimum 29% LGA canopy and shrub cover target.

#### Controls

- (a) Development must not result in the loss of tree canopy.
- (b) For Development Applications that involve external works, a Landscape Plan must be submitted showing the locations of tree species, other proposed plants species, any existing trees and vegetation to be maintained and the area of the canopy of the Landscape Plan when planting is mature.
- (c) Where a tree that is **3m or more in height or has 3m or more canopy spread** is proposed for removal under a Development Application, replacement planting of suitable species should be planted on the site that maintain or increase the tree canopy on the site when mature.
- (d) Replacement plantings on site must be of the same or greater canopy size when mature than the canopy proposed to be removed as confirmed by a Landscape Plan and Arborist. Replacement trees planted in accordance with control (c) are to be selected from the list of plantings in Annexure B3-2, and **minimum 45L pot sizes**.
- (e) If there is insufficient planting space on site to accommodate a tree of similar dimensions when mature, the applicant will be asked to contribute to offset planting on public land. Generally, for every tree removed, the replacement of a minimum of three (3) off-site trees will be required in accordance with Council's policy.

### 3.3 BIODIVERSITY

This Part aims to retain, protect and promote the recovery of remnant native vegetation and native flora and fauna, threatened species, populations, ecological communities and their habitats. The requirements for biodiversity provided for by this Part are to be considered in parallel with the Biodiversity Conservation Act 2016.

Since European Settlement, Waverley has lost over 99% of its original vegetation. Waverley contains 5.9 hectares of remnant bushland, occurring as scattered pockets on cliff edges, in parklands, road reserves and within private property, providing habitat and food for native wildlife. Due to their local significance, these remnants must be protected. These areas also contain the threatened plant species, Sunshine Wattle, which are both protected by state and Commonwealth legislation.

Areas of introduced native and non-native vegetation have also been recognised as providing important habitat for native wildlife. Identified biodiversity habitat corridors link areas of remnant vegetation with each other and with recognised non-remnant habitat areas.

Council acknowledges the intrinsic value of remnant vegetation or bushland, as well as the habitat and other environmental values of revegetated areas and the need to protect them from the degrading influences of surrounding development and other urban pressures.

#### 3.3.1 Terrestrial Biodiversity

The following objectives and controls relate to land identified in the **Terrestrial Biodiversity Maps** located within WLEP as remnant vegetation, or land adjoining remnant vegetation. Definitions are included at the end of this DCP.

Waverley's remnant vegetation includes patches of the Critically Endangered Ecological Community Eastern Suburbs Banksia Scrub (ESBS), and the Endangered plant species Sunshine Wattle, *Acacia terminalis subsp. Eastern Sydney*. Both are protected by the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*, and in the *NSW Biodiversity Conservation Act 2016*.

##### Objectives

- (a) To retain, protect and enhance remnant native vegetation for local wildlife and benefits to the community.
- (b) To protect and promote the recovery of threatened species, populations, and endangered ecological communities.
- (c) To reduce the adverse impacts of light pollution on local fauna.

##### Controls

- (a) A minimum of 90% of the proposed trees, 90% of the proposed shrubs and 90% of the proposed grasses and groundcovers (not including turfed areas) are to be native plants that are listed in *Annexure B3-1*. 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 plant species proposed, the number of plants of each species proposed, and indicate whether each plant species proposed is listed in *Annexure B3-1*.

- (b) Three strata of vegetation are required to be included in landscape design, e.g. (i) tree or tall shrub canopy, (ii) mid-storey and (ii) groundcover layer.
- (c) All plants identified as priority weeds under the Biosecurity Act 2015, and those plants identified by Council as local environmental weeds on the property at the time of development are to be removed by a suitably qualified person.
- (d) Trees with hollows are to 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 regeneration from the seed bank. *Sunshine Wattle* has a persistent soil seed bank which may last for up to 50 years (DECCW, 2007:8).
- (f) Council may require additional supporting information for an application including the following:
  - (ii) Vegetation management/protection plan; and
  - (iii) Flora or fauna impact assessment; and/or
  - (iv) An indication as to whether the proposed development is likely to significantly affect threatened species, populations, ecological communities or their habitat assessed in accordance with the *Biodiversity Conservation Act 2016*.
- (g) 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.
- (h) Remnant vegetation is to be protected. However, the removal of remnant vegetation may be authorized under other legislation including:
  - (i) Trees and vegetation are removed/trimmed in accordance with the *Roads Act 1993*;
  - (ii) The work needs to be carried out by Council, the State Emergency Services, the Rural Fire Service of NSW, or a public authority in response to an emergency;
  - (iii) Works are carried out by State or Federal Government Departments or Authorities under current legislative requirements; or
  - (iv) The tree or vegetation is a recognised noxious weed (*Biosecurity Act 2015*). The applicant must first seek advice from Council and Council must be notified in writing seven (7) days prior to the commencement of removal work.

---

### **3.3.2 Habitat Corridors and Recognised Habitat**

Wildlife movement allows migration, dispersal, interbreeding and recolonisation of fauna species to occur, improving long-term viability of the species and local populations. Wildlife movement also facilitates plant pollen and seed dispersal, thus enhancing the viability of plant populations. Continuous Habitat Corridors are often preferable, but discontinuous 'stepping stone' corridors still contribute significantly to fauna movement and can be improved through habitat enhancement and plantings of local native species.

This part refers to land identified in the ‘**Biodiversity Habitat Corridor**’ Layer in the DCP, accessible on Council’s mapping website.

Waverley Online Mapping Tool	
<a href="https://planning.waverley.nsw.gov.au/connect/analyst">https://planning.waverley.nsw.gov.au/connect/analyst</a>	
Map Configuration	Planning
Layer	Biodiversity Habitat Corridor

Definitions are included at the end of this DCP.

### Objectives

- (a) To ensure development contributes to the landscape character of the area.
- (b) To enhance planted native vegetation and the ecological functions of habitat corridors.
- (c) To reconstruct habitat in non-vegetated areas of designated wildlife corridors that will as far as possible, represent the combination of plant species and vegetation structure of the original community.
- (d) To reduce the adverse impacts of light pollution on local fauna.

### Controls

- (a) A minimum of 50% of the proposed trees, 50% of the proposed shrubs and 50% of the proposed grasses and groundcovers (not including turfed areas) are to be native plants that are listed in *Annexure B3-1*. 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 plant species proposed, the number of plants of each species proposed, and indicate whether each plant species proposed is listed in *Annexure B3-1*.
- (b) Three strata of vegetation are required to be included in landscape design (i) tree or tall shrub canopy, (ii) mid-storey and (ii) groundcover layer.
- (c) All plants identified as priority weeds under the *Biosecurity Act 2015*, and those plants identified by Council as local environmental weeds on the property at the time of development are to be removed by a suitably qualified person.
- (d) Trees with hollows will 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 property as determined by a suitably qualified arborist.
- (e) Council may require additional supporting information for an application including the following:
  - (i) Vegetation management/protection plan; and/or
  - (ii) Flora or fauna impact assessment; and/or
  - (iii) An indication as to whether the proposed development is likely to significantly affect threatened species, populations, ecological communities or their habitat assessed in accordance with the *Biodiversity Conservation Act 2016*.
- (f) External illumination fixtures must be directed downwards and away from reflective surfaces, avoid spill into parks, reserves and bushland and avoid short wavelength (blue-violet) light.

### 3.4 PROTECTING TREES ON DEVELOPMENT SITES

Damage to trees on development sites is often caused because of a failure to appreciate their vulnerability, particularly the root system which can decline in health over several seasons following detrimental alterations to the soil environment. It is necessary that development takes into consideration trees both on the site and those on adjoining sites including street trees.

#### Objectives

- (a) To ensure development does not impact on the health of a tree on the site or adjoining properties or street trees in accordance with *Australian Standard – AS 4970 – 2009 - Protection of Trees on Development Sites*.

#### Controls

- (a) When a proposed development may have an impact on trees on the site, on adjoining properties or public trees within 4 metres of the site, the following information is required at these stages:
  - (i) Pre Development Application.
    - Preliminary Tree Assessment.
  - (ii) Lodgement of Development Application.
    - Arboricultural Impact Assessment (include data if previous preliminary tree assessment submitted);
    - Tree Protection Plan – for trees identified as moderate to high retention; and
    - Root mapping report if construction works will occur in structural root zone (SRZ) or there is major encroachment in the tree protection zone (TPZ) of trees to be retained.
  - (iii) Prior to Construction Certificate.
    - Final Tree Protection Plan (if modifications are required);
    - Tree Protection Certification during works.
  - (iv) Prior to Occupation Certificate.
    - Tree Monitoring Report / Final Tree Protection Certification.
- (b) Details of requirements of the above reports are listed in the Waverley Tree Management Guidelines appendices. Development applications must show all associated building works (including stormwater, hydraulic and sewerage works) located within any tree protection zone.
- (c) Selective pruning or removal of trees that conflict with proposed building works may be approved where redesign of the building work is not possible or will result in inferior building performance. However, Council may require the redesign of a development proposal to retain or lessen the impact on a significant or prominent tree.

### 3.5 PENALTIES

Any clearing of vegetation carried out without a Vegetation Clearing Permit, not in accordance with a development consent, or that is not exempt will be dealt with in accordance with the relevant legislation. This may result in a Penalty Infringement Notice or legal action through either the Local Court or the Land and Environment Court against all parties involved in any breach of the WLEP, the B&C SEPP, or any conditions of consent.

Where a person is guilty of an offence involving the destruction of, injure or damage to vegetation, the court dealing with the offence may, in addition to or in substitution for any pecuniary penalty imposed or liable to be imposed, direct that person to:

- (a) Repair or remedially prune damaged trees;
- (b) Plant new trees and vegetation and maintain those trees and vegetation to a mature growth/or minimum height of five (5) metres; and
- (c) Provide security for the performance of any obligation imposed under paragraph (a) & (b) above.

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

## B4 COASTAL RISK MANAGEMENT

Coastal risks include risks from erosion, inundation and geotechnical instability. Erosion refers to the wearing away of the land by the action of natural forces. Coastal or tidal inundation is the flooding of coastal lands by ocean waters, which is generally caused by large waves and elevated water associated with severe storms and the peak of the high tide. Geotechnical risks in the coastal zone refer to coastal cliff or slope instability.

This part refers to land identified in the 'Geotechnical Risk' or 'Coastal Inundation' Layers on Council's mapping website.

Waverley Online Mapping Tool	
<a href="https://planning.waverley.nsw.gov.au/connect/analyst">https://planning.waverley.nsw.gov.au/connect/analyst</a>	
Map Configuration	Planning
Layer	Geotechnical Hazard
	Coastal Inundation

Any application for new buildings, significant alterations and/or additions to existing buildings and/or new swimming pools on properties identified as affected by 'Coastal Inundation' or 'Geotechnical Risk' are required to submit the following with a development application (refer to the *Waverley Development Application Guide*):

- (a) Coastal Risk Assessment; and/or
- (b) Geotechnical Risk Assessment.

Refer to Council's *Coastal Risk Management Policy 2012* for further information

## B5 WATER MANAGEMENT

This Part contains planning controls relating to the management of all aspects of the water cycle in an integrated and consistent manner. The planning controls promote the need for long-term sustainable social, ecological and economic outcomes.

This Part is to be read in conjunction with Council's *Water Management Technical Manual* (Technical Manual) which provides further details on controls outlined in this Part. For more detailed information on flood related risks, refer to the *Waverley LGA Flood Study 2021*.

This Part applies to all development (excluding minor alterations and additions, retro-fits, and the like).

### 5.1 STORMWATER MANAGEMENT AND WSUD

For information on how to implement WSUD refer to the Sydney Metropolitan Catchment Management Authority website, accessible at the following link: [www.wsud.org](http://www.wsud.org).

#### Objectives

- (a) To promote the implementation of Water Sensitive Urban Design (WSUD).
- (b) To minimise the impacts of development upon the water cycle.
- (c) To encourage sustainable development through the integration of stormwater management systems into the landscape.
- (d) To ensure that development considers flooding, coastal water and groundwater protection, habitat creation and improves visual amenity.
- (e) To integrate water sensitive urban design with landscape and building design.
- (f) To reduce the volume of stormwater run-off.
- (g) To promote increased on-site stormwater retention, detention, and recycling.
- (h) To improve catchment water quality.
- (i) To minimise the impacts of urban development upon water balance and surface and groundwater flow regimes.
- (j) To promote infiltration within the "Infiltration zone" and reduce stormwater run-off (refer to Annexure B in the *Water Management Technical Manual*).
- (k) To encourage the use of soft landscaping and permeable paving as an alternative to impervious surfaces.
- (l) To prevent stormwater from overflowing into basement garages of residences.
- (m) To protect existing natural groundwater flows and downstream properties from seepage.

#### Controls

- (a) A stormwater management plan is required to be submitted with all development applications (except minor alterations, retrofits and the like).
- (b) WSUD principles are to be integrated into the development through the design of stormwater drainage, on-site detention and landscaping and in the orientation of the development rather than relying on 'end of pipe' treatment devices prior to discharge (refer to Figure 1).
- (c) WSUD measures are to be employed to prevent contamination of stormwater.



- (d) Development is to be sited and built to minimise disturbance of the natural drainage system.
  - (e) WSUD elements should be located and configured to maximise the impervious area that is treated.
  - (f) On site detention is to be designed, installed and maintained in accordance with the *Water Management Technical Manual*.
  - (g) Council consent is required for temporary/permanent dewatering and groundwater extraction and use prepared in accordance with the *Water Management Technical Manual*. The proposal is assessed on merits and where appropriate, referred by Council to the relevant Government department for an access licence.
  - (h) Applications for roof water and stormwater harvesting and reuse and grey water or black water treatment systems will be assessed on merit in accordance with the WM Technical Manual.
  - (i) Methods of disposal of stormwater from the site must be provided using one or a combination of the following:
    - (i) Infiltration;
    - (ii) Gravity connection to Council’s stormwater system;
    - (iii) Charged system; and / or
    - (iv) Pump system.
- Note:** A stormwater system must be constructed in accordance with *AS/NZS 3500:2003 National Plumbing & Drainage* and *Water Management Technical Manual*.
- (j) Depending on the extent of disturbed area, the following plans to manage erosion and sedimentation must be submitted with the development application:
    - (i) For areas of disturbance less than 250m<sup>2</sup>, a marked up plan of proposed works and control measures is required;
    - (ii) For disturbed areas between 250m<sup>2</sup> and 2,500m<sup>2</sup>, an erosion and sediment control plan is required; and
    - (iii) For disturbed areas greater than 2,500m<sup>2</sup> soil and water management plan is required.

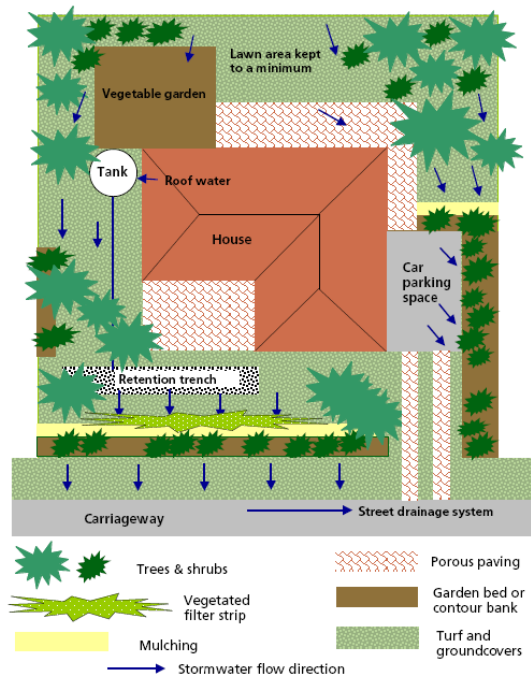


Figure 1 Example of an integrated stormwater strategy for a dwelling

## 5.2 FLOOD PLANNING

### Objectives

- (a) To ensure that development is not subject to undue flood risk.
- (b) To ensure all development in areas identified as 'flood planning area' in WLEP will minimise the impact of stormwater and flooding on other developments and the public domain.

### Controls

- (a) Designs must be undertaken in accordance with the *Water Management Technical Manual*.

---

### 5.2.1 Flood Planning Areas

The WLEP identifies areas within Waverley that are prone to flooding in a 1 in 100 year Average Recurrence Interval (ARI) flood event. These controls are to be read in conjunction with the WLEP 2012 and the *Water Management Technical Manual*.

- (b) In 'flood planning areas', floor levels other than basements must be set at a minimum of 300mm above the predicted design flood level for a 1 in 100 year storm event.
- (c) For non-habitable areas, floor levels must be set a minimum of 150mm above the adjacent ground level.
- (d) Automatic flood gate systems must be installed for basements in 'flood planning areas'.

---

### 5.2.2 All Other Areas

- (a) For sites not in a 'flood planning area' habitable floor levels must comply with the drainage requirements of the BCA.
- (b) A reduction in the required floor level will only be considered if the development includes the installation of an automatic flood gate system.